AUG 8 1994

Memorandum

Date

From for June Gibbs Brown
Inspector General

Subject

Financial Audit of the National Institutes of Health's Service and Supply Fund and Management Fund for Fiscal Year 1993 (A-17-93-00037)

To

Philip R. Lee, M.D.
Assistant Secretary for Health

The attached audit report prepared by Price Waterhouse (PW), Certified Public Accountants, under contract with the Office of Inspector General, presents the results of its audit of the National Institutes of Health's (NIH) Service and Supply Fund and Management Fund (Funds) financial statements for the fiscal year (FY) ended September 30, 1993. The PW auditors could not express an opinion on the Funds' financial statements because: (1) they were unable to satisfy themselves regarding the reported account balances for inventory, property and equipment, accounts payable, leased computer equipment and the budget clearing account, as well as associated revenue and expenditures, and (2) the necessary documentation supporting expenditures in both NIH funds, and data supporting revenue in the Management Fund, were not available for examination. Based on our review of PW's work and report, we concur with their disclaimers of opinion.

Consistent with the prior year's audit findings, the PW auditors found significant material internal control weaknesses, and noncompliance with the Department of Health and Human Services' (Department) accounting manual that had not been corrected, Underlying these weaknesses was the lack of an adequate filing system and procedures, which are needed to fully reconcile account balances and resolve suspense items. The most significant material weaknesses were those in the following areas, which, in the aggregate, contributed to the disclaimers of opinion on the NIH financial statements.

- **Recoilciliations between the perpetual inventory system (known as the Inventory Management System, (IMS)) and the general ledger are inadequate.**

  The account balances for both NIH Funds were not in agreement with the general ledger at any time during the year. Adjustments to correct the

differences were frequently recorded. However, the underlying reasons for the adjustments were not being tracked and reviewed. The NIH management asserted that the differences between the IMS and general ledger mainly arise when an incorrect object class is used. However, since management had not analyzed the effect of the differences on the inventory balances, PW was unable to substantiate those account balances. As in prior years, PW recommended that differences be fully investigated and reconciliations be resolved and documented.

- **Numerous differences were found between physical counts and perpetual inventory records.**

  Although the IMS is updated daily to reflect receipts and issuances of inventory, differences between the perpetual records and inventory quantities continue to exist. Differences must be researched to determine their causes. Since resolving these discrepancies is a time-consuming process, PW recommended that management streamline this process by (1) adding additional computer fields to key documents for easier identification of entries and (2) set new dollar limits for determining the levels of review and approval for adjustment.

- **Accounting for property and equipment transactions between the general ledger and Property Management Information System (PMIS) needs improvement.**

  Physical inventory counts of property and equipment were conducted in 1991 and 1993. As a result of these inventories, the information on these assets was entered into the subsidiary ledger or the PMIS. Subsequently, the general ledger was adjusted to agree with the subsidiary ledger. Although much of this information remains unsupported, NIH management believes that the PMIS properly reflects all property information.

  However, based on tests by PW, the management controls are still insufficient to ensure the accuracy of the property and equipment balances. These weaknesses include (1) not maintaining supporting documentation and (2) not assigning correct estimated useful lives. These, in turn, distort the accuracy of the property and equipment balances as well as related accumulated depreciation and depreciation expense, The PW recommended, among other things, enhancements to the PMIS to include additional information that would afford management the opportunity to analyze trends and resolve problem areas.

- **The balance in the PMIS does not agree to the general ledger balance, and new differences arise each month.**

  Currently, the reconciliation process is not adequate to identify the causes of these differences in order that valid adjustments be posted to both systems. Instead, each month, the general ledger is adjusted to agree to the PMIS. The differences between the systems are primarily caused by ineffective automated interfaces between the systems, erroneous processing of acquisitions and the absence of an edit check within the accounting system to prevent acquisitions below the $5,000 capitalization threshold from being entered into the property and equipment asset accounts. While management has identified the primary cause of imbalances, it should continue to improve its efforts to eliminate those processing flaws, thereby enabling routine reconciliations to be accomplished.

- **Accounts payable for both Funds include a significant number of items that have been outstanding for a considerable amount of time, and as a result may not be valid payables.**

  This may have resulted because (1) the payables were established in error, (2) the items were never completely received or matched to the invoice, or (3) the payables were paid but not properly reflected as such. Nevertheless, NIH management needs to fully analyze its aging schedule of accounts payable to ensure that payables are attributed to actual liabilities. Management has taken steps to purge the older outstanding payables and is working on a formal aging review policy including any changes to its systems to prevent the continued accumulation of invalid payables.

The attachment to PW's internal control report discusses these weaknesses in detail and presents recornmendations for improvements.

With regard to compliance with laws and regulation, PW noted that the Department's 1993 Federal Managers' Financial Integrity Act (FMFIA) report, dated December 31, 1993, disclosed two uncorrected material weaknesses that were applicable to the Management Fund and Service and Supply Fund. These include: (1) lack of accountability over personal property and (2) inadequate design within the procurement system in order to allow NIH to obtain small purchases at the best price. In addition, PW identified a weakness regarding the need for NIH management to analyze its accounts payable to ensure they are attributed to actual liabilities. Based on PW's analysis, this meets the Office of Management and Budget's criteria for a material internal control weakness and

should be reported to the President and Congress under the requirements of the FMFIA. We concur with PW's assessment.

The Funds' management has informed us that its response to this report will be forthcoming. It will include a discussion of the Funds' progress towards correcting previously reported problems, any impediments to prompt resolution of the problems, and the expected time frames for resolving the problems. We would appreciate receiving the Funds' response within 60 days from the date of this report.

Since this is the third consecutive year that the Funds' financial statements have received disclaimers of opinion, we question the prudence of performing another audit. Instead, we recommend that management concentrate on correcting the deficiencies that remain uncorrected. Assuming that such corrective actions would be made for the Funds in question, we would resume our audits for FY 1995. In addition, we recommend that the available funds that would have been used for the 1994 Chief Financial Officers (CFO) Act audit be earmarked for CFO work of other NIH funds requiring CFO audits for 1994.

We would like to express our appreciation of the efforts taken by NIH officials in producing the Funds' financial reports. If you wish to discuss this report, please call me or have your staff contact Dennis J. Duquette, Assistant Inspector General for Accounting and Financial Management Audits, at (202) 619-1122.

Attachment

cc:
Kenneth S. Apfel, Chief Financial Officer
Department of Health and Human Services

Anthony L. Itteilag, Chief Financial Officer
Public Health Service

Francine V. Little, Acting Chief Financial Officer
National Institutes of Health

Department of Health and Human Services

OFFICE OF INSPECTOR GENERAL

FINANCIAL AUDIT OF THE NATIONAL INSTITUTES OF HEALTH'S SERVICE AND SUPPLY FUND AND MANAGEMENT FUND FOR FISCAL YEAR 1993

JUNE GIBBS BROWN
Inspector General

AUGUST 1994
A-17-93-00037

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Report of Independent Accountants on the National Institutes of Health's Service and Supply Fund

Office of Government Services
1801 K Street, N W
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Price Waterhouse

Report of Independent Accountants

To the Inspector General and
the Assistant Secretary for Health,
Department of Health and Human Services

We were engaged to audit, in accordance with American Institute of Certified Public Accountants and Government Auditing Standards, and Office of Management and Budget Bulletin 93-06, Audit Requirements for Federal Financial Statements, the Statement of Financial Position of the Service and Supply Fund of the National Institutes of Health (NIH) and the related Statements of Operations and Changes in Net Position, of Cash Flows, and of Budget and Actual Expenses, as of and for the years ended September 30, 1993 and 1992. These financial statements are the responsibility of management of the Service and Supply Fund.

Counts of inventory were taken during the months of September 1993 and October 1993. Proper support for adjustments made as a result of these counts was not maintained. As a result, we were not able to apply adequate auditing procedures to satisfy ourselves regarding inventory balances, stated in the financial statements at approximately $10.0 million, as of September 30, 1993. We did not observe the counts of inventory as of September 30, 1992, since that date was prior to our appointment as independent accountants for the Service and Supply Fund. We were unable to satisfy ourselves regarding the inventory balances stated in the financial statements, at approximately $10.1 million as of September 30, 1992, by means of other auditing procedures.

The Service and Supply Fund does not have a process for reconciling detailed property and equipment records to the general ledger. In addition, certain prior year records and supporting data were not available for examination. Therefore, we were not able to apply adequate auditing procedures to satisfy ourselves regarding the net property and equipment balance stated at approximately $16.4 million as of September 30, 1993 and $15.5 million as of September 30, 1992, as well as the related depreciation expense for the year ended September 30, 1993 of approximately $7.8 million and for the year ended September 30, 1992 of approximately $2.8 million.

Accounts payable, recorded in the Statement of Financial Position at approximately $30.2 million as of September 30, 1993, contains approximately $1.7 million in amounts over one year old, including approximately $.7 million over two years old. The 1992 amount of $15.7 million has been restated to reflect the elimination of $9.8 million in invalid accounts

payable. Thc Service and Supply Fund did not have sufficient records and data available to substantiate these amounts.

Data supporting expenditures was not available for examination. Therefore. we were not able to apply adequate auditing procedures to satisfy ourselves regarding expenses of the Service and Supply Fund.

Certain activities of the Service and Supply Fund are supported through the use of computer equipment made available to the Service and Supply Fund under the terms of a lease agreement. Because the financial tenns of the lease agreement for assets costing in excess of $52 million were not made available to us, we were not able to apply adequate auditing procedures to satisfy ourselves regarding the capital lease liability balance at September 30, 1993 and 1992. Additionally, commitments pertaining to NIH's operating leases have not been adequately disclosed in the notes to the financial statements as required by FAS 13.

The Service and Supply Fund did not fully reconcile its records of cash disbursement/receipt activity with Treasury's records as of September 30, 1993. Specifically, NIH's budget clearing account contained unreconciled amounts totaling a net credit of approximately $1.1 million at September 30, 1993 and $9.0 million at September 30, 1992. Because the budget clearing account includes amounts aggregated for a number of financial reporting units, including the Service and Supply Fund, the extent to which these unreconciied amounts impact the Service and Supply Fund's financial records, including cash and accounts payable, cannot be reasonably determined.

Because of the matters discussed in the above paragraphs, the scope of our work was not sufficient to enable us to express, and we do not express, an opinion on the financial statements referred to in the first paragraph.

We have reviewed the financial information presented in management's "Discussion and Analysis." This information is presented by management for the purpose of additional analysis. Such information has not been audited by us and, accordingly, we do not express an opinion on it.

Price Waterhouse

June 17, 1994
Washington, D.C.

Report of Independent Accountants on the National Institutes of Health's Management Fund

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Price Waterhouse

Report of Independent Accountants

To the Inspector General and
the Assistant Secretary for Health,
Department of Health and Human Services

We were engaged to audit, in accordance with American Institute of Certified Public Accountants and Government Auditing Standards, and Office of Management and Budget Bulletin 93-06, Audit Requirements for Federal Financial Statements, the Statement of Financial Position of the Management Fund of the National Institutes of Health (NIH) and the related Statements of Operations and Changes in Net Position, of Cash Flows, and of Budget and Actual Expenses, as of and for the years ended September 30, 1993 and 1992. These financial statements are the responsibility of management of the Management Fund.

The Management Fund does not have a process for reconciling detailed property and equipment records to the general ledger. In addition, certain records and supporting data were not available for examination. Therefore, we were not able to apply adequate auditing procedures to satisfy ourselves regarding the net property and equipment balances stated at approximately $44.1 million at September 30, 1993 and $44.8 million at September 30, 1992, as well as the related depreciation expense for the year ended September 30, 1993 of approximately $6.9 million and $6.4 million for the year ended September 30, 1992.

Accounts payable recorded in the Statement of Financial Position at $36.6 million as of September 30, 1993 contains approximately $3.7 million in amounts over one year old, including approximately $.5 million over two years old. The 1992 amount of $23.2 million has been restated to reflect the elimination of $7.9 million in invalid accounts payable. The Management Fund does not have sufficient records and data available to substantiate these amounts.

We did not observe the counts of inventory as of September 30, 1992, since that date was prior to our appointment as independent accounts for the Management Fund, and we were unable to satisfy ourselves regarding the inventory quantities by means of other auditing procedures. Inventory amounts as of September 30, 1992 of $3.9 million, enter into the determination of the shortage of revenues and financing sources over total expenses and of cash flows for the year ended September 30, 1993.

Data supporting expenditures and related revenues of the Management Fund was not available for examination. Therefore, we were not able to apply adequate auditing procedures to satisfy ourselves regarding revenues or expenses of the Management Fund.

The Management Fund did not fully reconcile its records of cash disbursement/receipt activity with Treasury's records as of September 30, 1993. Specifically, NIH's budget clearing account contained unreconciled amounts totaling a net credit of approximately $1.1 million at September 30, 1993 and $9.0 million at September 30, 1992. Because the budget clearing account includes amounts aggregated for a number of financial reporting units including the Management Fund, the extent to which these unreconciled amounts impact ,h-Management Fund's financial records, including cash and accounts payable, cannot be reasonably determined.

Because of the matters discussed in the above paragraphs, the scope of our work was not sufficient to enable us to express, and we do not express, an opinion on these financial statements.

We have reviewed the financial information presented in management's "Discussion and Analysis." This information is presented by management for the purpose of additional analysis. Such information has not been audited by us and, accordingly, we do not express an opinion on it.

Price Waterhouse

June 17, 1994
Washington, D.C.

Report of Independent Accountants on Internal Controls and Compliance of the National Institutes of Health's Management Fund and Service and Supply Fund

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Price Waterhouse

Report of Independent Accountants on Internal Controls and Compliance

To the Inspector General and
the Assistant Secretary for Health,
Department of Health and Human Services

We were engaged to audit, in accordance with American Institute of Certified Public Accountants and Government Auditing standards, and Office of Management and Budget (OMB) Bulletin 93-06, Audit Requirements for Federal Financial Statements, the financial statements of the National Institutes of Health's (NIH) Management Fund and Service and Supply Fund (the Funds) as of and for the year ended September 30, 1993, and have issued our reports thereon dated June 17, 1994. Our reports indicated that the scope of our work was not sufficient to enable us to express, and we did not express, an opinion on those financial statements.

Both of the Funds are operated by one management team under the same internal controls structure and procedures for compliance. Consequently, our report on internal control structure and compliance with laws and regulations applies to both Funds.

INTERNAL ACCOUNTING CONTROLS

In planning and performing our examinations of the financial statements of the Funds for the year ended September 30, 1993, we considered their internal control structure in order to determine our auditing procedures for the purpose of expressing an opinion on the financial statements and not to provide assurance on the internal control structure.

Management of the Funds is responsible for establishing and maintaining an internal control structure. In fulfilling this responsibility, estimates and judgements by management are required to assess the expected benefits and related costs of internal control structure policies and procedures. The objectives of an internal control structure are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition and that transactions are executed in accordance with management's authorization and recorded properly to permit the preparation of financial statements in accordance with generally accepted accounting principles. Because of inherent limitations in any internal control structure, errors or irregularities may nevertheless occur and not be detected. Also, projection of any evaluation of the structure to future periods is subject to the risk that procedures may become inadequate because of changes in conditions or that the effectiveness of the design and operation of policies and procedures may deteriorate.

For the purpose of this report, we have classified the significant internal control policies and procedures in the following categories:

- Financial reporting
- Budget/Fund Control
- Cash/Treasury
- Revenue and accounts receivable
- Expenses, purchases, and accounts payable
- Payroll and related liabilities
- Inventory
- Property and Equipment
- Electronic data processing security
- Administrative controls over compliance with laws and regulations

For all of the internal control structure categories listed above, we obtained an understanding of the design of relevant policies and procedures and whether they have been placed in operation, assessed control risk, and performed tests of the internal control structure.

We noted certain matters involving the internal control structure and its operation that we consider to be reportable conditions under standards established by the American Institute of Certified Public Accountants and OMB Bulletin 93-06. Reportable conditions involve matters coming to our attention relating to significant deficiencies in the design or operation of the internal control structure that, in our judgement, could adversely affect the organization's ability to ensure that: (1) transactions are properly recorded and accounted for to permit the preparation of reliable financial statements and to maintain accountability over assets; (2) funds, property and other assets are safeguarded against loss from unauthorized use or disposition; and, (3) obligations and costs are in compliance with applicable laws and regulations that could have a direct and material effect on the financial statements. These matters are summarized below. Each of the matters is discussed in detail in the attachment to this report.

1. Reconciliations between the Inventory Management System and the general ledger need to be improved. Furthermore, there needs to be a more careful rationalization and coordination of entries affecting the perpetual inventory records and the general ledger.

2. Accounting for property and equipment transactions, as well as reconciliations between the general ledger and the Property Management Information System, need improvement. In addition, subsidiary ledgers should be maintained to support all property and equipment general ledger balances.

3. Retention of supporting documentation needs to be improved.

4. An aging of accounts payable should be prepared and analyzed to ensure that payables are attributed to valid liabilities.

5. Complete and timely clearing and cash account reconciliations should be performed.

6. Data integrity, access and change controls do not adequately ensure complete and accurate processing of data and security over information and assets.

A material weakness is a condition in which the design or operation of one or more of the internal control structure elements does not reduce to a relatively low level the risk that errors or irregularities in amounts that would be material in relation to the financial statements or material to a performance measure or aggregation of related performance measures may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. Matters 1 through 4 above are considered material weaknesses.

Our consideration of the internal control structure would not necessarily disclose all matters in the internal control structure that might be reportable conditions and, accordingly, would not necessarily disclose all reportable conditions that are also considered to be material weaknesses as defined above.

The objective of the internal control structure for performance measures, according to OMB Bulletin 93-06, is to provide management with reasonable, but not absolute, assurance that data supporting reported performance measures are properly recorded and accounted for to permit the preparation of reliable and complete performance measures. The Bulletin's requirements specify that the auditor obtain an understanding of the control structure and assess risk related to management's assertions that the data is complete and relates to events that have occurred. Based on our understanding of the control structure, we found that management of the Funds has established policies and procedures over the reporting of performance measures that reduce the aforementioned risk to a moderate level.

COMPLIANCE WITH LAWS AND REGULATIONS

Compliance with laws and regulations applicable to the Funds is the responsibility of the Funds' management. As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we performed tests of the Funds' compliance with certain provisions of laws and regulations. However, the objective of our examination of the financial statements was not to provide an opinion on overall compliance with such provisions. Accordingly, we do not express such an opinion.

Material instances of noncompliance are failures to follow requirements, or violations of prohibitions, contained in statutes, regulations, contracts, or grants that cause us to conclude that the aggregation of the misstatements resulting from those failures or violations is material to the financial statements.

In its departmental 1993 Federal Managers' Financial Integrity Act (FMFIA) report dated December 1993, the Department of Health and Human Services (HHS) reported two uncorrected material weaknesses that were applicable to the Management Fund and Service and Supply Fund. The material weaknesses not considered corrected as of December 1993 were as follows:

- Lack of accountability over personal property

- Inadequate design within the procurement system in order to allow NIH to obtain small purchases at the best possible price.

In addition to the material weaknesses HHS reported in the 1993 FMFIA report, we identified a significant control weakness that we believe meets the OMB criteria for material weakness and should be reported as a material weakness under FMFIA. This material weakness is addressed in this report under the caption "Internal Accounting Controls" and is as follows:

- An aging of accounts payable should be prepared and analyzed to ensure that payables are attributed to actual liabilities.

The attachment to this report discusses the significant internal control weaknesses and instances of noncompliance in detail and provides specific recommendations on actions that management of the Funds should consider. In resolving these weaknesses and implementing recommendations, management should look for actual results instead of planned or considered actions before a particular weakness is considered corrected. Except as described above, the results of our tests of compliance indicate that, with respect to the items tested, the Funds complied, in all material respects, with the provisions referred to in this report,

and with respect to items not tested, nothing came to our attention that caused us to believe that the Funds had not complied, in all material respects, with those provisions.

We noted certain other matters involving the internal control structure and its operation and certain immaterial instances of noncompliance that we reported to management of the Funds in a separate letter.

This report is intended solely for the use of the Office of Inspector General and the managements of NIH and HHS. This restriction is not intended to limit the distribution of the report, when it becomes a matter of public record.

Price Waterhouse

June 17, 1994
Washington, D.C.

INTRODUCTION

In performing our fiscal year 1993 audits of the Management Fund and the Service and Supply Fund we emphasized management's progress towards resolving the internal control weaknesses that had been reported in our previous report on the internal control structure dated June 14, 1993. The format of this attachment 1) describes the prior year condition and the related recommendation, 2) shows management's corrective action plan for each of the reportable conditions, 3) documents our observations on management's action plan, and 4) addresses the status of management's stated actions as of September 30, 1993.

Several general observations need to be made in order to place the status of the Funds' internal control structure in perspective. These are as follows:

- Because the previous internal control report was issued June 14, 1993, management had less than four months to plan corrective actions and demonstrate improvement in the period covered by this audit. It is also important to note, however, that some of the conditions noted within this report and the June 14, 1993 report were included in even earlier reports and the agency's own management review reports.

- A common issue that exacerbates many of the weaknesses and delays the corrective action plan is the lack of adequate and modem filing systems and procedures. This is described in more detail later in this report, but a common theme throughout this report is the effect of these weaknesses on the controls structure, specifically the lack of supporting documentation which results in a lack of adequate detail to fully reconcile accounts and resolve suspense items.

- Another common reason cited for the cause of weaknesses and the delay in resolving the weaknesses is the shortage of staff. Although staff shortages can frequently be overcome by improving systems and procedures so that they are less staff-intensive, it is important that NIH management gauge the impact of staff cuts on the effectiveness of financial management.

A weakness in the internal control structure indicates an area where management does not have sufficient or timely information to ensure that the assets are safeguarded and program objectives are being met. During the audit, we noted certain matters involving the internal control structure and its operation that we consider to be material weaknesses, in addition to being reportable conditions. These matters are summarized below. Note: Matters 1 through 4 are considered material weaknesses. Each of the matters is discussed in greater detail later in the report.

1. ***Reconciliations between the Inventory Management System and the general ledger need to be improved. Furthermore, there needs to be a more careful rationalization and coordination of entries affecting the perpetual inventory records and the general ledger.***

   During testing, we noted that at no time during fiscal year 1993 were the Management and Service and Supply Funds' perpetual inventory balances in agreement with the general ledger. Comparisons of the general ledger balance with the IMS were performed by management for the Management Fund beginning June 1993 and for the entire year for the Service and Supply Fund. The general ledger was adjusted to agree to the IMS without complete reconciliations being performed.

2. ***Accounting for property and equipment transactions, as well as reconciliations between the general ledger and Property Management Information System, need improvement. In addition, subsidiary ledgers should be maintained to support all property and equipment general ledger balances.***

   Based on audit procedures performed on the property and equipment acquisition transactions which occurred during fiscal year 1993, we believe that management controls are inadequate to ensure the accuracy of the property and equipment balances, as well as related accumulated depreciation and depreciation expense. For example, we judgmentally selected a sample of acquisitions with a total dollar value of approximately $922,000 and $2.3 million for the Service and Supply Fund and Management Fund, respectively. Of our sample, management was unable to provide supporting documentation for approximately 18 percent and 83 percent for the Service and Supply Fund and Management Fund, respectively.

   Furthermore, we noted several property and equipment items with incorrect estimated useful lives assigned. Management could not adequately explain the rationale as to the assignment of useful life estimates for particular items.

3. ***Retention of supporting documentation needs to be improved.***

To gain assurance that 1) amounts disbursed for goods and services were requested, authorized, received, and supported by invoices and 2) that competitive bidding procedures were properly performed, we judgmentally selected 38 disbursement transactions for testing from a combination of both the Management Fund and the Service and Supply Fund. For approximately 58 percent of these disbursements, management could not provide adequate supporting documentation.

In addition, to test the September 30, 1993 accounts payable balance, we judgmentally selected 35 significant payable balances to ensure that payables were properly recorded and valid at year end for goods or services ordered and received. For approximately 66 percent of these payables, management was unable to provide adequate supporting documentation.

4. An aging of accounts payable should be prepared and analyzed to ensure that payables are attributed to valid liabilities.

We noted that NIH reviewed outstanding payables twice in August 1993, once in September 1993, and again during April 1994. However, NIH has yet to complete a formal policy to prevent the continued accumulation of invalid payables. For example, as of September 30, 1993, outstanding payables over one year old amounted to $3.7 million and $1.7 million for the Management Fund and the Service and Supply Fund, respectively. In addition, $.5 million and $.7 million were over two years old for the Management Fund and the Service and Supply Fund, respectively.

REPORTABLE CONDITIONS NOT CONSIDERED MATERIAL WEAKNESSES

5. ***Complete and timely clearing and cash account reconciliations should be performed.***

During testing of cash reconciliations, we noted the following:

- The NIH Statement of Differences (TFS-6652) for Agency Location Code 75080031 was not fully reconciled at September 30, 1993; an unreconciled difference of approximately $136,000 existed.

