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November 1995

# DEFENSE ACQUISITION ORGANIZATIONS

## Changes in Cost and Size of Civilian Workforce







United States  
General Accounting Office  
Washington, D.C. 20548

National Security and  
International Affairs Division

B-266019

November 13, 1995

The Honorable John R. Kasich  
Chairman, Committee on the Budget  
House of Representatives

Dear Mr. Chairman:

As you requested, we developed information on the composition and the cost of the workforce in the Department of Defense (DOD) acquisition organizations. This report also summarizes selected aspects of the civilian workforce in these acquisition organizations from 1980 through 1994. Appendix I lists DOD's acquisition organizations discussed in this report.

## Results in Brief

In 1994, DOD acquisition organizations, including the Defense Contract Audit Agency, had a combined workforce of about 464,000—398,000 civilian and 66,000 military personnel.<sup>1</sup> In addition to acquisition missions, the acquisition organizations have other significant roles and related responsibilities, such as logistics, maintenance, and supply. The workforce represents such “white collar” occupational fields as engineering, contracting, accounting, and computer specialization. It also includes such “blue collar” occupations as machine tool operators, pipefitters, shipyard workers, and warehouse personnel. Within this workforce, there are about 41,000 supervisors, or 1 supervisor for every 9 staff members.

The civilian workforce in DOD's acquisition organizations increased with the defense buildup of the early 1980s and decreased following the reductions that began in the mid-1980s.<sup>2</sup> In 1994, DOD's civilian acquisition workforce had about 53,000 fewer employees (12 percent lower) than in 1980. However, this decline occurred without a commensurate decline in civilian payroll costs (measured in constant 1996 dollars), due in part to the significant decline in blue collar workers. In addition, DOD officials stated that civilian payroll costs increased because of many factors, such as the advent of locality pay and changes in grade structure.

<sup>1</sup>DOD Instruction 5000.58 lists the acquisition organizations, including the Special Operations Command. (See app. I for a complete list.) The Special Operations Command is excluded from our review, because, according to DOD acquisition officials, the Command is one of nine unified commands in the military's combatant command structure. We included the Defense Contract Audit Agency because it is responsible for accounting and financial advisory services in connection with negotiating, administering, and settling contracts and subcontracts.

<sup>2</sup>We used DOD's obligational authority to measure the defense buildup. Obligational authority includes (1) research, development, test, and evaluation; (2) operations and maintenance; and (3) procurement.

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Against the backdrop of the civilian workforce decline in DOD's acquisition organizations, defense-wide contract awards for services increased about \$10 billion since 1980 (measured in constant 1996 dollars).<sup>3</sup> About \$4 billion of this increase was for engineering/architectural and computer services—two large occupational groups in the acquisition organizations. Some of the savings from staff reductions in the acquisition organizations may have been offset by increases in contract awards for similar services.

Even with declines in both the defense procurement budget and the civilian workforce since 1990, the number of acquisition organizations remains relatively constant. DOD officials stated that it is possible that the workforce in the acquisition organizations will increase as it has in the past with the expected increase in the defense procurement budget. However, each acquisition organization maintains similar occupational fields in common areas, such as personnel, budgeting, computer specialists, and contracting, and many of the duties performed in these occupations are not unique to an acquisition organization's mission. As a result, there may be opportunities to improve efficiencies in these areas. (See app. II.)

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## Agency Comments

DOD generally concurs with the information contained in the draft report. DOD stated that the acquisition organizations have a variety of missions. DOD stated that the results of our review reflect the combination of these missions. DOD also stated that many dynamics contribute to the changes in the workforce over time. For example, when the civilian workforce decreased in the DOD acquisition organizations, defense-related employment in industry increased, resulting in a net shift of work to the private sector. DOD's comments are presented in their entirety in appendix III.

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## Scope and Methodology

To examine the composition of the defense acquisition workforce, we first interviewed DOD officials associated with the major defense acquisition organizations. We then obtained employment levels from 1980 to 1994 stratified by organization, occupational series, and management and supervisory levels from the Defense Manpower Data Center. We also reviewed data found in other studies on the defense acquisition workforce.

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<sup>3</sup>Constant dollars measure the value of goods and services at price levels that are the same as the base year. Changes in constant dollar values therefore reflect changes in the volume of goods and services, not changes due to inflation.

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To examine the cost of the acquisition workforce, we reviewed compensation data from the National Defense Budget Estimates for Fiscal Year 1996. To examine trends in contract awards for services, supplies, and equipment, we retrieved contract data from DOD's Individual Contracting Action Report stratified by year. Budget, payroll, and contract data were converted to constant 1996 dollar figures.

We conducted our work from June 1995 through September 1995 in accordance with generally accepted government auditing standards.

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We are sending copies of this report to the Ranking Minority Member of the House Committee on the Budget, the Secretary of Defense, and other interested parties. We will make copies available to others upon request. If you have any questions concerning this report, please call me on (202) 512-4587. See appendix IV for a listing of major contributors to this report.

Sincerely yours,

A handwritten signature in black ink that reads "David E. Cooper". The signature is written in a cursive style with a large, sweeping initial "D".

David E. Cooper  
Director, Acquisition Policy, Technology, and  
Competitive Issues

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**Abbreviations**

AFMC	Air Force Material Command
AISC	Army Information Systems Command
AMC	Army Materiel Command
ASSDC	Army Space and Strategic Defense Command
BMDO	Ballistic Missile Defense Organization
DCAA	Defense Contract Audit Agency
DLA	Defense Logistics Agency
DOD	Department of Defense
NAVAIR	Naval Air Systems Command
NAVFAC	Naval Facilities Engineering Command
NAVSEA	Naval Sea Systems Command
NAVSUP	Naval Supply Systems Command
ONR	Office of the Chief of Naval Research
PEO	Program Executive Office
SPAWAR	Space and Naval Warfare Systems Command

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# List of Defense Acquisition Organizations

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The Department of Defense (DOD) Instruction 5000.58 states that an acquisition organization is an organization, including its subordinate elements, whose mission includes planning, managing, and/or executing acquisition programs that are governed by DOD Directive 5000.1 (reference (n)), DOD Instruction 5000.2 (reference (o)), and related issuances. Specifically, these organizations are as follows (and any successor organizations of these commands):

