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Report to the Chairman, Subcommittee on Readiness, Committee of Armed Services, House of Representatives

September 1987

NAVAL SHIPYARDS

Management of Borrowed Labor Can Be Enhanced by Stronger Internal Controls

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National Security and
International Affairs Division

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September 23, 1987

The Honorable Dan Daniel
Chairman, Subcommittee on Readiness
Committee on Armed Services
House of Representatives

Dear Mr. Chairman:

In response to your August 28, 1986, request and subsequent discussions with your office, we reviewed the naval shipyards' use of borrowed labor, focusing on

- the extent to which shipyards borrowed labor from one another for fiscal years 1983-86,
- whether adequate documentation was prepared and maintained to justify borrowing employees from shipyards, and
- whether Navy headquarters' internal controls concerning guidance and oversight for shipyard borrowed labor were adequate.

Shipyards have borrowed personnel from each other to relieve temporary skill shortages in their labor resources. Shipyard managers generally believe that borrowing labor is the most expensive alternative to relieve temporary skill shortages because they operate as independent cost centers and are concerned with the costs charged to their individual operations.

However, some Navy officials believe, and we agree, that when viewed from a governmentwide perspective borrowed labor may be the least costly way to relieve a temporary labor shortage when the borrowed employees are temporarily excess to the needs of the lending shipyard. Since the direct labor costs are already being paid by the government, transportation and per diem costs are the only additional costs to the government for borrowed labor.

Navy headquarters officials said little attention had been given to shipyard borrowed labor practices because borrowed labor was not a significant problem. Navy officials are correct that borrowed labor represents a very small percentage of total labor costs. However, they may not be fully cognizant of the extent to which borrowed labor is used to relieve temporary skill shortages or whether borrowed labor is more or less cost effective than other alternatives for satisfying short-term needs such as overtime, hiring temporary employees, or contracting out. This is

because information on the use of alternatives to relieve a temporary skill shortage is not regularly provided through a headquarters' management information system.

Adequate information feedback is an important element of good internal controls. We believe that information on the use of borrowed labor should be available at the headquarters level in order for headquarters officials to provide top-level management oversight of how labor resources are distributed and used.

Extent of Shipyard Borrowed Labor

Naval shipyards have temporary fluctuations in work loads, and they have, therefore, decided to maintain their permanent work force levels between the number of employees needed for projected work load peaks and valleys. During a work load peak, when a shipyard has more work than its employees can handle, it may meet the temporary labor resource need in a number of ways. These include providing employees overtime, contracting with private industry, hiring temporary employees, and borrowing personnel from other shipyards.

For fiscal years 1983-86, the naval shipyards borrowed labor on 485 occasions, involving 5,983 shipyard employees. The total cost to the shipyards for this borrowed labor was $119.3 million, of which about $30.2 million (25 percent) was for transportation and per diem.

In fiscal year 1986, the frequency with which shipyards used borrowed labor dropped significantly over previous years primarily because some shipyards had a general decline in work load. Shipyard officials, however, foresee a continuing need for borrowed labor as work loads increase. The 485 instances of borrowed labor involved about 50 different types of skills, and the most frequently borrowed skills were welder, marine machinist, machinist, pipefitter, and electrician.

Some shipyards borrowed labor more often than others, and most borrowed over 50 percent of the time from the opposite coast. The Norfolk and Long Beach Naval Shipyards were the most frequent borrowers on each coast, and the Norfolk and Philadelphia Naval Shipyards borrowed labor from the opposite coast more often than the others.

Documentation for Borrowing Employees From Other Shipyards

Naval shipyards generally did not perform cost comparisons of the various alternatives to relieve temporary skill shortages. Shipyard officials said that they believed that the decision to borrow labor from another shipyard did not need to be documented because they had already exhausted less expensive alternatives before borrowing. However, without adequate documentation, including cost comparisons, neither the shipyard nor Navy headquarters can be sure that the best approach for the government was used to relieve temporary skill shortages.

Navy Headquarters' Internal Controls for Shipyard Borrowed Labor

Navy headquarters officials said little attention has been given to naval shipyard borrowing labor practices because they do not consider borrowed labor to be a significant problem. Navy headquarters currently has no written guidance on managing shipyard borrowed labor and has no feedback system for reporting its usage.

In January 1986, as part of the Navy's paperwork reduction effort, the Naval Sea Systems Command canceled its regulation that provided shipyards the policies and procedures for borrowing labor. According to the Navy official responsible for drafting this regulation, the Command recognizes that guidance is needed. Rather than making a Navy study to substantiate the need for a regulation, officials of the Naval Sea Systems Command stated they were waiting for the results of our work before reissuing its guidance. Currently, some of the shipyards have their own instructions on borrowing labor; however, they are not consistent in coverage or procedures.