- Differences between Treasury's records and DFM's records of disbursements and receipts are reported in the TFS-6652, after a period of 6 months, the unreconciled amounts are posted by Treasury to a budget clearing account. The NIH budget clearing account contained unreconciled amounts totaling approximately $1.1 million as of September 30, 1993. We also noted that NIH's three other suspense accounts contained

unreconciled differences of approximately $56 million at September 30, 1993. Of the $56 million, approximately $31 million had accrued during the last month of the fiscal year. However, the remaining $25 million had not been fully analyzed nor properly accounted for six months after the end of the fiscal year.

- Differences between the Statement of Transactions (SF-224s) and the general ledger at September 30, 1993 were not corrected and reported to Treasury in a timely manner. We noted that a difference of approximately $301,000 still had not been addressed six months after the fiscal year end.

- Monthly reconciliation'sof the Undisbursed Appropriations Account (TFS-6653) are not performed on a regular or timely basis. Specifically, the September 30, 1993 reconciliations of the Management Fund were not completed until after December 1993. In addition, several outstanding items noted on the September 30, 1993 reconciliations were approximately one year old and were still outstanding as of March 1994.

- The Funds' current policies and procedures include a procedure requiring management review of the monthly TFS-6653, as well as requiring the preparer to initial the reconciliation to take responsibility for it. However, our review disclosed that there is no evidence of review or approval of the reconciliation and that not all reconciliations were signed by the preparer upon completion.

Inappropriate segregation of duties exists surrounding the accounting for cash transactions. The same individuals who are responsible for performing cash reconciliations also prepare adjusting journal vouchers related to the cash accounts, and have the ability to make entries to the general ledger.

6. ***Data integrity, access and change controls do not adequately ensure complete and accurate processing of data and security over information and assets.***

Although substantial progress has been made, we noted that DCRT has not fully implemented the corrective action plans to address the issues noted in the prior year report. For example:

- DCRT has not completed evaluating and procuring software change control software;

- Reconciliation procedures are not being performed by the person submitting transaction files to CAS to ensure that the number of records processed into CAS plus the number of records sitting in the error file equals the number of records recorded in the input log;

- User IDs are still being shared;

- DCRT has not fully completed arrangements pertaining to 1) a disaster recovery facility and 2) the location for uninterruptible power supply.

A concerted effort by NIH as a whole to resolve the controls weaknesses is needed, and this effort should address the organization of management, and the proper incentive structure, to ensure that management focuses on the corrective action plans.

MATERIAL WEAKNESSES PREVIOUSLY REPORTED BY MANAGEMENT

INVENTORY

1. ***Reconciliations between the Inventory Management System (IMS) and the general ledger need to be improved. Furthermore, there needs to be a more careful rationalization and coordination of entries affecting the perpetual inventory records and the general ledger. Differences noted between the perpetual records and the inventory quantity on hand should be researched to determine their causes.***

   There is a need for improved reconciliations between the Inventory Management System and the general ledger (the general ledger is derived from the Central Accounting System). Also, there needs to be more careful rationalization and coordination of entries affecting the perpetual inventory records and the general ledger.

   As in prior years, the Management Fund's perpetual inventory balances were not in agreement with the general ledger at any time during the year. Adjustments are frequently recorded for differences; however, the underlying reasons for the adjustments are not being tracked and reviewed.

   In our previous report dated June 14, 1993, we recommended that timely and comprehensive reconciliations between the IMS and the general ledger be performed. Differences identified should be investigated and resolved, with the resulting resolution documented to evidence adequacy of the reconciliation process.

   The following tables are the corrective action plans which NIH established to address the weaknesses identified in the prior year audit:

SERVICE AND SUPPLY FUND:

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	DIVISION	TARGET DATE	STATUS
A. Develop process to reconcile perpetual inventory with the general ledger on a monthly basis.	CSAB	9/92	Completed
B. Monthly reconciliations between the Inventory Management System (IMS) and the general ledger will be modified to include additional data to improve the reconciliation process. Any difference exceeding one percent of the total will be thoroughly reviewed and resolved. A primary issue relating to this process is verifying receiving information. The Procurement Module of the Administrative Data Base (ADB) provides receiving data to the IMS and the Central Accounting System (CAS). However, there is different receiving information in both systems.	CSAB	8/93	Completed
C. Monthly reconciliations, along with any supporting documentation on the differences, will be reviewed by the Assistant Director for Finance.	CSAB	8/93	Completed

MANAGEMENT FUND

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	DIVISION	TARGET DATE	STATUS
A. Meet with Division of Computer Research and Technology (DCRT) programmers and inventory managers to review the controls in place in the Inventory Management System (IMS) and to ensure that all inventory transactions are passed to the Central Accounting System (CAS).	CSAB	8/92	Completed

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	DIVISION	TARGET DATE	STATUS
B. Pass inventory transactions from the IMS to the CAS.	CSAB	4/93	Completed
C. Develop process to reconcile perpetual inventory with the general ledger on a monthly basis.	CSAB	4/93	Completed
D. Physical inventories will be completed for the Pharmacy Department and the Materials Management Department in the Clinical Center. The general ledger will be adjusted to agree with the perpetual inventory after the physical counts and inventory records have been reconciled.	CSAB	8/93	Completed
E. Monthly reconciliations between the IMS and the general ledger will be modified to include additional data to improve the reconciliation process. Any difference exceeding one percent of the total will be thoroughly reviewed and resolved. A primary issue relating to this process is verifying receiving.	CSAB	8/93	Completed
F. Monthly reconciliations, along with any supporting documentation on the differences, will be reviewed by the Assistant Director of Finance.	CSAB	8/93	Completed

As indicated by NIH's corrective action plan, implementation to address these weaknesses was completed as of the end of fiscal year 1993. However, during testing we noted that at no time during the year were the Management and Service and Supply Funds' perpetual inventory balances in agreement with the general ledger. Comparisons of the general ledger balance with the IMS were performed by management for the Management Fund beginning June 1993 and for the entire year for the Service and Supply Fund. The general ledger was adjusted to agree to the IMS without complete reconciliations being performed. Management asserted the differences mainly pertained to an incorrect object class code being used when inventory was recorded in IMS. For example, if a transaction reflected an incorrect object class code when download occurs between the IMS and the general ledger, the transaction may be recorded in the general ledger as an expense or as Property, Plant and Equipment. Therefore, inventory may not be recorded in the general ledger even though an interface between the IMS and general ledger occurs.

Management stated that they have restricted the coding of the inventory transactions, an initiative which should have eliminated the differences occurring as a result of the use of incorrect object class codes in **IMS.** However, we were unable to verify how much of the reconciling difference is due to this flaw since management has not analyzed its effect on inventory balances. In addition, notwithstanding the coding restriction, we noted that discrepancies between the **IMS** and general ledger existed for every month for both Funds. The differences fluctuated monthly and ranged between negative $250,000 and positive $450,000.

Also as indicated by the corrective action plan, 1) any differences greater than one percent of the total **IMS** balance will be thoroughly reviewed and resolved and 2) the reconciliations, along with any supporting documentation on the differences, will be reviewed by the Assistant Director of Finance. To determine NIH's compliance with the corrective action, we reviewed the monthly reconciliations from August 1993 through February 1994 and noted the following:

Although the corrective action plan states that the Assistant Director of Finance will review the reconciliations beginning August 1993, this requirement was not implemented until December 1993.

- None of the monthly reconciliations were signed by the Director of Finance, indicating a review of the reconciliations had been performed.

- Differences between the **IMS** and the general ledger existed; however, limited, if any, research was performed to provide a thorough review and resolution of the differences.

Recommendation:

We recommend that NIH follow through completely with its implementation of the corrective action plan. Differences identified should be fully investigated and resolved, with the resulting resolution documented to evidence adequacy of the reconciliation process. In addition, NIH should perform a comparison of the transactions posted in the general ledger to those recorded in the **IMS** in order to determine the causes of the differences. As the causes are identified, then corrective action should be implemented to address the deficiencies.

Differences noted between the perpetual records and the inventory quantity on hand should be researched to determine their causes.

Differences noted between the **perpetual** records and the inventory quantity on hand should be researched to determine their causes. This recommendation is consistent with the **HHS**

Material Management Manual[1] which states that a Board of Survey action should be initiated whenever shortages are revealed in excess of $500. Any resulting adjustments determined to be necessary should be documented, reviewed and approved by both appropriate inventory management, and Division of Financial Management prior to processing in the IMS. Additionally, adjustments should be classified according to frequently occurring categories, with each denoted by a unique code. This would afford management the opportunity to analyze trends and types of adjustments made throughout the year, which would guide corrective action to eliminate the causes of discrepancies. This recommendation is consistent with the **HHS** Material Management Manual[2], which states "Form **HEA-365,** Inventory Adjustment, shall be used as a property voucher to record the circumstances creating the need for the adjustment and the data to be posted to the property and fiscal accounts."

The following table identifies NIH's corrective action plan to correct the weakness:

MANAGEMENT'S CORRECTIVE ACTION PLAN

MILESTONES	DIVISION	TARGET DATE	STATUS
A. Provide NIH guidance to supply activities to insure that all adjustments to the Inventory Management System (IMS) are fully documented and that differences requiring Board of Survey action are processed as required by the HHS Material Management Manual. **NOTE:** Completed: Implemented guidance in the New NIH Supply Inventory Guide published August 1993 which identifies the process for inventory discrepancies.	Logistics	8/93	Completed

'Section **103-25.5101** and **5104**

'Section **103-27.5016**

MANAGEMENT'S CORRECTIVE ACTION PLAN

MILESTONES	DIVISION	TARGET DATE	STATUS
B. Efforts through PHS to have the dollar threshold raised relating to adjustments requiring Board of Survey Action. The current $500 threshold has not been raised for many years. **NIH** formally submitted a specific proposal for increasing the threshold for PHS and HHS consideration. **NOTE:** This has been discussed with the LPB, PHS. Board of Survey action is still under review at PHS.	Logistics	3/94	In Process
C. Design and implement changes to the IMS that will provide improved control over the adjustment process and for management review/approval when adjustments are made. **NOTE:** Each supply activity identified and suggested changes which are being consolidated and will be reviewed by all supply activities and the Division of Logistics; when finalized, the requirements have been submitted to the DCRT for programming.	Logistics	4/94	In Process

As illustrated above, NIH has not completed implementation of its corrective action plan as of the end of fiscal year 1993. Therefore, the weaknesses identified in the prior year still exist as of September 30, 1993. For example, as a result of physical counts taken during fiscal year 1993, differences were identified between the perpetual inventory records and the inventory stock on hand; Adjustments were then posted to the perpetual records to bring them into agreement with the results of the physical counts. However, we noted that adjustments were made without fully investigating the cause of the differences between the perpetual records and physical counts. Additionally, adjustments $500 and greater were not submitted to the Board of Survey for review except for one supply activity. Finally, Fund personnel were unable to subsequently identify adjustments made due to the physical inventory count because these adjustments were not uniquely identified from other types of adjustments occurring within the normal course of operations.

Although the perpetual records and inventory quantities on hand should generally be in agreement because the IMS is updated daily to reflect receipts and issuances, differences between the perpetual records and inventory quantities on hand exist. For example, test

counts of 143 judgmentally selected inventory items from a combination of both the Management Fund and the Service and Supply Fund in April 1994 indicated numerous differences. Of the items selected for counting within the Service and Supply Fund, the perpetual records reflected quantities in stock of 13,083 units, while physical counts indicated 16,237 units were on hand. The total value of the Service and Supply Fund inventory counted was $762,273, while the absolute value of differences (overages and shortages) between the amounts counted and that reflected in the perpetual inventory records was $71,272 or 9.3 percent.

Recommendations:

Management must focus on decreasing the number and magnitude of adjustments for physical-to-records discrepancies. **A** means to identify and therefore reduce time-consuming differences is to apply class cation codes to adjustments to enable management to analyze the underlying causes and trends for adjustments and to monitor the inventory items that have the adjustments (particularly drugs versus light bulbs). For example, a field could be added to the adjustment record to show whether the adjustment was for:

- unexplained overage/shortage upon physical count,
- cartons, when opened, contained less/more/different items than specified,
- obsolescence,
  damage,
  spoilage, and
- pilferage, if known.

To streamline inventory management, new dollar limits should be set to determine the levels of review and approval for adjustments. Different levels could be set for:

- immediate adjustment with backup to show source for adjustment,
- adjustment, backup, plus research of difference, and
- adjustment, backup, research and review by Board of Survey.

Finally, the action plan should consider these recommendations, and revise the completion target dates for correction of the current weaknesses.

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PROPERTY AND EQUIPMENT

2. Accounting for property and equipment transactions, as well as reconciliations between the general ledger and Property Management Infomation System, need improvement.

Accounting for property and equipment transactions should be improved.

Management performed physical inventories of property and equipment in July, 1991, and located significant amounts of assets which could not be matched to the records. These assets were entered into the Property Management Information System (PMIS) at a median price for similar equipment, and an acquisition date that was the date the found asset was entered into **PMIS.** At the time of our last report, dated June 14, 1993, management had not recorded an appropriate accumulated depreciation adjustment to reflect that these assets were not at the beginning of their useful lives when recorded in PMIS. Subsequent to our previous report, management recorded an adjustment to reflect accumulated depreciation based on the assumption that the assets were at the mid-point of their useful lives when entered into PMIS. However, the adjustment was a partial correction because not all assets were included and a plan to identify all applicable assets is still being devised.

The following is management's plan to address this accounting and control issue.

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	DIVISION	TARGET DATE	STATUS
A. Meet with Division of Financial Management (DFM) and DCRT to determine the best method to accomplish this objective. Prepare proposal for DPM approval prior to initiating programming request.	Logistics & Finance	3/93	Completed
B. Finalize programming task with approvals from all interested activities and forward to DCRT.	Logistics & Finance	3/94	
C. Make program changes to accomplish update of the September 30, 1992 and September 1993 frozen files. Changes would not be made without DFM approval.	Logistics & Finance	3/94	
D. Prepare revised depreciation data reflecting revised estimated dates and update current files.	Logistics & Finance	3/94	

As illustrated above, NIH has not completed implementation of its corrective action plan and management regularly reports that the conditions noted in the prior year report still exist for the fiscal year under audit.

The Division of Logistics (DL) conducted a wall-to-wall physical inventory of property and equipment during fiscal year 1993. As a result of the physical inventory, unsupported (e.g. unable to locate documentation) property and equipment items reported in the subsidiary ledger (PMIS) were subsequently revised to reflect the results of the physical inventory. Therefore, DL believes that the PMIS is accurate and properly reflects the acquisition price, as well as the related accumulated depreciation of all property and equipment.

However, based on audit procedures performed on the property and equipment acquisition transactions which occurred during fiscal year 1993, we still believe that management controls **are** inadequate to ensure the accuracy of the property and equipment balances, as well as related accumulated depreciation and depreciation expense. The physical inventory did not address those items which were placed in PMIS at the median value. Therefore, this weakness still exists. For example, the total dollar value of our judgmental sample of acquisitions was approximately $922,000 and $2.3 million for the Service and Supply Fund and Management Fund, respectively. Of our sample, management was unable to provide supporting documentation for approximately 18 percent and 83 percent for the Service and Supply Fund and Management Fund, respectively.

Furthermore, we noted several property. and equipment items with incorrect estimated useful lives assigned. In addition, management could not adequately explain the rationale as to the assignment of useful life estimates for particular items.

Recommendations:

Management should perform an analysis of the property and equipment accounts, as well as the related accumulated depreciation and depreciation expense. This may be accomplished through enhancements to the PMIS to allow for any file maintenance made to the property and equipment records to be documented and summarized. Such reports should show the activity recorded in the system and not just resulting balances. This would afford management the opportunity to analyze trends and types of adjustments made throughout the year, as well as facilitate the audit process. Unless changes made to data in the PMIS are summarized, management cannot effectively ensure that data modifications **are** accurate and authorized. In addition, management should perform an analysis of the PMIS reports detailing properties on hand at year end to determine which property and equipment records have not been appropriately adjusted.

We recommend that these action steps be added to management's plan and that new target dates be set to ensure resolution of this issue.

Comprehensive and timely reconciliations between the Property Management Information System and the General Ledger (Central Accounting System) should be performed.

The balances in the Property Management Information System (PMIS) do not agree to the general ledger balances, and new differences arise each month. Management's reconciliation process is not adequate to identify the causes of these differences so that the correct amount can be determined and valid adjustments posted to both systems. Instead, each month, the general ledger is adjusted to agree to the PMIS without effectively resolving the reason for the adjustment. In our previous report, we recommended that management compare entries to each system to determine the source of the reconciling difference in order to eliminate it. One acknowledged difference is the inclusion in the general ledger of items under $5,000 which are not recorded in PMIS. We recommended the use of an edit check to prevent items which are not capitalized in PMIS, from being capitalized in the general ledger.

The following describes management's action plans to address these issues:

MANAGEMENT'S CORRECTIVE ACTION PLAN

MILESTONES	DIVISION	TARGET DATE	STATUS
A. Prepare documentation for the data flow from the PMIS to the CAS for additions, changes, and deletions.	Logistics & Finance	11/93	Completed
B. Form a work group for the purpose of improving the methodology used for posting to the PMIS and the CAS to improve the integrity of the data in both systems.	Logistics & Finance	7/93	Completed
C. Documentation to support proper adjustments to standard general ledger (SGL) for MF and SSF accounts for equipment and depreciation will be provided from DCRT to Finance.	Logistics & Finance	8/93	No Change
D. Ending balances will be reconciled for July, August and September for both accounts. Deficiencies will be analyzed and adjustments made.	Logistics & Finance	Monthly	
E. Records to support new transactions (i.e. transfers, trade-ins, etc.) will begin to be processed from the PMIS to the SGL.	Logistics & Finance	10/93	
F. Year end balances for other appropriations will be transferred from PMIS to the SGL.	Logistics & Finance	10/93	

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	**DIVISION**	**TARGET DATE**	**STATUS**
G. Work group will meet monthly to continue to develop interface among the ADB, PMIS and SGL.	**Logistics & Finance**	**On-going**	

As illustrated above, NIH had not completed implementation of its corrective action plan by the end of fiscal year 1993 and management has reported that the conditions noted in the prior year **report** still exist as of September 30, 1993. Although NIH has begun taking action toward correcting these weaknesses, we noted the following:

- Periodic adjustments are made to bring the general ledger into agreement with PMIS without the benefit of formal reconciliations between the general ledger and the PMIS. Management believes that PMIS more accurately reflects the property and equipment balance than the general ledger. Therefore, any differences arising between the general ledger and the PMIS **are** removed through adjustment to the general ledger balance. Differences existing between these systems, before the general ledger was adjusted to agree to the PMIS, **are** significant. For example, the property and equipment balance in the PMIS approximated $43.6 million, or $24.3 million more than the general ledger balance of $19.3 million for the Service and Supply Fund at September 30, 1993 and $44.1 million, or $20.9 million less than the general ledger balance of $65 million for the Management Fund at September 30, 1993. The differences between the systems are primarily caused by ineffective automated interfaces between the systems, erroneous processing of acquisitions and the absence of an edit check within the Central Accounting System (CAS) to prevent acquisitions below the $5,000 capitalization threshold from being entered into the property and equipment asset accounts.

Recommendations:

The Division of Financial Management (DFM) and the Division of Logistics (DL) have initiated a proposal **aimed** at improving the integrity of the data within the general ledger property accounts through development of an interface between the PMIS, a module of the Administrative Data Base (ADB), and CAS. The ***plan involves establishing*** decision tables in the **ADB** where purchase order items received are initially processed. These tables will assist data clerks in assigning correct object class codes so that appropriate items are properly capitalized and depreciated, and reflected in the PMIS. Furthermore, the proposal involves the interface of the PMIS and CAS in order to reduce the significant differences resulting between the PMIS and general ledger. This proposal, which is currently under review by the Office of the Inspector General and the Public Health Service is targeted for

implementation in fiscal year 1995. While the design and development of the improved interface and use of the decision tables is an opportunity to prevent weaknesses identified in the past from occurring, the errors existing in the general ledger must also be corrected. Maximum effort should be applied in resolving the erroneous data in the general ledger and ensuring that any proposed write-offs are appropriate. Consequently, it is imperative that management perform periodic reconciliations between the general ledger and the PMIS (subsidiary ledger). While management has identified the primary cause of the imbalances, it should continue to improve its efforts to eliminate those processing flaws, thereby enabling routine reconciliations to be accomplished.

Revised target dates should be added to the action plan. The key steps of reconciling the general ledger to **PMIS** (Step D) and developing and implementing the interface among the systems should be completed in order to resolve this weakness.

OTHER MATERIAL WEAKNESSES ARISING FROM THE EXAMINATION

EXPENSES, PURCHASES, AND ACCOUNTS PAYABLE

3. Retention of supporting documentation needs to be improved.

Several control weaknesses relating to the processing and recording of disbursement and accounts payable transactions existed as of September 30, 1993. Further, we considered these items to be pervasive in both the Management Fund **and** Service and Supply Fund. These weaknesses are summarized below:

Management of the Funds should ensure that all disbursement transactions are properly supported and that appropriate supporting documentation is available for examination.

To gain assurance that 1) amounts disbursed for goods and services were requested, authorized, received, and supported by invoices and 2) that competitive bidding procedures were properly performed, we judgmentally selected **38** disbursement transactions for testing from a combination of both the Management Fund and the Service and Supply Fund. We requested supporting documentation which included purchase orders, receiving reports and invoices. Of the **38** disbursements, management could not provide:

- 100 percent of the purchase orders,
- 89 percent of the receiving reports, and
- 6 percent of the invoices.

In addition, to test the September 30, 1993 accounts payable balance, we judgmentally selected 35 significant payable balances to ensure that payables were properly recorded and valid at year end for goods or services ordered and received. We requested supporting documentation which included purchase orders, receiving reports and invoices. Of these 35 payables, management could not provide:

- 95 percent of the purchase orders,
- 100 percent of the receiving reports, and
- 42 percent of the invoices.

This weakness is, in fact, indicative of a more pervasive set of problems than first appears. The following factors are examples of possible causes leading to unsupported, invalid, and out-of-date payables:

- When payment is made in an amount less than the estimated unit cost per the purchase order, the differences between the extended value of the goods received at the purchase order cost and the disbursement amount remains in the accounting records as an accounts payable. Management has implemented procedures which should help to prevent this from occurring; however, some cases of this remain.

- When a partial shipment has been received, but a full shipment is recorded in the system, a payable is established for the **full** shipment. The agency is later invoiced for the partial shipment leaving a payable in the accounting records for the difference between the **full** shipment (which was never received) and the partial shipment (the actual goods received).

- Core filing procedures are inconsistent and fail to support management's needs. Since management of the Funds' information is decentralized, with purchase orders and receiving documents in one location and invoices in another, there is a need to ensure neat, orderly, and timely filing of **all** documents in the appropriate location.

Proper cut-off should be attained and accounts payable should be properly accrued at year-end.

The Management Fund and the Service and Supply Fund do not have sufficient year-end cut-off procedures for recording receipt of goods and services. In 1993, management began accruing for open invoices at year-end; however, no consideration was given to whether the goods and/or services related to these invoices were ever received. In addition, no accrual is recorded for goods and services received that have not been invoiced. As a result, we were unable to determine if all open invoices accrued related to valid payables at year-end and, of our test sample of thirty-six disbursements made after year-end, we found 7 payments which should have been accrued and were not at year-end.

The following table is NIH's corrective action plan to address these weaknesses identified in the prior year:

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	**DIVISION**	**TARGET DATE**	**STATUS**
A. Distribute unpaid invoices listing	**OAB**	**Monthly**	**Ongoing**
B. Training to accounts payable personnel	**OAB**	**Ongoing**	**Ongoing**
C. Manual review of in house invoices	**OAB**	**9/93**	**Completed**
D. Accrue invoices on hand (using special transaction code)	**OAB**	**9/93**	**Completed**
E. Track each invoice received through the Administrative Data Base (ADB)	**OAB**	**Ongoing**	**Ongoing**

Recommendations:

In this instance, management's action plan does not adequately address the weaknesses that were identified both in **1992** and in **1993.** We believe our recommendations below are specific and practical and should be included in the action plan.

1) Supporting documents relating to accounts payable (i.e., invoices) should be maintained and readily accessible to ensure the accuracy and completeness of financial records, as well as the existence of a proper audit trail.

2) NIH should establish proper cut-off procedures, including a more thorough periodic, and particularly at year-end, review of open invoices and unmatched receipts to determine if accrual is warranted.

3) Management should revise policies regarding cross-referencing of source documents so that purchase orders, receiving documents, and invoices are clearly referenced to each other and indicate the document's location. Management should also consider up-to-date filing and retention practices, such as the use of microfiche or CD-Rom to store records. NIH most likely uses such technology already in its technical applications.