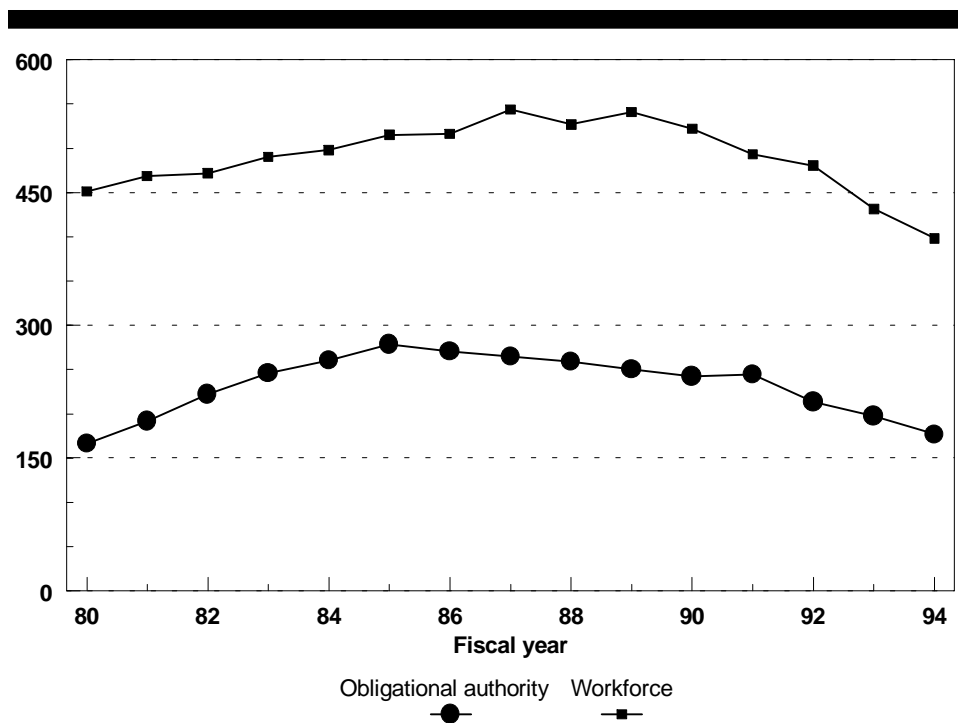
- Office of the Under Secretary of Defense (Acquisition and Technology)
- Army Materiel Command (AMC)
- Army Information Systems Command (AISC)
- Army Strategic Defense Command [now Army Space and Strategic Defense Command (ASSDC)]
- Army Acquisition Executive
- Office of the Assistant Secretary of the Navy (Research, Development, and Acquisition)
- Naval Sea Systems Command (NAVSEA)
- Naval Air Systems Command (NAVAIR)
- Naval Supply Systems Command (NAVSUP)
- Naval Facilities Engineering Command (NAVFAC)
- Office of the Chief of Naval Research (ONR)
- Space and Naval Warfare Systems Command (SPAWAR)
- Navy Strategic Systems Program Office
- Navy Program Executive Officer/Direct Reporting Program Manager Organization
- Marine Corps Research, Development, and Acquisition Command
- Office of the Assistant Secretary of the Air Force (Acquisition)
- Air Force Systems/Air Force Logistics Commands [now Air Force Material Command (AFMC)]
- Air Force Program Executive Organization
- Defense Logistics Agency (DLA)
- Strategic Defense Initiative Organization [now Ballistic Missile Defense Organization (BMDO)]
- Special Operations Command

The Special Operations Command is excluded from our review, because, according to DOD acquisition officials, the Command is one of nine unified commands in the military's combatant command structure. We included the Defense Contract Audit Agency (DCAA) because it is responsible for accounting and financial advisory services in connection with negotiating, administering, and settling contracts and subcontracts.



# Civilian Workforce Profile of DOD Acquisition Organizations

**Figure II.1: Comparison of Trends in Civilian Workforce in Acquisition Organizations to Obligational Authority** (Workforce in Thousands, Obligational Authority Dollars in Billions)

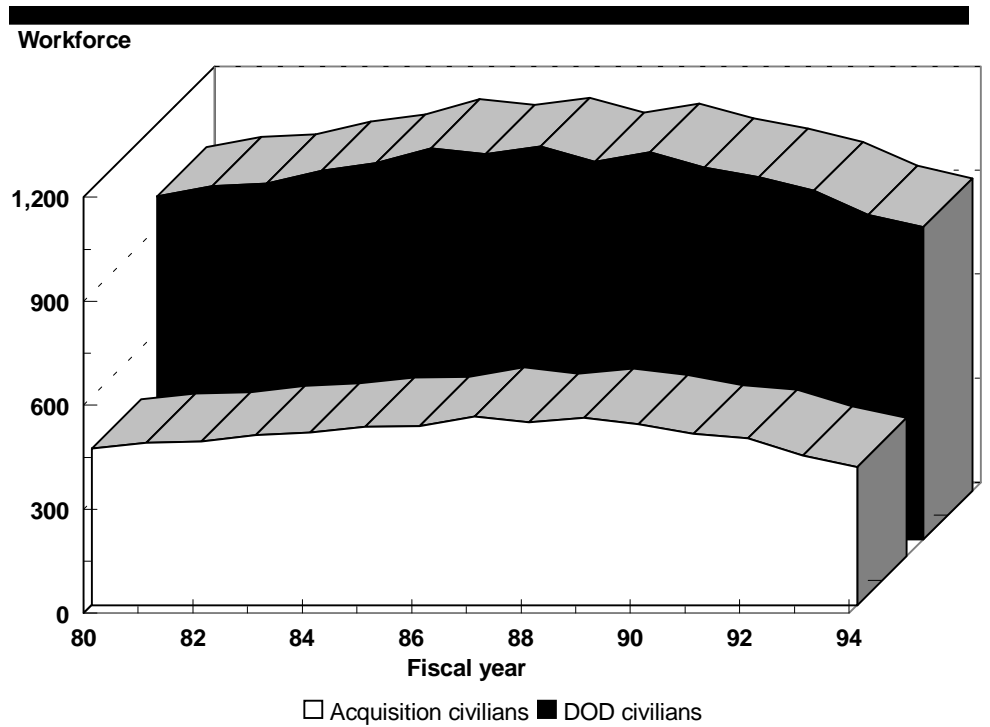


The civilian workforce in DOD’s acquisition organizations increased with the defense buildup of the early 1980s and decreased with the downsizing (measured in obligational authority) beginning in the mid-1980s.<sup>1</sup> Overall, DOD’s 1994 civilian acquisition workforce was about 12 percent smaller than in 1980 or about 53,000 fewer employees.

<sup>1</sup>We used DOD’s obligational authority to measure the defense budget trends. Obligational authority includes research, development, test, and evaluation; operations and maintenance; and procurement.

Appendix II  
Civilian Workforce Profile of DOD  
Acquisition Organizations

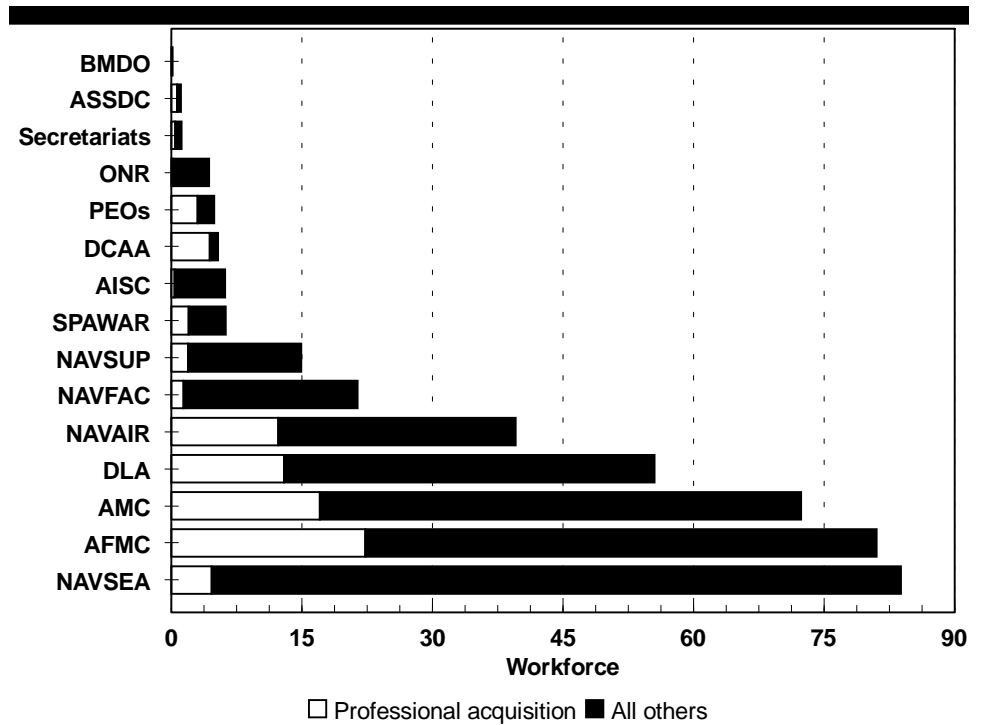
Figure II.2: DOD Total Civilian Workforce Compared With Civilian Workforce in DOD Acquisition Organizations (Workforce in Thousands)