In fiscal year 1978, the Naval Sea Systems Command eliminated its borrowed labor reporting requirement because it did not use the data and believed these data were unreliable. The shipyards still accumulate labor information that, with minor programming effort, could be modified to extract and summarize borrowed labor data for reporting to Navy headquarters. The Navy currently requires similar management information for overtime usage, one of the alternative ways to relieve temporary labor shortages.

Conclusions

Total naval shipyard labor resources should be effectively managed. As part of this effort, the Navy needs assurance that the best means of relieving temporary labor shortages, including the use of borrowed labor, are used. Navy-wide criteria for determining the best alternative to relieve temporary skill shortages are needed to ensure consistent and cost-effective shipyard decisions. Also, a mechanism is needed for

collecting and reporting data on the extent to which alternatives for relieving temporary skill shortages are used so that headquarters officials can provide adequate management oversight of these practices and ensure that the least costly alternative to the government is used.

Recommendation

We recommend that the Secretary of the Navy direct the Commander of the Naval Sea Systems Command to issue guidance on how naval shipyards should relieve temporary labor shortages at the least cost to the government, setting out

- criteria for using various labor resources, including borrowed labor,
- documentation requirements, including cost comparisons, justifying their use, and
- data collection and reporting requirements.

Appendix I provides additional details on the results of our work, and the objective, scope, and methodology of our review are in appendix II. We discussed the matters presented in this report with officials of the Office of the Secretary of Defense and the Department of the Navy who generally agreed with the information presented. As requested, we did not obtain official agency comments.

We plan no further distribution of this report until 30 days from its date of issue, unless you publicly announce its contents earlier. At that time, we will send copies to the Secretary of the Navy and to other interested parties upon request.

Sincerely yours,

Frank C. Conahan

Frank C. Conahan
Assistant Comptroller General

Contents

Naval Shipyards' Use of Borrowed Labor for Fiscal Years 1983-86

The Naval Sea Systems Command is responsible for the maintenance of Navy ships. The Command has management oversight of the eight naval shipyards whose annual operating costs averaged $3.7 billion for fiscal years 1983-86. Collectively, the shipyards are responsible for the continuous and immediate industrial support of the active fleet in peacetime as well as during mobilization.

Individual shipyards tend to specialize or, at least, to focus their capabilities on the maintenance of particular types of vessels or weapon systems, as shown in table I.1.

Table I.1: Maintenance Capabilities of Naval Shipyards

Shipyard	Aircraft carriers	Surface nuclear ships	Nuclear submarines	Electronics/ missile systems
East coast:				
Charleston			X	X
Norfolk	X	X	X	X
Philadelphia[a]	X			X
Portsmouth			X	
West coast:				
Long Beach[a]	X			X
Mare Island			X	
Pearl Harbor[b]			X	X
Puget Sound	X	X	X	X

[a]No nuclear maintenance capability.

[b]Overhauls all ships homeported in Hawaii and makes emergency repairs to ships operating in the Pacific.

To maintain their maintenance capabilities, shipyards must have a work force of sufficient size and skills. That work force is established on the basis of a work load that fluctuates. Because of these fluctuations, the shipyards maintain their permanent work force levels between those needed for projected work load peaks and valleys.

The shipyards' support to the fleet can be extremely varied, often requiring specialized skills. In addition, unplanned work loads can place a serious demand on a shipyard's labor resources, necessitating local action by a shipyard to ensure that it can fulfill all of its tasks. These actions include alternatives such as having employees work overtime, contracting with private industry, hiring temporary employees, and borrowing personnel from other shipyards. Some advantages and disadvantages of these alternatives are listed in table I.2.

Table I.2: Advantages and Disadvantages of Alternatives to Relieve Temporary Skill Shortages at Naval Shipyards

Alternative	Advantage	Disadvantages
Overtime	More continuity of workers	Established limits[a] Some lost productivity
Contracting	Reduces demand for shipyard involvement	Not immediately available Time to award contract
Temporaries	Workers may be used as needed	Not immediately available Usually unskilled
Borrowing	Receive workers with a known skill level	Worker displacement Most expensive for individual shipyards

[a]Since fiscal year 1986, the Naval Sea Systems Command has placed limits on the overtime that can be used by shipyards.

The Puget Sound Naval Shipyard has made two studies[1] of these alternatives, which were conducted from a shipyard's perspective. According to these studies, the costs to this shipyard for using these alternatives ranged from about $205 to $435 a day, with borrowed labor being the shipyard's most expensive means for relieving a temporary skill shortage. The Puget Sound studies did not separately categorize the additional incremental costs to the government (travel related costs) for using borrowed labor. Other data, however, indicate that these additional incremental costs represent about 25 percent of the cost of borrowed labor.

