

GAO

Report to the Congress

September 1988

WATER RESOURCES

Competition for Corps of Engineers Civil Construction Contracts



043399/136957



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

**Comptroller General
of the United States**

B-231773

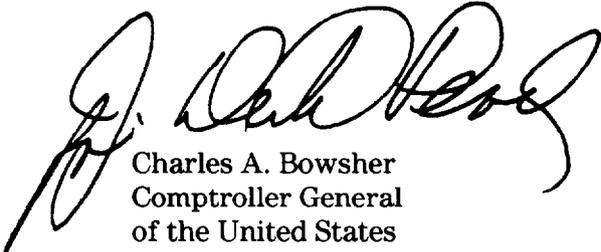
September 29, 1988

To the President of the Senate and the
Speaker of the House of Representatives

This report responds to Section 938 of the Water Resources Development Act of 1986 (Public Law 99-662), which required GAO to study the Secretary of the Army's contracting procedures for civil works projects. The report discusses whether (1) potential bidders or offerors, regardless of size, have been allowed to compete fairly for construction contracts, (2) construction proposals can be better prepared to ensure that no potential bidder or offeror is precluded from competing fairly, (3) recordkeeping requirements imposed upon contractors are appropriate in the interest of competition, and (4) the private sector can be more efficiently used for construction, architecture, engineering, surveying, and mapping.

We are providing a copy of this report to the Assistant Secretary of the Army (Civil Works). We will also make copies available to others upon request.

This report was prepared under the direction of James Duffus III, Associate Director. Major contributors to this report are listed in appendix II.



Charles A. Bowsher
Comptroller General
of the United States

Executive Summary

Purpose

The U. S. Army Corps of Engineers spent \$5.8 billion in fiscal years 1986 and 1987 to construct, operate, and maintain a nationwide system of water resource civil works projects such as dams, reservoirs, harbors, and locks. About 60 percent of the Corps' civil works obligations were contracted out to the private sector in these 2 years.

The Water Resources Development Act of 1986 requires GAO to study the Secretary of the Army's contracting procedures for civil works projects, including an examination of whether

- bidders or offerors, regardless of their size, are allowed to compete fairly for civil works contracts in the interest of lowering construction contract costs and
- contract procedures are applied uniformly among Corps field offices.

As part of its report to the Congress, GAO is to include recommendations, as appropriate, on improving contracting procedures to ensure that Corps construction proposals allow for fair competition, recordkeeping requirements are appropriate in the interest of competition, and the private sector is being used efficiently for construction, architecture, engineering, surveying, and mapping services.

Background

The Corps of Engineers is subject to federal law and procurement regulations that generally require agencies to allow all sources capable of satisfying the government's needs to compete for contract awards. This emphasis on full and open competition is intended to ensure reasonable procurement costs. However, agencies are also required to set aside some procurements for small businesses to ensure that a fair proportion of government purchases are placed with small business enterprises.

GAO visited 7 of the 38 Corps districts to review their contracting procedures. These districts accounted for \$1.01 billion (29 percent) of the Corps' \$3.5 billion in contract obligations for construction and other activities in fiscal years 1986 and 1987.

GAO's review concentrated on the front end of the contract process—competition for a contract award—and did not address the Corps' administration of the contracts awarded.

Results in Brief

Because the Corps is legislatively required to set aside contracts for exclusive small business participation, large-size potential bidders or

offerors were not able to compete for all construction contracts. However, the Corps districts uniformly used full and open competitive contracting procedures for contract awards to both large and small businesses.

The Corps construction contract proposals GAO reviewed and the recordkeeping requirements for contractors did not negatively affect competition for contract awards. The Corps districts used the private sector for most construction, architecture, engineering, surveying, and mapping services. Legislative and national defense constraints affect the Corps' ability to contract for more of these services.

Principal Findings

Competition for Contracts

During fiscal years 1986 and 1987, the seven Corps districts GAO visited obligated funds for 500 civil construction contracts, totaling \$816 million, with both large and small businesses. Of that amount, the Corps awarded \$255 million to small businesses under mandated small business set-aside programs and \$561 million in unrestricted contracts to both large and small businesses. The seven Corps districts used contracting procedures that uniformly provided for full and open competition for the construction contracts set aside for small businesses, as well as for contracts not set aside.

The competitive procedures often resulted in prices lower than the government estimate. The median number of bids on set-aside contracts was four; the median number of bids on contracts not set aside was three.

Contract Proposals and Recordkeeping Requirements

The Corps construction contract proposals GAO reviewed did not restrict competition. GAO reviewed 54 civil construction contract protests filed with the Corps and GAO during fiscal years 1986 and 1987 and found no sustained protests of restrictive contract proposals that could have reduced competition. Also, of the 130 general construction contractor representatives who expressed an interest in but did not compete for the proposed contracts GAO reviewed, none said that the Corps' proposals were restrictive or affected their decision not to compete. Rather, they chose not to compete for other reasons, such as not having the time, resources, or interest in doing the work.

Federally authorized recordkeeping requirements are intended to ensure that contractors comply with contract terms and work is performed in a safe, timely, and cost-effective manner. Other requirements, relating to environmental protection, payroll records, and equal opportunity, are required to demonstrate contractor compliance with federal statutes.

None of the 130 contractors' representatives GAO contacted stated that the recordkeeping requirements prohibited them from competing for Corps construction contracts. However, 15 did state that Corps recordkeeping requirements were either voluminous, costly, unnecessary, or redundant.

Contracting With the Private Sector

The Corps contracted out almost all general construction under its civil works program; the major exception was 15 percent of its dredging. Legislation authorizes the Corps to maintain a minimum dredging capability to meet national defense and emergency needs.

The Corps also contracted out about 40 percent of its civil works engineering work, including architecture, engineering, surveying, and mapping. Districts were restricted from contracting out the remaining work because of legislative requirements and national defense needs.

Recommendations

Since GAO did not find any significant deficiencies in the areas reviewed, it is not making any recommendations for improvements to the contracting procedures.

Agency Comments

The Assistant Secretary of the Army (Civil Works) reviewed the report and concurred with GAO's findings and conclusions. Corps staff provided technical comments, which have been incorporated where appropriate.