DOD's civilian workforce in the acquisition organizations averaged about 47 percent of DOD's total civilian workforce from 1980 through 1994.

Appendix II  
 Civilian Workforce Profile of DOD  
 Acquisition Organizations

Figure II.3: Professional Acquisition Workforce and Other Civilians in Acquisition Organizations, Fiscal Year 1994 (Workforce in Thousands)<sup>a</sup>

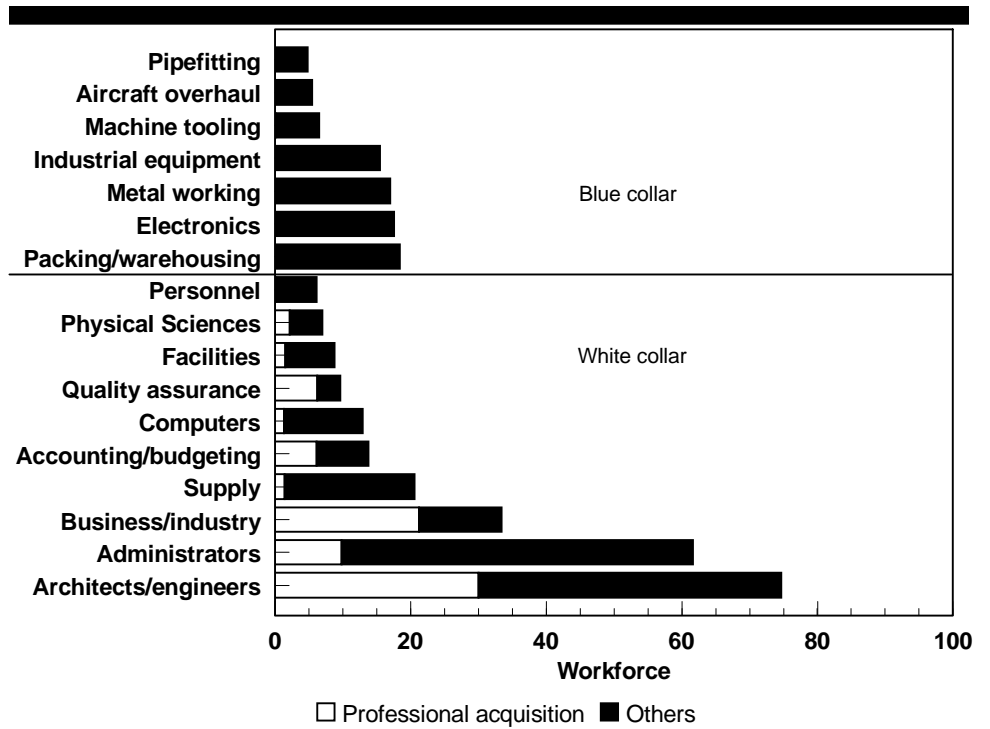


<sup>a</sup>Secretariats include: Office of the Under Secretary of Defense (Acquisition and Technology); Office of the Assistant Secretary of the Navy (Research, Development, and Acquisition); Office of the Assistant Secretary of the Air Force (Acquisition); and the following two organizations due to their relatively small size, the Marine Corps Research, Development, and Acquisition Command and the Navy Strategic Systems Program Office.

The Defense Acquisition Work Force Improvement Act of 1990 (P.L. 101-510, title XII) required the Secretary of Defense to designate professional acquisition personnel for each of the military departments. About 20 percent of the workforce in defense acquisition organizations has been designated the professional acquisition workforce.

**Appendix II  
Civilian Workforce Profile of DOD  
Acquisition Organizations**

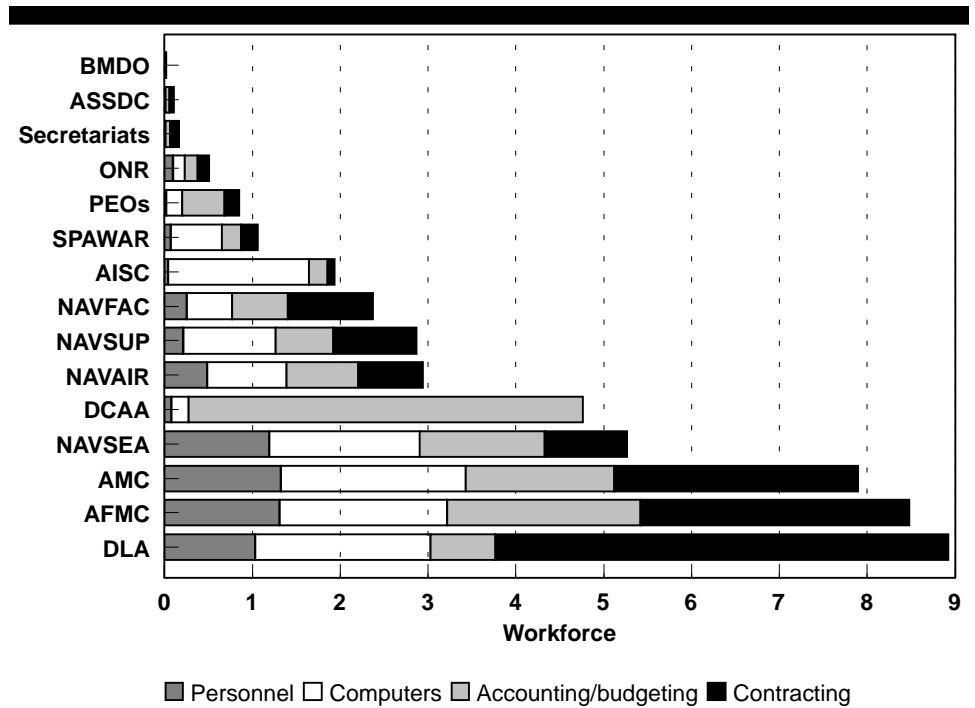
**Figure II.4: Selected Occupational Fields in Acquisition Organizations, Fiscal Year 1994** (Workforce in Thousands)



The occupational groups in the professional acquisition corps consist mainly of engineering and architecture, general administration, business and industry (contracting officers), supply, accounting and budgeting, and computer specialization. Occupations excluded from the professional corps include blue collar workers, such as packing and warehouse personnel, electronic technicians, metal workers, and industrial equipment maintenance workers.

