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**ACCOUNTING FOR THE ORIGIN OF
GOODS AND SERVICES PROCURED
FOR U.S. ECONOMIC ASSISTANCE**

Report AI001R1

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Executive Summary**ACCOUNTING FOR THE ORIGIN OF GOODS AND SERVICES
PROCURED FOR U.S. ECONOMIC ASSISTANCE**

The Administrator of the Agency for International Development (A.I.D.) is responsible for managing over \$6 billion in U.S. economic assistance as appropriated in annual amendments to the Foreign Assistance Act of 1961. Section 604(a) of the Act requires this assistance to be spent on U.S. goods and services unless the President determines that procurement of non-U.S. goods and services will not adversely affect the U.S. economy. President Kennedy made that determination in 1961 and permitted procurement from most developing countries but not from industrialized countries. The A.I.D. mission director in each recipient country is authorized to waive even this prohibition for compelling reasons.

The Administrator and Congress believe it increasingly important to determine what impact the assistance program has on the U.S. economy. Although A.I.D. has relied for years on an estimate of 70 percent "flowback," we were asked to estimate on the basis of existing data the proportion of economic assistance that returns to the U.S. economy. We found that the data vary widely and do not provide a sufficiently accurate baseline for determining the impact of assistance on the U.S. economy. We therefore recommend management actions and development of new management systems for accurately monitoring and controlling that flowback in the future.

We recommend a two-part plan to improve management of the buy American requirement. First, A.I.D. should install a new collection system to capture data on the origin of goods and services purchased with A.I.D. funds. Second, A.I.D. should modify procurement policies and procedures to monitor and control purchases of goods and services from all sources and origins.

We have identified five alternative data collection strategies, ranging from a low-cost strategy of conducting only periodic reviews to a high-cost strategy to integrate all data storage and processing requirements into A.I.D.'s financial accounting system. For any of these strategies, we propose beginning with a

prototype system and later making the transition to a full system related to one of A.I.D.'s existing or planned automated information systems. For each strategy, we estimate research and development costs, annual operating and maintenance costs, and the relative accuracy of the resulting data assessments.

For the long run, we recommend integrating the buy American data requirements into either the procurement obligating system or the financial management system as part of A.I.D.'s plans to modify these systems. For the short run, we recommend a quarterly reporting system using a tailored microcomputer program, supplemented by sampling and surveys of operating expenses and recipient country contracting, for most types of assistance programs.

Several recommended management actions involve changes to A.I.D.'s procurement procedures and regulations. For example, implementing recommended data collection and processing entails levying new recordkeeping and reporting requirements on contractors, which, in turn, requires Office of Management and Budget approval in accordance with the Paperwork Reduction Act. On the other hand, for identifying the need to waive the buy American requirement, we recommend that A.I.D. rely on underlying market forces and normal procurement practices rather than continue the use of "authorized country" codes to establish waivers in early obligating or planning documents. The Administrator's recent policy change requiring that waiver decisions be made for individual transactions rather than on a blanket basis is a step in the right direction. In general, we recommend that A.I.D.'s rules for procuring foreign goods and services more closely match those used by other Federal agencies as set forth in the Federal Acquisition Regulation.

Adopting our proposed microcomputer-based system for procurement origin data collection and processing would significantly improve A.I.D.'s capability to account for the origin of the goods and services procured and to assess the impact of its expenditures on the U.S. economy. Use of this system as a prototype for 2 or 3 years would enable A.I.D. to gain experience in making the necessary changes to contractor recordkeeping and to procurement procedures and regulations before committing itself to a fully integrated automated information system.

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CHAPTER 1

INTRODUCTION AND RECOMMENDATIONS

BACKGROUND

The U.S. economic assistance program, administered by the Agency for International Development (A.I.D.), focuses on promoting economic growth, human capacity development, and pluralism in recipient countries. These goals are supported by funds appropriated in annual amendments to the Foreign Assistance Act of 1961 (FAA). Besides supporting development goals, the FAA emphasizes that U.S. economic assistance is to be spent on U.S. goods and services unless the President determines that procurement of non-U.S. goods and services will not adversely affect the U.S. economy. President Kennedy made that determination in 1961 and permitted procurement from most developing countries but not from industrialized countries. The A.I.D. mission director in each recipient country may waive even this prohibition for compelling reasons.

In the face of severe budget and trade deficits, the Administrator of A.I.D. and Congress have felt it increasingly important to determine what impact the assistance program has on the U.S. economy. Although A.I.D. has relied for years on an estimate of 70 percent "flowback," we were asked to estimate on the basis of existing data the proportion of economic assistance that returns to the U.S. economy. We found that the data vary widely and do not provide a sufficiently accurate baseline for determining the impact of assistance on the U.S. economy. In this report, we recommend management actions to enable A.I.D. to make more accurate assessments of that impact in the future.

The origin of goods and services purchased with A.I.D. funds cannot be accurately accounted for, because origin data are collected for only some purchases and because the rules for identifying origin are neither well understood nor adequately enforced. The rules are complex and ambiguous. Their general thrust is to distinguish origin from source, regarding the former as economically more important. However, the rules do not adequately reflect the underlying economic realities. For goods, the source is the country from which the item or commodity is

shipped, while the origin is considered to be the country or combination of countries supplying most of its componentry. For an item or commodity to be considered of U.S. origin, at least 50 percent of its componentry by value must have been added in the United States. For services, however, the country in which the supplier is registered is treated as both the country of origin and the source.

Our assessment of data on procurement origins conducted for a sample of seven missions in December of 1990 (and subsequently for all missions on the basis of a worldwide data call in February and March of 1991) demonstrated that — although flowback proportions appeared to vary as a function of A.I.D. program, development project profile, and geographical condition — inaccuracies in the reported data make overall conclusions very questionable. Estimates of flowback for the major A.I.D. portfolio components range from 17 percent to 80 percent.¹ This range is particularly affected by how one measures the flowback to the U.S. economy from cash transfers. Other uncertainties surrounding this range demonstrate that A.I.D. needs to improve its tracking of procurement origin data. Our assessment of existing data indicated that A.I.D. also should improve its monitoring of procurement data in general and streamline some of its procurement policies and procedures.

OBJECTIVES

The primary objectives of this report are to recommend management actions and new management systems that would enable A.I.D. to assess more accurately the distribution of economic benefits among suppliers of goods and services purchased with its funds and to improve A.I.D. policies and procedures related to requirements to buy U.S. goods and services.

SCOPE

We identified the six questions most frequently asked by the Administrator, his staff, and Congress that a management system for A.I.D. needs to be able to answer.

¹See Appendix A for the calculations supporting this range of flowback values.

These questions are the basis for the data collection and procurement process requirements analyzed in the report and the management actions recommended. The questions are:

1. What proportion of U.S. bilateral economic assistance is spent on U.S. goods and services, compared to that spent in the recipient country?
2. How is the disbursement of U.S. economic assistance divided among procurement from the United States, the recipient country, other lesser developed countries (LDCs), and our major trade competitors?
3. How is the value of various A.I.D. funding programs [e.g., Development Assistance (DA) and the Economic Support Fund (ESF)] divided among procurements from various origins?
4. How is the value of procurements of various types of goods and services (e.g., commodities and technical assistance) divided among procurements from various origins?
5. How is the value of procurements supporting various development functions (e.g., agriculture and health) divided among procurements from various origins?
6. What are the particular goods and services not purchased from the United States, what are their origins, and what are the waivers and justifications for not purchasing them from the United States?

We considered four data collection processes, five information storage and processing systems to support the data collection processes, and several implementing procurement policies and procedures to assess their advantages and disadvantages for answering various combinations of these six questions. To complicate matters, the inability of A.I.D.'s current automated information system (AIS) to handle the new procurement origin data requirements in the short run necessitates phasing from an interim to a longer term solution as the system architecture of the AIS is improved.

Table 1-1 presents illustrative costs of a system to answer several combinations of questions. For example, we estimate on the low side that the initial cost of a system to answer questions 1 and 6 would be about \$1.80 million and that annual operating costs would be about \$1.15 million. The high-end costs reflect A.I.D.'s Information Resources Management (IRM) staff's estimates of the expensive modifications to the Financial Accounting Control System (FACS), the Mission Accounting Control System (MACS), and the Contract Information Management

System (CIMS) that would be needed to prepare these systems to handle the procurement origin data requirements in the short term. These costs are dealt with more extensively in Appendix B, Cost Estimating Method.

TABLE 1-1
COSTS OF A SYSTEM TO ANSWER COMBINATIONS OF PROCUREMENT ORIGIN QUESTIONS
 (\$ millions)

Type of cost	Answer question 1 only		Answer question 1 and one of questions 2-6									
			2		3		4		5		6	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Initial	0.78	1.31	0.99	2.09	0.87	1.59	0.99	2.38	0.98	1.58	1.80	3.59
Annual operating	0.42	1.43	0.84	3.18	0.71	1.82	0.88	2.80	0.83	1.60	1.15	3.61

RECOMMENDATIONS

Recommendation 1. Adopt a procurement origin data collection and processing system to answer at least questions 1, 3, and 6.

Question 1 should be answered, because it is the basic flowback question. Question 6 appears to be essential for considering how the U.S. economy is affected by procurement of non-U.S. goods and services. Question 3 is also pertinent, since it focuses on how A.I.D.'s major funding programs are related to procurements from various origins. Answers to this question would sharpen any debate on the allocation of funding across major programs. Costs for a system to answer all three questions would be only slightly higher than those shown in Table 1-1 for questions 1 and 6.

Recommendation 2. Select either the procurement obligating or the disbursement tracking process for the new data collection process in the long run.

The data collection process alternatives range from having the project officer make projections of procurement origin data at the time of procurement planning to having vendors record actual procurement origin data and provide them along with

their vouchers. Table 1-2 portrays these and eight other alternative processes, which are discussed in Chapter 2.

TABLE 1-2
ALTERNATIVE DATA COLLECTION PROCESSES

Data source	Data to be collected by			
	A. Project officer	B. Procurement officer	C. Controller	D. Periodic review
1. Project officer	Planning projection. Project officer compiles source and origin data during preparation of procurement plan and updates data as procurement commitments occur.			Annual project review. Project officer estimates source and origin data from mission controller reports and project files. Estimates are compiled by mission and reported to A.I.D. Washington.
2. Vendor		Vendor projection. Vendor provides estimate of source and origin data upon submission of offer and updates data over life of contract or agreement.	Voucher accounting. Vendor provides source and origin data on voucher. Controller processes with usual voucher data in preparation for payment to vendor. Project officer validates data.	Periodic report. Vendor reports periodically (such as quarterly) to certify as to source and origin data for period. Reports are compiled by mission controller, verified against disbursements, and reported to A.I.D. Washington.
3. Recipient country (RC)	RC planning. RC procurement function or financial agency provides planning estimate of source and origin data for procurement to be contracted for by that country and for cash transfer and sector assistance grant funds.	Vendor projection. RC procurement function or financial agency provides estimate of source and origin data for procurement to be contracted for by that country and for cash transfer and sector assistance funds to be disbursed.	Voucher accounting. RC procurement function or financial agency provides source and origin data when submitting requests for reimbursement or for disbursement of non-project assistance.	Periodic report. RC reports periodically (such as quarterly) to certify as to source and origin data for period. Reports are compiled by mission controller, verified against disbursements, and reported to A.I.D. Washington.
4. Mission staff				Periodic survey. A.I.D. schedules source and origin surveys or audits of selected missions as needed to estimate flowback and other information of interest to management.

The most logical place from which to collect procurement data is the procurement obligating process itself. This process establishes relationships between requirements and resources and traditionally collects data and reports on the types of resources needed to satisfy requirements. Contracting must be involved, regardless of whether the procurement obligating or the disbursement tracking process is used, since obligating instruments such as contracts must specify the data reporting requirements. Although changes to regulations would be required in any case to implement the collection of procurement origin data, these changes would be less for the obligating process than those required to implement collection using the disbursement tracking system. Use of the obligating process would begin yielding answers to the questions as soon as procurement obligations begin under the new reporting requirement.

Despite the fact that the sizable ESF cash transfers and sector assistance grants are not processed through the procurement obligating system, we believe that these transactions are few in number and that procurement origin data resulting from them can be monitored with assistance from the Controller.

Procurement origin data resulting from purchase orders would also have to be collected under a separate process, because purchase orders are often handled by the executive or administrative offices. We believe, however, that the nature of goods and services procured under purchase orders lends itself to accurate estimation using samples and surveys.

On the other hand, using the disbursement tracking process as the source would provide data on expenditures of all program funds and would track procurement origin data most accurately over time.

Recommendation 3. Modify either CIMS or FACS/MACS in the long run to support the chosen data collection process.

The AIS that currently tracks information most relevant to procurement origin data is CIMS. Its coverage of relevant actions, however – like the contract management process it supports – fails to include the very large cash transfers and sector assistance grants. Required modifications to CIMS would include storing and processing procurement origin data reported quarterly from cash transfer and sector assistance recipients.

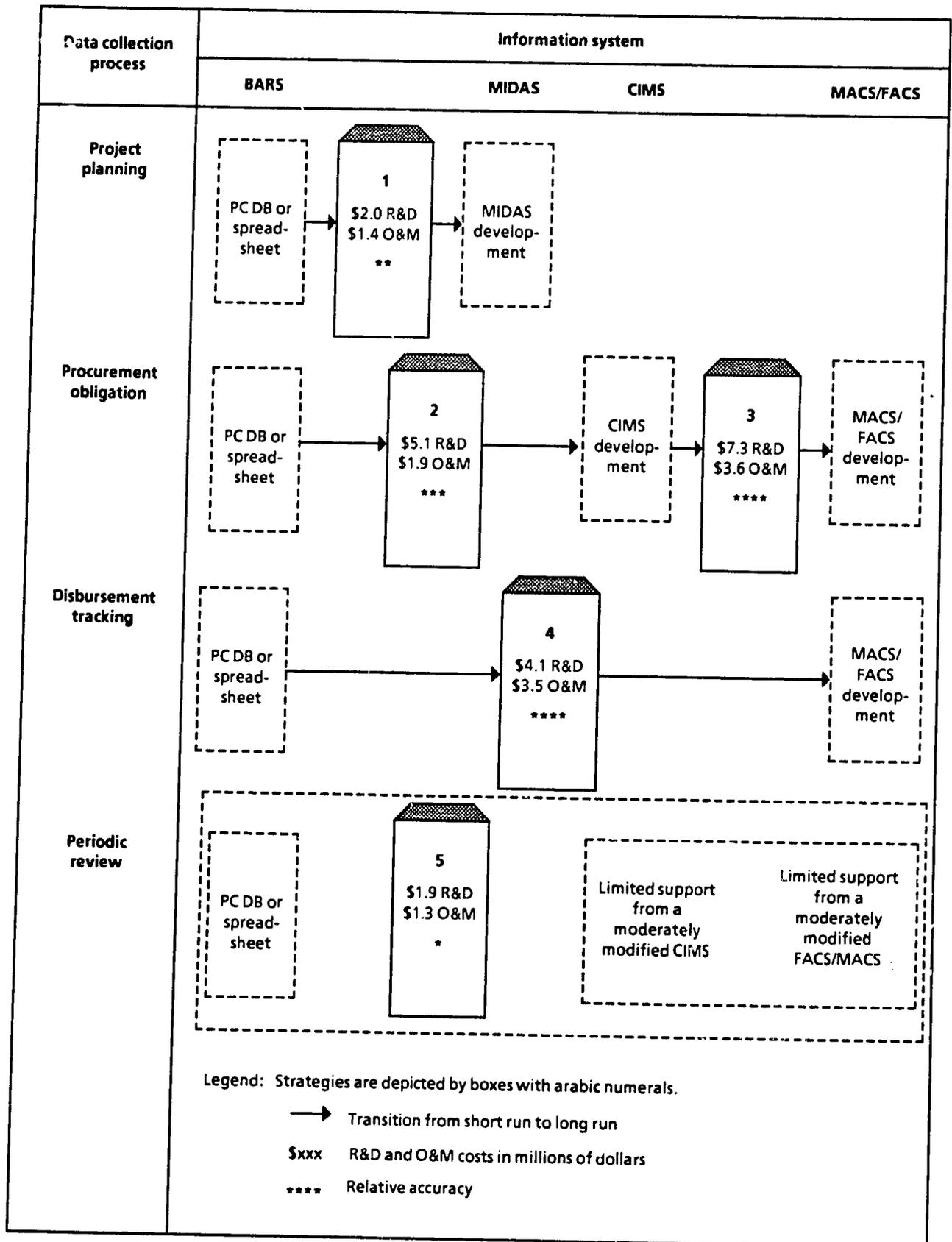
A relatively new AIS, CIMS does not appear to be sufficiently mature to accommodate new requirements easily. The system has been operating in the Office of Procurement only since April 1990 and has yet to be implemented in all the field missions designated as CIMS sites. The system is in development and will need refinements over the next year or so before it is fully operational. A.I.D.'s plan to convert CIMS to a Portable Operating System for UNIX (POSIX) environment will enhance further development of CIMS and facilitate integration of the new procurement origin data requirements.

The financial management information systems, FACS and MACS, however, are badly in need of overhaul and would be the most expensive carriers of procurement origin data. FACS is due for a major replacement [A.I.D. Washington Accounting Control System (AWACS)], and MACS is due for an architectural transition to the more open POSIX environment in the future.

We identified five alternative strategies for implementing the most feasible data collection processes to answer questions 1, 3, and 6. These strategies are depicted in Figure 1-1. Each strategy corresponds to one or more of the data collection processes portrayed in Table 1-2 and includes the use of one or more of the five information systems we considered. The "Buy American Reporting System" (BARS) is the name given to a class of microcomputer- or paper-based information systems that could be used in the short run to store and process procurement origin data. Strategy 1 requires using the prototype Management Information Decision Analysis System (MIDAS) currently under development to support the project planning process. Strategies 2 and 4 employ CIMS and FACS/MACS, respectively, and support the corresponding data collection processes we recommend. Strategy 3 is a possible extension of strategy 2, under which FACS and MACS replacement systems in addition to CIMS are prepared to store and process procurement origin data. This strategy would give the Administrator the option of switching from CIMS if a change to the financial management systems is more cost effective. A fuller discussion of the AISs we considered is in Chapter 3.

