AGENCY RECOMPETE PRACTICES

IN SETA AND SYSTEMS OPERATIONS CONTRACTS

INPUT

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**Federal Information Technology
Market Program**
(FSSMP)

*Agency Recompete Practices in
SETA and SO Contracts*

Abstract

Agency Recompete Practices in SETA and Systems Operations Contracts offers guidance to vendors on how to improve their federal marketing and bidding strategies to unseat incumbent contractors.

The report discusses agency expectations in terms of contract opportunities, and how they expect vendors to respond to their needs. INPUT's forecast of the federal IT support market for SETA and SO contracts indicates a CAGR of 9% through 1997.

The impact of federal budgetary problems, agency consolidation efforts and contractor dominance controversies are addressed in this report.

In this study, INPUT offers strategies to help vendors overcome contractor dominance in recompete scenarios. Vendors must leverage their corporate assets to remain in this highly competitive market.

INPUT's sample for this study included federal agencies and vendors with current SETA and systems operations contract vehicles in place.

This report contains 104 pages and 36 exhibits and was prepared as part of INPUT's Federal Systems and Services Market Program.

Table of Contents

Table of Contents (Continued)

Table of Contents (Continued)

Table of Contents (Continued)

Exhibits

Exhibits (Continued)

I
Introduction

Agency Recompete Practices in SETA and Systems Operations Contracts is a new INPUT report. It was prepared to help vendors in the federal market improve their marketing and bidding strategies to unseat incumbent contractors.

Budget problems, agency consolidation efforts and contractor dominance controversies have raised questions in many vendors' minds about the future of SETA and systems operations contracting. This report examines the impact of these issues on federal agencies' future use of SETA and systems operations contractors.

Agency Recompete Practices in SETA and Systems Operations Contracts is part of INPUT's Federal Systems and Services Market Program. Market analyses issued in this program are designed to assist federal contractors in planning how to satisfy future federal government needs for computer-based information systems and services.

A
Scope

The period of interest for this report is GFY 1992-1997. INPUT's forecast for IT-related SETA and systems operations expenditures is included. Agency and vendor views of vendor selection criteria are discussed in depth. The report is not limited to SETA and systems operations services to support information technology. It includes technical and managerial services.

Among the many questions this report addresses are:

• Do agencies expect to use SETA and systems operations (SO) contracts under tighter budget conditions?

• What discriminating factors are used by agencies in vendor selection?

- What conditions should exist to unseat an incumbent SETA or SO contractor?

The following definitions guided agencies and vendor responses to INPUT's questionnaires:

- SETA - Systems engineering and technical assistance contracts for information technology or other technically oriented projects/programs. SETA is a term more commonly used by the DoD agencies. Other agencies may call these "technical services or technical support" contracts.

- Systems operations (SO) - Involves the operation and management of all or a significant part of the user's information systems or facilities under a long-term contract. Services may be provided at either the vendor or agency site. The vendor can plan, control, provide, operate, maintain and manage any or all components of the agency's information systems. The vendor may provide non-IT-related services such as facilities and grounds maintenance.

Systems operations was until recently referred to as facilities management.

In the federal market, SO services are commonly differentiated as:

GOCO (Government-Owned, Contractor-Operated)
COCO (Contractor-Owned, Contractor-Operated) •

B
Methodology

This report is primarily based on research conducted specifically for this study. INPUT conducted interviews with leading vendors and major agencies. However, other sources of data and analysis were also consulted:

- INPUT's Procurement Analysis Reports (PARs) from the Federal Information Technology Procurement Program

- OMB/GSA/NIST Five-Year Information Technology Plans for 1993-1997

- Secondary research sources, including industry journals and reports

C
Report Organization

The report consists of five additional chapters:

- Chapter II is an Executive Overview describing the major findings of this report.

- Chapter III examines the SETA and SO marketplace from an agency perspective. INPUT's forecast is also included.

- Chapter IV looks at how vendors gauge their potential in the marketplace, and the strategies they employ to break incumbent dominance.

- Chapter V discusses the leading agencies that offer the highest number of or highest revenue potential for SETA and SO contracts.

- Chapter VI presents this report's conclusions and recommendations to vendors.

Several appendixes are also provided:

- Interview Profiles
- Definitions
- Glossary of Acronyms
- Policies, Regulations, and Standards
- Questionnaires
- Related INPUT Reports

Following the appendixes is a description of INPUT and its programs and services.

D
Related INPUT Reports

For additional insight into the federal market for information technology-related SETA and systems operations services, readers are encouraged to consult the following published INPUT reports:

- *Federal Professional Services Market, 1991*
- *Federal Information Systems and Services Market, 1991-1996*
- *NASA Information Systems Market, 1991-1996*
- *Outsourcing Awards Analysis*
- *Pricing and Marketing Professional Services in the 1990s*
- *Federal Processing Services/Systems Operations Market, 1989-1994*

II
Executive Overview

A
Conditions for Unseating Incumbents

The purpose of the research for *Agency Recompete Practices in SETA and Systems Operations Contracts* was to determine how vendors could improve their marketing and bidding strategies to unseat incumbent contractors during recompetitions. According to participating vendors in this study, incumbent contractors win 75% of recompeted procurements.

Any one or a combination of the conditions listed in Exhibit II-1 can lead to the successful unseating of an incumbent contractor by another vendor.

EXHIBIT II-1

Conditions for Unseating Incumbents

- Poor incumbent performance

- Change in work scope

- Excessive incumbent longevity

A contractor's poor performance can be caused by lack of attention to mission needs, technology changes, lack of effective technical personnel, or weak management. A change in the scope of work that is required creates the opportunity for a more qualified vendor to demonstrate its capabilities. When an incumbent holds a contract for 15-20 years, agencies tend to look more favorably at "new blood" with fresh ideas to provide needed services.

B
Budget Impact Perceptions

One serious concern is the impact of federal budget tightening on federal agencies' use of SETA and systems operations contracts. Vendors and agencies disagree with the effects of budget changes on opportunities for contract services.

Agencies claim that frozen or fewer full-time equivalent (FTEs) internal staff positions is what primarily determines their needs and expenditures for services, whereas vendors see direct negative impacts on the market for SETA and systems operations contracts from agencies, as shown in Exhibit II-2.

EXHIBIT II-2

Budget Impact Perceptions

- More cost competition

- Fewer opportunities

- Risk of small vendor failures

- Shift in buyers and agency customers

Vendors reiterated that winning contracts for recompetes of SETA and systems operations contracts often requires restructuring their pricing strategies to offer agencies the lowest possible price. Some larger vendors that rely on internal personnel to staff contracts find this difficult to do. Employee overhead costs make it impossible to price technical talent below $25.00 per hour.

Some vendors see fewer opportunities in the future, especially in the DoD. Others do not see such restriction, especially in niche markets where little competition exists for specialized technical and scientific expertise.

At this time, vendors are concerned and confused about the federal market for SETA and systems operations services. How will agencies perform their present, and in some cases expanding missions with less funding and fewer full-time equivalent (FTEs) positions?

Some smaller vendors are expected to fail in this market as an indirect result of governmentwide business function consolidation efforts. Small vendors lack corporate resources to compete for large-scale procurements,

and fewer opportunities to bid are expected. Fewer small to midsized procurements are anticipated, especially from the DoD.

As a result of DoD's Corporate Information Management initiative, vendors do not know to whom they should market their services. It is unclear which organizations will need SETA and systems operations services, and who will run their procurements.

C

Federal IT Support Market

The entire federal SETA and SO/FM market was not analyzed and measured in this study, but secondary sources suggest that it could be as great as $25 billion annually. INPUT did size and forecast the federal information technology (IT) SETA and SO market, as shown in Exhibit II-3.

EXHIBIT II-3

Federal IT Support Market
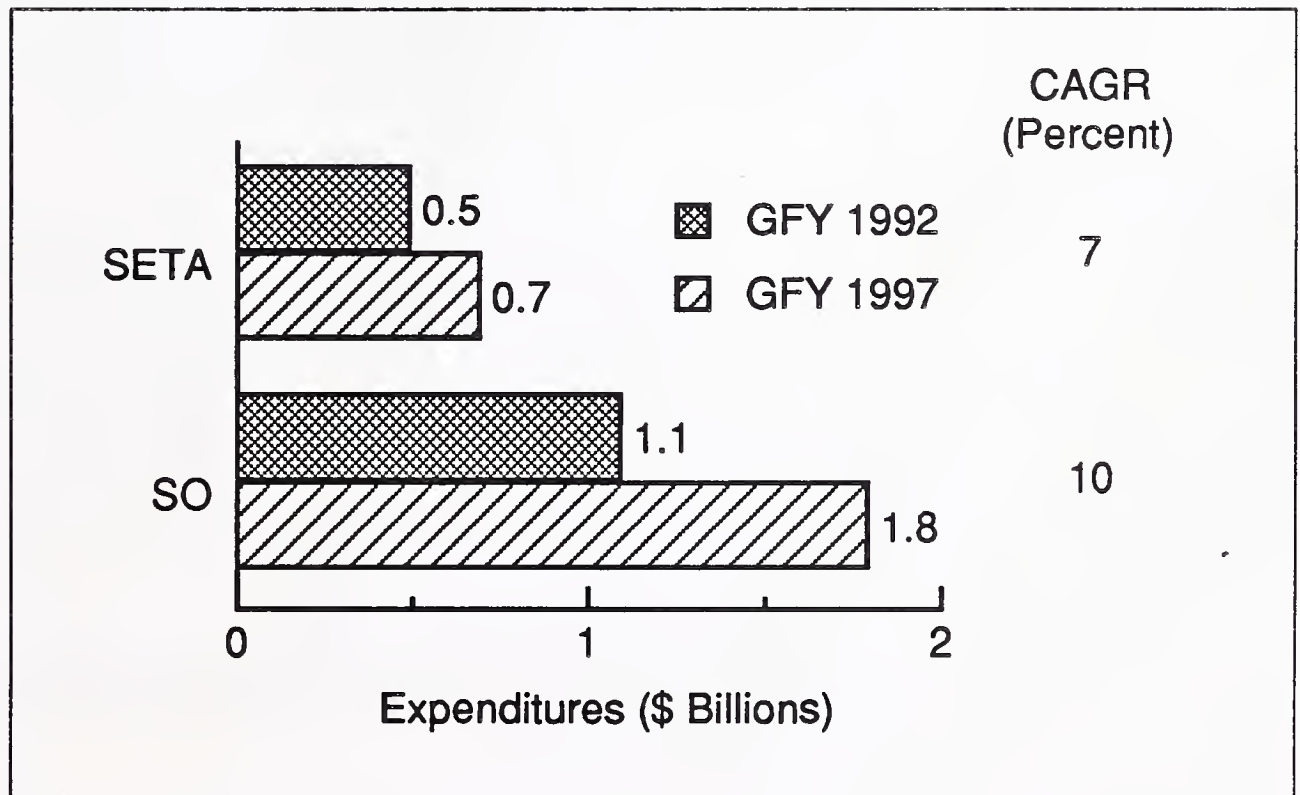
The combined market is expected to grow from $1.6 billion in FY 1992 to $2.5 billion in FY 1997 at a CAGR of 9%. The SETA market is part of the professional services market, and not separately identified by the agencies in their OMB A-11 budget requests.

The GOCO (Government-Owned, Contractor-Operated) portion is the largest part of the outsourcing/systems operations section of the

Operations and Maintenance budget element, under the Commercial Services component of the OMB A-11 request.

Both of these estimates are optimistic. Administration and Congressional changes may have considerable impact on the market beginning in FY 1994. Some impact of the CIM-based consolidation plans has been considered, but timing appears doubtful at this time. Moves to legislate OMB A-76 or to prevent further DoD cost comparisons appear to have died in the current Congress.

The future appears to be a balancing act between SETA and SO, dependent on the rate at which new systems are implemented.

D
Agency Expenditure Expectations

Most agencies expect expenditures for both SETA contracts and systems operations services to at least remain the same, if not increase, as shown in Exhibit II-4. SETA needs are fueled by expanding agency missions, frozen agency staff levels and consolidation of work flow processes within the DoD and civil agencies. Also, agencies regard systems operations contracts as more cost effective than running data center and other facilities management operations using internal staff.

EXHIBIT II-4

Agency Expenditure Expectations

	Percent of Respondents Expenditure Expectation		
Contracts Type	Increase	Decrease	Same
SETA (IT)	46	23	31
SETA (Non-IT)	25	13	62
SO-GOCO (IT)	50	25	25

Note: Percentages are based on the number of respondents that currently have these types of contracts.

E
Key SETA/SO Agencies

Vendors perceive the agencies listed in Exhibit II-5 as providing the most support opportunities. Revenues are expected to increase from these agencies, primarily due to vendors' improving their technical capabilities and marketing strategies.

Other agencies mentioned at least once include: Interior, NOAA, the Social Security Administration, Treasury, Federal Emergency Management Agency (FEMA), Health and Human Services, the National Science Foundation, and the State Department.

EXHIBIT II-5

Key SETA/SO Agencies
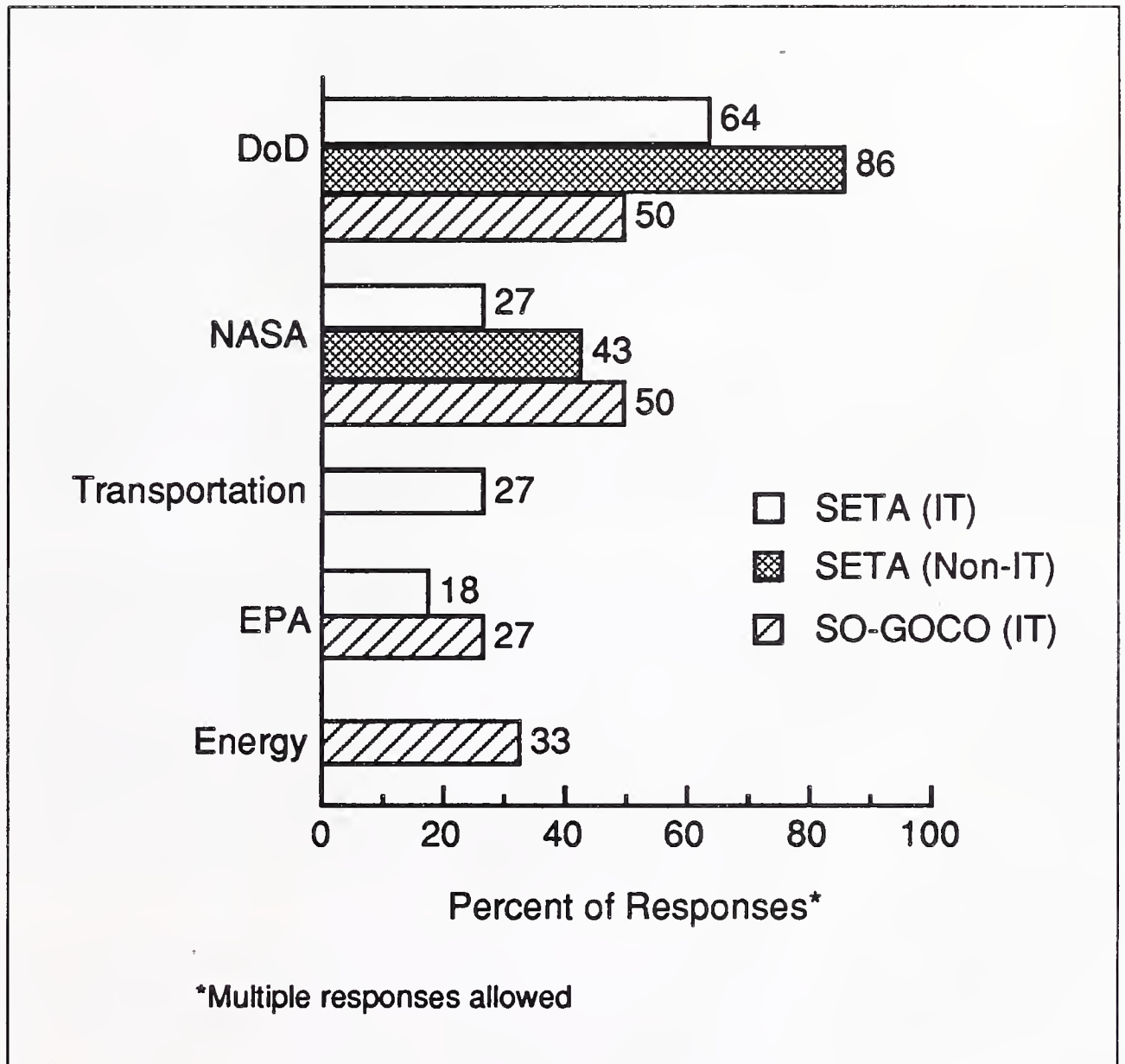
F
Conclusions

INPUT's assessment of this market is summarized in Exhibit II-6.

Conclusions

- Viable market

- Staffing level contracting prevails

- Dominating incumbent presence

Agencies are optimistic about their intended use of SETA and systems operations contracts. Expenditures for SETA services (IT and non-IT) and systems operations-GOCO contracts are expected to remain the same or increase over the next few years.

Few agencies request mission-level contracting for these types of services. Staffing level contracts are more appropriate. Agencies are buying services or man-hours in labor categories.

Conditions are right for an incumbent to repeatedly win recompetitions when its performance is satisfactory. In addition, incumbents have the advantage of applying their insight about an agency to produce better bids than their competitors. In these circumstances, another bidder's lower cost may not unseat the incumbent.

An incumbent's presence often remains evident after a new bidder has won a recompetition. Although the incumbent may not have won the contract, the incumbent's personnel frequently are hired by the new contractor.

G
Strategies Against Incumbents

Vendors adopting a combination of the strategies shown in Exhibit II-7 are more likely to improve their chances of unseating incumbent SETA and systems operations contractors.

EXHIBIT II-7

Strategies Against Incumbents

FSARP

- Market aggressively to agencies

- Demonstrate ability to outperform incumbent

- Target changing scope/poorly performed contracts

- Develop and communicate mission understanding

Vendors should step up marketing efforts to agencies. Demonstrations of technical and managerial capabilities help to improve an agency's perception of a vendor. Previous success at other agencies should be emphasized.

A new vendor must demonstrate superiority over the incumbent contractor. This is easy to show when the existing vendor has performed inadequately, or if the agency's requirements have changed since the last competition.

Understanding of the agency's mission should always be evident in vendor proposals and presentations, regardless of agency requirements specified in RFPs. Sensitivity to agency management style, including contract authority at different levels, task work origination and oversight, can be critical in a close recompetition.

III
The Federal Market

This chapter defines the concepts of SETA and systems operations contracts within the federal sector. It also emphasizes agency expectations of vendors and the vendor selection process during recompetitions of these contracts.

A
Definitions

1. SETA Contracts

The acronym SETA refers to vendor-provided systems engineering and technical assistance services for information technology or other technically oriented projects or programs (i.e., scientific, weapons, etc.). SETA is a term commonly used by the DoD agencies. Under CIM, DISA is also defining SETA as software engineering. Other agencies may call these "technical services or technical support" contracts.

SETA services can be provided entirely at an agency's facilities, or partially at the agency and partially at the vendor's facilities. The latter is called "off-site services." Under a SETA contract, the vendor provides a number of services, including project planning, systems design, acceptance testing, interface specifications, systems validation, cost effectiveness studies and technical assistance to the government project/program manager.

Non-information technology services may involve weapons systems, evaluation systems, electromechanical/hydraulic systems, radar, etc. The principal attribute of the successful vendor is staff knowledge and experience in the system or project.

SETA contracts may have a base of 1-2 years, with several option years, depending on the useful lifetime of the system project. A few SETA contracts have been authorized to extend beyond five years, but they are quite rare.

2. Systems Operations Contracts

Systems operations (SO) involves the operation and management of all or a significant part of an agency's information systems, functions, or facilities under long-term contracts. Services can be provided at either the vendor or the agency site. Systems operations vendors may provide a wide variety of services. The vendor may plan, control, provide, operate, maintain and manage any or all components of the agency's information systems (equipment, networks, systems and/or applications software).

The vendor may also provide non-IT-related services, such as facilities and grounds maintenance. Systems operations was also previously referred to as facilities management. Systems operations is now considered a component of the outsourcing market.

In the federal market, systems operations services are sometimes differentiated using the terms COCO (Contractor-Owned, Contractor-Operated), and GOCO (Government-Owned, Contractor-Operated).

Systems operations/outsourcing (SO) contracts, also called facilities management (FM) or operations and maintenance, most frequently are associated with long-lifetime government facilities. The base contract may be for 1-3 years, with priced and unpriced options to five years. On some occasions, where substantial equipment or organizational changes are under way, authority may be granted for an additional year.

A specific advantage of SO contracts for the incumbent is the lack of a need to mount a substantial bidding effort every year over the five-year contract lifetime.

B
The Market Environment

A significant factor in the future of the federal support market is the potential growth, or lack thereof, over the next five years. Some parts of the market, specifically in Defense, are experiencing leveling off or decline of growth as the demand for military support decreases. Recompetition will only occur where the projects continue or facilities have a mission to perform. To measure this factor, the research includes INPUT's forecast of potential market growth, agency views about their expectations and, in the next section, vendor views.

1. INPUT's IT Support Forecast

INPUT's annual forecast of the federal IT market is based on agency OMB A-11 budget requests and off-budget estimates of other agencies for information technology. Although this does not represent the entire SETA

and SO/FM markets, the numbers can provide one perspective of market potential.

The SETA/IT market is embedded in the professional services market forecast, and the amounts indicated in Exhibits III-1A and III-1B are INPUT estimates. The agencies do not predict SETA expenditures separately in their budget requests.