Appendix II  
 Civilian Workforce Profile of DOD  
 Acquisition Organizations

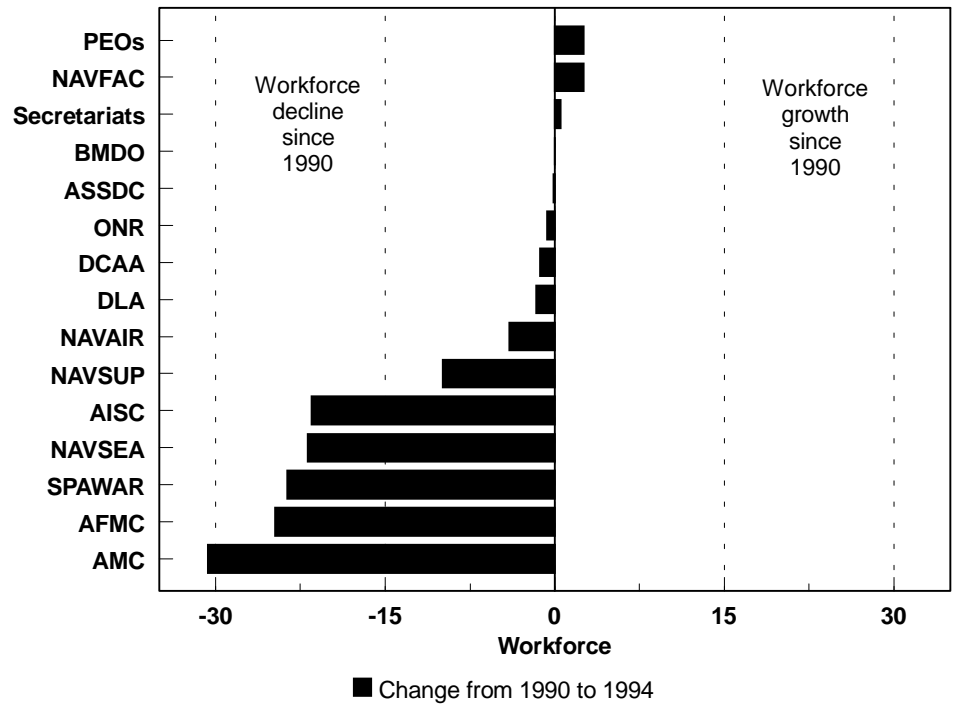
Figure II.5: Selected Occupational Fields in Acquisition Organizations, Fiscal Year 1994 (Workforce in Thousands)



Almost all these acquisition organizations have employees in at least the following occupational groups: personnel management, computer specialist, accounting and budgeting, and contracting. These occupations generally do not fulfill the agencies' primary mission, except that employees in accounting do carry out the basic functions of DCAA.

Appendix II  
 Civilian Workforce Profile of DOD  
 Acquisition Organizations

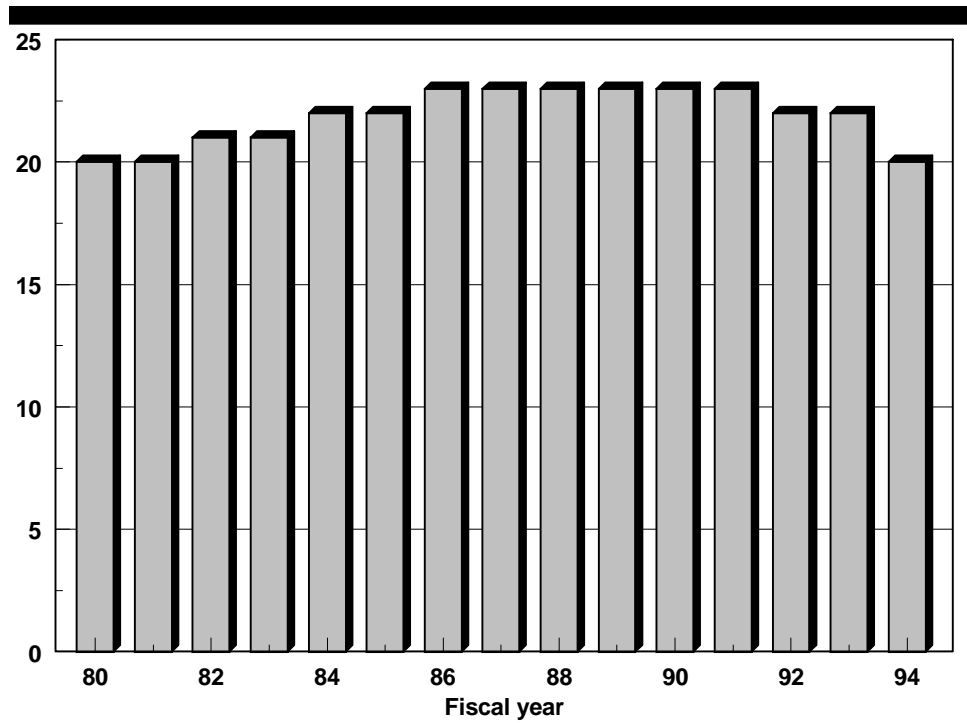
**Figure II.6: Extent of Changes in Work Force of Acquisition Organizations**  
 (Workforce in Thousands)



Many acquisition organizations experienced a reduction in their staffs from 1990 to 1994. Despite an overall decline in staff, the acquisition organizations listed in figure II.6 continue to exist.

Appendix II  
Civilian Workforce Profile of DOD  
Acquisition Organizations

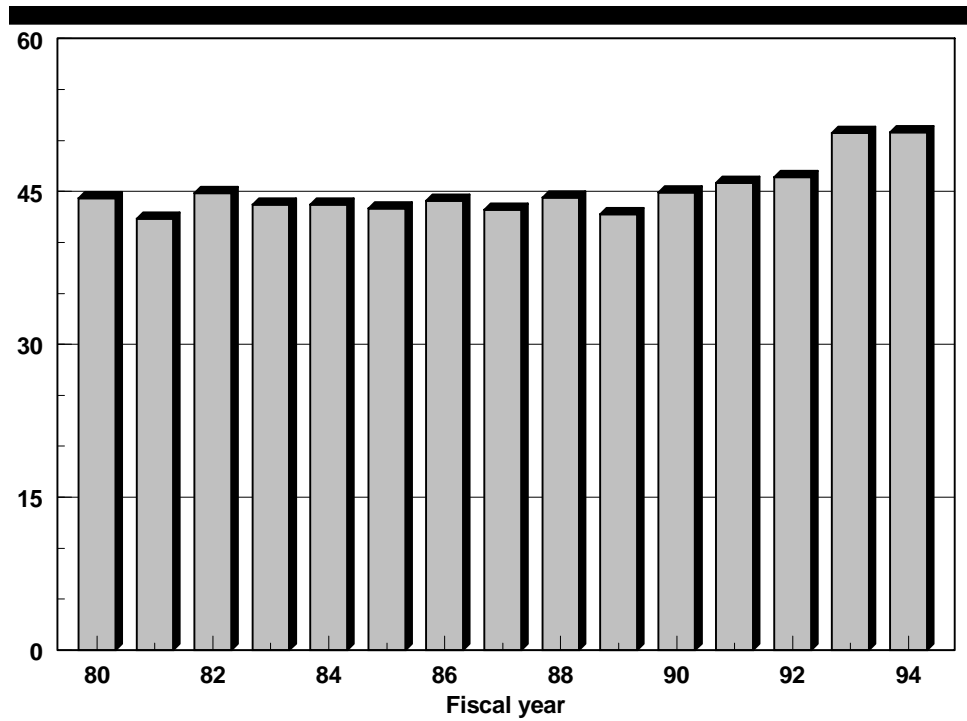
Figure II.7: Civilian Payroll for Acquisition Organizations (Constant 1996 Dollars in Billions)