4) We noted that management formed a task force named the "NIH Bill Payments Processing Action Team" which studied bill payments problems and surveyed key users of the system. A final briefing of their assessment was given to management in April **1993.** This effort appears to have provided valuable information, and we recommend

that the briefing package that was prepared be used as the basis for a comprehensive and detailed action plan with milestones, division of responsibility, target dates and current status.

4. An aging of accounts payable should be prepared and analyzed to ensure that payables are attributed to actual liabilities.

Accounts payable for both Funds include a significant number of items which have been outstanding for a considerable amount of time, and as a result may not be valid payables. This may have resulted because they were established in error, the items were never completely received or matched to the invoice, or the payable was paid but not properly reflected as such. Specifically, at September 30, 1993, the Management Fund had payables of $3.7 million over one year old, including $.5 million over two years old, and the Service and Supply Fund had payables of $.7 million which were over one year old, including $1.7 million which were over two years old. In our previous report, we recommended that management formalize an aging policy for payables in order to prevent a build-up of old balances in the future.

The following table identifies NIH's corrective action plan to address the weakness:

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	DIVISION	TARGET DATE	STATUS
A. Develop system generated reports at various intervals in order to review outstanding account balances. Based on this review, action B took place.	OAB	**10/92**	Completed
B. Based on first set of system generated reports and cancel invalid obligations $100 and less.	OAB	**2/93**	Completed
C. Develop schedule for periodic cancellation of payables $100 or less.	OAB	**5/93**	Completed
D. Establish a new committee to review outstanding June **1993** payables and develop procedures for canceling invalid payables. Committee met weekly and concentrated on 1989-1991. They asked for specific listings: 1) All records **2)** All records with **1993** hits **3)** All records with no hits	OAB	**6/93**	Completed

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	DIVISION	TARGET DATE	STATUS
E. They reviewed 12,000 open records for supply object classes reviewed; 4,000 open freight records.	OAB	7/93	Completed
F. The recommended changes on the following action will take place; we will purge open obligations with amounts of $500 or less for object classes **1100-2600** for specific DOC Ref relating to Travel, Training and Small purchases for FY **89-91.**	OAB	8/93	Completed
G. Generate new report listing to review open items of $500 or less for Service and Supply and Management Fund. Close records that can be done before Sept 30.	OAB	9/93	Completed
H. Generate a report for all FY **1989** records. Report will be reviewed by assigned staff to effect close-out of appropriate records.	OAB	12/93	On track
I. Generate a report for all FY **1990** records. Report will be reviewed by assigned staff to effect close-out of appropriate records.	OAB	3/94	
J. Generate a report for all FY **1991** records. Report will be reviewed by assigned staff to effect close-out of appropriate records.	OAB	6/94	
K. Generate a report for all FY 1992 records. Report will be reviewed by assigned staff to effect close-out of appropriate records.	OAB	9/94	

NIH has taken steps to purge the older outstanding payables. Management has mainly focused on eliminating outstanding payables involving small dollar amounts and prior year monies. As illustrated above, NIH has purged the accounting system of invalid obligations of $100 or less, as well as obligations of $500 or less for payables related to travel, training and small purchases. As of September 30, 1993, the total amount purged amounted to $6.1 million and $8.0 million from the Management Fund and the Service and Supply Fund, respectively.

Although NIH has begun taking action toward correcting the weaknesses, we noted that NIH has not completely addressed prior year's recommendation. For example, we noted that

NIH performed a review of the payables twice in August 1993, once in September 1993, and again during April 1994. However, NIH has yet to complete the implementation of a formal policy to prevent the continued accumulation of invalid payables. For example, as of September 30, 1993, outstanding payables over one year old amounted to $3.7 million and $1.7 million for the Management Fund and the Service and Supply Fund, respectively. In addition, $.7 million and $.5 million were over two years old for the Management Fund and the Service and Supply Fund, respectively.

Recommendations:

As recommended in the prior years reports, a periodic aging and analysis should be performed on a regular basis to identify invalid payables. We recommend that this step be added to management's plan to correct this weakness.

REPORTABLE CONDITIONS NOT CONSIDERED MATERIAL WEAKNESSES

5. Complete and timely clearing and cash account reconciliations should be performed.

During our testing of the Management Fund's and Service and Supply Fund's September 30, 1993 fund balances with Treasury totaling approximately $129 million and $9.8 million, respectively, we noted that the following weaknesses, which were identified in the prior year, still existed as of September 30, 1993:

- The NIH Statement of Differences (TFS-6652) for Agency Location Code 75080031 was not fully reconciled at September 30, 1993; an unreconciled difference of approximately $136,000 existed. The TFS-6652 includes differences between Treasury's records of a reporting unit's cash balance, and the records of the reporting unit. Because DFM performs accounting services for a number of activities in addition to the Management Fund and the service and Supply Fund, all of which are aggregated into the TFS-6652 for Agency Location Code 75080031, the extent to which these unreconciled differences impact the Funds' financial records cannot be readily determined.

- When differences between Treasury's records and DFM's records of disbursements and receipts are reported in the TFS-6652 as described above, after a period of 6 months the unreconciled amounts are posted by Treasury to a budget clearing account. The NIH budget clearing account contained unreconciled amounts totaling approximately $1.1 million as of September 30, 1993. We also noted that NIH's three other suspense accounts contained unreconciled differences of approximately $56 million at September 30, 1993. Of the $56 million, approximately $31 million had accrued during the last month of the fiscal year. However, the remaining $25 million had not been fully

analyzed and properly accounted for six months after the end of the fiscal year. Similar to the matter discussed in the aforementioned paragraph, the activities of reporting units other than the Management Fund and the Service and Supply Fund are aggregated into these budget clearing accounts; NTH management has asserted approximately ten percent of the total balance pertains to both the Management Fund and the Service and Supply Fund.

- Differences between the Statement of Transactions (SF-224s) and the general ledger at September 30, 1993 were not corrected and/or reported to Treasury in a timely manner. We noted that a difference of approximately $301,000 and $80,000 for the Management Fund and the Service and Supply Fund, respectively, still had not been addressed six months after the fiscal year end.

- Monthly reconciliations of the Undisbursed Appropriations Account (TFS-6653) are not performed on a timely basis. Specifically, the September **30,** 1993 reconciliations of the Management Fund were not completed until after December 1993. In addition, several outstanding items noted on the September 30, 1993 reconciliations were approximately one year old and were still outstanding as of March 1994.

- The Funds' current policies and procedures do not include any formal procedure requiring management review of the monthly TFS-6653. In addition, the preparer is required to initial the reconciliation; however, our review disclosed that not all reconciliations were signed by the preparer upon completion.

- Inappropriate segregation of duties exists surrounding the accounting for cash transactions. The same individuals who are responsible for performing cash reconciliations also prepare adjusting journal vouchers related to the cash accounts, and have the ability to make entries to the general ledger.

In our report dated June 14, 1993, we recommended that the DFM should perform complete reconciliations each month to ensure that each Fund's records are kept in balance with Treasury's records. These reconciliations should be prepared by individuals who do not have conflicting accounting responsibilities, (e.g., prepare adjusting journal vouchers). We recommend that this reconciling documentation be reviewed and approved by a DFM supervisor to ensure that the reconciliations are in fact performed, performed correctly, and differences are promptly investigated and correctly resolved. Further, the reconciliation should evidence the preparer (i.e., sign-off) and should include evidence of proper review or approval of the reconciliation. In the long run, we believe that regular and timely reconciliations will reduce the level of effort required for the reconciliation of funds available at Treasury.

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	DIVISION	TARGET DATE	STATUS
A. A task group was established 4/93 to review individual appropriations and determine differences by the ADF/DFM.	OAB	4/93	Completed
B. Procedures were drafted to clear suspense account 75F3875.08.	OAB	4/93	Completed
C. Individuals assigned appropriations to reconcile for FY 1993.	OAB	4/93	Completed
D. Assigned reconciliations for task team completed.	OAB	5/93	Completed
E. Established a committee to review cash balances, statement of differences and prepare reconciliations established by ADF/DFM.	OAB	5/93	Completed
1) Established priorities for reconciliation (Differences of $100,000 and above given highest priority. Management Fund and Service and Supply Fund - complete reconciliation are needed also).	OAB	8/93	Completed
2) Assigned appropriations to specific employees for reconciliations.	OAB		In process

As indicated by the corrective action plan, DFM has taken measures to address these weaknesses. Such efforts have been aimed at ensuring all appropriation years have been assigned for reconciliation purposes and include periodic monitoring of outstanding differences in order to identify appropriation years with material unreconciled differences for which priority is warranted.

Furthermore, management has taken efforts to investigate its more significant suspense accounts (i.e. 75F3875 for government billings). This has resulted in a reorganization within DFM directed at ensuring that government billings are processed and the responsibility of one centralized operating area.

Although management has taken some action to correct these weaknesses, the above corrective action plan has not fully resolved the weaknesses identified in the prior year.

Recommendations:

Management's cash reconciliation efforts and its review of these efforts have fallen short of what is necessary to correct these weaknesses. These weaknesses are a result of inadequate identification and monitoring of the clearing of internal and external (with Treasury) reconciling differences related to its cash transactions as recorded in the general ledger. Failure to identify and clear such differences in a timely manner could cause the financial statements to be misstated between periods, or be misstated within a period due to uncorrected errors between accounts or funds. It could also lead to the failure to identify missing funds until long after the funds were taken.

Since the **TFS** 6653 is effectively NIH's bank statement, complete and timely reconciliations are management's best tool for detecting erroneous payments, lost deposits, missing funds or any errors processed by Treasury. Consequently, we recommend that management demonstrate improved emphasis and diligently perform and complete timely funds reconciliations and review of its budget clearing and suspense accounts.

These reconciliations should be prepared by individuals who do not have conflicting accounting responsibilities (e.g. prepare journal vouchers). In addition, formal policies and procedures should be implemented to require management review and approval, and properly documented to ensure that reconciliations are in fact completed, performed correctly and differences are promptly investigated and resolved. In the long run, we believe that timely reconciliations will reduce the level of effort required for the reconciliation process of funds available with Treasury. The action plan should be amended to assign monthly review and approval responsibility and to set goals for percentages of items to be reconciled in one week, two weeks, a month, etc. after each month's data is received.

ELECTRONIC DATA PROCESSING (EDP) SECURITY

6. Data integrity, access and change controls do not adequately ensure complete and accurate processing of data and security over information and assets.

Software for accounting systems (Central Accounting System, Administrative Data Base, and Time and Attendance) is not protected by RACF against unauthorized changes or manipulation. The Central Accounting System and Time and Attendance data files also are not protected by RACF. The operating system is also not protected by RACF.

In our previous report, we found that key applications were not adequately protected against unauthorized changes or manipulation. Therefore, we recommended that NIH management ensure that software for the CAS, ADB, and Time and Attendance (T&A) systems be put

under RACF protection. Source code, object code, **JCL,** copy members, and all other control files should be **RACF** protected. All data files should be **RACF** protected. Access to the data files should be restricted to operations personnel specifically authorized to access the files. Therefore, we recommended that NIH adopt standardized procedures for control of software changes for all NIH financial applications software. We noted there were different sets of procedural controls over software maintenance for each of the systems we reviewed. Although change control procedures were in place for the various financial software, there was no detailed **NIH** standard to ensure consistent application of the adequate control measures.

MANAGEMENT'S CORRECTIVE ACTION PLAN TO PROTECT APPLICATIONS DATA AND CONTROL INFORMATION, AS WELL AS RESTRICT ACCESS FOR THE ADMINISTRATIVE DATA BASE

MILESTONES	DIVISION	TARGET DATE	STATUS
A. Implement RACF for online data.	DCRT	**8/92**	Completed
B. Implement RACF for software:			
1) Identify Software.	DCRT	1/94	Completed
2) RACF software.	**C**	3/94	In Process
C. Implement RACF for JCL:			
1) Identify JCL.	DCRT	**1/94**	Completed
2) RACF JCL.	DCRT	**3/94**	In Process
D. Document procedures for RACF maintenance.	DCRT	**3/94**	

MANAGEMENTIS CORRECTIVE ACTION PLAN TO PROTECT APPLICATIONS DATA AND CONTROL INFORMATION, AS WELL AS RESTRICT ACCESS FOR THE CENTRAL ACCOUNTING SYSTEM

MILESTONES	DIVISION	TARGET DATE	STATUS
A. Protect CAS data:			
1) Set CAS tapes to read only.	DCRT	**6/93**	Completed
2) Implement RACF for online.	DCRT	**1/94**	Completed
B. Implement RACF for software:			
1) Identify Software.	DCRT	**1/94**	Completed
2) RACF software.	DCRT	**2/94**	Completed

MANAGEMENT'S CORRECTIVE ACTION PLAN TO PROTECT APPLICATIONS DATA AND CONTROL INFORMATION, AS WELL AS RESTRICT ACCESS FOR THE CENTRAL ACCOUNTING SYSTEM			
MILESTONES	DIVISION	TARGET DATE	STATUS
C. Implement RACF for JCL:			
1) Identify JCL.	DCRT	**1/94**	Completed
2) RACF JCL.	DCRT	**3/94**	In Process
D. Document procedures for RACF maintenance.	DCRT	**3/94**	In Process

MANAGEMENT'S CORRECTIVE ACTION PLAN TO PROTECT APPLICATIONS DATA AND CONTROL INFORMATION, AS WELL AS RESTRICT ACCESS FOR THE PAYROLL (TIME & ATTENDANCE) SYSTEM			
MILESTONES	DIVISION	TARGET DATE	STATUS
A. Implement RACF for online **data.**	DCRT	**6/93**	Completed
B. Implement RACF for software:			
1) Identify Software.	DCRT	**1/94**	Completed
2) RACF software.	DCRT	**2/94**	Completed
C. Implement RACF for JCL:			
1) Identify JCL.	DCRT	1/94	Completed
2) RACF JCL.	DCRT	2/94	Completed
D. Document procedures for RACF maintenance.	DCRT	**3/94**	In Process

MANAGEMENT'S CORRECTIVE ACTION PLAN TO STANDARDIZE AND DOCUMENT CONSISTENT CHANGE MANAGEMENT PROCEDURES FOR THE ADB, CAS, AND PAYROLL (TIME AND ATTENDANCE) SOFTWARE			
MILESTONES	DIVISION	TARGET DATE	STATUS
A. Analyze, standardize and document manual procedures for change management:			
1) ADB.	DCRT	**2/94**	Completed
2) CAS.	DCRT	**2/94**	Completed
3) Payroll (T&A).	DCRT	**2/94**	Completed

MANAGEMENT'S CORRECTIVE ACTION PLAN TO STANDARDIZE AND DOCUMENT CONSISTENT CHANGE MANAGEMENT PROCEDURES FOR THE ADB, CAS, AND PAYROLL (TIME AND ATTENDANCE) SOFTWARE

MILESTONES	DIVISION	TARGET DATE	STATUS
B. Select, install standard software version control package:			
1. Do requirements analysis.	DCRT	3/94	In Process
2. Identify, evaluate appropriate software packages.	DCRT	5/94	In Process
3. Select package.	DCRT	9/94	
4. Procurement.	DCRT		
Note: An estimate to complete the procurement process would be 8 to 12 months after selection.			
5. Installation and acceptance test.	DCRT		
6. Announce availability and support to NIH users (contingent on requirements analysis).	DCRT DCRT		
7. Develop and document control processes for financial systems.	DCRT		
8. Train appropriate ADB/CAS staff.			
C. Implement automated version control for financial systems.	DCRT		
D. Restrict applications to programmers from access to production object and source code.	DCRT		In Process

MANAGEMENT'S CORRECTIVE ACTION PLAN TO PROTECT THE OPERATING SYSTEM CODE WITH RACF

MILESTONES	DIVISION	TARGET DATE	STATUS
A. Identify what must be protected.	DCRT	5/93	Completed
B. Assess impact on systems work.	DCRT	6/93	Completed
C. Modify JCL procedures for systems jobs to accommodate RACF.	DCRT	6/93	Completed

MANAGEMENT'S CORRECTIVE ACTION PLAN TO PROTECT THE OPERATING SYSTEM CODE WITH RACF			
MILESTONES	**DIVISION**	**TARGET DATE**	**STATUS**
D. Implement RACF protection of system data sets on test/development system.	**DCRT**	**6/93**	**Completed**
E. Develop draft documentation for systems staff.	**DCRT**	**7/93**	**Completed**
F. Implement RACF protection of operating system data sets on the production system.	**DCRT**	**7/93**	**Completed**
***G*. Incorporate new RACF environment into Systems Programmer's Handbook.**	**DCRT**	**7/93**	**Completed**

In performing our audit for 1993, we found that the software for the Central Accounting System (CAS), the Administrative Data Base (ADB), and the Time and Attendance (T&A) system were protected by RACF. We reviewed the appropriateness of the specific persons who were defined in RACF as being able to modify the accounting software and found that while access to most of the software libraries was adequately segregated, access to the CAS libraries needs to be better segregated. Specifically, change control procedures for the CAS software need to provide better segregation of the CAS application programmers from the production versions of the CAS software. Furthermore, T&A data files have not been placed under protection of the RACF security software to control which users have read and write access to these data files. Finally, DCRT is in the process of evaluating and procuring software change control software that would provide version control, check-outlcheck-in procedures, code comparison, audit trails of changes, and other good management features and controls for the NIH accounting software.

The DCRT action plans appeared to be appropriate to rectify the findings related to protection of CAS, ADB, and the T&A software.

The DCRT is currently in the process of implementing controls to mitigate the identified weaknesses. Change control software packages are being evaluated and are expected to be used to control access to CAS programs. In addition, the feasibility of placing the T&A data files under RACF protection is currently being studied by DCRT.

Recommendations:

We recommend that in addition to the implementation of DCRT's corrective action plan, the list of individuals with the RACF OPERATIONS privilege be reviewed to ensure that this function is necessary to carry out the individuals' job functions.

There are limited batch processing controls in the Central Accounting System to ensure the complete processing of all inputs.

Data is input into CAS from subsidiary systems such as the Inventory Management System and the **DFM** accounts payable system using batch processing for the automated update. On occasion, some manual batches are held pending processing of other transactions. In our prior report, we recommended that NIH develop a report listing all batches that are held and not processed to Central Accounting System (CAS). This report should be reviewed to ensure that **all** transactions are input to CAS in a timely manner. Follow up action should be taken for all batches that are not processed within a determined period of time.

MANAGEMENT'S CORRECTIVE ACTION PLAN

MILESTONES	DIVISION	TARGET DATE	STATUS
A. Produce a sorted report for each batch ID to be sent to appropriate DFM personnel to indicate which transactions have been submitted.	DCRT	9/93	Completed
B. Implemented procedures to review processed batches versus batch transactions awaiting processing, assuring timely action for unprocessed transactions. Note: OIRM is working on the CAS management control review which will address compliance in the final CAS report.	DFM	9/93	In Process
C. Monitor compliance by DFM staff. Note: OIRM is working on the CAS management control review which will address compliance in the final CAS report.	OIRM	6/94	In Process

The proposed CAS batch processing report has been completed. The report will serve to identify those batches that were held back from processing in the previous cycles. This prior year recommendation was proposed to address the issue that controls are not in place to ensure that manual input into CAS are processed completely.

In addition, our current year review indicated that limited review procedures are being performed to ensure the accurate and timely update of transactions into CAS. When the transaction files from the various systems are submitted to CAS, there are no reconciliation procedures being performed by the person submitting the jobs to ensure that the number of

records processed into CAS plus the number of records sitting in the error file equals the number of records recorded in the input log. Daily error reports are being generated for each batch job submitted into CAS. The error listings are distributed to the divisions owning the data. It was indicated that the responsibility rests with the divisions to review their error listing and resubmit corrections on a daily basis. However, our review of the error listing indicated that many of the errors are not corrected in a timely manner. We believe that this condition may relate to findings identified by the financial audit team concerning differences between ADB (subledger) data and CAS (general ledger) data. The subsidiary ledger data (maintained by ADB) should support the data in the General Ledger (CAS), and the fact that the two systems' data do not agree may also relate to the uncorrected error files.

Recommendations:

We recommend that a policy be implemented to require each individual responsible for submitting data to review the transaction error listing and resubmit corrections immediately.

In addition, we recommend a more detailed analysis be performed on the logic of the CAS programs written to convert/translate other system data into the general ledger format to ensure that the subsidiary ledger system data are in harmony with general ledger balances. Finally, we recommend other action plan items, such as monitoring compliance by DFM staff, be completed as described in the DCRT action plan.

Management review of system users is inadequate to ensure that all system users are currently authorized for the ADB system. User IDs exist for terminated employees.

In our report dated June 14, 1993, we noted that user IDs remained active for separated or transferred employees in the ADB system resulting in an access control weakness. This represents an access control weakness that could lead to system fraud or misuse. Causes for this weaknesses are 1) a lack of no effective procedure for notifying the ADB security officer when an employee separates or transfers and 2) lack of periodic distribution of security reports of active users and their functional access rights to be reviewed by appropriate management personnel. It is difficult to produce an effective list since the ADB security module data file does not include the name of the user along with the ID. The ADB security administrator attempts to maintain a manual listing of IDs and user names but the manual list is not updated concurrently with online access authority updates. In any case, a manually maintained list is not as effective for control purposes as a listing produced directly by the ADB system.

We recommended that NIH develop procedures to ensure that the ADB security officer is notified of all terminated or transferred employees. Procedures could involve a standard step for the personnel office to notify the ADB security officer of all transfers and separations at the time of the action. This would ensure the prompt deletion of all user IDs at the time of

the transfer or separation. Another procedure would be to provide the **ADB** security officer a periodic (weekly) listing of all transfers and separations.

Furthermore, we recommended that the **ADB** security **data** file be expanded to include the name and specific organizational group for each user ID. Periodic (quarterly) reports including user names and access authorities should be generated and distributed to management at a level where the reviewer is personally knowledgeable of each users current status and that the security codes for each person are appropriate.

We recognized that NIH has recently initiated a clearance procedure whereby an employee is required to check out through administrative channels **(i.e. ADP** Security, Library, etc) upon leaving or transferring from NIH. In addition, DCRT is working towards implementing an electronic on-line access authorization and removal plan to strengthen access controls within **ADB.** The security administrator currently removes **all** access from **ADB** IDs not used in the past seven months. We recommend that efforts in these areas continue.

MANAGEMENT'S CORRECTIVE ACTION PLAN
FOR OPERATING SYSTEMS

MILESTONES	DIVISION	TARGET DATE	STATUS
A. Develop a memo to be sent to ICD EOs reminding them of their responsibilities in this area, informing them of the new procedures and requiring them to review current efforts and highlighting checkout procedures for terminating employees. NOTE: This will be sent upon completion and testing of system design.	DPM	6/93	Completed
B. Meet with selected EOs to solicit input to design a process that would be useful and effective in the ICDs.	OIRM	7/93	Completed
1. Based on Executive Officer recommendation, develop small work group of Intramural and Extramural Administrative Officer's to design a process that would be useful and effective in the ICDs.	OIRM	8/93	Completed
2. Develop recommendations.	OlRM	9/93	Completed

MANAGEMENT'S CORRECTIVE ACTION PLAN
FOR OPERATING SYSTEMS

MILESTONES	DIVISION	TARGET DATE	STATUS
C. Begin System Development:			
1. Implement RACF registration MVS-wide that includes the unique user password.	DCRT	1/94	Completed
2. Design and implement an **account/initials/password** management tool to aid ICD AOs and Account Sponsors in the management of the deregistration process for employees leaving **NIH** or transferring between ICDs. This software tool is being developed by DCRT, however, the requirements, procedures and policies are being collaboratively developed. The results will allow OIRM to set policy on this topic.	DCRT, OIRM & AOs	6/94	In Process
3. Develop internal Account Sponsor and end user procedures, documentation and training.	DCRT	6/94	In Process

MANAGEMENT'S CORRECTIVE ACTION PLAN
FOR OPERATING SYSTEMS

MILESTONES	DIVISION	TARGET DATE	STATUS
D. Establish Internal Controls:			
1. Notify ICD EOs and System Managers of new procedures requiring that the password for an employee with an MVS ID leaving NIH or transferring to another ICD must have the password changed or canceled within 30 days of departure by the System Manager or Account Sponsor (notification dependant on completion of system development).	OIRM	6/94	
2. Provide OIRM with information on all employees leaving NIH or transferring to another ICD.	DPM	1/94	Completed
3. Perform a random check of ICDs twice a year to ensure compliance. Note: Approximately 3 months after completion of system development.	OIRM	9/94*	In Process
4. Provide training to account sponsors and AOs on responsibilities DCRT related to implementation of new procedures for deregistering users who leave NIH or transfer to another ICD.	OIRM/DCRT	7/94	In Process
5. Notify ICDs of their performance in implementing procedures to change the passwords for employees leaving NIH or transferring to another ICD. Note: Approximately 3 months after completion of system development.	OIRM	9/94	

MANAGEMENT'S CORRECTIVE ACTION PLAN FOR ADB APPLICATION			
MILESTONES	DIVISION	TARGET DATE	STATUS
A. Develop an electronic facility through which the Administrative Officer may submit requests for new user security profiles, change existing profiles, review existing profiles, change user names on existing profiles and, deactivate profiles. The lead Administrative Officer will be required to provide, in writing, the names of Administrative Officers who are authorized to access this facility.			
1) Requirements analysis	DCRT	2/94	Completed
2) Design	DCRT	3/94	Completed
3) Develop	DCRT	5/94	In Process
4) Test & Implement	DCRT	6/94	In Process
5) Document	DCRT	5/94	In Process
6) Coordinate implementation with the user community	DCRT	6/94	In Process

The corrective action plan is considered appropriate and DCRT has made substantial progress in addressing these issues. DCRT, in conjunction with OIRM and other ICDs, are developing computerized procedures to deny access to unauthorized users (e.g. employees who have been terminated, transferred, or changed job function).

