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DEPARTMENT OF DEFENSE

Additional Actions and Data Are Needed to Effectively Manage and Oversee DOD's Acquisition Workforce



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Highlights of GAO-09-342, a report to congressional requesters

Why GAO Did This Study

Since 2001, the Department of Defense's (DOD) spending on goods and services has more than doubled to \$388 billion in 2008, while the number of civilian and military acquisition personnel has remained relatively stable. To augment its in-house workforce, DOD relies heavily on contractor personnel. If it does not maintain an adequate workforce, DOD places its billion-dollar acquisitions at an increased risk of poor outcomes and vulnerability to fraud, waste, and abuse.

GAO was asked to (1) assess DOD's ability to determine whether it has a sufficient acquisition workforce, (2) assess DOD initiatives to improve the management and oversight of its acquisition workforce, and (3) discuss practices of leading organizations that could provide insights for DOD's acquisition workforce oversight. To do this, GAO analyzed key DOD studies, obtained data from 66 major weapon system program offices across DOD, and interviewed officials from 4 program offices. GAO also met with representatives from six companies recognized as leaders in workforce management.

What GAO Recommends

GAO is making recommendations aimed at improving DOD's management and oversight of its acquisition workforce, including the collection of data on contractor personnel. DOD concurred with three of the recommendations and noted that implementing the other requires careful consideration.

To view the full product, including the scope and methodology, click on GAO-09-342. For more information, contact John K. Needham at (202) 512-5274 or needhamjk1@gao.gov.

DEPARTMENT OF DEFENSE

Additional Actions and Data Are Needed to Effectively Manage and Oversee DOD's Acquisition Workforce

What GAO Found

DOD lacks critical departmentwide information to ensure its acquisition workforce is sufficient to meet its national security mission. First, in its acquisition workforce assessments, DOD does not collect or track information on contractor personnel, despite their being a key segment of the total acquisition workforce. DOD also lacks information on why contractor personnel are used, which limits its ability to determine whether decisions to use contractors to augment the in-house acquisition workforce are appropriate. GAO found that program office decisions to use contractor personnel are often driven by factors such as quicker hiring time frames and civilian staffing limits, rather than by the skills needed or the nature or criticality of the work. Second, DOD's lack of key pieces of information limits its ability to determine gaps in the acquisition workforce it needs to meet current and future missions. For example, DOD lacks information on the use and skill sets of contractor personnel, and lacks complete information on the skill sets of its in-house personnel. Omitting data on contractor personnel and needed skills from DOD's workforce assessments not only skews analyses of workforce gaps, but also limits DOD's ability to make informed workforce allocation decisions and determine whether the total acquisition workforce in-house and contractor personnel-is sufficient to accomplish its mission.

DOD has initiated several recent actions aimed at improving the management and oversight of its acquisition workforce. For example, DOD is developing a plan for managing the civilian acquisition workforce and is establishing practices for overseeing additional hiring, recruiting, and retention activities. It has also taken actions to develop some of the data and tools necessary to monitor the acquisition workforce, such as a competency assessment scheduled to be completed in March 2010. Each military service and agency has also begun, to varying degrees, efforts to assess its workforce at the service level. In addition, some efforts aimed at improving DOD's overall workforce may also provide additional information to support acquisition workforce efforts. However, these initiatives may not provide the comprehensive information DOD needs to manage and oversee its acquisition workforce.

To manage their workforces, the leading organizations GAO reviewed (1) identify gaps in their current workforces by assessing the overall competencies needed to achieve business objectives; (2) establish mechanisms to track and evaluate the effectiveness of their initiatives to close these gaps; (3) take a strategic approach in deciding when to use contractor personnel to supplement the workforce, such as limiting the use of contractor personnel to performing noncore-business functions and meeting surges in work demands; and (4) track and analyze data on contractor personnel. These practices could provide insights to DOD as it moves forward with its acquisition workforce initiatives.

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Abbreviations

AT&L	Office of the Under Secretary for Acquisition, Technology
	and Logistics
DOD	Department of Defense
MDA	Missile Defense Agency
OSD	Office of the Secretary of Defense

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United States Government Accountability Office Washington, DC 20548

March 25, 2009

The Honorable Evan Bayh Chairman The Honorable Richard Burr Ranking Member Subcommittee on Readiness and Management Support Committee on Armed Services United States Senate

The Honorable Daniel Akaka United States Senate

The Honorable John Ensign United States Senate

The Department of Defense (DOD) is the largest buying enterprise in the world. Since fiscal year 2001, DOD's spending on goods and services more than doubled to \$388 billion in fiscal year 2008, and the number of weapon system programs has also grown. Despite this substantial increase, the number of civilian and military personnel in DOD's acquisition workforce—which is responsible for planning, executing, and supporting DOD's acquisitions—has remained relatively stable. To supplement this inhouse acquisition workforce, DOD relies heavily on contractor personnel. Our prior work has shown that relying on contractor personnel to perform core missions¹ often creates significant challenges for DOD and other federal agencies.² At the same time, changes in the federal acquisition environment have created significant challenges to building and sustaining a capable acquisition workforce across the government. In addition, federal agencies are facing profound demographic changes in their workforces, including a potentially large loss of retirement-eligible

¹ For the purposes of this report, we defined core missions as those that most directly affect the department's ability to accomplish its missions.