EXHIBIT III-1A

Overall Federal IT Support Services Market
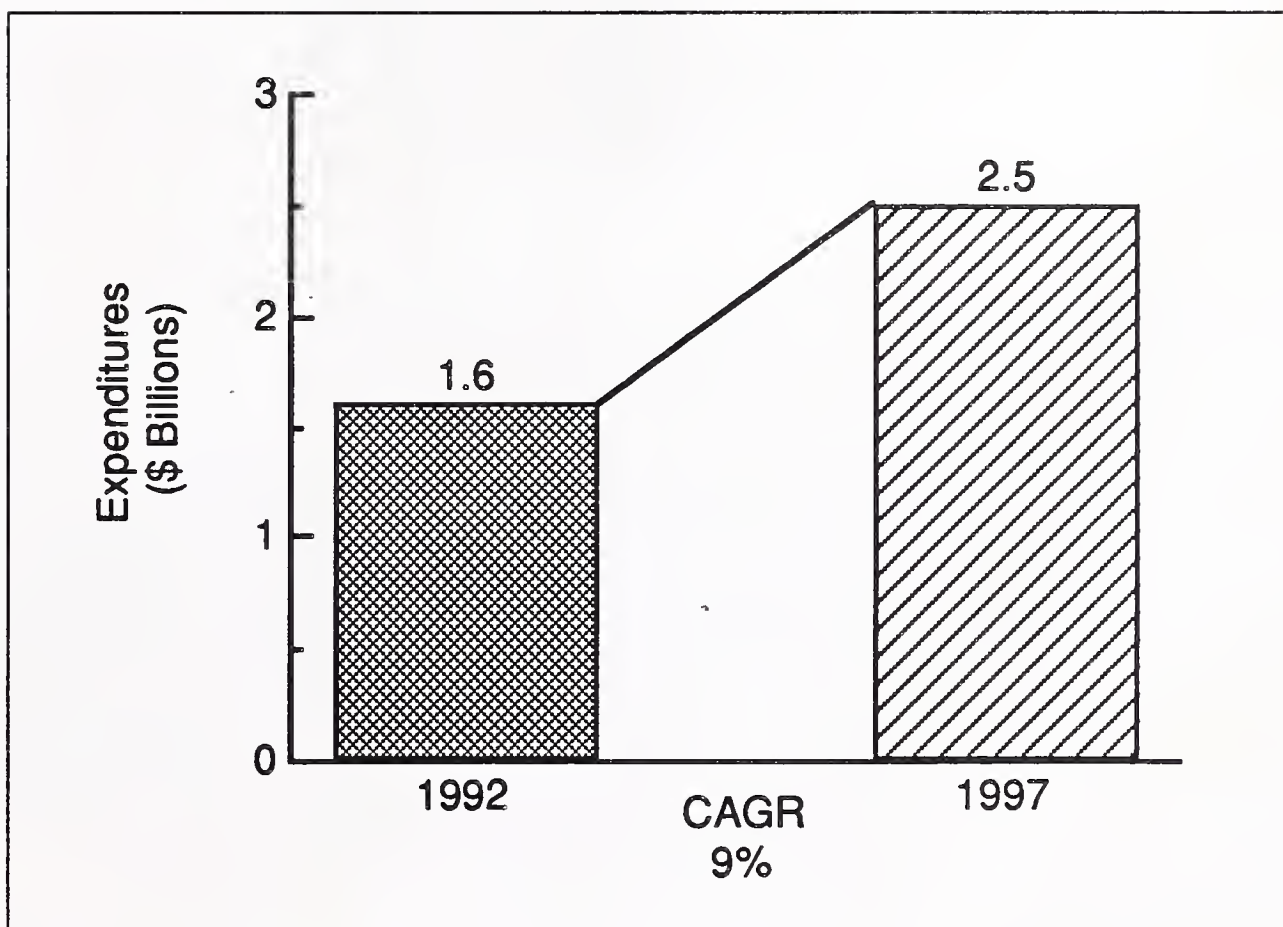
EXHIBIT III-1B

Federal SETA and SO Support Services Market
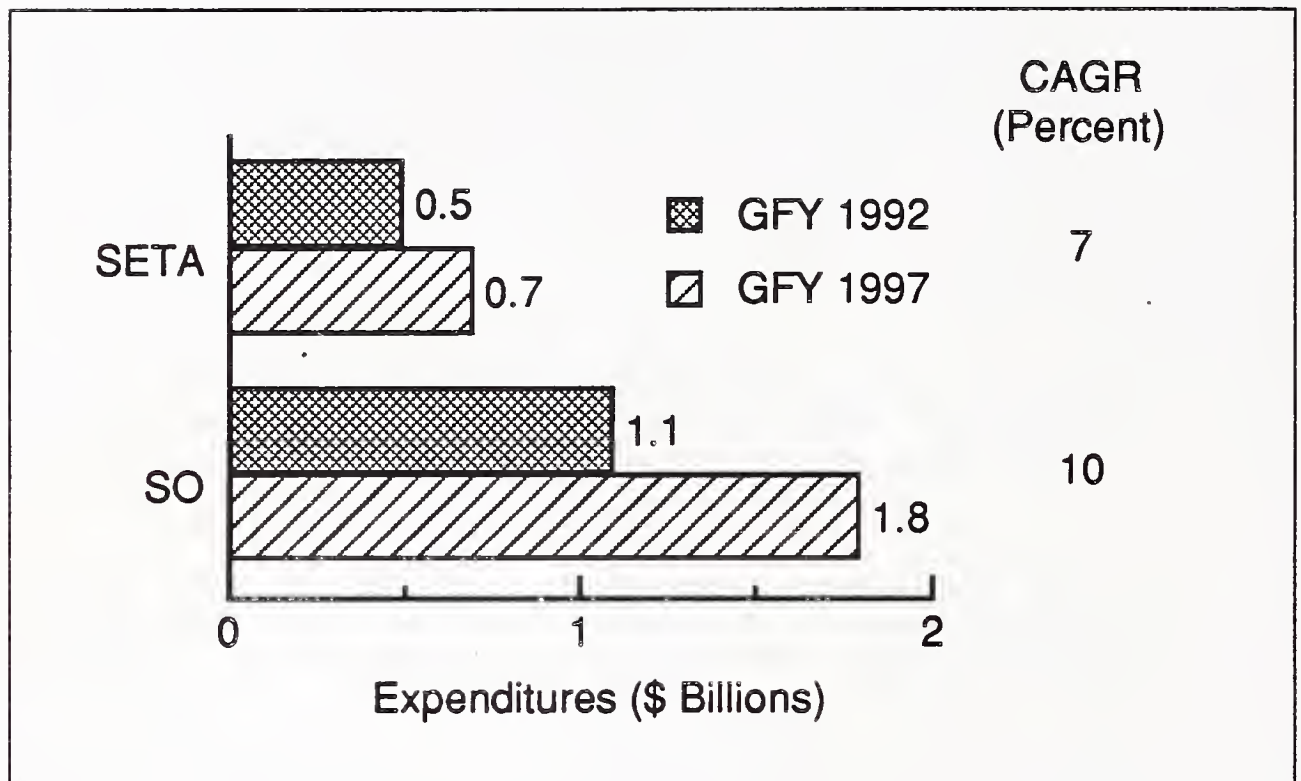
The GOCO portion emphasized in this report, in the absence of COCO estimates by the respondents, forms the majority of INPUT's IT outsourcing forecast. This market declined in the late 1980s as agencies acquired new systems to meet ever-increasing mission needs. The rising budget deficit and the Defense Management Initiatives, specifically CIM, resulted in prolonged implementation delays or outright cancellation of many new systems in all agencies. The government is faced with meeting unrelenting mission demand increases, with contracting out as the most readily available solution.

The INPUT forecast has some caveats. A major impact will come from a change in administrations in 1993. A second factor will be the mood of Congress after the election about using Defense and NASA expenditures to bolster the economy, as was done by prior Democratic presidents. The relative strength of the federal employee unions could be a key factor, if they use strong legislative ties to blockade extensive contracting out.

The result may well be a balancing act between the SETA and SO markets. More in-house systems to be run by federal employees will increase SETA expenditures. Few new in-house systems will decrease SETA but likely increase SO to keep the current installations operational.

However, the extensive consolidation promised by CIM would result in shrinkage of both in-house and contractual systems operations staffs.

2. Current Contract Types

Ideally, if time permitted, enough interviews should have been conducted to clarify the types of support contracts employed by all agencies. Instead, a sample was conducted, as noted in Appendix A, of agencies with a history of contracted support activities. Exhibit III-2 depicts the distribution of current contract types among respondents. Both SETA (IT) and systems operations-GOCO (IT) contracts predominate among agencies interviewed for this study. Technical services for non-IT SETA work is also heavily contracted by responding agencies.

EXHIBIT III-2

Current Contract Types
Agency Respondents
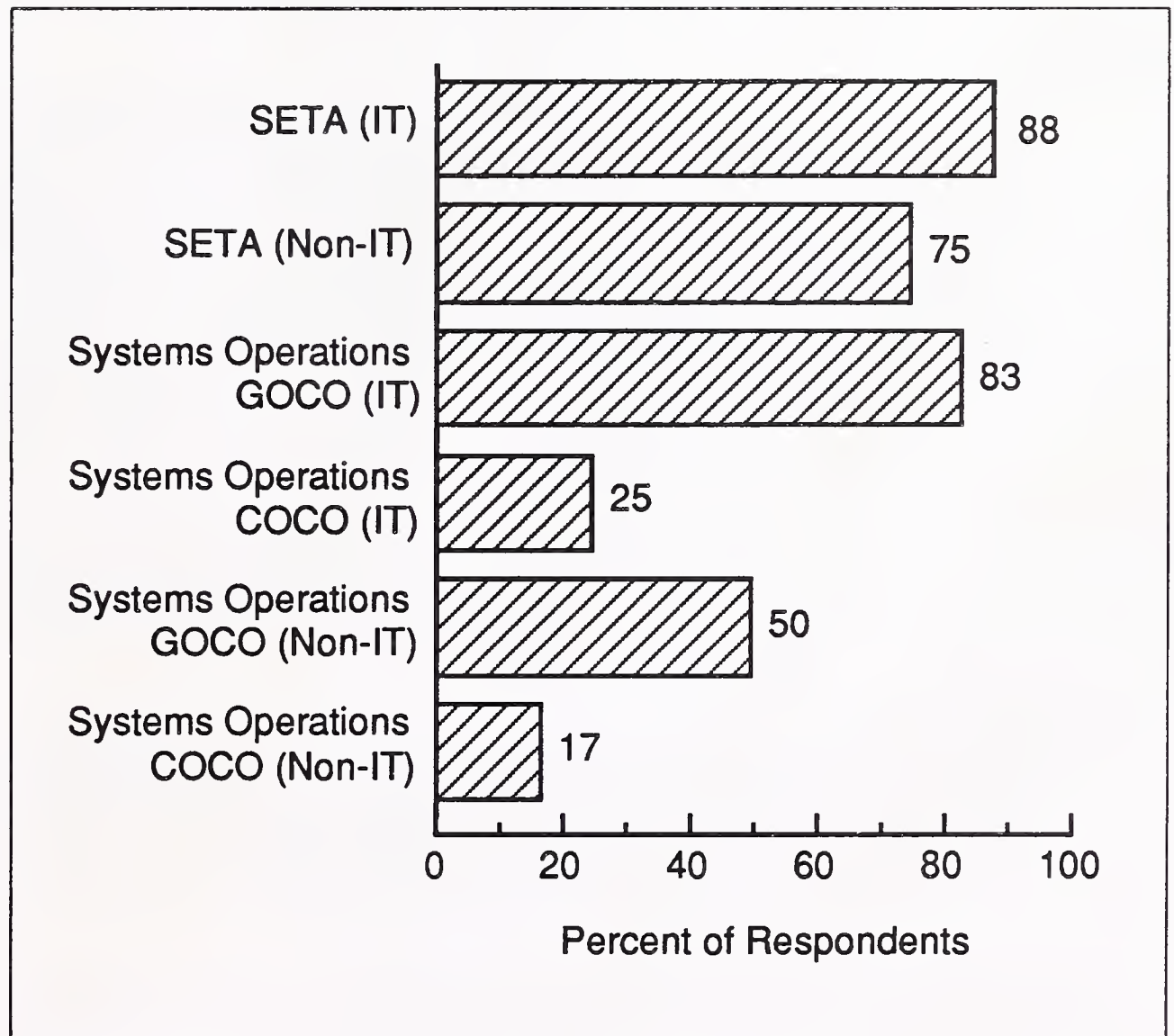
Currently, only a few agencies avail themselves of COCO services from vendors. Federal agencies are just beginning to consider the notion of completely outsourcing systems operations functions under increasing budget constraints and the costs of refurbishing and maintaining aging

data centers. The CIM initiative has as one of its objectives the development of an outsourcing contract model.

3. Agency Expenditure Expectations

The second assessment of market potential was derived from interviews of agency respondents. The objective was to obtain some indication of how they saw contract expenditures changing over the next five years. Their expectations by contract type are shown in Exhibit III-3.

Expenditures for SETA (IT) will increase the most at agencies. About 30% of agencies expect SETA (IT) spending to at least remain at current levels, and half predict that IT expenditures for GOCO services will increase. Since few respondents have contracts for COCO services, their responses are not presented.

EXHIBIT III-3

Agency Expenditure Expectations

	Percent of Respondents Expenditure Change		
Contract Type	Increase	Decrease	Same
SETA (IT)	46	23	31
SETA (Non-IT)	25	13	62
SO-GOCO (IT)	50	25	25

Note: Percentages are based on the number of respondents that currently had these types of contracts.

The various reasons for SETA and systems operations expenditure changes are given in Exhibits III-4 and III-5. Many of the reasons are common for both types of services.

EXHIBIT III-4

Reasons for Revenue Increases

	Contract Types	
Reasons	SETA	SO
Larger mission/needs	X	X
Base consolidations	X	X
Less staff	X	
Environmental pressures		X
More cost effective		X

EXHIBIT III-5

Reasons for Revenue Decreases

	Contract Types	
Reasons	SETA	SO
Bring work in-house	X	X
Work is more routine	X	X
Fewer mainframes		X

Expanded needs will drive increased spending. The scope of agency missions is expected to increase as more and better services are demanded of the federal government. Federal consolidation efforts also require complex skills that are often lacking among agency internal staff members. In addition, when large-scale efforts are needed, contractors are often asked to assume the responsibility for successful operations.

Limitation on the number of full-time equivalent (FTE) positions that are allowed forces agencies to hire contractors to perform critical mission functions. Recent environmental concerns and pressures are expected to raise spending for ecological services at various agency locations.

Spending decreases are a source of concern to some agencies, such as the Department of Energy (DOE) and the Environmental Protection Agency (EPA). The GAO and the DOE Inspector General's office believe the DOE can perform many functions more cost effectively in-house. Other

agencies, such as EPA, are being criticized for allowing contractors to leverage the agency in terms of personnel numbers and access to information.

SETA and systems operations needs at some NASA facilities are expected to decrease as the agency continues to level off its space-related activities and satellite services. The downsizing trend is viewed as causing less need for systems operations contractors, as mainframe dependence decreases and microcomputer use continues to increase.

INPUT expects that mounting pressures throughout the 1990s to do the same or more with fewer resources will force federal agencies to seek more COCO-related services for information technology and other technically oriented expertise.

4. Budget Restraint Impacts

Agency respondents were specifically asked the impact of budget constraints on the use of SETA and SO contracts. Their responses show that 70% believe the federal budget is not having a direct impact on their use of these contract vehicles (see Exhibit III-6). The drivers are contractor controversies, technology changes and FTE allocations.

EXHIBIT III-6

Federal Budget Impact on Agency Use of SETA and SO Contracts—Agency Views

Has Impact?

	Percent of Respondents
Yes	25
No	69
Don't Know	6

(Bar chart, x-axis: 0 to 100, labeled "Percent of Respondents")
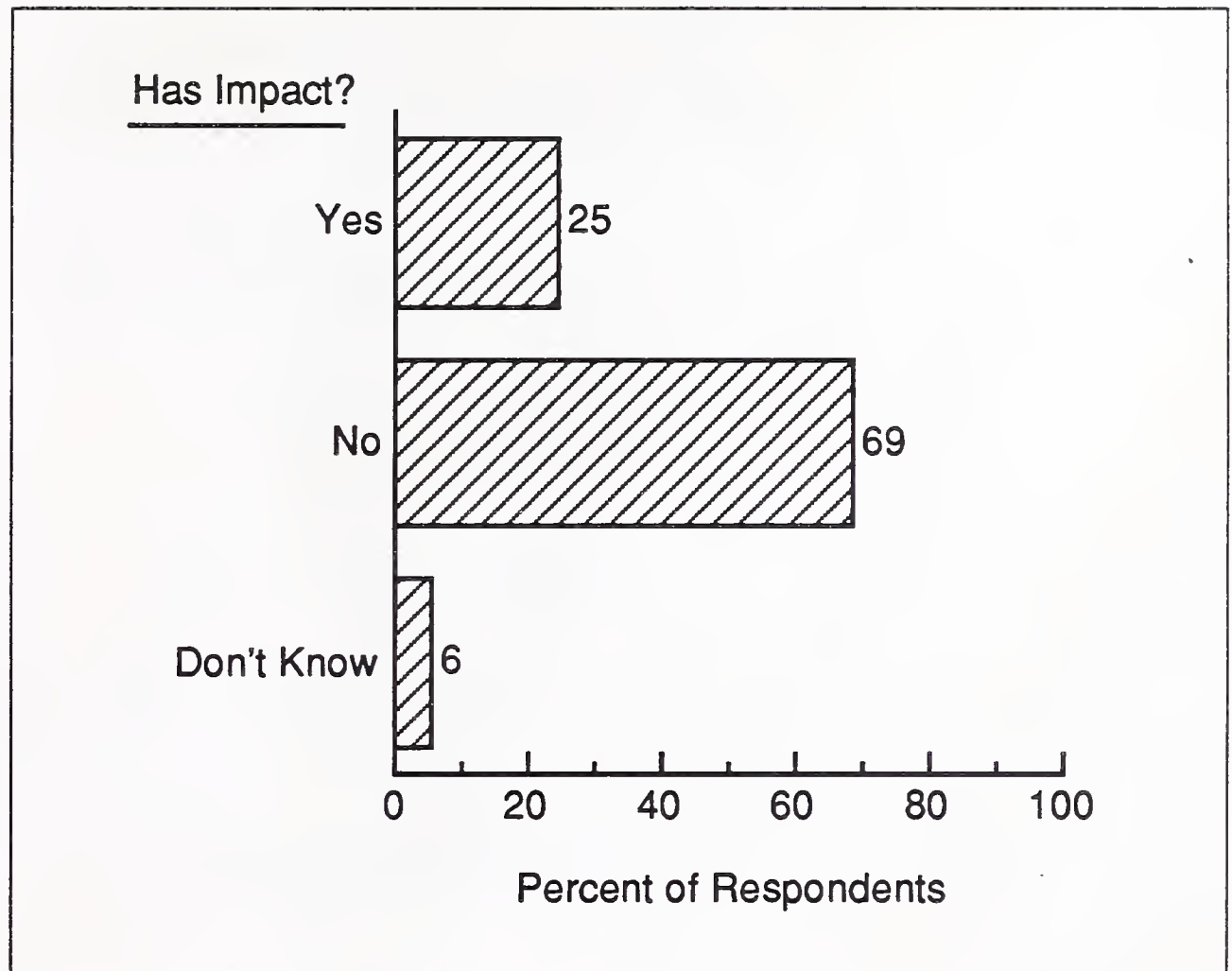
Respondents who see budget problems constricting SETA and SO contracts foresee little growth at their agencies, and fewer dollars available for research and development.

INPUT further queried responding agencies about how budget problems are influencing internal staffing policies. The responses, shown in Exhibit III-7, indicate that budget constraints are impacting internal staffing levels at approximately half of the agencies interviewed. Over half of the responses indicate no impact, while another 54% indicate lower or frozen full-time employee (FTE) levels. A few respondents said that lower or frozen FTE levels translate into more contracting dollars or dependence on vendors for services.

EXHIBIT III-7

Budget Impact on Internal Staffing

Note: Multiple responses were accepted
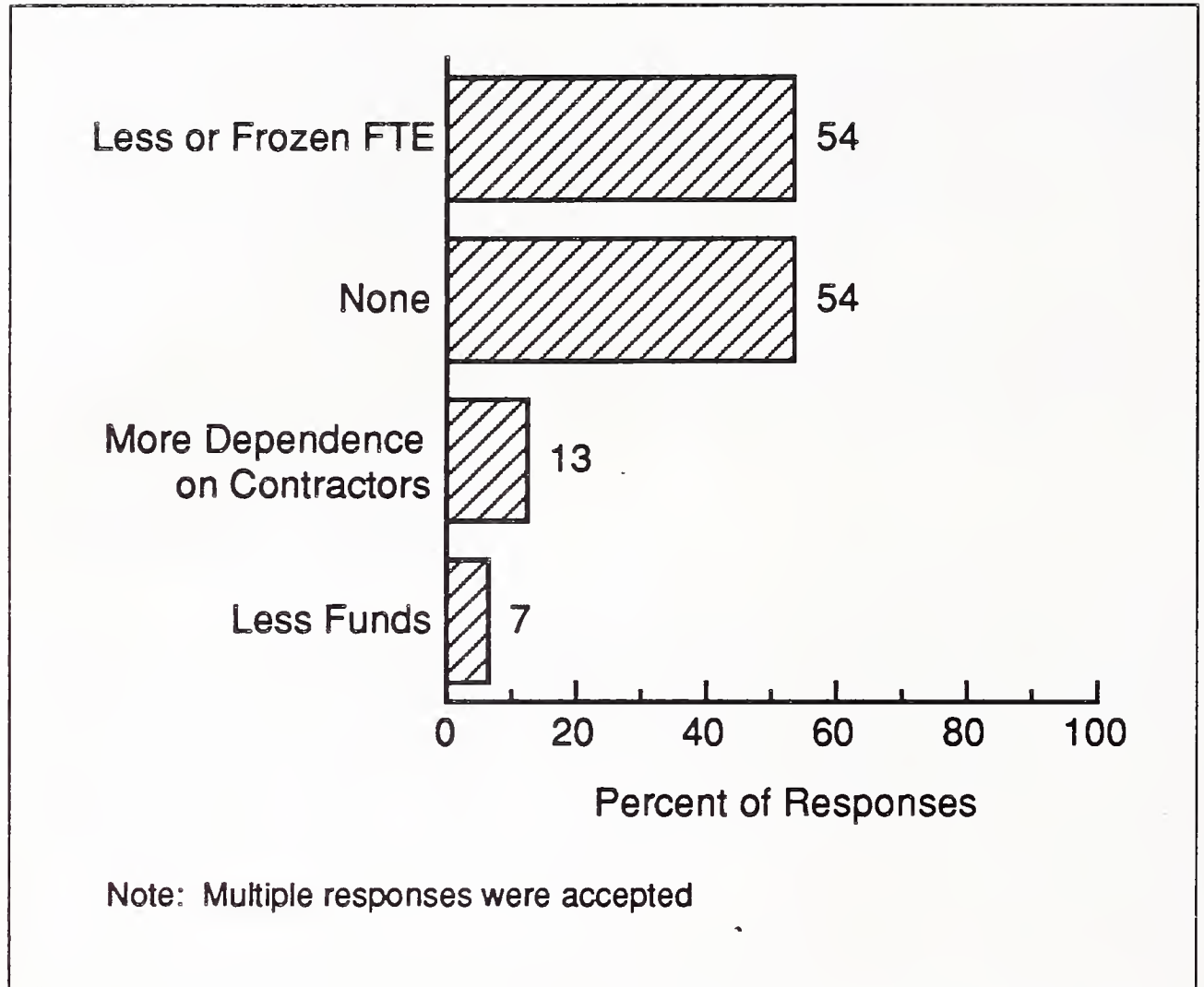
5. Incumbent Presence

Agencies were asked their perception of incumbent win rates for recompeted SETA and systems operations contracts. As Exhibits III-8 and III-9 demonstrate, only about 20% of the respondents believed that incumbents usually win recompetes at their agencies.