For the **ADB** users, DCRT has designed and is in the process of testing an electronic on-line system whereby Authorizing Officials within the Institutes may request access for their users on-line and review the access rights of all users within their division. The Officials will also be responsible for providing (on-line) notification to the Security Administrator when staff within their division have been terminated and/or detailed to a different division. The on-line electronic system is expected to be in place by June 1994.

Recommendations:

We recommend that:

1) DCRT complete its project to provide de-registration and review capabilities to the NTH ICDs for system and **ADB** user IDs, and

2) other action plan items, such as providing training and review of compliance with procedures, be completed as described in the DCRT action plan.

ADB user IDs are shared by multiple users.

In the prior year, we noted that in areas where employee turnover is high, user IDs were shared because of management decisions not to issue unique user IDs for persons that are not expected to remain with NIH for an extended period of time.

We recommended that individual IDs be issued to financial system users to safeguard sensitive accounting information.

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	**DIVISION**	**TARGET DATE**	**STATUS**
A. Obtain from each program official individual user names for each user ID.	**DCRT**	**6/94**	**In Process**
B. Provide on-line facility for program officials to keep this current.	**DCRT**	**6/94**	
C. Develop policy for usage of facility.	**DPM**		
D. Monitor policy compliance by ICD program official.	**OIRM**		

This condition still exists. DCRT is addressing this issue as part of the on-line deregistration process described on pages 40 through 45. The deregistration process will provide the ICDs the capability to easily assign, review, and remove user IDs. The DCRT action plan includes an action item to **require** each **ADB** user to have his or her own unique user ID.

Recommendation:

We recommend that DCRT complete the items in its action plan.

There is no armngement or contract for an emergency disaster recovery center to be used in the event of a catastrophic emergency at the NIH data center.

In the prior year, we noted that DCRT was in the process of developing contingency plans and began some disaster recovery testing at NIH. However, there was no contract or other agreement for an alternate computer facility to be used in case of catastrophic disaster at the NIH **data** center.

Recognizing that DCRT is in the process of making arrangements for a disaster recovery facility, we recommended that this process be carried out to completion and that a contract or interagency agreement be obtained.

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONE	DIVISION	TARGET DATE	STATUS
A. Develop impact analysis.	DCRT	5/92	Completed
B. Review first draft proposal for Business Recovery Plan (BRP).	DCRT	6/92	Completed
C. Review and approve contract action request to perform BRP.	DCRT	9/92	Completed
D. Begin contractor performance in developing BRP:			
1. Hold interviews between contractor and selected system managers for information required to develop (14) individual application systems recovery plans.	DCRT	10/92	Completed
2. Develop individual BRP plans for each system based on information obtained from interviews.	DCRT	12/92	Completed
3. Verify results of individual plans with system managers to obtain concurrence on the plan.	DCRT	11/93	Completed
4. Test backup and recovery version of operating system at DCRT.	DCRT	12/92	Completed
5. Perform early phase disaster recovery processing on site (for initial 14 applications).	DCRT	2/94	Completed
6. Issue contractor's draft BRP to DCRT and ISSO for review and approval.	DCRT	2/93	Completed
7. Complete development of the BRP.	DCRT	2/94	Completed
E. Review/amend BRP as circumstances require.	DCRT		In Process
F. Select contract mechanism for backup site.	DCRT	11/93	Completed

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONE	**DIVISION**	**TARGET DATE**	**STATUS**
G. Verify utility of BRP in DCRT.	**DCRT**		**In Process**
H. Initiate testing at actual Disaster Recovery "Hot Site" (scheduled for early May).	**DCRT**	**6/94**	

A disaster recovery plan has been completed and a contract for an emergency disaster recovery center (hot site) is in place. The contract includes the opportunity to test the recovery procedures. DCRT will be testing the recovery procedures in May **1994** for the operating system and later in the year for other applications, including CAS, ADB, and Payroll (T&A).

Recommendation:

We recommend that DCRT initiate testing at the hot site as described in its action plan.

There is no uninterruptible power supply (UPS) to perform an orderly shut down of the system in the event of a power outage at the NIH data center.

As noted in our previous report, DCRT. contracted for delivery of a battery powered **UPS;** however delivery was postponed until a suitable location for the **UPS** was determined. Alternative locations were explored; however a location had not been determined and a **UPS** had not been installed.

We recommended that a suitable location be identified and that a **UPS** be obtained and installed.

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	**DIVISION**	**TARGET DATE**	**STATUS**
A. Develop APR for an UPS and other services (FEDSIM).	**DCRT**	**4/92**	**Completed**
B. Submit APR to PHS and DHHS for approval.	**DCRT**	**8/92**	**Completed**

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	DIVISION	TARGET DATE	STATUS
C. Obtain approval from DHHS for an interagency agreement with GSA for the procurement of UPS through an existing government contract.	DCRT	10/92	Completed
D. Award interagency agreement.	DCRT	12/92	Completed
E. Perform engineering site survey.	DCRT	12/92	Completed
F. Develop requirements analysis for UPS. Note: Engineering site survey determined that the building could not structurally support the weight requirements of the UPS. Alternative solutions require either (1) housing the UPS in an external structure or (2) re-engineering Building 12 electrical utilities in such a way as to reduce the required capacity (and weight) of the UPS. Either alternative must be addressed by the NIH Division of Engineering Services. UPDATE: 2/94 - UPS can reside in the existing penthouse, rewiring to split power will require no more the a weekend shutdown and will save cost and weight. Generators will be included with no additional delay.	DCRT	2/93	Completed
G. Initiate work order to DES to "Design, install, and maintain an Uninterruptible Power Supply (UPS) to protect the computer equipment and associated support facilities housed in Building 12 from short term, intermittent power interruptions".	DCRT	4/93	Completed
H. Study, survey and predesign of UPS by architect and engineering firm.	DES/DCB	2/94	Completed
I. Design UPS and facility as approved by DCRT.	DES/DCB	8/94	

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	DIVISION	TARGET DATE	STATUS
J. Construct UPS and facilities building 12. Note: This date is delayed by the lack of a suitable Architectural and Engineering (A&E) contract.	DES/DCB	4/96	
K. Monitor DES progress.	**OIRM**		In Process

DCRT is making progress in its plans to install an uninterruptible power supply (UPS) for the data center.

Recommendation:

We recommend that DCRT continue implementation of the plans to install a UPS as described in its action plan.

OTHER

7. Lease transactions should be recorded in the general ledger and disclosed in the financial statements in accordance with generally accepted accounting principles.

Certain activities of the Service and Supply Fund are supported through the use of computer equipment made available to the Fund under the terms of a lease agreement. During fiscal year 1992, ownership of certain equipment under this lease transferred to N**IH**, and we advised management that the criteria for capital lease classification had been met. However, management did not have access to sufficient documentation to determine the proper amounts to be capitalized and as a result, these assets were not properly accounted for at September 30, 1992.

Notwithstanding our opinion that the computer equipment lease discussed above should be recorded as a capital lease, adequate documentation was not maintained to permit full and fair disclosure of either the Service and Supply Fund's or the Management Fund's leases in the notes to the financial statements. For operating leases, generally accepted accounting principles (GAAP) require disclosure of rental expense for each period for which an income statement is presented, with separate amounts disclosed for future minimum rentals. For both capital and operating leases, GAAP requires disclosure of future minimum lease

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	DIVISION	TARGET DATE	STATUS
E. DFM will determine necessary procedures and players required to implement the proper recording of capital leases in the procurement and accounting process.	CSAB	10/93	Completed
F. CSAB will meet with other finance employees, programmers, and procurement personnel to discuss the procedures to implement the proper capital lease data.	CSAB	10/93	Pending
G. Start implementation.	CSAB	11/93	

As indicated above, NIH took significant corrective action, but had not fully implemented its corrective action plan by the end of fiscal year 1993. For financial statement presentation, management has capitalized the lease pertaining to the computer equipment in accordance with FAS 13. However, management has not disclosed the required information pertaining to NIH's operating leases within the financial statements. In addition, we found that the amount shown as capitalized lease items in PMIS does not reconcile to a listing supported by lease agreements and there is currently no formal effort underway to reconcile the difference.

Recommendation:

We recommend that a report be generated identifying the items included as capital leases in PMIS, and that this report be reconciled item-by-item to the manual listing which exists of lease agreements. Management has come a long way toward correcting this deficiency and a final effort should be made to resolve it as soon as possible.

WEAKNESSES IDENTIFIED IN THE PRIOR YEAR CONSIDERED RESOLVED

8. Costs associated with development of automated systems should be capiralized and amortized based upon a systematic and rational allocation method, and the related asset should be reported as property and equipment.

In our previous report, we stated that during fiscal year 1992, projects to upgrade NIH telecommunications and develop a system for tracking and controlling travel expenses were

ongoing. These projects were implemented in phases or "modules." The Service and Supply Fund capitalized the cost of these modules from inception and began to amortize the completed modules during fiscal year 1991. However, the unadjusted financial statements reflected the unamortized value of the systems of $3.5 million as "deferred charges" rather than "property and equipment." Additionally, the monthly amortization fluctuated between $33,000 for the last three months of fiscal year 1991, to $6,000 for the first seven months of fiscal year 1992, to $106,000 for the remainder of fiscal year 1992, and then to $2,000 for the first six months of fiscal year 1993.

Documentation supporting amounts amortized could not be provided by Fund personnel; however, inquiry with management indicated that inappropriate tracking of the costs related to development of the systems have prevented proper assignment of capitalized costs to individual modules.

The implementation of the new systems was completed during fiscal year 1993, and as a result, under the Funds' standard procedures, the costs were transferred to property and equipment accounts in both PMIS and the general ledger.

We recommended that the Service and Supply Fund develop a consistent and comprehensive policy for amortizing costs associated with system development, such that the expenses are recognized over the period during which the expected benefit will be received (e.g., the useful life of the automated system). For financial statement presentation and disclosure purposes, the automated systems should be class ed under the property and equipment financial statement caption, and the related amortization policy be disclosed.

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	**DIVISION**	**TARGET DATE**	**STATUS**
A. Reclassify the development of the automated systems under the property and equipment financial statement caption for FY 1992. **(NOTE: Reclassification was done for the FY 1992 financial statements).**	**CSAB**	**6/93**	**Completed**
B. Meeting was held on July 22 with CSAB and OAB staff to discuss the current amortization schedule for FMS development costs. These development costs are associated with the Travel Module System.	**CSAB**	**7/93**	**Completed**

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	DIVISION	TARGET DATE	STATUS
C. Policy decision made to amortize the FY **1992** ending balance of **$164,000** over a three year period starting in FY **1993.**	CSAB	**7/93**	Completed
D. Policy decision made to expense FY **1993** and future development costs.	CSAB	**7/93**	Completed
E. Met with DCRT staff to determine what allocation basis exists in the ADB, if **any,** for the allocation of capitalized SSFAS costs. Discussion focused on the possibility of considering other funding sources for the SSFAS.	**CSAB**	**7/93**	Completed
F. Develop and implement policy to assure that current and future costs are amortized in a consistent and comprehensive manner. The policy will be submitted to NM management for approval. Capitalized costs for FY **1985** through June of FY **1993** are **$2,107,920.**	CSAB	**8/93**	Completed
G. Notify the Central Services Activities' managers of amortization policy.	CSAB	**9/93**	Pending
H. Disclose the NIH amortization policy in future statements.	CSAB	FY **1993**	Completed

The results of our tests showed that management's implementation of the action plan had resulted in the substantial completion of this corrective action and as a result this is no longer considered a- weakness.

9. The PMIS and Delegated Procurement System (DELPRO) do not provide adequate security codes to enforce proper segregation of duties.

In the prior year, we noted that 1) there was only one security code in PMIS, 2) only one security code is used for placing and approving orders within DELPRO, and 3) supervisor IDs and passwords are shared because some of the reporting functions of **ADB** currently need to be made available to backup supervisors.

MANAGEMENT'S CORRECTIVE ACTION PLAN			
MILESTONES	DIVISION	TARGET DATE	STATUS
A. PMIS - modify program to effect separation of initiation and approval of property transfers.	DCRT	7/93	Completed
B. DELPRO - segregate duties:			
1. Separate order/approval authorities	DCRT	12/93	Completed
2. Ensure receiving cannot be done by ordering or approving official	DCRT	1/94	
3. Ensure that all approving officials have unique IDs	DCRT	1/94	
4. Monitor compliance	OIRM		
Note: The Chairperson of the NIH Intramural Administrative Officers, Ms. Janis Mullaney (NIEHS), addressed a memo dated 12/5/93 to John D. Mahoney, Deputy Director for Management and Chief Financial Officer for NIH titled "Impact of DCRT Action Plan EDP#3 in Response to CFO FY92 Audit". The memo took exception to B.2. above. In turn, Mr. Mahoney addressed a memo to the PHS dated 1/18/94 making the request to drop **B.2.** There is no known response to that memo at this time. Further action from DCRT is dependent on this response.			

The results of our testing showed that management's implementation of the action plan resulted in the substantial completion of this corrective action and as a result this is no longer considered a weakness.

National Institutes of Health's Annual CFO Report including Overview and Principal Statements and Notes

NATIONAL INSTITUTES OF HEALTH

FISCAL YEAR 1993

ANNUAL CFO REPORT

AUDITED FINANCIAL STATEMENTS

SERVICE AND SUPPLY FUND
MANAGEMENT FUND

TABLE OF CONTENTS

TABLE OF ABBREVIATIONS

AALAC	American Association for Accreditation of Laboratory Animal Care
ADB	Administrative Data Base
ADBIS	Administrative Data Base Information System
AIDS	Acquired Immune Deficiency Syndrome
ALW	Advanced Laboratory Workstation
B&F	NIH Buildings and Facilities
BEIP	Biomedical Engineering and Instrumentation Program
CAS	Central Accounting System
CC	Warren Grant Magnuson Clinical Center
CFB	Computing Facilities Branch
CFO	Chief Financial Officer
COP	Coordinated Occupancy Plan
CRISP	Computer Retrieval of Information on Scientific Projects
CSB	Customer Service Branch
CSRC	Central Services Review Committee
DCRT	Division of Computer Research and Technology
DES	Division of Engineering Services
DHHS	Department of Health and Human Services
DL	Division of Logistics
DRG	Division of Research Grants
DS	Division of Safety
DSB	Distributed Systems Branch
DSFM	Division of Space & Facility Management
DSO	Division of Security Operations
DSS	Division of Support Services
EIS	Environmental Impact Statement
EMS	Essential Maintenance and Safety Program
FDA	Food and Drug Administration
FDDI	Fiber Distributed Data Interface
FMFIA	Federal Managers' Financial Integrity Act
FPC	Facilities Planning Committee
FTE	Full-time Equivalent
FY	Fiscal Year
IBM	International Business Machines
ICDs	Institutes, Centers and Divisions
IMP	Infrastructure Modernization Program
IMPAC	Information for Management Planning Analysis and Coordination
IRP	Intramural Research Program
ISB	Information Systems Branch
LAN	Local Area Network
MAPB	Medical Arts and Photography Branch

MF	Management Fund
MPW	Medical Pathological Waste
NCHGR	National Center for Human Genome Research
NCI	National Cancer Institute
NCPC	National Capital Planning Commission
NCRR	National Center of Research Resources
NIH	National Institutes of Health
NINDS	National Institute of Neurological Disorders and Stroke
NLM	National library of Medicine
NSB	Network Systems Branch
NTIS	National Technical Information Services
OCB	Office of Computational Biosciences
OCRS	Office of Computing Resources and Services
ORS	Office of Research Services
PHS	Public Health Service
PJD	Program Justification Document
POR	Program of Requirements
PPB	Personal Property Branch
PRB	Printing and Reproduction Branch
R&W	NIH Recreation and Welfare Association
RBS	Reference and Bibliographic Services
RSS	Reader Services Section
S&RB	Shipping and Receiving Branch
SB	Supply Branch
SD/AB	Scientific Directory/Annual Bibliography
SERP	Scientific Equipment Resources Program
SES	Scientific Equipment Services
SRG	Scientific Review Group
SSF	Service and Supply Fund
TB	Transportation Branch
VRP	Veterinary Resources Program

MESSAGE FROM THE CHIEF FINANCIAL OFFICER NATIONAL INSTITUTES OF HEALTH

The National lnstitutes of Health (NIH) is committed to providing outstanding research in all areas of health and disease prevention in the most effective manner. This includes developing and monitoring the financial information essential to managing one of our important resources.

The implementation of the Chief Financial Officers Act of 1990 at the NIH has emphasized our commitment to providing effective and efficient operations through improved financial management. By improving our financial and related processes we can enhance the management controls, and more accurately report current and future program costs. The improved reports will provide important information for making future financial decisions on all aspects of NIH programs. We have made significant improvements in the operations to date and are well on our way to completion of actions planned after the first audit.

I am pleased to provide this report on the performance and financial condition of the Service and Supply Fund and the Management Fund, two appropriations very important to the intramural operations of the NIH. The report contains a description and assessment of the operations for Fiscal Year 1993 and the financial statements for the same period.

Francine V. Little
Acting Chief Financial Officer
National lnstitutes of Health

A GLANCE AT THE NATIONAL INSTITUTES OF HEALTH

The National Institutes of Health (NIH) began as a one-room Laboratory of Hygiene in 1887, and today is one of the world's foremost biomedical research centers. An agency of the Department of Health and Human Services, the NIH is the Federal focal point for health research. Its mission is to uncover new knowledge that will lead to better health for everyone. The NIH conducts research in its own laboratories, supports the research of non-Federal scientists in universities, medical schools, hospitals, and research institutions throughout this country and abroad, helps in the training of research investigators and fosters and supports biomedical communication.

The NIH is located in Bethesda, Maryland, a suburb near the District of Columbia. On its campus-like grounds, the NIH maintains hundreds of laboratories containing complex and highly sophisticated research equipment. It also contains a 540-bed research hospital known as the Warren Grant Magnuson Clinical Center, and the National Library of Medicine, the world's largest repository of medical literature and a national center for biomedical communication. The NIH's FY 1993 obligations totalled $10.33 billion which represents an increase of 8.6% from FY 1992 partially resulting from the addition of 3 new institutes.

Since approval of the current master plans in 1972, significant growth on and off the NIH sites, the aging of the physical facilities and infrastructure, and the expansion of various biomedical research programs at NIH have rendered the existing plans nearly obsolete. A draft master plan for the Bethesda campus has been completed and submitted for agency review. Updated facility master plans are.being developed to define the support requirements of the NIH for the next 20 years. The Buildings and Facilities appropriation will provide this funding. The William H. Natcher Building was dedicated in 1993, and phase one of the construction began. A replacement facility for the existing research hospital was proposed in FY 1992. The overall schedule for the hospital replacement facility is 12 years.

A committee, Central Services Review Committee (CSRC), comprised of a broad cross-section of the NIH leadership and chaired by the Associate Director for Administration establishes the funding levels for the various programs/divisions funded by the SSF and the MF. Each program prepares a detailed annual budget which reflects the resources needed to provide the required services. These requests are formally presented by the programs/divisionsto the committee. They are then scrutinized by the DFM budget staff who recommend funding levels to the CSRC. The committee then votes on the recommendations which are then presented in the President's Budget. The funding levels are continually reviewed and monitored by the DFM staff and issues are raised to the committee in formal and informal meeting throughout the year. In addition, Congress sets a limitation so the total amount presented in the President's Budget cannot be exceeded without a formal programming action.

MANAGEMENT'S DISCUSSION and ANALYSIS

Service and Supply Fund

The National Institutes of Health (NIH) Service and Supply Fund (SSF) was established on July 3, 1945, under **42** U.S.C. 231. This fund finances a variety of centralized research, support and administrative activities required for the efficient and effective operation of numerous NIH programs and facilities.

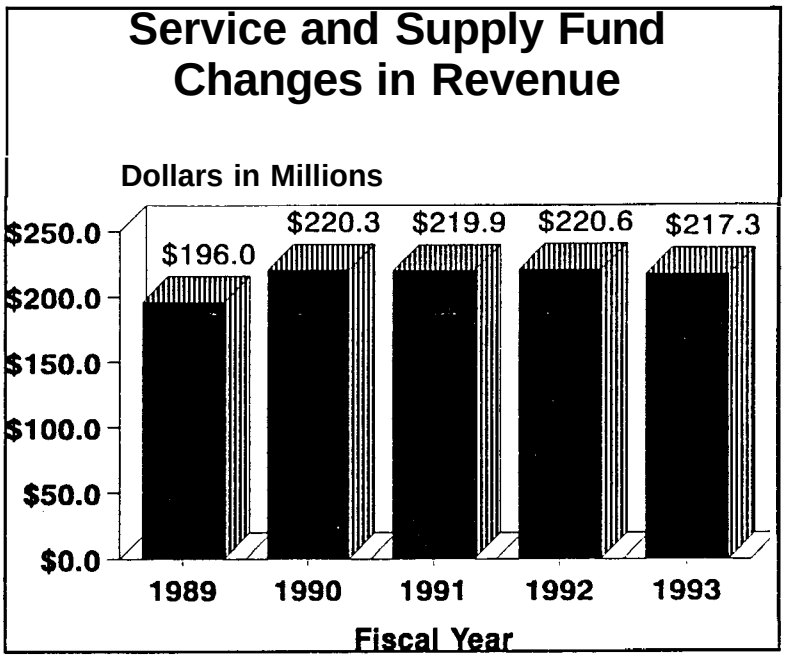
The SSF provides a mechanism for consolidating the financing and accounting of business-type operations involving the sale of services and commodities to customers. The majority of these services and commodities can be identified to specific customers. A specific rate is established for each type of service and is charged to the recipient appropriations on a fee-for-service basis. However, a smaller category of costs, called the General Expense, are general in nature. The General Expense costs are assessed on a formula in proportion to each Institutes total appropriation. In FY 1993, 80% of the services were provided to the ICDs. Sales to non-NIH customers totalled 10%, while intrafund sales represented 10%.

The services and commodities provided by the SSF activities include, mainframe computing, engineering planning and design, printing, telecommunications, procurement, shipping and receiving, motor pool, research animals, fabrication and maintenance of scientific equipment, and other administrative support services. The following is a list of the SSF services and the contribution to the SSF revenue for Fiscal Year (FY) 1993.

Service	Revenue (in millions)	Percent of Total
Logistics	49.9	23.0
Computing	26.1	12.0
Research Resources	37.9	17.4
Engineering	21.8	10.0
Telecommunications	15.2	7.0
General Expense	17.1	7.9
Printing and Reproduction	14.3	6.6
Procurement	10.9	5.0
Other Services	24.1	11.1
TOTAL	*$ 217.3	100%

* The total revenue included intrafund sales. The SSF generated revenue of $217.3 million in FY 1993.

The graph shows a five-year trend of total revenue for the fund. With the exception of Fiscal Years 1991 and 1993, the SSF's revenue has steadily increased, as have the total NIH appropriations.



Management Fund

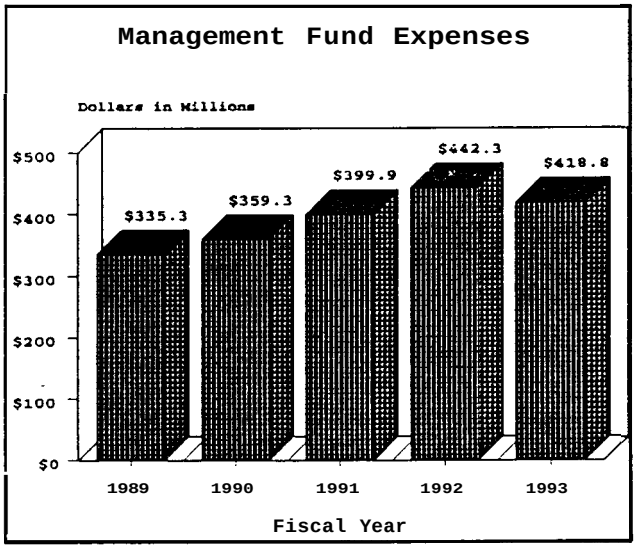
The Management Fund (MF) was established on June 29, 1957, by Public Law 85-67. The MF was created to finance a variety of centralized research support services and administrative activities which are required for the efficient and effective operation of al NIH programs and facilities. Because these services and activities do not readily lend themselves to a system of charging recipient appropriations on a fee--for-service basis, they are assessed to the individual appropriations on a formula basis. The MF organizations providing these services do not receive an appropriation from Congress. Their costs are incorporated into the various NIH appropriations during the formulation process.