Recommendation 4. Integrate procurement origin data capabilities into CIMS and/or FACS/MACS through prototyping.

Our experience with developing and implementing information systems indicates that using prototyping techniques is preferable to the full-scale



Note: PC = personal computer; DB = data base; R&D = research and development; O&M = operations and maintenance.

FIG. 1-1. INFORMATION SYSTEM/DATA COLLECTION STRATEGIES

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development of turnkey systems. Prototyping with microcomputer-based systems offers the opportunity to establish those systems in parallel with the operational system that needs modification. This technique allows rapid testing of operational procedures and refinement of requirements and promotes a more timely and effective transition to the new system.

We believe that a prototype development and testing stage should include sites where varying levels of information system technology and varying data collection conditions exist. A prototype stage should be conducted for at least 6 months and should be preceded by a set-up period of at least 3 months to prepare personnel and equipment at the sites.

The prototype EARS microcomputer program we prepared to be a generic personal computer (PC) alternative or supplement to current information systems could serve as the interim information processing system. Although this PC tool would require some modifications to make it operational, it accurately reflects the procurement origin data requirements, is inexpensive, and is easy to use.

Recommendation 5. Institute several short-run collection mechanisms until the desired long-run process can be put in place.

An interim quarterly reporting mechanism involving contractors and grantees should be instituted for all projects, the results of which can be combined with estimates from sampling data of operating expenses (OE) and senior management review of cash transfer and sector assistance accounts. Such interim mechanisms could be coordinated by either financial or contract management and would put the A.I.D. community on notice that a comprehensive reporting system is being initiated.

Recommendation 6. Modify A.I.D.'s procurement policies and practices to support the chosen data collection and processing system with appropriate changes.

Regardless of the strategy chosen, an integrated approach should:

- Simplify and standardize the definitions, provisions, and clauses used in contracts, for grants, in cooperative agreements, and (to the extent feasible) in agreements and procedures in use for making cash transfers and commodity financing and purchase transactions.
- Integrate and closely couple a transaction-specific waiver approval and reporting system with the process for making obligations and commitments

under agreements for prime contracts, grants, cooperative agreements, and commodity financing purchase transactions as well as with the process for administering subagreements to contracts, grants, and cooperative agreements.

- Rely on market forces intrinsic to making prime contract and subcontract agreements to determine within a clear policy framework whether and when waivers should be made, rather than addressing the issue beforehand.
- Capture the essential information at the time obligations and commitments are made under prime contracts, grants, cooperative agreements and their derivative subagreements, and commodity financing and purchase transactions.

The reasons for these changes are discussed in Chapter 4, Procurement Policies and Procedures.

CHAPTER 2

DATA COLLECTION PROCESS ALTERNATIVES

DATA REQUIREMENTS

The data required to identify the origin of goods and services purchased with A.I.D. funds depend on which question is answered.

1. *What proportion of U.S. bilateral economic assistance is spent on U.S. goods and services, compared to that spent in the recipient country?*

Answers to question 1 require only aggregate data on procurement from the United States, the recipient country, and all other origins. This question can be answered with the least amount of additional data and change to existing processes.

2. *How is the disbursement of U.S. economic assistance divided among procurement from the United States, the recipient country, other LDCs, and our major trade competitors?*

Answers to question 2 expand on question 1 by adding procurement from other LDCs and from our major trade competitors to procurement from the United States and the recipient country. Our major trade competitors include Japan, Canada, the countries of the European Community (EC), and the newly industrialized countries (NICs) such as Malaysia, the Republic of Korea, Singapore, and Taiwan. This level of data on procurement origin allows analysis of relationships between economic assistance and trade policy goals.

3. *How is the value of various A.I.D. funding programs (e.g., development assistance and ESF) divided among procurements from various origins?*

Answers to question 3 distinguish among procurements from various origins for each of the A.I.D. funding programs: i.e., Development Assistance (DA), the Development Fund for Africa (DFA), and the ESF. The ESF is further broken down into the Commodity Import Program (CIP), cash transfers, and project assistance.

We include OE in our analysis along with the foregoing program funding categories, since OE are the cost of maintaining an economic assistance base. Since each funding program has distinct objectives, identifying tendencies for some programs to procure goods and services from particular origins can help provide a basis for better harmonization of foreign and domestic economic policy goals.

4. *How is the value of procurements of various types of goods and services (e.g., commodities and technical assistance) divided among procurements from various origins?*

Answers to question 4 distinguish among procurements from various origins for various types or categories of goods and services. The categories used here are a standard set of budget element categories used by A.I.D. project officers to manage their projects. The categories are: (1) commodities, (2) construction, (3) technical assistance, (4) training, and (5) project operations support. This last category includes any goods or services procured for indirect or general support of economic assistance projects or programs, whereas the first four categories are for goods and services that directly provide economic assistance. Information on various procurement origins for these categories can help provide a basis for better harmonization of economic assistance and economic policy goals.

5. *How is the value of procurements supporting various development functions (e.g., agriculture and health) divided among procurements from various origins?*

Answers to question 5 distinguish among procurements from various origins according to different functional outputs or purposes of the assistance. The functional purposes used here are: (1) agriculture and rural development, (2) health and population control, (3) education and human resources development, (4) private sector development, and (5) public capital development. Information to the effect that support of some functional purposes tends to lead to procurement from particular origins may be useful to project officers for managing their projects more effectively and to policy makers for considering changes to assistance goals.

6. *What are the particular goods and services not purchased from the United States, what are their origins, and what are the waivers and justifications for not purchasing them from the United States?*

Answers to question 6 ensure that procurements of non-U.S. goods and services are accounted for by identifying the appropriate waiver actions and the specific goods and services involved. In addition to the control number and justification for each waiver, the specific non-U.S.-origin procurement must be identified in a manner that facilitates standardized aggregate reporting of goods and services. Answers to question 6 should help to identify those industrial sectors in which U.S. industry is not competitive and why, thereby assisting in focusing A.I.D. and Commerce Department efforts to promote U.S. business development in appropriate areas. Project procurement planning should also benefit from better information on when and where non-U.S. goods and services are likely to be needed.

In sum, answers to these questions will help measure the distribution of economic benefits among suppliers of goods and services procured with A.I.D. funds. One fundamental problem of measuring these benefits is that any particular procurement often involves component goods and services from a number of nations. Procurement regulations supporting preferences for domestic products deal with this complex issue by establishing rules for assigning the origin to a particular nation.

The rules used by A.I.D. and other Federal agencies for assigning origins to commodities offer a reasonable balance between facilitating procurement decisions and identifying actual origins.¹ This balance is provided by considering the United States to be the country of origin for a commodity only if at least 50 percent of its componentry value was added in the United States. The rules A.I.D. uses for assigning origins to services, however, can substantially misrepresent the true economic impact of expenditures on services. The fundamental problem is that, while these rules for determining the origin of services essentially identify the nationality of the supplier, they do not reflect the economic impact of payments for services on the economies in which the payments are spent. We believe that the most cost-effective way of assigning the economic benefits of payments for services is by sampling and parametric estimation rather than by undertaking to collect data on the actual diffusion of these benefits.

Thus, the data collection options discussed below use a direct value-added measurement for assessing the distribution of benefits to the suppliers of commodities, but the data collected on service origins need to be adjusted by sampling

¹See Appendix C, Measuring the Distribution of Benefits to Suppliers, for a more detailed analysis of these issues.

and parametric methods to reflect more accurately the actual economic distribution of benefits to the suppliers of services.

The costs of answering any of the foregoing questions will vary widely. The costs include those for collecting, collating, and storing data and for processing the stored data to produce reports that answer the questions. Finally, costs will depend on the frequency with which the questions need to be answered. We believe that reporting would be required no more frequently than quarterly. A few of the data collection options presented in the following section provide for collecting data annually or even less frequently, in which case reporting would correspond to the frequency of data collection and analysis.

The costs of answering these questions are identified below for each option for data collection, storage, and processing. Table 2-1 summarizes the data requirements just presented as they relate to the questions being asked.

DATA DISPLAY REQUIREMENTS

The answers to questions about the origin of procured items should be displayed for A.I.D. management in reports that provide some flexibility for viewing the data in different ways. We have identified two types of reports needed to display information effectively for management.

One type displays the value or proportions of the total value of goods and services spent on various combinations of funding programs, types of procurement, and functional purposes. These reports use cross-tabulation matrixes to display various breakdowns of purchases. Table 2-2 is an example of this type of report. This report and others are described in Appendix D. Each report is intended to answer only one or two of the six fundamental questions.

The second type of report displays information about goods and services not of U.S. origin. This information includes identification of the procurements, their geographic origin, and the reasons why they were not purchased from the United States.

DATA COLLECTION PROCESS ALTERNATIVES

Alternative processes for collecting the required data were identified in Chapter 1. For convenience and further discussion, these are shown again in

TABLE 2-1

DATA NEEDED TO ANSWER QUESTIONS ON PROCUREMENT ORIGIN

Data element	Question					
	1 Basic flowback	2 Origin	3 Program detail	4 Procurement categories	5 Function categories	6 Waiver detail
Purchase value (\$)	X	X	X	X	X	X
Date ^a	X	X	X	X	X	X
Program component identifier			X			
Project identification ^b	X	X	X	X	X	X
Project function identifier					X	
Procurement element identifier				X		
Procurement origin location	X	X				X
Waiver control number						X
Waived-item description ^c						X
Waiver justification						X

^a Can range from FY for retrospective annual review collection process to daily for voucher data collection process.

^b Includes mission code, project number, and project title.

^c Includes item name and Standard Industrial Classification (SIC) code.

Table 2-3, which is a reprint of Table 1-2. The four collection entities depicted in columns A through D represent the four major collection options we considered. We also considered some mixes of these four options, which we discuss later.

The column A option requires the project officer to estimate procurement origins during development of the procurement plan and to update the data as the project is implemented.

The column B option also involves estimation of procurement origins, but in this case the estimation is done by potential or actual contractors and grantees when they submit their bids or proposals. The procurement officer is responsible for collecting, storing, updating, and reporting the data.

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TABLE 2-2

PROGRAM AND PURCHASE ORIGIN CROSS-TABULATION REPORT

Program	Purchase origin								
	U.S.	Recipient country	Other LDCs	EC	Japan	Canada	NICs	Other	Total
Development Assistance (DA)									
Development Fund for Africa (DFA)									
Economic Support Fund (ESF) ESF Commodity Import Program ESF cash transfer ESF project assistance									
Operating expenses (OE)									
Total									

Note: LDCs = lesser developed countries; EC = European Community countries; NICs = newly industrialized countries.

The column C option requires the Controller to collect procurement origin data provided by contractors, grantees, and the recipient country with their vouchers and payment requests. The dollar values collected, stored, and reported by the Controller are the actual disbursement amounts made by the Controller to the contractor, grantee, or recipient country.² Grants and cooperative agreements pose a particular problem for data collection under this disbursement tracking system. The current practice of disbursing funds to grantees in the form of advances, and of requiring them subsequently to report only aggregate levels of quarterly funds expended and objectives attained, will need to yield to a significant new requirement for grantees to report procurement origin data on a quarterly basis. These data will not be A.I.D. disbursement data and will therefore not be integrated with other MACS and FACS data for contract disbursements. The MACS and FACS disbursement data could be

²Recording disbursements made by the Controller introduces a time lag from the time goods and services were procured until the time payments were actually made. Nevertheless, we believe that this method compensates for the time delay bias by its simplicity and direct linkage with MACS. We estimate that attempting to track the actual timing of procurements and payments could increase this option's cost by 50 percent.

TABLE 2-3

ALTERNATIVE DATA COLLECTION PROCESSES

Data source	Data to be collected by			
	A. Project officer	B. Procurement officer	C. Controller	D. Periodic review
1. Project officer	Planning projection. Project officer compiles source and origin data during preparation of procurement plan and updates data as procurement commitments occur.			Annual project review. Project officer estimates source and origin data from mission controller reports and project files. Estimates are compiled by mission and reported to A.I.D. Washington.
2. Vendor		Vendor projection. Vendor provides estimate of source and origin data upon submission of offer and updates data over life of contract or agreement.	Voucher accounting. Vendor provides source and origin data on voucher. Controller processes with usual voucher data in preparation for payment to vendor. Project officer validates data.	Periodic report. Vendor reports periodically (such as quarterly) to certify as to source and origin data for period. Reports are compiled by mission controller, verified against disbursements, and reported to A.I.D. Washington.
3. Recipient country (RC)	RC planning. RC procurement function or financial agency provides planning estimate of source and origin data for procurement to be contracted for by that country and for cash transfer and sector assistance grant funds.	Vendor projection. RC procurement function or financial agency provides estimate of source and origin data for procurement to be contracted for by that country and for cash transfer and sector assistance funds to be disbursed.	Voucher accounting. RC procurement function or financial agency provides source and origin data when submitting requests for reimbursement or for disbursement of non-project assistance.	Periodic report. RC reports periodically (such as quarterly) to certify as to source and origin data for period. Reports are compiled by mission controller, verified against disbursements, and reported to A.I.D. Washington.
4. Mission staff				Periodic survey. A.I.D. schedules source and origin surveys or audits of selected missions as needed to estimate flowback and other information of interest to management.

Note: Reprint of Table 1-2.

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aggregated by quarter, however, and then combined with grant and cooperative agreement procurement data for quarterly reporting of procurement origin data.

The column D option involves periodic reviews or surveys of procurement origin data accumulated over periods of time. Such periodic reviews could range from project officers' annual reviews of procurement origins for their projects to contracted-for surveys of procurements made by selected missions or in support of selected programs.

DATA COLLECTION FORMAT

The data collection format for the processes described in Table 2-3 should be the same for any process, so that data collected in different processes can be combined with minimal further processing. The data collection format should also be simple enough to facilitate data entry, transmission between the source and collecting agent, and final entry into and storage in an information system.

We believe that a matrix format similar to that used for reporting origin data satisfies these criteria. Table D-3 in Appendix D provides a format well suited to collecting origin data at the most disaggregated level. This table should be supplemented with data for the other dimensions listed in the paragraph describing the table. Figure 2-1 presents such a supplemental data collection format.

The data collection format presented in Figure 2-1 captures most of the data needed to answer questions about the origin of goods and services purchased with A.I.D. funds. Additionally, the goods and services purchased from non-U.S. origins under each program and project descriptor category would need to be identified according to a standard product classification scheme such as the Standard Industrial Classification (SIC) or Standard International Trade Classification (SITC). The format for recording such data is not included here; it would depend on the type of information system used to record, store, and process the origin data.

Appendix E describes how missions might use PC technology to submit origin data to Washington electronically.

COSTS AND BENEFITS OF DATA COLLECTION ALTERNATIVES

The processes in columns A and B of Table 2-3, wherein data are collected by the project officer or the procurement officer, involve projections of purchases to be made in the future over the life of a project or procurement activity. The processes in

The data collection matrix below is intended to identify the proportions of the purchase amount shown in item 7 that are spent on each purchase element item in the designated geographical (purchase) origins. A separate matrix with a unique value for item 7 needs to be completed for each different combination of items 1 through 6 below.

1. Country name: _____ 2. Country code: _____
3. Reporting company, organization, or agency: _____
4. Check one of the following program categories:
 DA Sector Assistance DA Other DFA Sector Assistance DFA Other
 ESF Commodity Import Program ESF Cash Transfer ESF Project Assistance
5. Project number: _____ 6. Project purpose (select one):
 Agriculture and rural development
 Health and population control
 Education and human resources development
 Private sector development
 Public capital development
7. Value of purchase: _____
8. Percentages of value in item 7 purchased from various geographic origins (percentages in the matrix must add up to 100):

Purchase element	Purchase origin							
	U.S.	Recipient country	Other LDCs	EC ^a	Japan	Canada	NICs ^b	Other
Commodities								
Construction								
Technical assistance								
Training								
Project operations support								

^a European Community consists of Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, and the United Kingdom.

^b Newly Industrialized Countries (NICs) such as Malaysia, the Republic of Korea, Singapore, and Taiwan.

FIG. 2-1. PROCUREMENT ORIGIN DATA COLLECTION FORMAT

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9. Waiver data:

The reasons for exemptions from section 604(a) of the Foreign Assistance Act, which normally requires purchase of U.S. goods and services, are listed below. Indicate the appropriate waiver authorizations in this table if any portions of the value in item 7 are used to purchase goods or services from origins other than the United States.

Waiver justification (A.I.D. Handbook 13, Ch. 5B4a.)	Purchase origin						
	Recipient country	Other LDCs	EC ^a	Japan	Canada	NICs ^b	Other
1. Emergency requirement for which non-A.I.D. funds are not available							
2. Commodity not available							
3. 50 percent price premium for U.S. origin (project assistance)							
4. Acute shortage in United States (non-project assistance)							
5. Persuasive political considerations							
6. Procurement in cooperating country best promotes objectives of foreign assistance program							
7. Other circumstances critical to project success							

^a European Community consists of Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, and the United Kingdom.

^b Newly Industrialized Countries (NICs) such as Malaysia, the Republic of Korea, Singapore, and Taiwan.

FIG. 2-1. PROCUREMENT ORIGIN DATA COLLECTION FORMAT (Continued)

column C, wherein data are collected by the Controller, involve actual disbursement information. Finally, the processes in column D, wherein data are collected under some form of periodic review, involve retrospective accounting for purchase origins.

Data collected at the time of actual disbursement would be the most accurate, followed by retrospective reviews and projections, in descending order of accuracy. Collecting data at disbursement appears to be the most costly method, however, since it would involve integration into established financial management processes.

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Data collection processes involving projections would be next most costly, and retrospective reviews would be the least costly.

DATA COLLECTION UNDER VARIOUS PROGRAM FUNDING CONDITIONS

The foregoing analysis of data collection processes and costs was based on the conditions surrounding direct contracts and grants in support of DA, DFA, or ESF project funding. These conditions are marked by direct mission management, frequent transactions, and well-defined procurement and accounting procedures. There are, in contrast, a second set of conditions characterizing recipient country contracts and a third surrounding cash transfers and sector assistance grants. Although recipient country contracts are now being monitored more closely by the missions to ensure that those countries' agencies and contractors follow proper procurement procedures, there are not enough people at the missions to perform this monitoring thoroughly.