Contents

Executive Summary		2
Chapter 1		8
Introduction	Corps Contracting	8
	Objectives, Scope, and Methodology	8
Chapter 2		13
Set-Asides Affected Large Businesses, but All Contracts Were Competitively Awarded	Federal Competition Requirements	13
	Large Businesses Awarded Most of the Contract Dollars but Fewer Contracts Than Small Businesses	14
	Corps' Competitive Procedures Resulted in Reasonable Prices	15
	Federal Size Standards for Small Businesses to Be Reduced	17
	Conclusion	18
Chapter 3		19
Corps Proposals Allowed Fair Competition	GAO's Industry Survey Found No Restrictive Proposals	19
	Few Bid Protests Related to Restrictive Proposals	20
	Corps Actions to Ensure Proposals Were Not Restrictive	20
	Conclusion	22
Chapter 4		23
Corps Recordkeeping Did Not Affect Competition	Records and Reports Demonstrated Compliance	23
	Measures to Regulate Records and Reports	25
	Industry Survey Found No Evidence That Recordkeeping Hindered Competition	26
	Conclusion	26
Chapter 5		27
Private Sector Was Extensively Used for Construction and Other Activities	OMB Guidance on Contracting	27
	Most Corps Construction Was Contracted	27
	Engineering Capability Retained by the Corps	29
	Corps Is Studying Opportunities for Additional Contracting	31
	Conclusion	32
Appendixes		34
	Appendix I: Comments From the Assistant Secretary of the Army (Civil Works)	34

Contents

	Appendix II: Major Contributors to This Report	35
Tables		
	Table 1.1: Civil Works Obligations, Fiscal Years 1986 and 1987	8
	Table 1.2: Civil Works Contracting in Seven Corps Districts, Fiscal Years 1986 and 1987	10
	Table 3.1: Number of Projects With One Bidder	21
	Table 5.1: Dredging Statistics	28
	Table 5.2: Corps-Wide Civil Works Engineering: In-House and Contract, Fiscal Years 1986-87	30
Figures		
	Figure 2.1: Number of Contracts and Dollars Awarded to Small and Large Business	15
	Figure 2.2: Trend in Prices for 453 Civil Construction Contracts	16

Abbreviations

GAO	U.S. General Accounting Office
OMB	Office of Management and Budget
SBA	Small Business Administration
SBSA	Small Business Set Aside

Introduction

Since 1824 the U.S. Army Corps of Engineers has helped manage the nation's water resources with such projects as dams, reservoirs, levees, harbors, waterways, and locks. These civil works built by the Corps provide flood protection, supply water for municipal and industrial use, generate hydroelectric power, provide recreational opportunities, and protect the shores of oceans and lakes. During this century the Corps has constructed over 400 major flood control lakes, 1,700 local flood protection projects, 70 hydroelectric projects, 100 reservoirs, and 4,000 recreation areas, and it maintains over 25,000 miles of commercially navigable waterways. In addition, the construction of over 200 new water resource projects around the country is authorized by the Water Resources Development Act of 1986.¹

Corps Contracting

While the Corps plans most of its projects, it awards contracts for designing and constructing new projects and for operating and maintaining completed projects. Much of the Corps' work today involves operating and maintaining completed projects. It also routinely contracts for maintenance dredging along waterways, recreational area maintenance, and repair of navigation structures. In fiscal years 1986 and 1987, most of the Corps' civil works funds were obligated to private firms through contracts. Table 1.1 shows these obligations.

Table 1.1: Civil Works Obligations, Fiscal Years 1986 and 1987

Dollars in Thousands

	1986		1987	
	Obligations	Percent of total	Obligations	Percent of total
Contractual	\$1,568,219	57.5	\$1,943,324	62.6
In-house	1,159,214	42.5	1,160,850	37.4
Total	\$2,727,433	100.0	\$3,104,174	100.0

Note: Excludes obligations made to other federal agencies or provided to states.

Source: Corps of Engineers.

Objectives, Scope, and Methodology

Section 938 of the 1986 Water Resources Development Act required GAO to study whether potential bidders or offerors, regardless of their size, are allowed to compete fairly for Corps civil construction contracts in the interest of lowering construction costs. The act also directed GAO to address whether contract procedures are applied uniformly among the

¹Public Law 99-662, November 17, 1986.

Corps' field offices. We were further required to provide recommendations on improving the contracting procedures, including (1) how the Corps can prepare proposals for construction that ensure that no potential bidder or offeror is precluded from competing fairly; (2) whether recordkeeping requirements imposed by the Corps are appropriate in the interest of competition; and (3) the extent to which the Corps can use the private sector more efficiently in contracting for construction, architecture, engineering, surveying, and mapping.

To accomplish these objectives, we conducted our review at Corps headquarters in Washington, D.C., and 7 of the 38 Corps districts and contracting divisions. The Corps organizations involved at headquarters include the Directorate of Civil Works, the Directorate of Engineering and Construction, the Office of the Chief Counsel, the Office of the Principal Assistant Responsible for Contracting, and the Office of Small and Disadvantaged Business Utilization. All of these entities have operational and/or policy responsibility for the Corps' contracting of construction work and report to the Corps' Chief of Engineers. The divisions (and districts under them) report directly to the Chief of Engineers and carry out the civil works program as well as military construction activities in their areas.

The seven field offices were judgmentally selected on the basis of the dollar volume of their civil works contracting for construction and other work and their geographic location. Table 1.2 identifies the offices and their contract dollars for fiscal years 1986 and 1987.

Table 1.2: Civil Works Contracting in Seven Corps Districts, Fiscal Years 1986 and 1987

Dollars in Thousands		
Division/district	Contract obligations	
	1986	1987
Lower Mississippi Valley Division		
New Orleans District	\$173,093	\$174,874
Vicksburg District	129,987	171,042
North Pacific Division		
Portland District	70,298	76,850
South Pacific Division		
Los Angeles District	23,299	66,964
Southwestern Division		
Fort Worth District	32,887	55,480
New England Division	13,868	17,517
North Central Division		
Chicago District	3,130	4,231
Total	\$446,562	\$566,958

Note: The New England Division is an operating division that has no districts reporting to it. Throughout this report it is referred to as a district.

Source: Corps of Engineers.

The seven districts account for over one-fourth of the civil works contract obligations made to private companies during fiscal years 1986 and 1987. The New Orleans and Vicksburg Districts were the two largest Corps civil contracting districts during these 2 years. We selected the remaining districts on the basis of their geographic location and the types of contracts they awarded and to obtain districts with varying levels of contract dollars. This variety allowed us to address the issue of whether contracting procedures varied among districts. The Principal Assistant Responsible for Contracting at Corps headquarters told us that even though our selection was not statistically valid, the different types of contracts in the seven districts would provide enough variety so that we could assess the uniformity of Corps contracting procedures among Corps field offices.

To examine if potential bidders or offerors, regardless of their size, are allowed to compete fairly in the interest of lowering construction contract costs, we interviewed contracting officials and obtained contract information in the seven Corps districts on construction contract award procedures and the proportion of contracts being set aside for small business. To assess the impact of federal requirements for setting aside contracts for small businesses, we compiled listings of all civil construction contracts costing over \$25,000 and awarded during fiscal years 1986 and 1987 in the seven districts. We then analyzed data on the numbers

and sizes of firms competing for and being awarded contracts to measure the level of competition. Contract award amounts and government estimates were compared to determine if the Corps' competitive procedures resulted in competitive contract costs. While we did not independently verify the basis for the government estimates, they provide a measure of the reasonableness of contract prices.