The services provided by the MF include utilities and plant maintenance, a 540-bed hospital and outpatient clinic, review and referral of research and training grant applications, collaborative computer science research, biomedical engineering, and general administrative support services. The MF reported total expenses of $418.8 million in Fiscal Year (FY) 1993.

The following is a list of MF services and the FY 1993 expenses.

Service	Expenses (in millions)	Percent of Total
Clinical Center Services	190.8	45.6
Intramural Research Support Service (includes Office of Acquisitions Mgmt. and Office of Research Services)	128.3	30.6
Grant Review & Approval	30.8	7.4
Intramural Scientific Services	21.6	5.2
Computer Services	17.7	4.2
Standard Level User Charges (Rentals)	22.7	5.4
Depreciation	6.9	1.6
TOTAL	$ 418.8	100%

The chart below displays the MF growth over a five-year period. The MF resources have been growing at an average rate of 9.75% per year since FY 1988. In FY 1993, the MF fund expenses decreased by 5.6%.



Clinical Center Fiscal Year 1993 Annual Report

The Warren Grant Magnuson Clinical Center (CC), built in 1953, is the world's largest hospital devoted exclusively to clinical investigation and other biomedical research. It was specially designed to foster the exchange of information between scientists and clinicians. In FY 1993, scientists in more than 1,200 NIH laboratories worked side by side with clinicians caring for patients and conducted more than 2,700 research projects, making it one of the largest research sites in the world. This, along with the relative closeness in physical proximity of research laboratories to patient care units promotes the distinctive two-way exchange between advances in the laboratory and suggestions for new areas of investigation from the patient's health care team.

The CC is unique in that although its' patients receive quality medical treatment, their specific purpose is for medical research. This is the heart of the NIH intramural program with almost 1,000 physicians and more than 800 registered nurses that provide professional care to patients. This situation poses a unique challenge as the CC struggles to meet the sometimes conflicting needs of the NIH with those of the individual volunteer-patient. In addition to most services found in treatment hospitals, the CC also supports such activities as spiritual ministry, social work, and patient activities.

The CC is funded by the NIH Management Fund and is organized into medical and administrative departments that are specifically equipped to serve the needs of the Institutes' intramural biomedical research programs. The departments include Diagnostic Radiology, Nuclear Medicine, Clinical Pathology, Transfusion Medicine, Rehabilitation Medicine, Nursing, Pharmacy, Outpatient, and Critical Care Medicine. Other departments provide administrative support to research service departments.

The following table summarizes various measurement data for the Clinical Center over the last 5 years. It generally reflects a decline in inpatient activity and an increase in outpatient activity during the period, with the exception of a decline in outpatient visits starting in 1992. This was primarily as a result of a change in the nature of certain protocols in the outpatient area for some Institutes, whereby the activity level of each individual patient increased on a per patient basis. Therefore, the raw level of outpatient visits is not representative of the level of research per outpatient visit.

The costs used to determine the average daily costs in the table include all CC costs relating to patient activity only. The composite patient days was used as the denominator since there are both inpatient and outpatient days. An outpatient day equates to .45 of an inpatient day. The trend shows that average daily costs have increased by an average of 10.4% over the last three years. This growth rate is comparable to regional forecasts of health care costs as reflected in the industry-recognized source, DRI/McGraw-Hill Health Care Costs Analysis. For our geographical region of the nation, overall medical care

services costs increased 8.7% over this period. Medical care commodities were projected at a growth rate of 7.4% and pharmaceuticals increased at a rate of 8.6%.

The CC has a computerized Medical Information System for physicians and nursing personnel to record medical orders and patient information. This system collects workload units for various medical care and research services. Many of the workload units are based on industry standards, such as the Johns Hopkins Relative Value Unit for Diagnostic Radiology.

CLINICAL CENTER ACTIVITY

Fiscal Year:	1989	1990	1991	1992	1993
Bed Days Available	177,400	171,550	165,710	153,665	147,460
Inpatient Days	104,730	98,276	90,037	87,304	78,048
Average Length of Stay	11	11	10	9	8
Number of Inpatient Admissions	9,454	9,314	9,278	9,896	8,840
Total Inpatient Admissions since July 7, 1953	195,041	204.355	213,633	223,529	232,369
Clinic Visits-Outpatient	73,420	78,616	91,699	84,587	83,218

OFFICE OF RESEARCH SERVICES

The Office of Research Services (ORS) advises the Director, NIH, and staff on the management and provision of technical and administrative services to all components of NIH in support of the research mission. ORS provides many of the basic support services that are required for the NIH programs to function and prosper, such as master planning, operation and maintenance of NIH facilities, renovations and new construction, space management, telecommunications, conference services, safety, occupational medical services, NIH police and crime prevention, employee transportation services, oversight of travel management services contract, parking, printing, and mail services.

The ORS is composed of an Office of the Director and an Office of Administrative Management, and five divisions which include the Division of Engineering Services, Division of Safety, Division of Security Operations, Division of Space and Facility Management, and Division of Support Services. The ORS divisions are funded by the NIH Management Fund (MF) or dually funded with the NIH Service and Supply Fund (SSF). The ORS utilized 32% of the total MF resources in FY 1993 and 24% of the NIH SSF resources.

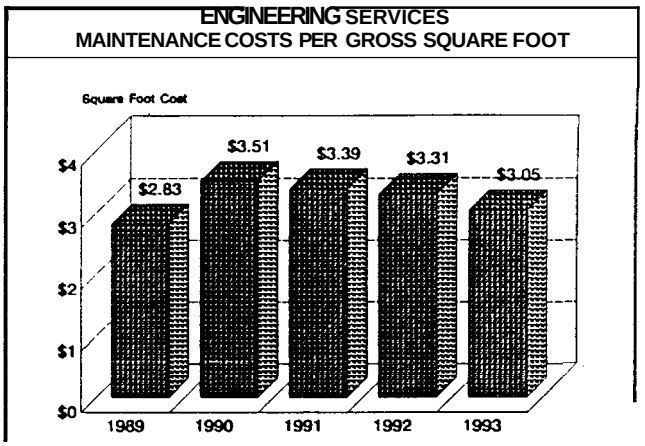
ORS activities impact many organizations and people, including NIH ICDs and employees (scientific, administrative, and support staff), patients, volunteers, visitors, contractors and suppliers, providers of services (such as utilities, public transportation, rental space), other government organizations and agencies (FDA intramural programs, regulatory agencies, state and local governments, planning commissions), the surrounding neighborhood and business community, as well as NIH extramural grantees.

ENGINEERING SERVICES

The Division of Engineering Services (DES) provides architectural, engineering, technical and craft services for the operation, maintenance, alteration, repair and development of the NIH facilities to ensure the existence and integrity of the physical environment necessary to support the NIH mission. The DES is responsible for operating and maintaining the Clinical Center, a 500-bed research hospital, and all other clinical and laboratory buildings and support facilities on the Bethesda campus. This includes a sophisticated infrastructure that consists of complex central plant equipment and utility distribution systems. Further, the DES is responsible for all aspects of the buildings' support systems and operations affecting NIH intramural research animal facilities. The maintenance of these facilities is critical to the research protocols and the overall NIH accreditation by the American Association for Accreditation of Laboratory Animal Care (AAALAC).

In addition to the main NIH campus, the NIH facilities management and technical engineering programs provide direction and support for eight satellite components located throughout the United States. The DES provides national leadership in biomedical research facility design and operations and thus impacts on the conduct of biomedical research at medical centers throughout the United States.

The maintenance costs per gross square foot have decreased as depicted on the graph.



Major Accomplishments

Clinical Center Replacement Program

Agreement was reached last year by NIH management on the recommended new construction total replacement option to resolve deteriorating infrastructure and overcrowded conditions in the existing Clinical Center (CC). The required Program Justification Document (PJD) for this project has been completed and forwarded to the Department for approval. The DES is currently working with the Intramural Research Program (IRP) Review Committee in their evaluation of the IRP. The CC Essential Maintenance and Safety Program will ensure continued operation until a replacement facility is completed. The Essential Maintenance and Safety (EMS) Program was completed for the CC Complex infrastructure systems restoration, and the EMS design was initiated. The design for the first phase of the immediate repair/restoration of the HVAC system is now 50% complete.

NIH Master Plans

Following the September 1992 award for Architect and Engineering services, the DES continued to direct all activities associated with development of NIH Master Plans and Environmental Impact Statements for the Bethesda and Poolesville campuses. This included extensive interviews with all ICD Directors/Executive Officers, other NIH Senior Management staff, and numerous presentations to federal and local planning agencies, utility companies, the general public, the NIH Neighbor Council, B-CC Citizens Advisory Board, and NIH employees/groups. In addition, a Facilities Planning Committee (FPC), comprised of senior NIH and ICD management, was established by the Director, NIH, to advise and guide the Director during the development of the Master Plans. Throughout the development process, the FPC reviewed and discussed concepts, alternatives and drafts of the Master Plans. An advisory group comprised of senior management from the ORS divisions provided technical resource support to the FPC. The draft Master Plan for the Bethesda

campus has been completed and submitted for Agency review. The Poolesville Master Plan will be completed by the summer of 1994.

Facility Planninq and POR Process

Working with PHS representatives, the ORS revised and streamlined the Program of Requirements (PORs) document and process. The new procedures improve efficiency of preparation, content, and review and will result in an estimated time-savings of several months to one-and-a-half years per project.

Capital Improvement Acquisition Plan Document

This is the first in a series of annual documents which describe the total program comprised of the NIH Buildings and Facilities (B&F) budgets, projects and implementation schedules. It shows the FY 1994 B&F programmatic and procurement requirements for the formal NIH B&F appropriation, as well as the total ICD and DES facility projects (exclusive of Small Purchases.) This document will be invaluable as an aid in DES' management of its part of the program. In addition, it is a good indicator of the future procurement workload, and can therefore be used to ensure procurement resources match responsibilities.

Facilities Construction

Phase I construction for the William H. Natcher Building is 25% complete with beneficial occupancy expected in August 1994. Design for Phase II is 95% complete. Public comment has been received on the draft Environmental Impact Statement (EIS) for Phase II and the National Capital Planning Commission (NCPC) hearing on the draft EIS has been held. Procurement of Phase II construction will not be initiated until NCPC has approved the NIH Master Plan.

Silvio O. Conte Building (49) coordinated Occupancy Plan

A Coordinated Occupancy Plan (COP) was established for the Conte Building to coordinate the occupancy of the research laboratories and offices for six ICDs and of the central animal facility. The complexity of the move required a great deal of coordination at a time when several other facilities were also being occupied. This unified effort of all the ORS divisions included: the final adjustments necessary for the installation of intricate scientific equipment; the procurement and installation of that equipment; the phase-in of all of the building services, including a coordinated telephone and computer network system; the certification of the scientific containment devises; the safe movement of chemicals and equipment from other NIH facilities; and final efforts to assure AAALAC accreditation of a new facility. ORS certified containment devices, arranged chemical moves, posted the rooms for potential hazards, provided room keys, card keys, and the final guard services, handled telecommunications and computer cabling, and activated the sanitation services contracts.

Infrastructure Modernization Program (IMP)
Phase I of the Master Utility Plan was completed for NIH's central infrastructure utility systems (including development of computer aided drawings of site utilities and power plants, and a master plan for expansion of chilled water and steam generation/distribution systems); and the second year of the Master Utility Plan for Secondary Systems was initiated (including sanitary sewer, natural gas, electrical systems.) Infrastructure projects now under construction include: 1) new 200,000 pound/hr boiler for the heating plant; 2) chilled water distribution to Building 5 and expansion to the east header; and 3) Chillers 18 and 19 adding 10,000 tons of refrigeration capacity to replace aged equipment and capacity shortfall. A Construction Quality Management Contract was also initiated for IMP projects. Energy conservation measures were evaluated and implementation plans are being formulated. These measures, if implemented, could result in savings of up to $7 million per year through co-generation, high efficiency chillers with dual drives, and the chilled water pumping configuration restructuring.

SAFETY

The Division of Safety (DS) was established as the first organization providing comprehensive safety and health services to all Institutes and other organizations located on the Bethesda campus. This was stimulated by new laws and regulations that were enacted in the 60's and 70's; executive orders that were issued; and the public which had become more aware of the challenges concerning the environment, hazardous substances and workplace safety. The DS provides national leadership in research safety methodology to the NIH and the extramural biomedical research community, and conducts, fosters, coordinates and supports technical assistance, service, compliance, training, and research programs to promote and maintain safety and environmental protection in biomedical research. The DS also cooperates and collaborates with national and international organizations, the DHHS agencies, and other institutions engaged in these activities.

Major Accomplishments

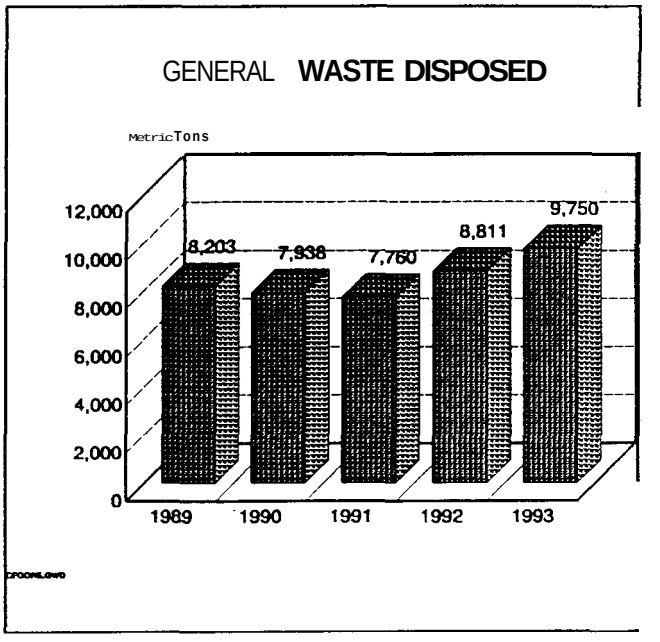
Environmental Audits
Environmental audits were conducted by the ORS in FY 1993. These audits were related to the Medical Pathological Waste (MPW) and hazardous waste management activities on the NIH campus. Results of the audits are used to evaluate waste management activities and recommend improvement in polices or procedures.

Bitterroot Valley Sanitary Landfill Groundwater Restoration Project
The NIH Rocky Mountain Laboratory was authorized to dispose of liquid chemical laboratory waste at the Bitterroot Sanitary Landfill between 1981 and 1985. Because of the unfavorable soil conditions beneath the landfill, the nearby residents' individual wells became contaminated. The NIH, under the direction of the DS began the

remediation project in 1992 utilizing $1M per year of MF dollars; significant progress has been achieved to date. This project will determine and locate the source of groundwater contamination; remove the contaminated soil; pump and treat contaminated groundwater; determine the feasibility of providing a safe potable water supply for each adjacent residence by replacing the shallow wells with deep specially designed water wells; and develop a groundwater quality monitoring network, including new shallow wells, during the next ten years.

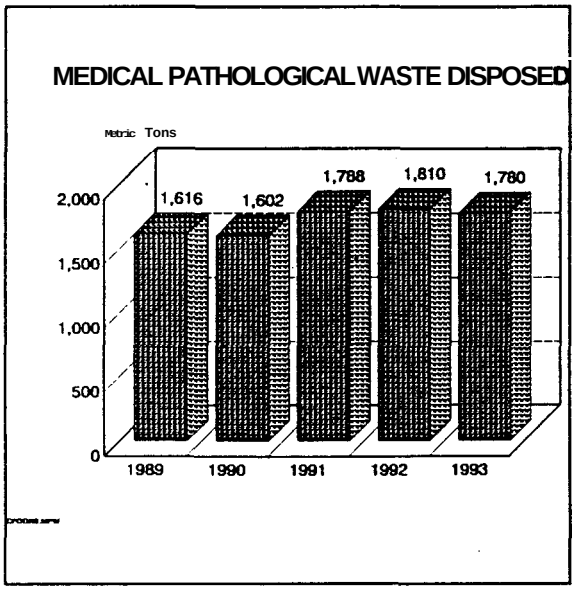
Consolidated Waste Disposal Contract

In FY 1993, a multi-million dollar contract for disposal of radioactive, chemical and mixed wastes was implemented with no disruption of service. The contract consolidated waste disposal activities under a single prime contractor in order to improve efficiency and compliance with relevant laws and regulations.



Improved Medical Pathological Waste (MPW) Management

After an extensive review of the generation, packaging, storage, transportation and incineration of medical waste at NIH, several MPW management improvements were implemented. New boxes for MPW collection and disposal and for the collection and disposal of disposable labware and broken glass were secured, and transportation of MPW was upgraded.

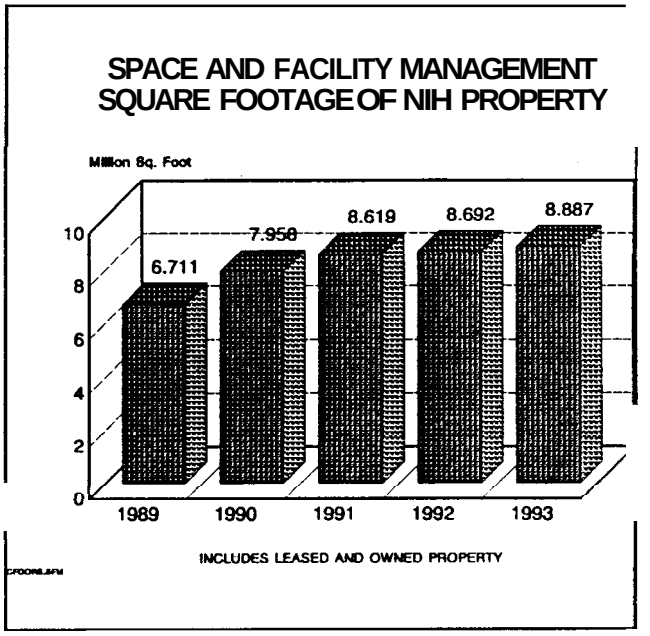


Decreased Radioactive Waste Storase Volume

The Radiation Safety Branch will use a contract facility to incinerate combustible solid radioactive waste. The reduced volume will substantially reduce disposal costs and require less storage space. Interim storage was established in Poolesville with an amendment of the NIH License from the Nuclear Regulatory Commission (NRC).

SPACE AND FACILITY **MANAGEMENT**

The Division of Space and Facility Management (DSFM) manages the NIH comprehensive nationwide space management programs that provide policy oversight of laboratory, clinical, office, and storage space. The DSFM administers space programs for over 200 Federally-owned buildings amounting to more than 9,000,000 square feet of floor space on some 2,000 acres of land. In addition, DSFM is responsible for more than 30 leased buildings representing nearly 1,000,000 square feet of floor space. The DSFM oversees ad hoc facilities such as the NIH Credit Union, banks, child care facilities, and the Recreation and Welfare Association (R&W); manages residential housing for NIH staff; and also provides telecommunications, sanitation, and conference services to the NIH.



Major Accomplishments

Implementation of the New Telecommunications Digital Switch

The DSFM coordinated and resolved all issues impacting the award and installation of the NIH/PHS Digital Switch. The Digital Switch, implemented in March 1993 for NIH and August 1993 for PHS has a 46,000 line capacity and serves both the NIH community and PHS in the Parklawn complex. Of the total line capacity, 75% is dedicated to NIH. The switch enhances NIH's telecommunications capabilities and is equipped with many custom features which include 5-digit dialing, call forwarding, call pickup, speed dialing, and voice mail with caller ID. The switch is also configured for 30% Integrated Systems Digital Network (ISDN) usage, a technology that allows voice and data to travel over the same telephone line. This implementation completed a seven-year procurement process that was required of all Government agencies as a result of the 1984 AT&T divestiture. The implementation of the Digital Switch will result in an estimated savings of $20 million over the term of the contract in telecommunication costs.

Sanitation Services Contracts

The ORS achieved its goal of reducing the cost of sanitation services through the successful award of two sanitation services contracts for on- and off-campus NIH facilities. As a result of instituting a competitive bid process, the development of a more defined statement of work (SOW), and a good review process, the average cost

per square foot for cleaning was reduced from $5.00 to $2.00; a savings of over $38 million over the term of the contracts.

SUPPORT SERVICES

The Division of Support Services (DSS) provides two primary services to the NIH. The Mail Services Branch (MSB) provides United States, international, and interoffice mail services as well as some courier services. The Printing and Reproduction Branch (PRB) provides printing, publishing and related services. PRB also manages copiers, maintains a data base of mailing lists with over 250,000 names, makes name badges, laminates products, and provides bulk mailing services.

Major Accomplishments

Mail Services

In 1991, it was determined that a key element to improve mail services to the NIH was to relocate the existing mail facility to an off-campus location so the branch could upgrade existing sorting capability. After a protracted search throughout the local area, the DSS occupied a new facility in Rockville, MD in November 1993. The additional space will permit installation of an OCR Bar Code Mail Sorting System, which could greatly increase mail sorting speed as well as reduce outgoing mail costs. With acquisition actions underway, the new sorting equipment should be on-line in the summer of 1994.

SECURITY OPERATIONS

The Division of Security Operations (DSO) is responsible for the planning, directing, coordinating and evaluating of a comprehensive protection and security program for the entire NIH campus. The Division also provides security programs for off-campus facilities and manages all contract guard services. The DSO provides security related education, training, technical assistance, physical security, hospital security, government drivers license issuance, parking and traffic control, law enforcement, criminal investigations, and traffic mitigation programs for the NIH.

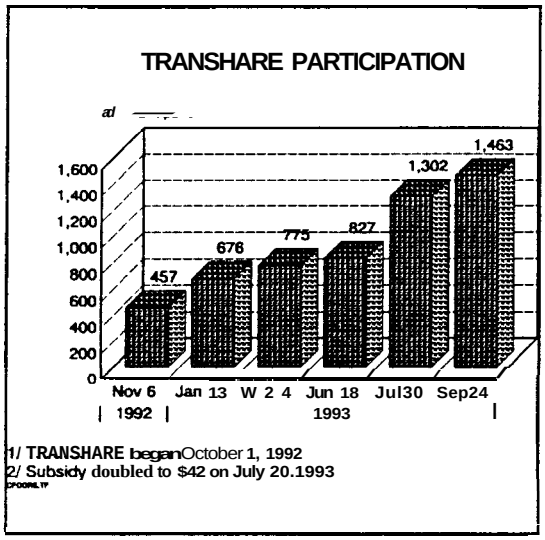
Major Accomplishments

Transportation and Traffic Management

On October 1, 1992, the NIH opened satellite lots in Garage 57 located on Bethesda Avenue (150 spaces), the Shady Grove Metro Station (300 spaces), and the Mid-Pike Plaza Park and Ride lot at Montrose Road and Rockville Pike (approximately 300 spaces.) The spaces in Garage 57 and the Mid-Pike Plaza are open to all NIH Parking Permit Holders. Shuttle services are provided from each location to the campus. Approximately 500 of the off-campus parking spaces serve to offset on-campus parking lost during construction of the Natcher Building, Phase I. The

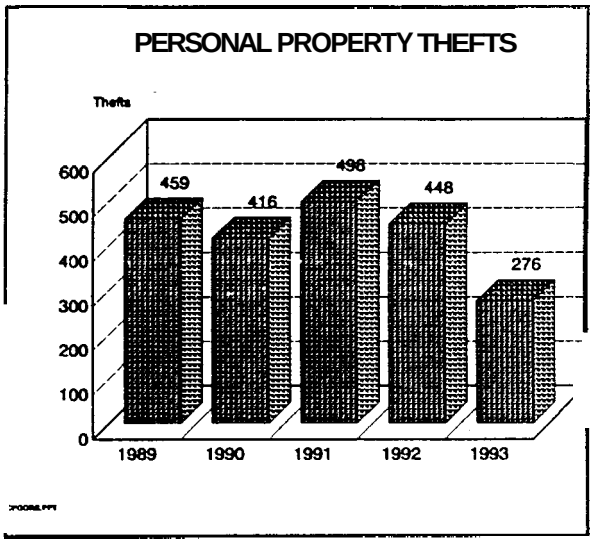
remainder provides a supplement to the current parking supply. The spaces at Shady Grove are reserved spaces for which an employee must relinquish their on-campus parking permit (24 on-campus parking exceptions a year will be permitted) and also be accepted in the TRANSHARE Program. As of mid-December, 150 individuals were using the new satellite parking lot at the Shady Grove Metro. Approximately 125 individuals are using the Mid-Pike and Bethesda satellite parking lots on a daily basis.