Cash transfers of ESF funds and DA/DFA sector assistance grants are made under markedly different conditions from those of direct contracts and grants in support of projects. These conditions are characterized by few and large disbursements, for which A.I.D. exercises little procurement management oversight. Since these disbursements are normally made in expectation of recipient country policy actions, A.I.D.'s interest is largely in the policy — not the procurement — outcomes. Although the agreements under which the disbursements are made require separate accounting for payments, and an order of preference for U.S. goods and repayment of debt obligations to the United States, there is often no assurance that U.S. goods purchased with these funds are any more than what would have been purchased in the absence of the A.I.D. funds. This issue — commonly called the "additionality" issue — is difficult to assess. Although one Deputy Mission Director we interviewed termed the issue "unresolvable," we believe that closer monitoring of uses of these funds, coupled with analysis of how the recipient country spends its other receipts, would lead to more accurate assessment of the origin of procurements obtained with the funds. Because mission staff resources are limited, this analysis should probably be done by a contractor.

We believe that the small number of these large transactions, combined with closer monitoring of accounts, will enable mission management to track procurement origins. The recording of procurement transactions will need to be handled in a manner similar to that for grants and cooperative agreements. In other words,

recording should be made quarterly on the basis of quarterly reviews of recipient country accounts and periodic analyses of that country's overall expenditure patterns.

Repayments of debt obligation to the United States, other countries, or financial institutions require analyses of how the recipient of the payment will spend it. Such analyses can make use of import propensity parameters and outlay data from financial institutions. Appendix F describes some of these techniques.

Additional burdens would be placed on A.I.D. contract and financial management staff and on contractors, grantees, and recipient country procurement agencies for new reporting requirements in all processes described in Table 2-3, with the exceptions of A.1., D.1., and D.4. Contractual vehicles would have to be modified to include the collection format presented in Figure 2-1, and provisions would need to be made for monitoring and ensuring compliance. Additional costs for instructional materials and training would result from implementing any option.

Representative estimates of the non-AIS start-up and annual data collection costs are presented in Tables 2-4 and 2-5. The costs identified under the A.I.D. staff category include resources needed to supplement A.I.D. staff activities now carried out or to initiate those not currently carried out. For example, if the planning projection option were selected, the project support offices at the missions would need an additional week of a project support officer's time for each new project. Also, each functional project office would need an additional 3 person-weeks per year, per project, of a designated project officer or a Foreign Service National (FSN) trained to track the procurement origin data over the life of a project.

In addition to the personnel currently employed, the disbursement tracking option would require: (1) 1 voucher examiner for every 5 voucher examiners currently authorized, (2) 1/3 of a full-time equivalent (FTE) supervisory voucher examiner for each 4 voucher examiners, (3) 2 person-months of data entry for every 1,000 vouchers affected by the data collection process, and (4) 3 person-months of a MACS coordinator for each 1,000 vouchers.³

Vendor compliance costs are costs that contractors and grantees will incur to handle the increased accounting and reporting burden. These costs will likely be passed on to A.I.D. in the form of higher contract and grant costs. We believe that the

³These estimates were obtained from mission controller and contract office personnel at several missions. Further details on cost estimates for Table 2-5 and for other costs are in Appendix B.

TABLE 2-4

DATA COLLECTION PROCESS INITIAL START-UP COSTS FOR ANSWERING QUESTION 1 OR QUESTION 6

(\$ millions)
(does not include automation costs)

Data collection process category	Cost category											
	A.I.D. staff		Vendor compliance		Training		Miscellaneous		Surveys and studies		Total	
	1	6	1	6	1	6	1	6	1	6	1	6
Planning projection	0	0	0.15	0.30	0.05	0.10	0.04	0.06	0.30	0.50	0.54	0.96
Obligation tracking	0	0	0.60	1.80	0.19	0.36	0.04	0.08	0.30	0.40	1.13	2.64
Disbursement tracking	0	0	0.60	1.80	0.24	0.36	0.04	0.08	0.30	0.40	1.18	2.64
Periodic review or survey	0	0	0	0.30	0.24	0.48	0.04	0.06	0.30	0.40	0.58	1.24

additional cost to contractors would be insignificant in comparison to the 8 hours per voucher currently estimated to be the public reporting burden but that grantees would feel the additional burdens.

MIXED DATA COLLECTION PROCESS

The foregoing cost, data-availability, and accuracy considerations indicate that some mixes of the four major collection options may offer practical solutions in the short run. In particular, we considered one such mix that combined minor modification of FACS, MACS, and CIMS with a microcomputer data storage and reporting system. This mixed system could gather quarterly data from vendors for direct contracts and grants and use samples, surveys, and other estimating techniques for other parts of the A.I.D. portfolio. Table 2-6 summarizes the non-AIS costs under this mixed system of answering two of the six questions.

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TABLE 2-5

DATA COLLECTION PROCESS ANNUAL OPERATING COSTS FOR ANSWERING QUESTION 1 OR QUESTION 6

(\$ millions)
(does not include automation costs)

Data collection process category	Cost category											
	A.I.D. staff		Vendor compliance		Training		Miscellaneous		Surveys and studies		Total	
	1	6	1	6	1	6	1	6	1	6	1	6
Planning projection	0.10	0.19	0.30	0.60	0.05	0.07	0.06	0.13	0.15	0.20	0.66	1.19
Obligation tracking	0.18	0.26	0.30	0.60	0.07	0.19	0.02	0.06	0.15	0.40	0.72	1.51
Disbursement tracking	0.33	0.86	0.66	1.33	0.12	0.24	0.11	0.26	0.15	0.40	1.37	3.09
Periodic review or survey	0.08	0.32	0.08	0.30	0.05	0.10	0.03	0.05	0.15	0.20	0.39	0.97

TABLE 2-6

MIXED DATA COLLECTION PROCESS COSTS FOR ANSWERING QUESTION 1 OR QUESTION 6

(\$ millions)
(does not include automation costs)

Cost element	Cost category											
	A.I.D. staff		Vendor compliance		Training		Miscellaneous		Surveys and studies		Total	
	1	6	1	6	1	6	1	6	1	6	1	6
Development	0.00	0.00	0.15	0.70	0.05	0.40	0.04	0.20	0.30	0.40	0.54	1.70
Annual	0.10	0.40	0.30	0.60	0.05	0.20	0.06	0.10	0.15	0.20	0.66	1.50

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CHAPTER 3

AUTOMATED INFORMATION SYSTEM ALTERNATIVES

SCOPE OF ALTERNATIVES

We considered four current A.I.D. computer systems related to procurement and also a generic microcomputer system as AIS alternatives to support the data collection options described in Chapter 2. The four current systems, described in Appendix G, are (1) A.I.D. Washington's Financial Accounting Control System (FACS), (2) Mission Accounting Control System (MACS), (3) Contract Information Management System (CIMS), and (4) Management Information Decision Analysis System (MIDAS). The generic microcomputer system entails the use of a variety of microcomputer spreadsheet and data base management system (DBMS) software approaches to account for procurement data. We call this generic system the Buy American Reporting System (BARS). We developed a prototype BARS with Dbase III as an alternative to A.I.D.'s current Wang architecture, to permit demonstration of some of the suggested data collection methods.

Overlaying these 5 AIS alternatives on the 10 data collection processes portrayed in Table 1-2 creates 50 alternatives for consideration. We reduced these 50 alternatives to 12 feasible combinations, presented in Table 3-1. Finally, we created what we considered to be the 5 most feasible information system/data collection strategies for final consideration. Each strategy incorporates a short-run and a long-run dimension and can make use of more than one collection process and information system simultaneously. The strategies were identified in Chapter 1 and summarized there in Figure 1-1, repeated here for convenience as Figure 3-1. The arrows represent a transition from one system that has been used in the short run to another system for the long run. The costs for each strategy are estimates derived from combining appropriate elements of the data collection costs described in Chapter 2, AIS costs described later in this chapter, and other costs compiled in Appendix B.

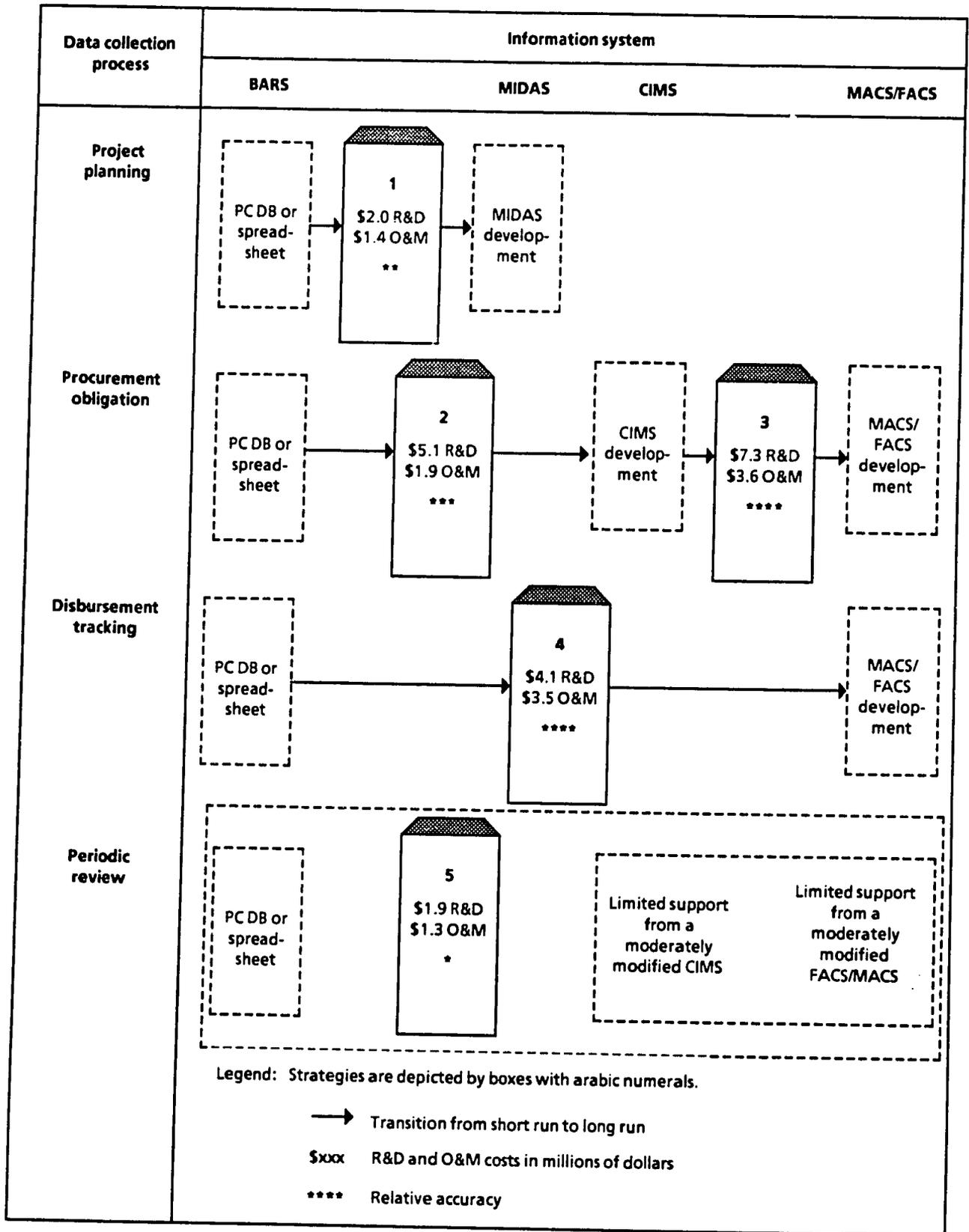
TABLE 3-1

FEASIBLE COMBINATIONS OF INFORMATION SYSTEMS AND DATA COLLECTION PROCESSES

Information system	Data collection process			
	Project planning	Procurement obligation	Disbursement tracking	Periodic review
FACS			AID/W ^a disbursements for CIP, cash transfers, sector assistance, and Central Bureau projects	AID/W ^a disbursements for CIP, cash transfers, sector assistance, and Central Bureau projects
MACS			Mission disbursements for sector assistance and projects	Mission disbursements for sector assistance and projects
CIMS		(1) AID/W ^a procurement actions (2) Mission direct procurement actions (3) Recipient country procurement actions		(1) AID/W ^a procurement actions (2) Mission direct procurement actions (3) Recipient country procurement actions
MIDAS	(1) Central Bureau projects (2) Mission projects (3) Non-project assistance	An alternative to CIMS		
BARS	(1) Central Bureau projects (2) Mission projects (3) Non-project assistance	An alternative to CIMS	(1) AID/W ^a disbursements (2) Mission disbursements	(1) All projects (2) Non-project assistance

^a AID/W = A.I.D. Washington.

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Notes: PC = personal computer; DB = data base; R&D = research and development; O&M = operations and maintenance.
 Reprint of Figure 1-1.

FIG. 3-1. INFORMATION SYSTEM/DATA COLLECTION STRATEGIES

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STRATEGIES

1. BARS to MIDAS Project Planning

The missions and A.I.D. Washington would use a PC system in the short run (1 or 2 years) until MIDAS could be revised to store and process procurement origin data in the long run. This strategy would rely on project officers for initial data estimates; later, data updates would be obtained from vendors as procurement commitments were made and implemented. The PC system would serve as the prototype for the MIDAS revision and could itself be used as a front-end data collection and reporting tool for MIDAS in the long run.

2. BARS to CIMS Procurement Obligation

The missions and A.I.D. Washington would use a PC system in the short run (1 or 2 years) until CIMS could be modified to store and process procurement origin data in the long run. This strategy would rely on vendors for initial data estimates as obligations are made and implemented. The PC system would serve as the prototype for the CIMS modification and could itself be used as a front-end data collection and reporting tool for CIMS in the long run. This strategy could be further extended into strategy 3 as an option.

3. CIMS to FACS/MACS

This strategy would modify strategy 2 by transferring the procurement origin storage and reporting requirement from CIMS to the new financial accounting system(s) in the long run (3 to 5 years), if the application could be more cost-effectively implemented there. This strategy would permit continued refinement of procurement origin requirements in CIMS and would provide A.I.D. management the option of transferring the procurement origin application to the financial accounting system(s) in the long run.

4. BARS to FACS/MACS

The missions and A.I.D. Washington would use a PC system in the short run until FACS and MACS could be modified to handle the application in the long run (3 or 4 years). This strategy could rely on vendors for actual procurement data to be provided with their vouchers and (from grantees) quarterly reports. A variant of this

strategy would be to accelerate use of the voucher accounting module, MACSTRAX, at all missions to replace or complement the PC system temporarily until the long-run replacements of FACS and MACS are completed.

5. Periodic Review Supported by BARS, FACS/MACS, and CIMS

Missions and A.I.D. Washington would use a PC system supported where possible by FACS, MACS, and CIMS. This strategy would rely on vendors for actual procurement data to be provided in quarterly reports from all contractors, grantees, and recipient countries. These quarterly reports would summarize all procurements made during the quarter. MACSTRAX could be used to replace or complement the PC system, as in strategy 4.

ANALYSIS OF STRATEGIES

System Costs

The AIS costs for developing and operating the strategies to answer questions 1, 3, and 6 (as an example) are portrayed in Table 3-2. These costs do not include staff and vendor costs, discussed in Chapter 2. The A.I.D. IRM office, with the cooperation of the A.I.D. Controller, provided the estimated short-run costs of modifying FACS and MACS. The Chief of the Procurement Support Division provided estimated short-run costs of modifying CIMS. Short-run costs are those that would be incurred to allow the current AIS to handle the new procurement origin data requirements without waiting for planned long-run improvements.

We think that these costs are high and that they are symptomatic of the non-optimal hardware and software architectures that A.I.D. now uses. FACS and MACS are clearly in need of modernization. According to the Chief of the Procurement Support Division, the procurement origin tracking system would require moving CIMS to a mainframe computer from its present Wang minicomputer. The costs of modifying MIDAS were estimated with the assistance of the contractor support group that prepared the MIDAS software. The estimated costs of a generic microcomputer system are based on the costs of developing the prototype BARS. All costs are general estimates, since they are based on broad system specifications. Once a specific strategy is chosen, a more precise set of system specifications and cost estimates should be prepared.

TABLE 3-2
AUTOMATED INFORMATION SYSTEM STRATEGY COSTS
(\$ thousands)

Strategy	Type of AIS cost		
	R&D	O&M	1-Year total
1. BARS to MIDAS procurement planning	708.8	140.0	848.8
2. BARS to CIMS procurement obligation	2,331.4	220.0	2,551.4
3. CIMS to FACS/MACS transition from obligation to disbursement ^a	3,400.4	310.0	3,710.4
4. BARS to FACS/MACS disbursement tracking	1,302.4	220.0	1,522.4
5. Periodic survey or review	385.4	200.0	585.4

^a Costs include costs for strategy 2, which would precede strategy 3.

Other Considerations

Our perspective on A.I.D.'s information systems was limited principally to those supporting the procurement and financial management processes. Nevertheless, we observed that the IRM plan recently prepared by A.I.D., with the assistance of Deloitte & Touche, places a high priority on top-down planning and development of an open, data-driven architecture. Acquiring a new procurement origin data collection and assessment software should be managed so as not to hinder what appears to be a well-focused effort to move A.I.D.'s information systems in the right direction. The long-run objectives of a procurement origin data tracking system should include integration as an application into one or more of the future management information systems rather than continued existence as an independent system.

CHAPTER 4

PROCUREMENT POLICIES AND PROCEDURES

AN OVERVIEW OF IMPLEMENTATION REQUIREMENTS

Implementing the data collection and reporting instruments described in Chapter 2 and in Appendix D will require modifying A.I.D.'s procurement policies and procedures. Modifications could range from making a few simple additions to the A.I.D. Acquisition Regulation (AIDAR) to dismantling all policies and procedures related to section 604(e) of the FAA and replacing them with coverage paralleling that in the Federal Acquisition Regulation (FAR). The provisions on foreign procurement used generally by Federal agencies are set forth in FAR Part 25, which implements the Buy American Act (41 U.S.C. 10), the Balance of Payments Program, the Trade Agreements Act of 1979, and other legislation and policy dealing with the use of foreign currency, customs provisions, and the like.