EXHIBIT III-8

Agency Perception of Incumbent Win Rates
SETA Contracts

Percent of Respondents
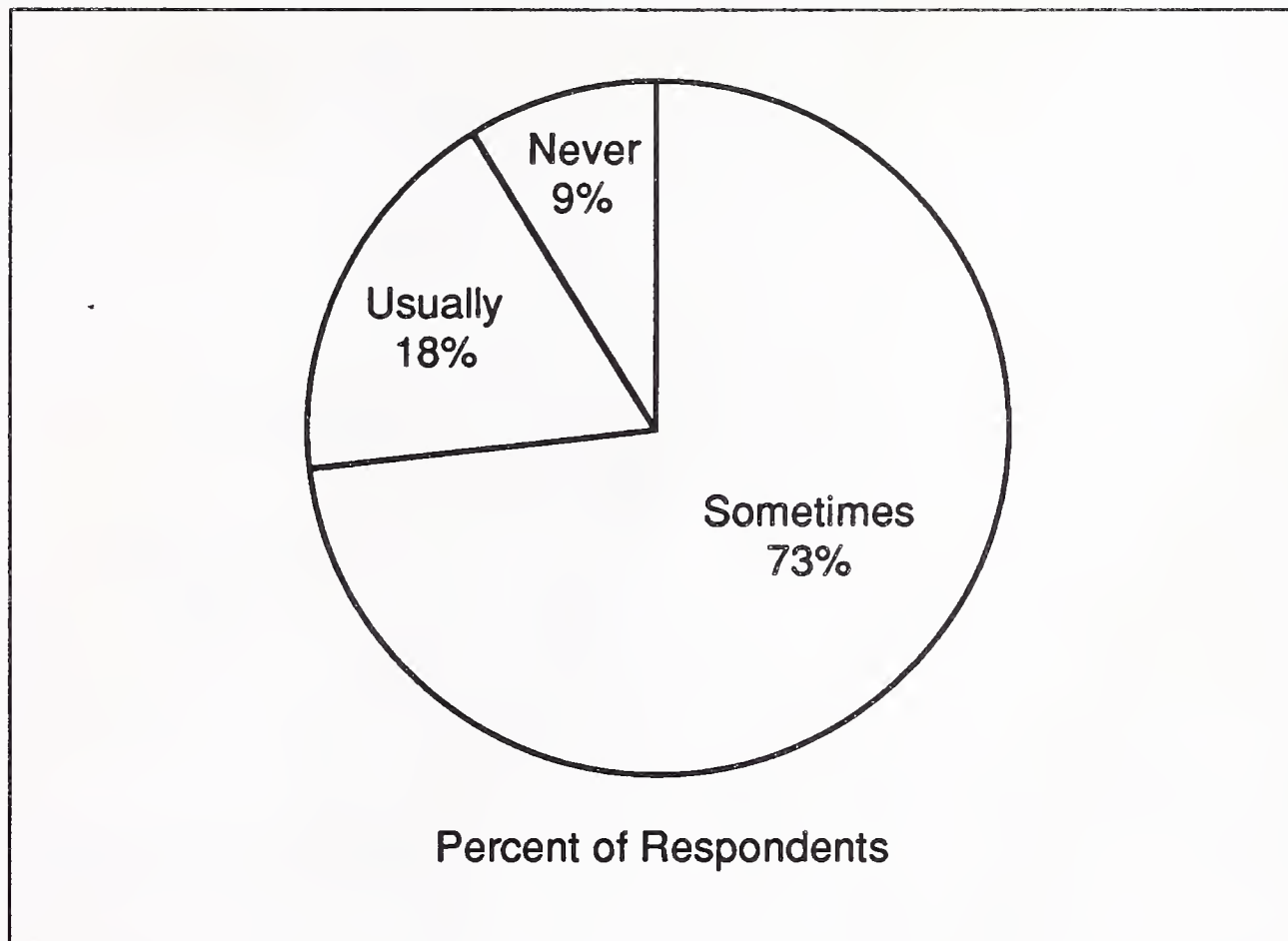
This differs entirely from the views voiced by vendors in Chapter IV.
Vendors believe that agencies fear admitting to incumbent preferences and
dominance in their agencies because of procurement regulations.

INPUT agrees with the vendor perception, because the contract award
records clearly illustrate the dominance of incumbents in recompetitions.
This is particularly true of systems operations, where vendors have
successfully retained contracts over periods of 10 to 25 years. The shorter
life span of projects employing SETA support rarely involves more than
one recompetition. A few agencies routinely expect to replace the
incumbent to "bring in new blood," and avoid the appearance of a vendor
"buy-in."

EXHIBIT III-9

Agency Perception of Incumbent Win Rates
Systems Operations Contracts

Usually
20%

Sometimes
80%

Percent of Respondents
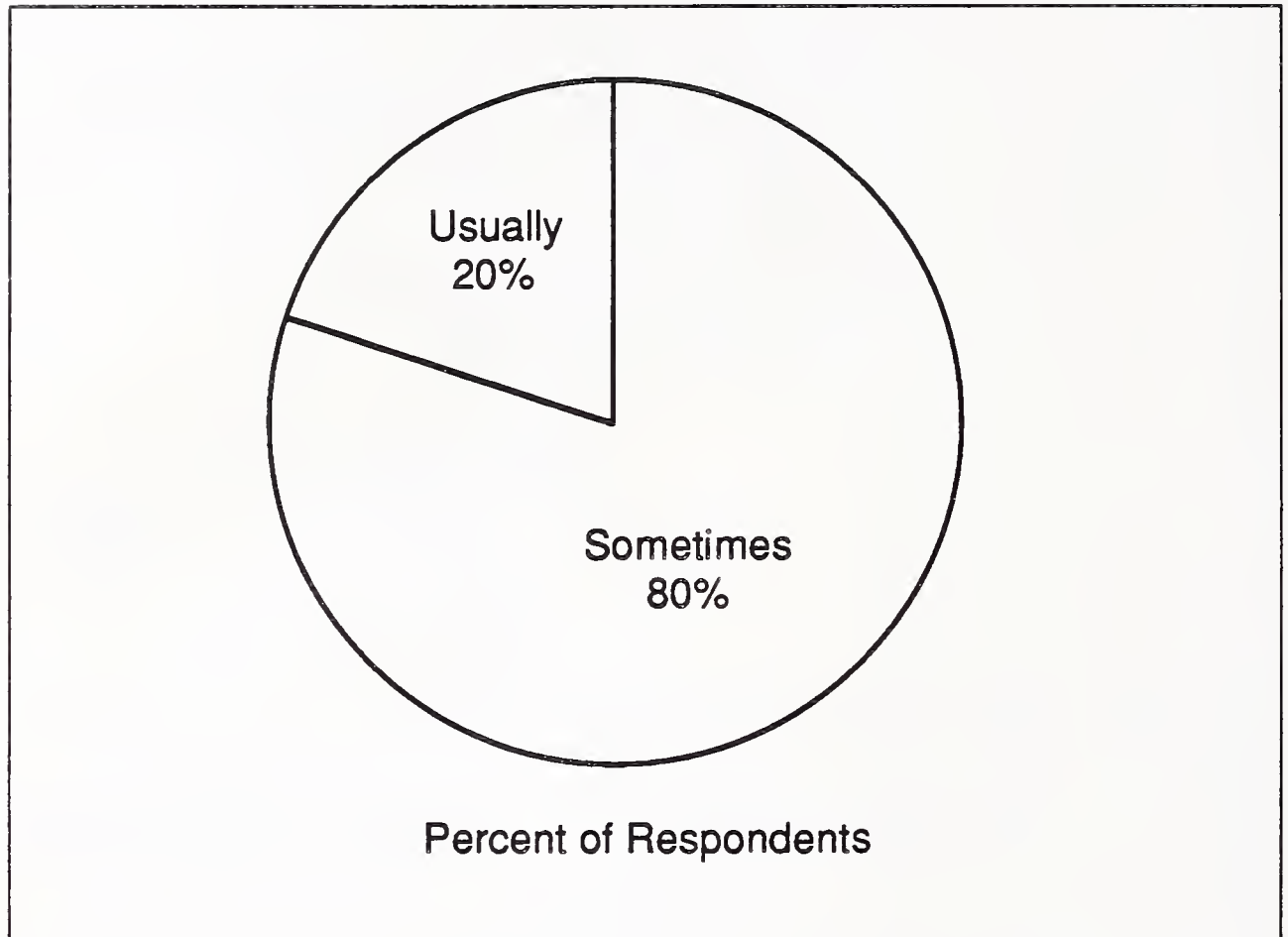
C
Agency Requirements/Expectations of Vendors

1. Contracting Approaches

Agencies usually specify expected staffing levels to vendors when they
issue RFPs for SETA and systems operations contracts, as shown in
Exhibit III-10. Mission-level contracting appears limited to contractor
services for scientific or data center operations. In a mission-level
procurement, the agency describes expected functions of the operation.
Vendors propose technical or procedural solutions, usually for a fixed
price based on functional requirements. Staffing levels may or may not be
included in the vendor's proposal.

EXHIBIT III-10

Agency Requirements for Contract Staffing

Agency Contract Requirements

Mission — 19

Staff Levels — 56

Both — 25

0   20   40   60   80   100

Percent of Respondents
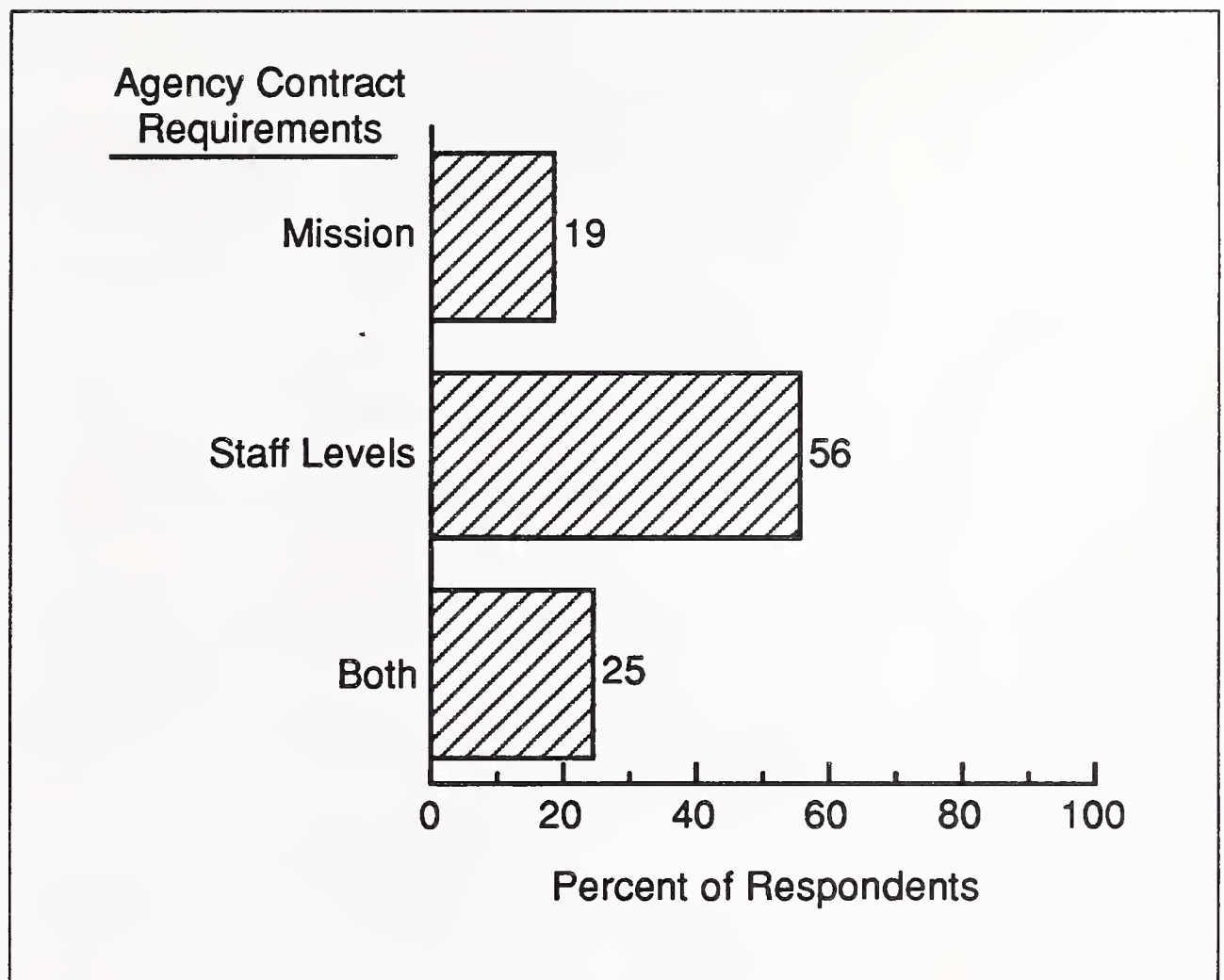
SETA contract awards are based on proposed staffing levels, or fulfillment of the labor categories specified in an agency's RFP. Exact staffing levels may be specified, or minimum and maximum labor-hour estimates are provided. Some agencies require vendors to respond with labor estimates based on a hypothetical situation or a staffing model. Agencies report that they are buying "bodies" when they award a contract. Functional requirements are delineated later as task orders are issued over the life of the contract.

A few agencies interviewed address both mission and staffing level needs in their RFPs. They feel vendors can best respond by knowing the full environment in which they are expected to provide services.

In general, respondents believe they should specify their staffing level expectations to vendors—otherwise they have very little basis on which to make a contract award. The majority employ the same type of contract for both SETA and systems operations services.

2. Vendor Selection Criteria

The relative importance to agencies of each selection criterion in evaluation of vendor proposals for SETA and systems operations contracts are illustrated in Exhibit III-11.

Although vendors are usually required to submit staffing level-based proposals on a cost-per-hour basis, cost was rated significantly lower for SETA contracts than for systems operations contracts. Most other selection criteria received fairly equal and high ratings (near 4.0) for each type of contractor service.

The technical approach appears to be a little less important for SO contracts. They require operational services and do not include design, development and testing efforts.

The vendor's team manager is usually the key person in the successful fulfillment of SETA and SO contracts. The person's qualifications, access to corporate resources to solve problems and freedom to solve problems are also critical to agencies. A vendor team manager needs corporate recognition and authority to respond quickly to agency needs and new situations as they arise.

Vendor management teams are evaluated carefully by agencies because they are the key personnel who will help the program manager provide services successfully.

Because agencies are buying the services of a specified caliber of professionals in SETA and systems operations contracts, the technical competence of personnel is a serious consideration for agencies.

A vendor's previous experiences providing similar services, or operating the same equipment or software, and a good track record are also equally valued by federal agencies.

However, agencies appeared to be cautious in rating "experience with their agency"—it was significantly lower on the importance scale. That would suggest that a vendor's familiarity with an agency or its environment is not directly taken into account when proposals are evaluated. In reality, incumbent contractors and vendors with other contract experience with an agency have an advantage in preparing proposals. They have been exposed to the agency's culture, environment, and evaluation processes, and are sensitive to agency concerns.

EXHIBIT III-11

Importance of Vendor Selection Criteria to Agencies
Agency Perceptions

Criteria

Criteria	SETA	SO
Cost	3.5	4.1
Technical Approach	4.1	3.7
Program Manager's Qualifications	4.0	4.0
Program Manager's Access to Corporate Resources	4.0	4.0
Program Manager's Freedom to Make Decisions	3.7	3.8
Management Team Qualifications	3.9	3.8
Management Team Organization	2.7	2.7
Technical Staff Match	3.8	3.9
Experience with Agency	2.0	1.9
Experience with Operation Type	3.8	3.7
Experience with Equipment/Software	3.8	4.0
Good Track Record	3.8	4.0
Adjacent Contractor Facility	2.1	1.5

⊠ SETA Contracts

☑ Systems Operations Contracts

0   1   2   3   4   5
Average Rating*

*Based on 1-5 scale, where 5 = extremely important and 1 = not important at all

An adjacent contractor facility does not appear to carry much weight with agencies as they evaluate proposals for both SETA and systems operations contracts. However, one agency noted that this factor is becoming increasingly important. RFPs are now beginning to specify short vendor response times to address problems. Depending on the nature of the problem, a nearby contractor facility may influence how quickly a vendor can respond.

The preceding criteria were described as the basis for vendor selection decisions for SETA and systems operations contracts at federal agencies. When asked if vendors offer any other services or features to help win contracts away from incumbents, the majority of agencies said "no," as shown in Exhibit III-12.

EXHIBIT III-12

Features/Services Offered to Unseat Incumbents
Agency Views
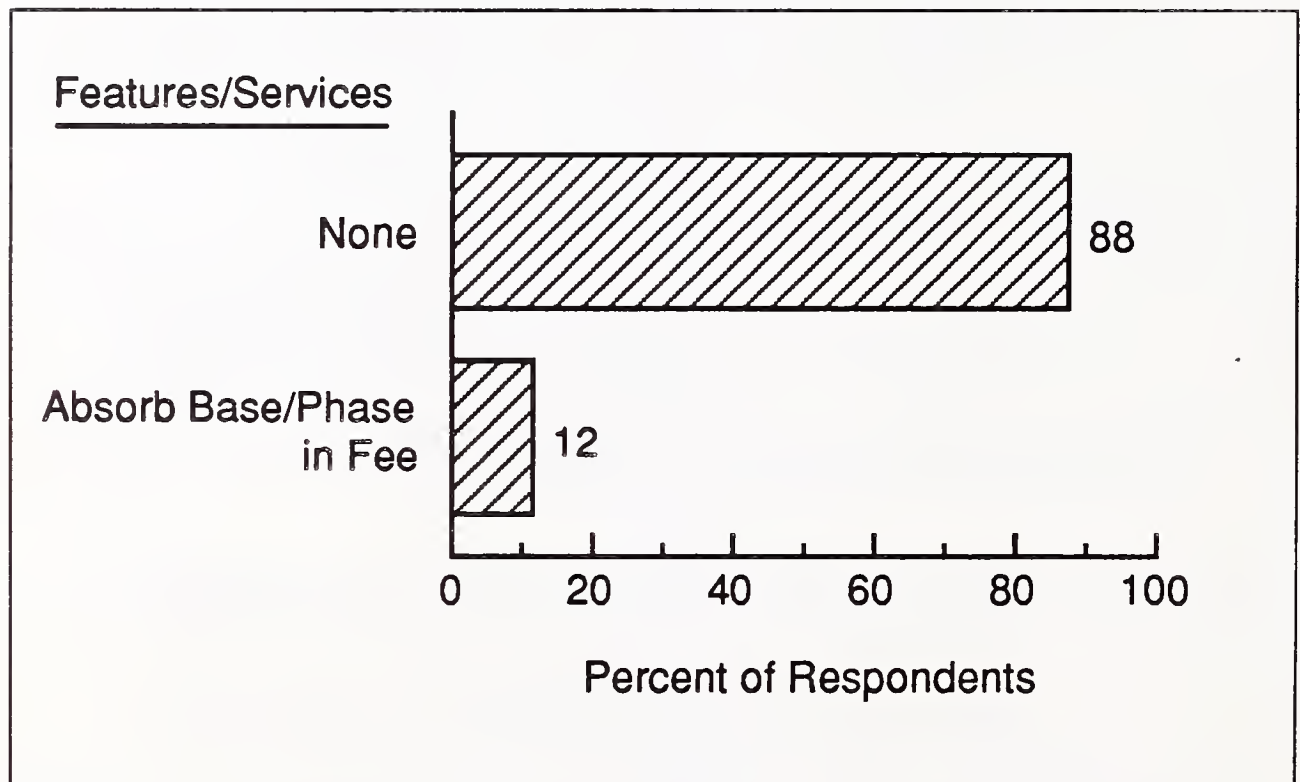
Agencies noted that most bidders always try to exceed the requirements set forth in the RFP by offering more support or services, and trying to offer a lower price. For systems operations contracts, the only additional bid strategy vendors offer is to absorb the base or phase-in fee associated with awarding the contract to a new vendor. SETA bidders may offer highly rated specialists or consultants on a part-time basis, to show superior strength at lower cost.

D

Agency Recompete Practices

INPUT asked responding agencies if they treated recompetitions for SETA and systems operations differently than new procurements for these services. As shown in Exhibit III-13, approximately 75% said they are treated equally. Agencies firmly stated that they adhere to the procurement regulations that safeguard open competitions for all qualified contractors, regardless of a previous history with an agency. The contents of a vendor's proposal will determine which vendor wins a contract. Whether or not the winner is the incumbent contractor is irrelevant.

EXHIBIT III-13

Agency Treatment of Recompeted Contracts

Treated Different?

Yes 20

No 73

Both 7

0   20   40   60   80   100

Percent of Respondents
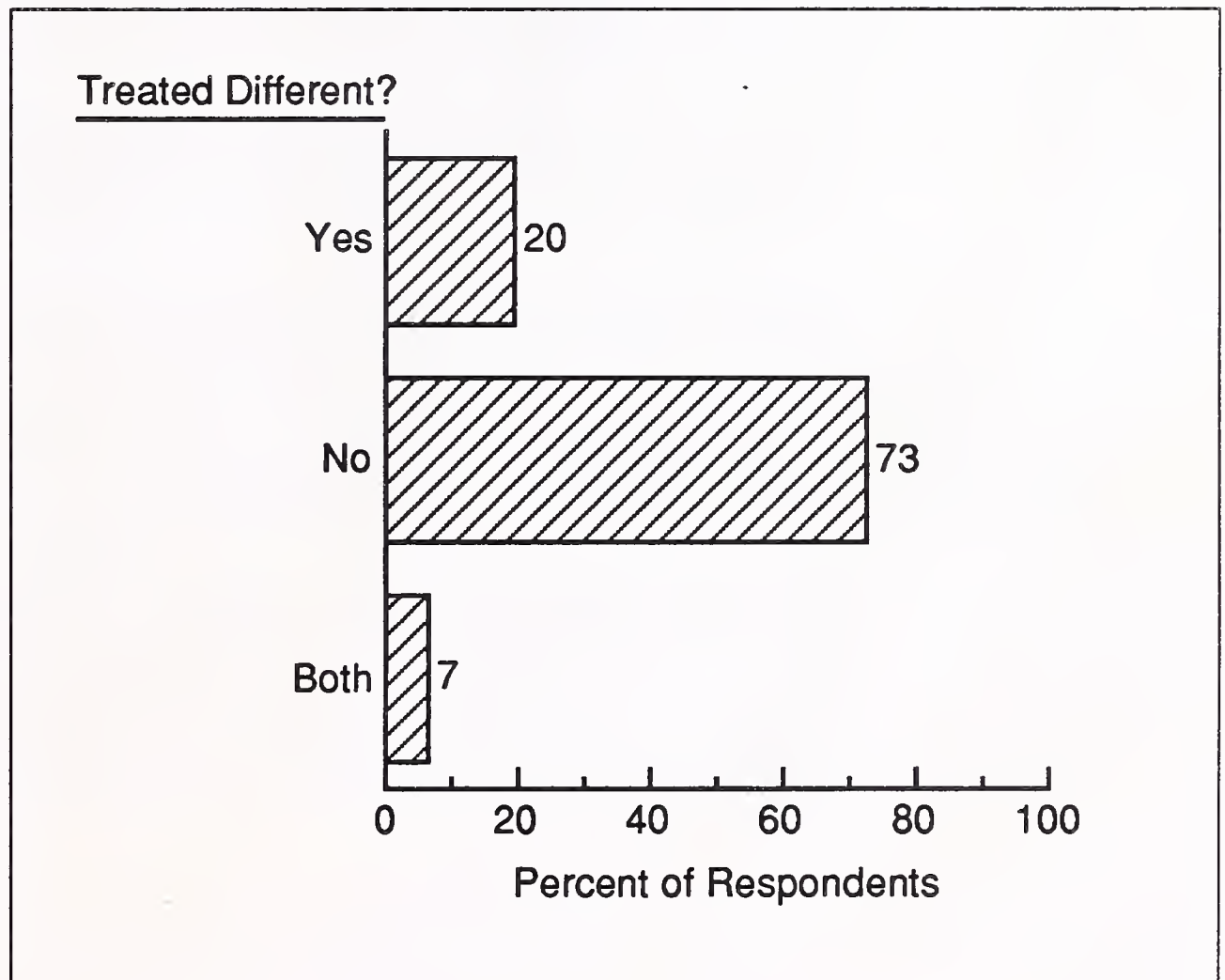
A notion commonly held by IT vendors is that incumbents are hard to unseat. Incumbents are believed to have a better relationship with an agency. They possess insight into an agency's needs and culture. These characteristics, along with the perception that agencies are reluctant to change, are believed to influence why incumbents very often win recompetitions. In reality, a successful incumbent will have developed

these qualities and incorporates its understanding of an agency into a superior proposal.

If recompetitions are treated differently by agencies, it is because agencies pay more attention to how they conduct the procurement process. They try to ensure that incumbents do not have an advantage. RFPs are structured so that peculiarities in the work are eliminated. Incumbents are then presumed to be unable to respond with insight into a unique situation.