² GAO, Human Capital: Opportunities Exist to Build on Recent Progress to Strengthen DOD's Civilian Human Capital Strategic Plan, GAO-09-235 (Washington, D.C.: Feb. 10, 2009); Federal-Aid Highways: Increased Reliance on Contractors Can Pose Oversight Challenges for Federal and State Officials, GAO-08-198 (Washington, D.C.: Jan. 8, 2008); and Department of Homeland Security: Improved Assessment and Oversight Needed to Manage Risk of Contracting for Selected Services, GAO-07-990 (Washington, D.C.: Sept. 17, 2007).

personnel and increased competition for a limited pool of highly skilled talent.

Since January 2001, GAO has designated strategic human capital management as a governmentwide high-risk area.³ In addition, the DOD acquisition workforce is included in another high-risk area—DOD Contract Management—that GAO designated in 1992.⁴ Both GAO and DOD have noted that if a workforce adequate to manage the department's billion-dollar acquisitions is not maintained, there is an increased risk of poor acquisition outcomes and vulnerability to fraud, waste, and abuse. In this context, you asked us to review several issues related to the state of DOD's acquisition workforce. This report (1) assesses DOD's ability to determine whether its acquisition workforce is sufficient to meet its national security mission, (2) assesses the department's recent initiatives to improve the management and oversight of its acquisition workforce, and (3) discusses practices of leading organizations that could provide insights for DOD's acquisition workforce oversight.

To conduct our review, we analyzed key DOD workforce documents, including the department's Implementation Report for the DOD Civilian Human Capital Strategic Plan 2006-2010 and related assessment of the acquisition workforce. In addition, we met with representatives from the Office of the Under Secretary for Acquisition, Technology and Logistics (AT&L), the Office of Civilian Personnel Policy within the Office of the Under Secretary for Personnel and Readiness, the three military services, and the Missile Defense Agency (MDA). We also gathered data from 66 major weapon system program offices across all DOD components. To obtain more detailed information, we interviewed officials from 4 program offices, 1 from each service (Army's Joint Land Attack Cruise Missile Defense Elevated Netted Sensor, Air Force's Reaper, and Navy's Presidential Helicopter) and 1 from MDA (Airborne Laser). We selected the program offices, in part, because they were responsible for developing and acquiring major weapon systems, mostly in the development phase, and contained a mix of both contractor and civilian personnel. To better understand the workforce management practices of leading organizations, we met with representatives from six companies recognized as leaders for various aspects of workforce management: Deloitte; General Electric Company (General Electric); Lockheed Martin Corporation (Lockheed

³ GAO, *High Risk Series—An Update*, GAO-09-271 (Washington, D.C.: January 2009).

⁴ GAO-09-271.

Martin); Microsoft; Rolls-Royce, PLC (Rolls-Royce); and Valero Energy Corporation (Valero Energy). We also reviewed research on leading workforce practices or discussed workforce management issues with officials at a number of nonprofit and consulting organizations: Aerospace Industries Association, APQC,⁵ IBM Center for The Business of Government, National Academy of Public Administration, Partnership for Public Service, and the Society for Human Resource Management.

We conducted this performance audit from September 2007 to March 2009 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

At the end of fiscal year 2007, the number of civilian and military personnel in DOD's acquisition workforce totaled over 126,000—of which civilian personnel comprised 89 percent.⁶ According to DOD, these inhouse personnel represent more than 70 percent of the total federal acquisition workforce. DOD defines its acquisition workforce to include 13 career fields, based on the Defense Acquisition Workforce Improvement Act of 1990.⁷ From fiscal years 2001 to 2007, the number of civilian and military acquisition personnel in these 13 fields declined overall by 2.5 percent; however, some career fields have increased substantially, while others have shown dramatic declines. Table 1 shows the 13 fields, the number of military and civilian personnel in each of these fields in 2001 and 2007, and the percentage change between those 2 years.

⁵ APQC was previously known as the American Productivity & Quality Center.

⁶ DOD's acquisition workforce count does not include other contributors to acquisition, such as contracting officer representatives, and nongovernmental contributors, such as contractor personnel.

 $^{^7}$ Defense Acquisition Workforce Improvement Act of 1990, Pub. L. No. 101-510, $\$ 1202(a) (1990).

AT&L workforce by functional career field	Fiscal year 2001	Fiscal year 2007	Percentage change 2001 to 2007
Program Management	14,031	12,427	-11.4 %
Contracting	25,413	26,038	2.5
Industrial/Contract Property Management	620	481	-22.4
Purchasing	4,121	1,170	-71.6
Facilities Engineering	0	4,394	n/a
Production Quality and Manufacturing	10,547	8,364	-20.7
Business, Cost Estimating and Financial Management	10,279	7,387	-28.1
Life Cycle Logistics	11,060	12,604	14.0
Information Technology	5,612	4,423	-21.2
System Planning, Research, Development and Engineering—Systems Engineering	34,899	34,710	-0.5
System Planning, Research, Development and Engineering—Science and Technology Manager	0	483	n/a
Test and Evaluation	5,113	7,419	45.1
Auditing	3,457	2,852	-17.5
Unknown/Other	4,097	3,281	-19.9
Total	129,249	126,033	-2.5

Table 1: DOD Acquisition Workforce—Military and Civilian Personnel for Fiscal Years 2001 and 2007

Source: DOD data.