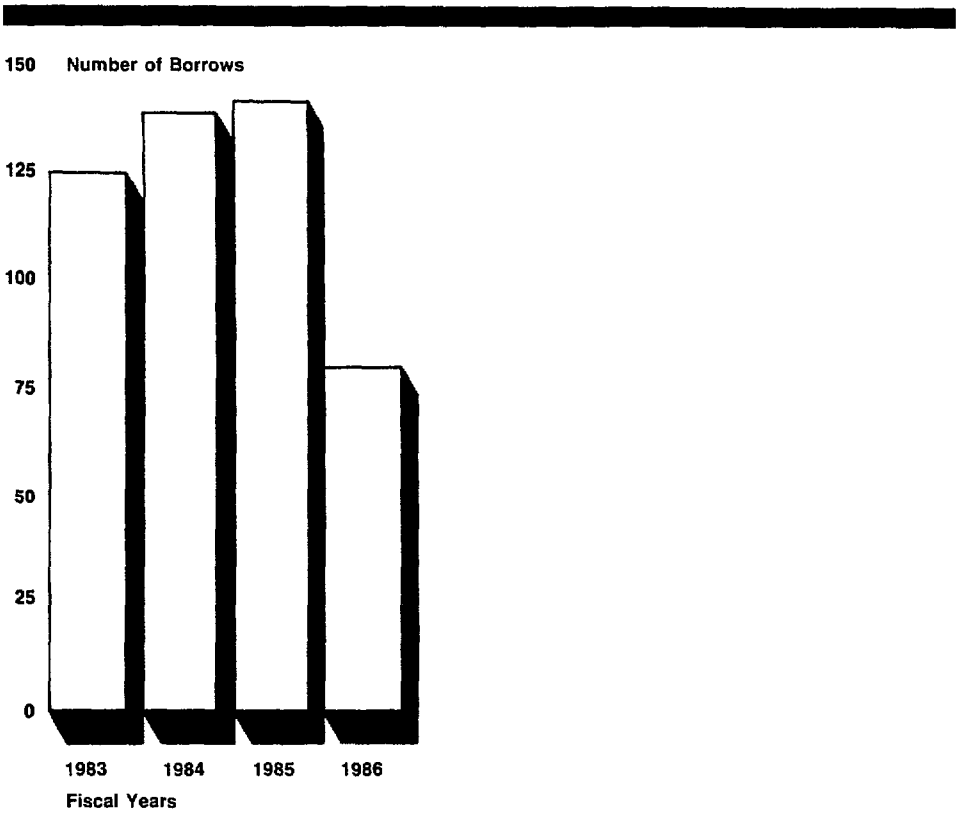
Although shipyard officials generally believe borrowed labor is the most expensive alternative to relieving a temporary skill shortage, some Navy officials believe that it may be the least costly alternative from a governmentwide perspective when borrowed employees are temporarily excess to the needs of the lending shipyard. In such cases, the extra cost of borrowed employees is for their transportation and per diem only.

Extent of Shipyard Borrowed Labor

For fiscal years 1983-86, the naval shipyards borrowed labor from each other on 485 occasions. As shown in figure I.1, the overall frequency of borrowed labor dropped significantly in fiscal year 1986. According to Navy officials, this drop was primarily because several shipyards had a general decline in work load, requiring fewer labor resources such as borrowed labor. Shipyard officials, however, foresee a continuing demand for borrowed labor as the work load increases.

[1]"Using Tradesmen Borrowed from Other Shipyards," Puget Sound Naval Shipyard (Memo 630), June 25, 1984; and "Analysis of Borrowed Labor," Puget Sound Naval Shipyard (Memo 7310), May 2, 1985.

Figure I.1: Frequency of Naval Shipyard Borrowed Labor by Fiscal Year



Borrowed Labor Cost

These 485 occasions involved 5,983 shipyard employees who worked a total of 2.5 million hours, including 380,000 hours (15 percent) of overtime. (See fig. I.2 for the number of borrowed employees by fiscal year and fig. I.3 for the number of borrowed labor hours by fiscal year.) Shipyards spent $119.3 million on borrowed labor, of which $30.2 million (25 percent) related to transportation and per diem. A breakout of the actual costs by fiscal year is shown in figure I.4.