A.I.D.'s agency-unique AIDAR is in Title 48, Chapter 7 of the Code of Federal Regulations (CFR); there are also other A.I.D. procurement regulations in internal A.I.D. handbooks. A.I.D. has supplemented FAR Part 25 with its unique rules for "Source, Origin, and Nationality," at AIDAR 725.701. Clauses are specified at AIDAR 752.7004 and 752.7017 to put these rules into effect in contracts. The A.I.D. clauses are stand-alone clauses and do not merely supplement or implement the FAR's certification and reporting provisions.

Implementation of new procurement origin data collection processes would present an opportunity for A.I.D. to adopt a more exacting parallel construction of its unique domestic preference regulations, forms, and processes to match the FAR's structure and organization. In our view, this approach would allow simplification of internal procedures and would also minimize requirements for more reporting procedures, which would have to be approved by the Office of Management and Budget (OMB) in accordance with the Paperwork Reduction Act.

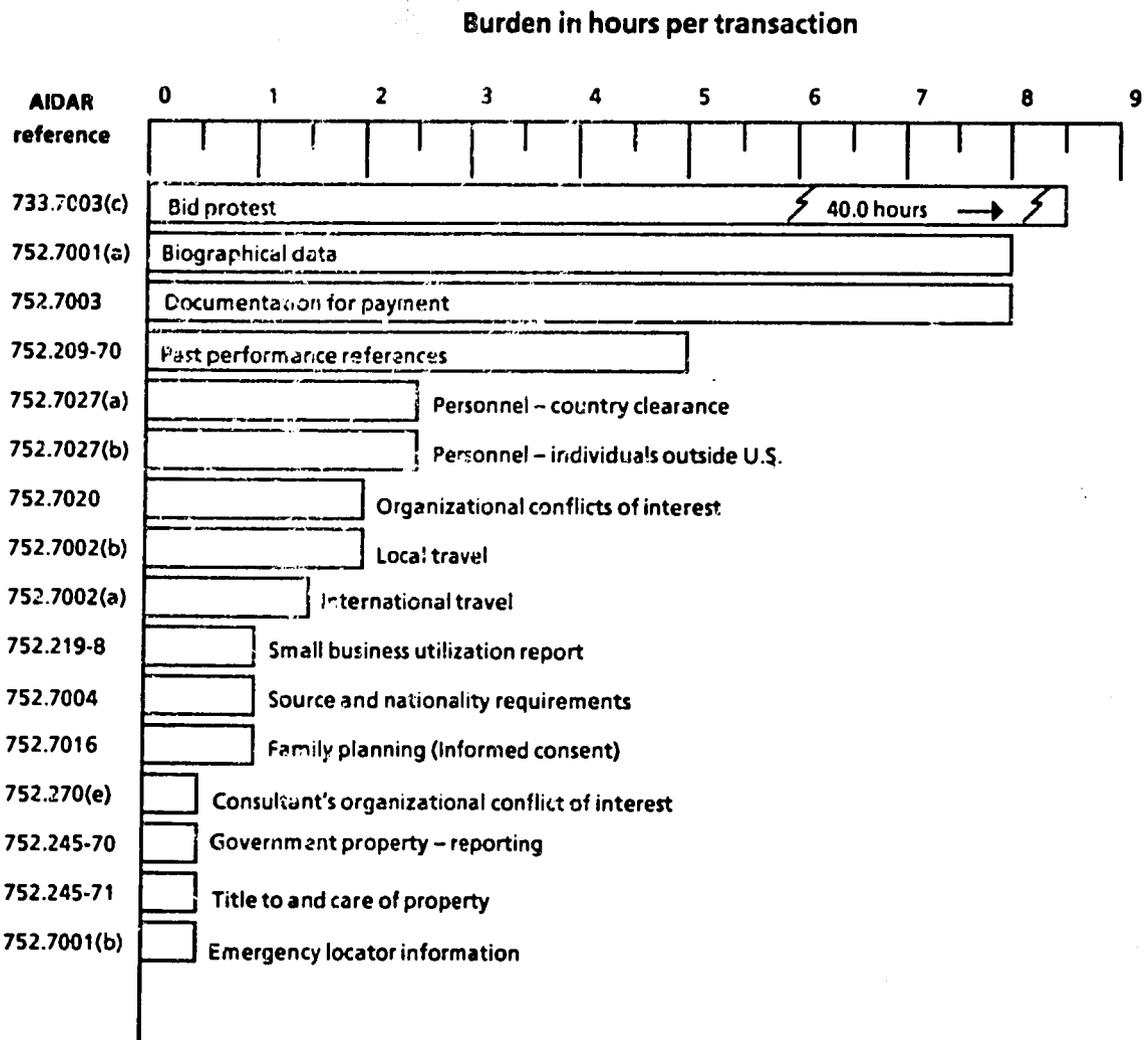
Our preferred solution is one that relies on an integrated approach to:

- Simplify and standardize the definitions, provisions, and clauses used in contracts, for grants, in cooperative agreements, and (to the extent feasible) in agreements and procedures in use for making cash transfers and commodity financing and purchase transactions.
- Integrate and couple a transaction-specific waiver approval and reporting system with the process of making obligations and commitments under agreements for prime contracts, grants, cooperative agreements, and commodity financing and purchase transactions.
- Integrate reporting and transaction-specific waiver approvals in sub-agreements, within the contract, grant, and cooperative agreement administration processes.
- Rely on market forces inherent in making contract awards, grants, and cooperative agreements to determine whether and when waivers are to be made rather than addressing the issue beforehand with the designation of authorized countries.
- Capture the essential information at the time obligations and commitments are made under prime contracts, grants, cooperative agreements and their derivative subagreements, and commodity financing and purchase transactions.

PUBLIC REPORTING BURDEN

With regard to the imposition of a "public reporting burden," we reviewed current A.I.D. practices in recordkeeping and reporting for special information requirements arising out of current AIDAR procurement processes. The "public reporting burden" is the time required for a member of the public to review instructions, search existing data sources, gather and maintain the data needed, and complete and review the collection of information before submitting it. Figure 4-1 shows the current burden for A.I.D.'s special reporting requirements. These range from an estimated 40.0 hours for a bid protest in special format to 1/2 hour each time a property control card is completed or an emergency locator card is filled out. Since the reporting burden for grant recipients is generally less than that for contractors and subcontractors, we used the burden for contractors as shown in these estimates to make our evaluation of new reporting requirements.

In our view, collection of foreign source and origin data through the financial management system will impose little burden beyond the 8 hours already estimated



Source: 48 CFR 701.105, Rev. October 1, 1989.

FIG. 4-1. CURRENT A.I.D. PUBLIC REPORTING BURDEN IN CONTRACTING

for the information required for voucher transactions. We believe that reporting of foreign procurements by contractors, grantees, parties to cooperative agreements, recipients of cash transfers, and each of their subcontractors and subrecipients would require not more than the 1 hour now estimated for the burden of the small business utilization report or the source and nationality requirements qualification form already approved by OMB.

In fact, grantees and the parties to A.I.D. cooperative agreements already are required to maintain the information required under rules and clauses set forth in A.I.D. Handbook 13. Parties to grants and cooperative agreements not over \$250,000, on whom additional reporting burdens should be imposed only very carefully, are currently given wide-ranging discretion in applying A.I.D.'s policies with respect to foreign source and origin. In each case, when goods or services are procured from other than U. S. sources, the performing party makes the determination but is required to "document its files to justify each such instance." The burden incurred in simply reporting information that already must be maintained, or periodic summaries of it, would be relatively small. However, the burden that would result from requiring grantees to include new capabilities within their financial management and accounting systems, as well as to furnish additional reports for the benefit of a single Federal agency, might be quite large.

Collecting data on grants to public international organizations (such as UNICEF, for example) presents a special case. A.I.D. generally relies on the procurement procedures and policies that these organizations already have in place. A.I.D.'s standard clauses, including its eligibility rules for goods and services, may be replaced with other clauses in use and preferred by the grantee or with special clauses negotiated when the grants are made. Terms and conditions with regard to procurement and audit policies may be negotiated in "exceptional cases."

Although, as the foregoing discussion indicates, part of the burden of collecting and reporting procurement origin data may already have been accommodated, we estimated costs as though all procurement data would require additional collection and reporting resources. Our estimates in Chapters 1 and 2 and Appendix B, therefore, somewhat overstate the new costs for A.I.D.

COMPARISON OF A.I.D. AND FAR RULES

One difference between A.I.D.'s approach to defining the "origin" of goods and the approach used in the FAR for implementing the Buy American Act and the Balance of Payments Program is that A.I.D. uses a price-based formula, while the FAR uses a cost-based approach to account for foreign contributions in multinational products. A.I.D.'s rule for limiting non-qualifying country "componentry" provides:

The total cost of such [non-qualifying country] components (delivered at the point of production) amounts to more than 50 percent . . . of the lowest price (excluding the cost of ocean transportation and marine insurance) at which the supplier makes the commodity available for export sale (whether or not financed by A.I.D.) (emphasis added).¹

In contrast, the Buy American Act implementation in the FAR makes the determination on the basis of the relative *cost* of the foreign and domestic components, irrespective of the selling *price* of the end product. The A.I.D. price-based formula requires less information about the cost of all components, but it may allow more value (or cost) of non-U.S. components without exceeding 50 percent because it includes the cost of services and mark-up in the denominator.

In general, uniform rules should be and are used wherever possible in Government procurement. Uniform rules reduce the cost of market entry by potential sellers and increase competition overall. Although the Buy American Act is not applicable to goods purchased by Federal agencies for use outside the United States, Department of Defense agencies have for many years, through implementation of the Balance of Payments Program, applied its policy and procedures to purchases made for such use. A.I.D. could do likewise to establish domestic preference pricing percentages for all goods and services purchased with A.I.D. funds.

The FAR's Buy American Act procedure is, for offer evaluation purposes, to add a 12 percent differential to an offer of foreign goods when made in competition with a small business or labor surplus area domestic offeror. A 6 percent differential is added to the foreign offer when the domestic offeror is not a small business or in a labor surplus area. The FAR's Balance of Payments Program provisions, besides covering cases in which goods are procured for use outside the United States, also apply to transactions for procurement of services (unlike the Buy American Act,

¹22 CFR 201.11(b)(2)(ii)(b), Rev. April 1, 1990.

which covers only goods). The Balance of Payments Program simply increases the evaluation price of foreign offers by 50 percent, thus affording domestic suppliers of goods and services a substantial advantage in the transaction. Such an approach could be implemented to satisfy the concerns of Congress in section 604(a) of the FAA and the objectives of the Presidential determinations to favor the LDCs as sources of procurement (this issue is discussed in greater detail in Appendix H). A new Presidential determination would be required under section 604(a) to implement this approach.

THE WAIVER PROCESS

When A.I.D. undertakes a procurement, or when it begins to plan and formulate an assistance program, it evaluates the potential for obtaining the needed goods and services from U. S. sources of supply. We did not find a rigorous or centralized administrative system in place for conducting the necessary presolicitation market research before efforts to obtain a waiver for the transaction are made. As a result, neither the mission directors, the senior officials in Washington heading the several bureaus, nor the Administrator can be assured of an effective and informed alternative point of view in making decisions authorizing foreign procurement. If the overall situation is to be materially improved (beyond responding to external inquiries), A.I.D. could benefit from a "Buy American Advocate" at headquarters, with organizational and reporting links to selected persons in the missions in the field. The present A.I.D. management strategy of delegating waiver authority to mission directors without centralized accountability produces nonuniform results.

Until recently, A.I.D. has made its determination as to permissible sources of supply long before the procurement action takes place, while other agencies; under the FAR implementation of the Buy American Act, wait until after offers are received. The latter approach relies on market forces to provide current information on relevant procurement alternatives. The requirement to consider waivers on a transaction basis rather than on a program or project activity basis supports this approach.

The excellent series of processes and procedures A.I.D. uses for its Small Business program could serve as a model for more effective Buy American management. Forms have been developed that record the actions of responsible officials and simplify many of the complex policy determinations as check-off boxes.

There are tight timetables imposing administrative discipline in the review. Thus the process of policy review is simple, thorough, disciplined, and complete.

Management of the process, and the public perception of it, could also be improved by A.I.D.'s publishing a list of "excepted articles, materials, and supplies" as a supplement to the AIDAR, as other Federal agencies do in their implementation of the Buy American Act under the FAR. This procedure eliminates the need to obtain individual waivers for transactions concerning items determined by the agencies not to be mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality. Publication of such a list would engender fairness in the procurement process by giving U. S. vendors an opportunity to show that they can meet agency needs or, perhaps, to consider whether they would like to pursue a new business opportunity by establishing a source of supply. Typical items for which waivers are routinely granted by A.I.D. (such as right-hand drive vehicles, and refrigerators that operate on kerosene rather than on electricity) might bring forth interested U. S. vendors if information about business opportunities became more widely and formally publicized in the U.S. marketplace.

THE SYSTEM OF AUTHORIZED GEOGRAPHIC CODES

A system of authorized geographic codes is used by A.I.D. to deal with the list of excluded countries and the process of obtaining the proper "specific exemptions" under the conditions prescribed by a commitment document. Although reference is made to the system of codes in the AIDAR, one has to go to the internal handbooks or A.I.D. Regulation 1 (published as 22 CFR, Part 201, "Rules and Procedures Applicable to Commodity Transactions Financed by A.I.D.") to find the structure and meaning of the country and geographic codes. However, for particular transactions – solicitations, contracts, grants, cooperative agreements, and the like – the codes and their meanings are set forth in full.

If A.I.D. retains this system of "authorized geographic codes," a better business practice to follow would be to publish them as an integral part of the procurement regulations. Procurement regulations are published, in part, to give all offerors a fair and equal chance, to reduce the cost of market entry for vendors, to stimulate competition and reduce prices, and to hold the procuring agency open to public inquiry and comment, permitting interested persons to challenge regulations and

procurement decisions that appear wrong or unfair. Once regulations are published by an agency, the rules for conducting procurements become firmly established, and the agency is held accountable for following its own rules.

EXAMINATION OF RECORDS

Central to any system for collecting and reporting financial information is the degree to which the accuracy of the information can be verified. In general, A.I.D. imposes fewer restrictions on its grant recipients than on its contractors, and fewer restrictions still on subcontractors. There appears to be little, if any, audit control over what many substantial cash transfers are ultimately used for. An essential attribute for ensuring the accuracy of any reporting system is the ability to audit its information. The procurement origin reporting system that is selected should take account of the widely differing practices used by A.I.D. in determining whether "examination of records" clauses are included in its instruments and programs. Such a system might usefully employ a hierarchy of data-reporting categories running from "strictly audited" to "estimated."

DEFINITIONS AND CLASSIFICATIONS

An additional issue involves the definition and classification of goods, services, and places of performance embodied in the several AISs now in use. CIMS is designed in part to provide reports to the Federal Procurement Data System (FPDS), which aggregates procurement data from all Federal agencies for periodic reports about how and where taxpayer dollars are spent. Three classification methods (embracing goods, services, and place of performance) relevant to determining the proportion of A.I.D. funds benefiting the U. S. economy are used by FPDS. These are:

- (1) "Principal Product or Service" codes – 4-character alphanumeric format – specified in the FPDS Product and Service Code Manual
- (2) "Principal Standard Industrial Classification (SIC)" codes – 4-digit numeric format – specified in the OMB Standard Industrial Classification Manual
- (3) "Principal Place of Performance" (for the United States and its outlying areas, states, and cities) reports in FIPS Publication 55 – 2- or 5-digit numeric format – and (for locations outside the United States) the 2-position alphabetic country code from FIPS PUB 10-3. Likewise, "Country of Manufacture" is also reported to the Federal Procurement Data System, using the country codes in FIPS PUB 10-3.

An entirely different classification taxonomy for goods is used for CIP. The format is specified by the U. S. Bureau of the Census, Department of Commerce, as "Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States," which appears at 15 CFR 30.92. This is a 10-digit numeric format. We understand that this taxonomy has been changed several times over the years and that there is now great difficulty in deriving useful information from the system, depending on which timeframe or data dictionary has been used.

The core problem in deriving useful information from the data recorded in such systems is that only a single entry for each of the foregoing items is made each time an obligating transaction occurs – irrespective of the number of items, their individual or aggregate cost, the wide variety of geographical locations and places of performance that might be involved, or the appropriations involved. For very small transactions, involving only a single item or small number of identical items, or for services performed at a single geographic location, such data are highly accurate and precise. The larger and more distributed the scope of the obligating transaction, the more imprecise is the information that can be extracted from the data recorded in the system. From the standpoint of measuring the economic impact of the performance of services, this problem is particularly acute – if the place of performance cannot be determined, the FPDS manual directs the contracting officer to report the contractor's billing location. The FPDS manual also commingles the reporting of goods and services under its data element for "country of manufacture."

APPENDIX A

A QUANTITATIVE PERSPECTIVE ON FLOWBACK

It is instructive to analyze the Agency for International Development's (A.I.D.'s) portfolio to see the relative impact of the portfolio components on overall flowback. This appendix provides a mathematical framework for evaluating flowback and the results of A.I.D.'s most recent efforts to measure flowback.

The overall flowback relation is mathematically defined by Equation 1. This equation shows how the overall flowback proportion is related to the flowback proportions of major funding categories.

$$f_T(T) = f_{ESF}(ESF) + f_{DA}(DA) + f_{DFA}(DFA) + f_{OE}(OE) \quad \text{Eq. 1}$$

where

- T = Total A.I.D. funds
- f_T = Overall procurement of U.S. goods and services as a proportion of all purchases
- ESF = Economic Support Fund (ESF) funds
- f_{ESF} = Proportion of ESF funds used to purchase U.S. goods and services
- DA = Development Assistance (DA) funds
- f_{DA} = Proportion of DA funds used to purchase U.S. goods and services
- DFA = Development Fund for Africa (DFA) funds
- f_{DFA} = Proportion of DFA funds used to purchase U.S. goods and services
- OE = Operating expenses
- f_{OE} = Proportion of OE funds used to purchase U.S. goods and services.

