

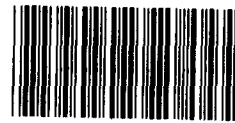
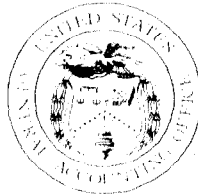
GAO

Report to the Chairman, Subcommittee
on Defense, Committee on
Appropriations, House of
Representatives

May 1991

NAVY OFFICE SPACE

Issues on Relocating Selected Commands From the Washington, D.C., Area



144132

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National Security and
International Affairs Division

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May 17, 1991

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives

Dear Mr. Chairman:

As you requested, we reviewed issues related to relocating selected Navy commands from the Washington, D.C., area. We considered selected factors relating to the commands' operations, costs to the government, and employees' quality of life. The relevance of these factors is illustrated with data for 14 metropolitan areas.

As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of this letter. At that time, we will send copies to the Chairmen, Senate and House Committees on Appropriations and on Armed Services, Senate Committee on Governmental Affairs, and House Committee on Government Operations; the Director of the Office of Management and Budget; the Secretaries of Defense and the Navy; and the Administrator of the General Services Administration. Copies will also be made available to others on request.

Please contact me on (202) 275-6504 if you or your staff have any questions. Major contributors to this report are listed in appendix III.

Sincerely yours,

Martin M Ferber
Director, Navy Issues

Executive Summary

Purpose

Concerned about cost effectiveness, Congress has raised questions about the desirability of having so many Navy personnel in the Washington, D.C., metropolitan area. Accordingly, the Subcommittee on Defense, House Committee on Appropriations, requested that GAO review issues related to relocating selected Navy commands from the area.

GAO presents information on relocating the selected Navy commands; however, GAO did not evaluate whether or not the Navy should move these commands from the Washington area. For illustrative purposes, GAO selected 13 other metropolitan areas for comparison with the Washington area. GAO did not address the potential impacts of any relocations on these selected areas.

GAO's report addresses (1) possible impacts of relocation on the commands' operations, (2) factors relating to costs to the government for selected alternatives, and (3) factors relating to quality of life for employees.

Background

Because the Department of the Navy's offices are highly centralized in the Washington area, the Navy has more personnel in the area than the Army and the Air Force. In addition to the Department's headquarters, many Navy shore commands are also located in the Washington area. They include the five Naval Systems Commands, the Naval Military Personnel Command, and the Navy Recruiting Command. The Army and the Air Force have eight commands that are responsible for similar functions, and four of these are located outside of the Washington area.

The Navy has no plans to move the commands that GAO reviewed from the Washington area. However, it is pursuing a move within the Northern Virginia suburbs of Washington, D.C., to further consolidate its Systems Commands' headquarters and related organizations. The Navy wants to procure government-owned facilities to avoid the increasing costs of leasing office space.

Results in Brief

GAO's analysis of the relocation of the Navy commands from the Washington area showed both advantages and disadvantages. If a move from the area were proposed, the Navy could perform a more detailed study for specific relocation sites. Concerning the metropolitan areas covered, GAO's analysis showed:

- Many of the identified factors relating to the commands' operations appeared to be disadvantages of relocating from the Washington area.
- Many of the selected areas showed advantages for purchasing and leasing facilities when compared with the Washington, D.C., area. However, most of the other estimated costs appeared to be disadvantages of relocating. Because GAO did not quantify some of the costs or project all of them over 30 years, GAO did not identify the least costly areas.
- Quality of life factors that GAO considered suggested that the costs of living in the Washington area were high compared to those of the other selected areas. However, GAO did not determine which areas the Navy employees would consider most desirable because they would value the factors differently, based on their individual preferences and income levels.

GAO's Analysis

Impact on Commands' Operations

During GAO's visits to the Navy commands and the four corresponding Army and Air Force commands located outside of the Washington, D.C., area, the following factors relating to the commands' operations were identified:

- Disruption of operations and the loss of civilian personnel who choose not to relocate would result in a temporary loss of productivity for the commands.
- Moving to a location on or near a military installation would probably be beneficial because common support activities, such as finance and personnel offices, would already be available. Also, the commands' military personnel could better utilize their benefits, such as military family housing, commissaries and exchanges, and defense medical facilities.
- It could be more difficult to coordinate issues with the Navy's headquarters (Secretary's office and Chief of Naval Operation's staff) if the commands were relocated. A small liaison office for the commands in the Washington area might be desirable to facilitate coordination.
- Travel by the commands' personnel would probably increase because trips to the Washington area would be necessary. Access to major airports would be beneficial to efficiently accomplish these trips.
- Recent changes in the defense acquisition organization have made some senior Navy acquisition officials directly responsible to the Secretary of the Navy's office. This arrangement could impact on any relocation because of the need for increased interaction with the Secretary's office.

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- The Navy commands' practice of having some officials perform additional duties for the Chief of Naval Operation's office (known as "dual hatting") would probably not be practical if the commands were relocated.

Costs to the Government

GAO estimated some cost factors of relocating to 13 selected metropolitan areas and within the Washington area. Specific sites within the areas were not considered.

For the purpose of comparison, the present values of building construction, leasing, and related costs were estimated over a 30-year period, using a General Services Administration computer program. GAO's analysis showed that potential exists for purchase or lease cost savings for buildings in many of the areas outside of Washington. Costs related to building construction must be funded largely in the earlier years of the 30-year period. In contrast, costs related to leasing were more evenly distributed over this period.

Relocation from the Washington area would result in moving costs and changes in operating costs. Moving costs would be nonrecurring and would need to be funded near the time of the relocation. GAO estimated current costs for the Washington area and the other 13 areas for moving office furnishings and materials; relocating civilian personnel; traveling to the Washington area; and providing military variable housing allowances. In addition, GAO examined other cost factors that should be considered for a relocation, such as personnel separations and changes in mail and telecommunications.

Living Costs and Amenities

GAO obtained data to illustrate the impact of relocation on selected quality of life factors for the commands' personnel for the Washington area and the 13 other areas.

GAO considered five factors to illustrate relative living costs. Housing costs, including home prices and monthly rents, vary greatly. However, housing costs reflect various influences, including the desirability of the areas' amenities. Significant differences also exist for the other living costs, including state and local taxes, food, health care, and child care.

To illustrate amenities, GAO considered job availability, education, transportation, public safety, and climate. GAO's indicators show variations among the amenities for the selected areas. Quality of life measurement

is very subjective because the factors are not equally important to different people.

Recommendations

GAO is not making recommendations in this report.

Agency Comments

The Department of Defense concurred with GAO's findings in this report and provided technical changes. (See app. I.) The General Services Administration also provided comments and suggestions on GAO's analysis of building construction, leasing, and related costs. (See app. II.) Their comments have been incorporated in the report as appropriate.

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Abbreviations

DOD	Department of Defense
GAO	General Accounting Office
GSA	General Services Administration

Introduction

Navy offices are highly centralized in the Washington, D.C., metropolitan area in more than 4.6 million square feet of administrative office space. In addition to the Navy Department's headquarters, many of its major shore commands are in the area. Of the 16 Navy major shore commands, only the Naval Education and Training Command, the Naval Oceanography Command, and the Naval Space Command are outside of the area.

The Navy has more personnel in the Washington area than the Army or the Air Force. The Navy (excluding the Marine Corps, which is part of the Navy Department) had about 52,000 personnel authorized in the area at the end of fiscal year 1989. By comparison, the Army had about 45,000, while the Air Force, with about 13,000, is the most decentralized. The Air Force's major commands are all outside of the area, except the Air Force Systems Command headquarters, which will relocate from the area by 1992.

Congress is concerned about the high cost of office space, the employees' cost of living, and the employees' quality of life in the Washington area. Because of these concerns, Congress has questioned the desirability of having so many Navy personnel located in the area.

In September 1990, we issued a report¹ on facilities location policy. In that report, we concluded that (1) a more consistent and cost-conscious federal location policy was warranted; (2) agencies should be required to maximize competition and to select sites that offer the best overall value, considering such factors as real estate and labor costs; and (3) agencies should more systematically consider incentives offered by localities to attract employers and advancements in telecommunications technology in making location decisions.