Figure I.2: Number of Naval Shipyard Employees Borrowed by Fiscal Year

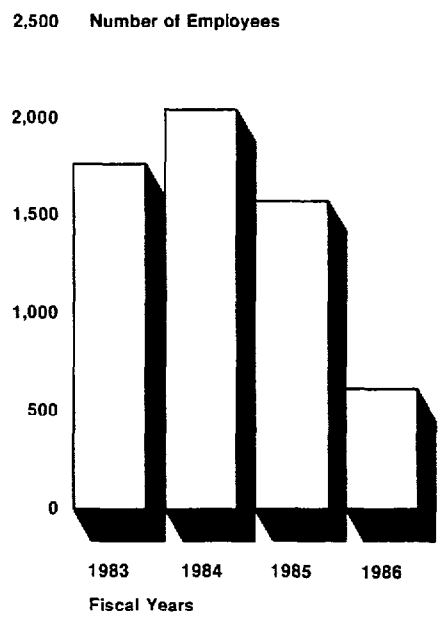


Figure I.3: Number of Naval Shipyard Borrowed Labor Hours by Fiscal Year

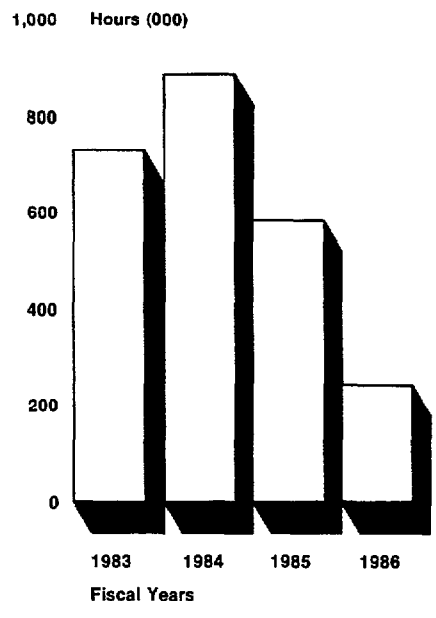
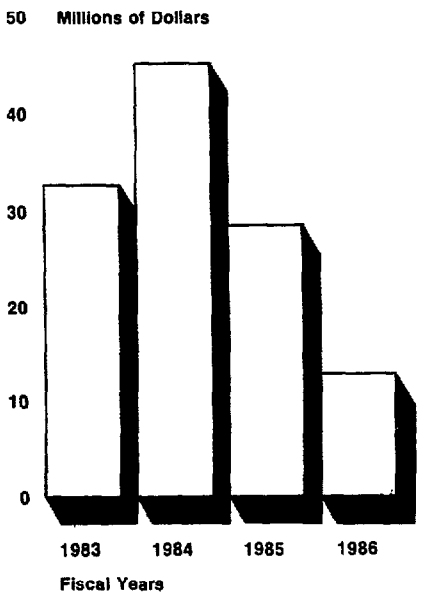


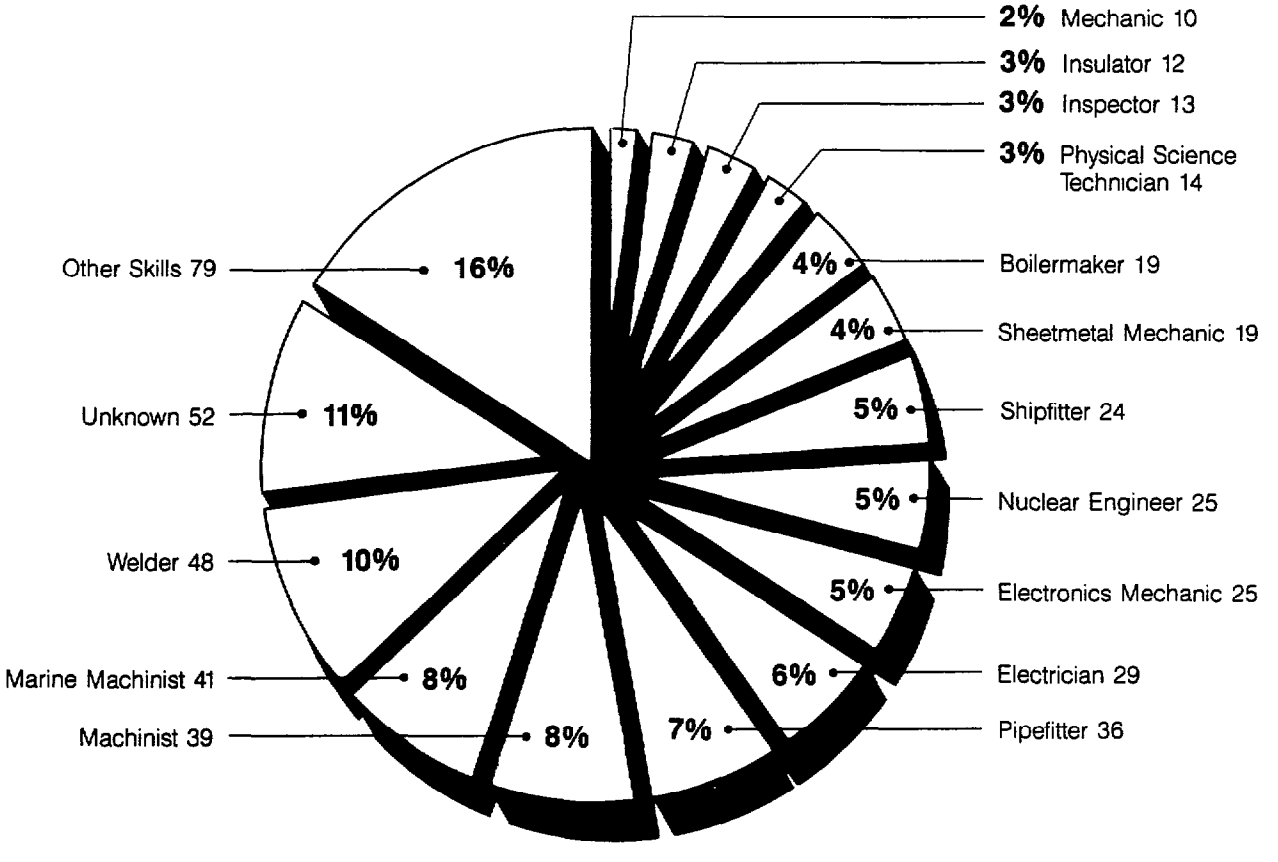
Figure I.4: Cost of Naval Shipyard Borrowed Labor by Fiscal Year