During this same time period, the number of contracting actions valued at over \$100,000 increased by 62 percent and dollars obligated on contracts increased by 116 percent, according to DOD. Moreover, DOD has reported that the number of major defense acquisition programs has increased from 70 to 95. To augment its declining in-house acquisition workforce, DOD has relied more heavily on contractor personnel.

In addition to the overall decline in its in-house acquisition workforce and an increased workload, DOD faces shifting workforce demographics and a changing strategic environment. The U.S. workforce as a whole is aging and experiencing a shift in the labor pool away from persons with science and technical degrees. According to DOD, advances in technology, such as the ability to do jobs from almost anywhere in the world, are also driving workforce changes and increasing global competition for the most highly educated and skilled personnel. To address these and other challenges including wars in Afghanistan and Iraq, an evolving mission to combat threats around the world, and an increased need to collaborate with both domestic and international partners—DOD has begun to establish a more centralized management framework for forecasting, recruiting, developing, and sustaining the talent pool needed to meet its national security mission.

Several components in the Office of the Secretary of Defense (OSD) share policy and guidance responsibility for the workforce. The Under Secretary of Defense for Personnel and Readiness serves as the Chief Human Capital Officer for DOD—both for military and civilian personnel—and has overall responsibility for the development of the department's competency-based workforce planning and its civilian human capital strategic plan. Within the Office of Personnel and Readiness, the Office of Civilian Personnel Policy has overall responsibility for managing DOD's civilian workforce and has the lead role in developing and overseeing implementation of the plan. For example, the Implementation Report for the DOD Civilian Human Capital Strategic Plan 2006-2010 lists enterprisewide skills and competencies for 25 mission-critical occupations, which the department has begun to assess in terms of future needs, budget-based projections, and anticipated gaps. Another OSD component, AT&L, is responsible for managing DOD's acquisition workforce, including tailoring policies and guidance specific to the acquisition workforce and managing the training and certification of that workforce. As required by the National Defense Authorization Act for Fiscal Year 2008 (2008 NDAA), AT&L has drafted an addendum for the implementation report for the civilian human capital strategic plan to specifically address management and oversight of the acquisition workforce.⁸

Each military service has its own corresponding personnel and acquisition offices that develop additional service-specific guidance, and provide management and oversight of its workforce. The services have generally delegated the determination of workforce needs to the command levels and their corresponding program offices. Although each service uses a different management structure, the commands typically make overall organizational budgetary and personnel allocations, whereas the program offices identify acquisition workforce needs; make decisions regarding the civilian, military, and contractor makeup of the workforce; and provide the day-to-day management of the workforce. In addition, each service designates organizations aligned by one or more career fields to monitor and manage career paths and training, and to identify gaps in current skill sets.

⁸ National Defense Authorization Act for Fiscal Year 2008, Pub. L. No. 110-181, § 851 (2008).

DOD Lacks the Information Needed to Determine the Sufficiency of Its Acquisition Workforce	DOD lacks critical departmentwide information in several areas necessary to assess, manage, and oversee the acquisition workforce and help ensure it has a sufficient acquisition workforce to meet DOD's national security mission. Specifically, AT&L does not have key pieces of information regarding its in-house acquisition workforce, such as complete data on skill sets, which are needed to accurately identify its workforce gaps. ⁹ In addition, it lacks information on the use and skill sets of contractor personnel performing acquisition-related functions. Omitting these data from DOD's assessments not only skews analyses of workforce gaps, but also limits DOD's ability to make informed workforce allocation decisions. Critical success factors for human capital management include collecting data on workforce competencies and skills mix, and evaluating human capital approaches—including those for acquiring and retaining talent— for how well they support efforts to achieve program results. ¹⁰ Such efforts, linked to strategic goals and objectives, can enable an agency to recognize, prepare, and obtain the knowledge, skills, abilities, and size for the workforce it needs to pursue its current and future missions.
AT&L Lacks Information on the Use of Contractor Personnel in Its Acquisition Workforce	DOD has increasingly relied on contractors to perform core missions, but has yet to develop a workforce strategy for determining the appropriate mix of contractor and government personnel. ¹¹ Our prior work has noted the importance of effective human capital management to better ensure that agencies have the right staff who are doing the right jobs in the right place at the right time by making flexible use of its internal workforce and appropriate use of contractors. ¹² We have also reported that decisions regarding the use of contractors should be based on strategic planning regarding what types of work are best done by the agency or contracted out. ¹³

¹⁰ Our prior work has also shown that having valid and reliable data is critical to assess an agency's workforce requirements and allow management to spotlight areas for attention. See GAO, *A Model of Strategic Human Capital Management*, GAO-02-373SP (Washington, D.C.: Mar. 15, 2002).

¹¹ GAO-09-235.

¹² See GAO-02-373SP.

¹³ See GAO-02-373SP.

While DOD planning documents state that the workforce should be managed from a "total force" perspective—which calls for contractor personnel to be managed along with civilian and military personnel¹⁴ — DOD does not collect departmentwide data on contractor personnel. Program offices, however, do have information about contractor personnel. Data we obtained from 66 program offices show that contractor personnel comprised more than a third of those programs' acquisition-related positions (see table 2).¹⁵ According to MDA officials, the agency collects and uses such data in its agency-level workforce allocation processes, which in turn has helped inform staffing and resource decisions at the program office level. Because contractor personnel likely comprise a substantial part of all personnel supporting program offices, AT&L is missing information on a key segment of the department's total acquisition workforce (in-house and contractor personnel).