To examine whether contracting procedures were applied uniformly among the Corps' various field offices, we compared information obtained in each of the seven districts on contracting and set-aside procedures, measures taken to ensure nonrestrictive construction proposals, recordkeeping requirements, and use of the private sector.

To determine if the Corps could better prepare construction proposals that ensure that no potential bidder or offeror is precluded from competing fairly, we interviewed district contracting officials to obtain information on steps the Corps takes to ensure that proposals do not preclude fair competition. To assess whether Corps proposals were restrictive so as to hinder competition, we reviewed all bid protests filed with GAO or the Corps during fiscal years 1986 and 1987 on civil construction contracts to determine if protests on bid proposals or awards related to specifications in proposals that could restrict the ability of a contractor to compete fairly.

In addition to assessing whether competitors believed that Corps proposals prevented them from competing fairly, we interviewed representatives of 130 general contractors in the seven districts to obtain their opinions on this and other issues. To identify the general contractors for telephone interviews and to include a variety of firms, we selected three recently awarded civil construction contracts in each of the seven districts that represented a different type of construction. We then obtained listings of firms that had expressed an interest in competing for the 21 contract proposals by paying for the plans and specifications necessary to prepare a bid. From this listing, we contacted representatives of 20 percent of the construction firms, selected randomly, that had expressed an interest in competing but had not bid. We asked them why they had not bid, whether they consider Corps construction proposals restrictive, about their past Corps contracting experience, whether Corps contracting procedures are fair and open, and about Corps recordkeeping requirements. While not a statistically valid nationwide sample, our survey provides views on civil construction proposals from a cross section of firms. We did not attempt to identify or

contact construction firms that had not requested plans and specifications on these 21 proposals.

To examine if recordkeeping requirements imposed by the Corps limited competition, we obtained from Corps headquarters and the seven districts detailed listings of recordkeeping requirements included in construction contracts. We determined if any requirements were unique to any district and the regulatory basis for these requirements. We also asked the 130 general contractor representatives for their opinions of whether Corps recordkeeping requirements negatively affected competition.

To obtain information on how the private sector could be used more efficiently by the Corps in contracting for construction, architecture, engineering, surveying, and mapping, we interviewed Corps headquarters and district construction and engineering officials and gathered data on the extent of work the Corps contracted out versus the extent it performed itself. We considered the term "more efficiently" to mean whether the private sector was afforded the opportunity to be awarded construction and construction-related contracts.

We performed this review from August 1987 through April 1988 in accordance with generally accepted government auditing standards.

Set-Asides Affected Large Businesses, but All Contracts Were Competitively Awarded

During fiscal years 1986 and 1987, the Corps obligated funds for 500 construction contracts, totaling \$816 million of the \$1.01 billion for all contracted activities, in the seven districts GAO visited. Under requirements imposed by the Small Business Act, the Corps set aside 385 of these contracts worth \$255 million for competition among small businesses. The remaining 115 contracts worth \$561 million were competed among both large and small businesses. Therefore, because of legislative requirements, large-size potential bidders or offerors were not able to compete for all construction contracts. The seven districts used competitive procedures to ensure full and open competition, as well as competitive prices, to award contracts to both the large and small business concerns.

Federal Competition Requirements

Federal agency purchases are required by law to be based on competition in the open marketplace whenever practicable. Offering all contractors the opportunity to compete helps to minimize collusion and ensure that the government pays fair and reasonable prices. The Competition in Contracting Act of 1984 (Public Law 98-369) requires the use of competitive procedures to obtain full and open competition and limits the use of other than competitive procedures to specified situations. For example, the use of noncompetitive procedures may be authorized in the event of unusual or compelling urgency, or when only one source will satisfy the government's needs.

Federal agencies are also required to aid and assist small business concerns to ensure free markets, free entry into business, and opportunities for individual growth. To this end, the Small Business Act of 1953, as amended, requires agencies to set aside contracts for small businesses to ensure that a fair proportion of government sales are made to such enterprises and that the overall economy of the nation is maintained and strengthened.

The Federal Acquisition Regulation (48 CFR Chapter 1) provides agencies specific procedures to follow in obtaining full and open competition in procurement. The two primary procedures are the use of sealed bids and competitive proposals. Under sealed bid procedures, potential contractors submit bids to perform the work and compete solely on the basis of cost. Contract award is made to the lowest responsible bidder. Under competitive proposal procedures, potential contractors submit proposals, including cost estimates, to perform the work. Competition is

based on both cost and other defined factors the agency considers necessary to perform the work. Contract award is made on the basis of cost and technical evaluations of proposals.

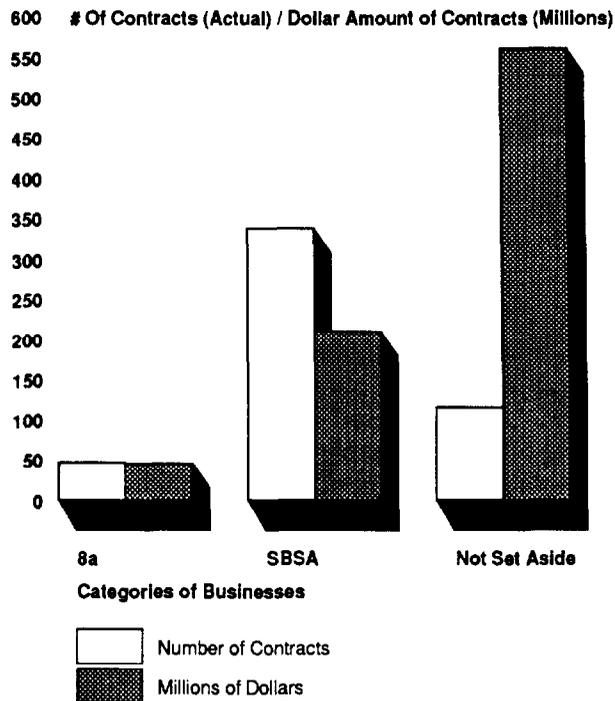
The Small Business Act authorizes the use of competitive procedures when awarding contracts to small business concerns. Contracts are awarded by setting aside contracts for exclusive competition between small businesses under the Small Business Set Aside (SBSA) program. A smaller number are awarded through a contract with the Small Business Administration (SBA), which subsequently subcontracts the work to small, economically and socially disadvantaged business concerns under the Section 8(a) program. When offers can be expected from at least two responsible small businesses at reasonable prices, agencies are required to set aside contracts under the Small Business Set Aside program. When it is believed that small disadvantaged firms can perform the work, contracts are set aside for the Section 8(a) program.