A few agencies admit that although recompetitions follow the same procurement process as new procurements, often agencies fear the transition process to another vendor, called the "learning curve." This is especially true in the case of systems operations contracts, in which the vendor operates an agency's data center. Often contacts expire just when a vendor has successfully managed to stabilize an agency's computer operations. A new contractor may be viewed as a potential disruption to the agency's operating environment. The attitude of "if it ain't broke, don't fix it" exists!

In the successful replacement of an incumbent, agencies appear to be mollified by the large percentage of the preceding vendor's staff hired by the successor vendor, proven of course by pre-bid hiring agreements.

INPUT attempted to discern what percent of agency procurements for SETA and systems operations competitions are:

• Full and open
• 8(a) Set-asides
• Small Disadvantaged Business Program Limited Competitions

Most respondents were unable to categorize their responses into these given categories. However, half of the respondents indicated that on average, 59% of their contracting for both kinds of services are conducted as full and open competitions. Considering that historically, 8(a) firms perform systems operations services, the percentage in this category is probably high.

IV
Vendors in the SETA/Systems Operations Marketplace

This section focuses on how vendors perceive the market for SETA and systems operations contracts in the federal sector. Particular attention is devoted to key agencies, evaluation criteria and how vendors unseat incumbents. Many federal IT vendors are experiencing revenue losses due to Defense Department budget cuts.

A
Vendor Participation

INPUT interviewed a representative sample of key vendors known to be current SETA and systems operations contractors. As shown in Exhibit IV-1, the majority of respondents are in the SETA-IT market only. Approximately 60% also perform non-IT-related SETA work for federal agencies.

EXHIBIT IV-1

Current Contracts with Agencies

SETA (IT) 83

SETA (Non-IT) 58

Systems Operations GOCO (IT) 50

Systems Operations COCO (IT) 8

Systems Operations GOCO (Non-IT) 8

Systems Operations COCO (Non-IT) 0

0   20   40   60   80   100

Percent of Respondents*

*Multiple answers allowed
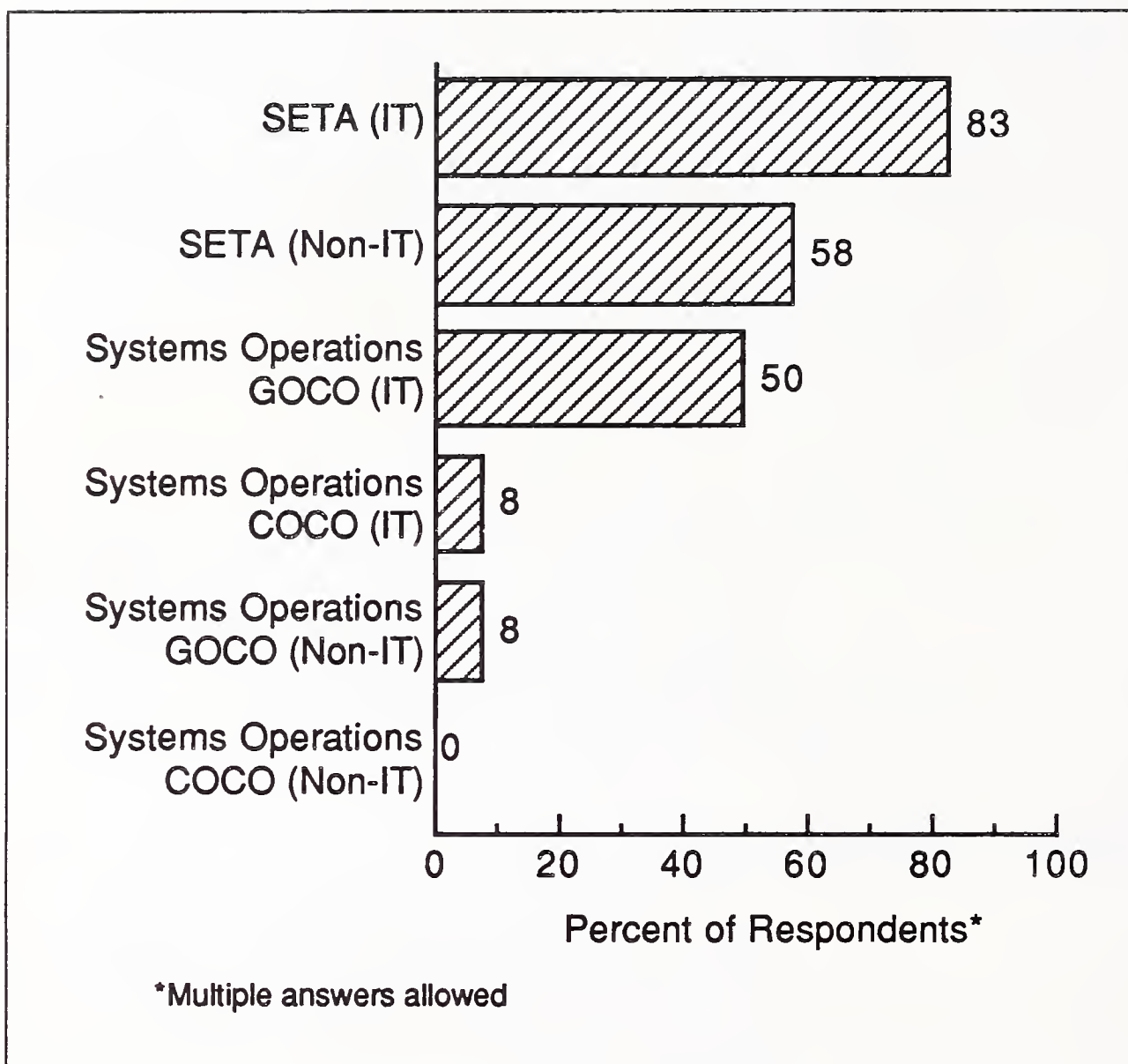
In the systems operations area, half of the vendors provide computer operations services at government locations. Few of those interviewed hold COCO contracts to perform IT services. None of the respondents offer non-IT COCO services.

1. Revenue Prospects

Respondents have a optimistic attitude about their company's revenue prospects in these markets as depicted in Exhibit IV-2.

EXHIBIT IV-2

Revenue Prospects by Contract Type

Contract Type	Percentage of Respondents Revenue Prospects		
	Increase	Decrease	Same
SETA (IT)	82	18	-
SETA (Non-IT)	57	14	29
Systems Operations - GOCO (IT)	66	17	17
Systems Operations - COCO (IT)	NA	NA	NA
Systems Operations - GOCO (Non-IT)	NA	NA	NA

NA = No Answer

The majority of respondents anticipate that SETA revenues for IT services will increase. Few predict a decrease. Seventy percent of the vendors in this study expect systems operations revenues for GOCO contracts to climb.

2. Revenue Change Rationales

Exhibits IV-3 and IV-4 illustrate the reasons why vendors expect revenue changes for SETA and systems operations contracts.

EXHIBIT IV-3

Reasons for Revenue Increases

	Contract Types	
Reasons	SETA	SO
Stronger marketing	X	X
Enhanced capabilities	X	X
More cost competitive	X	
Easier for agencies	X	
Federal consolidation	X	

EXHIBIT IV-4

Reasons for Revenue Decreases

	Contract Types	
Reasons	SETA	SO
Budget cuts	X	X
DoD consolidations	X	
No longer 8(a)		X

Most respondents expect SETA and SO revenues to increase as a direct result of their company's aggressive marketing strategies, growing skills capabilities, or low-cost bids. Most vendors do not expect the number and value of opportunities in the market to increase.

Budget cuts and DoD consolidation activities are expected to hurt SETA revenues for some vendors, but others expect SETA revenues to increase because agencies find it easier to depend on contractors. However, agencies are not in a position to increase their full-time employee staffing levels to hire technical talent to perform many needed functions.

Another vendor predicts that SETA-type service revenue will increase because SI prime contractors are expected to depend more on SETA-type vendors for SI components than in the past.

In the systems operations market, across-the-board federal consolidation efforts are expected to generate many large outsourcing opportunities. Civil agencies are expected to follow the DoD's lead. This is good news to large vendors, but bad news to small vendors. Many 8(a) firms will not be allowed to compete, and small companies may not have the resources to competitively bid for and staff large-scale projects.

Traditionally, the federal government looks to many 8(a) firms to fulfill smaller systems operations functions. However, once a company graduates from the 8(a) program and loses its 8(a) status it is no longer allowed to accept these contracts without competition.

B
Market Perceptions

1. Budget Impact

For the most part, vendors do not view federal budget problems as a serious threat to agencies' use of SETA and systems operations contracts. Although Exhibit IV-5 shows that 58% of the vendors see budget constraints having an impact, the result is both positive and negative. Twenty-five percent see no impact occurring.

EXHIBIT IV-5

Federal Budget Impact on Agency Use of SETA and SO Contracts—Vendor Views

Has Impact?

Yes	58
No	25
Don't Know	17

Percent of Respondents
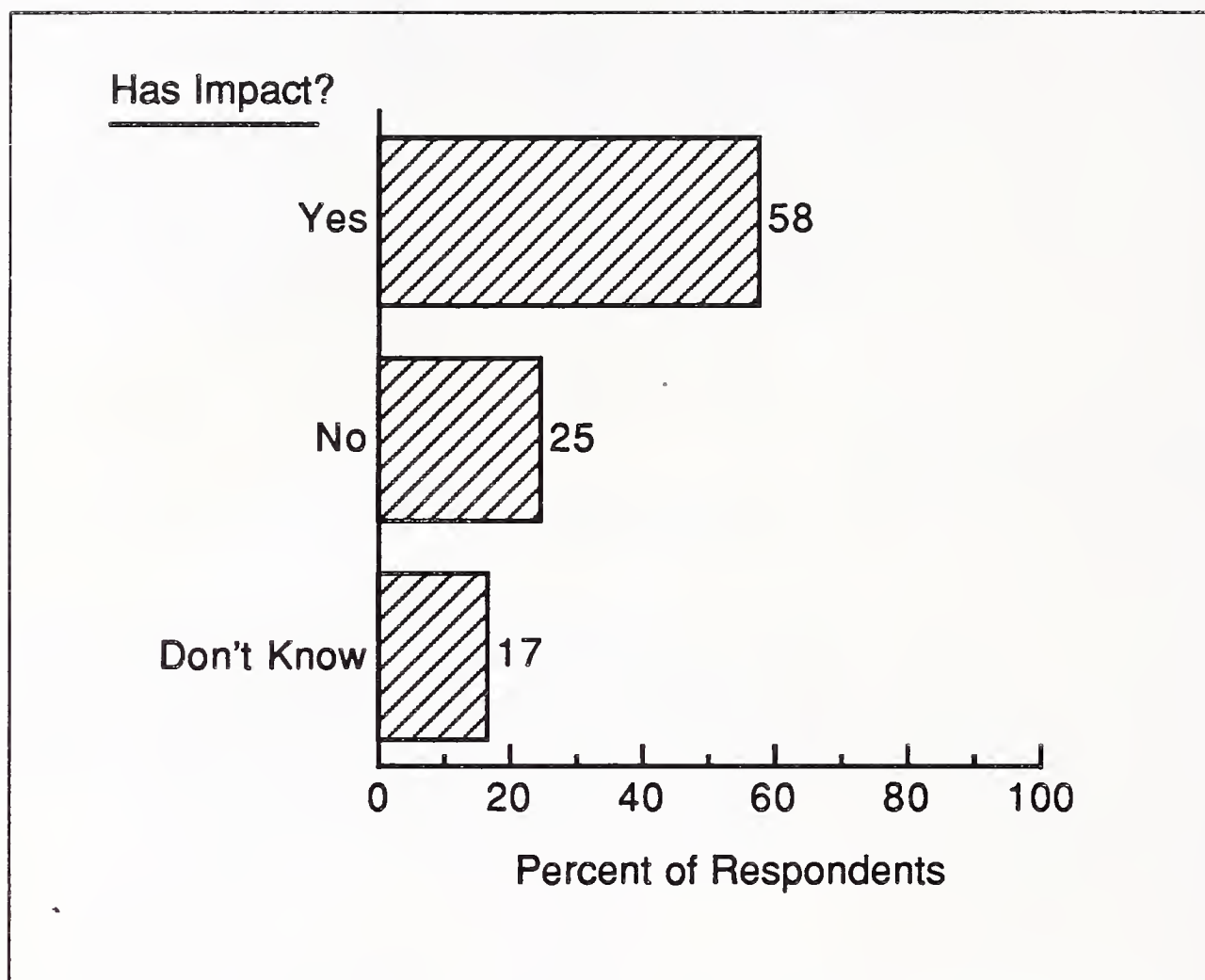
Federal budget tightening translates into many repercussions for vendors. The market changes include:

- More cost competition
- Fewer opportunities
- Risk of small vendor failure
- Shift in buyers and agencies

Vendors echoed that to win contracts they must restructure their pricing strategies and cut corners whenever possible. Some vendors see fewer opportunities ahead, especially in the DoD. Others do not see limitations, especially in niche markets where little competition exists for specialized technical and scientific expertise. Some vendors are simply bewildered about the federal market. Vendors believe agencies will find it difficult to fill their present, and in some cases, expanding missions with less funding and less FTEs.

Many small vendors are expected to fail as a result of governmentwide consolidation efforts. They lack corporate resources to compete for large-

scale procurements. Fewer opportunities to bid are expected. Fewer small to midsize procurements are anticipated.

As a result of DoD's Corporate Information Management initiative, vendors do not know who's in charge! What DoD organizations will be running procurements? Which programs will be consolidated? Which will not? Where should marketing efforts be directed? How do companies establish staffing plans to meet DoD's future needs? At present, DISA is silent on future plans, except for consolidation by functional area/business activity.

2. Incumbent Dominance in the Market

Vendors interviewed for this study believe that the overall incumbent win rate for recompeted SETA and systems operations contracts is on average 76%, as portrayed in Exhibit IV-6.

EXHIBIT IV-6

Vendor Perception of Incumbent Win Rates

Lost
24%

Won
76%

Percent of contracts won by incumbents
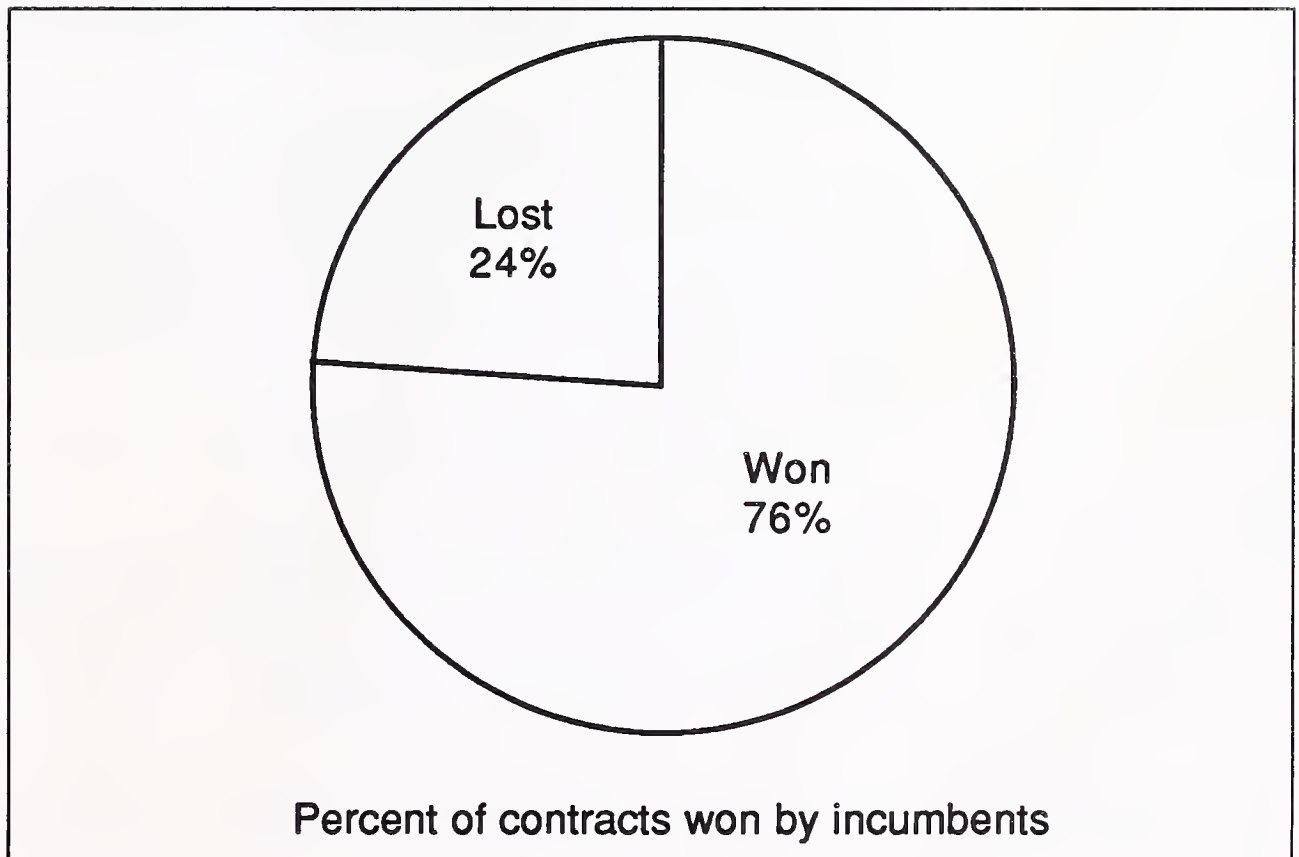
Incumbents only lose because of one or more of the following factors:

- High price
- Poor performance
- Lack of attention to agency/technology

The market for SETA and systems operations contracts is becoming more cost competitive. Both large and small vendors are underpricing their proposals to win contracts. Incumbents are put in an awkward position. It is hard to justify a lower profit margin to management while proposing the same levels of services to an agency.

When an agency customer is dissatisfied with a contractor's performance, the vendor can not expect to win future recompetitions. Agencies rely strongly on previous experience and reputation before making an award decision.

Incumbent contractors risk losing when they have been inattentive to an agency's environment over time. Needs and key personnel shifts require new marketing and bid strategies. Incumbents should keep abreast of new technology and suggest technology improvements to aid in the delivery of an agency's mission.

Some vendors believe a pattern exists in incumbent win/lose scenarios. If an incumbent is successful in winning the first recompetition of a contract, chances are high the incumbent will win subsequent recompetitions for 15 to 20 years. After this period, agency personnel and needs change. In addition, a general feeling of "it's time for new blood" develops within an agency.

3. Agency Selection Criteria

Vendor respondents rated their perception of how important specific vendor selection criteria are to agencies. Their responses are averaged in Exhibit IV-7.

EXHIBIT IV-7

Importance of Vendor Selection Criteria to Agencies
Vendor Perceptions

Criteria

Criteria	SETA Contracts	Systems Operations Contracts
Cost	4.4	4.8
Technical Approach	4.1	3.6
Program Manager's Qualifications	3.9	4.2
Program Manager's Access to Corporate Resources	3.5	3.6
Program Manager's Freedom to Make Decisions	3.7	3.4
Management Team Qualifications	3.7	3.8
Management Team Organization	2.5	3.0
Technical Staff Match	4.2	3.4
Experience with Agency	3.8	3.6
Experience with Operation Type	4.1	4.0
Experience with Equipment/Software	4.1	4.0
Good Track Record	4.0	3.6
Adjacent Contractor Facility	1.5	1.7

Average Rating*

*Based on 1-5 scale, where 5 = extremely important and 1 = not important at all

Vendors believe agencies place more importance on the proposed cost of SETA and SO contracts than agency respondents indicated (refer to Exhibit III-11). Federal agencies commonly deny that cost is the most critical factor in evaluating vendor bids.

Vendor responses agree with those of agencies on the importance of the proposed technical approach in bid evaluations.

Vendors think the qualifications of team managers are slightly more important to agencies for SO contracting than in SETA competitions.

The team manager's access to corporate resources is rated significantly lower by vendors than by agencies. Agency respondents give this criteria a 4.0 average rating for each type of contract. Both groups rate the team manager's freedom to make decisions similarly for SETA and SO contracts.

The proposed organization of a vendor's management team is one criteria receiving a low average importance score by both vendor and agency respondents. Apparently, whether or not the vendor organization mirrors the agency's is not a critical evaluation factor.

The management team's personnel qualifications are important to agencies because they are key contractor personnel and share in the responsibility to complete the contract successfully.

According to vendors, previous experience with an agency is very important to agencies, based on incumbent win rates. However, agencies will not admit that a vendor's previous experience with an agency is a significant vendor selection criterion.

A vendor's previous experience with the operation type, equipment and software, and an overall good track record are regarded similarly by both groups of respondents.

The lowest average score is given to an adjacent contractor facility by vendors and agencies. Future contracts may place more emphasis on the proximity of contractors as SETA contracts increasingly specify acceptable contractor response times.

C
Responses to Agency Requirements

1. Staffing Requisites

Vendor respondents do not see federal agencies--other than NASA and military laboratories--issuing mission contracts for SETA and systems

operations services (see Exhibit IV-8). If mission requirements are included in RFPs, staffing level expectations are frequently delineated.

Vendor Views of Staffing Requirements for SETA and Systems Operations Contracts

Agency Requirements

Mission | 0

Staff | 58

Both | 42

0   20   40   60   80   100

Percent of Respondents
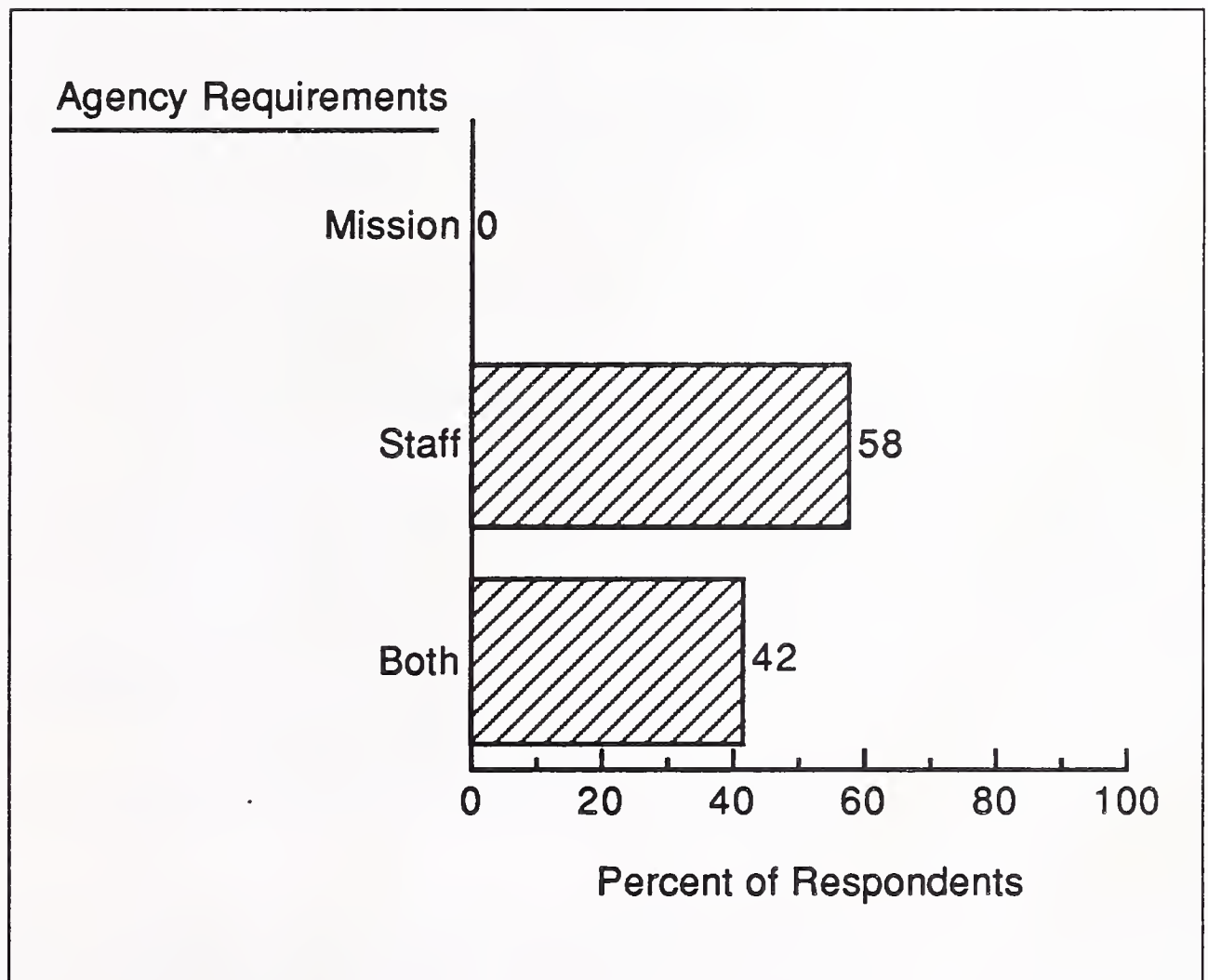
Vendors prepare bids based on what agencies "ask for" in RFPs. Even when agencies do not specify mission requirements, vendors feel compelled to reflect mission understanding in proposals.