Navy Commands

The commands we reviewed included the five Naval Systems Commands, the Naval Military Personnel Command, and the Navy Recruiting Command. These commands (or their predecessor organizations) have been in the Washington, D.C., area for many years. They are now located primarily in leased space in the Northern Virginia suburbs, near the Navy's headquarters in the Pentagon. Most of the Systems Commands moved to Crystal City in Arlington, Virginia, from Washington, D.C., when the buildings they occupied were demolished in 1970.

¹Facilities Location Policy: GSA Should Propose a More Consistent and Businesslike Approach (GAO/GGD-90-109, Sept. 28, 1990).

The General Services Administration (GSA), as the agent for the Department of Defense (DOD), pays building owners from \$4.00 to \$30.45 a square foot per month on leases for most of the commands' office space. This range of lease rates reflects the quality of the buildings and the age of the leases. The Navy, through DOD, pays a rent charge to GSA for the office space that it occupies.

Many of GSA's long-term leases for Navy office space in Northern Virginia have expired or will expire soon. These leases will be renewed at market rates that are often higher than the present lease rates. As a result, GSA expects that its costs for leasing these buildings will increase substantially. For example, the annual cost for leases for the Systems Commands' buildings is estimated to be \$57.2 million in 1991 and is expected to rise to \$75.9 million in 1995.

The Systems Commands (Naval Sea Systems Command, Naval Air Systems Command, Space and Naval Warfare Systems Command, Naval Supply Systems Command, and Naval Facilities Engineering Command) and related and support organizations are in leased space in 20 buildings located in Arlington and Alexandria, Virginia. The Naval Military Personnel Command is located primarily in government-owned Federal Office Building 2 and some leased space in Arlington, Virginia, as well as in several government-owned buildings in the Washington Navy Yard and in Anacostia within Washington, D.C. The Navy Recruiting Command occupies leased space in three buildings in Arlington, Virginia.

The Systems Commands' headquarters have many professional civilian employees, such as engineers, while the Military Personnel and Recruiting Commands have a higher proportion of military, including enlisted, personnel. At the time of our review, the Systems Commands' headquarters employed 10,695 civilian and 1,671 military personnel, the Personnel Command employed 1,216 civilian and 1,625 military personnel, and the Recruiting Command headquarters employed 140 civilian and 182 military personnel.

Proposed Local Move for Systems Commands

The Navy has no plans to move the commands that we reviewed from the Washington area. The Navy believes it has evolved as an integrated agency in the area and moving it would be largely an all-or-none proposition. However, the Navy is pursuing a move to consolidate its Systems Commands' headquarters and related organizations within the Northern Virginia suburbs of Washington, D.C.

The Navy believes it is a "platform-oriented" service (ships are the "platforms"), and this involves continuous coordination between the Systems Commands to provide integrated ships, weapons systems, and electronics. The Navy views its Systems Commands as management headquarters, which require daily interaction with the Secretary of the Navy's office and the Chief of Naval Operation's staff in the Washington area.

The Navy wants to move locally to government-owned buildings to (1) avoid the increasing costs of leasing office space, (2) further consolidate these commands that are now spread across many buildings, and (3) alleviate overcrowding and inadequate conditions in some of the buildings. In 1989, GSA initiated a competitive procurement for consolidated office space in the Northern Virginia suburbs of Washington, D.C. This procurement was then modified to provide for acquiring the office space in phases. In March 1991, GSA terminated the bidding process in favor of a new plan.

At the request of Congress, the Navy prepared a study in 1989 in conjunction with Battelle, a private consulting firm. The study estimated the costs of relocating the Systems Commands and their support organizations within the Washington area and to six other metropolitan areas. It estimated the costs of construction, relocation, and various operations over a 30-year period. The study concluded that the area would be the least costly of the alternatives considered.

In February 1990, in response to a congressional inquiry, the Secretary of the Navy asked his Inspector General to assess the reasonableness of the study's conclusion. The Naval Inspector General determined that the difference between the costs of relocating within the Washington area and the other areas may have been overstated. Despite this, he found that the conclusion of the study was valid.

In June 1990, we issued a fact sheet² on the Navy's proposed consolidation of its Systems Commands in Northern Virginia. It provides information on the locations of the Systems Commands, the status of leases for their buildings, and the status of efforts to negotiate a new lease for the consolidation.

²Navy Office Space: Consolidating Space in Northern Virginia for the Five Systems Commands (GAO/IGD-90-39FS, June 28, 1990).

Moving the Systems Commands would be a major undertaking because of their large size. These commands now occupy about 2.25 million square feet of office space in parts of 20 large, high-rise office buildings. For comparison, the Pentagon, which is one of the world's largest office buildings, has about 3.7 million square feet of office space, or three times that of the Empire State building in New York.

Corresponding Commands and Functions

The Army and the Air Force have commands that are responsible for functions similar to those of the Navy commands we reviewed. These are explained below and shown in table 1.1.

The Naval Sea Systems Command, the Naval Air Systems Command, and the Space and Naval Warfare Command are responsible for developing, acquiring, and maintaining Navy and Marine Corps weapon systems. This includes responsibility for ships, aircraft, and communications and electronics systems throughout their life cycle, from development to retirement. The Naval Supply Systems Command provides a variety of material support for the Navy, including supplies and services. Each of these commands has a headquarters and various field organizations responsible to the headquarters.

The Army Materiel Command headquarters is responsible for many functions similar to those of the Navy Systems Commands, and it is located in the Northern Virginia suburbs of Washington, D.C. Two Air Force commands are currently responsible for similar functions. The Air Force Systems Command headquarters, located in the Washington area, is responsible for developing and acquiring aeronautical weapon systems. The Air Force Logistics Command headquarters, located at Wright-Patterson Air Force Base, Ohio, is responsible for providing support to operational weapon systems.

In January 1991, the Air Force announced that it will establish a new Air Force Materiel Command in July 1992 at Wright-Patterson Air Force Base, Ohio. The Air Force will integrate the functions of its current systems and logistics commands to create this new command. As a result, the Air Force Systems Command headquarters is scheduled to relocate from the Washington area (Andrews Air Force Base, Maryland) beginning in October 1991.

The Naval Facilities Engineering Command headquarters provides Navy and Marine Corps shore facilities and related technical and material support. For the Army, the Corps of Engineers is responsible for similar

functions, as well as civil public works projects. The Corps has its headquarters in Washington, D.C. The Air Force has no corresponding organization because either the Navy or the Army manages its facility construction projects.

The Naval Military Personnel Command provides for the distribution and the administration of military personnel, which includes assignments and promotions. The Total Army Personnel Command, located in the Northern Virginia suburbs of Washington, D.C., performs similar functions. The Air Force has its Military Personnel Center at Randolph Air Force Base, Texas.

The Navy Recruiting Command attracts and acquires military personnel for the Navy. It has a headquarters and a field structure that includes many recruiting stations. The Army has its Recruiting Command headquarters at Fort Sheridan, Illinois. The Air Force Recruiting Service headquarters is at Randolph Air Force Base, Texas, and it is a part of the Air Training Command, which also has its headquarters at Randolph.

Table 1.1: Functions and Commands by Service

Functions	Navy commands	Army commands	Air Force commands
Systems	Systems Commands	Materiel Command	Systems Command Logistics Command (Ohio)
Facilities	Facilities Engineering Command	Corps of Engineers	(none)
Personnel	Military Personnel Command	Total Army Personnel Command	Military Personnel Center (Texas)
Recruiting	Recruiting Command	Recruiting Command (Illinois)	Recruiting Service (Texas)

Objectives, Scope, and Methodology

We reviewed certain issues related to the relocation of selected Navy commands from the Washington metropolitan area. Specifically, our objectives were to (1) identify the possible impacts of relocation on the commands' operations, (2) describe factors relating to relative costs to the government for selected alternatives, and (3) describe some relative quality of life factors for employees.

Commands' Operations

To identify factors affecting the Navy commands' operations, we interviewed officials and obtained documentation on current office space and personnel, organizational structure and relationships, and potential impacts of any relocation. We reviewed the five Naval Systems Commands' headquarters (the Naval Sea Systems Command, the Naval Air Systems Command, the Space and Naval Warfare Systems Command, the Naval Supply Systems Command, and the Naval Facilities Engineering Command), the Naval Military Personnel Command, and the Navy Recruiting Command headquarters.