The relative magnitude, C_i , of each i th component fund can be stated as:

$$C_{ESF} = \frac{ESF}{T}$$

$$C_{DA} = \frac{DA}{T}$$

$$C_{DFA} = \frac{DFA}{T}$$

$$C_{OE} = \frac{OE}{T}$$

Dividing both sides of Equation 1 by T , we obtain a statement of overall flowback rate:

$$f_T = f_{ESF} C_{ESF} + f_{DA} C_{DA} + f_{DFA} C_{DFA} + f_{OE} C_{OE} \quad \text{Eq. 2}$$

The approximate values of the C_i coefficients, based on the FY91 requests in the FY91 Congressional Presentation, are:

$$C_{ESF} = \frac{3.36}{5.71} = 0.59$$

$$C_{DA} = \frac{1.34}{5.71} = 0.23$$

$$C_{DFA} = \frac{0.56}{5.71} = 0.10$$

$$C_{OE} = \frac{0.45}{5.71} = 0.08$$

since $ESF = \$3.36$ billion, $DA = \$1.34$ billion, $DFA = \$0.56$ billion, $OE = \$0.45$ billion, and $T = \$5.71$ billion.

LMI estimated the probable range of values for the f_i coefficients from a survey in October and November 1990 of expenditures at seven missions. This survey reviewed expenditure data for FY88 through FY90 from each Mission Accounting Control System (MACS) and then obtained the project officers' estimates of the origin of goods and services purchased in support of their projects.

The range of coefficients for ESF procurement was markedly wider than that for any other program funding category. This wide range resulted from the diverse uses made of ESF – ranging from the well-documented Commodity Import Program's (CIP's) nearly 100 percent procurement of U.S. goods to the cash transfer program's indeterminate flowback. The latter is so indeterminate that arguments have even been made for assigning a flowback of zero percent to cash transfers.

Adjusting the ESF for cash transfers, the ranges of values of the f_i coefficients among the missions surveyed were:

$$f_{ESF} = 0.03 - 0.95$$

$$f_{DA} = 0.38 - 0.57$$

$$f_{DFA} = 0.40 - 0.60$$

$$f_{OE} = 0.27 - 0.60$$

The likely range of value for f_T can therefore be obtained by using Eq. 1:

(a) upper limit:

$$f_T = (0.95)(0.59) + (0.57)(0.23) + (0.60)(0.10) + (0.60)(0.08) = 0.80$$

(b) lower limit:

$$f_T = (0.03)(0.59) + (0.38)(0.23) + (0.40)(0.10) + (0.27)(0.08) = 0.17$$

Clearly, overall flowback is most sensitive to ESF flowback, because ESF is the largest funding category. Cash transfers are the largest component of ESF, amounting alone to at least 30 percent of all A.I.D. funds.

A.I.D.'s Bureau for Program and Policy Coordination (PPC) undertook in February and March of 1991 an assessment of worldwide flowback with

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FY89 procurement data reported from 55 of the 71 overseas missions and collected at the A.I.D. Washington Financial Management office. PPC estimated from these data that 35 percent of all A.I.D. disbursements result in purchases of goods and services of U.S. origin. PPC's summary data tables are at the attachment to this appendix.

For its estimate, PPC discounted by 15 percent the results from the data reported by the missions because LMI had found that using MACS data tended to lead to results overstated by as much as that amount. Also PPC assumed that *no* ESF cash transfers resulted in procurement of U.S. goods and services. (The General Accounting Office, as well, treated cash transfers this way in one of its recent reports.) However, if ESF cash transfers (which in FY89 represented 47 percent of all A.I.D. disbursements) are excluded from the total, the overall flowback from A.I.D. disbursements is 65 percent.

Clearly, the data can vary widely and do not provide a sufficiently accurate foundation for identifying the country of origin of goods and services purchased with A.I.D. funds, nor the flowback to the United States. Improvements are needed in procurement procedures and in management information systems in order to make accurate procurement origin information available to A.I.D. management.

U.S.A.I.D. Disbursements: Reflow to the U.S. (FY 1989)
 (thousands of US dollars)

REGION	DA		DFA		CIP ESF		CT ESF		PROJECT ESF		SUBTOTAL ESF		GRAND TOTAL	
	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US
AFRICA	193,728	122,410	95,099	39,883	87,583	56,884	42,585	0	57,115	29,095	167,283	85,979	456,990	248,742
ASIA & NE	231,518	110,838			481,630	478,162	1,593,505	0	655,176	410,812	2,730,311	868,974	2,981,829	969,840
LATIN AMERICA	372,124	189,101					419,365	0	137,495	72,195	556,860	72,195	928,884	281,296
TOTAL	817,370	422,377	95,099	39,883	549,213	535,046	2,055,435	0	849,785	512,102	3,454,434	1,047,148	4,387,803	1,507,878
FLOWBACKS		52%		42%		97%		0%		60%		30%		35%

1. Estimates of the percent of U.S. flowback are based on data from A.I.D. overseas missions and A.I.D. Washington Financial Management data.
 2. For certain countries only FACS data was available.

In those cases, the estimate of U.S. flow back was weighted to reflect overall flow back.

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U.S.A.I.D. Disbursements: Reflow to the U.S. (FY 1989)

(thousands of US dollars)

REGION	DA		DFA		CIP		CT		PROJECT		SUBTOTAL		GRAND	
	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US
ASIA & NE														
EGYPT	3,559	2,349			181,417	181,417	115,338		528,254	348,648	825,009	530,065	828,568	532,414
LEBANON	4,748	2,084											4,748	2,084
ISRAEL													1,200,000	
OMAN							1,200,000				1,200,000		1,200,000	
TURKEY									12,358	6,828	12,358	6,828	12,358	6,828
JORDAN							60,000				60,000		60,000	
YEMEN					34,879	31,211			5,180	2,653	39,859	33,864	39,859	33,864
NE REGIONAL	438	192												
NEPAL	13,428	6,564							494	253	494	253	932	445
SRI LANKA	15,995	8,032											13,428	6,564
INDIA	37,181	17,120											15,995	8,032
BANGLADESH	20,917	9,188											37,181	17,120
PAKISTAN	12,743	6,571											20,917	9,188
KAMPUCHEA	8,074	2,228			265,534	265,534	80,000		94,028	48,728	439,562	312,262	452,305	317,833
BURMA									2,494	1,278	2,494	1,278	7,568	3,506
PHILIPPINES	25,448	9,268												
THAILAND	28,492	7,397					125,400		12,368	4,428	137,768	4,428	163,214	13,694
INDONESIA	85,192	40,706					12,767				12,767		39,259	7,397
ASIA REGIONAL	307	169											85,192	40,706
TUNISIA													307	169
FIJI														
TOTAL	251,518	110,866			481,630	478,162	1,593,505		655,178	410,812	2,730,311	888,974	2,981,829	999,840

1. Estimates of the percent of U.S. flowback are based on data from A.I.D. overseas missions and A.I.D. Washington Financial Management data.
2. For certain countries only FACS data was available.
In those cases, the estimate of U.S. flow back was weighted to reflect overall flow back.

U.S.A.I.D. Disbursements: Reflow to the U.S. (FY 1989)
(thousands of US dollars)

REGION	DA		DFA		CIP		CT		PROJECT		SUBTOTAL		GRAND	
	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US
LATIN AMERICA														
BELIZE	7,167	4,626							5,386	4,125	5,386	4,125	12,553	8,750
BOLIVIA	31,980	11,361					19,070		17,625	14,981	36,695	14,981	68,675	28,342
BRAZIL														
CHILE	24												24	
COLUMBIA	1,319	724							564	126	564	126	1,883	850
COSTA RICA	25,968	9,619					105,000		4,539	3,858	109,539	3,858	135,507	13,478
DOMINICAN REP.	30,901	20,305											30,901	20,305
ECUADOR	19,502	12,656					6,500		6,500	5,525	13,000	5,525	32,502	18,181
EL SALVADOR	62,266	21,801					113,533		58,834	20,592	172,367	20,592	234,655	42,393
GUATEMALA	33,329	12,665					69,500		11,024	6,945	80,524	6,945	113,853	19,610
HAITI	484	139											484	139
HONDURAS	37,716	16,972					78,219		21,018	11,350	99,237	11,350	136,953	28,322
MEXICO														
NICARAGUA									2,000	1,024	2,000	1,024	2,000	1,024
PANAMA	345	152											345	152
PERU	2,605	1,144											2,605	1,144
URUGUAY														
JAMAICA	15,048	6,606					22,100		447	229	22,547	229	37,595	6,837
WEST INDIES	42,622	23,417					1,643		7,259	3,271	8,902	3,271	61,824	28,687
GRENADA	1						3,800		101	61	3,901	61	3,902	61
ROCAP	49,787	42,319							183	94	183	94	49,970	42,413
CENTRAL AMERICA REG	4,977	2,166											4,977	2,166
LATIN AMERICA	5,761	2,410							2,015	14	2,015	14	7,776	2,423
TOTAL	372,124	189,101						419,365	137,495	72,195	556,860	72,195	928,984	261,296

1. Estimates of the percent of U.S. flowback are based on data from A.I.D. overseas missions and A.I.D. Washington Financial Management data.
2. For certain countries only FACS data was available.
In those cases, the estimate of U.S. flow back was weighted to reflect overall flow back.

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U.S.A.I.D. Disbursements: Reflow to the U.S. (FY 1989)

(thousands of US dollars)

REGION	DA		DFA		CIP ESF		CT ESF		PROJECT ESF		SUBTOTAL ESF		GRAND TOTAL	
	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US
AFRICA														
COMOROS	655	221	510	179									1,165	400
DJIBOUTI							3,500		573	323	4,073	323	4,073	323
MOROCCO	18,811	12,502							17,060	13,467	17,060	13,467	35,871	25,969
ZAMBIA	1,378	1,107	1,194	1,015	72	72			3,879	3,188	3,951	3,260	6,523	5,382
MALAWI									10,278	5,265	10,278	5,265	10,278	5,265
ZIMBABWE	1,048	855	2,059	133	2,509	2,506	21,048		5,323	1,391	28,880	3,897	31,987	4,885
KENYA	20,933	11,761	3,371	2,493	21,376	21,376			944	442	22,322	21,812	48,626	38,068
NIGERIA	5,790	4,581	2,009	921									7,799	5,501
RED SEA/EAST	4,980	1,153	983	504					3		3		5,948	1,716
REDSOWCA	4,075	1,009	1,042	341									5,117	1,352
SAHEL REG	3,500	1,537	5,707	2,014									9,207	3,551
CAMEROON	22,883	14,913	3,532	2,811					15	13	15	13	28,430	17,737
LESOTHO	7,148	4,417	8,481	6,355									15,629	9,772
BOTSWANA			228	37									228	37
GAMBIA	3,740	2,434	530	307			2,000				2,000		6,270	2,741
SIERRA LEONE	319	108	361	232									680	340
GHANA	2,389	1,805	12,187	104									14,576	1,909
MAURITIUS	108	43	335	205									441	247
SWAZILAND	6,185	5,777	848	832					407	187	407	187	10,440	6,596
SOMALIA					266						266		266	
SUDAN	31,356	26,296	2,433	1,982	11,811	11,811			409	278	12,020	11,889	45,809	40,187
EQ. GUINEA	60	43	15										65	43
CAPE VERDE	1,376	954	128	47									1,504	1,000
MOZAMBIQUE	1,313	536	179		12,970	3,186					12,970	3,186	14,462	3,722
GUINEA - BISSAU	1,181	383	94	30									1,275	413
SAO TOME	213	146	21	2									234	148
ZAIRE	8,061	4,275	7,093	4,896	3,141	3,125			3,604	2,874	6,745	5,999	22,699	14,970
SEYCHELLES	39	30			6,173	6,111					6,173	6,111	6,212	6,141
TUNISIA					4,591	4,545					4,591	4,545	4,591	4,545

1. Estimates of the percent of U.S. flowback are based on data from A.I.D. overseas missions and A.I.D. Washington Financial Management data.

2. For certain countries only FACS data was available.

In those cases, the estimate of U.S. flow back was weighted to reflect overall flow back.

U.S.A.I.D. Disbursements: Reflow to the U.S. (FY 1989)

(thousands of US dollars)

REGION	DA		DFA		CIP ESF		CT ESF		PROJECT ESF		SUBTOTAL ESF		GRAND TOTAL	
	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US	TOTAL	US
LIBERIA	216	95			2,559	2,303					2,559	2,303	2,775	2,398
GUINEA	3,863	2,610	866	321									4,729	2,931
CAR	1,866	1,573	326	72									2,312	1,645
CHAD	4,900	4,030	66	14			4,000		9,113	544	13,113	544	18,079	4,587
BENIN	2,421	1,882	31	9									2,452	1,890
IVORY COAST	879	468	393	250									1,272	718
MAURITANIA	4,685	2,134	689	130									5,374	2,264
NIGER			4,434	1,565			1,905				1,905		6,339	
SENEGAL			67	24			9,148				9,148		9,213	
MADAGASCAR			8,000		2,224	2,002					2,224	2,002	10,224	2,002
MALI			5,401				561				561		5,962	
SOUTHERN AFRICA	12,035	4,654	84	65	89	53			5,507	1,123	5,596	1,178	17,715	5,896
TOGO	4,208	2,548	557	210			405				405		5,170	2,758
BURUNDI	2,183	1,481	217	155									2,400	1,635
AFRICAN REGION	5,623	4,057	20,748	13,020									26,571	17,077
TOTAL	193,728	122,416	95,999	39,935	67,583	56,884	42,565		57,115	29,095	167,263	85,979	456,990	246,742

1. Estimates of the percent of U.S. flowback are based on data from A.I.D. overseas missions and A.I.D. Washington Financial Management data.
 2. For certain countries only FACS data was available.

In those cases, the estimate of U.S. flow back was weighted to reflect overall flow back.

APPENDIX B

COST ESTIMATING METHOD

We assessed the costs of answering the 6 questions posed in Chapters 1 and 2 by using a deterministic model that accounted for the 4 alternative data collection processes described in Chapters 1 and 2 and the 5 supporting automated information systems (AISs) described in Chapter 3. The costs of each collection process and AIS were categorized as either initial costs or annual operating costs.

The Agency for International Development's (A.I.D.'s) Information Resources Management (IRM) office provided us its estimates of the costs of modifying three of A.I.D.'s current AISs: (1) A.I.D. Washington's Financial Accounting Control System (FACS), (2) the Mission Accounting Control System (MACS), and (3) the Contract Information Management System (CIMS).¹ With assistance from MIDAS development personnel, we estimated the costs of modifying the other relevant A.I.D. AIS—Management Information Decision Analysis System (MIDAS). Our cost estimates for the generic microcomputer Buy America Reporting System (BARS) are derived from our development of a prototype BARS using dBASE III.

We estimated the costs of alternative data collection processes by examining requirements for A.I.D. staff augmentation, vendor data collection and reporting, training, supplies, telecommunications and coordination, and reviews and studies. A.I.D. staff augmentation requirements considered data entry, data validation and collection, supervision, internal coordination, and report processing.

The costs of answering each of the 6 questions under alternative data collection processes are displayed in Table B-1. Part a. of Table B-1 displays the costs of answering each question if the data are collected by the project officers as part of their procurement planning (process A in Table 2-3). Parts b. through d. of Table B-1

¹We believe that IRM cost estimates overstate the costs of modifying these systems. The estimated costs indicate that all three AISs use an inefficient hardware and software architecture and that they are already overburdened with requirements. Appendix G discusses this issue further and sets forth the IRM cost estimate for modifying CIMS.

display comparable costs of collection under each of the other data collection processes (processes B through D in Table 2-3).

TABLE B-1
COSTS OF ANSWERING PROCUREMENT ORIGIN QUESTIONS
(\$ millions)

a. Project officer (from procurement planning process)

Question number	Type of cost	Cost category							
		A.I.D. staff	Vendor compliance	Training	Miscellaneous	Automation. R&D	Automation O&M	Surveys and studies	1-Year total
1	a. Initial	0.00	0.15	0.03	0.04	0.03	0.00	0.30	0.55
	b. Annual operating	0.19	0.30	0.03	0.06	0.00	0.03	0.15	0.76
2	a. Initial	0.00	1.20	0.13	0.04	0.13	0.00	0.30	1.79
	b. Annual operating	0.35	0.30	0.05	0.03	0.00	0.13	0.15	1.01
3	a. Initial	0.00	0.60	0.13	0.05	0.19	0.00	0.30	1.26
	b. Annual operating	0.19	0.30	0.05	0.02	0.00	0.19	0.15	0.90
4	a. Initial	0.00	1.20	0.16	0.06	0.25	0.00	0.30	1.97
	b. Annual operating	0.35	0.30	0.08	0.04	0.00	0.25	0.15	1.17
5	a. Initial	0.00	0.60	0.13	0.04	0.13	0.00	0.30	1.19
	b. Annual operating	0.19	0.15	0.05	0.02	0.00	0.13	0.15	0.69
6	a. Initial	0.00	0.30	0.06	0.06	0.05	0.00	0.50	0.97
	b. Annual operating	0.38	0.60	0.05	0.13	0.00	0.05	0.20	1.41

Questions

- 1 What proportion of U.S. bilateral economic assistance is spent on U.S. goods and services, compared to that spent in the recipient country?
- 2 How is the disbursement of U.S. economic assistance divided among procurement from the United States, the recipient country, other lesser developed countries (LDCs), and our major trade competitors?
- 3 How is the value of various A.I.D. funding programs (e.g., Development Assistance (DA) and the Economic Support Fund (ESF)) divided among procurements from various origins?
- 4 How is the value of procurements of various types of goods and services (e.g., commodities and technical assistance) divided among procurements from various origins?
- 5 How is the value of procurements supporting various development functions (e.g., agriculture and health) divided among procurements from various origins?
- 6 What are the particular goods and services not purchased from the United States, what are their origins, and what are the waivers and justifications for not purchasing them from the United States?