From 1980 through 1994, the average annual cost of the civilian workforce in the acquisition organizations was about \$22 billion, ranging from \$20 billion to \$23 billion. With the decline in the civilian workforce, average annual payroll costs returned to the 1980 level of about \$20 billion, measured in 1996 constant dollars.

Appendix II  
Civilian Workforce Profile of DOD  
Acquisition Organizations

Figure II.8: Per Capita Payroll for the Civilian Workforce in Acquisition Organizations (Constant 1996 Dollars in Billions)

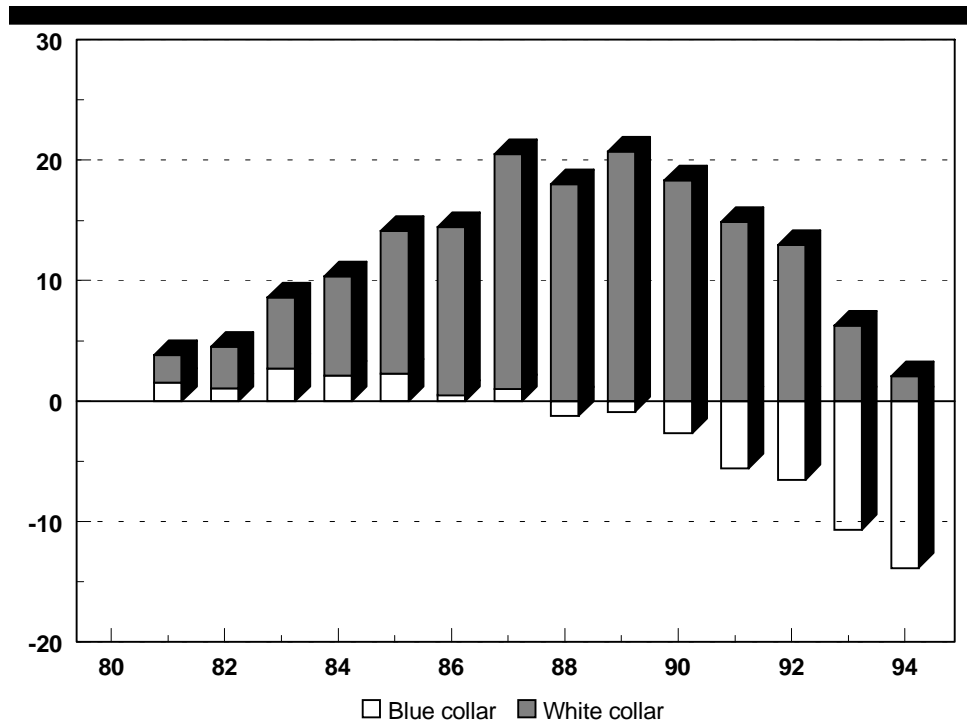


In 1980, the per capita salary averaged \$44,000, whereas, in 1994, the per capita salary averaged \$51,000 in constant dollars.



Appendix II  
 Civilian Workforce Profile of DOD  
 Acquisition Organizations

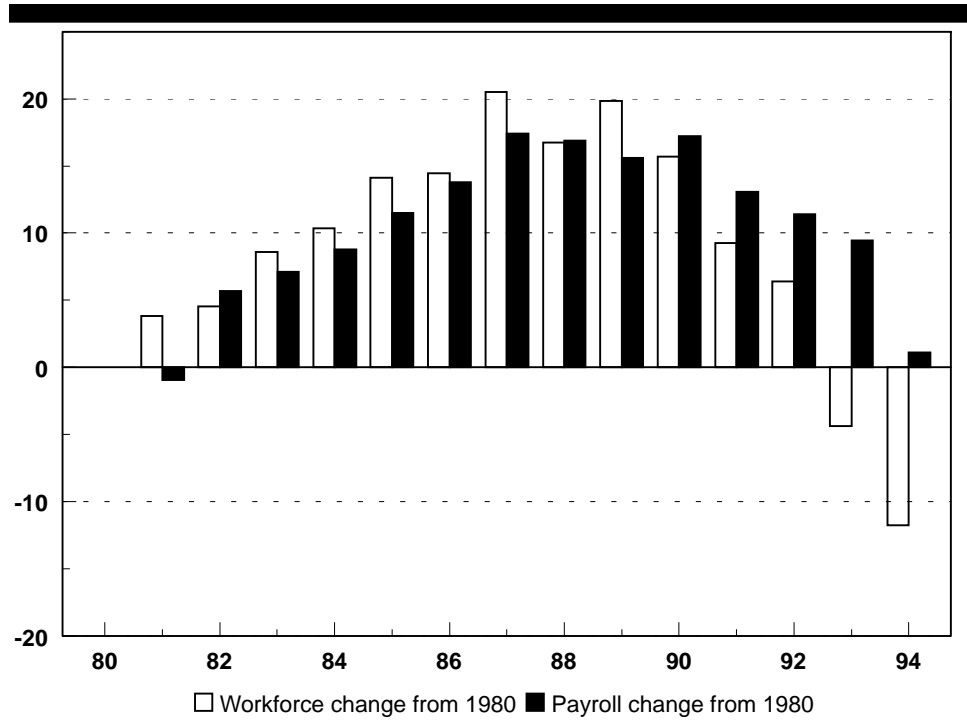
**Figure II.9: Percentage Change in White Collar and Blue Collar Civilian Workforce in Acquisition Organizations** (Percentage Change From 1980)



Comparison of the 1980 and 1994 civilian workforce shows a reduction in blue collar employees. There are over 62,000 fewer blue collar workers and over 9,000 more white collar workers in 1994 than there were in 1980.