Skills Involved

The 485 instances of borrowed labor involved over 50 different types of skills, with shipyards borrowing from 2 to 15 different skills a year. The types most often borrowed were welder (48 instances), marine machinist (41 instances), machinist (39 instances), pipefitter (36 instances), and electrician (29 instances). Figure I.5 depicts the composition of total skills borrowed by skill type.

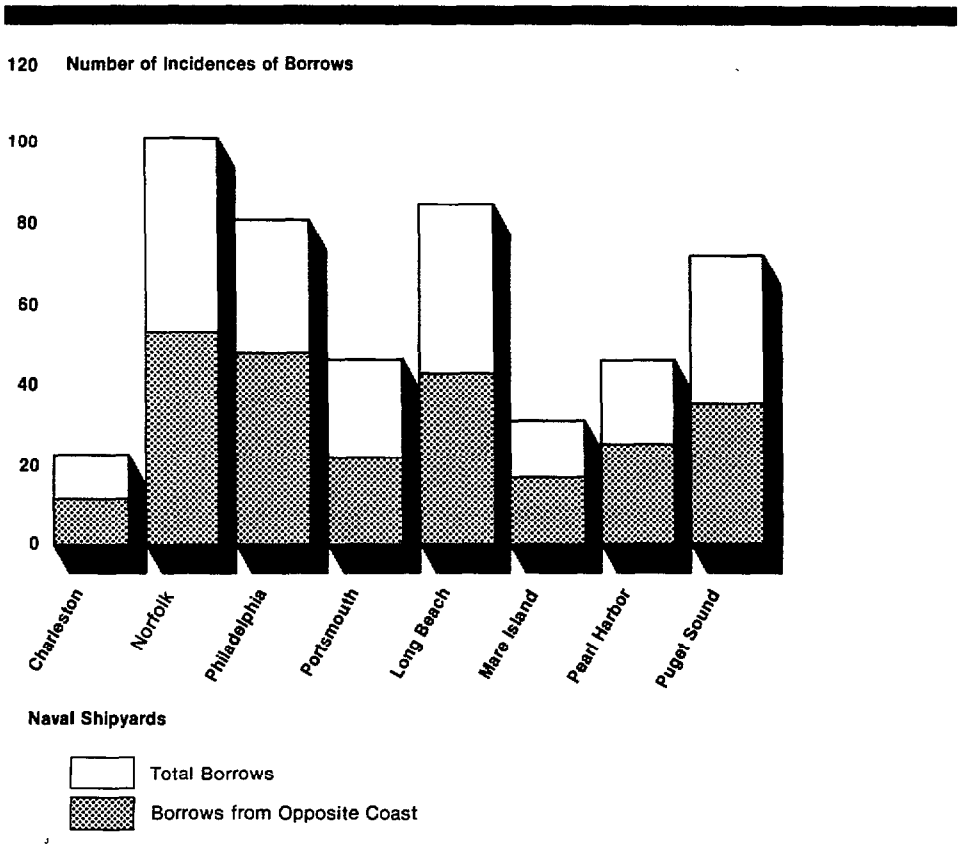
Figure I.5: Frequency of Naval Shipyard Skills Borrowed for Fiscal Years 1983-86 by Type of Skill



Extensive Users

As shown in figure I.6, certain shipyards borrowed labor more often than others, and most borrowed over 50 percent of the time from the opposite coast. The Norfolk and Philadelphia Naval Shipyards borrowed labor on 101 (21 percent) and 81 (17 percent) occasions, respectively, and the Long Beach and Puget Sound Naval Shipyards borrowed labor on 85 (18 percent) and 72 (15 percent) occasions, respectively.