¹⁴ DOD, Civilian Human Capital Strategic Plan 2006-2010 and Quadrennial Defense Review Report (Feb. 6, 2006).

¹⁵ For the purposes of this report, we defined acquisition-related functions to be those related to planning, executing, and supporting DOD's acquisitions, including: program management; business functions, such as auditing, business, cost estimating, financial management, property management, and purchasing; contracting; and engineering and technical, including systems planning, research, development and engineering, life-cycle logistics, test and evaluation, production, quality and manufacturing, and facilities engineering.

 Table 2: Military, Civilian, and Contractor Personnel in Acquisition-Related Functions by Service as Reported by Selected

 Program Offices in 2008

Organization (number of program offices reporting data)	Total ^ª	Military	Civilian	University and Federally Funded Research and Development Center	Contractor	Contractor personnel as a percentage of total
Air Force (19)	1,549	297	357	428	467	30
Army (12)	1,723	188	1,122	40	373	22
Navy [♭] (18)	2,374	183	1,196	56	940	40
Joint Programs ^c (9)	1,460	147	480	145	688	47
Missile Defense Agency (7)	1,656	114	559	174	809	49
Total (66)	8,762	929	3,714	843	3,277	37

Source: GAO analysis of DOD data.

^aProgram offices reported additional administrative and other staff that we excluded from this table, as they would not be considered part of the acquisition workforce.

^bNavy includes one Marine Corps program office.

^cJoint Programs can be staffed by personnel from multiple services.

DOD also lacks information on factors driving program offices' decisions to use contractor personnel rather than hire in-house personnel. DOD guidance for determining the workforce mix outlines the basis on which officials should make decisions regarding what type of personnel—military, civilian, or contractor—should fill a given position.¹⁶ The guidance's primary emphasis is on whether the work is considered to be an inherently governmental function, not on whether it is a function that is needed to ensure institutional capacity.¹⁷

The guidance also states that using the least costly alternative should be an important factor when determining the workforce mix.¹⁸ However, of the 31 program offices that reported information about the reasons for

¹⁸ Department of Defense Directive 1100.4, *Guidance for Manpower Management*, paragraph 3.2.3 (Feb. 12, 2005); Department of Defense Instruction 1100.2, *Guidance for Determining Workforce Mix*, paragraph 4 (Apr. 6, 2007).

¹⁶ Department of Defense Instruction 1100.22, *Guidance for Determining Workforce Mix*, paragraph 1.1 (Apr. 6, 2007).

¹⁷ Inherently governmental functions are so intimately related to the public interest that they should only be performed by government personnel. These functions include those activities which require either the exercise of discretion in applying government authority or making value judgments in making decisions for the government. Federal Acquisition Regulation 2.101.

	using contractor personnel, only 1 indicated that reduced cost was a key factor in the decision to use contractor personnel rather than civilian personnel. Instead, 25 cited staffing limits, the speed of hiring, or both as main factors in their decisions to use contractor personnel. Additionally, 22 program offices cited a lack of in-house expertise as a reason for using contractor personnel, and 17 of those indicated that the particular expertise sought is generally not hired by the government. In addition, at 3 of the 4 program offices we visited, officials said that they often hire contractors because they may face limits on the number of civilian personnel they can hire, and because budgetary provisions may allow program offices to use program funds to pay for additional contractor personnel, but not for hiring civilian personnel. Program officials also cited the lengthy hiring process for civilian personnel as a reason for using contractor personnel.
AT&L Lacks Key Pieces of Information Necessary to Conduct Gap Analyses	AT&L's lack of key pieces of information hinders its ability to determine gaps in the number and skill sets of acquisition personnel needed to meet DOD's current and future missions. At a fundamental level, workforce gaps are determined by comparing the number and skill sets of the personnel that an organization has with what it needs. However, AT&L lacks information on both what it has and what it needs. With regard to information on the personnel it has, AT&L not only lacks information on contractor personnel, but it also lacks complete information on the skill sets of the current acquisition workforce and whether these skill sets are sufficient to accomplish its missions. AT&L is currently conducting a competency assessment to identify the skill sets of its current acquisition workforce. While this assessment will provide useful information regarding the skill sets of the current in-house acquisition workforce, it is not designed to determine the size, composition, and skill sets of an acquisition workforce needed to meet the department's missions.
	AT&L also lacks complete information on the acquisition workforce needed to meet DOD's mission. The personnel numbers that AT&L uses to reflect needs are derived from the budget. Because these personnel numbers are constrained by the size of the budget, they likely do not reflect the full needs of acquisition programs. Of the 66 program offices that provided data to us, 13 reported that their authorized personnel levels are lower than those they requested. In a report on DOD's workforce management, RAND noted that the mismatch between needs and available resources means that managers have an incentive to focus on managing