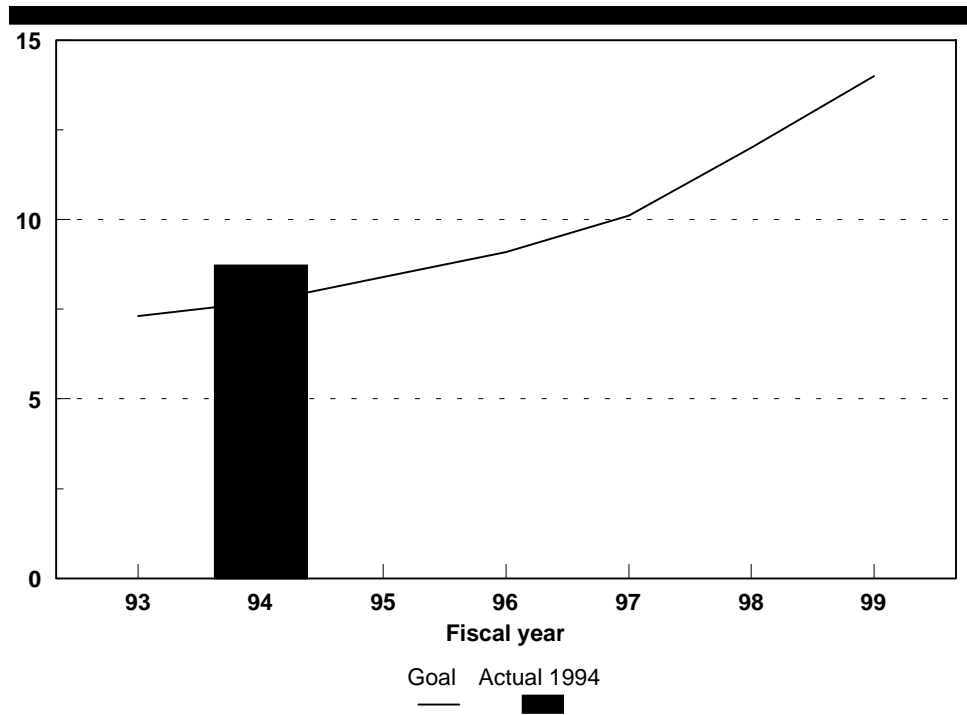
Appendix II  
 Civilian Workforce Profile of DOD  
 Acquisition Organizations

**Figure II.10: Percentage Change From 1980 of Civilian Workforce and Payroll in Acquisition Organizations**  
 (Percentage Change From 1980)



The 1994 civilian workforce was about 12 percent below the 1980 level without a commensurate reduction in payroll. From 1982 to 1992, the workforce and payroll moved commensurately; however, in 1993 and 1994, the workforce decreased without a commensurate reduction in overall payroll.

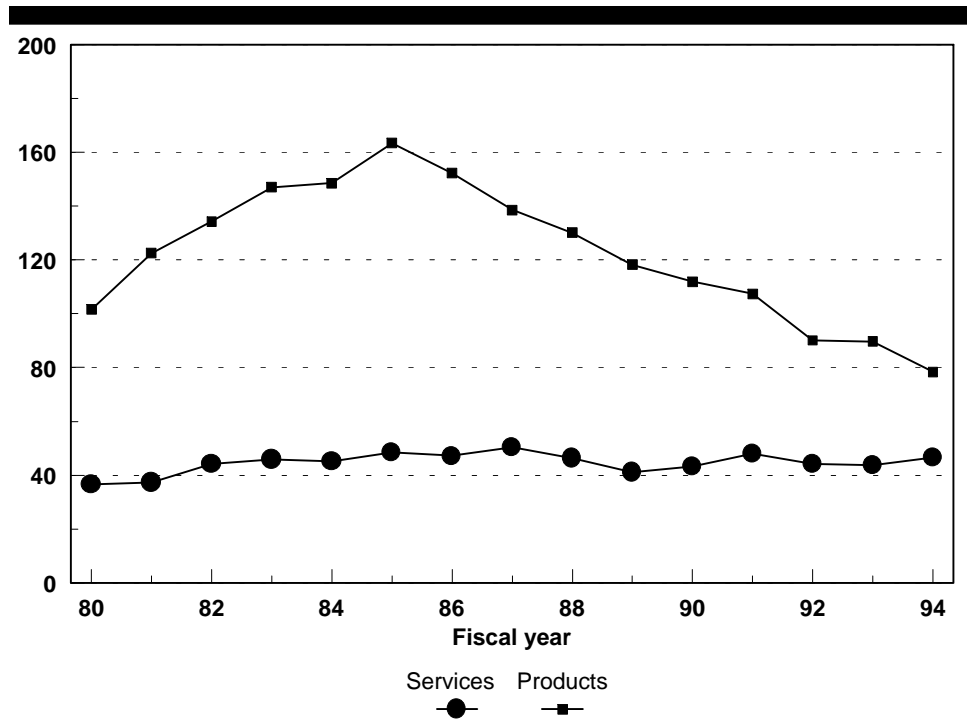
Figure II.11: DOD's Streamlining Goals for Civilian Supervisory Ratios (Employees Per Supervisor)



The acquisition organizations had about 41,000 supervisors, or 1 for every 9 staff members in 1994. Thus, they exceeded the 1994 goal of one supervisor for every seven staff members reported in DOD's Defense Streamlining Plan, dated October 1994. DOD expects workforce savings to occur by improving supervisory ratios to 1 supervisor for every 14 staff members by 1999. While DOD has eliminated about 5,700 supervisors since 1980, its nonsupervisory high-grade personnel has increased about 11,000. If DOD continues to decrease the number of supervisors, but increase the number of nonsupervisory high-grade employees, it may achieve its supervisory ratio goals, but may not sufficiently reduce the acquisition infrastructure.

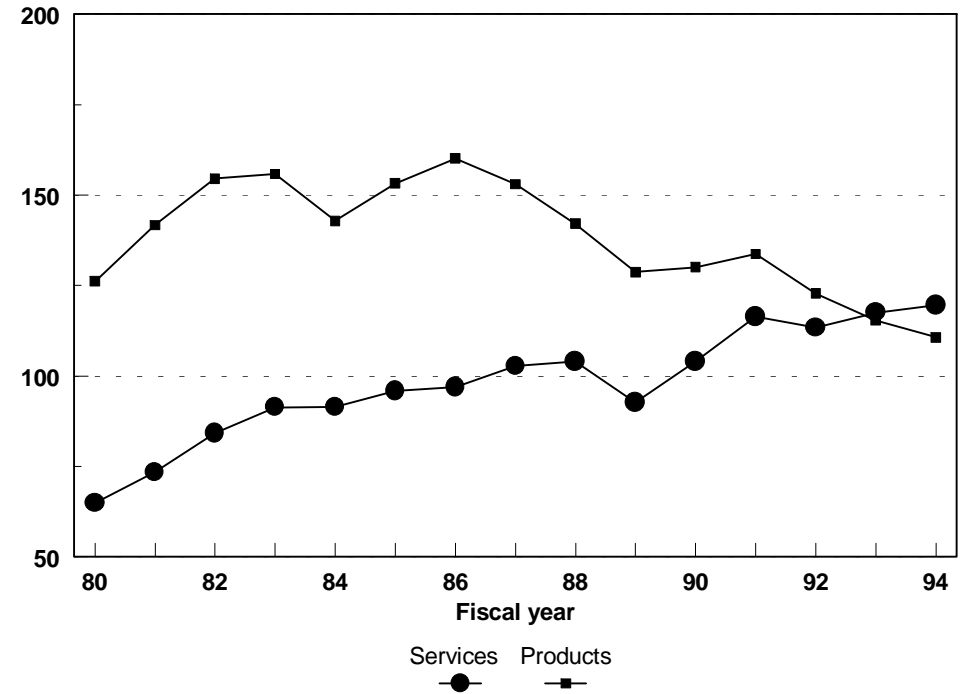
Appendix II  
Civilian Workforce Profile of DOD  
Acquisition Organizations