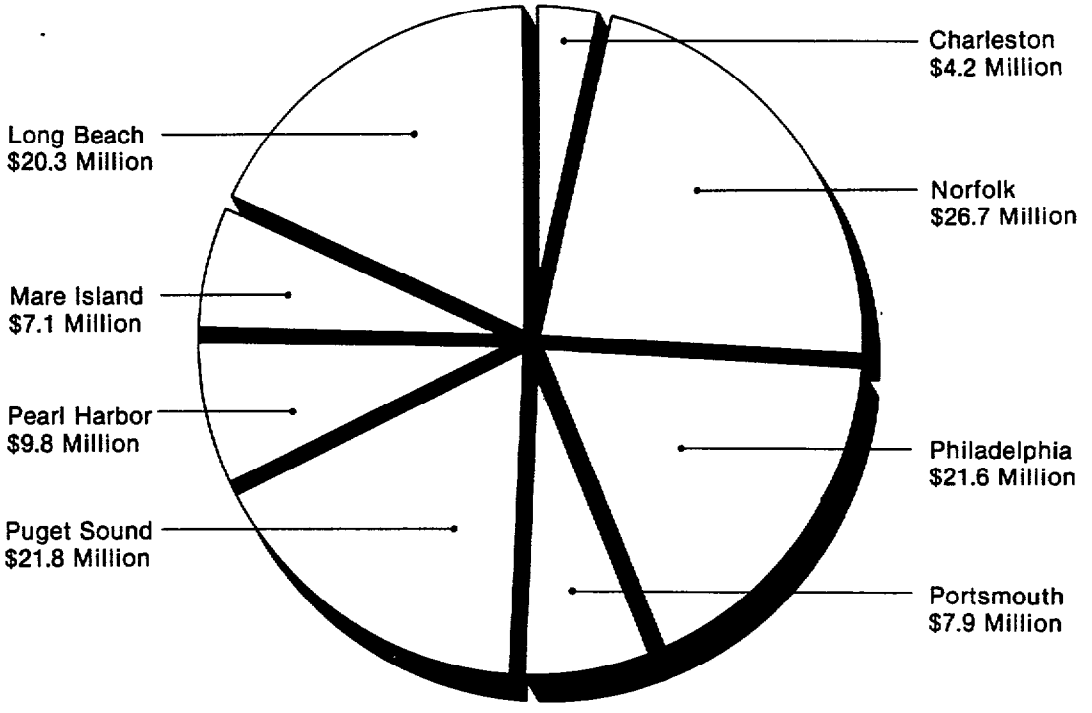
Figure I.6: Comparison of Instances of Naval Shipyard Borrowing to Those From the Opposite Coast for Fiscal Years 1983-86 by Shipyard



East coast shipyards borrowed labor from west coast shipyards in 135 of the 251 occasions, while west coast shipyards borrowed from east coast shipyards in 120 of the 234 occasions. The two shipyards that most often borrowed from the opposite coast were Norfolk and Philadelphia. Norfolk borrowed 101 times—53 times from west coast shipyards—and Philadelphia borrowed 81 times—48 times from the west coast.

As shown in figure I.7, Norfolk, Puget Sound, Philadelphia, and Long Beach Shipyards spent more on borrowed labor than the other shipyards.

Figure I.7: Comparison of Naval Shipyard Borrowed Labor Costs for Fiscal Years 1983-86



Reason for Borrowing

According to Navy headquarters officials, borrowing labor benefits both the lending and borrowing shipyards. The lending shipyard decreases the number of its excess personnel, the borrowing shipyard gains employees who are ready to begin work, and the Navy has productive workers. A Department of Defense official said that the Department believes borrowed labor is a legitimate source of labor resources and is a reasonable approach to accomplish shipyard work. We agree that, from a governmentwide perspective, borrowed labor may at times be the best way for a shipyard to accomplish its work load, especially for high-priority, unscheduled work and for urgent, unplanned short-term work.

Documentation for Borrowing Employees From Other Shipyards

When there is a temporary skill shortage at a naval shipyard, the shipyard should select the least costly and/or the most effective alternative(s) to accomplish its work load. The Navy had an instruction in effect until January 1986 that required shipyard management to compare the relative costs to the Navy. Such comparisons not only identify costs for the various available alternatives but also consider other aspects of the situation, such as deadlines for returning a ship to the fleet. This instruction also required a shipyard to document the basis for its decisions to borrow labor, justifying why it borrowed and alternatives considered.

For the 485 instances of shipyard borrowed labor, the shipyards could provide no cost comparisons of alternatives. Shipyard officials said no cost comparisons had been prepared because they had used the other alternatives to the extent possible before borrowing and, therefore, believed that the reasons for borrowing did not need to be documented. Officials of two shipyards said that formal documentation of such processes takes time from more important work and is an unnecessary expense.

For these same 485 instances, only the Philadelphia Naval Shipyard had documented such decisions. In fiscal year 1986, Philadelphia started documenting its production department's decisions to borrow labor, albeit without cost comparisons. At the time of our review it had documented one instance of borrowed labor that involved 20 welders and 1 supervisor and that cost about $374,000, of which $105,000 was for travel. These workers were borrowed from the Puget Sound Naval Shipyard to perform work on the U.S.S. Independence during June through August 1986.