TABLE B-1

COSTS OF ANSWERING PROCUREMENT ORIGIN QUESTIONS (Continued)

(\$ millions)

b. Procurement officer (from procurement obligation tracking process)

Question number	Type of cost	Cost category							
		A.I.D. staff	Vendor compliance	Training	Miscellaneous	Automation R&D	Automation O&M	Surveys and studies	1-Year total
1	a. Initial	0.00	0.60	0.13	0.04	0.26	0.00	0.30	1.33
	b. Annual operating	0.30	0.30	0.05	0.02	0.00	0.03	0.15	0.85
2	a. Initial	0.00	1.20	0.13	0.04	0.52	0.00	0.30	2.19
	b. Annual operating	0.35	0.30	0.05	0.73	0.00	0.06	0.15	0.94
3	a. Initial	0.00	0.60	0.13	0.05	0.52	0.00	0.30	1.60
	b. Annual operating	0.19	0.30	0.05	0.02	0.00	0.06	0.15	0.77
4	a. Initial	0.00	1.20	0.16	0.06	0.79	0.00	0.30	2.51
	b. Annual operating	0.35	0.30	0.08	0.04	0.00	0.10	0.15	1.02
5	a. Initial	0.00	0.60	0.13	0.04	0.52	0.00	0.30	1.59
	b. Annual operating	0.19	0.15	0.05	0.02	0.00	0.06	0.15	0.62
6	a. Initial	0.00	1.80	0.24	0.08	1.57	0.00	0.40	4.09
	b. Annual operating	0.38	0.60	0.13	0.06	0.00	0.19	0.40	1.76

TABLE B-1

COSTS OF ANSWERING PROCUREMENT ORIGIN QUESTIONS (Continued)

(\$ millions)

c. Controller (from disbursement tracking process)

Question number	Type of cost	Cost category							
		A.I.D. staff	Vendor compliance	Training	Miscellaneous	Automation R&D	Automation O&M	Surveys and studies	1-Year total
1	a. Initial	0.00	0.60	0.16	0.04	0.13	0.00	0.30	1.23
	b. Annual operating	0.66	0.66	0.08	0.11	0.00	0.06	0.15	1.72
2	a. Initial	0.00	1.20	0.16	0.04	0.27	0.00	0.30	1.97
	b. Annual operating	1.41	1.33	0.08	0.09	0.00	0.13	0.15	3.18
3	a. Initial	0.00	0.60	0.16	0.05	0.27	0.00	0.30	1.38
	b. Annual operating	1.06	0.66	0.08	0.16	0.00	0.13	0.15	2.24
4	a. Initial	0.00	1.20	0.19	0.06	0.40	0.00	0.30	2.15
	b. Annual operating	1.41	1.33	0.11	0.17	0.00	0.19	0.15	3.36
5	a. Initial	0.00	0.60	0.16	0.04	0.27	0.00	0.30	1.37
	b. Annual operating	0.73	0.66	0.08	0.11	0.00	0.13	0.15	1.86
6	a. Initial	0.00	1.80	0.24	0.08	0.80	0.00	0.40	3.32
	b. Annual operating	1.46	1.33	0.16	0.26	0.00	0.38	0.40	3.98

TABLE B-1
COSTS OF ANSWERING PROCUREMENT ORIGIN QUESTIONS (Continued)
(\$ millions)

d. Periodic review

Question number	Type of cost	Cost category							1-Year total
		A.I.D. staff	Vendor compliance	Training	Miscellaneous	Automation R&D	Automation O&M	Surveys and studies	
1	a. Initial	0.00	0.00	0.16	0.04	0.20	0.00	0.30	0.70
	b. Annual operating	0.16	0.08	0.03	0.03	0.00	0.03	0.15	0.48
2	a. Initial	0.00	0.15	0.03	0.04	0.30	0.00	0.30	0.82
	b. Annual operating	0.32	0.30	0.03	0.06	0.00	0.03	0.15	0.90
3	a. Initial	0.00	0.15	0.03	0.04	0.25	0.00	0.50	0.77
	b. Annual operating	0.16	0.30	0.03	0.06	0.00	0.03	0.15	0.74
4	a. Initial	0.00	0.15	0.03	0.04	0.30	0.00	0.30	0.82
	b. Annual operating	0.32	0.30	0.03	0.10	0.00	0.04	0.15	0.94
5	a. Initial	0.00	0.15	0.03	0.06	0.30	0.00	0.50	0.84
	b. Annual operating	0.24	0.30	0.03	0.13	0.00	0.05	0.15	0.87
6	a. Initial	0.00	0.30	0.32	0.06	0.35	0.00	0.40	1.43
	b. Annual operating	0.64	0.30	0.06	0.05	0.00	0.06	0.20	1.31

We also estimated the costs of answering most of the possible combinations of the 6 questions. Table B-2 displays examples of some of these combinations, with ranges of costs representing the lowest- and highest-cost collection processes. For example, the range of development costs for answering questions 1 and 6 (shown at the intersection of row 1.a and the last column) runs from a low of \$1.78 million for data collection process D (periodic review) to a high of \$3.49 million for data collection process C (controller/disbursement tracking process). The range of development costs for answering all questions (shown at the intersection of row 5.a and the last column) runs from a low of \$2.13 million for process D to a high of \$4.36 million for process C.

TABLE B-2

COSTS OF ANSWERING COMBINATIONS OF PROCUREMENT ORIGIN QUESTIONS
(\$ millions)

Row number	Combinations of questions					
	1 only	1 + 2	1 + 3	1 + 4	1 + 5	1 + 6
1. a.	0.70-1.23	0.96-2.09	0.84-1.50	0.96-2.28	0.95-1.49	1.78-3.49
b.	0.48-1.72	0.99-3.18	0.78-2.24	1.03-3.36	0.94-1.86	1.55-4.16
adding question 2 as a third question to the combinations of questions above:						
2. a.			1.05-2.24	1.11-2.43	1.06-2.24	1.85-3.84
b.			1.07-3.41	1.15-3.69	1.09-3.37	1.61-4.85
adding question 3 as a fourth question to the combinations of questions above:						
3. a.				1.14-2.47	1.14-2.39	1.94-3.99
b.				1.17-3.74	1.16-3.59	1.69-5.07
adding question 4 as a fifth question to the combinations of questions above:						
4. a.					1.24-2.62	2.03-4.22
b.					1.27-3.93	1.79-5.41
adding question 5 as a sixth question to the combinations of questions above:						
5. a.						2.13-4.36
b.						1.89-5.59

Note: a = initial costs of establishing data collection processes; b = annual operating costs of data collection system.

The costs for answering combinations of questions are not simple additions of the costs in Table B-1 for answering each question. Establishing the overhead for collecting data to answer question 1 alone, for example, provides some of the capability to answer other questions, particularly those requiring little additional effort (such as questions 3 and 5).

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APPENDIX C

MEASURING THE DISTRIBUTION OF BENEFITS TO SUPPLIERS

The extent to which a country benefits from the purchase of goods and services with Agency for International Development (A.I.D.) funds derives from its commercial sales, employment, technology R&D, and tax yield associated with that purchase.

Measuring the benefits of commercial sales, employment, technology R&D, and tax yield requires data on the values of transactions made in various industrial sectors and locations of the benefiting country. Commercial sales can indicate relative market shares and the competitiveness of a country's industries. Employment in impacted industries can indicate productivity trends and is of direct interest to elected officials from impacted areas. Profits from the sale of technical products allow a country to maintain or increase its market share and its technological lead with further funding of its own R&D activities.

Economic assistance funds have been used increasingly to procure services rather than commodities as A.I.D. programs have shifted from capital infrastructure development and balance of payments relief to health, human resource development, and promotion of the private sector. A.I.D.'s current rules define the origin of services purchased with A.I.D. funds as the country in which the service provider has its principal place of business. This definition of origin does seem to identify the country that benefits from technology sales and increased tax yields. Corporate profits are the measurable indicators of technological benefits and tax yields resulting from the sale of services.

On the other hand, a large proportion of the remaining benefits of payments for services accrues to the area where those payments are spent by the services company and its employees. In the case of foreign economic assistance, some significant share of payments for services is spent in the aid-receiving countries. Economies of other countries can benefit from payments for their countries' consultants, training, and logistics support. The benefits of payments for services, then, are diffused between the country of the services company and the aid-receiving country, at least.

The benefits of commodity sales accrue substantially to the country of origin of the commodities as defined by A.I.D.¹ Technological R&D and tax yields are enhanced by commodity sales in a manner similar to the way in which they are enhanced by the sale of services. But employment impacts tend to be localized in a single place of manufacture,² unlike those of services, and the payments to the factors of production flow for the most part into the country of origin.

Thus, the benefits of commodity sales are logically associated with the origin, defined as the place of manufacture. The benefits of services sales, on the other hand, are more diffused and can be substantially misrepresented by using the A.I.D. definition for the origin of services. Our assessment conducted in 1990 of flowback for expenditures at seven A.I.D. missions indicated that U.S. flowback rates for technical assistance could be as low as 60 percent, compared to the 100 percent ascribed by A.I.D.'s rules that consider only the services company's principal place of business. Thus, an overall flowback rate calculated using the current definition of services origin could substantially overstate the true rate. But it can be difficult and expensive to measure the economic impact of payments for services accurately. Attributing profits, overhead, and general and administrative expense to the major place of business is logical but would require a substantial increase in reporting and data collection complexity. Distributing personnel payments to various origins by reference to nationalities, locations, and spending propensities would further increase that complexity.

For years, A.I.D. did employ the results of a sample survey of such considerations in estimating flowback. New surveys could be done, or parametric estimates could be derived from data on the distribution of personal income, at a small fraction of the cost of collecting detailed data for each transaction within the transaction-based collection options discussed in Chapter 3 of this report. Since payments for services can account for about one-half of funds for operating expenses, Development Assistance, Development Fund for Africa, and Economic Support Fund

¹The origin of commodities is the principal place of manufacture or final assembly of components. The A.I.D. definition of origin further uses a determination of the componentry content of the commodity that identifies the United States as the origin only if at least 50 percent of the componentry, by value, is from the United States.

²The globalization of manufacturing will diffuse employment benefits, but this diffusion is the result of factors not related to the economic assistance itself, whereas the diffusion of employment benefits of services is directly related to the nature of the economic assistance being rendered and the location where it is rendered.

projects, the total value of affected funds is approximately \$1,670 million, or about 30 percent of all A.I.D. funds being considered. Sampling and parametric estimation could introduce an error of 25 percent – resulting in a possible error of 9.5 percent in calculating the overall A.I.D. flowback rate. We believe that this is an acceptable error, particularly in view of the additional costs of collecting actual data on services contracts – as long as the question being asked is not question 2 or 6, as presented at the beginning of Chapters 1 and 2 of this report.

Answering questions (such as question 2 or question 6) that seek to identify the impact of services payments on countries other than the United States and the recipient country would require substantially more sampling and parametric estimation, but still far less than the cost of collecting actual data.

Treating payments for a commodity as accruing entirely to the country that provides more than 50 percent of the componentry as measured by cost compared to the lowest export price is also imprecise. The 50-percent componentry rule permits identifying goods as U.S. origin or not U.S. origin, but in the latter case may not identify a single country as providing 50 percent of the componentry. Ascribing origin to other countries may require using a “plurality” rule rather than a “majority” rule with respect to componentry. Without some such rule, to measure the actual accrual of economic benefits from payment for a commodity could involve costly research into corporate financial and manufacturing structures.

APPENDIX D
PROCUREMENT ORIGIN REPORTS

PURCHASE-VALUE CROSS-TABULATION REPORTS

The nine reports described in this appendix are intended to answer questions 1 through 6, set forth at the beginning of Chapters 1 and 2 of this report. The entries in the cross-tabulation cells could be either dollars or percentages. If the Agency for International Development (A.I.D.) is not interested in having all of the questions answered, then fewer and less complex reports would suffice. For example, the report needed to answer the basic question requires only two percentage entries or three procurement value entries.

1. Program and Purchase Origin. This report (Table D-1) should provide percentages and values of assistance spent in combinations of assistance program categories and countries of origin. Such cross-tabulation reports should be available to describe all assistance, and assistance broken down by countries or regions, input elements, output functions, and time periods.

2. Output Function and Purchase Origin. This report (Table D-2) should provide percentages and values of assistance spent in combinations of assistance functional categories and countries of origin. Such cross-tabulation reports should be available to describe all assistance, and assistance broken down by countries or regions, program categories, input elements, and time periods.

3. Input Element and Purchase Origin. This report (Table D-3) should provide percentages and values of assistance spent in combinations of assistance input elements and countries of origin. Such cross-tabulation reports should be available to describe all assistance, and assistance broken down by countries or regions, program categories, output functions, and time periods.

4. Input Element and Output Function. This report (Table D-4) should provide percentages and values of assistance spent in combinations of assistance input elements and output functions. Such cross-tabulation reports should be

TABLE D-1

PROGRAM AND PURCHASE ORIGIN CROSS-TABULATION REPORT

Program	Purchase origin								
	United States	Recipient country	Other LDCs	EC	Japan	Canada	NICs	Other	Total
Development Assistance (DA)									
Development Fund for Africa (DFA)									
Economic Support Fund (ESF)									
ESF Commodity Import Program (CIP)									
ESF cash transfer									
ESF project assistance									
Operating expenses (OE)									
Total									

Note: LDCs = lesser developed countries; EC = European Community countries; NICs = newly industrialized countries.

available to describe all assistance, and assistance broken down by countries or regions, program categories, countries of origin, and time periods.

5. **Input Element and Program.** This report (Table D-5) should provide percentages and values of assistance spent in combinations of assistance input elements and program categories. Such cross-tabulation reports should be available to describe all assistance, and assistance broken down by countries or regions, output functions, countries of origin, and time periods.

6. **Output Function and Program.** This report (Table D-6) should provide percentages and values of assistance spent in combinations of assistance output functions and program categories. Such cross-tabulation reports should be available to describe all assistance, and assistance, broken down by countries or regions, input elements, countries of origin, and time periods.

7. **Country or Region and Program.** This report (Table D-7) should provide percentages and values of assistance spent in combinations of countries or regions

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TABLE D-2

OUTPUT FUNCTION AND PURCHASE ORIGIN CROSS-TABULATION REPORT

Output function	Purchase origin								
	United States	Recipient country	Other LDCs	EC	Japan	Canada	NICs	Other	Total
Agriculture and rural development									
Health and population control									
Education and human resources development									
Private sector development									
Public capital development									
Total									

Note: LDCs = lesser developed countries; EC = European Community countries; NICs = newly industrialized countries.

TABLE D-3

INPUT ELEMENT AND PURCHASE ORIGIN CROSS-TABULATION REPORT

Input element	Purchase origin								
	United States	Recipient country	Other LDCs	EC	Japan	Canada	NICs	Other	Total
Commodities									
Construction									
Technical assistance									
Training									
Project operations support									
Total									

Note: LDCs = lesser developed countries; EC = European Community countries; NICs = newly industrialized countries.

and programs. Such cross-tabulation reports should be available to describe all assistance, and assistance broken down by input elements, output functions,

TABLE D-4

INPUT ELEMENT AND OUTPUT FUNCTION CROSS-TABULATION REPORT

Input element	Output function					
	Agriculture and rural development	Health and population control	Education and human resources development	Private sector development	Public capital development	Total
Commodities						
Construction						
Technical assistance						
Training						
Project operations support						
Total						

TABLE D-5

INPUT ELEMENT AND PROGRAM CROSS-TABULATION REPORT

Program	Input element					
	Commodities	Construction	Technical assistance	Training	Project operations support	Total
Development Assistance (DA)						
Development Fund for Africa (DFA)						
Economic Support Fund (ESF) ESF Commodity Import Program (CIP) ESF cash transfer ESF project assistance						
Operating expenses (OE)						
Total						

countries of origin, and time periods. The table shows the format for a report by regions.

TABLE D-6

OUTPUT FUNCTION AND PROGRAM CROSS-TABULATION REPORT

Output function	Program							
	DA	DFA	ESF total	ESF CIP	ESF cash transfer	ESF project assistance	OE	Total
Agriculture and rural development								
Health and population control								
Education and human resources development								
Private sector development								
Public capital development								
Total								

Note: DA = Development Assistance; DFA = Development Fund for Africa; ESF = Economic Support Fund; CIP = Commodity Import Program; OE = Operating expense.

TABLE D-7

REGION AND PROGRAM CROSS-TABULATION REPORT

Region	Program							
	DA	DFA	ESF Total	ESF CIP	ESF cash transfer	ESF project assistance	OE	Total
Africa								
Asia and Near East								
Latin America								
Total								

Note: DA = Development Assistance; DFA = Development Fund for Africa; ESF = Economic Support Fund; CIP = Commodity Import Program; OE = Operating expense.

WAIVER AND OTHER REPORTS

Waiver reports should provide information on the justifications for procuring goods and services from non-U.S. origins and sources. Justifications for such purchases are those listed in A.I.D. Handbook 1. An example of a waiver report is

shown in Table D-8. Other reports would identify, by a standard industrial trade classification scheme, the items purchased under waiver from non-U.S. origins or sources. Table D-9 portrays a representative format for one of these reports.

TABLE D-8
WAIVER REPORT

Waiver justification (A.I.D. Handbook 1B, Ch. 5B4a.)	Waiver data			
	Number of waivers	Percent of total number	Value of waived purchases	Percent of total value
1. Emergency requirement for which non-A.I.D. funds are not available				
2. Commodity not available				
3. 50 percent price premium for U.S. origin (project assistance)				
4. Acute shortage in United States (non-project assistance)				
5. Persuasive political considerations				
6. Procurement in cooperating country would best promote objectives of foreign assistance program				
7. Other circumstances critical to project success				
Total				

TABLE D-9

REPORT ON NON-U.S. ORIGIN GOODS OR SERVICES
(\$ thousands)

FY _____

Region: _____

Report as of: _____

SIC classification by program fund	Purchase origin							
	Recipient country	Other LDCs	EC	Japan	Canada	NICs	Other	Total
DA SIC C15 Gen bldg Contr C16 Constr other C17 Spec trade Contr D25 Furniture & fix D27 Print & Pub								
.....								
ESF SIC D32 Stone, clay & glass D38 Instruments								
.....								
Total								

Note: SIC = Standard Industrial Classification; LDCs = lesser developed countries; EC = European Community countries; NICs = newly industrialized countries; DA = Development Assistance; ESF = Economic Support Fund.