Mission-level contracting is not appropriate for most types of SETA contracts. Technical services are sought based on estimates of anticipated needs in labor categories. Later, over the contract's life, functional requirements will be specified for each job assignment through individual task orders.

2. Staffing Acquisition Approaches

Most vendors of SETA and systems operations do not depend on staffing-awarded contracts using only existing internal personnel. As seen in Exhibit IV-9, vendors rely on a variety of staffing methods.

Staffing Acquisition Methods

Method	Percent
Contingency Hires	45
Use Internal Personnel	36
Hire Incumbent's Staff	36
Generally Recruit	36
Team	36
Hire Top Management from Incumbent	18
Doesn't Hire Incumbents	18

Percent of Responses*

*Multiple responses allowed
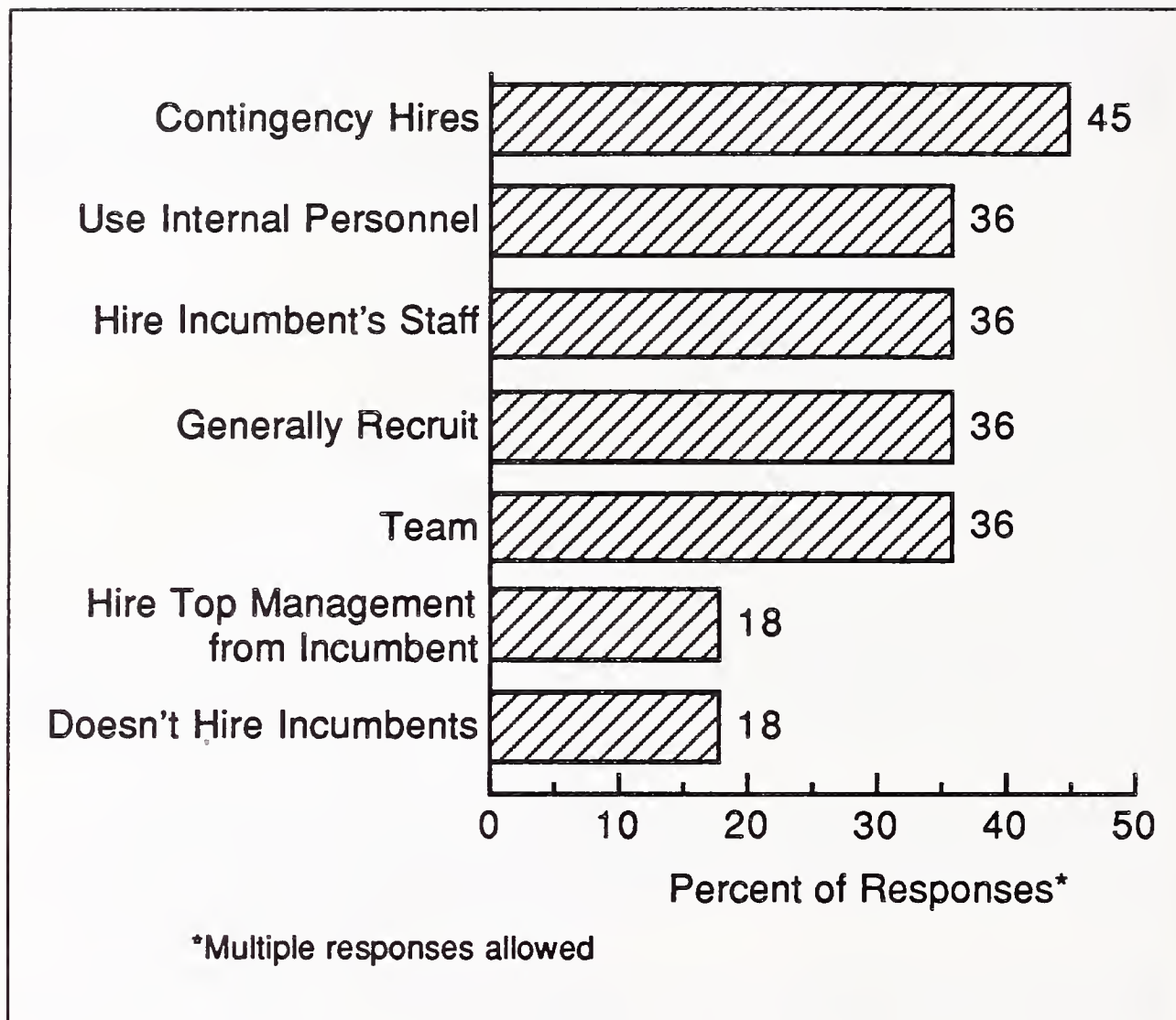
Almost half of the vendors practice contingency hiring for new and recompeted contracts. Talent is recruited through advertising, employment agencies, etc. Sometimes an incumbent's technical employees are actively pursued. In contingency hire situations, the vendor promises qualified individuals employment, subject to winning a specified contract.

Some vendors team with the incumbent contractor or other prime bidders, thereby assuring themselves of some of the contract's dollars and making an inroad into the agency. Vendors also find teaming with smaller vendors allow bids to be more cost competitive. Basing price on internal staff personnel is often more costly to a large vendor.

Some vendors make it a practice to hire top management personnel from incumbents before or after an award is made.

Most vendors agree that in some form, an incumbent's influence will always be evident at an agency. The incumbent will either win future recompetitions or the incumbent's personnel are absorbed by the winning contractor.

FSARP

recompetitions or the incumbent's personnel are absorbed by the winning
contractor.

D
Vendor Strategies

1. Conditions That Unseat Incumbents

Under what conditions do incumbent contractors lose recompetitions of
their existing contracts? INPUT asked vendors in this study to identify
what circumstances are necessary to win against an incumbent contractor?
Their responses are shown in Exhibit IV-10.

EXHIBIT IV-10

Conditions Leading to Unseating Incumbents

Conditions	Percent of Responses*	
	SETA Contracts	SO Contracts
Non-performance	60	80
Requirements change	40	40
Bidders quality & experience	40	40
Cost	20	20
Aggressive marketing	10	-
Hire incumbent	10	-

*Multiple responses allowed

Unseating incumbents is a difficult process at some agencies. However, the
best opportunity to do so exists when an incumbent is not meeting the
performance requirements of an agency. The agency may be dissatisfied
with the contractor for a variety of reasons. The incumbent's attention level
to the agency may have slipped. The incumbent may be lacking expertise in
new technologies to offer to the agency.

Other windows of opportunity exist when requirements change. The
incumbent may be incapable of responding. Also, each time a contract is
recompeted, the possibility exists for a more qualified vendor to offer a
proposal at a lower price. The marketplace for SETA and systems
operations contracts is increasingly growing more cost competitive.

Other tactics that vendors employ to unseat SETA incumbents include aggressive marketing efforts and hiring incumbent personnel.

INPUT probed vendor respondents further to ascertain if they offer special services or features to agencies to help win contractors away from incumbents. The vendors in this study do not admit to tempting agencies with any special service or feature to win contracts other than offering new technology capabilities, as shown in Exhibit IV-11.

EXHIBIT IV-11

Features/Services Offered to Agencies to Unseat Incumbents—Vendor Views
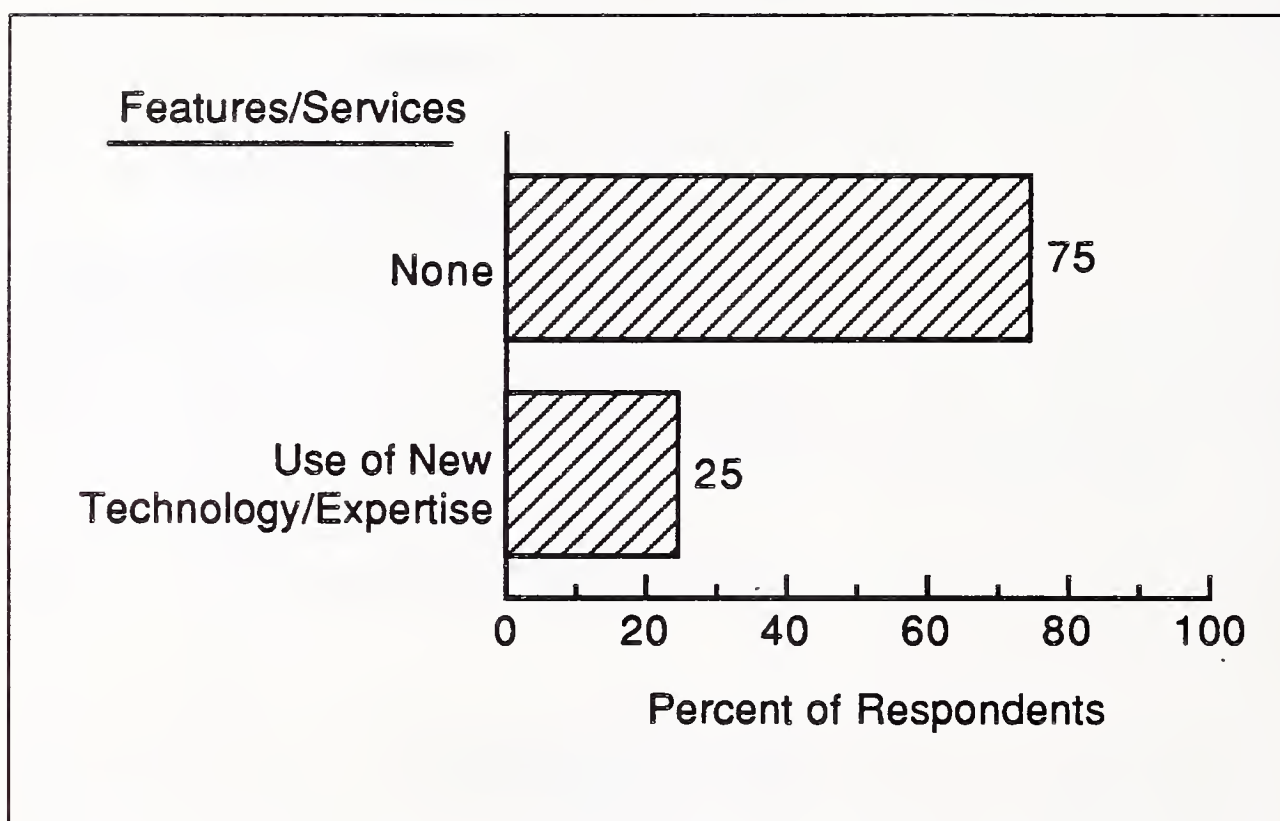
Vendors believe they win contracts away from incumbents based on a combination of the following:

• Proven management practices
• Quality personnel
• Cost
• Previous performance/reputation
• Demonstrated capabilities

2. Differences in Bidding Practices

Most vendors' bidding practices are not different for contracts at military laboratories and test centers, and for installation support and program office SETA contracts.

However, the few differences or problems encountered by some vendors are listed in Exhibit IV-12.

EXHIBIT IV-12

Differences and Problems in Bidding Practices

Military Laboratories and Test Center Contracts

- More technical

- Incumbent loyalty tendency

- Rigid adherence to regulations

Installation Support Contracts

- Management practices more important

- Cost is a major factor

- Evaluators more sophisticated at HQ

- Less loyalty to incumbents

Program Office SETA Contracts

- Technical approach valued higher than cost

- Evaluators more sophisticated at HQ

- Less loyalty to incumbents

Incumbents at military laboratories and test centers are favored over other vendors for many reasons. Start-up time is eliminated or minimized, the environment is understood, and working relationships are already established between the vendor and the customer. Although agencies at these federal locations may in practice favor incumbents, their contracting offices rigidly follow procurement regulations. Headquarters organizations demonstrate more flexibility when they conduct procurements for SETA and systems operations contracts.

When bidding installation support contracts, vendors need to demonstrate their management practices and offer the lowest possible cost proposals. Award decisions for installation support and program office SETA contracts are made on a more cost-competitive basis. Agencies are less concerned

with incumbent stability factors than they are with price. Agency evaluators possess considerably more procurement savvy than found elsewhere throughout an agency for headquarters-sponsored contracts.

Technical scores tend to carry more weight than low-cost bids in vendor proposals to provide SETA services. Program offices sometimes weigh technical scores higher than low-cost bids. A high degree of technical specialization such as testing, design, and systems engineering services is required to support program office missions.

V
Leading SETA/SO Agencies

The leading agencies that offer the higher number or higher revenues for SETA and SO contracts, in the opinion of respondents, are shown in Exhibit V-1. The agencies listed in the exhibit received multiple mentions by respondents.

EXHIBIT V-1

Leading SETA/SO Agencies for Vendors
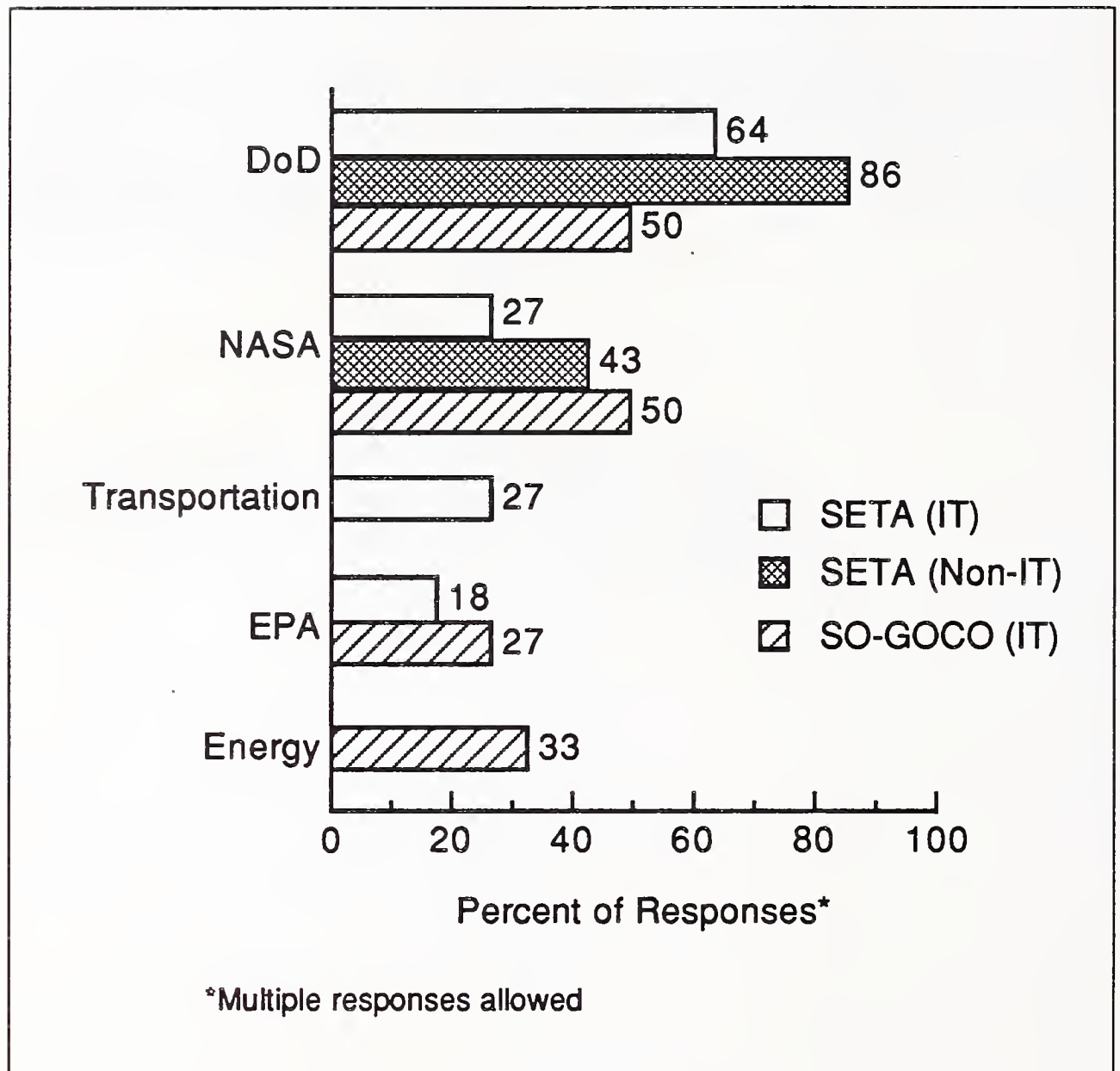
Agencies that respondents mentioned once for each contract category are shown in Exhibit V-2.

EXHIBIT V-2

Other Agencies Mentioned by Vendors*

Contract Type	Agency
SETA (IT)	Energy Interior NOAA SSA Treasury
SETA (NON-IT)	Transportation NOAA
Systems Operations-GOCO (IT)	FEMA HHS NSF State

* Received single mention by respondents

Vendors see more SETA opportunities at DoD agencies despite budget cuts. The buyers of services are changing, however, as consolidation efforts in response to the Corporative Information Management (CIM) initiative progresses.

The following discussion of agency opportunities is not intended to be all inclusive; it merely discusses some of the major SETA and SO activities at the agencies mentioned by respondents. See INPUT's Procurement Analysis Reports (PARs) of the Federal Information Technology Procurement Program for details on specific SETA and SO opportunities by agency.

A
Air Force

The Air Force is considered a heavy user of vendors for SETA and SO, for IT and non IT assignments. The contract recompetitions are spread out over a five-year period, but many recompetitions are not advertised or identified in the long-range AIS (Automated Information Systems) plans. While the turnover of vendors at recompetitions is not high, there has been enough to warrant attention.

One example is Loral's replacement in 1991, at $28 million, of Ford Aero at the Satellite Control Network, due to be recompeted again in 1995. Another situation is at the Flight Test Center at Edwards AFB, where CSC recently

rewon their contract for SO services, but SAIC has the SETA contract at $40 million, due to be recompeted in 1994. The ASD Configuration Support Contract being recompeted in 1992 is split between a prime and a small business (set-aside), and ISEDP II (Information Systems Engineering Prototype Development) in 1992, for total of award of $140 million to two 8(a) set-asides, and three SDB (Small Disadvantaged Business) at an average of $15 million each.

A significant 1993 recompetition will be TEAMS II (Technical Evaluation and Acquisition Management Support) at Eglin AFB. Incumbents include CSC—$35 million—RMS Technologies—$35 million—and Information Systems Network—$35 million. Awards will be made early in 1994. Recompetitions due in 1992, which may be awarded by the time this report is written, include Quintron's contract held since 1983, at the Western Space and Missile Center, Vandenberg, where the current contract is worth $50 million; and CSC's contract at NORAD-Peterson AFB, currently worth $16 million.

B
Army

The Army uses only a few SETA-IT contracts, currently focused on programs like STAMMIS, where EDS and IBM replaced the incumbent, CSC, in 1990 for a five-year contract totalling $90 million. Another program, CADE, held by BDM since 1987, is worth $95 million and is due for recompetition in 1993.

With one exception, most Army recompetable SO contracts tend to be smaller. In 1992, the White Sands Missile Range-High-Energy Laser Facility, run by LEMSCO at $80 million; USAISC Technical Services run by Unisys at $65 million; and STAMMIS run by CSC at $20 million are being recompeted and awarded before year end. In 1993, TAPS, performed by Black and Decker (PRC) at $12 million, and the Army Corps of Engineers Data Network with McDonnell Douglas (Tymshare) at $35 million will be recompeted.

The most significant recompetition is the decentralization of the ESD Army Standard Information Management Systems (originally VIABLE) in a number of Army Information Processing Centers. The contracts will vary in size, but total annual expenditures are expected to reach $45 million.

C
Navy

The Navy uses vendors at all of its test centers for SO contracts and several large SETA contracts at the different commands. There are also several SO contracts that are limited to 8(a) and SDB set-asides.

Turnover of contractors does not occur frequently with this military department. BCS replaced CSC at the Naval Air Weapons Center—China Lake in 1990 for a $105 million, five-year contract. CSC had been the incumbent since 1974 when they unseated a long-term incumbent. Alternatively, a 1992 competition for NAWC—Pt. Mugu, California, involves a CSC contract at $24 million, which has been renewed since 1978. Another 1992 recompetition involves EG&G's $46 million SETA contract for NSWC.

Examples of 8(a)/SDB contracts include NAVSEA's EDSO, held by AAC Associates at $4 million; ITAC with Matcom at $3 million; and the Pacific Missile Test Center with Vanguard at $10 million for SO resources.

1994-1995 SETA recompetitions include the Andrulis contract at NARDAAC for $50 million; Booz-Allen-Hamilton contract at SPAWAR for $14 million; and SAIC at the Marine Corps/Tri-Service Safety Center at $12 million.

D
DISA

The Defense Information Systems Agency (DISA) historically has managed the contracting efforts for many DoD entities. DISA now handles the procurement of technical services to assist DISA's Center for Information Management in providing technical support activities for CIM efforts. One such procurement currently underway is the CIM SETA Support Contract. Bids are due during November 1992. Up to five contracts will be awarded from this procurement.

E
Defense Logistics Agency

The Defense Logistics Agency (DLA) seeks contractor assistance to fulfill its logistics mission through SETA contracts.

F
NASA

NASA centers do little "pure" SETA contracting. Most NASA contracts are of the systems operations variety. NASA depends heavily on contractors for all types of functions. The agency's charter limits full-time personnel (FTEs) to 1,500 scientific personnel. In practice, contractors perform all NASA functions with guidance from scientific administrators.

G
NOAA

The National Oceanic and Atmospheric Administration (NOAA) within the Department of Commerce is scheduled to award a SETA contract in September 1991 to support the Systems Program Office.

The recompete of NOAA's facilities management contract for the U.S. Mission Control Center located in Suitland, Maryland is targeted for FY 1993.

H
Department of Energy

The Department of Energy is viewed as contractor reliant to support and operate their plants and offices throughout the U.S. Well-entrenched contractors include Martin Marietta, CDSI and SAIC within the Department. Several large contracts are close to award or slated for recompetition in 1993.