We visited the four corresponding commands of the Army and the Air Force located outside of the Washington area to determine the nature and extent of the commands' interaction with the headquarters of their military department in the Washington area. The four commands we visited were the Army Recruiting Command, Fort Sheridan, Illinois; the Air Force Military Personnel Center and the Air Force Recruiting Service, Randolph Air Force Base, Texas; and the Air Force Logistics Command, Wright-Patterson Air Force Base, Ohio.

Selection of Areas

For illustrative purposes, we selected 13 other metropolitan statistical areas³ for comparison with the Washington, D.C., metropolitan area: Boston, Massachusetts; Dallas, Texas; Detroit, Michigan; Kansas City, Missouri and Kansas; Miami-Hialeah, Florida; New Orleans, Louisiana; New York, New York; Pittsburgh, Pennsylvania; Portland, Oregon; Riverside-San Bernadino, California; Sacramento, California; St. Louis, Missouri and Illinois; and Salt Lake City-Ogden, Utah.

We selected metropolitan areas that (1) had over 1 million in population because we assumed that they would have the infrastructure, such as housing, to absorb the relocated personnel; (2) included no major Navy shore activities with over 500 personnel because of the requester's desire to consider decentralizing the Navy; and (3) had DOD installations that were planned for closure that could provide facilities for relocated commands. Also, to provide for more uniform geographical distribution, we chose at least one area from each of the 10 standard federal regions.

³Metropolitan statistical areas are defined by the Office of Management and Budget and include urban areas and adjacent suburban areas with a high degree of economic and social integration. For example, the Washington metropolitan area includes the city of Washington, D.C., and surrounding counties and nearby cities in Maryland and Virginia.

Costs to the Government

We compared some estimated cost factors for office space, relocation, and operations for the 13 selected areas to those of the Washington area. We identified these factors by reviewing past relocation studies and interviewing knowledgeable DOD officials. We used data representative of suburban locations within the areas, rather than specific sites. We examined the Navy's 1989 study of the costs for the relocation of the Systems Commands by determining its methodology and interviewing officials familiar with the study.

We estimated present value construction purchase and leasing costs for office space using a GSA computer program to estimate costs for proposed real estate projects. GSA officials reviewed our inputs and samples of our results.

For the costs of relocation and operations, we collected data from various governmental and private sector sources to estimate the differences between the Washington area and the other areas. We calculated these costs for the current year based on information from the Navy commands, such as the expected number of trips to the Washington, D.C., area if the commands were relocated. We did not project these costs over 30 years because we believed that they could change significantly over time.

Estimates of personnel-related relocation costs were based on the number of employees at the commands at the time of our review. Except for facilities costs, we did not estimate expenses for the Systems Commands' support and related organizations, which were included in the Navy's plan for the local consolidation. We were unable to estimate other potential costs, such as personnel separations and changes in productivity, due to the lack of appropriate data or the absence of generally accepted methodologies.

GSA's Computer Program for Facilities Costs

We estimated the present value for construction, leasing, and related costs using a GSA computer program, "the Automated Prospectus System", which uses various data inputs to generate a cost analysis. Many of the inputs were the same for both the purchase and lease analyses, while others were specific to the two alternatives.

Both our purchase and lease analyses required information on building size, taxes, insurance, and services and utilities. For each of the Navy commands, we assumed suburban high-rise office buildings similar to

the ones most of them now occupy. GSA provided us estimates for taxes, insurance, and building services and utilities for all 14 areas.

For the Systems Commands, we assumed a 3-million occupiable square foot facility based on GSA's April 1990 recommendation to Congress for construction of such a facility in the Washington area. It was based on a requirement for additional space to alleviate existing overcrowding and to provide for an increase of 3,160 employees over 5 years. For the Military Personnel and Recruiting Commands, we assumed facilities of about 500,000 and 60,000 occupiable square feet, respectively, based on current space requirements provided by these Commands.

For the purchase present value analysis, the GSA computer program uses costs for construction, building design and review, construction management and inspection, and land. For the Systems Commands, we used construction costs based on GSA's estimate for their proposed facility in Northern Virginia. For the Personnel and Recruiting Commands, we calculated construction cost estimates from space requirements provided by the commands and unit construction costs provided by GSA. We adjusted these estimated costs for each of the 13 other areas using GSA geographic indexes. GSA provided design and review as well as management and inspection costs, based on our construction cost estimates.

We did not include land costs in our purchase present value analysis. In its comments on this report, GSA suggested that excluding land costs from the analysis could render purchase comparisons among the selected areas invalid unless the land costs for the areas were approximately the same. However, our analysis is only intended to compare construction and related costs among the selected areas. We did not include land costs because they were extremely variable within and between metropolitan areas, and we did not consider specific sites. For example, prices for suburban land suitable for office space development in the Washington area ranged from \$6 to \$175 a square foot in 1988.

The lease present value analysis uses lease rates for each of the areas. GSA provided us with representative current rates for modern, high-quality office space in suburban locations. We assumed suburban areas because lease rates in central city locations were usually significantly higher. The GSA program compounds the lease rate at the assumed inflation rate, but adjusts it upward only at the end of specified lease terms. We used 5-year lease terms with renewals throughout the 30-year period.

In comments on this report, GSA indicated that neither GSA nor a lessor would enter into a 5-year lease for the significant amount of space required by the Navy. GSA used a 20-year lease term for the analysis performed in its April 1990 cost estimate for the Systems Commands. We used 5-year lease terms because GSA provided us with estimated short-term lease rates. Because we did not consider specific sites, we did not obtain estimates for 20-year lease terms, which would have to be negotiated for specific sites within each area and for each of the three building sizes. Since we used 5-year lease terms for each of the 14 areas, we believe that our leasing costs are realistic for comparison with each other.

Quality of Life

We obtained data to illustrate the impacts of location in alternative areas on selected quality of life factors for the commands' personnel. For the Washington area and the 13 other areas, we considered some living costs and amenities by selecting generally available indicators for each factor.

We selected these factors based on the views provided by officials at the Navy and other commands and a review of literature on quality of life and living cost measurement. Managers at the Navy Military Personnel Command, Space and Naval Warfare Systems Command, Naval Air Systems Command, and Army Materiel Command provided us with factors important to their employees. To the extent appropriate data were available, indicators are provided for the factors cited by the commands. We used data from a variety of governmental and private sources.

We also obtained the opinions of randomly selected employees at some of the commands we visited on their quality of life concerns. These included officers, enlisted personnel, and low-and high-income civilians. The employees were concerned about how moving to other areas would affect the living costs and amenities important to them.

Limitations on Measuring Quality of Life

In reviewing the literature, we became aware of limitations on measuring quality of life. Because of these limitations, we did not attempt to rank the areas we selected. The following are four general limitations on measuring quality of life:

- Quality of life rankings depend on the various factors included and the weights assigned to each of them. There is no agreed-upon methodology for defining the factors and weights for quality of life analyses. The

choice of specific factors to include is arbitrary, and using different factors can change the rankings. Similarly, changing any of the weights assigned to each of the factors when they are combined may change the rankings.

We compared two recent living cost rankings. While they used many of the same factors, some of them were different. In ranking the Washington area and the other 13 areas we selected, half were ranked the same by both. However, there were significant differences in rankings for several of the other areas. For example, one of the living cost rankings indicated that Dallas was the second least expensive area, whereas the other ranking had it as the ninth least expensive.

- Quality of life rankings are very subjective. A ranking of quality of life factors is based on the preferences of an “average” person. Any person would probably value the costs and amenities differently because they have different individual preferences and income levels. For example, an employee with children might value the availability of day care more than an employee without children.
- There is no suitable single index for measuring the cost of living across metropolitan areas. The Consumer Price Index, published by the Bureau of Labor Statistics, measures the change in prices over time for a fixed “market basket”, which is a group of goods and services. However, this index is not appropriate for comparison because the items and their weights in the “market basket” are not the same for all areas.
- There is significant variation in the amenities among neighborhoods within a metropolitan area. For example, public safety and education quality can vary widely among neighborhoods, limiting the usefulness of ranking areas. The data we provide in this report is for metropolitan statistical areas or cities and does not reflect these neighborhood variations.

Our review was performed between March 1990 and January 1991. Because much of the data in this report were obtained from nongovernmental sources, we were not able to independently verify the data or validate the systems from which they were generated. With this exception, our review was performed in accordance with generally accepted governmental auditing standards.

Both DOD and GSA provided written comments on a draft of this report. These comments are provided in appendixes I and II.