APPENDIX E

ELECTRONIC DATA SUBMISSION GUIDELINES

This appendix describes how missions might use personal computer (PC) technology to submit procurement origin data to Agency for International Development (A.I.D.) Washington in an electronic format. A.I.D. may need to collect the data from stand-alone, PC-based applications at each mission until standard information systems such as the Mission Accounting Control System (MACS) can be modified to capture them. In the interim, electronic submissions will allow A.I.D. to analyze procurement origin information much faster than would be the case if the missions provided the data on paper. We assume that A.I.D. Washington needs the data elements described in Chapter 2 of this report and that PCs are available at the missions and in A.I.D. Washington to collect the data. The guidelines below represent examples of the specifications that need to be given to missions if they are to submit data electronically.

GENERAL SUBMISSION REQUIREMENTS

Agency for International Development missions should periodically submit certain procurement origin data to A.I.D. Washington electronically in accordance with the following requirements:

- Every quarter, each mission will send procurement origin data on a PC-DOS or MS-DOS formatted diskette to the Director of Procurement in Washington.
- The diskette must be double-sided/double-density or high-density quality.
- The diskette must arrive no later than 30 days following the end of the quarter being reported:
 - ▶ 1st quarter submission 30 January
 - ▶ 2nd quarter submission 30 April
 - ▶ 3rd quarter submission 30 July
 - ▶ 4th quarter submission 30 October.

- The first submission should arrive by 30 October 1991.
- The external diskette label must give the name of the submitting mission and the names of the files contained on the diskette.
- The data files must be created using one of the alternatives described below.

HOW TO CREATE SUBMISSION FILES

Missions can create the required data files with the A.I.D. Buy American Reporting System (BARS), Lotus 1-2-3™, or other PC applications capable of writing American Standard Code for Information Interchange (ASCII) text files. The alternatives are as follows.

Using BARS

The BARS is a stand-alone PC application for collecting and reporting procurement origin data. This application automatically generates the required data files when the "Write Data Files" option is selected from the "Special" menu. This operation will transfer several dBASE-format files to the submission diskette. No further processing is required. Refer to the BARS User Guide for detailed instructions.

Using Lotus 1-2-3

Besides BARS, missions can also use Lotus 1-2-3 version 1A or 2.01 to create the required data files. Lotus users must submit two worksheets: one for disbursement summaries and one for waivers. Both worksheets are described below.

DISBURSEMENT SUMMARY WORKSHEET

The disbursement summary worksheet (see Figure E-1 for specifications) contains a dollar amount for each unique combination of the following data elements shown in Table 2-1 and Figure 2-1 of this report: project number, program, function, purchase element, and origin. For example, a project that purchased both technical assistance and commodities would require at least two rows, one for each of these purchase elements. Each amount in this worksheet appears on a separate row and represents the total value of disbursements made during the reporting period for a particular combination of data elements. Every project, grant, and cash transfer must have a project number. The data must begin in row 4; column headings are

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optional. The disbursement worksheet columns are described in Figure E-1. Figure E-2 shows an excerpt from a sample disbursement summary worksheet.

Column	Width	Type	Format	Contents
1	9	Label	999-9999	Project number
2	9	Label	AAA	Assistance program code
3	9	Label	A	Assistance function code
4	9	Number	99	Purchase element code
5	9	Label	999	Origin country code
6	12	Number	\$99,999,999	Disbursement amount

Notes:

Format codes: A = alphanumeric character, 9 = numeric character

Assistance program codes: DA = Development Assistance; DFA = Development Fund for Africa; CIP = Commodity Import Program; CT = cash transfer, ESF = Economic Support Fund/project assistance.

Assistance function codes: A = agriculture and rural development; H = health, nutrition, and child survival; R = public sector infrastructure; P = population planning; S = private sector development; T = education and human resources development.

Purchase element codes: 1 = technical assistance; 2 = commodities; 3 = construction; 4 = training; 5 = project operations support.

FIG. E-1. DISBURSEMENT SUMMARY WORKSHEET SPECIFICATIONS

WAIVER SUMMARY WORKSHEET

The waiver summary worksheet contains a dollar amount for each unique combination of the following data elements shown in Table 2-1 and Figure 2-1 of this report: project number, waiver control number, reason, origin, and source. For example, a project that had more than one waiver would require at least one row per waiver. Each amount in this worksheet appears on a separate row and represents the total value of waivers granted during the reporting period for a particular combination of data elements. The data must begin in row 4; column headings are optional. The waiver worksheet columns are described in Figure E-3. Figure E-4 shows an excerpt from a sample waiver summary worksheet.

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Project	Program	Function	Purchase element	Origin	Amount (\$000)
519-0001	DA	S	2	000	80,451
519-0001	DA	S	4	000	1,000
519-0001	DA	S	5	000	34,110
519-0001	DA	S	5	519	4,577
519-0009	CIP	A	2	000	450,000
519-0201	DA	R	1	000	90,000
519-0201	DA	R	1	519	73,308
519-0201	DA	R	1	488	39,602
519-9902	CT	R	5	519	200,000

Notes:

The disbursement worksheet file name must adhere to the conventions listed below. In these naming templates, **ggg** is the three-position geographic code of the mission submitting the data; **yy** is the two-digit fiscal year identifier; and **q** is a one-digit quarter designator: 1 = first quarter; 2 = second quarter; 3 = third quarter; 4 = fourth quarter.

- **gggDyyQq.WKS** – Lotus version 1A
- **gggDyyQq.WK1** – Lotus version 2.01.

These are sample disbursement worksheet file names:

- **519D92Q2.WK1** – A disbursement summary worksheet created with Lotus version 2.01 containing second quarter FY92 information from El Salvador.
- **492D97Q1.WKS** – A disbursement summary worksheet created with Lotus version 1A containing first quarter FY97 information from the Philippines.

FIG. E-2. SAMPLE DISBURSEMENT SUMMARY WORKSHEET EXCERPT

USING OTHER APPLICATIONS

Missions can create the required data files using any PC application that writes ASCII-format text files. Two comma-separated value files are required: one for disbursement summaries and one for waivers. Both files are described below.

Disbursement Summary File

The disbursement summary file contains a dollar amount for each unique combination of the following data elements: project number, program, function, purchase element, and origin. For example, a project that purchased both technical assistance and commodities would require at least two lines, one for each of these purchase elements. Each amount appears on a separate line and represents the total value of disbursements made during the reporting period for a particular

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Column	Width	Type	Format	Contents
1	9	Label	999-9999	Project number
2	11	Label	999-99-999	Waiver control number
3	9	Label	A	Reason code
4	9	Label	999	Origin country code
5	9	Label	999	Source country code
6	12	Number	\$99,999,999	Waiver amount

Notes:

Format codes: A = alphanumeric character; 9 = numeric character

Reason codes: A = acute U.S. shortage; C = commodity not available; E = emergency requirement; F = foreign assistance program; L = lowest available cost; P = political considerations, X = other circumstances.

FIG. E-3. WAIVER SUMMARY WORKSHEET SPECIFICATIONS

Project	Waiver	Reason	Origin	Source	Amount (\$000)
263-0001	263-91-001	L	263	263	50,000
263-0001	263-91-003	L	263	263	1,000
263-0010	263-91-001	C	263	263	11,600
263-0011	263-91-004	L	263	263	7,900
263-0012	263-91-006	L	109	109	800,000
263-0025	263-91-005	C	488	488	12,000
263-0026	263-91-012	C	263	263	66,000
263-0500	263-91-009	L	263	263	73,910
263-0929	263-91-008	X	488	489	100,000

Notes: The waiver worksheet file names must adhere to the conventions listed below. In these naming templates, **ggg** is the three-position geographic code of the mission submitting the data, **yy** is the two-digit fiscal year identifier, and **q** is a one-digit quarter designator: 1 = first quarter; 2 = second quarter; 3 = third quarter; 4 = fourth quarter.

- **gggWyyQq.WKS** – Lotus version 1A
- **gggWyyQq.WK1** – Lotus version 2.01.

These are sample waiver summary worksheet names:

- **263W93Q4.WKS** – A waiver summary worksheet created with Lotus version 1A containing fourth quarter FY93 information from Egypt.
- **596W95Q1.WK1** – A waiver summary worksheet created with Lotus version 2.01 containing first quarter FY95 information from the Regional Office for Central America and Panama (ROCAP).

FIG. E-4. SAMPLE WAIVER SUMMARY WORKSHEET EXCERPT

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combination of data elements. Every project, grant, and cash transfer must have a project number. The disbursement file columns are described in Figure E-5. Each column is variable-length and delimited by commas. Figure E-6 shows an excerpt from a sample disbursement summary file.

Column	Type	Format	Contents
1	Label	999-9999	Project number
2	Label	AAA	Assistance program code
3	Label	A	Assistance function code
4	Number	9	Purchase element code
5	Label	999	Origin country code
6	Number	99999999	Disbursement amount

Notes:

Format codes: A = alphanumeric character, 9 = numeric character.

Assistance program codes: DA = Development Assistance; DFA = Development Fund for Africa; CIP = Commodity Import Program; CT = cash transfer; ESF = Economic Support Fund/project assistance.

Assistance function codes: A = agriculture and rural development; H = health, nutrition, and child survival; R = public sector infrastructure; P = population planning; S = private sector development, T = education and human resources development.

Purchase element codes: 1 = technical assistance; 2 = commodities; 3 = construction; 4 = training; 5 = project operations support.

FIG. E-5. DISBURSEMENT SUMMARY FILE SPECIFICATIONS

Waiver Summary File

The waiver summary file contains a dollar amount for each unique combination of the following data elements: project number, waiver control number, reason, origin, and source. For example, a project that had more than one waiver would require at least one line per waiver. Each amount in this worksheet appears on a separate line and represents the total value of waivers granted during the reporting period for a particular combination of data elements. The waiver file columns are described in Figure E-7. Each column is variable-length and delimited by commas. Figure E-8 shows an excerpt from a sample waiver summary file.

```

519-0001, DA, S, 2, 000, 80451
519-0001, DA, S, 4, 000, 1000
519-0001, DA, S, 5, 000, 34110
519-0001, DA, S, 5, 519, 4577
519-0009, CIP, A, 2, 000, 450000
519-0201, DA, R, 1, 000, 90000
519-0201, DA, R, 1, 519, 73308
519-0201, DA, R, 1, 488, 39602
519-9902, CT, R, 5, 519, 200000

```

Notes:

The disbursement summary file names must adhere to the following convention: **gggDyyQq.CSV**. In this template, **ggg** is the three-position geographic code of the mission submitting the data; **yy** is the two-digit fiscal year identifier; and **q** is a one-digit quarter designator: 1 = first quarter; 2 = second quarter; 3 = third quarter; 4 = fourth quarter. The following are sample disbursement summary file names:

- 519D92Q2.CSV -A disbursement summary file that contains second quarter FY92 data from El Salvador.
- 263D93Q4.CSV -A disbursement summary file that contains fourth quarter FY93 data from Egypt.

FIG. E-6. SAMPLE DISBURSEMENT SUMMARY FILE EXCERPT

Column	Type	Format	Contents
1	Label	999-9999	Project number
2	Label	999-99-999	Waiver control number
3	Label	A	Reason code
4	Label	999	Origin country code
5	Label	999	Source country code
6	Number	99999999	Waiver amount

Notes:

Format codes: A = alphanumeric character; 9 = numeric character.

Reason codes: A = acute U.S. shortage; C = commodity not available; E = emergency requirement; F = foreign assistance program; L = lowest available cost; P = political considerations; X = other circumstances

FIG. E-7. WAIVER SUMMARY FILE SPECIFICATIONS

263-0001, 263-91-001, L, 263, 263, 50000
263-0001, 263-91-003, L, 263, 263, 1000
263-0010, 263-91-001, C, 263, 263, 11600
263-0011, 263-91-004, L, 263, 263, 7900
263-0012, 263-91-006, L, 109, 109, 800000
263-0025, 263-91-005, C, 488, 488, 12000
263-0026, 263-91-012, C, 263, 263, 66000
263-0500, 263-91-009, L, 263, 263, 73910
263-0929, 263-91-008, X, 488, 488, 100000

Notes:

Reason codes: A = acute U.S. shortage, C = commodity not available, E = emergency requirement, F = foreign assistance program, L = lowest available cost, P = political considerations, X = other circumstances.

The waiver summary file names must adhere to the following convention: **gggWyyQq.CSV**. In this template, **ggg** is the three-position geographic code of the mission submitting the data, **yy** is the two-digit fiscal year identifier, and **q** is a one-digit quarter designator: 1 = first quarter; 2 = second quarter; 3 = third quarter; 4 = fourth quarter. The following are sample waiver summary file names:

- 492W93Q4.CSV – A waiver summary file that contains fourth quarter FY93 information from the Philippines.
- 596W95Q1.CSV – A waiver summary file that contains first quarter FY95 information from the Regional Office for Central America and Panama (ROCAP).

FIG. E-8. SAMPLE WAIVER SUMMARY FILE EXCERPT

APPENDIX F

IMPACT OF PROCUREMENT FROM DEBT REPAYMENT

The following are techniques for assessing the procurement impact of using Agency for International Development funds for repayments on debt. They address repayments on debt owed to (1) the U.S. Government, (2) private U.S. banks, (3) other governments or non-U.S. commercial banks, and (4) international financial institutions. We assume fully employed economies with no excess bank reserves.

If the debt being repaid is owed to the U.S. Government, we assume that the Government will spend all of the repayment on U.S. goods and services.

If the debt being repaid is owed to a U.S. bank, then the bank's ability to loan is increased, and it can make an additional loan of an equal amount. A reasonable assumption is that the new loan will be spent on goods and services from U.S. domestic sources and from foreign sources in the same proportion as the marginal dollar of U.S. gross national product is allocated between domestic and foreign goods and services. For the proportion of U.S. goods and services being purchased from this new loan, the appropriate parameter to use is the complement of the marginal propensity to import.

If the debt being repaid is owed to another country or to its commercial bank, we assume that the repayment will be spent in accordance with that country's marginal propensities to spend on domestic and imported goods and services.

If the debt being repaid is owed to an international financial institution, we assume that the repayment will be loaned again in accordance with the normal distribution pattern for that institution. The procurement resulting from the new loans can be estimated by using the marginal propensity parameters method suggested above or by using loan expenditure data gathered by the international financial institution. For example, approximately 7 percent of World Bank project loans are spent on U.S. goods and services, and 15 and 9 percent on goods and services from India and France, respectively.

APPENDIX G
AGENCY FOR INTERNATIONAL DEVELOPMENT
INFORMATION SYSTEMS

MACS AND MACSTRAX

The Mission Accounting Control System (MACS) is the primary information system at Agency for International Development (A.I.D.) missions. It tracks accounting activities to support the mission controller's office and to feed the Financial Accounting Control System (FACS) at A.I.D. Washington. MACSTRAX is the MACS disbursement voucher tracking system. While MACS is used in every mission, MACSTRAX has been installed in only a few. Since MACSTRAX accesses a subset of the MACS data, MACSTRAX could capture procurement origin information during execution only. The most accurate collection combination would require vendors to submit source and origin data with each voucher. If MACSTRAX were modified to accept these data, the controller's office could enter the data along with other information it normally enters from each voucher.

Each voucher includes an invoice and supporting documentation. The controller's office logs the voucher into MACSTRAX and sends it to the project or executive officer for review. Project officers review project-related disbursements, while the executive officer reviews operating expense and other payments. After it is reviewed, the voucher is returned to the controller's office. Voucher examiners and accountants assign funding codes, use MACSTRAX to check for funds availability, and mark the voucher as "pending final approval." The controller then certifies the voucher and authorizes payment. The missions we visited in El Salvador and Guatemala each use MACSTRAX to process roughly 10,000 vouchers per year. Any new duties for the voucher examiners, however small, would require staff augmentation.

The foregoing process could be changed to capture procurement origin data from a standard form submitted by the vendor. This option would require new data entry fields on the MACSTRAX input screens and 1 or 2 hours of examiner training per mission. By using the Federal outlay code field to distinguish between U.S. and

non-U.S. recipients, MACSTRAX could also capture a certain level of source or origin information now, without modification. This technique would support answers to question 1 of the six questions posed in Chapters 1 and 2. Another way to use MACSTRAX for procurement origin data collection with little or no modification is to change the accounting code assignment process. The mission controller could set up different account control numbers for different sources, origins, and purchase elements. This option would still require changes in the voucher approval process and additional training.

To simplify the capture and processing of procurement origin data using MACS or MACSTRAX, A.I.D. could establish the purchase elements (commodities, construction, technical assistance, training, and project operations support) defined in Chapter 2 as the standard project budget elements. This procedure would be easier to initiate with new projects rather than changing budget elements for existing projects. Budget elements are a current area of dispute between the A.I.D. controller's office and project officers. The controller prefers fewer budget elements, but project officers prefer to be able to pick from many elements to choose ones closely related to the activities that constitute their projects. In lieu of mandating standard budget elements, A.I.D. could use the first digit of the budget element to indicate the budget element's relation to a standardized purchase element. For example, 10 through 19 could be reserved for commodities, 20 through 29 could represent construction, and so on.

Both MACS and MACSTRAX are Common Business Oriented Language (COBOL) applications written for the Wang Virtual System (VS). MACS is a very complex system, and changes are costly. MACSTRAX is modular and still being debugged. Using either system rather than another Wang or stand-alone application would integrate procurement origin data collection into the "official" mission information system. This approach would lessen the number of different systems users have to interact with and make it easier to reconcile totals.

Costs of Modifying MACS and FACS

The A.I.D. Information Resources Management (IRM) office and Controller staff estimated the costs of modifying MACS and FACS to handle the data storage and processing required to answer all 6 of the questions posed in Chapters 1 and 2. The following paragraphs summarize those cost estimates.