Large Businesses Awarded Most of the Contract Dollars but Fewer Contracts Than Small Businesses

Data we compiled on the 500 civil construction contracts awarded during fiscal years 1986 and 1987 in the seven Corps districts showed that the majority of contract dollars, \$561 million (69 per cent) of the \$816 million awarded, were openly competed by all business concerns, regardless of their size. These awards relate to 115 of the 500 contracts, or 23 percent of the total number of contract awards. In contrast, \$255 million (31 percent) of the contract dollars were set aside for small business concerns or 8(a) firms. These awards relate to 385 contracts, or 77 percent of the awards. Of these 385 contracts, 338 were awarded under the Small Business Set Aside program and 47 contracts were awarded under the Section 8(a) program. More dollars, but fewer contracts, were not set aside because the contracts are typically much larger than contracts set aside. For example, contracts not set aside ranged from \$222,000 to \$62.8 million and included the construction of underground flood diversion tunnels, a dam, major breakwater repairs, and dredging. Prices for contracts set aside ranged from \$10,300 to \$8.6 million, including such contracts as paving at recreational areas, levee work, and construction of small buildings.

Figure 2.1 shows the difference between the number and dollar value of contracts set aside for small businesses and those not set aside.

Figure 2.1: Number of Contracts and Dollars Awarded to Small and Large Business



Not Set Aside Includes Both Small and Large Businesses

Corps' Competitive Procedures Resulted in Reasonable Prices

District contracting officials told us that they relied on competitive procedures to ensure full and open competition, as required under the Federal Acquisition Regulation, whether or not the contracts were set aside for small business. Of the 500 contracts awarded, 445 contracts were awarded using the sealed bid procedure; the other 55 contracts were awarded using competitive proposals.

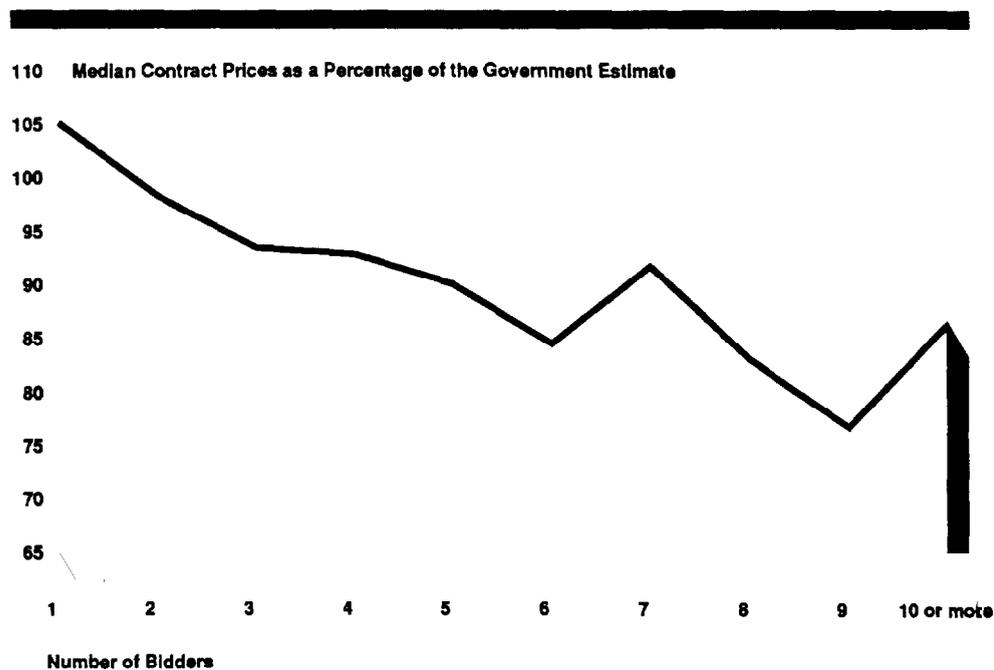
Our analysis of the number of businesses competing for civil construction contracts in the seven districts, as well as the contract prices obtained, demonstrates that the Corps' use of competitive contracting procedures resulted in sufficient competition for the Corps to obtain reasonable contract prices.¹

¹Contracts awarded under the 8(a) program were excluded from this analysis because the Corps awards these contracts to the Small Business Administration, which is responsible for selecting 8(a) businesses to subcontract with. Of the 500 contracts, 47 8(a) contracts were awarded by the seven districts during fiscal years 1986 and 1987.

Under the guideline imposed on it by 33 U.S.C. 624, the Corps may accept a contract price only if it exceeds by no more than 25 percent what the Corps determines to be a fair and reasonable estimate for a well-equipped contractor or the government to do the work. Therefore, when assessing the reasonableness of bids or offers obtained competitively, the Corps compares prices to the government estimates.

We compared the contract award amount to the Corps' own estimate of the contract cost to determine if competition affected contract prices. We found that as the number of businesses competing for contracts increased, contract prices tended to decrease in relation to the government estimate. This trend is illustrated in figure 2.2 with the median contract prices, expressed as percentage of the government estimate, as the number of bidders increase. The majority of fiscal years 1986 and 1987 civil construction contracts in the seven districts were awarded at reasonable prices less than the government estimate. About 66 percent of the contracts, or 300 of 453 contracts, were awarded for less than the government estimate.

Figure 2.2: Trend in Prices for 453 Civil Construction Contracts



Median contract prices as a percentage of the government estimate were plotted for the 10 groups of contracts in our selection of 453 having 1 through 9 bidders and 10 or more.

Based on data compiled on civil construction contracts awarded by seven selected contracting offices in Fiscal Years 1986-87 [Sec. 8(a) contracts not included].

The median number of businesses competing for fiscal years 1986 and 1987 civil construction contracts in the seven districts was four. This means that half the contracts had four or more businesses competing while the other half had one to three businesses competing for contract award. The median number of businesses competing for contracts set aside under the Small Business Set Aside program was also four. The median number of businesses competing for contracts not set aside, and competed among both large and small businesses, was three.

The results of our analysis are similar to the results of an internal Corps study on competition done by staff of the Directorate of Engineering and Construction. In 1983 the staff analyzed competition for civil construction contracts costing over \$3 million that were awarded between 1979 and 1983. The study found that as the number of businesses competing increased, contract costs decreased in relation to the government estimate. Its analysis showed that if four or more businesses competed for a contract award, contract prices were more likely to be less than the government estimate for those contracts. As more businesses competed, lower contract prices were obtained.