Impacts on Commands' Operations

Many factors relating to the Navy commands' operations could be affected by relocations. Five of the seven factors we identified and discuss below—immediate impacts of moving, interaction with headquarters, travel to Washington, D.C., acquisition organization changes, and additional duty positions—appear to be disadvantages of relocation.

Condition of Office Space

Officials at the Navy Systems, Military Personnel, and Recruiting Commands expressed concerns about some of their office space, including lack of consolidation, overcrowding, and inadequate conditions. These problems with the Systems Commands' office space have lowered morale and productivity and have made it difficult to attract new personnel, according to an official in the Secretary of the Navy's office. A relocation, either locally or to another area, could provide the opportunity for improvement.

Officials at the Navy commands pointed out that their office space is not consolidated to the extent possible, which makes interaction between offices more difficult. These commands are not more consolidated because they are mostly in privately owned space that was leased at different times by GSA. For example, the Naval Sea Systems Command, the largest of the commands we reviewed, occupies office space in parts of 12 buildings. The Recruiting Command headquarters is located in parts of three adjacent buildings, even though it could fit in just one of these buildings.

The Navy commands have requirements for more space in some of their office buildings. For the Systems Commands and related organizations, a contractor study done in 1987 indicated a requirement for 17 percent more office space than they had at that time. The Naval Military Personnel Command and the Navy Recruiting Command also indicated that they had a requirement for more space.

During our visits to these Navy commands, we saw some overcrowded conditions. Some of the Systems Commands have grown since 1970, when they moved to their present locations, particularly the Naval Sea Systems Command that has tripled in size. This has caused the Navy to obtain additional leased space in increments over the years. However, officials at these commands expected personnel cuts because of budget reductions, which could reduce the need for additional office space.

Officials at the Systems Commands were concerned about the condition of some of their office space. They cited safety problems, poor elevator

reliability, inadequate electrical systems, temperature control problems, and inadequate security. GSA reported that some of the buildings occupied by the Systems Commands need extensive repairs in order to meet GSA's minimum standards. Officials at these commands complained of having to go through channels and the unresponsiveness of some of the building owners, causing delays in needed repairs and maintenance.

Immediate Impacts of Moving

Officials at the commands we visited said that operations would be disrupted by a relocation from the Washington area, resulting in a temporary loss of productivity. To a large extent, this would also apply to a local move. For example, Naval Military Personnel Command officials told us that their military personnel records and computer systems were vital to their operation and that any downtime would degrade the quality and timeliness of information. The Command's Comptroller believes that parallel processing functions would be needed for a time at the present and new locations.

Officials at some of the commands expressed concern about the loss of civilian personnel who would choose not to relocate from the Washington area. For example, Systems Commands' officials said that it would be difficult to replace engineers and other skilled employees. At the Recruiting Command, officials expressed similar concerns about replacing experienced artists, photographers, and advertising personnel.

To offset the personnel losses, new employees would have to be hired to replace those who did not relocate. Some officials said that new employees would not be as productive initially as those they replaced and would need to be trained. While it is uncertain how many civilians would relocate, estimates from the DOD relocation studies we reviewed indicated that most would not.

Military Support Activities

Moving to a location on or near a military installation could be more efficient because support activities would already be available. These activities might have to be expanded to provide additional services for relocated commands. None of the Navy commands we reviewed was located on a Navy military installation. However, consolidated support activities for Navy commands exist in the Washington area. For example, the Systems Commands and related organizations are served by a consolidated civilian personnel office and an accounting and finance center in the Crystal City area of Northern Virginia.

During visits to the Air Force and Army commands, which are all located on military installations, officials cited some of the advantages. The Air Force Military Personnel Center is a tenant at Randolph Air Force Base that is supported by the 12th Flying Training Wing, which is part of the Air Training Command. Some of the support provided to the Personnel Command includes automated data processing, payroll processing, and civilian personnel services. In the same manner, the Army Recruiting Command, located at Fort Sheridan, is supported by finance, military personnel, and civilian personnel support offices.

In addition, military personnel at the Army and Air Force commands told us that they could better utilize military benefits if they worked on or near a military installation. Some of these benefits include military housing, commissaries and exchanges, recreational facilities, day care centers, and medical facilities. Also, military personnel who had served in the Washington area expressed concerns about the adequacy of military benefits in Washington, such as the limited availability of military housing.

Interaction With Headquarters

Another factor to consider for relocations is the impact it would have on the commands' interaction with Navy headquarters. Officials at the Navy commands believed that it could be more difficult to coordinate issues with Navy headquarters if their commands were relocated. Officials at the Army and Air Force commands generally agreed that it could be more difficult. However, they stated that interaction can still be accomplished by travel, facsimile machines, teleconferencing, electronic messages, and mail.

Personnel at the Navy commands we reviewed have much interaction with Navy headquarters. In the spring of 1990, the Secretary of the Navy's office distributed a questionnaire in connection with the planned local move of the Systems Commands. The personnel who work in Crystal City responded that they made an average of 1.5 visits to the Pentagon each week.

At the Naval Air Systems Command, the officials we contacted stated that they have daily interactions, such as meetings and information exchanges, with the Secretary's office, the Chief of Naval Operation's staff, and the Navy Comptroller's office. They stated that their command's proximity to the Pentagon allows for frequent meetings and comfortable working relationships. Officials at the other Systems Commands provided similar views.

Unlike much of the Navy's headquarters, the Deputy Chief of Naval Operations for Manpower, Personnel, and Training and his staff are outside of the Pentagon. They are collocated with the Naval Military Personnel Command in Federal Office Building 2, in nearby Arlington, Virginia. The Command provides administrative support for the Deputy Chief's office, such as space and facilities management, procurement of supplies, and telephone and telecommunications service. Staff in the Deputy Chief's office and at the Naval Military Personnel Command view the current collocation arrangement as desirable. For example, it enables the Deputy Chief's staff to coordinate revisions to the Navy Military Personnel Manual with the command's staff informally and quickly. This manual is the Navy's primary source of military personnel policy.

Officials at the Recruiting Command headquarters do not consider their current location to be critical to accomplishing their mission. However, they stated that it is very advantageous to be near the staff of the Deputy Chief of Naval Operations for Manpower, Personnel, and Training. They believe that face-to-face communications help to quickly resolve issues, such as budget development and staffing.

If the commands were relocated, a small liaison office in the Washington area might be desirable. Officials at the Naval Facilities Engineering Command and the Naval Military Personnel Command saw the need to have some of their commands' staff remain in the Washington area. Some of the other commands we visited have small Washington liaison offices. For example, the Air Force Military Personnel Center has three personnel at the Air Force headquarters in the Pentagon, who are responsible for coordination, communications, and other functions. The Army Recruiting Command has two personnel from its operations directorate at the Army headquarters.

Travel to Washington, D.C.

Travel by the Navy commands' personnel would probably increase if they were relocated because trips to the Washington area would become necessary. Some of this travel would probably be done by senior officials, including the Commanders. Officials at the Naval Military Personnel Command said that they would have to establish a Deputy Commander position because of the Commander's need to travel frequently to the Washington area. A relocation could also affect the amount of travel to different areas, such as to the commands' subordinate activities.

Officials at the Navy and the corresponding commands said trips to the Washington area would be necessary. The Naval Military Personnel Command estimated that, if relocated, personnel would need to make 1,188 trips per year to the area. The Navy Recruiting Command estimated 156 trips per year. In 1989, Air Force Military Personnel Center personnel traveled to the Washington area 597 times. Air Force Recruiting Service personnel made 90 trips and Army Recruiting Command personnel made 410 trips. Since the size of these commands differs, the numbers of estimated and actual trips cannot be directly compared.

Location near a major airport would be desirable to facilitate travel to the Washington area. The Army Recruiting Command at Fort Sheridan, which DOD is preparing to close, is planning a move to Fort Benjamin Harrison, Indiana. In July 1990, the Command prepared a paper comparing Chicago's O'Hare airport (near its current location) to the Indianapolis airport (near the planned relocation site). The paper indicated that because the Indianapolis airport had fewer flights available and fewer direct flights to the areas considered than did the O'Hare airport, productive time would be lost during travel by the Command's personnel as a result of the move.

Acquisition Organization Changes

Recent changes in the DOD acquisition organization have affected the Navy's Systems Commands. Some Navy acquisition officials, who were formerly responsible to the Commanders of the Systems Commands, are now directly responsible to the Secretary of the Navy's office. This arrangement could impact on any relocation because of the need for increased interaction with the Secretary's office.