	the budget process instead of identifying the resources needed to fulfill the mission and then allocating resources within the constraints of the budget. ¹⁹
Recent Initiatives May Not Yield the Information Needed to Assess, Manage, and Oversee DOD's Total Acquisition Workforce	AT&L has begun to respond to recent legislative requirements aimed at improving DOD's management and oversight of its acquisition workforce, including developing data, tools, and processes to more fully assess and monitor its acquisition workforce. Each service has also recently initiated, to varying degrees, additional efforts to assess its own workforce at the service level. Some recent DOD efforts aimed at improving the broader workforce may also provide information to support AT&L's acquisition workforce efforts. While it is too early to determine the extent to which these efforts will improve the department's management and oversight, the lack of information on contractor personnel raises concerns about whether AT&L will have the information it needs to adequately assess, manage, and oversee the total acquisition workforce.
	As required by the 2008 NDAA, AT&L plans to issue an addendum to the <i>Implementation Report for the DOD Civilian Human Capital Strategic Plan 2006-2010.</i> According to DOD, this addendum will lay out AT&L's strategy for managing and overseeing the acquisition workforce. ²⁰ The addendum is to provide an analysis of the status of the civilian acquisition workforce and discuss AT&L's efforts for implementing the Acquisition Workforce Development Fund, which the 2008 NDAA required DOD to establish and fund. ²¹ AT&L has focused its implementation efforts in three key areas: (1) recruiting and hiring, (2) training and development, and (3) retention and recognition. AT&L has established a steering board responsible for oversight on all aspects of the fund, including the approval of the use of funds for each proposed initiative. In addition to the addendum to the implementation report, AT&L created its own human capital plan in an effort to integrate competencies, training, processes, tools, policy, and structure for improving the acquisition workforce.

¹⁹ RAND Corporation, *Civilian Workforce Planning in the Department of Defense: Different Levels, Different Roles* (Santa Monica, Calif.: 2006).

²⁰ Pub. L. No. 110-181, § 851.

 $^{^{21}}$ Pub. L. No. 110-181, § 852; 10 U.S.C. § 1705. The fund is financed by an amount equivalent to a portion of the military services' and defense agencies' expenditures for certain types of service contracts. The largest proportion of the fund is currently slated for recruiting and hiring.

has also developed some tools and begun initiatives designed to help with its management of the acquisition workforce, such as its competency assessment that is scheduled to be completed in March 2010. AT&L recently established the Defense Acquisition Workforce Joint Assessment Team tasked with assessing and making recommendations regarding component workforce size, total force mix, future funding levels, and other significant workforce issues. According to an AT&L official, the team will also develop an estimate of the acquisition workforce needed to meet the department's mission that is unconstrained by the budget. Table 3 provides a brief description of AT&L's recent efforts.

Initiative	Goal	Expected results of initiative
Joint Competency Management Initiative	Update competency models to identify behaviors, underlying knowledge, skills, and abilities for successful performance. Each career field has its own model.	Develop workforce strategies to address critical skill gaps and target new education and training resources.
Data Green Initiative	Improve reliability, analysis, and transparency of workforce information.	Provide more advanced capability to track, shape, and understand workforce strategies.
Data Mart	Enable real-time analysis and provide aggregate workforce data. (Main component of Data Green Initiative.)	Create a central depository of workforce data.
Workforce Lifecycle Model	Provide for identification of potential retirement losses by capturing years of service.	Use data to understand experience, hiring, bench strength, and retirement trends, and to forecast attrition rates.
Budget Exhibit PB23	Provide link between the AT&L Human Capital Strategic Plan and the Planning, Programming, Budgeting and Execution system.	Document the services' planned workforce needs over the future years' budgets.
Defense Acquisition Workforce Joint Assessment Team	Assess component workforce size, total force mix, and other significant issues.	Recommend component workforce size, total force mix, and future funding levels.

Table 3: AT&L's Recent Acquisition Workforce Oversight Initiatives

Source: GAO analysis of DOD documents.

Each service has also begun to take a more focused look at its acquisition workforce by developing service-specific acquisition workforce plans and designating leads tasked with monitoring career paths and training, and identifying gaps in current skill sets. For example, responsibility for different aspects of the Navy's acquisition workforce has recently been distributed among a number of corporate-level offices—such as Manpower and Reserve Affairs; Research, Development, and Acquisition; and Manpower, Personnel, Training, and Education. To illustrate, Research, Development, and Acquisition will develop and maintain acquisition strategic guidance and provide management oversight of the capabilities of the Navy's acquisition workforce. Table 4 provides examples of service-level workforce initiatives.

Table 4: Examples of Service-Level Acquisition Workforce Initiatives

Service	Initiative
Air Force	Acquisition Sustainment Unit model being created by the Air Force Manpower Agency for use by the acquisition community. Expected to identify objective workforce factors, ascertain the correlation between manpower and performance, and explore alternative models that consider trade-offs between accuracy, costs, and ease of implementation.
	Civilian Force Management Dashboard and Diversity and Years to Retirement tools used by the Force Management Division that contain demographic data and retirement data, respectively. Provide insight to the career field managers to analyze their workforce and develop career field sustainment plans.
	Pilot program in the Air Force Materiel Command's Electronic Systems Center to create a competency-based organization with a holistic approach to workforce management. Includes organizational analysis, validation and development of competency models for critical acquisition positions, selection of core competencies, and recruiting and retention strategies.
Army	Acquisition Workload Based Staffing Analysis Program developed by Army's Acquisition, Logistics and Technology office to provide the ability to gather up-to-date information on acquisition workload requirements. Expected to provide the ability to model acquisition organizations with the ultimate goal of forecasting future requirements. Currently being upgraded to project the right mix of skills for each stage in a program's life cycle.
Navy	Memorandum of Agreement between Navy offices to establish responsibilities for managing the workforce with a total force perspective.
	Intelligent Workbook provides a way to align people with programs servicewide under the Navy's new total force approach to workforce management. Data are broken up by "Enterprises" and provide details on the number of personnel present, number of personnel required, and competency requirements by subprocesses of work. Allows for comparisons of competencies versus requirements.
	Naval Air System Command developed Workforce Shaping System to provide total annual workforce inventory, linking products to tasks to skills to funding source. Gives managers the ability to document expected outcomes and allow for redeployment of personnel based on skills and organization's workload.
MDA	Establishing functional groups to provide matrix management over the acquisition workforce.
	Revalidating the competency assessment developed a few years ago.