The Naval Audit Service has reported that shipyards have not documented their decisions to borrow labor. In response to Naval Audit Service reports, the seven shipyards cited for this deficiency agreed with the finding, and officials of six said they would take corrective action. The other shipyard did not make a commitment. There is evidence that three shipyards have been documenting their borrowing decisions in fiscal year 1987; two others said they are, while the remaining two are not.

Without documentation, including cost comparisons, the shipyards' contentions that all alternatives had been considered could not be substantiated. Moreover, without such documentation, neither the shipyard nor Navy headquarters could be sure that the best approach for the government was used to relieve temporary labor shortages.

Navy Headquarters' Internal Controls for Shipyard Borrowed Labor

Navy headquarters officials said little attention had been given to naval shipyard borrowed labor practices because borrowed labor was not a significant problem.

Navy headquarters currently does not have standard procedures for making decisions on borrowing labor. Also, it does not have a standard system for reporting the actual usage of shipyard borrowed labor, though it has established limits and reporting requirements for overtime usage. Such internal controls would be useful in providing the Naval Sea Systems Command with reasonable assurance that shipyard labor resources are managed properly.

Guidance

In January 1986 the Naval Sea Systems Command canceled its regulation that provided shipyards the policies and procedures for borrowing personnel from shipyards. According to a Navy official, the regulation was discontinued as part of the Navy's paperwork reduction effort. After our fieldwork began, Command officials decided that it may be necessary to reissue the regulation. The Navy official responsible for redrafting the borrowed labor regulation said that the Command recognizes that guidance is needed. However, rather than making a Navy study to substantiate the need for a regulation, the Command is awaiting the results of our work before reissuing its guidance.

Most of the shipyards have issued local instructions (see app. III) on borrowing labor from activities. However, these instructions are not consistent in coverage and procedures. For example, the Pearl Harbor and Philadelphia Naval Shipyards' instructions list the alternatives to borrowing labor in the same priority order as they appeared in the canceled Navy headquarters' regulation. The Long Beach, Mare Island, and Portsmouth Naval Shipyards' instructions also list alternatives by priority, but these differ from shipyard to shipyard. The Norfolk Naval Shipyard's instruction neither lists the alternatives nor shows the order of precedence for taking actions.

A single regulation, applicable to all shipyards, would help to ensure that the shipyards implement a consistent policy. Without this overall guidance to the shipyards and in view of the variations in local instructions, Navy headquarters can neither evaluate nor ensure the appropriateness of shipyard decisions regarding the use of alternatives for relieving temporary labor shortages.

Oversight

According to a Navy official, until fiscal year 1978 each shipyard was required to report its use of borrowed labor to Navy headquarters through the narrative portion of its financial and operating statements. The Naval Sea Systems Command eliminated this requirement because it did not use the data and believed they were unreliable. Thus, Navy headquarters does not receive periodic reports on borrowed labor usage. Without sufficient management information over such labor, Navy headquarters cannot know the extent to which that means is used by individual shipyards, nor can it review trends in borrowed labor so that it can plan more effectively for the future.

Currently, the shipyards accumulate labor information on in-house and borrowed workers through the use of daily time cards. Information from these time cards is entered in the shipyard's computerized management information system. According to a Navy official, this management system, with minor programming effort, could be modified to extract and summarize borrowed labor data. Navy headquarters could then obtain visibility over borrowed labor usage by requiring shipyards either to add borrowed labor information to their overtime reports or to resume reporting the data in their financial and operating statements. Navy headquarters, of course, should consider other existing management information systems that could be modified to report shipyard borrowed labor usage.

Objective, Scope, and Methodology

On August 28, 1986, the Chairman of the Subcommittee on Readiness, House Committee on Armed Services, requested us to review the use of borrowed labor by naval shipyards. The Chairman was concerned that shipyards were routinely borrowing personnel from each other to accomplish their work in place of other, less expensive alternatives. In response to this request and a subsequent discussion with the Chairman's office, we focused our review on

- the extent to which shipyards borrowed labor from one another for fiscal years 1983-86,
- whether adequate documentation was prepared and maintained to justify borrowing employees from shipyards, and
- whether Navy headquarters' internal controls concerning guidance and oversight for shipyard borrowed labor were adequate.

To accomplish our objective, we obtained information from the Navy's Office of the Comptroller and the Naval Sea Systems Command. We discussed the alternatives for accomplishing shipyard work load, extent of shipyard borrowed labor, justification for borrowing labor, selected headquarters' internal controls for shipyard borrowed labor, and the Navy's planned initiatives to manage borrowed labor.

Also, we visited the eight naval shipyards shown in figure II.1.