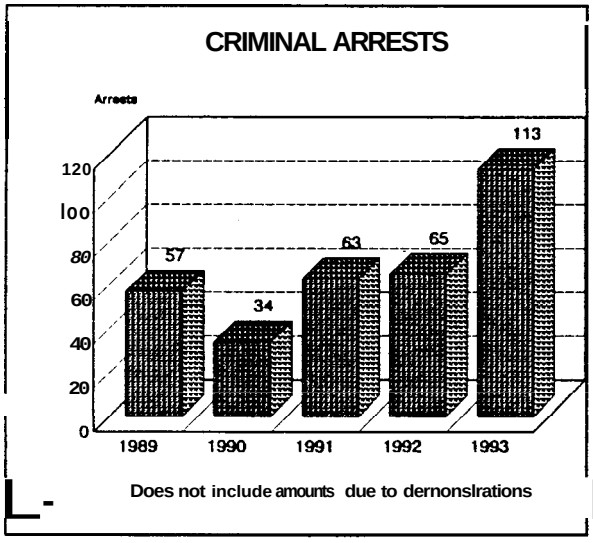
TRANSHARE system changes, including an additional input station in the R&W in Executive Plaza South, were put in place to allow off-campus NIH employees to participate in the program, expand the number of pay plans that can participate, allow participation by vanpools, and increase the monthly subsidy from $21.00 to $42.00. These changes have resulted in employee participation more than tripling from 457 employees in early November 1992 to 1,463 in late September 1993.



Improved Crime Prevention and Control

In FY 1993, the DSO provided services resulting in a 38% decrease in personal property thefts, along with a 73% increase in criminal arrests.





DIVISION OF COMPUTER RESEARCH AND TECHNOLOGY
OFFICE OF COMPUTING RESOURCES AND SERVICES

The Division of Computer Research and Technology (DCRT) finalized a Strategic Plan and reorganized to align ourselves with that plan during Fiscal Year (FY) 1993. The plan and thus the new organization address three major programs: Research and Development, Computer Resources Infrastructure, and Direct Computing Services and Support. The Director of NIH approved the establishment of two new offices one dealing with services, support, infrastructure and facilities Office of Computing Resources and Services (OCRS), and the other with research and development for the computational biosciences Office of Computational Biosciences (OCB).

Key elements of the OCRS organization include:

- creation of a central point of contact for all services and support in the division
- a central focus for campus-wide networking
- consultation and support for evolving distributed systems technology
- consolidated operation, maintenance and support of all DCRT hardware and software platforms for shared and enterprise use
- creation of a core mechanism for identifying and evaluating opportunities to transition to open systems environments.

The functional definition of the new branches of the OCRS and the reallocation of resources is underway. A quick list of the branches and their primary functions follows:

- Network Systems Branch (NSB). Designs, develops and supports all network facilities and services related to NIHnet, the NIH-wide backbone infrastructure; fosters computational interoperability; and promotes the development of state-of-the-art networking technology.
- Computing Facilities Branch (CFB). Develops, operates, maintains and supports central hardware and software platforms for shared and enterprise use; evaluates, installs and maintains central servers, gateways and database management facilities that support client/server computing; and takes the lead in devising and implementing workable strategies for migrating NIH computing to open systems.
- Distributed Systems Branch (DSB). Addresses the increasing demand for service, support and guidance in the selection and effective use of personal computers, workstations, local area networks, and associated automation technology; provides advice and assistance on issues relating to multiplatform

client/server and database support; and provides primary planning and support for the Scientific Computing Resource Center (SCRC).

- Customer Services Branch (CSB). Serves as the primary user contact for information, support and training within DCRT; manages and facilitates the resolution of user problems with the appropriate staff in DCRT; and, in general, acts as the user advocate within the DCRT.
- Information Systems Branch (ISB). Provides continued support for the NIH Administrative Data Base (ADB), the Central Accounting System (CAS), and the Clinical Information Utility (CIU); serves as an NIH resource for database design, systems analysis and programming; and plays the lead role in evaluating, selecting and supporting NIH client and local workstation and server database products.

In addition to the branches, a Statistical Support Staff has been established to provide direct advice, assistance and support to biostatisticians and others at the NIH who either are using or are planning to use statistical software on central and distributed platforms.

Representatives from each of the branches also participate on the Architectural Management Staff and the Funding Management Staff. The objectives of these two staff groups are, respectively, to foster collaboration related to DCRT-wide architectural planning, and to identify and develop mechanisms for new DCRT cost recovery alternatives.

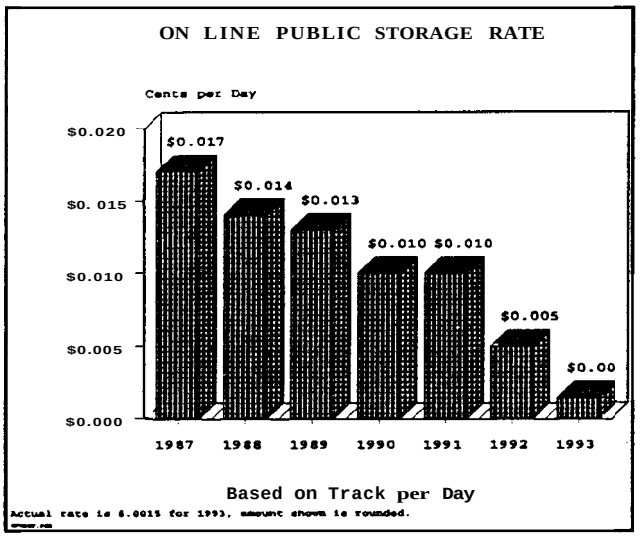
The Customer Services Branch is already preparing to assume its pivotal role in the reorganization. A client/server facility is being developed to support problem tracking and resolution across the OCRS; plans for a new centralized training program are in place. Consolidation of user services with a central point of contact and a single phone number for assistance will help to speed the NIH researcher or administrator to the proper DCRT resource for his/her information and support requirements.

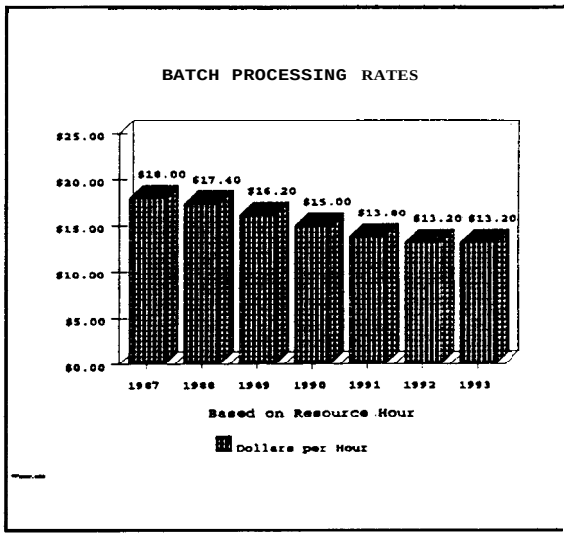
Even as plans to move support for open systems to the CFB were in gestation, the Federal Computer Conference bestowed an honor upon the staff of the Advanced Laboratory Workstation (ALW) Project, formerly part of the Computer Systems Laboratory. The ALW system received the 1992 Best Open Systems Solutions (BOSS) Award for Innovation in Hardware, Software and Networking Approaches.

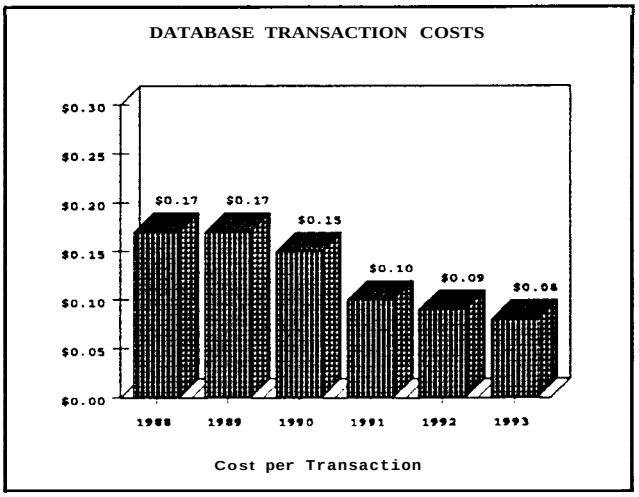
Higher communications speeds and enhanced error correction for the CFB's interactive services - in the form of new communication controllers and new state-of-the-art modems - will open up capabilities and functions such as large file transfers, which have not been previously viable.

For the 25th consecutive year, cost savings were passed on to users of the computer center in the form of significant rate reductions, rebates, and discounts ranging from 21% to 28%.

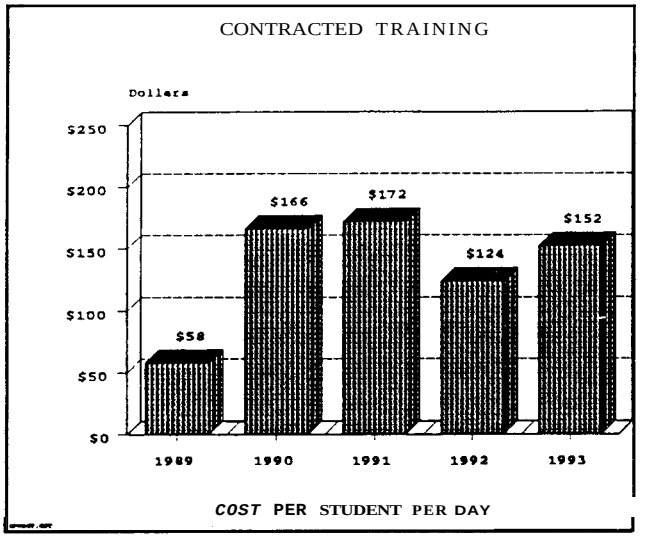
The following graphs depict the efficiency of the DCRT operations. They continue to reduce the costs of providing services to the NIH community.







The Scientific Computing Resource Center (SCRC), now located in the DSB, was piloted in May 1992 and is now flying strongly, especially with the opening of its Image Technology Center in July 1993. The center has been particularly popular for molecular modeling, sequence analysis, graphics and statistics.



DSB and other branches have collaborated in beta-testing new products such as Windows NT and the various Lotus 1-2-3 releases. This positions DCRT to influence product enhancements which will meet the particular requirements of the NIH community. DSB's Dr. Dale Graham has developed new courses and training manuals to assist in the use of GenBank, other databases, MacVector, GCG and other sequence analysis programs. John Powell continues to play a major role in the automation of laboratories performing large-scale sequencing. His expertise includes hardware, software, networking and databases, engineering, and application of new technologies such as the pfast data finderz chip and the commercial Inherit system. He has recently been joined in this effort by Dr. Mark Miller, and is providing major support to researchers in the National lnstitute of Neurological Disorders and Stroke (NINDS), the National Cancer lnstitute (NCI) and the National Center for Human Genome Research (NCHGR).

In addition, DSB's Dr. James Malley has completed a monograph on pQuantum Statistical lnferencez which is now in press as a series of journal articles.

The Statistical Support Staff sponsored a Mathematical and Statistical Software Fair at NIH during December 1992. This was the first of its kind, and it introduced NIH mathematicians and statisticians to multiplatform mathematical and statistical packages. A questionnaire was distributed among the attendees and important data were compiled on software packages of interest to the NIH community.

Interest in the Administrative Data Base lnformation System (ADBIS) was such that several formal demonstrations were presented. The ADBIS represents the fruition of a collaborative effort among lnformation Systems Branch (ISB) staff, and over 70 representatives from all of the ICDs. This effort is being coordinated by Mr. Mark Kochevar of NCI who is serving as Chairman of this ADB Steering Subcommittee. The ADBIS is an online system which provides standard query facilities that are specifically designed to respond to the requirements developed by the subcommittee.

During the fiscal year, the increased speed of Fiber Distributed Data Interface (FDDI) was extended to an additional 110 local area networks (LANs) in 10 buildings on the NIH campus. FDDI operates at 100 megabits per second and portends the ability to accommodate transfer of large files for image processing, full-motion video, genome mapping and other research applications that require massive data transfer at high speed. Currently, there are about 250 LANs on the NIHnet, which serves sites on and off the campus. This number will probably grow to around 330 during the coming year, and NSB plans to provide the most advanced, appropriate and latest supportable technology for each site.

Valuable services have been provided to the NIH community as a whole. For example, the PUBnet Fax gateway allows any LAN user at NIH to send electronic faxes to anywhere in the world; antiviral software for PCs has been made available to virtually all NIH employees; and many electronic NIH forms have been made available for downloading from PUBnet in the various formats most used by the NIH community.

A new Macintosh database and desktop publishing system for producing the NIH Scientific Directory/Annual Bibliography (SD/AB) simplified ICD submission requirements, easing the pain for ICD coordinators and facilitating the job of the Editorial Operations Branch, OD in producing this year's SDIAB book.

If it were possible to accurately describe and estimate the true costs of a distributed computing investment, we might be able not only to make more informed systems design decisions, but also to identify clear opportunities to reduce costs and optimize resource requirements. To do this, one must consider the costs and resource commitments that go beyond initial.hardware and software purchases. These costs include support, training, system administration, backup and recovery, and hardware and software upgrades. It has been estimated that these follow-on costs represent three to four times those of the initial purchase. DSB is actively pursuing an independent and objective analysis of these costs with the Gartner Group, Inc.

Strategies and Plans for the Future:

> The OCRS is aggressively pursuing a number of initiatives designed to better serve the NIH community in a world of rapid technological change.
> In the networking arena, several initiatives are in progress and others are planned. Construction of the NlHnet backbone and consolidation of RESnet, NUnet, and CCnet into a cohesive whole B along with the value-added information resources and network-based applications B are being developed

This sets the stage for distributed computing and realizing the benefits of client/server technology. A Microsoft Mail gateway is in "pilot production" and currently handles mail from 20 LANS at NIH. When complete, NIH will have a cross-platform,

trans-organizational communication system which includes e-mail directory synchronization among servers, user address exchange with the NIH e-mail directory, backup and recovery, and operational monitoring.

The initial model of an NIH-wide mail directory is in a test stage, and is scheduled to be made generally available to the community early in FY 1994. When complete, the mail directory will provide transparent access to addresses of all NIH electronic mail users. As Microsoft Mail enters full production, we hope to fully integrate its directory services with the NIH-wide mail directory.

As part of our quest for additional value-added services on the network, we are examining the feasibility and potential cost benefits of expanded site licensing for, and network distribution of, commonly used LAN and desktop software. Negotiating site licenses for the campus would make it simpler and cheaper for NIH to obtain software and related upgrades for facilities such as heavily used operating systems, word processors, desktop client and run-time modules, and statistical programs. Broad use of this concept could also reduce administrative costs related to procurement, and provide mechanisms across the NIH community and within the ICDs to better coordinate and control the proliferation of multiple versions of the same software.

Gopher is a network-based distributed information search and retrieval system. Developed at the University of Minnesota, Gopher comprises both a protocol and client/server software, and provides access to a wide variety of information and network resources. DCRT introduced Gopher at NIH in the summer of 1992 on the NIH Convex system, through combined efforts of the Convex staff and the Computational Molecular Biology Section.

Gopher is a truly revolutionary step towards making the Internet and its resources available to users, and over 1,500 sites around the world now provide a uniform, simple interface to an astounding volume and variety of information. At NIH, through the collaborative efforts of many, access has been provided to:

- Current Contents and Reference Update
- Molecular Biology databases including GenBank, PIR, SWISSPROT, Protein Data Bank, PROSITE, Listing of Molecular Biology Databases (LiMB), and Transcription Factor Database (TFD)
- NIH Phone Book and e-mail directory
- Current Index to Statistics
- NIH Guide to Grants and Contracts
- National Cancer Institute's CancerNet
- CRISP (Computer Retrieval of Information on Scientific Projects) System
- Catalogs of the DCRT and NIH libraries.

Several components of the OCRS have successfully developed prototypes of client/server applications and are addressing the many issues of cross-product connectivity which arise in an open systems environment as a barrier to interoperability.

Investigation of products which might be used to establish an effective client/server environment at NIH is actively being pursued. During the coming year, DCRT plans to implement and fully support client/server gateways to its mainframe and central servers and to provide highly interoperable support for other processing platforms. We will also collaborate to select and support client software and LAN database products. Probably the most visible change in DCRT will occur in the direct customer service area. In the past, DCRT has provided excellent user service for several of our highly visible functions. However, new and even regular users were often confused by DCRT's myriad of services and related contact points. Our plan calls for broadening the existing walk-in service provided by CFB to include all DCRT services and providing a single, easy-to-remember phone number, i.e. 4-DCRT, for all remote inquiries. CSB plans to gradually transition existing services in a manner that ensures a reasonable evolution to one-stop customer service with a minimum of inconvenience.

LOGISTICS

The Division of Logistics (DL) manages and/or has oversight responsibility for all logistics functions at the NIH. Specifically, the DL has responsibility for the personal property management, shipping and receiving, supply management, and transportation functions supporting the worldwide biomedical and research activities of the NIH, and certain other components of the DHHS. The Division provides central policy and oversight for all logistics functions NIH-wide. The DL is composed of four branches, which are funded by the NIH SSF.

PERSONAL PROPERTY BRANCH (PPB)

The PPB manages personal property which embraces accountability functions and preservation, utilization, and disposal operations for all Government property used by the NIH. The PPB coordinates decentralized personal property management activities, and formulates and disseminates policies and procedures to implement Federal and Departmental regulations. As of September 30, 1993, the Property Management Information System showed a balance of 257 thousand items with an acquisition cost of $810 million.

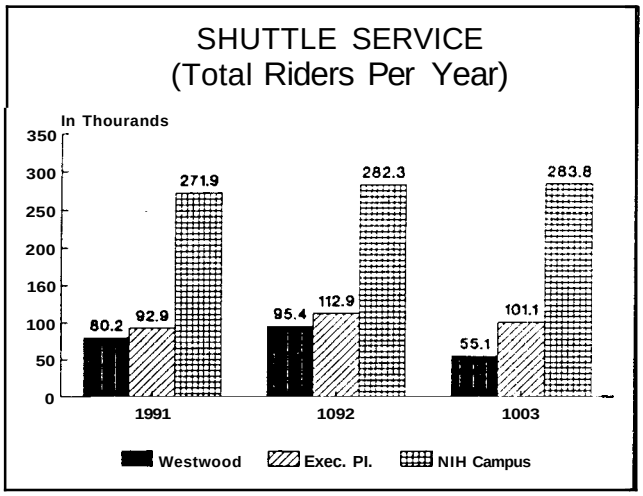
SHIPPING AND RECEIVING BRANCH (S&RB)

The S&RB manages and is responsible for all phases of general freight traffic management for the NIH. This includes receiving, checking, temporary storage, custom clearance on international shipments, and the distribution of incoming freight. Also included are arrangements for shipment of all types of freight to both foreign and domestic destinations, including packing and crating, and the receipt and delivery of controlled substances, alcohol and syringes. In addition, during FY 1993 the transportation of household goods and personal effects for NIH civilian and commissioned officer employees under official transfer was assumed as a function of the branch.

TRANSPORTATION BRANCH (TB)

The TB manages and provides transportation services at the NIH, including: operation of a local motor pool consisting of buses, passenger vehicles and light trucks; coordination of delivery of specimens, blood, cash orders, etc., between the NIH and various Government organizations; movement of expendable supplies, equipment, and office furniture between the NIH buildings in the Washington and Baltimore areas, and; management of a comprehensive preventive maintenance program and major repair facility for the NIH motor vehicle fleet, including a variety of special purpose vehicles and non-automotive equipment such as scooters, forklifts, etc.

Additional services include operation of a shuttle bus service to provide scheduled transportation between buildings on the Bethesda main campus of the NIH and rental buildings, as well as oversight of the contractor-operated shuttle service between the NIH main campus and Executive Plaza.

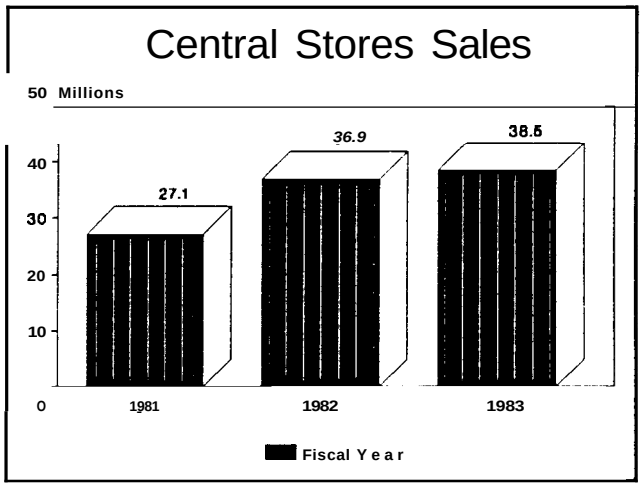


SUPPLY BRANCH (SB)

The SB manages and is responsible for the requirements determination and for automated inventory control of the NIH Central Stores System, covering a broad variety of commodities including laboratory supplies and glassware, hospital and surgical supplies, chemicals, office supplies and equipment, and animal food and bedding. These supply groups include items most used by the NIH and its foreign and domestic field stations.

In FY 1993 Central Stores sales to the NIH community totaled $38.5 million. Stock on hand at the end of the fiscal year was valued at $5 million and included 264 new items added to the inventory throughout the year. Central Stores maintained a stock availability rate of 98%. The SB operates three major warehouses: the NIH warehouse; Animal Food and Bedding; and, Chemicals.

Customers can order from the warehouses or visit one of several Self-Service Stores to make purchases. Requisition line items processed in FY 1993 totaled 274 thousand. More information including the inventory ratio analysis is discussed in the "SSF Inventories" section of this document.



More new stock items were added to the Central Stores Inventory than ever before. Approval and effectiveness of these efforts is reflected by the increasing sales.

payments in aggregate, and for each of the five years subsequent to the reporting date. In addition, a general description of the operating and capital leasing arrangements should be disclosed. Discussions with management indicated that the information was not assembled for presentation in the financial statements because management believed that specific **GAAP** disclosure requirements of FAS 13 pertained only to capital leases.

In our Internal Control report dated June 14, 1993, we recommended that leased computer equipment be recorded in the fmancial statements as capital equipment. Additionally, we recommended that management evaluate the proper accounting treatment for proposed leases as part of the procurement process. This up-front analysis would allow management the opportunity to determine whether leases **are** capital or operating, as well as gather the information necessary for disclosure in the notes to the financial statements.
For all existing leases of the Funds, including capital leases and operating leases, we recommended that the provisions of the lease agreements be analyzed and information necessary for full and fair disclosure as required by FAS 13 "Accounting for Leases" be assembled for inclusion in the financial statements.

The following table is NIH's corrective action plan to address these weaknesses identified in the prior year:

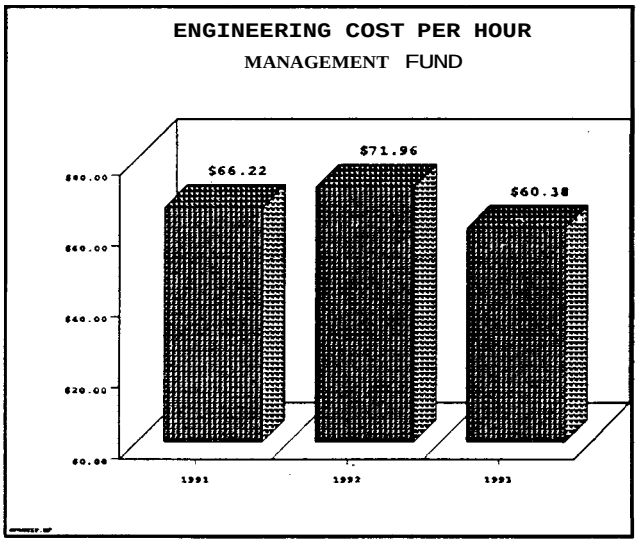
MANAGEMENT'S CORRECTIVE ACTION PLAN

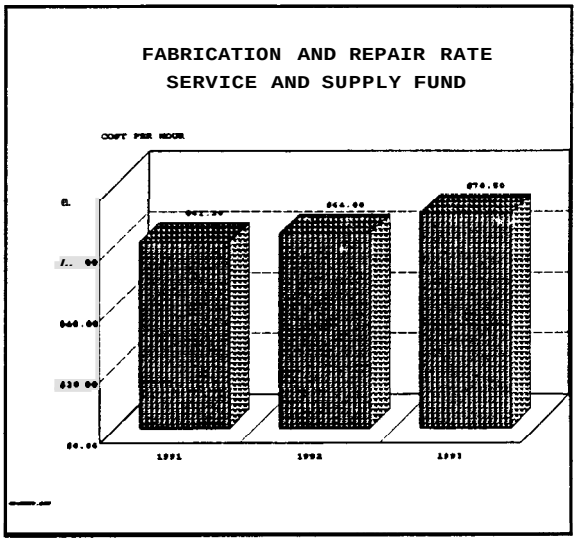
MILESTONES	DIVISION	TARGET DATE	STATUS
A. CSAB met with the DCRT to discuss and review the data that is available to determine the value of the leased computer equipment. . Discussions also included strategies to capture future lease payments correctly **as** capital leases **as** opposed to operating leases.	CSAB	8/93	Completed
B. CSAB employees will determine proper accounting procedures and methods to use to properly record capital leases in the accounting records.	CSAB	8/93	Completed
C. DFM will meet with Division of Procurement personnel to discuss capturing the treatment of capital leases in the procurement process.	CSAB	8/93	Completed
D. Determine FY 1993 value of capital leases for computer equipment for the FY 1993 financial statements.	CSAB	10/93	Pending

BIOMEDICAL ENGINEERING AND INSTRUMENTATION PROGRAM

The Biomedical Engineering and Instrumentation Program (BEIP) contributes to the advancement of NIH research in applications of engineering, mathematics, and the physical sciences to the solution of problems in biology and medicine, through: 1) consultations to and collaborations with NIH scientists in areas such as measurement, imaging, mathematical modeling, and design of specialized equipment; 2) independent research and development of theoretical and experimental methods, including novel instrumentation; and 3) technical support services such as construction, modification, repair, sale, and lease of scientific equipment.