Figure II.12: DOD Contract Dollars for Products Versus Services (Constant 1996 Dollars in Billions)



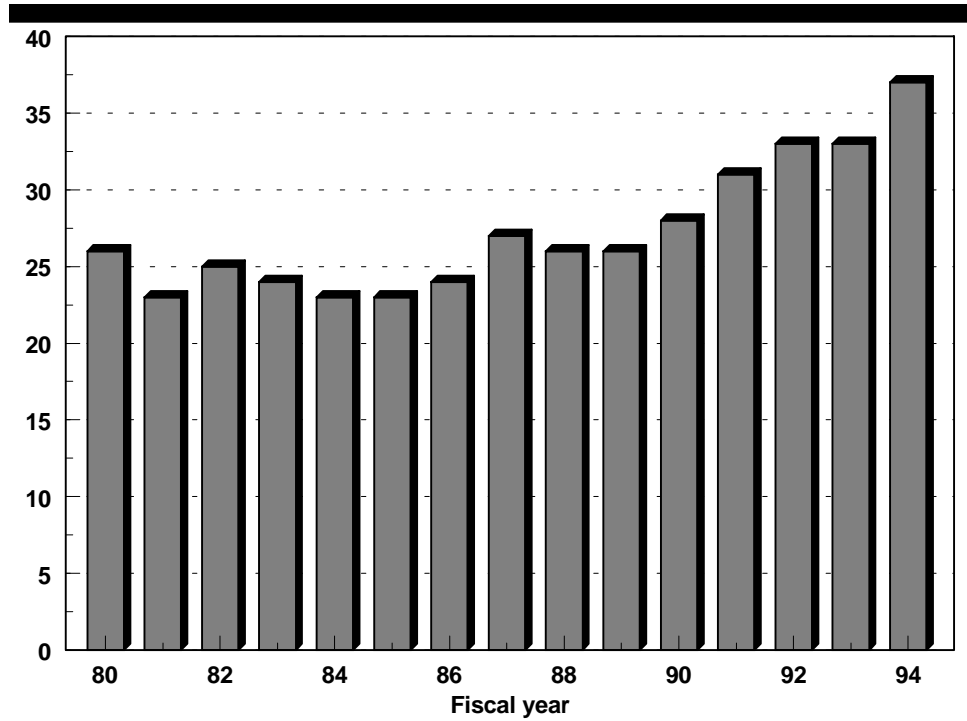
In 1994, defense contract awards for services increased almost \$10 billion (measured in constant 1996 dollars) over the 1980 level, while defense contract awards for products decreased about \$23 billion from the 1980 level and decreased about \$74 billion from the 1985 peak.

Figure II.13: DOD Contract Actions for Products Versus Services (Contract Actions in Thousands)



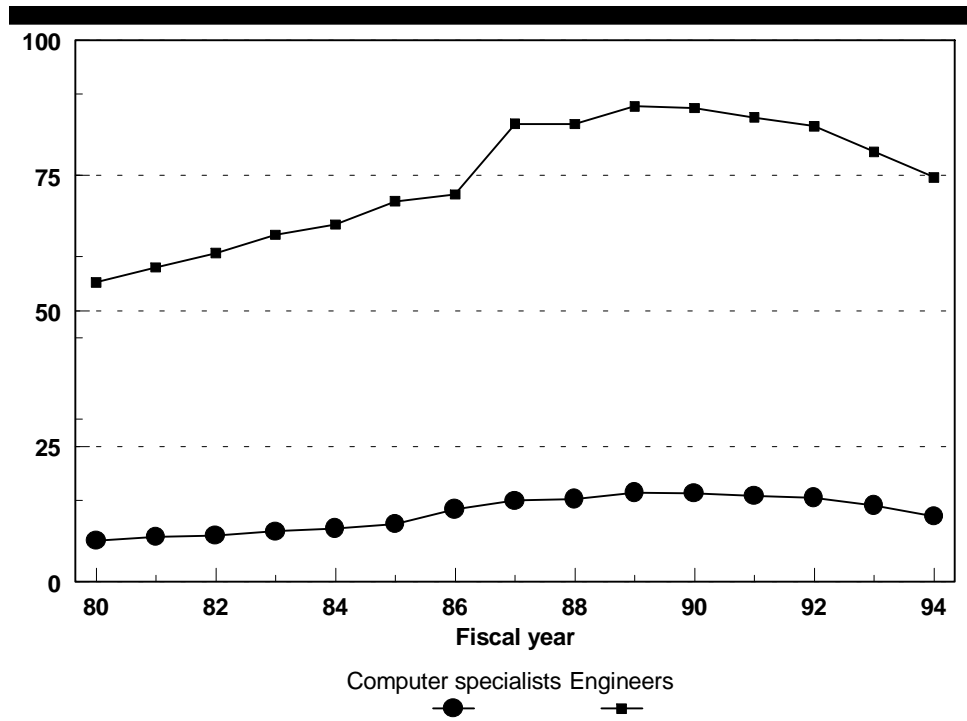
The number of contract actions for services exceeded the number of contract actions for products in 1994. The number of contract actions for services in 1994 was almost 120,000, whereas in 1980 the number of contract actions for services was about 65,000.

Figure II.14: Contracts for Services as a Percentage of Total DOD Contract Dollars



Of DOD contract awards above \$25,000, the dollar amounts of contract awards for services in 1994 increased to 37 percent from the 1980 level of 27 percent.

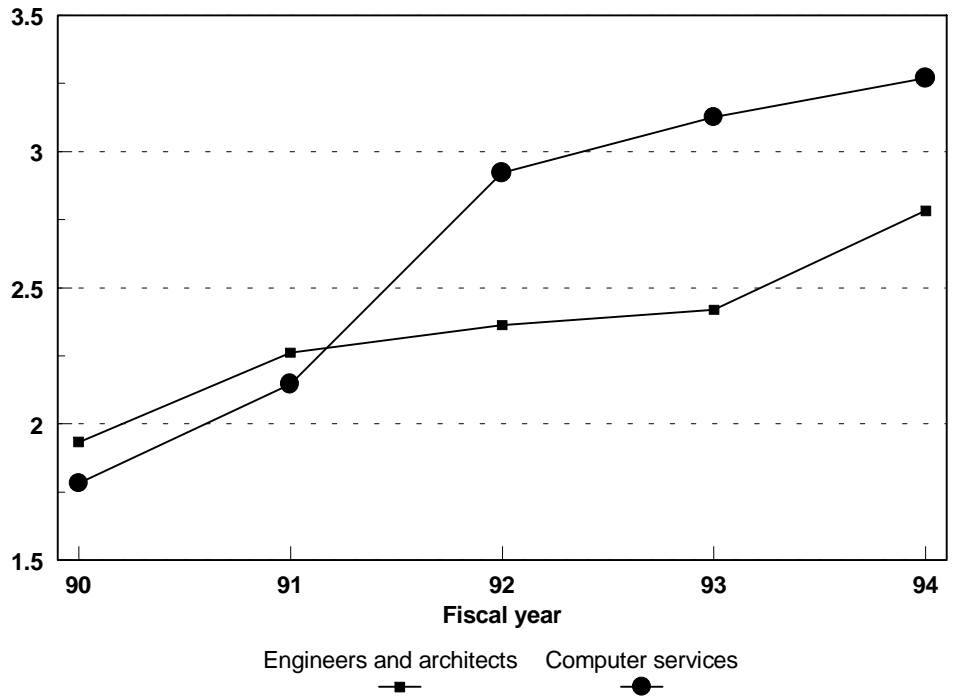
Figure II.15: Number of Engineers and Computer Specialists Declined in Acquisition Organizations (Workforce in Thousands)



Since 1990, the number of in-house engineers and computer specialists declined in the acquisition organizations—two occupational groups in the professional acquisition corps. Although in-house engineers and computer specialists increased from 1980 to 1990, since 1990 there has been a decline, namely computer specialists decreased from 16,000 to about 12,000 and engineers decreased from about 87,000 to about 75,000.