Source: GAO analysis of DOD information.

In addition to the AT&L and service-level initiatives, some DOD efforts aimed at improving the broader workforce may provide information that can assist AT&L in assessing, managing, and overseeing the acquisition workforce. Some promising initiatives include the following:

• The Office of Civilian Personnel Policy recently established a Civilian Workforce Capability and Readiness Program, and in November 2008 officially established a corresponding program management office tasked with monitoring overall civilian workforce trends and conducting competency assessments and gap analyses.

- DOD, through its components, is developing an annual inventory of contracts for services performed in the preceding fiscal year. This inventory is required to include, among other things, information identifying the missions and functions performed by contractors, the number of full-time contractor personnel equivalents that were paid for performance of the activity, and the funding source for the contracted work. The Army issued its first inventory, which determined the equivalent number of contractor personnel it used in fiscal year 2007 based on the number of hours of work paid for under its service contracts.
- DOD has issued guidance directing programs to consider using DOD civilian personnel to perform new functions or functions currently performed by contractor personnel in cases where those functions could be performed by DOD civilian personnel. The guidance also requires that DOD civilian personnel be given special consideration to perform certain categories of functions, including functions performed by DOD civilian personnel at any time during the previous 10 years and those closely associated with the performance of an inherently governmental function. When the inventory of contracts for services is completed, DOD is mandated by the 2008 NDAA to use the inventory as a tool to identify functions currently performed by contractor personnel that could be performed by DOD civilian personnel. DOD is developing additional guidance and a tool to assist in developing cost comparisons for evaluating the use of in-house personnel rather than contractor personnel.

These initiatives have the potential to enhance DOD's acquisition workforce management practices and oversight activities. However, these efforts may not provide the comprehensive information DOD needs to manage and oversee its acquisition workforce. For example, although the Army has issued its first inventory of its service contracts, inventories for all DOD components are not scheduled to be completed before June 2011. Further, as currently planned, the inventory will not include information on the skill sets and functions of contractor personnel.

Practices of Leading Organizations Could Provide Insights for DOD's Acquisition	As DOD continues to develop and implement departmentwide initiatives aimed at providing better oversight of the acquisition workforce, some of the practices employed by leading organizations for managing their workforces could provide insights for DOD's efforts. These practices include:
Workforce Efforts	 identifying gaps in the current workforce by assessing the overall competencies needed to achieve business objectives, compared to current competencies; establishing mechanisms to track and evaluate the effectiveness of initiatives to close workforce gaps; taking a strategic approach in deciding when and how to use contractor personnel to supplement the workforce; and tracking and analyzing data on contractor personnel. We have previously reported many of these practices as critical factors for providing good strategic human capital management.²²
	The leading organizations we reviewed develop gap analyses and workforce plans from estimates of the number and composition of personnel with specific workforce competencies needed to achieve the organization's objectives. For example, Lockheed Martin assesses the skill mix needed to fulfill future work orders and compares this with the firm's current skill mix to identify potential workforce gaps. An official at Lockheed Martin said one such assessment indicated that the company needed skill sets different from those needed in the past because it is receiving more proposals for logistics work associated with support and delivery contracts, rather than its traditional system development work. Table 5 provides examples of how companies we reviewed link workforce assessments to their organizational objectives.

²² GAO-02-373SP.

Table 5: Examples of Leading Organizations' Use of Workforce Assessments

Company	Use of workforce assessments to meet organizational objectives
Deloitte	Gap analyses are calculated by comparing competencies needed to meet future business demands with competencies of the current workforce.
	 Recruiting plans and employee retraining are based on gap analyses.
	 Analytical framework created to help develop additional solutions for workforce issues that take into account existing tools and initiatives, as well as the nature of the work to be performed.
Lockheed Martin	 Skill mix needed to fulfill future work orders is assessed and compared with the firm's current skill mix to identify potential workforce gaps.
Microsoft	 Targets for growth in the number of employees are defined by the company's finance function. Workforce plans for hiring and employee development are designed to meet these growth targets while maintaining or improving workforce capabilities.
	 In developing workforce plans, staffing teams provide estimates of hires needed, consistent with employee growth targets, attrition rates, and expected transfer rates.
	 An algorithm is used to compare data on employees added, open positions remaining, time required to fill open positions, and other measures with business units' current and future capabilities and objectives.
Valero Energy	 Employee skills and career goals are maintained in a database to assist in moving employees to where needed and to identify strengths and weaknesses in the workforce. The database is also used to identify where resources need to be spent to build the talent pool.

Source: GAO analysis of company information.

These leading organizations also assess their efforts to close workforce gaps by tracking data on specific recruiting and retention metrics. For example, Microsoft assesses the quality of its new hires based on the performance ratings and retention for their first 2 years with the company. According to a company official, this allows Microsoft to compare the results of using its different hiring sources, such as college recruiting and other entry-level hiring methods. Similarly, Deloitte uses performance ratings, retention data, and employee satisfaction surveys to help determine a return on investment from its college recruiting efforts and to identify schools that tend to supply high-quality talent that the company is able to retain. Table 6 provides examples of recruiting and retention metrics used by the companies we reviewed. In addition to tracking data on metrics, Deloitte uses quantitative models that analyze workforce demographics and other factors to predict actions of job candidates and employees. Data from such metrics and models can be used to inform other workforce decisions and focus limited resources for use where the greatest benefit is expected.