These changes result from the Secretary of Defense's July 1989 Defense Management Report to the President. The purpose of the report was to implement the recommendations of the Packard Commission, improve the defense acquisition system, and manage defense resources more effectively. In response to the report, the Navy transferred control of about one-half of its major acquisition programs (generally those in the developmental phase) to Program Executive Officers and Direct Reporting Program Managers. These officials now report to the Assistant Secretary for the Navy for Research, Development, and Acquisition in the Pentagon, who is the service acquisition executive.

However, these officials are still located in the same buildings as the Naval Sea Systems Command, the Naval Air Systems Command, and the

Space and Naval Warfare Command and are administratively supported by these commands, as provided for in operating agreements. The Naval Sea Systems Command's operating agreement covers program and budget, contracting, legal, and engineering support for the Program Executive Officers, Direct Reporting Program Managers, and their staffs. Officials estimated that nearly 500 personnel at the Naval Sea Systems Command were covered by this operating agreement.

Additional Duty Positions

The Navy has a few officials who perform additional duties for other organizations, as well as duties for the one to which they are assigned. This practice is known as "dual hatting." This arrangement exists for some key officials between many of the commands we reviewed and the Chief of Naval Operations's office. These additional duty positions would probably not be practical if the commands were relocated.

The Systems Commands had 168 military personnel performing additional duties for other organizations at the time of our review. For example, the Naval Facilities Engineering Command headquarters had four captains and two commanders who performed additional duties for the Shore Activities Division in the office of the Deputy Chief of Naval Operations for Logistics. This Command also has one captain who performs additional duties for the Navy Comptroller's office.

The Naval Military Personnel Command had 31 officials performing additional duties for the Office of the Chief of Naval Operations. Navy officials believe that assigning additional duties is desirable because it economizes on the number of personnel needed. Since the staff of the Chief of Naval Operations would remain in Washington, it could lose the efforts of these additional duty personnel if the Command were relocated. Officials at the Command believe that any moves that do not include both organizations involved would require an increase in personnel.

According to an official at the Air Force Logistics Command, it would not be practical to have dual-hatted personnel between organizations in more than one geographical location. The commands we visited outside of the Washington area do not have personnel dual-hatted to their Washington headquarters, except for the Commander of the Air Force Military Personnel Center. In this case, various other officials support the Commander in performing the duties for both of his positions.

Costs of Relocation

Costs to the government would be a major consideration for any relocation. For facilities' purchasing and leasing, many of our selected areas showed likely cost advantages when compared with the Washington, D.C., area. However, the other factors that we estimated appeared to be cost disadvantages, except for military variable housing allowances. Because we did not estimate some of the other factors we identified and project all costs over 30 years, we did not determine which areas would be the least costly overall.

We estimated the costs of (1) purchasing new facilities, (2) leasing new facilities, (3) moving office equipment and materials, (4) relocating civilian employees, (5) adding long-distance travel, and (6) providing military variable housing allowances. These costs are only intended for comparisons because the actual costs could vary from the amounts shown.

Facilities Costs

We estimated the present values of purchasing or leasing new facilities for the commands separately, using a GSA computer program. Our analysis provided the net present values for the 30-year period beginning in 1990. In April 1990, GSA prepared a similar estimate for Congress on the proposed move of the Naval Systems Commands within the Northern Virginia suburbs of Washington, D.C.

For all of the commands, we assumed that a facility would be constructed and either purchased or leased by the government. The purchase alternative would involve taking possession of a facility constructed by a private developer for a predetermined price, commonly known as a "turnkey" development. Our estimated costs of purchasing and leasing for the same areas should not be compared because we do not include the costs of land in the purchasing alternative, but it is reflected in the lease rates.

The costs related to facility design would be incurred beginning in the last quarter of calendar year 1990, when we did our analysis. We assumed that the period for design and construction of the facility would be 3 to 5 years, depending on the project size. Therefore, the initial occupancy of a new facility was assumed to be calendar year 1993 for the Recruiting Command, 1994 for the Military Personnel Command, and 1995 for the Systems Commands. Our analysis also included the estimated costs of operating and maintaining these facilities.

Cost estimates were adjusted by the computer program to reflect current year present values, using an appropriate discount rate and inflation index. A present value analysis allows valid comparison of long-term projects by accounting for the time value of money. We used an 8.5-percent annual discount rate based on the average yields of outstanding U.S. Treasury obligations as of October 1990. Current dollars reflect the anticipated purchasing power of the dollar in the year that expenditures will occur. We used a 4.5-percent annual inflation index based on long-term inflation projections.

A present value analysis is sensitive to changes in the discount and inflation rates that are assumed. Because of this, we did a sensitivity analysis to determine if changes in these rates would change the rankings of the areas shown in tables 3.1 and 3.2. The tests showed that the rankings were not significantly affected by changes in the inflation and discount rates when they were varied within reasonable ranges.

In addition, the GSA program shows that the stream of costs over 30 years differs for purchasing or leasing. One of the outputs of the program is costs for each of the 30 years in current dollars. The budget outlays for purchasing occur largely during the first several years when the facility is being designed and constructed. In contrast, the costs of leasing are spread more evenly throughout the 30-year period. However, the present values should be used for comparison purposes as they reflect these cost streams.

Table 3.1 shows the 30-year net present value estimates for purchasing new facilities and related costs, excluding land costs, in each of the selected areas.

Table 3.1: Estimated Present Value Costs of Purchasing New Facilities

Dollars in millions			
Location	Systems Commands	Personnel Command	Recruiting Command
Salt Lake City	\$638.1	\$107.9	\$14.4
New Orleans	653.3	110.7	14.8
Dallas	670.6	114.0	15.2
St. Louis	713.9	120.6	16.1
Kansas City	717.7	121.3	16.2
Miami	718.8	122.5	16.2
Portland	771.3	130.4	17.4
Sacramento	771.6	128.9	17.4
Pittsburgh	777.8	131.7	17.5
Washington	779.5	132.3	17.6
Riverside	813.2	136.3	18.3
Detroit	828.3	139.8	18.7
Boston	844.1	141.8	19.0
New York	1,054.8	177.9	23.7

Table 3.2 shows the 30-year net present value estimates of leasing facilities and related costs in each area.

Table 3.2: Estimated Present Value Costs of Leasing New Facilities

Dollars in millions			
Location	Systems Commands	Personnel Command	Recruiting Command
Salt Lake City	\$568.5	\$101.1	\$13.6
Pittsburgh	705.0	125.4	16.8
New Orleans	708.6	126.1	16.8
Riverside	713.9	127.1	17.1
Dallas	761.4	135.4	17.9
Detroit	816.6	145.3	19.4
Miami	835.0	148.4	19.6
Kansas City	873.5	155.4	20.6
Portland	879.3	156.4	20.7
Sacramento	884.8	157.5	21.0
Boston	890.7	158.5	21.1
St. Louis	908.1	161.5	21.4
New York	1,225.4	217.9	28.8
Washington	1,366.4	242.9	31.8

Relocation Costs

Relocation costs can be divided into two categories: (1) moving office equipment and materials and (2) moving employees and their families. We estimated office relocation costs based on weight estimates supplied by the commands and moving estimates from a private moving company. We estimated relocation costs based on estimates of the number of employees who would relocate and current relocation allowances in the Federal Travel Regulations.

We assumed no additional costs for relocation of military personnel because they are normally moved periodically at government expense. However, some military personnel might need to be relocated before their tours with the commands are completed to facilitate the transition to a new area. We also assumed no civilian personnel relocation costs for a move within the Washington area, because such a move would probably keep the commands within commuting distance for all employees. Our estimates reflect the current costs of relocating.

We estimated the weight of employees' workstations using an average of 1,400 pounds, based on the figure used in the Navy relocation study prepared by Battelle. Each of the commands also provided weight estimates of nonworkstation equipment and materials that would be moved during a relocation. These items included copiers, computers, and materials in storage. A large microfiche personnel records center accounted for most of the weight for the Military Personnel Command. A private moving company provided estimates for a local move and to each of the 13 other areas. The official who provided the estimates indicated that these costs would be lower if the government were to solicit bids for an actual move. The official also indicated that the cost of a local move could vary significantly, depending on the specific areas and buildings involved. We did not include additional moving costs that could be incurred for some equipment, such as large mainframe computers, that would need to be reinstalled after moving. A recent Army relocation study suggests that the total costs of moving a mainframe computer could be in excess of \$100,000.