Appendix II  
Civilian Workforce Profile of DOD  
Acquisition Organizations

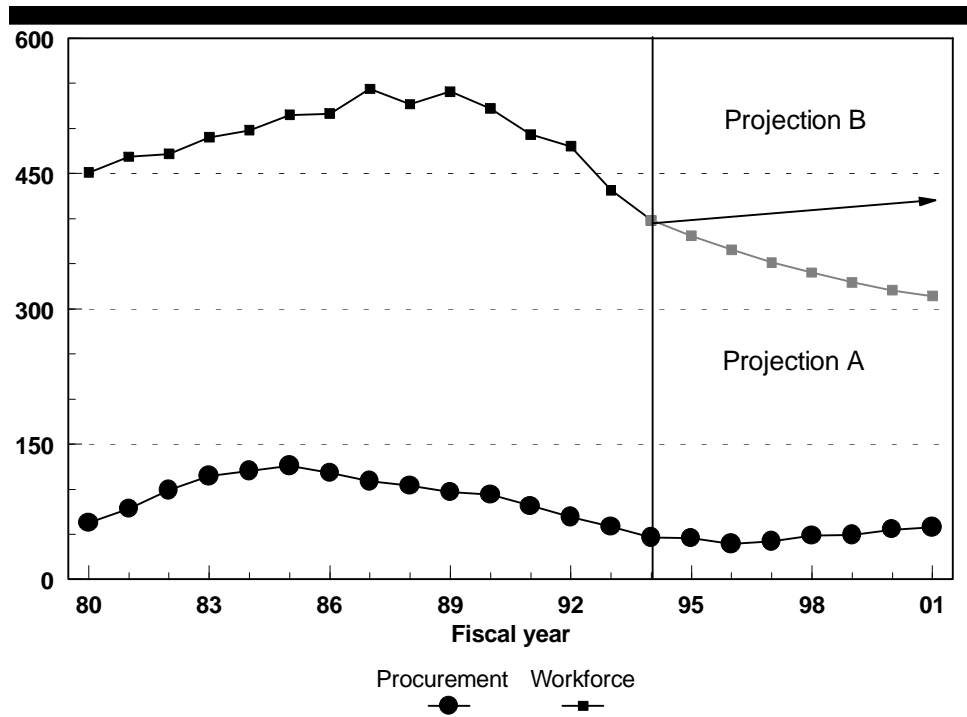
Figure II.16: DOD Contracts for  
Engineering/Architectural and  
Computer Services (Constant 1996  
Dollars in Billions)



Contracts for engineering/architectural and computer services—two occupational groups in the acquisition organizations—increased from 1990 to 1994. This raises the question about whether savings from staff reductions from 1990 to 1994 were offset by increases in contract awards for services.



**Figure II.17: Comparison of Civilian Workforce in Acquisition Organizations to Procurement Budget**  
 (Procurement Dollars in Billions;  
 Workforce in Thousands)



As shown in figure I.1, Comparison of Trends in Civilian Workforce in Acquisition Organizations to Obligational Authority, the civilian workforce in the acquisition organizations increased with the defense buildup of the early 1980s and declined with the downsizing beginning in the late 1980s. In August 1994, DOD prepared an estimate that the workforce will decrease through 2001. More recently, DOD officials stated that it is possible that the workforce will increase as it has in the past with the expected increase in the defense procurement budget contained in DOD's Future Year Defense Plan.

# Comments From the Department of Defense



ACQUISITION AND  
TECHNOLOGY

## OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON  
WASHINGTON DC 20301-3000



17 OCT 1995

Mr. David E. Cooper, Director  
Acquisition Policy, Technology, and Competitiveness Issues  
National Security and International Affairs Division  
U.S. General Accounting Office  
Washington, DC 20548

Dear Mr. Cooper:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, 'DEFENSE ACQUISITION ORGANIZATIONS: Data on Changes in Civilian Workforce and Personnel Costs,' dated September 22, 1995 (GAO Code 705109/OSD Case 1026). Within the context of the following comments the Department of Defense concurs with the report.

While the DoD generally concurs with the information contained in the report, several comments are offered to provide perspective and clarification. The report examines fourteen DoD organizations that have acquisition in their missions, some that are large buying commands and some small. In addition to system acquisition and procurement, these same organizations have other significant roles and related responsibilities, including

- Sustainment
- Logistics
- Maintenance
- Supply
- Operational support
- Research, exploratory and advanced development
- Security assistance and foreign military sales.

Analytically, the results reflect the combination of many missions in addition to acquisition. With the addition of the Defense Contract Audit Agency to the acquisition organizations studied, generalizations about the workforce may not be applicable to this agency and its unique mission, which the report acknowledges.

It should also be recognized that over the fifteen-year period covered by this report there have been many trends that were not assessed directly, and there were many dynamics at work, which may contribute to the reader's understanding of the results. Examples include the following:

- Privatization -- Between 1980 and 1995 there was a decrease in civilian employment internal to DoD acquisition organizations and an *increase* in defense-related employment in industry of 350,000 jobs (+18%), i.e. a net shift of work to the private sector.



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**Appendix III**  
**Comments From the Department of Defense**

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- Workload -- Reductions in work normally performed by blue-collar employees and infrastructure reductions such as can accompany base closures are particularly evident in functions related to sustainment of the operational forces. Conversely, trends such as privatization can increase workload for white-collar segments of the workforce, and organizational realignments can shift workload within and among organizations. The analysis did not measure workload directly, and reported measures may correlate well or poorly with actual workload; the number and value of contract actions, for example, would subsume individual actions of greatly varied workload and personnel demands.
- Technology -- Many engineering, computer-science and other technical jobs are being done for the DoD in the private sector now, some of which did not even exist in 1980.
- Operational Needs -- Systems being acquired now are more information-intensive, and less emphasis is placed on developing new platforms.
- Personnel System Dynamics -- Per-capita pay has been affected by many factors, such as the advent of locality pay and changes in grade structure and payroll costs resulting from downsizing policies.

The DoD appreciates the opportunity to comment on the GAO draft report.

Sincerely,



Colleen A. Preston  
Deputy Under Secretary of Defense  
(Acquisition Reform)

# Major Contributors to This Report

---

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