Company	Initiative	Metrics tracked
Deloitte	College recruiting	Performance ratings
		Retention data
		Employee satisfaction surveys
Lockheed Martin	Retention	Attrition rates for mentored versus nonmentored employees
Microsoft	Recruiting	 Quality of hiring assessed based on new hire performance ratings and retention for first 2 years
	Retention	 Employees' opinions regarding value of compensation packages and preferred forms of compensation
Rolls-Royce	College recruiting	Time to fill open positions
		Interview-to-offer ratios
		Offer acceptance percentages
		Offers by school

Source: GAO analysis of company information.

Finally, the companies we reviewed take a strategic approach to determining when to use contractor support. Officials from Deloitte, General Electric, and Rolls Royce said they generally use contractors to facilitate flexibility and meet peak work demands without hiring additional, permanent, full-time employees. Some of the companies also place limits on their use of contractor employees. General Electric, for example, uses contractor personnel for temporary support and generally limits their use for a given operation to 1 year in order to prevent the use of temporary personnel to fill ongoing or permanent roles. Additionally, General Electric and Lockheed Martin limit the use of contractor personnel to noncore functions. An official from General Electric said that it rarely outsources essential, sophisticated, or strategic functions, or large components of its business. Likewise, Lockheed Martin does not outsource capabilities that are seen as discriminators that set the company apart from its market competitors.

Deloitte, General Electric, Lockheed Martin, and Microsoft also maintain and analyze data on their contractor employees in order to mitigate risks, ensure compliance with in-house regulations and security requirements, or to ensure that reliance on contractor support creates value for the company. An official at Deloitte noted, for example, that if work involving contractor support continues for an extended period, the business unit might be advised to request additional full-time employee positions in its next planning cycle or streamline its process to eliminate the need for contractor support. At Rolls Royce, an official told us that one unit uses an algorithm to determine the percentage of work being outsourced by computing the number of full-time-equivalent personnel needed to complete the same level of work performed through outsourcing. This information is important because of the cost of outsourcing. According to the company official, outsourcing may be more costly—all other factors being equal—because of the profit consideration for the contractor.²³ As a result, outsourcing decisions can become a trade-off between multiple factors, such as cost, quality, capacity, capability, and speed.

Conclusions

Major shifts in workforce demographics and a changing strategic environment present significant challenges for DOD in assessing and overseeing an acquisition workforce that has the capacity to acquire needed goods and services, as well as monitor the work of contractors. While recent and planned actions of AT&L and other DOD components could help DOD address many of these challenges, the department has yet to determine the acquisition workforce that it needs to fulfill its mission or develop information about contractor personnel. While DOD has begun to estimate the number of full-time-equivalent contractor personnel through its inventory of contracts for services, this effort will not identify the skill sets and functions of contractor personnel performing acquisition-related work or the length of time for which they are used. At the same time, DOD lacks guidance on the appropriate circumstances under which contractor personnel may perform acquisition work. Without such guidance, DOD runs the risk of not maintaining sufficient institutional capacity to perform its missions. Until DOD maintains detailed departmentwide information on its contractor personnel performing acquisition-related work, it will continue to have insufficient information regarding the composition, range of skills, and the functions performed by this key component of the acquisition workforce. Without this information upon which to act, the department runs the risk of not having the right number and appropriate mix of civilian, military, and contractor personnel it needs to accomplish its missions.

²³ GAO has also reported that using contractor personnel may be more costly than using government personnel in some cases. See GAO, *Defense Contracting: Army Case Study Delineates Concerns with Use of Contractors as Contract Specialists*, GAO-08-360 (Washington, D.C.: Mar. 26, 2008).

Recommendations for Executive Action	 To better ensure that DOD's acquisition workforce is the right size with the right skills and that the department is making the best use of its resources, we recommend that the Secretary of Defense take the following four actions: Collect and track data on contractor personnel who supplement the acquisition workforce—including their functions performed, skill sets, and length of service—and conduct analyses using these data to inform acquisition workforce decisions regarding the appropriate number and mix of civilian, military, and contractor personnel the department needs. Identify and update on an ongoing basis the number and skill sets of the total acquisition workforce—including civilian, military, and contractor personnel—that the department needs to fulfill its mission. DOD should use this information to better inform its resource
	 bob should use this information to better inform its resource allocation decisions. Review and revise the criteria and guidance for using contractor personnel to clarify under what circumstances and the extent to which it is appropriate to use contractor personnel to perform acquisition-related functions. Develop a tracking mechanism to determine whether the guidance has been appropriately implemented across the department. The tracking mechanism should collect information on the reasons contractor personnel are being used, such as whether they were used because of civilian staffing limits, civilian hiring time frames, a lack of in-house expertise, budgetary provisions, cost, or other reasons.
Agency Comments and Our Evaluation	DOD provided written comments on a draft of this report. DOD concurred with three recommendations and partially concurred with one recommendation. DOD's comments appear in appendix I. DOD also provided technical comments on the draft report which we incorporated as appropriate.
	DOD partially concurred with the draft recommendation to collect and track data on contractor personnel to inform the department's acquisition workforce decisions. DOD stated that it agrees that information on contractor personnel supporting the acquisition mission is necessary for improved acquisition workforce planning, especially with regard to the number and the acquisition functions performed. The department also

noted that establishing a contractual requirement to capture more detailed workforce information, such as skill sets and length of service of contractor personnel, needs to be carefully considered. We agree that the manner in which data on contractor personnel are to be collected should be carefully considered. We continue to believe that comprehensive data on contractor personnel are needed to accurately identify the department's acquisition workforce gaps and inform its decisions on the appropriate mix of in-house or contractor personnel.