MACS

Of the information required for procurement origin reporting, 95 to 99 percent does not exist in MACS. The cost of creating a new subsystem for the necessary data was estimated by the IRM office to be as much as \$500,000. The estimate does not include costs of user training, data entry, data recovery following hardware and electrical failures, further modifications, and ad hoc data questions from missions. The annual costs of operating and maintaining the new data in MACS were also estimated to be as much as \$500,000.

FACS

The FACS project manager estimated that FACS modification would cost \$96,000 – \$144,000 and that the additional annual operating costs would be about \$133,750. The IRM office estimated \$500,000 for each cost category.

We used the higher cost estimates for FACS in our calculation of total costs, although we believe they – like the estimates for MACS – somewhat overstate the true costs. Whatever the case may be, it is clear that both MACS and FACS need to be re-architected. We believe that the integration of procurement origin data requirements into appropriately re-architected MACS and FACS would cost substantially less than the IRM office estimates for integrating these requirements now into overburdened systems.

CIMS

The Contract Information Management System (CIMS) collects information about direct and recipient country contracts. It does not now track information about operating expenses, cash transfers, or the Commodity Import Program. CIMS is notified only when a contract is awarded or modified, limiting it to capturing source and origin estimates at commitment time. Those estimates would reflect the total of U.S. and non-U.S. goods and services to be purchased over the entire life of the contract. Unless adjusted during contract performance, those estimates might become less relevant over time. Another problem arises when a contract is canceled. CIMS does not record cancellations, a fact that could cause further inaccuracies over time.

Like MACS and MACSTRAX, CIMS is a software application written for the Wang VS. Currently, A.I.D. plans to install CIMS at fewer than 20 missions. Because of Wang VS memory limitations, CIMS developers have expressed doubt that any new features could be added. However, if CIMS is to be able to capture the data elements discussed in Chapter 2 and Appendix D, A.I.D. will have to add a substantial number of fields to the entry screens.

The Chief of the Procurement Support Division prepared a cost estimate, with the assistance of the IRM office, for modifying CIMS to answer all of the 6 questions posed in Chapters 1 and 2. The memorandum describing this estimate, which is at the attachment to this appendix, indicates that the R&D costs of modifying CIMS would be in excess of \$2 million and that the annual operations and maintenance (O&M) costs would be at least \$600,000. We believe that modifying CIMS should be a long-run task in which the integration of procurement origin data into an improved CIMS architecture would be substantially less expensive than costs cited above.

MIDAS

The Management Information Decision Analysis System (MIDAS) is a prototype project management application for project officers. Although its funding is in doubt, MIDAS remains a candidate for collecting procurement origin data from project officers. MIDAS would accept projections during project planning, commitment, execution, or after the fact. The most accurate procedure would require project officers to update procurement data throughout the project life cycle, assisted when possible by vendors.

The original MIDAS design included a comprehensive set of functions: financial monitoring, project planning, task tracking, portfolio management, and expenditure tracking. All functions except expenditure tracking have been implemented. The financial monitoring function links MIDAS with MACS to give the project officer a summary-level view of project plans and their execution. The project planning function helps the mission design a project according to specific constraints and generates the required documentation. The task tracking function helps project officers define activities, assign resources, and monitor activity status. The portfolio management function provides roll-up reports across projects, programs, and the entire mission. If implemented, the expenditure tracking function

would give project officers access to disbursement-level accounting data. This function will be required if MIDAS is to be used to account for source and origin data.

Even if developers added the expenditure tracking function, MIDAS would still need further enhancements to track and report source and origin information. The expenditure tracking function would conceivably allow a project officer to review the individual disbursements related to his or her project. MIDAS developers would have to add a procurement origin data entry screen to the disbursement review display. This screen would allow project officers to enter and review the source, origin, and purchase element values described in Figure 2-1 of Chapter 2. MIDAS would also have to roll up the procurement origin allocations across projects and produce the related reports. Adding these features to MIDAS would require a sizable investment for a system that appears to lack users. The Cairo Mission, however, is exploring acquisition of MIDAS for its project officers.

MIDAS executes partly on the Wang VS and partly on a Wang personal computer (PC). The Wang VS module requires more resources than most missions have. MIDAS, like CIMS, uses a relational data base management system called PACE. Since MACS and MACSTRAX data are not relational, the developers decided to give MIDAS its own data files. MIDAS initializes itself by making a copy of most of the MACS data files and loading them into relational tables. This process yields two copies of the same accounting data and, to keep them consistent, MIDAS reconciles its files with MACS every night. According to individuals in the Guatemalan Mission, the reconciliation routines strained the already overburdened computer resources. Because most missions could not support MIDAS, it could be used for procurement origin data collection only with substantial upgrading of mission hardware and software. However, project officers do need a standard application for project management. If MIDAS or a different project management system is fully developed, it should be considered for capturing source and origin information from project officers.

MISSION-UNIQUE SYSTEMS

Besides MACS, MACSTRAX, CIMS, and MIDAS, some missions have developed their own information systems – principally on IBM-compatible PCs. These systems could be enhanced to capture procurement origin data, but the costs of such enhancements are difficult to estimate. If, in the short run, A.I.D. left

procurement origin reporting to each mission, these systems would be likely candidates. We call these generic PC solutions the Buy American Reporting System, or BARS.

Because it is likely that A.I.D. will need an interim data collection system until one or more of its mainstream AISs is appropriately architected, we developed a prototype PC BARS system to assess the cost of modifying or supplementing mission-unique systems and to establish a baseline PC architecture. Guidelines for the electronic data submissions for an initial PC BARS system are in Appendix E.

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON D C 20523

May 2, 1991

MEMORANDUM

TO: PPC/PDPR/RP (LMI), Mr. Carl H. Groth, Jr.
THRU: MS/OP, Mr. Terrence J. McMahon *TJM*
FROM: MS/OP/PS, Barry Knouf *Barry S. Knouf*
SUBJECT: Buy American Reporting Requirements - CIMS
Modifications

Pursuant to your request, MS/OP and the CIMS Development Team have reviewed the LMI developed Buy American data collection and reporting requirements. We have prepared a rough order of magnitude estimate for the modification of the Contract Information Management System (CIMS) and for the additional operating cost of the system, were the requirements to be incorporated into CIMS.

Before we explain our estimate, some general comments are in order.

- 1) As we understand the Congressional request, it is that AID should know where its program money was spent. If CIMS is used, the information will be in the form of projected expenditures by the contractors not the distribution of actual expenditures, e.g., disbursements. We question whether this would satisfy the Congressional requirement.
- 2) It is important to recognize that if CIMS were required to capture Buy American data on direct contracts, grants, etc. and host country contracts there is a significant body of additional data that would not be included. The CIMS requirements for the collection of data on host country contracts is limited to contracts in excess of \$100,000 only. CIMS would also not capture information on cash transfers (CT), commodity import program (CIP) funds and those portions of the funding in project agreements that

are not expended through either direct or host country contracts. Consequently, it would be necessary to combine the CIMS generated Buy American data with the non-CIMS (CT, CIP, etc.) data in another system. It would seem to be a more efficient and, potentially, cost effective approach to establish a single stand alone system to collect and process all agency Buy American data.

- 3) As we have mentioned previously, any reporting requirement that is to be placed on organizations and/or individuals outside the government must be approved by OMB. The process for obtaining OMB approval entails an estimate of the annual cost to the "public" of completing the proposed reporting forms. Since we estimate that 1-155 copies of the form would have to be completed (depending on the number of projects and the types of funding involved) for each of the 6000+ contract/grant, etc. actions per year, we believe it will be difficult to obtain the necessary OMB approval. It is recommended that serious consideration be given to capturing the requested information at a lesser level of detail which would simplify the process substantially.

Estimate: The rough order of magnitude estimate for the incorporation of the Buy American requirements into the CIMS system would be in excess of \$2 million and the additional on-going data validation/data entry cost could be \$600,000 or more per year.

The system modification estimate is based on the following reasoning. The required changes would require the addition of substantially more Wang VS disk space, which is costly. In addition, this increased disk space would significantly affect system performance, causing further system slowdown. Performance slowdowns on the system are already a major problem during busy periods of the year. The development team has devoted considerable effort trying to ameliorate this problem. Our conclusion is that if CIMS were to be expanded to accept the Buy American data it would have to be moved from the present Wang VS to the agency's IBM mainframe computer. Such a move would necessitate the reprogramming of the entire system at a cost approximating the original development cost of the system, e.g., \$2 million plus. Further, since the Wang VS systems in the missions are smaller than the AID/W system the expanded CIMS could not be accommodated on the mission equipment. Therefore, the expanded CIMS could only be run in AID/W and the missions would have to submit the Buy American data sheets to AID/W for entry into the system. The missions would still operate "current CIMS" on their Wang VS equipment which would complicate the transfer of data to AID/W.

The additional system operation cost estimate is based on the following reasoning. Currently about 2500 CIMS records are entered into the system from data sheets by the MS/OP staff.

Two contractor data entry people are used for this task. One current CIMS data form contains approximately 100 data elements and therefore one current data sheet equals two of the Buy American data sheets (in number of data elements). If the average number of Buy American data sheets per action averages six sheets (No. of years x No. of projects X No. of types of funds) and there are 6000 actions per year worldwide, a total of 36,000 data sheets would have to be entered centrally. This volume equals 14.4 times the amount of data currently being entered centrally. A data entry contractor employee currently costs \$45,000 per year and there are two people performing this task for total current cost of \$90,000. Thus, the additional cost for the entry of Buy American data into a modified CIMS would be 7.2 X 90,000, or more than \$600,000 per year.

Recommendation: Based on the cost of the system modifications, the increased cost of system operation, and the disruption that would result from the inclusion of the Buy American data in CIMS, we strongly recommend that CIMS not be selected to satisfy the Congressional requirements.

cc: PPC/PDPR/RP, B. Hannon
MS/OP/CIMS, C. Eldridge

NOTE: The above cost analysis which has been prepared by Mr. Knauf provides cost information which suggests that utilization of CIMS for Buy American purposes would be impractical. I would like to add that CIMS is a highly complex system which is currently undergoing major programming changes to make the system responsive to contract management requirements. The existing system places extraordinary demands for data input on the users who are contracting officers. It has taken four years of design and programming effort to bring CIMS to its current state. It would be wholly unrealistic to assume that CIMS could be reprogrammed within the next two or three years to provide useful Buy American information. In short, CIMS does not provide an alternative for the timely collection of Buy American data to meet A.I.D. and Congressional requirements.



Terrence J. McMahon

APPENDIX H

THE POLICY AND REGULATORY FRAMEWORK

SCOPE

The current procurement and domestic preference policies of the Agency for International Development (A.I.D.) derive from two sections of the Foreign Assistance Act of 1961 – section 633(a) and section 604(a) – and determinations made by the President under them.

AGENCY FOR INTERNATIONAL DEVELOPMENT PROCUREMENT POLICY ORIGINS

Section 633(a) establishes the framework for A.I.D.'s procurement and financial management requirements, derivative internal policies and procedures, and business and financial management practices. This section provides:

Whenever the President determines it to be in furtherance of the purposes of this Act, the functions authorized under this Act may be performed without regard to such provisions of law (other than the Renegotiation Act of 1951, as amended) regulating the making, performance, amendment, or modification of contracts and the expenditure of funds of the United States Government as the President may specify.

In a series of Executive orders issued under section 633(a), the President has determined that the purposes of the Act will be furthered by performing functions authorized under it without regard to the following provisions of law regulating the making, performance, amendment, or modification of contracts and the expenditure of funds:

- The requirement to ship exports financed by the U.S. Government in vessels registered under the laws of the United States
- Limitations on advances made under contracts for articles and services for the U.S. Government to no more than the value of services provided and articles delivered
- Restrictions and conditions regarding the making of advance, partial, progress, or other payments under contracts for property or services; payments in excess of the unpaid contract price; and requirements for

adequate security and paramount statutory liens on property and accounts arising therefrom

- The requirement to publicize solicitations for contracts for goods and services
- Mandatory notices to bidders regarding bid openings and the rights of bidders to be present in person or by attorney, and the making of a record at bid openings
- Preference for articles, materials, and supplies manufactured, mined, or produced in the United States as provided by the Buy American Act of 1933
- Limitation to a term of 1 year for contracts for stationery or other office supplies
- The requirement to include contractual provisions permitting the Comptroller General of the United States for a period of 3 years after final payment to have access to and the right to examine the directly pertinent books, documents, papers, and records of contractors or subcontractors
- Requirements that officers and employees traveling on official business travel and transport their personal effects on ships registered under the laws of the United States.

Despite authorization to disregard such requirements and limitations, departures from procurement and financial management practices otherwise imposed by law have been implemented only sparingly and with considerable discretion by A.I.D. Few such departures are used for procurement transactions undertaken by A.I.D. Washington for goods and services procured for domestic use.

ORIGINS OF BUY AMERICAN POLICIES AT AGENCY FOR INTERNATIONAL DEVELOPMENT

Because the Buy American Act of 1933 by its express terms does "not apply with respect to articles, materials, or supplies for use outside the United States," and because functions authorized by the Foreign Assistance Act have been determined by the President to be exempt from Buy American Act provisions, the origin of the current A.I.D. policy giving preference to domestic goods and services must lie elsewhere. It is found in section 604(a) of the Foreign Assistance Act, which reads:

(a) Use of funds outside United States. Funds made available under this Act may be used for procurement outside the United States only if the President determines that such procurement will not result in adverse effects upon the economy of the United States or the industrial mobilization base, with special reference to any areas of labor surplus or to the net

position of the United States in its balance of payments with the rest of the world, which outweigh the economic or other advantages to the United States of less costly procurement outside the United States, and only if the price of any commodity procured in bulk is lower than the market price prevailing in the United States at the time of procurement, adjusted for differences in the cost of transportation to destination, quality, and terms of payment.

Regarding non-military programs, two substantive determinations have expressly been made by the President under this section of the Act. In a memorandum of October 18, 1961, President Kennedy determined that using funds made available under the Act for procurement from sources outside the United States would not result in adverse effects on the U.S. economy (with special reference to labor surplus areas or to the net U.S. position in its balance of payments with the rest of the world) or on the industrial mobilization base that outweigh the economic and other advantages of less costly procurement outside the United States.

In making this determination, the President reasoned that procurement from lesser developed countries would advance their economic development, contributing to the objectives of the assistance program and shortening dependency on it. So clear and sweeping a determination would almost seem to end the matter insofar as section 604(a) of the Act is concerned. However, in keeping with the spirit of the legislation, the President did direct that funds made available under the Act for non-military programs not be used for procurement from industrialized countries that could be competitive with the United States: Australia, Austria, Belgium, Canada, Denmark, France, Germany, Hong Kong, Italy, Japan, Luxembourg, Monaco, Netherlands, New Zealand, Norway, South Africa, Sweden, Switzerland, and the United Kingdom. This original list of countries was amended by President Kennedy in a second determination made on August 1, 1962, adding Spain to the list and deleting Hong Kong.

The President also empowered the Secretary of State to authorize "specific exceptions" to the prohibition on procurement from the excluded countries, upon certification by the Secretary that "exclusion would seriously impede attainment of U.S. foreign policy objectives and the objectives of the foreign assistance program." The President further directed that "procurement outside the United States shall be from Free World sources, in any case."

Envisioning the need for future policy review under the determination, the President directed the Secretary of State to consult with the Secretary of the

Treasury and other appropriate officials to recommend modifications to procurement policies in the event of changed domestic or foreign conditions. In the event procurement outside the United States would threaten to affect adversely the industrial mobilization base or the economy of a labor surplus area, the Secretary of State was directed to consult with the Secretary of Commerce and other appropriate officials to recommend pertinent action.

More recently, Reorganization Plan No. 2 of 1979, which established the United States International Development Cooperation Agency (USIDCA), expressly reserved to the President the function of making determinations under section 604(a) of the Act. It also amended the President's memorandum of October 18, 1961, providing alternatively for the Director of USIDCA (who is also the Administrator of A.I.D.) to authorize specific exceptions to the prohibition on procurement from the excluded countries and to recommend modifications in policies for procurement and other appropriate action — powers and duties previously established by the President for the Secretary of State only. A "saving" provision of the reorganization plan makes clear that the 1962 amending determination (adding Spain to and deleting Hong Kong from the list of excluded countries) remains in force.

Thus, except for some limited statutory restrictions on certain items, the requirement to procure U.S. goods and services in carrying out any of the "functions authorized" under the foreign assistance program appears to rest flexibly if not ambiguously on the Presidential determinations of 1961 and 1962 and on Reorganization Plan No. 2 of 1979.

Given the simplicity of the requirements as set forth in the Act and the Presidential determinations, we had expected to find a simple and straightforward system for complying with them. We found, instead, a set of complex regulations and procedures, apparently arising from the practice of applying the broad authority available only sparingly and from trying to serve several competing interests simultaneously.

GLOSSARY

A.I.D.	=	Agency for International Development
AIDAR	=	A.I.D. Acquisition Regulation
AID/W	=	A.I.D. Washington
AIS	=	automated information system
ASCII	=	American Standard Code for Information Interchange
AWACS	=	A.I.D. Washington Accounting Control System
BARS	=	Buy American Reporting System
CFR	=	Code of Federal Regulations
CIMS	=	Contract Information Management System
CIP	=	Commodity Import Program
DA	=	Development Assistance
DB	=	data base
DFA	=	Development Fund for Africa
EC	=	European Community
ESF	=	Economic Support Fund
FAA	=	Foreign Assistance Act
FACS	=	Financial Accounting Control System
FAR	=	Federal Acquisition Regulation
FPDS	=	Federal Procurement Data System
IRM	=	Information Resources Management
LDCs	=	lesser developed countries
MACS	=	Mission Accounting Control System
MIDAS	=	Management Information Decision Analysis System

NICs	=	newly industrialized countries
O&M	=	operations and maintenance
OE	=	operating expense
OMB	=	Office of Management and Budget
PC	=	personal computer
POSIX	=	Portable Operating System for UNIX
PPC	=	Program and Policy Coordination
RC	=	recipient country
R&D	=	research and development
SIC	=	Standard Industrial Classification
SITC	=	Standard International Trade Classification
USIDCA	=	United States International Development Cooperation Agency
VS	=	Wang Virtual System

REPORT DOCUMENTATION PAGE

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