The estimated equipment and materials relocation costs of the commands for our selected areas are shown in table 3.3.

Table 3.3: Estimated Relocation Costs for Office Equipment and Materials

Dollars in millions			
Location	Systems Commands	Personnel Command	Recruiting Command
Washington	\$3.2	\$0.5	\$0.1
New York	7.3	1.2	0.2
Pittsburgh	7.3	1.2	0.2
Boston	8.4	1.4	0.2
Detroit	8.9	1.5	0.2
St. Louis	12.3	2.1	0.3
Miami	13.1	2.2	0.3
New Orleans	13.1	2.2	0.3
Kansas City	13.4	2.3	0.3
Dallas	15.5	2.6	0.4
Salt Lake City	23.7	4.0	0.5
Portland	24.5	4.1	0.6
Riverside	24.5	4.1	0.6
Sacramento	24.5	4.1	0.6

To estimate employee relocation costs, we calculated the maximum relocation allowance an employee could receive for each location based on the Federal Travel Regulations. Civilian employees of the federal government whose jobs are relocated outside their current commuting area are entitled to allowances for selling and buying residences, transportation and temporary storage of household goods, and other moving expenses.

We assumed that 58 percent of the Navy commands' employees were homeowners and 42 percent were renters, based on the Washington area average for all residents. We also assumed that employees currently owning or renting in the Washington area would continue to do the same after relocating. According to the Navy Consolidated Civilian Personnel Office that serves the Systems Commands, relocating employees receive about 80 percent of the maximum allowance. Therefore, we took 80 percent of the maximums we computed to derive an average relocation cost per employee for each location.

The five DOD relocation studies that we reviewed suggested that between 15 and 40 percent of civilian employees relocate when their jobs are moved. However, in an actual move these percentages could be different. Officials at some of the commands indicated the number of civilian employees who would relocate would depend greatly on where

their command moved. Table 3.4 shows our estimates for relocating civilian employees to each area. The low end of the cost range assumes that 15 percent of the employees would relocate and the high end assumes 40 percent.

Table 3.4: Estimated Costs of Relocating Civilian Employees

Dollars in millions			
Location	Systems Commands	Personnel Command	Recruiting Command
Washington	(none)	(none)	(none)
Pittsburgh	\$46.5 - \$124.0	\$5.3 - \$14.1	\$0.6 - \$1.6
New York	47.2 - 126.0	5.4 - 14.3	0.6 - 1.6
Boston	49.5 - 132.1	5.6 - 15.0	0.6 - 1.7
Detroit	50.2 - 133.9	5.7 - 15.2	0.7 - 1.7
St. Louis	51.2 - 136.5	5.8 - 15.5	0.7 - 1.8
Miami	52.3 - 139.6	5.9 - 15.9	0.7 - 1.8
New Orleans	53.0 - 141.3	6.0 - 16.1	0.7 - 1.8
Dallas	53.6 - 143.0	6.1 - 16.2	0.7 - 1.9
Kansas City	53.7 - 143.1	6.1 - 16.3	0.7 - 1.9
Salt Lake City	58.6 - 156.3	6.7 - 17.8	0.8 - 2.0
Riverside	61.0 - 162.6	6.9 - 18.5	0.8 - 2.1
Sacramento	62.1 - 165.7	7.1 - 18.8	0.8 - 2.2
Portland	63.8 - 170.1	7.2 - 19.3	0.8 - 2.2

Travel Costs

Currently, employees of the Navy commands travel to meetings at the Pentagon and other offices around the Washington area using various transportation modes, such as automobiles, DOD buses, subway, and walking, at little cost to the government. If the commands were relocated, officials indicated that employees would require a significant amount of travel to the Washington area at greater cost.

The Systems Commands indicated they would require 19,258 trips to Washington annually if they were to move outside of this area. The Personnel and Recruiting Commands estimated 1,188 and 156 trips, respectively. In soliciting these estimates, we asked the commands to assume that the same amount of travel would be required for relocation to all areas. In reality, the number of trips could vary by the area to which the commands were relocated. Table 3.5 shows the potential annual costs of these trips based on the commands' estimates. They include round-trip air fares for government contract carriers between the Washington area

and the other locations. We also included 2 days of government per diem travel allowance for the Washington area.

Table 3.5: Estimated Annual Costs for Travel to Washington, D.C. (Dollars in thousands)

Location	Systems Commands	Personnel Command	Recruiting Command
Washington	(none)	(none)	(none)
New York	\$6,932	\$428	\$56
Boston	8,050	497	65
Kansas City	9,205	568	75
Pittsburgh	9,474	584	77
Detroit	9,513	587	77
Miami	10,746	663	87
New Orleans	11,362	701	92
St. Louis	13,095	808	106
Riverside	13,250	817	107
Salt Lake City	13,327	822	108
Dallas	13,481	832	109
Portland	13,904	851	113
Sacramento	17,063	1,053	138

Variable Housing Allowances

Military members who are not provided government housing receive a monthly variable housing allowance, which varies depending on whether or not they have dependents. The allowance is determined by location to account for differences in housing costs. For example, a Navy commander with dependents in the Washington area receives an allowance of \$370.52, while in the New Orleans area it would be \$73.17.

To estimate the potential change in variable allowances due to relocation of the commands, we computed the differences between allowances for the Washington area and the other areas by pay grade and multiplied them by the number of military members in each grade at the commands. We assumed that all of the members had dependents. As shown in table 3.6, all of the areas would result in lower variable housing allowance costs, except for Boston.

Table 3.6: Estimated Annual Variable Housing Allowance Savings (Dollars in thousands)

Location	Systems Commands	Personnel Command	Recruiting Command
Salt Lake City	\$6,067	\$5,218	\$565
Pittsburgh	5,506	5,224	571
Portland	5,295	4,916	544
Kansas City	5,269	4,396	476
New Orleans	5,037	4,563	502
St. Louis	4,142	3,863	425
Sacramento	4,050	3,430	382
Detroit	3,356	3,706	412
Dallas	2,703	2,767	312
Riverside	2,671	2,418	259
New York	939	1,593	195
Miami	655	1,445	164
Washington	(none)	(none)	(none)
Boston	-2,927	-1,716	-187

Additional Cost Factors

We identified additional factors related to relocation that have cost implications. We did not estimate costs for these factors because appropriate data or generally accepted methodologies were unavailable. These factors included personnel separations, recruiting and training new employees, parallel operations during a move, changes in mail and telecommunications, changes in productivity, and the impacts on payroll costs.

Personnel Separations

Some civilian employees would be entitled to severance pay if their positions were moved outside of their current commuting area and they did not relocate. Severance pay is based on the employee's years of service and age and is limited to one year's pay at the rate received immediately before separation. Employees are not entitled to severance pay if they decline an offer of equal pay and tenure with the same agency within the same commuting area. Employees who are eligible to retire on an immediate annuity also do not receive severance pay.

Severance payment costs would depend on the number of employees who separated rather than relocated and the length of time they would receive severance payments. Since these variables depend on many uncertainties, we did not estimate the potential cost of severance payments. Other relocation studies indicated that such payments could be a

significant cost. For example, one study we examined assumed severance payments of between \$2,500 and \$21,000 per eligible employee.

Recruiting and Training

The costs of recruiting and training new employees after a move could also be significant. However, because the number of vacancies a relocation would create is uncertain, we did not estimate a total cost for these factors. According to the commands, it costs several hundred to several thousand dollars to train a new employee, depending on grade and position. In addition, relocation costs might have to be paid for new employees not recruited from the local area.

Parallel Operations

The Personnel Command maintains a large computer and records center to maintain and process Navy military personnel files. Officials at the command told us that this activity could not be suspended for a long period while a move took place. They indicated that it would be necessary to set up parallel operations at their present location and the relocation site to maintain quality and currency. Such parallel operations could involve hiring additional personnel, purchasing additional equipment, and leasing computer time.

Mail and Telecommunications Costs

Command officials told us they expected an increase in mail and long-distance telephone costs if they relocated from the Washington area. They would also probably use more facsimile transmissions and computer mail, which could require additional equipment.