Energy's Information Administration, located at headquarters in Washington, DC, hopes to award the recompetition for its facilities management contract by the end of 1992. The current contract, which is held by EDS, is valued at $20 million.

By the time this report is published the Albuquerque Operations Office and Bonneville Power Administration (BPA) should have awarded recompetitions of their systems operations contracts. BPA's current contract with Infotec is estimated at $17 million.

The RFP to recompete the Nevada Operations site contract with Computer Sciences Corporation will be released in FY 1993. The existing contract's value is $13 million.

The Western Power Administration will recompete its Martin Marietta contract, estimated at $22 million, for ADP Support Services during 1993. The current contract expires in March 1994.

I
Environmental Protection Agency

Respondents look to the Environmental Protection Agency as a promising source for SETA and systems operations contracts. The EPA is heavily leveraged by contractors. For example, in early 1992, EPA's National Data Processing Division (NDPD) in Research Triangle Park, North Carolina, was staffed by 600 contract and only 40 federal employees.

However, the EPA is currently the brunt of a lot of criticism from Congress on how it has mismanaged contractors. Contractors have been alleged to have overcharged the agency and participated in employee employment schemes. The agency is blamed for not keeping contractors at "arms length" and giving critical management responsibilities to contractors. In the opinion of Congress, unacceptable levels of vulnerability have led to EPA being open to fraudulent and illegal practices.

EPA has been instructed to firm up procurement and contractor management procedures. It is rumored that 25% of existing contractor services are now slated to come back in-house. Whether or not the agency can comply with this new directive and its implications for SETA and systems operations is uncertain at this time.

J
Department of Transportation

The Department of Transportation (DOT)—in particular its Transportation Systems Center (TSC) located in Cambridge, Massachusetts—is considered a prime market for SETA (IT) contracts. TSC recently awarded a $201 million contract to Unisys to provide information services, operations research and engineering support.

TSC is planning to establish a multiple-contractor resource base, called OMNI, through a variety of competitively procured SETA (IT) and SETA (non-IT) IDIQ contracts. Awards are targeted for the middle of 1993.

Although not mentioned by respondents, the Department of Transportation will award a systems operations (IT) contract, officially called ADP Support Services for the Transportation Computer Center located in Washington, DC, during fall 1992. The contract's value is $35 million.

The Federal Aviation Authority (FAA) did not receive multiple mentions by respondents in each contract type category. The FAA is, however, expected to offer many lucrative SETA opportunities for vendors, especially in support of the Capital Investment Plan, previously known as the National Airspace System Plan (NAS).

Transportation's headquarters is known to host many small SETA opportunities for contractors. Of federal agencies, DOT's spending for computer services will be one of the largest over the next several years.

K
Department of Interior

Various entities within the Department of Interior award small contracts for SETA services. Interior's contract awards for SETA and systems

operations do not usually have multimillion dollar values. The U.S. Geological Survey intends to award the recompete of its facilities management contract in September 1992. The Bureau of Mines will recompete its facilities management contract early in 1993.

L
Department of Health and Human Services

Health and Human Services will recompete several high valued contracts early in FY93:

- Administration and Scientific ADP Support Services for the National Institute of Environmental Health Sciences. Current contract value: $13 million (CSC).

- Health Care Finance Administration (HCFA) Data Center. Current contract value: $9.3 (Bendix Field Engineering).

- Federal Drug Administration's National Center for Toxicological Research facilities management/support contract. Current contract value: $23 million (Computer-Based Systems)

VI
Conclusions and
Recommendations

This chapter summarizes the federal market outlook for recompetitions of SETA and systems operations contracts based on interviews with federal agencies and vendors. Recommendations on how vendors can best leverage their corporate assets to win recompetitions away from incumbent contractors are discussed.

A
Conclusions

INPUT's conclusions about the federal SETA and systems operations market are shown in Exhibit VI-1.

EXHIBIT VI-1

Market Conclusions

- Viable market

- Staffing-level contracting prevails

- Dominating incumbent presence

Expenditures for SETA services (IT and non-IT) and systems operations-GOCO contracts should at least be equal or increasing in the federal market. SETA needs are fueled by expanding agency missions, frozen agency staff levels, and consolidation of work flow processes within the DoD and civil agencies.

Systems operations contracts for IT services are still considered a more cost-effective way for agencies to run their data center operations.

Tighter budget conditions are not directly impacting agencies' use of SETA and SO services. In some cases, additional contractor services are anticipated as mission needs increase and the number of full-time federal employees continue to diminish.

Overall, fewer opportunities may exist due to agency consolidation efforts, but the amount of dollars agencies will expend for these services is not expected to diminish. Opportunities will be good for large contractors with large economic and personnel resources. SETA contractors can expect to bid on a significant number of RFPs from DISA and other DoD agencies. Technical and scientific niche vendors should find an exceptionally stable market. NASA and the Department of Energy will continue as the best markets for systems operations services.

Vendors in the SETA and systems operations market will continue to face staffing-level requirements in agency RFPs. Few agencies conduct mission-level contracting for these types of services. However, agencies expect vendors to incorporate an understanding of an agency's mission when preparing proposals. If a vendor's grasp of the agency's operating environment is not evident, the vendor will not win the contract.

Budgetary problems are having less impact on contracting in this area than in expenditures for equipment, software and systems integration services.

Incumbent contractors tend to dominate the market for recompetitions of the services they provide to agencies. Although agencies stress they do not officially manage recompetitions differently from new competitions, incumbents have a high likelihood of winning. Conditions are right for an incumbent to win subsequent recompetitions when their performance is satisfactory and if they use their insight about an agency to produce better bids. In these circumstances, another bidder's lower cost may not unseat the incumbent.

An incumbent's presence often remains evident after a new bidder has won the contract. Although the incumbent may not have won, the incumbent's personnel are frequently hired by the new contractor.

B
Recommendations

Vendors will be successful in winning recombinations from incumbent contractors if they plan to achieve a competitive edge. Vendors should adopt a combination of the following strategies to win over agencies:

- Market aggressively to agencies
- Demonstrate ability to outperform incumbent
- Target changing scope or poorly performed contracts
- Develop and communicate mission understanding

Vendors should increase marketing efforts to penetrate an agency, more aggressively than before. Vendors need to demonstrate their capabilities and promote their technical and managerial strengths. Previous success stories at other agencies should be promoted. Agencies are eager to receive capability demonstrations and technical advice whenever possible.

Demonstrations of capabilities may not be sufficient if they do not present how the incumbent can be out-performed. A new vendor must demonstrate superiority over the incumbent contractor. Demonstrating superiority is more easily accomplished if the existing vendor has performed inadequately or if the agency's requirements have changed from the last competition of a contract. The incumbent contractor may not have the experience level to competently compete.

The main reason why incumbent contractors win successive iterations of a contract is because they comprehend the agency's mission. This knowledge is used to write better proposals. Although this is a very cost-competitive market, a low-cost bid will not by itself unseat an incumbent. Agencies may require staffing-level proposals, but winning vendors reflect an understanding of the agency's mission, and procedures in their bids.

Appendix A
Interview Profiles

A
Federal Agency Respondent Profiles

Respondents at federal agencies included policy level officials or a senior level official in an agency's procurement branch.

Telephone interviews were conducted with the following agencies for this study:

- Air Force (2)
- Army
- Defense Information Systems Agency
- Defense Logistics Agency
- Environmental Protection Agency (2)
- Department of Commerce (2)
- Department of Education
- Department of Energy
- Department of Housing and Urban Development
- Department of Interior/U.S. Geological Survey
- Department of Labor
- Department of Transportation/Transportation Systems Center
- NASA (3)

B
Vendor Profiles

INPUT contacted a representative sample of contractors with current federal SETA and systems operations contracts.

Primarily marketing management executives were contacted for telephone interviews.

Appendix B
Definition of Terms

A
Introduction

INPUT's *Definition of Terms* provides the framework for all of INPUT's market analyses and forecasts of the information services industry. It is used for all U.S. programs. The structure defined in Exhibit B-1 is also used in Europe and for the worldwide forecast.

One of the strengths of INPUT's market analysis services is the consistency of the underlying market sizing and forecast data. Each year INPUT reviews its industry structure and makes changes if they are required. When changes are made they are carefully documented and the new definitions and forecasts reconciled to the prior definitions and forecasts. INPUT clients have the benefit of being able to track market forecast data from year to year against a proven and consistent foundation of definitions.

For 1992 INPUT has incorporated customer services (hardware maintenance) into the information services industry structure. Equipment service becomes the ninth delivery mode used by INPUT to segment and analyze this industry.

In addition, some new areas are being researched during 1992 as part of the outsourcing area and may result in future changes to the industry structure. These areas of research are discussed in Section B 5 of this document.

B

Overall Definitions and Analytical Framework

1. Information Services

Information Services are computer/telecommunications-related products and services that are oriented toward the development or use of information systems. Information services typically involve one or more of the following:

- Processing of specific applications using vendor-provided systems (called *Processing Services*)

- A combination of hardware, packaged software and associated support services which will meet a specific application processing need (called *Turnkey Systems*)

- Packaged software products, either systems software or applications software products (called *Software Products*)

- People services that support users in developing and operating their own information systems (called *Professional Services*)

- Bundled combinations of products and services where the vendor assumes total responsibility for the development of a custom solution to an information systems problem (called *Systems Integration*)

- Services that provide operation and management of all or a significant part of a user's information systems functions under a long-term contract (called *Systems Operations*)

- Services associated with the delivery of information in electronic form—typically network-oriented services such as value-added networks, electronic mail and document interchange, on-line data bases, on-line news and data feeds, etc. (called *Network Services*)

- Services that support the operation of computer hardware and resident systems software (called *Equipment Services*)

In general, the market for information services does not involve providing equipment to users. The exception is where the equipment is bundled as part of an overall service offering such as a turnkey system, a systems operations contract, or a systems integration project.

The information services market also excludes pure data transport services (i.e., data or voice communications circuits). However, where information transport is associated with a network-based service (e.g., EDI or VAN services), or cannot be feasibly separated from other bundled services (e.g., some systems operations contracts), the transport costs are included as part of the services market.

The analytical framework of the information services industry consists of the following interacting factors: overall and industry-specific business environment (trends, events and issues); technology environment; user information system requirements; size and structure of information services markets; vendors and their products, services and revenues; distribution channels; and competitive issues.

2. Market Forecasts/User Expenditures

All information services market forecasts are estimates of *User Expenditures* for information services. When questions arise about the proper place to count these expenditures, INPUT addresses them from the user's viewpoint: expenditures are categorized according to what users perceive they are buying.

By focusing on user expenditures, INPUT avoids two problems which are related to the distribution channels for various categories of services:

• Double counting, which can occur by estimating total vendor revenues when there is significant reselling within the industry (e.g., software sales to turnkey vendors for repackaging and resale to end users)

• Missed counting, which can occur when sales to end users go through indirect channels such as mail order retailers

Captive Information Services User Expenditures are expenditures for products and services provided by a vendor that is part of the same parent corporation as the user. These expenditures are not included in INPUT forecasts.

Non-captive Information Services User Expenditures are expenditures that go to vendors that have a different parent corporation than the user. It is these expenditures which constitute the information services market analyzed by INPUT and that are included in INPUT forecasts.

3. Delivery Modes

Delivery Modes are defined as specific products and services that satisfy a given user need. While *Market Sectors* specify *who* the buyer is, *Delivery Modes* specify *what* the user is buying.

Of the nine delivery modes defined by INPUT, six are considered primary products or services:

- *Processing Services*
- *Network Services*
- *Professional Services*
- *Applications Software Products*
- *Systems Software Products*
- *Equipment Services*

The remaining three delivery modes represent combinations of these products and services, bundled together with equipment, management and/ or other services:

- *Turnkey Systems*
- *Systems Operations*
- *Systems Integration*

Section C describes the delivery modes and their structure in more detail.

4. Market Sectors

Market Sectors or markets are groupings or categories of the users who purchase information services. There are three types of user markets:

- *Vertical Industry* markets, such as Banking, Transportation, Utilities, etc. These are called "industry-specific" markets.

- *Functional Application* markets, such as Human Resources, Accounting, etc. These are called "cross-industry" markets.

- *Other* markets, which are neither industry- nor application-specific, such as the market for systems software products and much of the on-line data base market.

Specific market sectors used by INPUT are defined in Section E, below.

5. Outsourcing

The changes in the information services area towards longer term client-vendor relationships has created a number of new types of *outsourcing* relationships. In addition to the nine delivery modes, INPUT will be conducting research during 1992 in each of the areas defined below. Based on this research, INPUT will review and may change its information services industry structure for 1992.

- Outsourcing - The contracting of all or a major part of an information systems process to an external vendor on a long-term basis. The vendor takes responsibility for the performance of the process.

- Outsourcing can include any or all of the following elements:

    - Processing Operations - The vendor is responsible for managing and operating the client's computer systems.

    - Network Operations - The vendor assumes full responsibility for the client's data communications systems. This may also include the voice communications of the client.

    - Applications Maintenance - The vendor has full responsibility for maintaining the applications software that the vendor uses as part of its business operations.

    - Applications Management - Not only does the vendor maintain and upgrade the applications software for the client, but also develops and implements new software as the need arises.

    - Desktop Services - The vendor assumes responsibility for the deployment, maintenance and connectivity between the PCs in the client organization. The service may also include performing the help desk function.

C
Delivery Modes and Submodes

Exhibit B-1 provides the overall structure of the information services industry as defined and used by INPUT. This section of *Definition of Terms* provides definitions for each of the delivery modes and their submodes or components.

1. Software Products

INPUT divides the software products market into two delivery modes: systems software and applications software.

The two delivery modes have many similarities. Both involve user purchases of software packages for in-house computer systems. Included are both lease and purchase expenditures, as well as expenditures for work performed by the vendor to implement or maintain the package at the user's sites. Vendor-provided training or support in operation and use of the package, if bundled in the software pricing, is also included here.

Expenditures for work performed by organizations other than the package vendor are counted in the professional services delivery mode. Fees for work related to education, consulting, and/or custom modification of software products are counted as professional services, provided such fees are charged separately from the price of the software product itself.

EXHIBIT B-1

Information Services Industry Structure
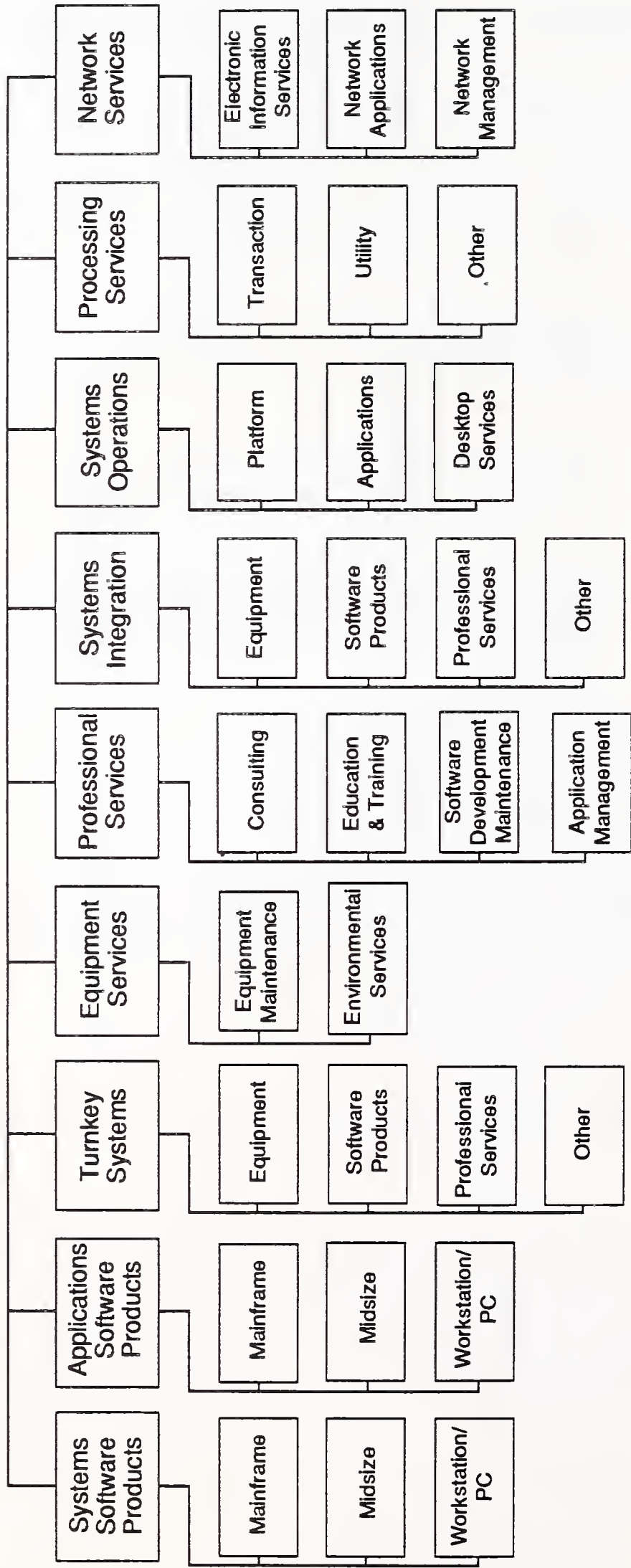
Source: INPUT

a. Systems Software Products

Systems software products enable the computer/communications system to perform basic machine-oriented or user interface functions. INPUT divides systems software products into three submodes.

- *Systems Control Products* - Software programs that function during application program execution to manage computer system resources and control the execution of the application program. These products include operating systems, emulators, network control, library control, windowing, access control, and spoolers.

- *Operations Management Tools* - Software programs used by operations personnel to manage the computer system and/or network resources and personnel more effectively. Included are performance measurement, job accounting, computer operation scheduling, disk management utilities, and capacity management.

- *Applications Development Tools* - Software programs used to prepare applications for execution by assisting in designing, programming, testing, and related functions. Included are traditional programming languages, 4GLs, data dictionaries, data base management systems, report writers, project control systems, CASE systems and other development productivity aids. Also included are system utilities (e.g., sorts) which are directly invoked by an applications program.

INPUT also forecasts the systems software products delivery mode by platform level: mainframe, minicomputer and workstation/PC.

b. Applications Software Products

Applications software products enable a user or group of users to support an operational or administrative process within an organization. Examples include accounts payable, order entry, project management and office systems. INPUT categorizes applications software products into two submodes.

- *Industry-Specific Applications Software Products* - Software products that perform functions related to fulfilling business or organizational needs unique to a specific industry (vertical) market and sold to that market only. Examples include demand deposit accounting, MRPII, medical record keeping, automobile dealer parts inventory, etc.

- *Cross-Industry Applications Software Products* - Software products that perform a specific function that is applicable to a wide range of industry sectors. Examples include payroll and human resource systems, accounting systems, word processing and graphics systems, spreadsheets, etc.

INPUT also forecasts the applications software products delivery mode by platform level: mainframe, minicomputer and workstation/PC.

2. Turnkey Systems

A turnkey system is an integration of equipment (CPU, peripherals, etc.), systems software, and packaged or custom application software into a single product developed to meet a specific set of user requirements. Value added by the turnkey system vendor is primarily in the software and support services provided. Most CAD/CAM systems and many small business systems are turnkey systems. Turnkey systems utilize standard computers and do not include specialized hardware such as word processors, cash registers, process control systems, or embedded computer systems for military applications.

Computer manufacturers (e.g., IBM or DEC) that combine software with their own general-purpose hardware are not classified by INPUT as turnkey vendors. Their software revenues are included in the appropriate software category.

Most turnkey systems are sold through channels known as value-added resellers.

- *Value-Added Reseller (VAR):* A VAR adds value to computer hardware and/or software and then resells it to an end user. The major value added is usually applications software for a vertical or cross-industry market, but also includes many of the other components of a turnkey systems solution, such as professional services.

Turnkey systems have three components:

- Equipment - computer hardware supplied as part of the turnkey system

- Software products - prepackaged systems and applications software products

- Professional services - services to install or customize the system or train the user, provided as part of the turnkey system sale

3. Processing Services

This delivery mode includes three submodes: transaction processing, utility processing, and "other" processing services.

- *Transaction Processing* - Client uses vendor-provided information systems—including hardware, software and/or data networks—at the vendor site or customer site to process transactions and update client data bases. Transactions may be entered in one of four modes:

- *Interactive* - Characterized by the interaction of the user with the system for data entry, transaction processing, problem solving and report preparation: the user is on-line to the programs/files stored on the vendor's system.

- *Remote Batch* - Where the user transmits batches of transaction data to the vendor's system, allowing the vendor to schedule job execution according to overall client priorities and resource requirements.

- *Distributed Services* - Where users maintain portions of an application data base and enter or process some transaction data at their own site, while also being connected through communications networks to the vendor's central systems for processing other parts of the application.

- *Carry-in Batch* - Where users physically deliver work to a processing services vendor.

• *Utility Processing* - Vendor provides basic software tools (language compilers, assemblers, DBMSs, graphics packages, mathematical models, scientific library routines, etc.), generic applications programs and/or data bases, enabling clients to develop their own programs or process data on the vendor's system.

• *Other Processing Services* - Vendor provides service—usually at the vendor site—such as scanning and other data entry services, laser printing, computer output microfilm (COM), CD preparation and other data output services, backup and disaster recovery, etc.

4. Systems Operations

Systems operations was a new delivery mode introduced in the 1990 Market Analysis and Systems Operations programs. It was created by taking the Systems Operations submode out of both Processing Services and Professional Services. For 1992 the submodes have been defined as follows.

Systems operations involves the operation and management of all or a significant part of the user's information systems functions under a long-term contract. These services can be provided in either of two distinct submodes where the difference is whether the support of applications, as well as data center operations, is included.

• *Platform systems operations* - The vendor manages and operates the computer systems, often including telecommunications networks, without taking responsibility for the user's application systems.

• *Applications systems operations* - The vendor manages and operates the computer systems, often including telecommunications networks, and is also responsible for maintaining, or developing and maintaining, the user's application systems.

In the federal government market, systems operation services are also defined by equipment ownership with the terms "COCO" (Contractor-Owned, Contractor-Operated), and "GOCO" (Government-Owned, Contractor-Operated).

The ownership of the equipment, which was the previous basis for the systems operations submodes, is no longer considered critical to the commercial market. Most of the market consists of systems operations relationships using vendor-owned hardware. What is now critical is the breadth of the vendor/client relationship as it expands beyond data center management to applications management.

Systems operations vendors now provide a wide variety of services in support of existing information systems. The vendor can plan, control, provide, operate, maintain and manage any or all components of the user's information systems (equipment, networks, systems and/or applications software), either at the client's site or the vendor's site. Systems operations can also be referred to as "resource management" or "facilities management."

5. Systems Integration (SI)

Systems integration is a vendor service that provides a complete solution to an information system, networking or automation requirement through the custom selection and implementation of a variety of information system products and services. A systems integrator is responsible for the overall management of a systems integration contract and is the single point of contact and responsibility to the buyer for the delivery of the specified system function, on schedule and at the contracted price.

To be included in the information services market, systems integration projects must involve some application processing component. In addition, the majority of cost must be associated with information systems products and/or services.

• *Equipment* - Information processing and communications equipment required to build the systems solution. This component may include custom as well as off-the-shelf equipment to meet the unique needs of the project. The systems integration equipment category excludes turnkey systems by definition.

• *Software products* - Prepackaged applications and systems software products.

- *Professional services* - The value-added component that adapts the equipment and develops, assembles, or modifies the software and hardware to meet the system's requirements. It includes all of the professional services activities required to develop, and if included in the contract, operate an information system, including consulting, program/project management, design and integration, software development, education and training, documentation, and systems operations and maintenance.