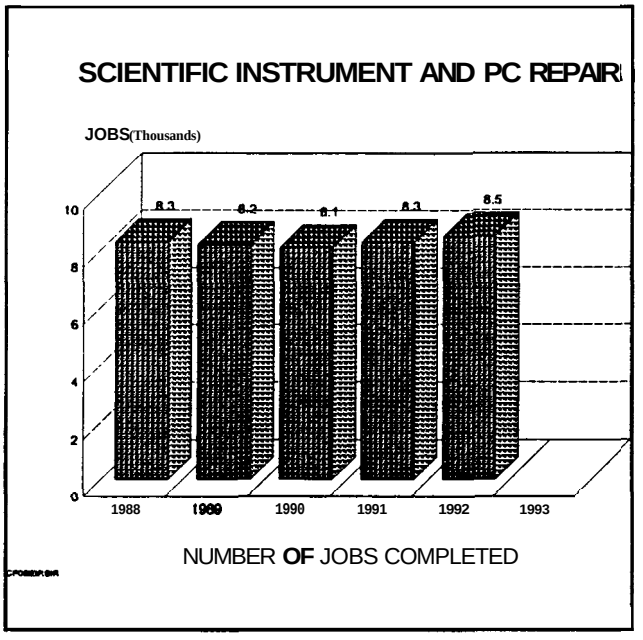
The BEIP staff of approximately 40 physical scientists and engineers and 75 technical support employees, collaborates each year on more than 150 projects to produce advanced instrumentation, models and techniques dedicated to the acquisition of biomedical information previously unavailable to the NIH scientists. In addition, they typically respond to about 1,400 requests for fabrication or major modification of laboratory devices and over 8,000 requests for repairs and minor modifications of

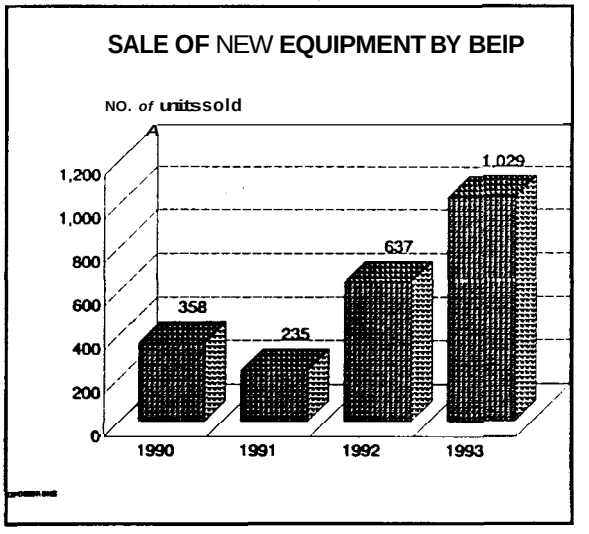




scientific equipment. Approximately two thirds of BEIP is funded by the Service and Supply Fund (SSF), while the remaining third is funded by the Management Fund (MF).

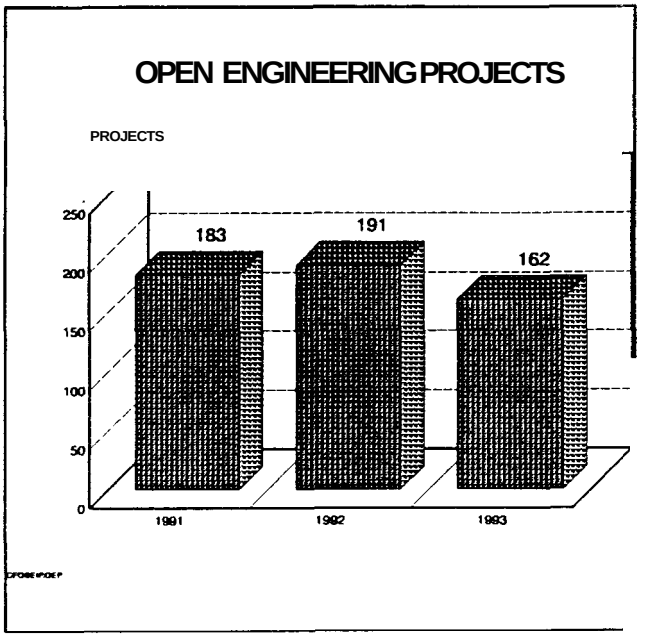
Scientific Equipment Services (SES) is the portion of BEIP funded by the SSF. SES consists of a number of shops that provide equipment fabrication and repair services and the Scientific Equipment Resources Program (SERP). Repair and fabrication





services were traditionally provided on a time and material basis, but SES has recently begun to offer annual fixed fee full service maintenance contracts. SERP maintains a pool of over 3,000 rental instruments and stocks about 35 different commonly used new instruments for sale.

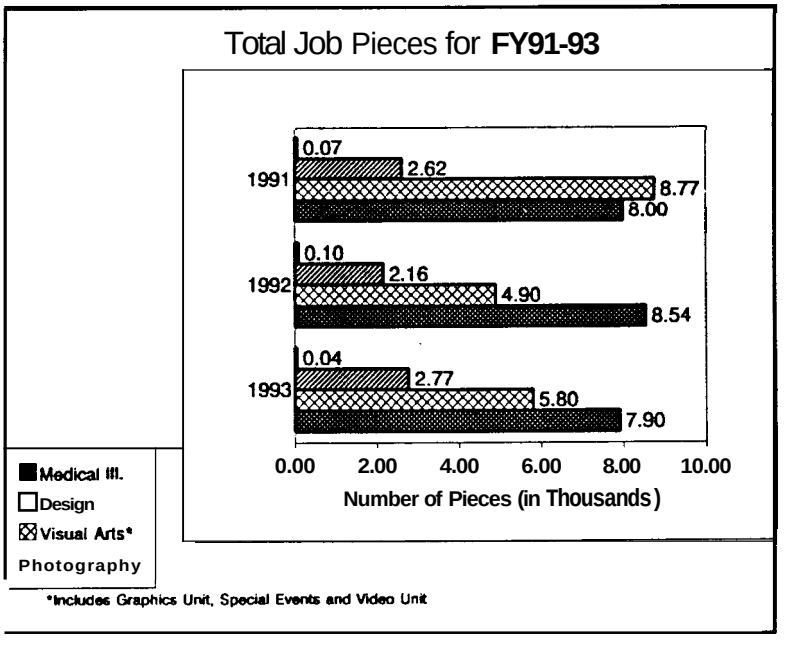
The remainder of BEIP is funded by the MF and consists of: Applied Clinical Engineering, Electrical and Electronic Engineering, Chemical Engineering and Mechanical Engineering sections. The groups associated with the Office of the Director are Analytical Electron Microscopy, Analytical Ultracentrification, Biomechanics, Image Processing and the NIH In Vivo NMR Research Imaging Center/Spectroscopy.



MEDICAL ARTS AND PHOTOGRAPHY BRANCH

The Medical Arts and Photography Branch (MAPB) is funded by the SSF. It provides a wide range of visual communication services to the NIH community. The MAPB staff includes professional artists, photographers, and audiovisual specialists. In addition, the MAPB has blanket purchase agreements with 67 outside contractors. the MAPB provides communication materials and services ranging from digital imaging, slides, exhibit designs, statistical drafting, display charts, posters, medical illustrations, publication design, videotaping, script writing, and support services for special events.

The MAPB completed over 73,000 Institute, Centers and Divisions (ICD) requests for services during FY 1993. These requests were comprised of over 1.6 million pieces. The MAPB also produced films which won awards from the International Medical Society in Parma, Italy and the Telly Award's competition. With the acquisition of powerful state-of-the-art equipment, MAPB now has the in-house ability to transform data from Macintosh, IBM and IBM compatible systems. Other new in-house services include digital imaging and dye-sublimation. MAPB's technology and skills are continuously being improved and updated in order to meet changing requirements and to maintain its high quality standards.

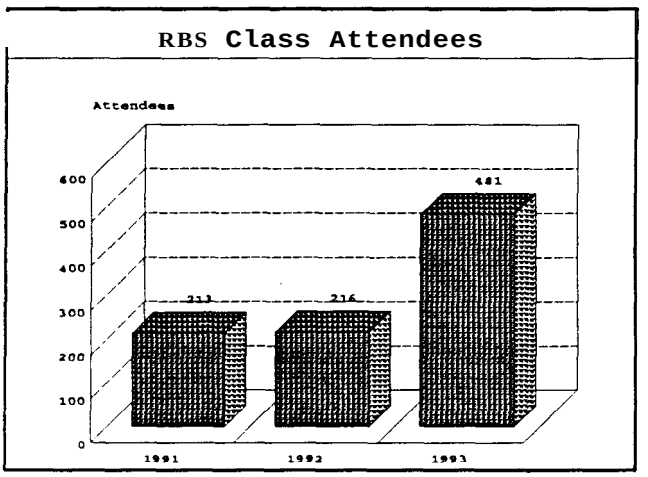


LIBRARY BRANCH

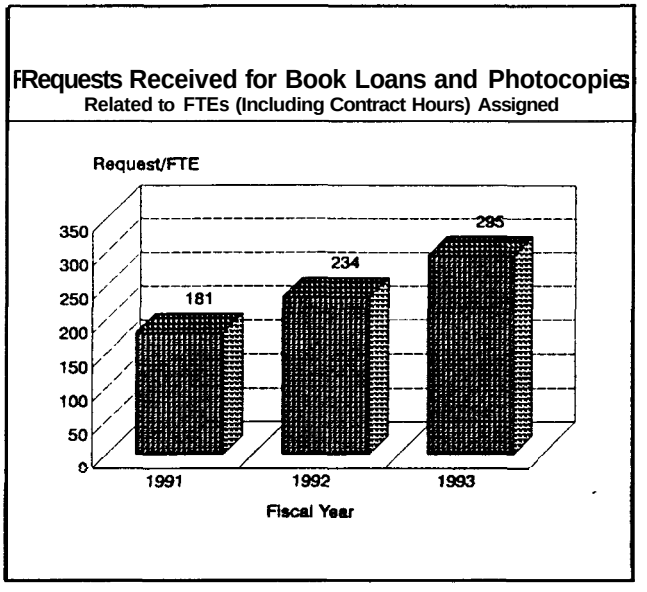
The NIH Library supports the biomedical and behavioral research needs of the NIH community by providing a comprehensive range of scientific and biomedical information services and collections. In addition to providing a research level collection of books and journals, the 55 member staff facilitates access to an array of externally and internally developed electronic and network resources - databases and text files; trains NIH staff in use of the print and electronic resources; provides a dynamic and responsive document delivery and photocopy service; and offers translation service for needed information published in a wide variety of foreign language.

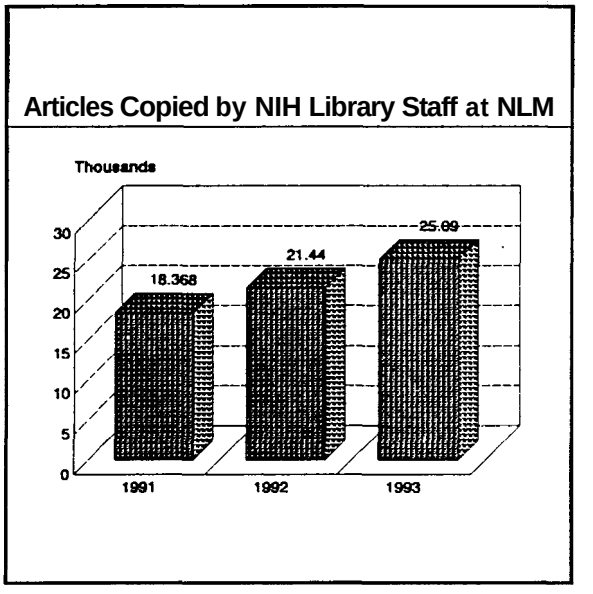
In March of 1993, the NIH Library began issuing National Library of Medicine (NLM) user codes to NIH staff. These codes gave users unlimited access to all NLM databases (MEDLINE, .CANCERLINE, AIDSLINE, PDQ, etc.) over the NIHnet, Internet or local phone lines. The NIH Library negotiated a flat, annual fee with NLM to provide this service. By the end of FY 1993, over 2600 NIH staff had been issued codes. Their ICD's will no longer have to set up deposit accounts with the National Technical Information Services (NTIS) to pay for access to these databases, nor will users have to share codes or limit their use of the valuable information resources available from NLM. In addition, the negotiated rate, which will first be paid in FY 1994, represents more than a 50% saving over the NTIS charges the individual ICD's paid in FY 1992.

This new service has had a dramatic effect on other NIH Library services in, the meantime. First, the amount of training done by Reference & Bibliographic Services (RBS) staff has increased significantly. The number of classes and tutorials offered remained level in FY 1991 and 1992. In 1993, however, instructional contacts more than doubled.



While document delivery requests submitted to the Reader Services Section have gone up at a high rate in the past, the heightened awareness of the published literature as a result of the MEDLINE code project has increased demand for photocopies of cited articles even more. Between the start of **FY 1991** to the end of **FY 1993,** requests for documents increased **67%.** The number of FTE's available to the Reader Services Section in the form of permanent, temporary or contract employees over the same period has increased by only **17%.** Staff productivity has risen dramatically. The average full time equivalent employee processed **13,388** requests in **FY 1991,** while in **FY 1993 18,699** were processed. The standard **96%** fill rate and **2-4** day turnaround time for requests have been maintained during this period.

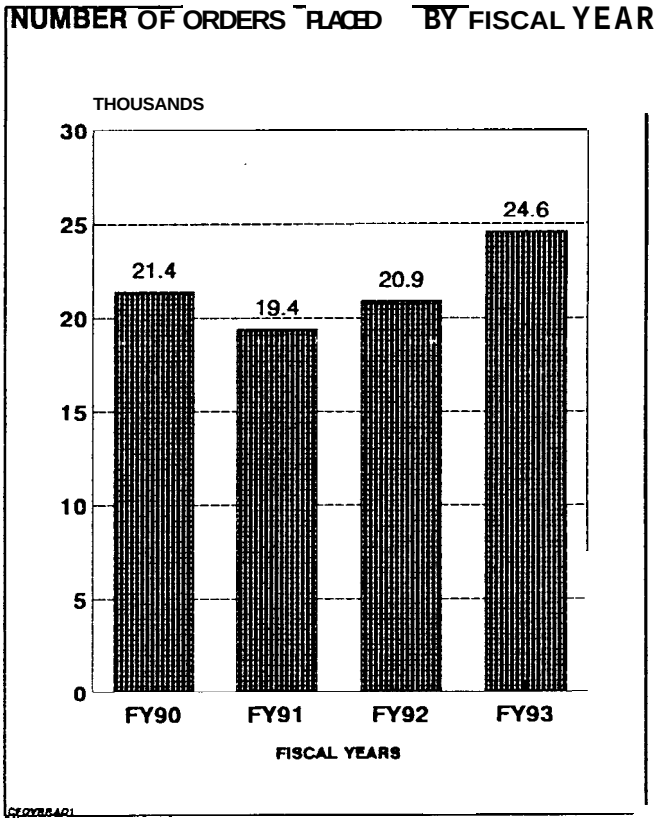




Translation services have also been affected. The number of requests for translation had reached its **1992** limit with three months remaining in **1993.** Turnaround time for these requests was **11.8** day in **1993** compared with **24.4** days in **1992** - a major service improvement.

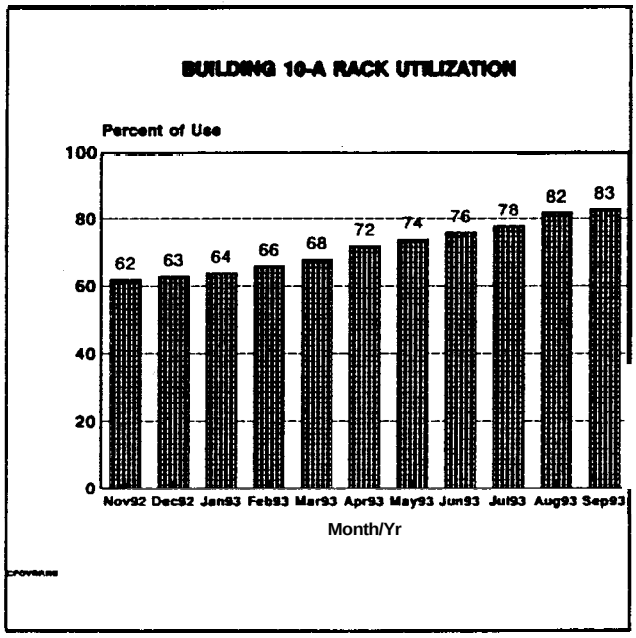
VETERINARY RESOURCES PROGRAM

The Veterinary Resources Program (VRP) facilitates intramural research by providing centralized animal holding facilities and comprehensive professional, technical, and diagnostic support for the NIH biomedical research community. In FY 1993, 33% of the VRP funding was provided by the MF while 67% was provided by the SSF. The staff provides comprehensive animal care support, including routine and intensive health care of research animals, surgery, postoperative recovery, radiology, animal health surveillance, disease diagnosis, genetic monitoring, embryo preservation of various species, nutritional guidance, and expertise in animal welfare laws and regulations. The staff provides a centralized support group for collaboration with the NIH biomedical research community for a wide variety of research protocols. A centralized pharmacy is being pursued to oversee the handling of controlled drugs and medications. A variety of animals are housed in the seven centralized facilities on the NIH campus and in 12 facilities at the NIH Animal Center near Poolesville, Maryland.



The VRP continues to improve its ability to use the modern technology for the development of new diagnostic techniques. The molecular biology laboratory which was organized in January 1993 is now fully functional. A compendium of DNA Fingerprint library of DNA from certified rodents is being developed - as of December 1, 1993 . over specific DNA fingerprints have been developed for over 75 different strains of rodents. The number of animals necropsied has remained about constant for the past 3 years. There has been almost a 50% increase over the past 5 years due mainly to the development of the animal health surveillance program. The animal health surveillance and necropsy services provided monitoring for diseases. Productivity in consultation as measured by published papers continues to remain about the same as in previous years and represents about 20% of the staff activities.

In FY 1993, all NIH animal facilities were accredited by the American Association for the Accreditation of Laboratory Animal Care. The emphasis for the VRP throughout much of FY '93 was on preparation for the site visit by the American Association for Accreditation of Laboratory Animal Care (AAALAC). The facilities of the Veterinary Resources Program comprise approximately two thirds of the NIH's research animal holding space, hence a major component of its AAALAC accreditation effort. AAALAC accreditation provides scientists and administrators with an internationally accepted, independent assessment of the quality of an organization's animal care and use programs. The environmental enrichment activities sponsored by VRP continue to grow in meeting the needs of the research scientists at NIH as well as becoming recognized within the U.S. laboratory animal community for its outstanding role. The VRP environmental enrichment activities received special recognition during the AAALAC site visit.



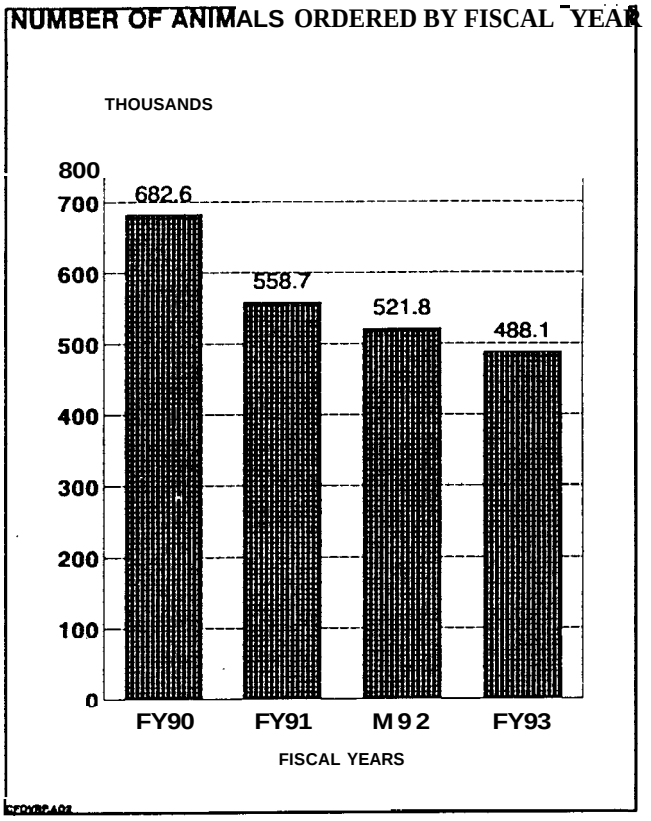
Major emphasis was placed on increasing the occupancy rate of the Building 10A animal facility to 82% by the end of the year. This significantly improved the "value" of the ICD program dollars committed to the operation of this facility.

In FY 1993 VRP established the Office of Client Relations. The purpose of this office is to establish a strong reciprocal alliance with the NIH intramural scientific community, to ensure the level of research support is meeting technical requirements, and to enhance communications throughout the NIH and other scientific communities.

The Central Facilities Advisory Committee, a new NIH-wide committee comprised of senior scientists from the various ICDs, was established to discuss emerging scientific initiatives and advise VRP regarding requirements needed to support these efforts.

The VRP Animal Ordering and Contracts unit provides a centralized mechanism for NIH intramural investigators to purchase rodents and rabbits for use in biomedical research. The unit supplies nearly 500,000 laboratory animals annually to meet the majority of intramural research needs for these species.

In 1993 a series of informational seminars presented to users of the centralized ordering process was initiated. The seminars disseminate guidelines on how to access the service and present information that can be used to expedite orders.



GRANT REVIEW

The Division of Research Grants (DRG) is the central receipt point for all applications submitted to the U.S. Public Health Service seeking research grant support. The division assesses each application for relevance to the health mission of the PHS and assigns those that are acceptable to an appropriate scientific review group (SRG) for scientific and technical merit review, and also to the appropriate PHS awarding institute or center to consider for an award. The SRGs in the DRG are called study sections. Study sections operate under the Federal Advisory Committee Act (P.L. 92-463)and are chartered under section 222 of the Public Health Service Act. The DRG also collects, stores, retrieves, and analyzes critical management and program data needed in the management and operation of the grant and award programs. These DRG activities provide the crucial central structure for the entire PHS grant-making research funding system.

The DRG is funded by,the MF and accounted for 8% of the total MF resources in FY 1993. In FY 1993, the DRG obligated $35.7 million and utilized 437 employees, representing increases over 1988 of 35% and 3% respectively. The DRG continued to manage extremely heavy workloads. The DRG received, processed, and referred 39,968 biomedical/behavioraIresearch grant applications in FY 1993, compared to 34,735 in FY 1989. The DRG completed 552,204 information processing tasks directly related to research programs in FY 1993, compared to 424,041 in FY 1989.