Changes in Productivity

Command officials told us that productivity would decrease after a move due to loss of experienced personnel and the disruption of a relocation. A Naval Sea Systems Command official, who was familiar with the proposed relocation of some of the Systems Commands to California in 1976, told us that a study prepared for that move indicated that it would require 2 years before the commands would return to normal productivity levels.

Payroll Costs

The Federal Employees' Pay Comparability Act of 1990 provides that civilian workers in designated high cost of living areas can receive increased salaries. However, the President has the discretion not to provide these increases. Several high-cost areas already have such salary differentials. Because the Washington area is among the highest in cost

of our selected areas, it is possible that salaries would be increased. Therefore, payroll cost savings could be achieved by relocating to lower cost areas. In addition, it is possible that vacant positions at relocated commands would be filled by employees with lower salaries than those previously holding those positions. This would also result in savings.

Living Costs and Amenities

The relocation of Navy employees could substantially impact on their quality of life. The factors we considered suggested that living costs were relatively high in the Washington, D.C., area compared to the other selected areas. For the amenities, we did not determine which of the areas employees would view as the most desirable because they would value the amenities differently, based on their individual preferences and income levels.

Various studies have compiled indicators of quality of life and used them to rank areas. However, because of the limitations on quality of life measurement, we did not rank the areas. We provide indicators for factors in two aspects of quality of life—living costs and amenities. Living costs are reflected in the market price of goods and services, such as food and health care. Amenities are nonmarket factors, such as favorable climate and education quality, that reflect the desirability of living in an area.

Living Costs

To illustrate relative living costs, we chose housing, taxes, food, health care, and child care. In most cases, our indicators showed significant differences in the costs of the selected factors among the areas. These indicators all suggest that the Washington area is higher in cost than most of the other selected areas. High housing costs are often considered to be a disadvantage, but they also tend to reflect the desirability of the areas' amenities.

Housing Costs

Housing costs are a major concern of employees because they are a large part of the family budget and vary greatly by location. Housing costs are indicated by both sales prices and rental payments and are subject to various influences. For example, individuals may be willing to pay more for housing in areas where the amenities are considered more desirable, such as those with low unemployment rates or favorable climates. Table 4.1 provides housing prices for the selected areas for the first quarter of 1990.

Chapter 4
Living Costs and Amenities

Table 4.1: Median Prices of Existing Single Family Homes

Location	Sales prices
New Orleans	\$67,700
Pittsburgh	68,600
Salt Lake City	69,300
Kansas City	73,900
Portland	75,300
Detroit	75,500
St. Louis	77,000
Dallas	89,800
Miami	90,000
Sacramento	127,700
Riverside	130,400
Washington	144,700
New York	174,700
Boston	177,300

Source: Home Sales, the National Association of Realtors, July 1990.

Recognizing that not all Navy employees would purchase a home, we considered housing rental costs, which are shown in table 4.2.

Table 4.2: Median Rental Costs

Location	Monthly rental costs (including utilities)
Pittsburgh	\$384
St. Louis	407
Portland	409
Kansas City	421
New Orleans	422
Detroit	438
Sacramento	440
Salt Lake City	458
New York	472
Miami	512
Riverside	528
Dallas	542
Boston	550
Washington	587

Source: American Housing Surveys (for selected metropolitan areas), Bureau of the Census, U.S. Department of Commerce. (We inflated to 1989 dollars data for years 1983 to 1987.)

State and Local Taxes

State and local taxes are generally recognized as important living costs and vary greatly by location. The taxes in table 4.3 are estimated for two-income couples with average incomes for their areas and with two children and typical exemptions and deductions. Included are state and local income and sales taxes but not property taxes. These data may not provide a complete picture because each area depends on income, sales, and property taxes to different extents.

Table 4.3: State and Local Income and Sales Taxes

Location	Annual taxes
New Orleans	\$605
Miami	1,173
Dallas	1,660
St. Louis	1,926
Kansas City	1,931
Pittsburgh	2,218
Riverside	2,328
Sacramento	2,525
Salt Lake City	2,935
Portland	3,687
Detroit	3,931
Boston	4,969
Washington	5,193
New York	6,353

Source: Places Rated Almanac, Boyer and Savageau, 1989. (Derived from data from the Advisory Commission on Intergovernmental Relations.)

Food Costs

The cost of food is another indicator that is cited in cost of living studies. According to the U.S. Department of Agriculture, households spent 7.3 percent of their disposable income on food in 1989. Table 4.4 reflects the cost of food bought at the store and prepared at home for our selected areas. Data are based on a federal worker who is a homeowner with a family of four and an annual income of \$30,000.

Table 4.4: Food Costs

Location	Annual costs
Pittsburgh	\$2,347
Salt Lake City	2,383
Riverside	2,462
New Orleans	2,467
Kansas City	2,490
Sacramento	2,513
St. Louis	2,539
Detroit	2,541
Miami	2,546
Boston	2,592
Dallas	2,631
Portland	2,631
Washington	2,687
New York	2,748

Source: Runzheimer International, January 1990.

Health Care Costs

DOD personnel and quality of life literature indicate health care costs and quality are concerns. For our health care cost indicator, we chose physicians' fees for the selected areas provided by a major national health insurance company. Table 4.5 shows the average fees for the most frequently performed medical procedure (intermediate-level office and other outpatient medical services for established patients) in these areas during 1989.

Table 4.5: Health Care Costs

Location	Physicians' fees
Salt Lake City	\$31.52
Kansas City	32.89
St. Louis	33.21
New Orleans	35.10
Pittsburgh	35.17
Detroit	35.83
Sacramento	39.97
Dallas	40.44
Portland	41.32
Washington	47.10
Riverside	47.67
Boston	51.67
Miami	52.25
New York	65.12

Source: Blue Cross and Blue Shield of the National Capital Area

Child Care Costs

Some DOD personnel said that affordable child care was a concern. We gathered weekly child care costs from a nationwide provider to illustrate cost differences. However, costs may vary depending on the provider. The costs in table 4.6 are for cities instead of metropolitan areas. Because the comparable cost for New York City was not available, the cost for nearby Newark, New Jersey, is shown instead.

Table 4.6: Child Care Costs

Location	Weekly costs
Salt Lake City	\$57
New Orleans	64
Dallas	68
Portland	73
St. Louis	77
Kansas City	78
Pittsburgh	80
Miami	82
Detroit	85
Sacramento	87
Washington	89
Riverside	92
Newark (near New York)	95
Boston	110

Source: Kinder-Care Learning Centers, by letter to GAO dated October 10, 1990. (Data are based on 5 full days of care for a child of age 3 to 5.)

Amenities

To illustrate variances in amenities, we provide data on job availability, education quality, transportation, public safety, and climate. We chose one indicator for each of these amenities; however, various other indicators could also be used to estimate their quality. Our indicators showed significant variations among the amenities.

Availability of Jobs

Navy employees told us that adequate employment opportunities for their spouses would be a major concern in considering a relocation. We display unemployment rates for each of the areas as an indicator of the overall availability of jobs. Table 4.7 suggests that employment opportunities are best in the Washington area.

Table 4.7: Unemployment Rates

Percent of labor force	
Location	Rates as of June 1990
Washington	3.3
Portland	4.2
Kansas City	4.4
Pittsburgh	4.4
Sacramento	4.6
Salt Lake City	4.7
Boston	5.1
Dallas	5.3
New York	5.5
St. Louis	5.6
Riverside	6.2
New Orleans	6.6
Miami	7.2
Detroit	7.5

Source: U.S. Department of Labor, Bureau of Labor Statistics, State and Metropolitan Area Employment and Unemployment, August 1990.

Education

Personnel at the commands we visited indicated that education is also an important factor to consider. Quality of education is difficult to measure because many indicators measure inputs into the school system (for example, student-to-teacher ratios), rather than educational performance. Also, the quality of education varies by neighborhoods and individual schools within metropolitan areas.

We chose public high school graduation rates for each of the metropolitan areas as our indicator. Another indicator that could be used is college entrance test scores. Table 4.8 shows that the Washington area's graduation rate is relatively high among the areas we examined.

Table 4.8: High School Graduation Rates

Percent of 12th graders	
Location	Graduation rates
Pittsburgh	96.9
Riverside	96.5
Detroit	96.2
New York	95.4
Washington	95.3
Dallas	94.9
St. Louis	93.9
Sacramento	93.2
Kansas City	92.9
Miami	92.0
Salt Lake City	88.1
New Orleans	86.9
Boston	83.2
Portland	82.2

Source: U.S. Department of Education, Office of Educational Research and Improvement, 1989.