- *Other services* - Most systems integration contracts include other services and product expenditures that are not easily classified elsewhere. This category includes miscellaneous items such as engineering services, automation equipment, computer supplies, business support services and supplies, and other items required for a smooth development effort.

Systems integrators perform, or manage others who perform, most or all of the following functions:

- Program management, including subcontractor management

- Needs analysis

- Specification development

- Conceptual and detailed systems design and architecture

- System component selection, modification, integration and customization

- Custom software design and development

- Custom hardware design and development

- Systems implementation, including testing, conversion and post-implementation evaluation and tuning

- Life cycle support, including
  · System documentation and user training
  · Systems operations during development
  · Systems maintenance

6. Professional Services

This category includes three submodes: consulting, education and training, and software development.

- *Consulting:* Services include management consulting (related to information systems), information systems consulting, feasibility analysis and cost-effectiveness studies, and project management assistance. Services may be related to any aspect of the information system, including equipment, software, networks and systems operations.

- *Education and Training:* Products and services related to information systems and services for the professional and end user, including computer-aided instruction, computer-based education, and vendor instruction of user personnel in operations, design, programming, and documentation.

- *Software Development:* Services include user requirements definition, systems design, contract programming, documentation, and implementation of software performed on a custom basis. Conversion and maintenance services are also included.

7. Network Services

Network services typically include a wide variety of network-based functions and operations. Their common thread is that most of these functions could not be performed without network involvement. Network services is divided into two submodes: *Electronic Information Services,* which involve selling information to the user, and *Network Applications,* which involve providing some form of enhanced transport service in support of a user's information processing needs.

a. Electronic Information Services

Electronic information services are data bases that provide specific information via terminal- or computer-based inquiry, including items such as stock prices, legal precedents, economic indicators, periodical literature, medical diagnosis, airline schedules, automobile valuations, etc. The terminals used may be computers themselves, such as communications servers or personal computers. Users typically inquire into and extract information from the data bases. Although users may load extracted data into their own computer systems, the electronic information vendor provides no data processing or manipulation capability and the users cannot update the vendor's data bases.

The two kinds of electronic information services are:

- *On-line Data Bases* - Structured, primarily numerical data on economic and demographic trends, financial instruments, companies, products, materials, etc.

- *News Services* - Unstructured, primarily textual information on people, companies, events, etc.

While electronic information services have traditionally been delivered via networks, there is a growing trend toward the use of CD ROM optical disks to support or supplant on-line services, and these optical disk-based systems are included in the definition of this delivery mode.

b. Network Applications

Value-Added Network Services (VAN Services) - VAN services are enhanced transport services which involve adding such functions as automatic error detection and correction, protocol conversion, and store-and-forward message switching to the provision of basic network circuits.

While VAN services were originally provided only by specialized VAN carriers (Tymnet, Telenet, etc.), today these services are also offered by traditional common carriers (AT&T, Sprint, etc.). Meanwhile, the VAN carriers have also branched into the traditional common carriers' markets and are offering unenhanced basic network circuits as well.

INPUT's market definition covers VAN services only, but includes the VAN revenues of all types of carriers. The following are examples of VAN services.

- *Electronic Data Interchange (EDI)* - Application-to-application exchange of standardized business documents between trade partners or facilitators. This exchange is commonly performed using VAN services. Specialized translation software is typically employed to convert data from organizations' internal file formats to EDI interchange standards. This software may be provided as part of the VAN service or may be resident on the organization's own computers.

- *Electronic Information Exchange (EIE)* - Also known as electronic mail (E-mail), EIE involves the transmission of messages across an electronic network managed by a services vendor, including facsimile transmission (FAX), voice mail, voice messaging, and access to Telex, TWX, and other messaging services. This also includes bulletin board services.

- *Other Network Services* - This segment contains videotex and pure network management services. Videotex is actually more a delivery mode than an application. Its prime focus is on the individual as a consumer or in business. These services provide interactive access to data bases and offer the inquirer the ability to send as well as receive information for such purposes as home shopping, home banking, travel reservations, and more.

Network management services included here must involve the vendor's network and network management systems as well as people. People-only services are included in professional services that involve the management of networks as part of the broader task of managing a user's information processing functions are included in systems operations.

8. Equipment Services

The equipment services delivery mode includes two submodes. Each deals with the support and maintenance of computer equipment operations.

- *Equipment Maintenance* - Services provided to repair, diagnose problems and provide preventive maintenance both on-site and off-site. The costs of parts, media and other supplies are excluded. These services are typically provided on a contract basis.

- *Environmental Services* - Composed of equipment- and data center-related special services such as cabling, air conditioning and power supply, equipment relocation and similar services.

D

Hardware/Hardware Systems

Hardware - Includes all computer and telecommunications equipment that can be separately acquired with or without installation by the vendor and not acquired as part of an integrated system.

- *Peripherals* - Includes all input, output, communications, and storage devices (other than main memory) that can be connected locally to the main processor, and generally cannot be included in other categories such as terminals.

- *Input Devices* - Includes keyboards, numeric pads, card readers, light pens and track balls, tape readers, position and motion sensors, and analog-to-digital converters.

- *Output Devices* - Includes printers, CRTs, projection television screens, micrographics processors, digital graphics, and plotters

- *Communication Devices* - Includes modem, encryption equipment, special interfaces, and error control

- *Storage Devices* - Includes magnetic tape (reel, cartridge, and cassette), floppy and hard disks, solid state (integrated circuits), and bubble and optical memories

Terminals - Three types of terminals are described below:

- *User Programmable* - Also called intelligent terminals, including the following:

  - Single-station or standalone
  - Multistation, shared processor
  - Teleprinter
  - Remote batch

- *User Nonprogrammable*

  - Single-station
  - Multistation, shared processor
  - Teleprinter

- *Limited Function* - Originally developed for specific needs, such as point-of-sale (POS), inventory data collection, controlled access, and other applications

Hardware Systems - Includes all processors from microcomputers to supercomputers. Hardware systems may require type- or model-unique operating software to be functional, but this category excludes applications software and peripheral devices, other than main memory and processors or CPUs not provided as part of an integrated (turnkey) system.

- *Microcomputer* - Combines all of the CPU, memory, and peripheral functions of an 8-, 16-, or 32-bit computer on a chip in various forms including:

  - Integrated circuit package

  - Plug-in boards with increased memory and peripheral circuits

  - Console including keyboard and interfacing connectors

  - Personal computer with at least one external storage device directly addressable by the CPU

  - An embedded computer which may take a number of shapes or configurations

- *Workstations* - High-performance, desktop, single-user computers employing (mostly) Reduced Instruction Set Computing (RISC). Workstations provide integrated, high-speed, local network-based services such as data base access, file storage and back-up, remote communications, and peripheral support. Typical workstation products are provided by Apollo (now a unit of Hewlett-Packard), Sun, Altos, DEC (the MicroVAX) and IBM. These products usually cost more than $15,000. However, at this writing many companies have recently announced sizable price cuts.

- *Midsize Systems* - Describe superminicomputers and the more traditional business minicomputers. Due to steadily improving design and technology, the latter have outgrown traditional definitions (which defined small systems as providing 32-bit to 64-bit word lengths at prices ranging from $15,000 to $350,000). Increasingly, minicomputers and workstations meet the 32-bit definition, and may go beneath the $15,000 lower price limit. Typical midrange systems include IBM System/3X, 43XX, AS/400, and 937X product lines, DEC PDP and VAX families (excluding MicroVAX families), and competitive products from a wide range of vendors, including HP, Data General, Wang, AT&T, Prime Concurrent, Gould, Unisys, NCR, Bull, Harris, Tandem, Stratus, and many others.

- *Large Computer* - Presently centered on storage controllers, but likely to become bus-oriented and to consist of multiple processors or parallel processor. Intended for structured mathematical and signal processing and typically used with general purpose, Von Neumann-type processors for system control. This term usually refers to traditional mainframes and supercomputers.

- *Supercomputer* - High-powered processors with numerical processing throughput that is significantly greater than the fastest general purpose computers, with capacities in the 100-500 million floating point operations per second (MFLOPS) range. Newer supercomputers, with burst modes over 500 MFLOPS, main storage size up to 10 million words, and on-line storage in the one-to-four gigabyte class, are labeled Class V to Class VII in agency long-range plans. Supercomputers fit in one of two categories:

  - Real Time - Generally used for signal processing in military applications

  - Non-Real Time - For scientific use in one of three configurations:

    · Parallel processors
    · Pipeline processor
    · Vector processor

- *Supercomputer* - Is also applied to micro, mini, and large mainframe computers with performance substantially higher than attainable by Von Neumann architectures.

- *Embedded Computer* - Dedicated computer system designed and implemented as an integral part of a weapon, weapon system, or platform; critical to a military or intelligence mission such as command and control, cryptological activities, or intelligence activities. Characterized by military specifications (MIL SPEC) appearance and operation, limited but reprogrammable applications software, and permanent or semipermanent interfaces. These systems may vary in capacity from microcomputers to parallel processor computer systems.

Appendix C
Glossary of Acronyms

The federal government's procurement language uses a combination of acronyms, phrases, and words that is complicated by different agency definitions and interpretations. The government also uses terms of accounting, business, economics, engineering, and law with new applications and technology.

Acronyms and contract terms that INPUT encountered most often in program documentation and interviews for this report are included here, but this glossary should not be considered all-inclusive. Federal procurement regulations (DAR, FPR, FAR, FIRMR, FPMR) and contract terms listed in RFIs, RFPs, and RFQs provide applicable terms and definitions.

Federal agency acronyms have been included to the extent they are employed in this report.

A

Federal Acronyms

AAS	Automatic Addressing System.
AATMS	Advanced Air Traffic Management System.
ACS	Advanced Communications Satellite (formerly NASA 30/20 GHz Satellite Program).
ACT-1	Advanced Computer Techniques (Air Force).
Ada	DoD High-Order Language.
ADA	Airborne Data Acquisition.
ADL	Authorized Data List.
ADNET	Anti-Drug Network.
ADS	Automatic Digital Switches (DCS).
AFA	Air Force Association.
AFCEA	Armed Forces Communications Electronics Association.
AGE	Aerospace Ground Equipment.
AIP	Array Information Processing.

AIS	Automated Information System.
AMD	Acquisition Management Directorate.
AMPE	Automated Message Processing Equipment.
AMPS	Automated Message Processing System.
AMSL	Acquisition Management Systems List.
ANG	Army National Guard
AP(P)	Advance Procurement Plan.
Appropriation	Congressionally approved funding for authorized programs and activities of the Executive Branch.
APR	Agency Procurement Request.
ARC	Acquisition Review Council.
ARPANET	DARPA network of scientific computers.
ASP	Aggregated Switch Procurement
ASTA	Advanced Software Technology and Algorithims.
ATLAS	Abbreviated Test Language for All Systems (for ATE-Automated Test Equipment).
Authorization	In the legislative process programs, staffing, and other routine activities must be approved by Oversight Committees before the Appropriations Committee will approve the money from the budget.
AUSA	Association of the U.S. Army.
AUTODIN	AUTOmatic DIgital Network of the Defense Communications System.
AUTOSEVOCOM	AUTOmatic SEcure VOice COMmunications Network
AUTOVON	AUTOmatic VOice Network of the Defense Communications System.
BA	Basic Agreement.
BAFO	Best And Final Offer.
Base level	Procurement, purchasing, and contracting at the military installation level.
BCA	Board of Contract Appeals.
Benchmark	Method of evaluating ability of a candidate computer system to meet user requirements.
Bid protest	Objection (in writing, before or after contract award) to some aspect of a solicitation by a valid bidder.
BML	Bidders Mailing List—qualified vendor information filed annually with federal agencies to automatically receive RFPs and RFQs in areas of claimed competence.
BOA	Basic Ordering Agreement.
B&P	Bid and Proposal—vendor activities in response to government solicitation/specific overhead allowance.
BPA	Blanked Purchase Agreement.
BRHR	Basic Research and Human Resources.
Budget	Federal Budget, proposed by the President and subject to Congressional review.
C^2	Command and Control.
C^3	Command, Control, and Communications.
C^4	Command, Control, Communications, and Computers.
C^3I	Command, Control, Communications, and Intelligence.
CAB	Contract Adjustment Board or Contract Appeals Board.

CADE	Computer-Aided Design and Engineering.
CADS	Computer-Assisted Display Systems.
CAIS	Computer-Assisted Instruction System.
CALS	Computer-Aided Logistics Support.
CAPS	Command Automation Procurement Systems.
CAS	Contract Administration Services or Cost Accounting Standards.
CASB	Cost Accounting Standards Board.
CASP	Computer-Assisted Search Planning.
CBD	*Commerce Business Daily*—U.S. Department of Commerce publication listing government contract opportunities and awards.
CBO	Congressional Budget Office.
CCEP	Commercial Comsec Endorsement Program
CCDR	Contractor Cost Data Reporting.
CCN	Contract Change Notice.
CCPDS	Command Center Processing and Display Systems.
CCPO	Central Civilian Personnel Office.
CDR	Critical Design Review.
CDRL	Contractor Data Requirement List.
CFE	Contractor-Furnished Equipment.
CFR	Code of Federal Regulations.
CICA	Competition in Contracting Act
CIG	Computerized Interactive Graphics.
CIM	Corporate Information Management or Center for Information Management.
CINCs	Commanders-in-Chief.
CIR	Cost Information Reports.
CM	Configuration Management.
CMI	Computer-Managed Instruction.
CNI	Communications, Navigation, and Identification.
CO	Contracting Office, Contract Offices, or Change Order.
COC	Certificate of Competency (administered by the Small Business Administration).
COCO	Contractor-Owned, Contractor-Operated.
CODSIA	Council of Defense and Space Industry Associations.
COMSTAT	Communications Satellite Corporation.
CONUS	CONtinental United States.
COP	Capability Objective Package.
COTR	Contracting Officer's Technical Representative.
COTS	Commercial Off-the-Shelf (Commodities).
CP	Communications Processor.
CPAF	Cost-Plus-Award-Fee Contract.
CPFF	Cost-Plus-Fixed-Fee Contract.
CPIF	Cost-Plus-Incentive-Fee Contract.
CPR	Cost Performance Reports.
CPSR	Contractor Procurement System Review.
CR	Cost Reimbursement (Cost Plus Contract).
CSA	Combat or Computer Systems Architecture.
CSIF	Communications Services Industrial Fund.

C/SCSC	Cost/Schedule Control System Criteria (also called "C-Spec").
CSPP	Computer Systems Policy Project.
CWAS	Contractor Weighted Average Share in Cost Risk.
DAB	Defense Acquisition Board.
DABBS	Defense Acquisition Bulletin Board System.
DAL	Data Accession List.
DAR	Defense Acquisition Regulations.
DARPA	Defense Advanced Research Projects Agency.
DAS	Data Acquisition System.
DBHS	Data Base Handling System.
DBOF	Defense Business Operating Fund.
DCA	Defense Communications Agency (see DISA).
DCAA	Defense Contract Audit Agency.
DCAS	Defense Contract Administration Services.
DCASR	DCAS Region.
DCC	Digital Control Computer.
DCP	Development Concept Paper (DoD).
DCS	Defense Communications System.
DCTN	Defense Commercial Telecommunications Network.
DDA	Dynamic Demand Assessment (Delta Modulation).
DDC	Defense Documentation Center.
DDI	Director of Defense Information.
DDL	Digital Data Link—A segment of a communications network used for data transmission in digital form.
DDN	Defense Data Network.
DDS	Defense Distribution System.
DECCO	DEfense Commercial Communications Office.
DECEO	DEfense Communications Engineering Office.
D&F	Determination and Findings—required documentation for approval of a negotiated procurement.
DFAS	Defense Finance and Accounting Service.
DIA	Defense Intelligence Agency.
DIF	Document Interchange Format, Navy-sponsored word processing standard.
DISA	Defense Information Systems Agency (Formerly DCA).
DHHS	Department of Health and Human Services.
DIDS	Defense Integrated Data Systems.
DISC	Defense Industrial Supply Center.
DLA	Defense Logistics Agency.
DMA	Defense Mapping Agency.
DMR	Defense Management Review.
DMRD	Defense Management Review Decision.
DNA	Defense Nuclear Agency.
DO	Delivery Order.
DOA	Department of Agriculture (also USDA).
DOC	Department of Commerce.
DOE	Department of Energy.
DOI	Department of Interior.

DOJ	Department of Justice.
DOS	Department of State.
DOT	Department of Transportation.
DPA	Delegation of Procurement Authority (granted by GSA under FPRs).
DPC	Defense Procurement Circular.
DQ	Definite Quantity Contract.
DQ/PL	Definite Quantity Price List Contract.
DR	Deficiency Report.
DRFP	Draft Request For Proposal.
DSCS	Defense Satellite Communication System.
DSN	Defense Switched Network.
DSP	Defense Support Program (WWMCCS).
DSS	Defense Supply Service.
DTC	Design-To-Cost.
DTN	Defense Transmission Network.
ECP	Engineering Change Proposal.
ED	Department of Education.
EEO	Equal Employment Opportunity.
8(a) Set-Aside	Agency awards direct to Small Business Administration for direct placement with a socially/economically disadvantaged company.
EMC	Electro-Magnetic Compatibility.
EMCS	Energy Monitoring and Control System.
EO	Executive Order—Order issued by the President.
EOQ	Economic Ordering Quantity.
EPA	Economic Price Adjustment.
EPA	Environmental Protection Agency.
EPMR	Estimated Peak Monthly Requirement.
EPS	Emergency Procurement Service (GSA) or Emergency Power System.
EUC	End User Computing, especially in DoD.
FA	Formal Advertising.
FAC	Facility Contract.
FAR	Federal Acquisition Regulations.
FCA	Functional Configuration Audit.
FCC	Federal Communications Commission.
FCCSET	Federal Coordinating Council on Science, Engineering and Technology.
FCDC	Federal Contract Data Center.
FCRC	Federal Contract Research Center.
FDDI	Fiber Distributed Data Interface.
FDPC	Federal Data Processing Center.
FEDSIM	Federal (Computer) Simulation Center (GSA).
FEMA	Federal Emergency Management Agency.
FFP	Firm Fixed-Price Contract (also Lump Sum Contract).
FIPR	Federal Information Processing Resource.
FIPS	NBS Federal Information Processing Standard.
FIPS PUBS	FIPS Publications.
FIRMR	Federal Information Resource Management Regulations.

FMS	Foreign Military Sales.
FOC	Final Operating Capability.
FOIA	Freedom of Information Act.
FP	Fixed-Price Contract.
FP-L/H	Fixed-Price—Labor/Hour Contract.
FP-LOE	Fixed-Price—Level-Of-Effort Contract.
FPMR	Federal Property Management Regulations.
FPR	Federal Procurement Regulations.
FSC	Federal Supply Classification.
FSG	Federal Supply Group.
FSN	Federal Supply Number.
FSS	Federal Supply Schedule or Federal Supply Service (GSA).
FSTS	Federal Secure Telecommunications System.
FT Fund	A revolving fund, designated as the Federal Telecommunications Fund, used by GSA to pay for GSA-provided common-user services, specifically including the current FTS and proposed FTS 2000 services.
FTSP	Federal Telecommunications Standards Program administered by NCS; Standards are published by GSA.
FTS	Federal Telecommunications System.
FTS 2000	Replacement of the Federal Telecommunications System.
FY	Fiscal Year.
FYDP	Five-Year Defense Plan.
GAO	General Accounting Office.
GFE	Government-Furnished Equipment.
GFM	Government-Furnished Material.
GFY	Government Fiscal Year (October to September).
GIDEP	Government-Industry Data Exchange Program.
GOCO	Government Owned—Contractor Operated.
GOGO	Government Owned—Government Operated.
GOSIP	Government Open Systems Interconnection Profile.
GPO	Government Printing Office.
GPS	Global Positioning System.
GRH	Gramm-Rudman-Hollings Act (1985), also called Gramm-Rudman Deficit Control.
GS	General Schedule.
GSA	General Services Administration.
GSBCA	General Services Administration Board of Contract Appeals.
HCFA	Health Care Financing Administration.
HHS	(Department of) Health and Human Services.
HIPPI	High-Performance Parallel Protocol Interface.
HPA	Head of Procuring Activity.
HPCC	High-Performance Computing and Communications.
HPCCIT	High-Performance Computing and Communications Information Technology Subcommittee.
HPCS	High-Performance Computing Systems.

HSDP	High-Speed Data Processors.
HUD	(Department of) Housing and Urban Development.
I-CASE	Integrated Computer-Aided Software Engineering.
IAR	Senior IRM Official.
ICA	Independent Cost Analysis.
ICAM	Integrated Computer-Aided Manufacturing.
ICE	Independent Cost Estimate.
ICP	Inventory Control Point.
ICST	Institute for Computer Sciences and Technology, National Bureau of Standards, Department of Commerce.
IDAMS	Image Display And Manipulation System.
IDEP	Interservice Data Exchange Program.
IDIQ	Indefinite Delivery-Indefinite Quantity.
IDN	Integrated Data Network.
IFB	Invitation For Bids.
IOC	Initial Operating Capability.
IOI	Internal Operating Instructions.
IPS	Integrated Procurement System.
IQ	Indefinite Quantity Contract.
IR&D	Independent Research & Development.
IRM	Information Resources Management.
IXS	Information Exchange System.
JCS	Joint Chiefs of Staff.
JCALS	Joint Computer-Aided Logistics Support.
JFMIP	Joint Financial Management Improvement Program.
JOCIT	Jovial Compiler Implementation Tool.
JSIPS	Joint Systems Integration Planning Staff.
JSOP	Joint Strategic Objectives Plan.
JSOR	Joint Service Operational Requirement.
JUMPS	Joint Uniform Military Pay System.
JWAM	Joint WWMCCS ADP Modernization (Program).
LC	Letter Contract.
LCC	Life Cycle Costing.
LCMP	Life Cycle Management Procedures (DD7920.1).
LCMS	Life Cycle Management System.
L-H	Labor-Hour Contract.
LOI	Letter of Interest.
LRPE	Long-Range Procurement Estimate.
LRIRP	Long-Range Information Resource Plan.
LTD	Live Test Demonstration.
MAISRC	Major Automated Information Systems Review Council (DoD).
MANTECH	MANufacturing TECHnology.
MAPS	Multiple Address Processing System.
MAP/TOP	Manufacturing Automation Protocol/Technical and Office Protocol.

MASC	Multiple Award Schedule Contract.
MDA	Multiplexed Data Accumulator.
MENS	Mission Element Need Statement or Mission Essential Need Statement (see DD-5000.1 Major Systems Acquisition).
MILSCAP	Military Standard Contract Administration Procedures.
MIL SPEC	Military Specification.
MIL STD	Military Standard.
MIPR	Military Interdepartmental Purchase Request.
MLS	Multilevel Security.
MNF	Multi-National Force.
MOD	Modification.
MOL	Maximum Ordering Limit (Federal Supply Service).
MPC	Military Procurement Code.
MYP	Multi-Year Procurement.
NARDIC	Navy Research and Development Information Center.
NASA	National Aeronautics and Space Administration.
NBS	National Bureau of Standards.
NCA	National Command Authorities.
NCMA	National Contract Management Association.
NCS	National Communications System (evolving to DISN).
NICRAD	Navy-Industry Cooperative Research and Development.
NIP	Notice of Intent to Purchase.
NMCS	National Military Command System.
NREN	National Research and Education Network.
NSA	National Security Agency.
NSEP	National Security and Emergency Preparedness.
NSF	National Science Foundation.
NSIA	National Security Industrial Association.
NTIA	National Telecommunications and Information Administration of the Department of Commerce; (replaced the Office of Telecommunications Policy in 1970).
NTIS	National Technical Information Service.
Obligation	"Earmarking" of specific funding for a contract from committed agency funds.
OCS	Office of Contract Settlement.
OFCC	Office of Federal Contract Compliance.
Off-Site	Services to be provided near but not in government facilities.
OFMP	Office of Federal Management Policy (GSA).
OFPP	Office of Federal Procurement Policy.
OIRM	Office of Information Resources Management.
O&M	Operations & Maintenance.
OMB	Office of Management and Budget.
O,M&R	Operations, Maintenance, and Readiness.
On-Site	Services to be performed on a government installation or in a specified building.
OPM	Office of Procurement Management (GSA) or Office of Personnel Management.
Options	Sole-source additions to the base contract for services or goods to be exercised at the government's discretion.