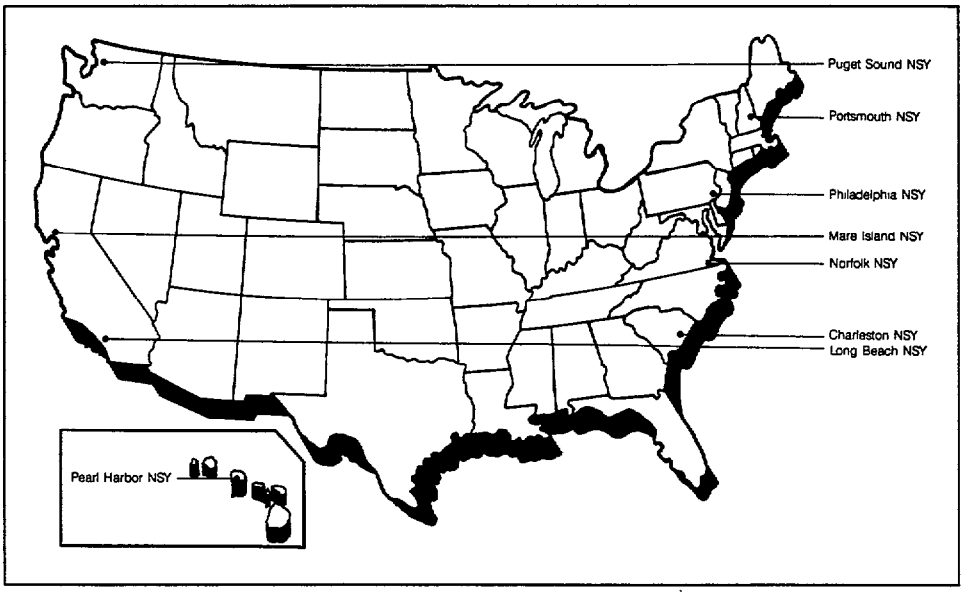


Figure II.1: Location of Naval Shipyards (NSYs)

At each shipyard, we collected information on borrowed labor for fiscal years 1983 through 1986, which we used to develop summary and trend data on the frequency of borrowed labor, skills borrowed by type, number of borrowed employees and hours worked, and costs of borrowed labor. These data were used to determine the extent of borrowed labor and to compare differences among shipyards. Additionally, we reviewed local shipyard instructions, where available, on the use of borrowed labor; various correspondence relating to borrowed labor; and shipyard and Naval Audit Service studies and reports on borrowed labor.

We selected 82 of the most significant occasions of borrowed labor (about 17 percent of the instances during these years) based on the number of times a skill was borrowed and the costs for the various skills borrowed. We discussed these instances with officials at the borrowing shipyard in an attempt to determine why the labor was borrowed, what alternatives were considered and why they were rejected, whether cost analyses of alternatives were made, whether justifications for borrowing the labor were documented, and whether labor was borrowed for scheduled or unscheduled work.

We performed our work from September 1986 through May 1987 in accordance with generally accepted government auditing standards. We did not review the computer controls over the data collected or verify the accuracy of the loaning shipyards' billing data for borrowed labor. We did discuss how the data were computed and corrected the data, with the shipyards' assistance, when they were not logical (e.g., overtime costs charged but no overtime hours charged). We discussed the matters presented in this report with officials of the Office of the Secretary of Defense and the Department of the Navy. As requested, we did not obtain official agency comments.

Navy Instructions on Borrowing Labor From Other Activities

Naval Sea Systems Command Instruction 12460.1, "Borrowing and Loaning of Personnel Between Naval Shipyards to Meet Temporary Skill Shortages," March 7, 1977. (This instruction was canceled in January 1986.)

Naval Shipyard, Long Beach, Instruction 12460.4B, "Borrowing and Loaning of Personnel Between Naval Activities to Meet Temporary Skill Shortages," April 2, 1979.

The following shipyard instructions require a comparison of the relative costs to the Navy for available alternatives when selecting the most effective and/or the least costly alternative(s) for accomplishing work load.

- Naval Shipyard, Mare Island, Instruction 12460.3, "Borrows and Loans of Employees Between Mare Island Naval Shipyard and Other Naval Activities," December 3, 1973.
- Naval Shipyard, Norfolk, Production Department Instruction 12272.1A, "Loans and Borrows of Production Department Personnel," November 30, 1983.
- Naval Shipyard, Pearl Harbor, Production Department Instruction 12460.1, "Borrowing Personnel From Other Activities to Meet Temporary Skill Shortages," December 9, 1986.
- Naval Shipyard, Philadelphia, Production Department Instruction 5312.1, "Procedures for Documentation of Borrowing Personnel From Other Shipyards/Activities," December 16, 1985.
- Naval Shipyard, Portsmouth, Instruction 5220.4, "Borrowing of Personnel From Other Government Activities to Meet Temporary Skill Shortages," March 13, 1986.

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