DOD concurred with our recommendation to identify and update on an ongoing basis the number and skill sets of the total acquisition workforce that it needs to fulfill its mission and stated that it has an ongoing effort to accomplish this. DOD states that its ongoing efforts will address this recommendation; however, the efforts cited in its response improve DOD's information only on its in-house acquisition workforce and do not identify the total acquisition workforce, including contractor personnel, the department needs to meet its missions. We revised the recommendation to clarify that DOD's acquisition workforce management and oversight should encompass contractor as well as civilian and military personnel.

DOD also concurred with our recommendations to revise the criteria and guidance for using contractor personnel to perform acquisition-related functions, and to develop a tracking mechanism to determine whether the revised guidance is being appropriately implemented across the department.

We are sending copies of this report to the Secretary of Defense. The report is also available at no charge on the GAO Web site at http://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-5274 or needhamjk1@gao.gov. Contact points for our Offices

of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix II.

John K. Needham Director, Acquisition and Sourcing Management

Appendix I: Comments from the Department of Defense

ANT ON	OFFICE OF THE UNDER SECRETARY OF DEFENSE	
	3000 DEFENSE PENTAGON	
	WASHINGTON, DC 20301 - 3000	
ACQUISITION, TECHOLOGY AND LOGISTICS	MAR 1 9 2009	
Ms. Katherine V. Schinasi Managing Director, Acquisition and Sourcing Management		
	nment Accountability Office	
441 G Stree	xt, N.W.	
Washingtor	n, DC 20548	
Dear Ms. S	chinasi:	
This is the Department of Defense (DoD) response to the GAO Draft Report, GAO-09-342, "DEPARTMENT OF DEFENSE: Additional Actions and Data Are Needed to Effectively Manage and Oversee DoD's Acquisition Workforce," dated February 13, 2009, (GAO Code 120692). Detail comments on the report recommendations are enclosed.		
	Department appreciates the opportunity to respond to your draft report and look working with you as we continue to ensure a strong and capable Defense workforce.	
	Sincerely,	
	Frank J. Anderson, Jr. Director, Human Capital Initiatives	
Enclosure:		
As stated		







Appendix II: GAO Contact and Staff Acknowledgments

GAO Contact	John K. Needham, (202) 512-5274 or needhamjk1@gao.gov
Acknowledgments	In addition to the contact named above, Katherine V. Schinasi, Managing Director; Ann Calvaresi-Barr, Director; Carol Dawn Petersen, Assistant Director; Ruth "Eli" DeVan; Kristine Heuwinkel; Victoria Klepacz; John Krump; Teague Lyons; Andrew H. Redd; Ron Schwenn; Karen Sloan; Brian Smith; Angela D. Thomas; and Adam Yu made key contributions to this report.

Related GAO Products

Human Capital: Opportunities Exist to Build on Recent Progress to Strengthen DOD's Civilian Human Capital Strategic Plan. GAO-09-235. Washington, D.C.: February 10, 2009.

High Risk Series: An Update. GAO-09-271. Washington, D.C.: January 2009.

Department of Homeland Security: A Strategic Approach Is Needed to Better Ensure the Acquisition Workforce Can Meet Mission Needs. GAO-09-30. Washington, D.C.: November 19, 2008.

Human Capital: Transforming Federal Recruiting and Hiring Efforts. GAO-08-762T. Washington, D.C.: May 8, 2008.

Defense Contracting: Army Case Study Delineates Concerns with Use of Contractors as Contract Specialists. GAO-08-360. Washington, D.C.: March 26, 2008.

Defense Management: DOD Needs to Reexamine Its Extensive Reliance on Contractors and Continue to Improve Management and Oversight. GAO-08-572T. Washington, D.C.: March 11, 2008.

Federal Acquisition: Oversight Plan Needed to Help Implement Acquisition Advisory Panel's Recommendations. GAO-08-515T. Washington, D.C.: February 27, 2008.

The Department of Defense's Civilian Human Capital Strategic Plan Does Not Meet Most Statutory Requirements. GAO-08-439R. Washington, D.C.: February 6, 2008.

Defense Acquisitions: DOD's Increased Reliance on Service Contractors Exacerbates Long-standing Challenges. GAO-08-621T. Washington, D.C.: January 23, 2008.

Department of Homeland Security: Improved Assessment and Oversight Needed to Manage Risk of Contracting for Selected Services. GAO-07-990. Washington, D.C.: September 17, 2007.

Federal Acquisitions and Contracting: Systemic Challenges Need Attention. GAO-07-1098T. Washington, D.C.: July 17, 2007.

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Framework for Assessing the Acquisition Function At Federal Agencies. GAO-05-218G. Washington, D.C.: September 2005.

A Model of Strategic Human Capital Management. GAO-02-373SP. Washington, D.C.: March 15, 2002.

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