OSADBU	Office of Small and Disadvantaged Businesses.
OSHA	Occupational Safety and Health Act.
OSI	Open System Interconnect.
OSP	Offshore Procurement.
OTA	Office of Technology Assessment (Congress).
Out-Year	Proposed funding for fiscal years beyond the Budget Year (next fiscal year).
P-1	FY Defense Production Budget.
P3I	Pre-Planned Product Improvement (program in DoD).
PAR	Procurement Authorization Request or Procurement Action Report.
PAS	Pre-Award Survey.
PASS	Procurement Automated Source System.
PCO	Procurement Contracting Officer.
PDA	Principal Development Agency.
PDM	Program Decision Memorandum.
PDR	Preliminary Design Review.
PIR	Procurement Information Reporting.
PME	Performance Monitoring Equipment.
PMES	Physical, Mathematical and Engineering Sciences.
PMP	Purchase Management Plan.
PO	Purchase Order or Program Office.
POE	Panel Of Experts.
POM	Program Objective Memorandum.
POSIX	Portable Open System Interconnection Exchange.
POTS	Purchase of Telephone Systems.
PPBS	Planning, Programming, Budgeting System.
PR	Purchase Request or Procurement Requisition.
PRA	Paperwork Reduction Act.
PS	Performance Specification—alternative to a Statement of Work, when work to be performed can be clearly specified.
QA	Quality Assurance.
QAO	Quality Assurance Office.
QMCS	Quality Monitoring and Control System (DoD software).
QMR	Qualitative Material Requirement (Army).
QPL	Qualified Products List.
QRC	Quick Reaction Capability.
QRI	Quick Reaction Inquiry.
R-1	FY Defense RDT&E Budget.
RAM	Reliability, Availability, and Maintainability.
RC	Requirements Contract.
R&D	Research and Development.
RDA	Research, Development, and Acquisition.
RDD	Required Delivery Date.
RD&E	Research, Development, and Engineering.
RDF	Rapid Deployment Force.
RDT&E	Research, Development, Test, and Engineering.

RFI	Request For Information.
RFP	Request For Proposal.
RFQ	Request For Quotation.
RFTP	Request For Technical Proposals (Two-Step).
ROC	Required Operational Capability.
ROI	Return On Investment.
RTAS	Real Time Analysis System.
RTDS	Real Time Display System.
SA	Supplemental Agreement.
SADBU	Small and Disadvantaged Business Utilization.
SBA	Small Business Administration.
SB Set-Aside	Small Business Set-Aside contract opportunities with bidders limited to certified small businesses.
SCA	Service Contract Act (1964 as amended).
SCN	Specification Change Notice.
SDN	Secure Data Network.
SEC	Securities and Exchange Commission.
SE&I	Systems Engineering and Integration.
SETA	Systems Engineering/Technical Assistance.
SETS	Systems Engineering/Technical Support.
SIBAC	Simplified Intragovernmental Billing and Collection System.
SIMP	Systems Integration Master Plan.
SIOP	Single Integrated Operations Plan.
Sole Source	Contract award without competition.
Solicitation	Invitation to submit a bid.
SONET	Synchronous Optical Network.
SOR	Specific Operational Requirement.
SOW	Statement of Work.
SSA	Source Selection Authority (DoD).
SSAC	Source Selection Advisory Council.
SSEB	Source Selection Evaluation Board.
SSO	Source Selection Official (NASA).
STINFO	Scientific and Technical INFOrmation Program—Air Force/NASA.
STU	Secure Telephone Unit.
SWO	Stop-Work Order.
Synopsis	Brief Description of contract opportunity in CBD after D&F and before release of solicitation.
TA/AS	Technical Assistance/Analysis Services.
TCP/IP	Transmission Control Protocol/Internet Protocol.
TEMPEST	Studies, inspections, and tests of unintentional electromagnetic radiation from computer, communication, command, and control equipment that may cause unauthorized disclosure of information; usually applied to DoD and security agency testing programs.
TILO	Technical and Industrial Liason Office—Qualified Requirement Information Program—Army.
TM	Time and Materials contract.

TOA	Total Obligational Authority (Defense).
TOD	Technical Objective Document.
TQM	Total Quality Management.
TR	Temporary Regulation (added to FPR, FAR).
TRACE	Total Risk Assessing Cost Estimate.
TRCO	Technical Representative of the Contracting Offices.
TREAS	Department of Treasury.
TRP	Technical Resources Plan.
TSP	GSA's Teleprocessing Services Program.
TVA	Tennessee Valley Authority.
UCAS	Uniform Cost Accounting System.
USA	U.S. Army.
USAF	U.S. Air Force.
USCG	U.S. Coast Guard.
USMC	U.S. Marine Corps.
USN	U.S. Navy.
U.S.C.	United States Code.
USPS	United States Postal Service.
USRRB	United States Railroad Retirement Board.
VA	Veterans Affairs Department.
VE	Value Engineering.
VHSIC	Very High Speed Integrated Circuits.
VIABLE	Vertical Installation Automation BaseLine (Army).
VICI	Voice Input Code Identifier.
VTC	Video Teleconferencing.
WAM	WWMCCS ADP Modernization Program.
WBS	Work Breakdown Structure.
WGM	Weighted Guidelines Method.
WIN	WWMCCS Intercomputer Network.
WITS	Washington Interagency Telecommunications System.
WIS	WWMCCS Information Systems.
WS	Work Statement—Offerer's description of the work to be done (proposal or contract).
WWMCCS	World-Wide Military Command and Control System.

B

General and Industry Acronyms

ADAPSO	Association of Data Processing Service Organization, now the Computer Software and Services Industry Association. (See ITAA).
ADP	Automatic Data Processing.
ADPE	Automatic Data Processing Equipment.
ANSI	American National Standards Institute.

BOC	Bell Operating Company.
CAD	Computer-Aided Design.
CAM	Computer-Aided Manufacturing.
CASE	Computer-Aided Software Engineering.
CBEMA	Computer and Business Equipment Manufacturers Association.
CCIA	Computers and Communications Industry Association.
CCITT	Comite Consultatif Internationale de Télégraphique et Téléphonique; Committee of the International Telecommunication Union.
COBOL	COmmon Business-Oriented Language.
COS	Corporation for Open Systems.
CPU	Central Processor Unit.
DMBS	Data Base Management System.
DRAM	Dynamic Random Access Memory.
EIA	Electronic Industries Association.
EPROM	Erasible Programmable Read-Only Memory.
IEEE	Institute of Electrical and Electronics Engineers.
ISDN	Integrated Services Digital Networks.
ISO	International Organization for Standardization; voluntary international standards organization and member of CCITT.
ITAA	Information Technology Association of America (Formerly ADAPSO).
ITU	International Telecommunication Union.
LSI	Large-Scale Integration.
MFJ	Modified Final Judgement.
PROM	Programmable Read-Only Memory.
RBOC	Regional Bell Operating Company.
UNIX	AT&T Proprietary Operating System.
UPS	Uninterruptable Power Source.
VAR	Value-Added Reseller.
VLSI	Very Large-Scale Integration.
WORM	Write-Once-Read-Many-Times.

Appendix D
Policies, Regulations, and Standards

A
OMB Circulars

A-11	Preparation and Submission of Budget Estimates.
A-49	Use of Management and Operating Contracts.
A-71	Responsibilities for the Administration and Management of Automatic Data Processing Activities.
A-109	Major Systems Acquisitions.
A-120	Guidelines for the Use of Consulting Services.
A-121	Cost Accounting, Cost Recovery, and Integrated Sharing of Data Processing Facilities.
A-123	Internal Control Systems.
A-127	Financial Management Systems.
A-130	Management of Federal Information Resources.
A-131	Value Engineering.

B
GSA Publications

The FIRMR as published by GSA is the primary regulation for use by federal agencies in the management, acquisition, and use of both ADP and telecommunications information resources.

C
DoD Directives

DD-5000.1	Major System Acquisitions.
DD-5000.2	Major System Acquisition Process.
DD-5000.11	DoD Data Administration (C3I).
DD-5000.31	Interim List of DoD-Approved, High-Order Languages.
DD-5000.35	Defense Acquisition Regulatory Systems.
DD-5200.1	DoD Information Security Program.

DD-5200.28	Security Requirements for Automatic Data Processing (ADP) Systems.
DD-5200.28-M	Manual of Techniques and Procedures for Implementing, Deactivating, Testing, and Evaluating Secure Resource Sharing ADP Systems.
DD-7920.2	Major Automated Information Systems Approval Process.
DD-7935	Automated Data Systems (ADS) Documentation.
DoDD 3405.1	Computer Programming Language Policy
DoDD 5000.11	DoD Data administration (C31)
DoDI 5000.12	Data Elements and Data Codes Standardization Procedure
DoDI 5000.18	Implementation of Standard Data Elements and Related Features
DoDD 5105.19	Defense Information Systems Agency
DoDD 5110.4	Washington Headquarters Services
DoDD 5118.3	Comptroller of the Department of Defense
DoDD 5137.1	Assistant Secretary of Defense (Command, Control, Communications, and Intelligence)
DoDD 7740.1	DoD Information Resources Management Program
DoD 7740.1-G	DoD ADP Internal Control Guideline
DoDD 7740.2	Automated Information System (AIS) Strategic Planning
DoDI 7740.3	Information Resources Management (IRM) Review Program
DoDD 7750.5	Management and Control of Information Requirements
DoDI 7750.7	DoD Forms Management Program
DoDI 7920.2-M	Automated Information Systems (AIS) Life-Cycle Manual
DoDI 7920.4	Baselining of Automated Information Systems (AISs)
DoDI 7920.5	Management of End User Computing (EUC)
DoDI 7930.1	Information Technology Users Group Program
DoDI 7930.2	ADP Software Exchange and Release
DoDD 7950.1	Automated Data Processing Resources Management
DoD 7950.1-M	Defense Automated Resources Management Manual of Information Requirements

D

Standards

ADCCP	Advanced Data Communications Control Procedures; ANSI Standard X3.66 of 1979; also NIST FIPS 71.
CCITT G.711	International PCM standard.
CCITT T.0	International standard for classification of facsimile apparatus for document transmission over telephone-type circuits.

DEA-1	Proposed ISO standard for data encryption based on the NIST DES.
EIA RS-170	Monochrome video standard.
EIA RS-170A	Color video standard.
EIA RS-464	EIA PBX standards.
EIA RS-465	Standard for Group III facsimile.
EIA RS-466	Facsimile standard; procedures for document transmission in the General Switched Telephone Network.
EIA RS-232-C	EIA DCE to DTE interface standard using a 25-Pin connector; similar to CCITT V-24.
EIA RS-449	New EIA standard DTE to DCE interface which re places RS-232-C.
FED-STD 1000	Proposed Federal Standard for adoption of the full OSI reference model.
FED-STD 1026	Federal Data Encryption Standard (DES) adopted in 1983; also FIPS 46.
FED-STD 1041	Equivalent to FIPS 100.
FED-STD 1061	Group II Facsimile Standard (1981).
FED-STD 1062	Federal standard for Group III facsimile; equivalent to EIA RS-465.
FED-STD 1063	Federal facsimile standard; equivalent to EIA RS-466.
FED-STDs 1005, 1005A-1008	Federal Standards for DCE Coding and Modulation.
FIPS 46	NIST Data Encryption Standard (DES).
FIPS 81	DES Modes of Operation.
FIPS 100	NIST Standard for packet-switched networks; subset of 1980 CCITT X.25.
FIPS 107	NIST Standard for local-area networks, similar to IEEE 802.2 and 802.3.
FIPS 146	Government Open Systems Interconnection (OSI) Profile (GOSIP).
FIPS 151	NIST POSIX (Portable Operating System Interface for UNIX) standard.
IEEE 802.2	OSI-Compatible IEEE standard for data-link control in local-area networks.
IEEE 802.3	Local-area network standard similar to Ethernet.
IEEE 802.4	OSI-compatible standard for token bus local-area networks.
IEEE 802.5	Local-area networks standard for token ring networks.
IEEE P1003.1	POSIX standard, similar to FIPS 151.

MIL-STD- 188-114C   Physical interface protocol similar to RS-232 and RS-449.

MIL-STD-1777   IP-Internet Protocol.

MIL-STD-1778   TCP - Transmission Control Protocol.

MIL-STD-1780   File Transfer Protocol.

MIL-STD-1781   Simple Mail Transfer Protocol (electronic mail).

MIL-STD-1782   TELNET - virtual terminal protocol.

MIL-STD-1815A   Ada Programming Language Standard.

SVID   UNIX System Interface Definition.

X.12   ANSI standard for Electronic Data Interchange

X.21   CCITT standard for interface between DTE and DCE for synchronous operation on public data networks.

X.25   CCITT standard for interface between DTE and DCE for terminals operating in the packet mode on public data networks.

X.75   CCITT standard for links that interface different packet networks.

X.400   ISO application-level standard for the electronic transfer of messages (electronic mail).

Appendix E
Questionnaires

The following definitions were used for the purposes of this study:

SETA - Systems engineering and technical assistance contracts for information technology or other technically oriented projects/programs.

Systems Operations - Involves the operation and management of all or a significant part of the user's information systems functions and physical facilities under a long term contract.

COCO - Contractor-owned-contractor-operated systems operations functions; previously called facilities management and part of processing services.

GOCO - Government-owned-contractor-operated systems operations functions; also previously referred to as facilities management and part of professional services.

1. Agency Questionnaire—*Confidential*

1.   Does your agency/organization currently have any types of SETA or systems operations contracts with vendors (can be information technology and non-information technology)?

        Check one

Yes   _____
No   _____ (End)
Don't know   _____ (End)

2.   Indicate which types are in place to your knowledge. *(Check all that apply)*

SETA (IT)   _____
SETA (non-IT)   _____
Systems Operations (facilities management)-GOCO (IT)   _____
Systems Operations (facilities management)-COCO (IT)   _____
Systems Operations (facilities management)-GOCO (non-IT)   _____
Systems Operations (facilities management)-COCO (non-IT)   _____

3.   In your opinion, do you expect your agency's/organization's contract expenditures for each type of service to increase, decrease or remain the same through 1997? *(Check one column for each contract type agency contracts for)*

	Increase	Decrease	Same
SETA (IT)	_____	_____	_____
SETA (non-IT)	_____	_____	_____
Facilities management-GOCO (IT)	_____	_____	_____
Facilities management-COCO (IT)	_____	_____	_____
Facilities management-GOCO (non-IT)	_____	_____	_____
Facilities management-COCO (non-IT)	_____	_____	_____

4.   For each type of contracted service anticipated to increase or decrease, please explain why.

SETA (IT): _____

SETA (non-IT): _____

Facilities management-GOCO (IT): _____

Facilities management-COCO (IT): _____

Facilities management-GOCO (non-IT): _____

Facilities management-COCO (non-IT): _____

5a.   Are tighter federal budget conditions impacting your agency's use of SETA and systems
        operations (facilities management-FM) contracts?

                        Check one

        Yes   _____
        No   _____
        Don't know   _____ (Go to Q6)

5b.   Please explain how.

        _____

        _____

6.   How do budget constraints impact your agency's internal technical staffing composition.

        _____

        _____

7.   How does your agency determine the suitability of vendor staffing levels for SETA and/or
        FM contracts?

        SETA (IT): _____

        SETA (non-IT): _____

        Facilities management-GOCO (IT): _____

        Facilities management-COCO (IT): _____

        Facilities management-GOCO (non-IT): _____

        Facilities management-COCO (non-IT): _____

8.   Would you say your agency generally prefers to apply *mission*, or *staff level*, contracting to each of the following SETA and FM contracts?

	Mission	Staff Level
	(Check one column for each contract type)	
SETA (IT)	_____	_____
SETA (non-IT)	_____	_____
Facilities management-GOCO (IT)	_____	_____
Facilities management-COCO (IT)	_____	_____
Facilities management-GOCO (non-IT)	_____	_____
Facilities management-COCO (non-IT)	_____	_____

9.   To your knowledge, what kinds of features or services have vendors offered to win contracts away from incumbent contractors?

_____

_____

_____

10.   During recompetition circumstances, please rate the importance of each of the following selection criteria in evaluating vendor proposals for SETA and facilities management contracts. *(Use a 1-5 scale, where 5=extremely important; and 1=not important at all)*

Contract Service Type

Criteria	SETA	FM
	(Circle one number in each column)	
Cost	1 2 3 4 5	1 2 3 4 5
Technical approach	1 2 3 4 5	1 2 3 4 5
Project manager's qualifications	1 2 3 4 5	1 2 3 4 5
Project manager's access to his company's corporate resources and executive management	1 2 3 4 5	1 2 3 4 5
Management team staff qualifications	1 2 3 4 5	1 2 3 4 5
Management team staff organization	1 2 3 4 5	1 2 3 4 5
Technical staff match	1 2 3 4 5	1 2 3 4 5
Project manager's freedom to make decisions	1 2 3 4 5	1 2 3 4 5
Adjacent contractor facility	1 2 3 4 5	1 2 3 4 5
Previous experience with agency	1 2 3 4 5	1 2 3 4 5
Previous experience with type of operation	1 2 3 4 5	1 2 3 4 5
Previous experience with equipment/software	1 2 3 4 5	1 2 3 4 5
Good track record	1 2 3 4 5	1 2 3 4 5

11a. Are the recombinations of SETA and facilities management contracts treated differently than new contracting opportunities? *(Check one)*

Yes   _____
No   _____ (Go to Q12)
Don't know   _____ (Go to Q12)

11b. Please explain how.

_____

_____

12. In your opinion, do incumbents usually win, sometimes win, or never win recompeted SETA and facilities management contracts? *(Check one response for each contract type)*

Win Rates

Contract Type	Usually	Sometimes	Never
SETA	____	____	____
Facilities management	____	____	____

13a. Please estimate what percent of your agency's/organization's SETA procurements are...*(Check one)*

8(a) set-asides   _____
Small disadvantaged business program
  limited competitions   _____
Full and open competitions   _____

13b. Please estimate what percent of your agency's/organization's facilities management procurements are...*(Check one)*

8(a) set-asides   _____
Small disadvantaged business program
  limited competitions   _____
Full and open competitions   _____

Comments:

_____

_____

_____

2. Vendor Questionnaire—*Company Confidential*

1. Does your company currently have any types of SETA or systems operations contracts with federal agencies (can be information technology and non-information technology)?

    Check one

    Yes   _____
    No   _____ (End)
    Don't know   _____ (End)

2. Indicate which types are in place, to your knowledge. *(Check all that apply)*

    SETA (IT)   _____
    SETA (non-IT)   _____
    Systems Operations (facilities management)-GOCO (IT)   _____
    Systems Operations (facilities management)-COCO (IT)   _____
    Systems Operations (facilities management)-GOCO (non-IT)   _____
    Systems Operations (facilities management)-COCO (non-IT)   _____

3. In your opinion, do you expect your company's revenues for each type of service to increase, decrease or remain the same over through 1997? *(Check one column for each contract type)*

	Increase	Decrease	Same
SETA (IT)	_____	_____	_____
SETA (non-IT)	_____	_____	_____
Facilities management-GOCO (IT)	_____	_____	_____
Facilities management-COCO (IT)	_____	_____	_____
Facilities management-GOCO (non-IT)	_____	_____	_____
Facilities management-COCO (non-IT)	_____	_____	_____

4. For each type of contractor service anticipated to experience revenue increases or decreases, please explain why.

    SETA (IT): _____

    SETA (non-IT): _____

    Facilities management-GOCO (IT): _____

    Facilities management-COCO (IT): _____

    Facilities management-GOCO (non-IT): _____

    Facilities management-COCO (non-IT): _____

5.   To your knowledge, when your company is the incumbent does your company usually win the recompetition contracts for...?

	Yes	No	Don't know
		(Check one column for each type of contract service)	
SETA (IT)	_____	_____	_____
SETA (non-IT)	_____	_____	_____
Facilities management-GOCO (IT)	_____	_____	_____
Facilities management-COCO (IT)	_____	_____	_____
Facilities management-GOCO (non-IT)	_____	_____	_____
Facilities management-COCO (non-IT)	_____	_____	_____

6.   What agencies offer the most opportunities for your company for each type of contract service offered by your company?

SETA (IT): _____

SETA (non-IT): _____

Facilities management-GOCO (IT): _____

Facilities management-COCO (IT): _____

Facilities management-GOCO (non-IT): _____

Facilities management-COCO (non-IT): _____

7a.   Do you see federal budget constraints impacting federal use of SETA and systems operations contracts?

Yes   _____
No   _____
Don't know   _____ (Go to Q8a)

7b.   Please explain how.

_____

_____

8.   What types of SETA and SO RFPs does your company find itself responding to: *(Check one)*

Mission   _____
Staff level   _____
Both   _____
Don't know   _____

9.   When your company is not the incumbent contractor, how does your company acquire the
      staffing assets to successfully win recompeted contracts?

      _____

      _____

10.   Under what conditions does your company expect to unseat incumbent SETA and SO
      contractors?

      Contract Type   Specify Conditions

      SETA   _____

      Systems operations   _____

11.   To your knowledge, what kinds of features or services has your company offered to agencies
      to win contracts away from incumbent contractors?

      _____

      _____

      _____

12.   In your opinion, during recompetition circumstances, how important are each one of the
      following criteria to agencies when evaluating vendor proposals for SETA and facilities
      management contracts. *(Use a 1-5 scale, where 5=extremely important; and 1=not
      important at all)*

                                              Contract Service Type

Criteria	SETA		FM	
	(Circle one number in each column)			
Cost	1 2 3 4 5		1 2 3 4 5	
Technical approach	1 2 3 4 5		1 2 3 4 5	
Project manager's qualifications	1 2 3 4 5		1 2 3 4 5	
Project manager's access to his company's corporate resources and executive management	1 2 3 4 5		1 2 3 4 5	
Management team staff qualifications	1 2 3 4 5		1 2 3 4 5	
Management team staff organization	1 2 3 4 5		1 2 3 4 5	
Technical staff match	1 2 3 4 5		1 2 3 4 5	
Project manager's freedom to make decisions	1 2 3 4 5		1 2 3 4 5	
Adjacent contractor facility	1 2 3 4 5		1 2 3 4 5	

Previous experience with agency	1	2	3	4	5	1	2	3	4	5
Previous experience with type of operation	1	2	3	4	5	1	2	3	4	5
Previous experience with equipment/software	1	2	3	4	5	1	2	3	4	5
Good track record	1	2	3	4	5	1	2	3	4	5

13. Based on your company's experience, what differences exist in bidding recompete contracts ...?

For military laboratories: _____

_____

For test centers: _____

_____

Installation support contracts: _____

_____

Program office SETA contracts: _____

_____

14. In your opinion what percent of recompeted SETA and systems operations contracts are won by incumbents?

Enter percent _____

15. Why do you think new bidders lose to incumbents in recompetition situations?

_____

_____

Comments:

_____

_____

_____