Federal Size Standards for Small Businesses to Be Reduced

Under the 1986 Defense Acquisition Improvement Act (Public Law 99-591) and the 1987 Department of Defense Authorization Act (Public Law 99-661), SBA was to study and revise small business size standards for various industries so that Small Business Set Aside and 8(a) contracts accounted for no more than 30 percent of the value of contracts in each industry.² SBA's July 1987 study concluded that its size standards would have to be decreased by about 80 percent to meet the 30 percent goal. The reduced size standards are expected to be issued by September 1988.

SBA estimates that the proposed standards for construction firms will result in a 51 percent reduction in construction dollars set aside for small business because about 50,000 firms would lose their small business status. In fiscal year 1986, \$4.5 billion worth of federal construction work was set aside. If the new standards were applied, \$2.3 billion of that amount would have been competed by both large and small businesses.

²The industry groups include construction, engineering (including architecture and surveying), shipbuilding and ship repair, and refuse systems. These groups comprise 29 separate industries.

Conclusion

The Small Business Act requires the Corps to set aside contracts for small businesses; large businesses therefore do not have the opportunity to compete for these set-aside contracts. Nevertheless, the seven Corps districts relied on procedures that provided for full and open competition, regardless of whether contracts were set aside for small businesses or were not set aside and competed among both large and small businesses. The use of these procedures resulted in sufficient competition for the Corps to obtain reasonable contract prices. Four or more firms competed for half of the contracts awarded during fiscal years 1986 and 1987, and most contracts were awarded at prices less than the government estimate. Our work at the seven Corps contracting offices, while not statistically representative of the Corps nationwide, indicates that contracting procedures were generally uniform across the seven geographically dispersed locations, each with a unique workload and mix of civil construction contracts.

Corps Proposals Allowed Fair Competition

Corps procedures are directed at ensuring that contract proposals do not have specifications or requirements that would restrict competition. The effectiveness of these procedures is evidenced by our survey results: none of the 130 contractor representatives in seven districts told us that the 21 Corps proposals they elected not to bid on were restrictive. It is also evidenced by the fact that, in the last 2 fiscal years for all 38 Corps districts, only two construction bid protests have claimed restrictive specifications and both were denied.

GAO's Industry Survey Found No Restrictive Proposals

In accordance with Federal Acquisition Regulation guidance, agencies are prohibited from including restrictive specifications in proposals for contracts that might unduly limit competition. We asked representatives of 130 general contractors who expressed an interest in, but did not bid on, the 21 Corps civil construction projects we selected why they did not bid on the projects. We also asked if they had ever encountered a Corps proposal that included restrictive specifications limiting competition. None of the 130 contractor representatives told us that the contractors were unable to compete for the 21 proposals because of restrictive specifications. Four of the representatives said that they did not compete because the Corps limited competition. However, these four contractors were large businesses and could not compete because the contracts involved were set aside for small business. As discussed in chapter 2, the Corps provided for full and open competition under the small business set-aside programs. The other 126 contractor representatives provided no evidence that the 21 proposals included specifications that prevented them from competing. About 60 firms' representatives said that they did not bid because they were either not interested in performing the work, or their firms already had sufficient business.

When asked if they had ever encountered restrictive proposals that would limit competition, 91 firms' representatives (70 percent) said they had never encountered unjustified specifications that restricted competition in any Corps proposal. Of the remaining 39 firms, most representatives cited the small business set-aside provision as a factor excluding them from bidding.

Few Bid Protests Related to Restrictive Proposals

Should they encounter restrictive specifications or other problems with the contracting process, actual or prospective offerors may file written protests with the Corps or GAO in the event that their economic interest would be affected by a contract award.

During fiscal years 1986 and 1987, a total of 54 bid protests, filed with either GAO or the Corps, were listed on the Corps' central log of protests on civil construction contracts. Only two protests were lodged because of restrictive specifications, and both were denied. One protestor alleged that the Corps unduly restricted competition because it specified a particular method for dam construction. This protest was denied because the protestor could not show that the construction method was unreasonable. Another protestor alleged that the Corps restricted competition because it specified the use of a clamshell dredge. The bidder proposed using a hopper dredge. This protest was denied because the clamshell dredge was required for environmental reasons.

The reasons for the remaining 52 protests included (1) the Corps' rejection of a particular firm's bid as nonresponsive to the requirements included in the contract proposal, or a competing firm's contention that the winning firm's bid was nonresponsive, (2) disagreement with the government cost estimate, and (3) the small business set-aside restriction. Only 5 of these 52 protests were sustained. The remainder were either denied on the merits or dismissed.

Corps Actions to Ensure Proposals Were Not Restrictive

To help ensure that the Corps receives as much competition as possible, the Corps districts review proposals to determine that they do not include restrictive specifications. Also, when a small number of responses are received, Corps contracting officials examine the proposals to determine the reasons for the low response.

Contracting officials in six of the seven districts told us that contracting officers and attorneys review solicitations before they are advertised. A contracting official in the Los Angeles district said that the district reviews contract proposals prior to bid opening and contract award. While the district would prefer conducting this review prior to advertisement, it generally has insufficient time to do so. Should any restrictions be included in a solicitation, engineering and contracting officials, as well as procurement attorneys, meet to determine the basis for the restrictions. The seven districts' contracting officials said that restrictions are eliminated unless they are necessary for the successful completion of the contract.

Contracting officials in all seven districts told us that they could recall no instances of unnecessary restrictions contained in solicitations for civil construction contracts that had been awarded. Fort Worth and Vicksburg officials stated that restrictions would more likely occur in solicitations for services or supplies, where brand names or their equivalents are specified, rather than in solicitations for construction. If a district found that an unnecessary restriction was contained in a solicitation, it could be corrected by amending the solicitation.

To further determine whether the seven districts included restrictions in construction proposals, we identified construction proposals in the seven districts that received fewer than two bids to learn if district contracting officials found any restrictive solicitations resulting in the low bid response rate. Federal procurement regulations require agencies to examine these proposals to determine the basis for the small number of responses. We found that most districts simply assess the nature of the work being contracted to determine why few bids were received, while two districts go so far as to ask firms for their reasons for not bidding. Table 3.1 shows the number of proposals receiving one bid in each of the districts.

Table 3.1: Number of Projects With One Bidder

District	Total projects	Number with one bidder
Chicago	11	0
Portland	64	1
Fort Worth	53	1
Los Angeles	31	2
New Orleans	98	3
New England	53	4
Vicksburg	143	13
Total	453	24

Source: Corps district construction bid abstracts for fiscal years 1986 and 1987.

Contracting officials told us that the nature of work being contracted often determines why few bids are received. The reasons found by Corps contracting officials as to why firms did not compete for these 24 projects provided no evidence that the low bid response rate was due to restrictive specifications. The reasons for the low response rate to these projects were consistent with reasons for the non-response of the 130 contractor representatives we contacted in our industry survey.