Transportation

For our transportation indicator, we chose commuting time to work because of DOD employees' comments about their long commutes in the Washington area. Table 4.9 supports the employees' comments because it shows that the area has one of the longest commutes. The table shows the average number of minutes that workers spend on a one-way trip to their workplace in the metropolitan area, regardless of the mode of transportation. Other indicators that could be used are levels of congestion on freeways or waiting times for mass transit.

Table 4.9: Average Commuting Time to Work

Location	Minutes per trip
Riverside	18.3
Sacramento	19.5
Salt Lake City	20.3
Portland	21.5
Kansas City	21.7
Dallas	22.9
Detroit	23.3
Pittsburgh	23.4
St. Louis	23.5
Miami	24.4
Boston	25.0
New Orleans	25.8
Washington	29.9
New York	38.8

Source: 1980 Census of Population, Journey to Work: Characteristics of Workers In Metropolitan Areas. (More current data will be available from the 1990 census.)

Public Safety

Crime rates are commonly used in quality of life studies as indicators of public safety, and Navy employees expressed interest in this factor. We display the Federal Bureau of Investigation's violent crime rates per 100,000 residents for 1 year. Another indicator that could be used is the number of police officers serving a given population.

As shown in table 4.10, the Washington area is among those with the lowest violent crime rates. These violent crimes include murder, forcible rape, robbery, and aggravated assault. However, the crime rates vary greatly by neighborhoods within the metropolitan areas. For example, murders in the city of Washington, D.C., especially in certain neighborhoods, have been well publicized.

Table 4.10: Violent Crime Rates

Crimes reported per 100,000 residents	
Location	Violent crimes
Salt Lake City	317
Pittsburgh	392
Sacramento	656
Washington	722
Boston	794
Portland	816
St. Louis	831
Kansas City	887
Detroit	891
Dallas	1,105
New Orleans	1,207
Riverside	1,364
New York	2,021
Miami	2,204

Source: Uniform Crime Reports, U.S. Department of Justice, 1989.

Climate

Climate statistics are also common indicators of quality of life. For our indicator, we chose annual heating and cooling degree days, which favor areas that have milder climates with fewer temperature variations.

Degree days measure variances from a standard average daily temperature of 65 degrees to indicate the extent that heating or air conditioning would have to be used to maintain comfortable indoor temperatures. Degree days are calculated for each day based on the differences between the actual high and low temperatures and 65 degrees. For example, if the high temperature is 70 degrees and the low is 52 degrees, 4 heating degree days would be recorded for that day ($70 + 52 = 122$; $122 \text{ divided by } 2 = 61$; $65 - 61 = 4$).

Table 4.11 shows the average number of annual degree days for each area over 30 years. Using this climate indicator, the Washington area is about in the middle. Other climate indicators that could be used are average temperatures, relative humidity, and annual precipitation.

Table 4.11: Heating and Cooling Degree Days

Degree days per year	
Location	Degree days
Riverside	3,289
Sacramento	3,970
New Orleans	4,176
Miami	4,294
Portland	5,023
Dallas	5,216
Washington	5,552
New York	5,957
Boston	6,292
St. Louis	6,406
Pittsburgh	6,595
Kansas City	6,616
Salt Lake City	6,783
Detroit	7,178

Source: Local Climatological Data, National Oceanic and Atmospheric Administration, 1989.

Additional Factors

In addition to the factors already described, we identified others that would be important to employees facing a relocation. These factors are based on the concerns of commands' employees and a review of quality of life literature.

Some factors include access to major airports, recreational facilities, restaurants, medical care, and sporting facilities. Employees were also concerned about the availability of the arts, entertainment, shopping, child care, education, and public transportation. We did not provide data for these amenities because we assumed that they would generally be available in the large metropolitan areas that we selected.

Employees also had concerns related to their workplaces, including clean and modern work facilities, ample parking at the work site, and adequate pay grade structure. Some of these concerns would be addressed by our assumption that new and adequate facilities would be provided in the selected areas. Other concerns were the extent of coverage of housing costs by military variable housing allowances; proximity to military installations; and diversity of the cultural, ethnic, and social environment.

Comments From the Department of Defense



Administration
& Management

OFFICE OF THE SECRETARY OF DEFENSE

WASHINGTON, DC 20301

18 MAR 1991

Mr. Frank C. Conahan
Assistant Comptroller General
National Security and International
Affairs Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) Draft Report, "NAVY OFFICE SPACE: Issues Related to Relocating Selected Navy Commands from the Washington, D.C. Area," dated February 19, 1991 (GAO Code 394336/OSD Case 8610). The Department concurs with the GAO findings.

The DoD policy is to provide administrative space in the most cost effective manner, consistent with mission requirements, and relocate to Government-owned facilities as they become available.

Technical changes have been provided separately. The DoD appreciates the opportunity to comment on the GAO draft report.

Sincerely,

A handwritten signature in cursive script, appearing to read "D. O. Cooke".

D. O. Cooke
Director

Comments From the General Services Administration



Administrator
General Services Administration
Washington, DC 20405

March 18, 1991

The Honorable Charles A. Bowsher
Comptroller General
of the United States
General Accounting Office
Washington, DC 20548

Dear Mr. Bowsher:

I am pleased to offer the following comments and suggestions on the General Accounting Office (GAO) draft report entitled "NAVY OFFICE SPACE: Issues Related to Relocating Selected Naval Commands from the Washington, DC Area (GAO/NSIAD-91-107)."

Now on p. 14.

1. Given the complexity of the task and associated analyses, it would be helpful if technical appendices were included that detail the methodology and assumptions.

Now on p. 15.

2. The General Services Administration (GSA) computer program, referenced on page 18 of the draft report, is The Automated Prospectus System (TAPS).

Now on p. 15.

3. The facility size recommended for construction for the Naval Systems Commands in the April 1990 Report of Building Project Survey is 3,000,000 occupiable square feet (osf). See page 18 of the draft report.

Now on p. 15.

4. The GSA computer program requires costs for construction management and inspection, not building management and inspection as cited on page 19 of the draft report.

Now on p. 16.

5. The draft report notes on page 19 that land costs were not included in the net present value analyses. In general, land costs average 25 percent of the total project cost. Given the fact that the TAPS analysis is a comparative analysis, unless land costs for the 13 subject cities in the analysis are approximately the same, this omission could render any comparisons between alternative locations invalid.

6. The lease terms used in the analysis (see page 32 of the draft report) are unrealistic. Neither GSA nor a prospective lessor would enter into a five-year lease term for the significant amount of space required by the Navy. Using a five-year term significantly increases the cost of the lease alternative relative to other alternatives.



Appendix II
Comments From the General
Services Administration

-2-

Rental rates used by GSA in the analysis are established for a particular program's fiscal year, and correspond to the midpoint of a reasonable range of rental rates prevalent in the particular geographic area of interest. GSA used a 20-year lease term in the analysis performed in the April 1990 Report of Building Project Survey submitted to Congress.

Now on p. 24.

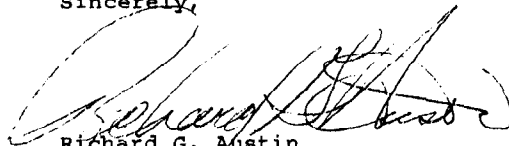
7. The draft does not state whether the design and construction start dates and end dates are in fiscal years or calendar years. In the analysis included by GSA in the April 1990 Report of Building Project Survey, the occupancy of the proposed new facility by the Systems Commands was estimated to occur in fiscal year 1996. The GAO analysis indicates an occupancy year of 1995 (see page 33). This could be consistent with the GSA analysis, if the occupancy was to occur after October 1, 1995, and calendar years were used in the analysis. This is unclear.

Now on p. 24.

8. The cost of "purchasing" the new facility is compared with the cost of leasing such a facility. It is assumed that "purchasing" means taking possession of a facility constructed for GSA/Navy by a private developer for a price determined prior to the construction, commonly known as a turnkey development. The analysis performed under this assumption would be analogous to one performed for a direct Government construction project.

Thank you for this opportunity to review and comment on the above referenced draft report. I look forward to reading the final document. Please do not hesitate to call me if you have questions about any issues noted in this letter.

Sincerely,



Richard G. Austin
Administrator

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