For example, reasons provided by firms in the Fort Worth district for not bidding on a paving contract included lack of interest, insufficient equipment, or the inability to obtain needed bonding. A Vicksburg contracting official told us that firms often do not submit bids because they are already busy, or because few contractors are located in the geographic area where work has to be performed. Eight of the 13 projects in the Vicksburg District that received fewer than two bids were located in remote areas where few contractors are located. Four were along the Red River in Louisiana. The other four projects were located in Arkansas at Blakely Mountain Dam, Lake Greeson, and sections of the Ouachita River. A Los Angeles contracting official agreed that geographic location affects the number of bids received. He explained that two dredging projects received fewer than two bids because few dredging firms are located on the West Coast. Stone bank-paving contracts in the New Orleans District also received few bids because few contractors in the area supply quality stone necessary for the paving.

Conclusion

The seven Corps districts we visited had procedures in place to help ensure that restrictive proposals are not used for construction contracts. These procedures have been effective in preventing the use of restrictive proposals, as evidenced by our survey of 130 general construction contractors as well as by the nature of bid protests filed Corps-wide during fiscal years 1986 and 1987. None of the 130 contractors surveyed told us that Corps proposals contained restrictive specifications that limited competition. Of the 54 bid protests filed during the past 2 fiscal years, only 2 claimed the Corps' proposals contained restrictive specifications as to construction method or type of equipment, and both protests were denied.

Since the evidence we obtained from the seven districts indicated that Corps proposals were prepared to ensure that bidders or offerors could compete fairly, we are not making any recommendations.

Corps Recordkeeping Did Not Affect Competition

On the basis of our survey of 130 contractor representatives in the seven districts, we determined that Corps recordkeeping requirements have not discouraged competition. Administrative and technical recordkeeping requirements we identified are authorized by federal legislation and are implemented through the Federal Acquisition Regulation. The administrative reports the Corps requires contractors to prepare relate to equal employment opportunity, environmental protection, and payroll matters. Technical reports deal with safety, quality control, plans and specifications, timeliness of work, and contract changes.

Records and Reports Demonstrated Compliance

Administrative and technical reports that construction contractors must prepare are used to ensure that the contractors comply with contract requirements. In general, all Corps construction contractors must maintain and/or submit the same administrative and technical records, regardless of the nature of the work. However, additional technical records are required when the nature of the work requires additional safety measures, changes, or when the work is time critical.

Administrative Requirements

Executive Order 11246, as amended by Executive Order 11375, prohibits contractors from discriminating on the basis of race, color, religion, sex, or national origin. To enforce these equal employment opportunity requirements, the Corps requires all construction contractors to provide information on their equal opportunity compliance to organizations they have collective bargaining agreements with, as well as to the Corps or the Secretary of Labor.

Contractors are required to comply with provisions of the Clean Air¹ and Clean Water² Acts. To monitor compliance with the acts, all Corps contractors must develop an environmental protection plan. According to district contracting officials, these plans include contractor permits to provide for the safe release, discharge, or disposal of air, water, and solid wastes.

The Davis-Bacon Act³ establishes minimum wages that are to be paid various classes of workers on federal projects. The Corps requires that

¹42 U.S.C. 7401 et seq.

²33 U.S.C. 1251 et seq.

³40 U.S.C. 276a.

all contractors submit payroll records that provide the names, classifications, wages, and other information concerning the contractors' employees. Contractors are also required to submit certification of Davis-Bacon compliance and a letter delegating responsibility for payroll activity supervision.

Technical Requirements

The Corps, under legislative guidance,⁴ requires all contractors to submit safety records to ensure that contractor employees are able to work under conditions that are free from recognized hazards. The Corps requires contractors to prepare and submit an accident prevention plan, a monthly safety management evaluation, and an activity hazard analysis. District construction officials told us that other forms may also be required if the contract calls for additional safety measures dictated by the nature of the construction work.

Quality control regulations⁵ require contractors to maintain an inspection system that ensures the work performed conforms to contract requirements. The Corps requires contractors to prepare a quality control plan, a daily inspection report, and a completion inspection report. Because contract specifications vary with the complexity of the contract work, district construction officials told us that additional forms may be required on a job-by-job basis.

The Federal Acquisition Regulation⁶ also requires contractors to maintain construction specifications and drawings demonstrating that the proposed fabrication and assembly of structural elements will comply with contract specifications. Other necessary certificates of compliance may be called for by contract specifications. The Corps requires contractors to also prepare and submit contract change records and reports in order for the Corps to monitor the nature and costs of contract changes.

The Federal Acquisition Regulation⁷ requires the contractor to submit information to ensure that the contractor is performing work with sufficient diligence to ensure completion within the time specified under the contract. The districts may require the contractor to submit construction

⁴P.L. 91-596.

⁵FAR Part 52.246-12.

⁶FAR 52.236-21.

⁷FAR 52.236-15; 52.212-6.

schedules, progress chart updates, time extension requests, and process photographs.

Measures to Regulate Records and Reports

The Office of Management and Budget (OMB) reviews all records or reports federal agencies require of the private sector to ensure that the records or reports are not overly burdensome or do not impair competition. Forms the Corps imposes are subject to OMB review and/or approval under provisions contained in the Paperwork Reduction Act of 1980.⁸ The 1980 act is designed to minimize and control burdens associated with the collection of information by federal agencies from individuals, businesses, other private institutions, and state and local governments. Forms the Corps intends to utilize in its contracting activities are evaluated to determine if the collection of information

- is in the least burdensome format,
- is not duplicative of information otherwise accessible to the Corps, and
- has practical utility.

OMB's Office of Federal Procurement Policy⁹ also reviews forms to assess their possible effect upon competition. If a form is determined to have a negative impact on competition, it will not be approved for use. The Office's Deputy Assistant Administrator told us that no form has ever been disapproved because it threatened competition.

Corps Activities to Reduce Burdensome Nature of Submittals

The Corps periodically surveys its contractors to obtain comments on the efficiency of recordkeeping and reporting activities and meets with contractors to discuss their concerns. In January 1987 the Corps' Office of the Principal Assistant Responsible for Contracting solicited comments from contractors on Corps recordkeeping requirements. Comments received indicated that private industry viewed some Corps recordkeeping requirements as burdensome and unproductive. Many comments concerned legislative requirements the Corps had to implement. For example, industry supported the repeal of the Davis-Bacon Act and eliminating affirmative action records and reports. The Office's chief contracting policy official told us the Corps is not taking action on these concerns because the Corps is legislatively directed to require contractors to maintain these records and reports.

⁸44 U.S.C. Chapt. 35.

⁹The Office of Federal Procurement Policy is responsible for eliminating redundant administrative requirements placed on contractor and federal procurement officials.

Industry Survey Found No Evidence That Recordkeeping Hindered Competition

None of the 130 construction contractor representatives we surveyed in the seven districts stated that recordkeeping requirements resulted in their not submitting bids for the 21 construction contracts. However, 30 believed that recordkeeping was a problem, while the other 100 believed that it was not. Of the 30 representatives, 15 thought recordkeeping was either voluminous, redundant, costly, or unnecessary, and 11 specifically mentioned quality control documents as being a problem. Even so, none of the 30 could provide us with specific examples of requirements that reduced competition. Of the 100 respondents stating that recordkeeping was not a problem, 24 had positive comments about recordkeeping requirements. For example, one contractor representative said that Corps requirements can be beneficial because they help to eliminate contract disputes.

Conclusion

We found no evidence that Corps recordkeeping requirements reduced competition for Corps civil construction contracts. Records and reports required by the Corps were authorized and necessary to ensure that contractors were performing their work in a safe, economical, and timely manner and that they were complying with federal legislation. OMB reviews all Corps forms and records to ensure that they do not impair competition. In addition, the Corps monitors records, reports, and solicits comments from its contractors in order to reduce the probability that recordkeeping requirements are detrimental to competition.

Because we found no evidence that Corps recordkeeping requirements were inappropriate in the interest of competition, we are not making any recommendations.

Private Sector Was Extensively Used for Construction and Other Activities

To the extent possible, the Corps has been using the private sector to perform its construction and engineering responsibilities. The Corps contracted out almost all construction with the exception of a small portion of dredging because the Corps is mandated to maintain a minimum fleet for national defense purposes. It contracted out about 40 percent of its architecture, engineering, surveying, and mapping work and retained the remainder because of legislative directive and/or national defense considerations.

OMB Guidance on Contracting

Federal policy requires that agencies rely on the private sector to provide commercial products and services. Agencies are required to use the private sector when it is more economical to do so, and when government performance is not required. OMB Circular No. A-76, Performance of Commercial Activities, established procedures to determine if activities should be operated under contract with private-sector sources or performed in-house using government facilities and personnel.

A commercial activity is one that provides a product or service which could be obtained from a commercial source. Examples of commercial activities include automatic data processing, maintenance, overhaul, repair and testing, and the design, engineering, construction, and repair of buildings and structures.

Government performance of a commercial activity is allowed when it is required for national defense reasons, when it is required by law, where no satisfactory commercial source is available, or when it is determined that the government can perform the activity at a lower cost than a qualified commercial source. To make this last determination, A-76 provides agencies with guidance for conducting cost-comparison studies.

Most Corps Construction Was Contracted

The Corps' general policy is to contract out all civil construction work whenever the nature and timing of the work permits contracting. An exception to the policy is the Corps' dredging work: the Corps is mandated to maintain a minimum fleet.

Minimum Dredge Fleet

Public Law 95-269, enacted in April 1978, authorizes the Corps to operate and maintain a dredging fleet of the minimum size necessary to meet emergency and national defense needs. The law was intended to decrease the size of the federal dredge fleet that existed at the time,

thus allowing the private sector to compete for more of the dredging projects. The law also required the Corps to perform a study to determine the minimum size fleet necessary for emergency and national defense purposes.

In 1978 the Corps maintained 36 dredges and performed about 34 percent of federal dredge work.¹ Private industry competed for the remaining 66 percent. As a result of the minimum fleet study, the Corps and OMB determined that the Corps' minimum dredge fleet would consist of 10 vessels: four hopper dredges, three dustpan dredges, two sidecaster dredges, and one cutterhead dredge. Subsequently, the Corps determined that an additional sidecaster and a special-purpose dredge would be operated until industry provided a dredging capability equal or superior to that provided by these two vessels. The dredges can work on routine projects 230 days a year except when emergency and/or national defense needs take precedence.

As of April 1988, the Corps owned and operated 12 minimum fleet dredges and an additional 5 small dredges not within the minimum fleet. The five additional small dredges are located in remote areas, such as Alaska, where industry dredges are not available. In fiscal years 1986 and 1987, the Corps dredges performed about 15 percent of the federal dredge work. Table 5.1 presents information on the Corps' use of the private sector for dredging.

Table 5.1: Dredging Statistics

	Fiscal year 1986			Fiscal year 1987		
	Corps	Industry	Total	Corps	Industry	Total
Cubic yards dredged (in millions)	64	351	415	56	330	386
Percent of total	15.4	84.6	100	14.5	85.5	100
Dollar value (in millions)	\$80	\$306	\$386	\$70	\$485	\$555
Percent of total	20.7	79.3	100	12.6	87.4	100

Source: Corps of Engineers.

According to the Assistant Chief, Dredging Division, the minimum fleet performs approximately 99 percent of that portion of dredging performed by the Corps. Dredging Division data indicate that the five small vessels not in the minimum fleet dredge only about 350,000 cubic yards annually—or about one-half of 1 percent of the Corps' total dredging in fiscal years 1986 and 1987.

¹In terms of cubic yards dredged.

The Assistant Chief, Dredging Division, and the Assistant Counsel for Procurement, Office of Chief Counsel, stated that the minimum dredge fleet is not subject to an A-76 cost study because the fleet is mandated for national defense purposes. However, a decision is pending on whether the in-house forces used to operate and maintain the minimum fleet should be subject to an A-76 cost-comparison study. The assistant counsel for procurement stated that the minimum fleet mandate does not specify that the labor be in-house or contracted out. The five small dredges not in the minimum fleet are subject to study under A-76.

By the end of fiscal year 1988, the Corps plans to begin a study of minimum fleet requirements and determine if 12 dredges are still adequate to meet national defense and emergency needs. The Corps plans to update this study every 5 years to ensure that the fleet is the appropriate size.

General Construction Contracted Out

The Chief of the General Programs Branch, Construction Division in the headquarters Directorate of Engineering and Construction, told us that the Corps contracts out all general construction with the private sector. Construction division officials in the seven districts confirmed that construction is contracted out in their respective districts.

The Chief of the Construction Division in the Vicksburg District stated that early in the Corps' history it relied on hired labor (government forces) to construct projects. However, in the late 1800s this practice changed. Currently, construction-related responsibilities retained by the Corps include management and administration of the construction contracts, including physical inspection of contractors' work. The Chief of the headquarters General Programs Branch told us that the Corps relies exclusively on construction contractors because of its policy established as a result of 33 U.S.C. 622. Under this provision and Corps policy, the Corps contracts with the private sector whenever the nature of the work and the time available permits contracting.

Engineering Capability Retained by the Corps

The Corps' definition of engineering includes the production and technical review of designs, plans, specifications, and drawings (architecture and engineering), surveying, and mapping, as well as other technical services. The Corps contracts out about 40 percent of its civil works engineering and performs the remainder in-house to maintain a capability to

do this work and to support national defense purposes. Table 5.2 presents data on the level of Corps-wide civil engineering contracting for fiscal years 1986 and 1987, the latest data available as of July 1988.

Table 5.2: Corps-Wide Civil Works Engineering: In-House and Contract, Fiscal Years 1986-87

	Dollars in Millions			
	1986		1987	
	Dollars	Percent of total	Dollars	Percent of total
In-house	\$116	57	\$125	57
Contract	88	43	95	43
Total	\$204	100	\$220	100

Source: Corps of Engineers.

The seven districts varied in their use of engineering contracts. For example, in fiscal year 1986 the Fort Worth District contracted out 60 percent of its civil engineering work while the Los Angeles District contracted out 18 percent.

Some Engineering Not Subject to A-76 Study

Under 10 U.S.C. 4540, the Army may contract for the production of designs, plans, drawings, and specifications for public works or utilities projects only when existing facilities are inadequate and it is advantageous to the national defense.

The Engineering Division Resource Manager in the headquarters Directorate of Engineering and Construction and the Assistant Counsel for Procurement in the Office of Chief Counsel told us that some civil engineering activities are not subject to an A-76 study because the Corps is prohibited from contracting out the production of designs, plans, specifications, and drawings unless it has no in-house forces to perform the work. Engineering officials in all seven districts confirmed that the engineering work they contracted out was work their staff was unable to manage, or specialized work requiring expertise not available in-house. The resource manager stated that this is why districts varied considerably in their use of engineering contracts. Some districts, such as Fort Worth, must contract out higher percentages of their engineering work because in-house resources are insufficient to perform all the work.

A-76 Exemption Pending for Civil Works Engineering

The Department of Defense is currently determining whether civil works engineering, including surveying and mapping, is required for national defense purposes and therefore not subject to A-76 studies. The Assistant Secretary of the Army (Installations and Logistics) has yet to make this determination, but in an August 1986 memorandum to the Assistant Secretary of the Army (Civil Works) he stated that contracting out for the civil works engineering capability would diminish the value of this resource to the national defense. He viewed civil works engineering staff in the same context as a reserve division, which during mobilization would come on line in support of the Army.

If a determination is made that civil works engineering resources are necessary for national defense purposes, A-76 cost-comparison studies would not be done on whether the private sector, or the Corps, can more efficiently perform engineering activities, including surveying and mapping. Although A-76 studies for surveying and mapping have not been scheduled because of the pending determination, five of the seven districts included in our review already contract out most surveying and mapping. In-house resources are used primarily for engineering work such as the development and technical review of plans, specifications, and drawings—activities that are not subject to A-76 study because of the legislative requirement that the Corps use its in-house resources before it contracts out.

Corps Is Studying Opportunities for Additional Contracting

The Corps is studying additional opportunities for contracting out commercial activities. Executive Order 12615, dated November 19, 1987, stresses that federal requirements for commercial activities should be provided by private industry and re-emphasizes the use of A-76 studies to determine whether these activities could be performed more economically by private industry. The order requires each agency, beginning in fiscal year 1989, to annually study no less than 3 percent of the agency's total civilian population, until all identified potential commercial activities have been studied. For example, this would require an agency having 100,000 employees, 12,000 of whom are performing commercial activities, to study 3,000 employees' activities each year for 4 years to determine if those employees, or the private sector, could more economically perform the commercial activities.

This order does not significantly affect Corps construction because the Corps contracts out all general construction, and approximately 99 percent of the dredging work performed by the Corps-owned dredges is protected by the law establishing the minimum fleet. It does, however,

affect dredging performed by the five small dredges not within the minimum fleet. It could also affect the Corps' use of private industry for some engineering services, depending on the Assistant Secretary of the Army's decision on the civil works engineering exemption request.

Other types of civil commercial activities the Corps performs in-house could be affected by the executive order. For example, the seven districts we reviewed used in-house forces to perform commercial activities such as maintaining recreational areas, dams, and navigational structures. The commercial activities program office coordinator told us that the order will accelerate the Corps' A-76 studies on these as well as other commercial activities performed in-house.

Conclusion

The Corps used private industry to perform almost all of its civil construction. Private industry cannot be used, however, to perform dredging necessary to meet emergency and national defense needs. In fiscal years 1986 and 1987, the minimum dredge fleet accounted for about 15 percent of the Corps' dredging work.

The Corps used private industry to perform about 40 percent of its civil works engineering responsibilities, including architecture, engineering, surveying, and mapping. There is statutory authorization for contracting out some engineering work if in-house forces are insufficient to perform the work and this is advantageous to the national defense.

Renewed emphasis on A-76 studies by the executive branch could result in the Corps' contracting out additional responsibilities, such as maintenance at recreational areas. Complete studies are needed before a determination is made that the private sector can more efficiently perform this work.

Because we could not identify any readily available opportunities for additional private sector contracting in the seven Corps districts we reviewed, we are not making any recommendations.

Comments From the Assistant Secretary of the Army (Civil Works)



DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, DC 20310-0103



29 JUL 1988

Mr. James Duffus III
Associate Director
Resources, Community, and
Economic Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Duffus:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "WATER RESOURCES: Competition for Corps of Engineers Civil Construction Contracts," dated July 1, 1988 (GAO Code 140825/OSD Case 7699).

The DoD has reviewed the report, concurs with the GAO findings and conclusions, and has no further comments. By separate action, technical corrections were provided to your staff. The Department appreciates the opportunity to comment on this draft report.

Sincerely,

John D. Page
for Robert W. Page
Assistant Secretary of the Army
(Civil Works)

Major Contributors to This Report

**Resources,
Community, and
Economic
Development Division,
Washington, D.C.**

James Duffus III, Associate Director, (202) 275-7756
Leo E. Ganster, Group Director
John P. Scott, Evaluator

Dallas Regional Office

Robert C. Gorman, Regional Management Representative
Marcia Brouns McWreath, Evaluator-in-Charge
Rita Neitz Howard, Evaluator
Stacey W. Goff, Evaluator
Darren K. Guthrie, Evaluator

Requests for copies of GAO reports should be sent to:

U.S. General Accounting Office
Post Office Box 6015
Gaithersburg, Maryland 20877

Telephone 202-275-6241

The first five copies of each report are free. Additional copies are \$2.00 each.

There is a 25% discount on orders for 100 or more copies mailed to a single address.

Orders must be prepaid by cash or by check or money order made out to the Superintendent of Documents.

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

Official Business
Penalty for Private Use \$300

First-Class Mail
Postage & Fees Paid
GAO
Permit No. G100