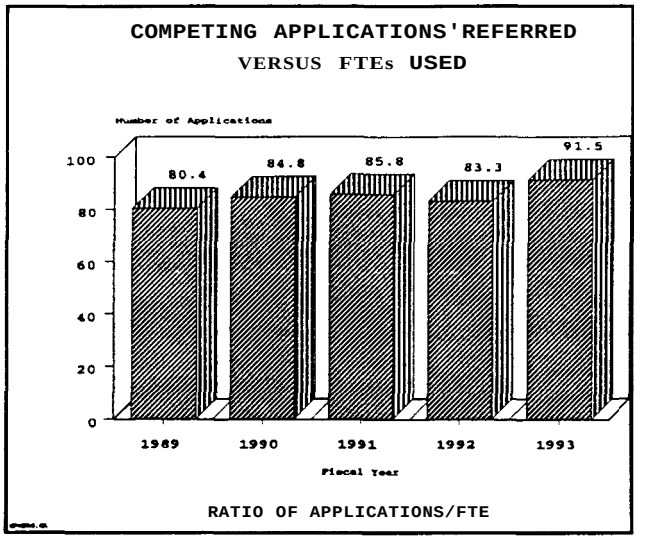
Major Accomplishments

DRG staff provided the peer review services to support the establishment of a highly visible and congressionally mandated program on alternative medicine. The DRG continued to educate potential research investigators, minority investigators, new researchers, and international scientists through informative workshops, symposia, seminars, and exhibits at professional meetings. The DRG also enhanced a number of information systems to provide a spectrum of user accessible information using electronic media. As a first step toward receiving grant applications electronically, the DRG received a small number of applications using DRG developed software. Additionally, the DRG produced FY 1992 data from the Computer Retrieval of Information on Scientific Projects (CRISP) on CD ROM.

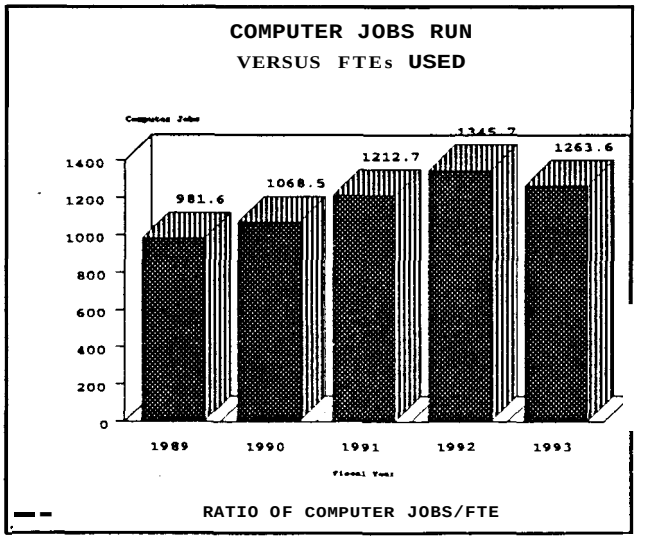
Productivity

The DRG workload trend continues to rise as mandated staff reductions have been sustained and the Division expects further staff reductions to accrue in the future. The DRG will continue to evaluate and implement cost-effective, efficient alternatives to meet projected workload increases.

The FY 1991 data included 667 applications from the Office of Minority Health entered by special arrangement and 630 applications from the NCRR without comparable applications in FY 1992. There were FY 1991 one-time entries that caused the apparent FY 1992 decrease in the number of applications processed per employee.



The tasks in the graph below include mission-critical analyses needed for decision making, information system development and testing, Study Section support procedures, and Information for Management, Planning, Analysis, and Coordination (IMPAC) System updates. The drop in FY 1993 data reflects consolidation and streamlining of procedures, converting mainframe systems to other platforms such as LAN or PC, and making some information systems available on-line.



INVENTORIES

Service and Supply Fund

In FY 1993, the SSF financed four inventories. Sales of inventory stock total $48.1 million and accounted for 22.1% of the total SSF sales in FY 1993. This is an increase of $.4 million over FY 1992. The total value of the inventory purchased and cost of goods sold in FY 1993 were $40.1 and $40.5 million, respectively.

The inventories are composed of administrative, laboratory, and office supplies, construction material, fabrication material and scientific equipment. The Supply Branch, Division of Logistics and the Materials Acquisition/Supply Branch, Division of Engineering Services, ORS, are the largest inventory areas accounting for 96% of the total inventory sales. The FY 1993 inventory turnover ratios are as follows:

Inventory Turnovers

Inventory Area	Turnover Ratio		Average Inventory
	1992	1993	1993
Supply Branch	5.1	5.4	6,238,287
Materials Acquisition1 Supply Branch	2.3	1.9	2,749,633
Inventory Management Unit	3.2	.6	414,385
Scientific Equipment Resources Program	7.6	6.4	243,508

Management Fund

The Clinical Center maintains two inventory operations which are funded by the MF. One inventory is comprised of pharmaceutical products while the other consists of hospitallmedical supplies. Unlike the SSF inventories, the stock items are not held for resale but are issued to other components of the CC for use. The average inventory values for the Pharmacy and the Materials Management Department in FY 1993 were $1.4 and $1.5 million, respectively, while the issues for those two areas during the FY were $11.5 and $6.7 million, respectively.

FEDERAL MANAGERS' FINANCIAL INTEGRITY ACT

The Federal Managers' Financial Integrity Act (FMFIA) of 1982 requires all federal agencies to have financial and other systems to ensure that the management control objectives of the Act are met.

A detailed FMFIA (Section 4) review of the NIH Central Accounting System was conducted in FY 1993. No material nonconformances were identified.

The NIH initiated in Fiscal Year (FY) 1993 a review/evaluation of NIH's internal control procedures. Charles Dempsey & Associates completed the review and issued a report in January 1993. The major recommendations included:

- Develop a new NIH Management Control Plan;
- Establish a Management Review Board with Intramural, Extramural, and Administrative representation; and
- Conduct management control training and awareness covering NIH reviews and risk assessments.

Progress in the Area of Management Controls

During FY 1993 efforts were made to accomplish the recommendations made by the contractor with a the goal of establishing a more proactive program that meets NIH management needs while improving the utilization of resources. Progress was made in the following areas:

- In FY 1993 NIH Intramural, Extramural, and Administrative staffs developed a draft NIH Management Control Plan to effectively evaluate both program and administrative areas. The prior plan was developed by the Public Health Service. In addition to the plan, a NIH Management Review Board was established to provide oversight and guidance to the Management Control Program.
- Management Control Training was made a priority in FY 93. As a result, a NIH Management Control Training Program was developed to improve upon the overall management control process. Management control training for managers coordinators, and other staff was offered that resulted in training 130 management and staff directly involved in management controls.
- New guidelines for conducting reviews, sampling, documenting, and reporting results were developed. Also, new Risk Assessments Procedures were developed to identify weaknesses requiring immediate correction and rate levels of risk. Risk Assessments were completed for 75 percent of the designated management control areas utilizing a team concept which included high level managers, functional area managers, and ICD representatives with technicallgeneral knowledge.

The NIH staff worked to successfully correct one material weakness during FY 1993. The material weakness corrected was titled "Outside Foundations at the National Institutes of Health."

- The major issue on the Outside Foundations material weakness was that there was no policy governing either NIH's or NIH employees' association with outside foundations. The final NIH policy on relationships with foundations was issued during March 1993.

In addition to the successful resolution of this material weakness, the NIH staff is working within written Corrective Action Plans (CAPS) to correct three FMFIA (Section 2) material weaknesses (one of which was added during FY 1993), as follows:

Procurement System Weaknesses: The Delegated Procurement (DELPRO) System, a major component of this weakness, was corrected by NIH and certified by the Office of the Assistant Secretary for Health during FY 1992. Non-DELPRO deficiencies and the decentralization of the station support procurement function were subsequently added to this material weakness, and corrective actions should be completed during FY 1995.

Weaknesses in the Intramural Property Management System: The Property Management system was identified by NIH as a material weakness in FY 1990. The CAP for this weakness included the development of a new automated Property Management Information System, increased management awareness of personal property management objectives, strengthened personal property policies and procedures, and a complete wall-to-wall physical inventory of accountable personal property. In addition, inventory management of the NIH Supply Branch was added to this item in FY 1992 as a result if the findings of the 1992 CFO Audit. We anticipate that all the deficiencies will be corrected during FY 1994.

Deficiencies in the Public Health Service Technology Transfer Activities: Deficiencies were noted in the PHS technology transfer program and Cooperative Research and Development Agreement activities during FY 1993. The recently developed CAP shows that these deficiencies are expected to be completed by September 1994.

During FY 1993, 109 management control areas were reviewed in such diverse areas as personnel management, security of computer centers, and debt management. These reviews discovered non-material weaknesses in at least 26 areas, and about one third of these have been fully corrected.

NATIONAL INSTITUTES OF HEALTH
SERVICE AND SUPPLY FUND
STATEMENT OF FINANCIAL POSITION
AS OF SEPTEMBER 30, 1993 and 1992
(DOLLARS IN THOUSANDS)

	1993	1992
ASSETS		
Financial Resources:		
Fund Balance with Treasury	$ 12,423	$ 8,727
Accounts Receivable, Net Non-Federal (Note **2)**	217	70
Inventories Held for Sale, Net (Note **3)**	10,035	10,128
Intragovemental Items, Federal:		
Accounts Receivable, Net (Note *2)*	11,959	9,705
Advances	397	8
Total Financial Resources	35,031	28,638
Non-Financial Resources:		
Advances, Non-Federal	133	113
Property, Plant and Equipment, Net (Note **4)**	16,383	15,500
Total Non-Financial Resources	16,516	15,613
Total Assets	$ 51,547	$ 44,251
LIABILITIES		
Funded Liabilities:		
Accounts Payable, Non-Federal	$ 19,511	$ 12,073
Accrued Payroll and Benefits	2,437	2,142
Deferred Revenue, Non-Federal (Note *5)*	13,633	25
Intragovemental Liabilities:		
Accounts Payable, Federal	10,698	3,666
Total Funded Liabilities	46,279	17,906
Unfunded Liabilities:		
Accrued Leave	3,414	3,309
Total Unfunded Liabilities	3,414	3,309
Total Liabilities	49,693	21,215
NET POSITION		
Revolving Fund Balance (Note *6)*	1,854	23,036
Net Position	1,854	23,036
Total Liabilities and Net Position		

The accompanying notes are an integral part of these statements.

NATIONAL INSTITUTES OF HEALTH
SERVICE *AND* SUPPLY FUND
STATEMENT OF OPERATIONS *AND* CHANGES IN NET POSITION
FOR THE PERIODS ENDED SEPTEMBER 30, 1993 and 1992
(DOLLARS IN THOUSANDS)

	1993	1992
REVENUES AND FINANCING SOURCES		
Revenue from Sales of Goods & Services to the Public	$ 15,914	$ 22,087
Intragovernmental Sales	175,495	177,116
Other Sales	6,045	62
Total Revenues and Financing Sources	197,454	199,265
EXPENSES		
Program Operating Expenses: (Note 7)		
Logistics	13,625	11,418
Computing	27,162	35,929
Research Resources	35,315	30,012
Engineering	18,965	15,678
Telecommunications	10,288	18,720
General Expense	16,799	13,825
Printing and Reproduction	9,750	11,821
Procurement	7,944	9,149
All Other	28,848	16,591
Cost of Goods Sold -- to the Public	3,467	4,087
Cost of Goods Sold -- Intragovernmental	38,305	36,780
Depreciation and Amortization	7,804	2,782
Interest -- Other	22	2
Other	342	271
Total Expenses	218,636	207,065
(Shortage) of Revenues and Financing Sources Over Total Expenses Before Adjustments	(21,182)	(7,800)
Plus: Prior Period Adjustments (Note 8)	0	9,659
(Shortage) Excess of Revenues and Financing Sources Over Total Expenses	$ (21,182)	$ 1,859
Net Position, Beginning Balance	23,036	21,177
(Shortage) Excess of Revenues and Financing Sources Over Total Expenses	(21,182)	1,859
Net Position, Ending Balance	$ 1,854	$ 23,036

The accompanying notes are an integral part of these statements.

NATIONAL INSTITUTES OF HEALTH
SERVICE AND SUPPLY FUND
STATEMENT OF CASH FLOWS
FOR THE PERIODS ENDED SEPTEMBER 30, 1993 and 1992
(DOLLARS IN THOUSANDS)

	1993	1992
CASH FLOWS FROM OPERATING ACTIVITIES		
(Shortage) Excess of Revenues and Financing Sources Over Total Expenses	$ (21,182)	$ 1,859
Adjustments to Reconcile (Shortage) Excess of Revenues and Financing Sources over Total Expenses to Net Cash Provided by Operating Activities:		
Depreciation Expense	7,804	2,782
(Increase) Decrease in Accounts Receivable	(2,401)	2,623
Purchase of Inventories	(41,679)	(42,917)
Cost of Goods Sold	41,772	40,867
(Increase) Decrease in Other Assets	(409)	449
Increase (Decrease) in Accounts Payable	14,470	(10,941)
Increase (Decrease) in Other Liabilities	13,903	(1,341)
Other Unfunded Expenses	105	429
Total Adjustments	33,565	(8,049)
Net Cash Provided (Used) by Operating Activities	12,383	(6,190)
CASH mows FROM INVESTING ACTIVITIES		
Net Property Acquisitions	(8,687)	(2,760)
Net Cash (Used) By Non-Operating Activities	(8,687)	(2,760)
Net Cash Provided by Operating and Non-Operating Activities	3,696	(8,950)
Fund Balance with Treasury, Beginning	8,727	17,677
Fund Balance with Treasury, Ending	$ 12,423	$ 8,727

The accompanying notes are an integral part of these statements.

NATIONAL INSTITUTES OF HEALTH
SERVICE AND SUPPLY FUND
STATEMENT OF BUDGET A ! ! ACTUAL EXPENSES
FOR THE PERIOD ENDED SEPTEMBER 30, 1993
(DOLLARS IN THOUSANDS)

	BUDGET			ACTUAL
		Obligations		
Program Name	Resources	Direct	Reimbursed	Expenses
Service and Supply Fund	$ 225.950	$ 0	$ 225,950	$ 218,636
Totals	$ 225,950	$ 0	$ 225,950	$ 218.636

BUDGET RECONCILIATION:

Total Expenses	$ 218,636
Add:	
Inventory Acquisitions, net	(93)
Equipment Acquisitions, net	8,687
Prior Period Adjustments	(9,659)
Change in Deferred Revenue	(13,608)
Less:	
Depreciation and Amortization	7,804
Unfunded Annual Leave Expense	105
Unfunded -- Other Expense	3.229
Accrued Expenditures	192,825
Less Reimbursements	(197,454)
Accrued Expenditures, Direct	$ (4,629)

The accompanying notes are an integral part of these statements.

National Institutes of Health
Service and Supply Fund
Notes to the Financial Statements
For the Period Ended September 30, 1993

Note 1. Significant Accounting Policies

Basis of Presentation

These financial statements have been prepared to report the financial position and results of operations, cash flows, and budget and actual expenses of the National Institutes of Health (NIH) Service and Supply Fund (SSF), as required by the Chief Financial Officers Act of 1990. They have been prepared from the books and records of the SSF in accordance with the form and content for entity financial statements specified by Office of Management and Budget (OMB) in Bulletin 93-02, "Form and Content of Agency Financial Statements," and the SSF's accounting policies, which are summarized in this note. These statements are therefore different from the financial reports, also prepared by the SSF pursuant to OMB directives, that are used to monitor and control the SSF's use of budgetary resources.

Reporting Entity

The SSF was established on July 3, 1945 under 42 U.S.C. 231 to provide a means for consolidating the financing and accounting of certain NIH centralized research support and administrative activities. The SSF is a revolving fund that does not require annual appropriations from Congress. Services provided through the SSF are readily identifiable to a specific user; therefore, the costs of these services are charged to the recipient appropriation on a fee-for-service basis.

The SSF is an integral part of the operations of the NIH, an agency of the Department of Health and Human Services (HHS). Thus, the SSF is subject to financial decisions and management controls of the Directors of NIH. Similarly, the SSF is also subject to financial decisions and management controls of the Public Health Service, the Secretary of HHS, and the OMB. Because the SSF is not an independent entity, its operations might not be conducted, nor its financial position reported, as they would if the SSF were autonomous.

Basis of Accounting

The accompanying financial statements have been prepared on an accrual accounting basis. Under the accrual method, revenues are recognized when earned and expenses are recognized when a liability is incurred, without regard to receipt or payment of cash. In addition, SSF transactions are recorded on a budgetary basis to ensure compliance with legal constraints and controls over the use of Federal funds. For financial statement presentation, all intrafund balances and transactions have been eliminated.

Revenues and Financing Sources

Fee-for-service revenues are charged to the SSF's customers based upon service units applied at a predetermined rate. Because the rate is based upon budgeted volumes and cost, actual costs incurred by the SSF are reviewed regularly to identify necessary rate adjustments and/or rebates.

Fund Balance with Treasury

The SSF does not maintain cash in commercial bank accounts. Rather, its receipts and disbursements are processed by the U.S. Treasury. The balance of funds with the U.S. Treasury represents funds that are available to pay current liabilities and finance authorized purchase commitments relative to goods or services which have not been received. For purposes of the Statement of Cash Flows, the Fund Balance with Treasury is considered to be a cash equivalent.

Inventories Held **for Sale**

The SSF inventories are comprised of building repair supplies, office supplies, repair and replacement parts for scientific equipment, animal food and bedding, and research chemicals. Inventories are valued using the moving average method. **An** annual physical inventory is performed and balances are adjusted to reflect the results of the inventory. **As** inventories are sold, the costs associated with the inventories are expensed.

Property, Plant and Equipment

Property and equipment are stated at cost. Depreciation and amortization is calculated on a straight-line basis over the estimated useful lives of the assets. The average service life of personal property is ten years. Software and systems are depreciated over three years. Expenditures for furniture and fixtures, machines, and equipment costing less than $5,000 and having an estimated useful life of less than two years are expensed as incurred, as are maintenance and repair costs.

Liabilities

Liabilities represent the amount of monies or other resources that are likely to be paid by the SSF as the result of a transaction or event that has already occurred. However, no liability can be paid by the SSF absent approved budget authority. Liabilities for which there is no approved budget authority are classified as unfunded liabilities and there is no certainty that the authority will be granted.

Annual, **Sick,** and Other Leave

Annual leave is accrued as it is earned and reduced as it is taken. Sick and other types of leave are expensed as taken but not accrued when earned. To the extent current authority is not available to fund annual leave earned but not taken, authority must be obtained in future years.

Deferred Revenue

The SSF receives periodic advances from its customers, which are recorded as deferred revenue until the revenue is earned. These cash advances are requested by the SSF to provide funding for expenditures.

Retirement Benefits

Many of the SSF's employees participate in the Civil Service Retirement System (CSRS), to which the SSF makes matching contributions equal to seven percent of pay. The SSF does not report CSRS assets, accumulated plan benefits, or unfunded liabilities, if any, applicable to its employees. Reporting of such amounts is the responsibility of the Office of Personnel Management.

On January 1, 1987, the Federal Employees Retirement System (FERS) went into effect pursuant to Public Law 99-335. Most employees hired after December 31, 1983, are automatically covered by FERS and Social Security. Employees hired prior to January 1, 1984, can elect to either join FERS and Social Security or remain in CSRS. For most employees hired since December 31, 1983, the SSF also contributes the employer's matching share for Social Security.

The SSF's costs associated with its employee retirement programs during fiscal years 1993 and 1992 amounted to approximately $3,685,000 and $3,429,000, respectively.

Note **2.** Accounts Receivable
(Dollars in thousands)

	1993	1992
Accounts and Interest Receivable -- Public:		
Current	$ 217	$ 38
Non-Current	0	32
	$ 217	$ 70
Accounts Receivable -- Federal	11,959	9,705
Total Accounts Receivable	$ 12,176	$ 9,775

The SSF does not currently record an allowance for bad debts because the majority of the customers are federal agencies and historical records indicate that no allowance is necessary.

Note **3.** Inventories Held for Sale
(Dollars in thousands)

	1993	1992
Laboratory and Office Supplies	$ 6,496	$ 6,753
Construction Material	2,789	2,801
Fabrication Material	404	433
Scientific Equipment	**346**	141
Total	$ 10,035	$ 10,128

The SSF values its inventories using the moving average method. There are no restrictions on inventory use, sale, or disposition. An allowance is not recorded to estimate future losses because inventory losses are minimal and are expensed when incurred.

Note 4. Property, Plant and Equipment

The following table summarizes property and equipment balances as of September 30, 1993 and 1992 (dollars in thousands).

Classes of Fixed Assets	Acquisition Value	Accumulated Depreciation	Net Book Value
Fiscal Year I993			
Systems Development	$ 4,579	$ (2,351)	$ 2,228
Equipment	75,334	(61,179)	14,155
Total	$ 79,913	$ (63,530)	$ 16,383
Fiscal Year 1992			
Systems Development	$ 4,188	$ (1,894)	$ 2,294
Equipment	$ 75,968	$ (62,762)	$ 13,206.
Total	$ 80,156	$ (64,656)	$ 15,500

Note 5. Revolving Fund Balance

(Dollars in thousands)

	1993	1992
Invested Capital	$ 269	$ 269
Cumulative Results of Operations	(3,827)	17,355
Transfers	5,412	5.412
Total	$ 1.854	$ 23,036

Note **6.** Program Operating Expenses
(Dollars in thousands)

Program Operating Expenses by Object Classification	1993	1992
Personnel Compensation and Benefits	$ 54,868	$ 53,094
Travel and Transportation	3,125	2,189
Rental, Communication and Utilities	29,414	39,258
Printing and Reproduction	3,636	448
Contractual Services	65,224	57,210
Supplies and Materials	8,749	8,998
Equipment not Capitalized	3,622	1,944
Other	58	2
Total Program Operating Expenses by Object Class	$ 168.696	$ 163.143

Note 7. Prior Period Adiustments

During fiscal year 1993, corrective action to improve the SSF's financial records resulted in the identification of several errors which pertained to financial statement amounts reported in prior years. Corrections of these items are reflected in the financial statements by adjusting the beginning Net Position in 1992. Corrective action continues and further adjustments to financial statement amounts reported for fiscal years 1993, 1992 and prior may be reported in future years. The prior period adjustment of $9,659,000 recorded in the fiscal year 1992 beginning Net Position balance is comprised of the following (dollars in thousands):

	1992
Eliminate invalid accounts payable	$(9,761)
Eliminate invalid advances	1,419
Eliminate invalid property, plant and equipment	1,399
Adjust Fund Balance with Treasury to reconcile to U.S. Treasury reports	(2,716)
Total prior period adjustments	$ (9,659)

Note 8. Leases

Capital Leases

The SSF has entered into capital equipment leases for computer equipment which expire in fiscal year 1995. The SSF has capitalized the present value of the lease payments at an imputed interest rate of 12%. Future lease payments less imputed interest are $399 thousand for fiscal year 1994 and $229 thousand for fiscal year 1995.

Operating Leases

The SSF leases real estate facilities, primarily office and warehouse space, from the General Services Administration. These leases are cancelable with 120 days notice without penalty.

Note 9. Fair Value of Financial Instruments

(Dollars in thousands)

As of September 30, 1993	Carrying Value	Fair Value
Fund Balance with Treasury:	$12,423	$12,423
Accounts Receivable, net:	12,176	12,176
Advances:	530	530
Accounts Payable:	30,209	30,209
Accrued Payroll and Benefits:	2,437	2,437

As of September 30, 1992	Carrying Value	Fair Value
Fund Balance with Treasury:	$8,727	$8,727
Accounts Receivable, net:	9,775	9,775
Advances:	121	121
Accounts Payable:	15,739	15,739
Accrued Payroll and Benefits:	2,142	2,142

All of the above financial instruments are expected to be liquidated within one year. Therefore, management considers these instruments to be stated at fair value as of September 30, 1993 and September 30, 1992.

NATIONAL INSTITUTES OF HEALTH
MANAGEMENT FUND
STATEMENT OF FINANCIAL POSITION
AS OF SEPTEMBER 30, 1993 and 1992
(DOLLARS IN THOUSANDS)

	1993	1992
ASSETS		
Financial Resources:		
Fund Balance with Treasury (Note 9)	$ 128,936	$ 124,788
Accounts Receivable, Net Non-Federal (Note 9)	101	103
Intragovernrnental Items, Federal:		
Accounts Receivable, Net (Note 9)	33	137
Advances (Note 9)	179	693
Total Financial Resources	129,249	125,721
Non-Financial Resources:		
Advances, Non-Federal	1,105	1,093
Inventories not Held for Sale (Note **2)**	2,929	3,960
Property, Plant and Equipment, Net (Note 3)	44,134	44,796
Total Non-Financial Resources	48,168	49,849
Total Assets	$ 177,417	$ 175,570
LIABILITIES		
Funded Liabilities:		
Accounts Payable, Non-Federal (Note 9)	$ 31,113	$ 20,016
Accrued Payroll and Benefits (Note 9)	9,153	9,687
Intragovernmental Liabilities:		
Accounts Payable, Federal (Note 9)	5,437	3,222
Deferred Revenue (Note 4)	76,229	85,089
Total Funded Liabilities	$ 121,932	$ 118,014
Unfunded Liabilities:		
Accrued Leave	9,414	8,865
Total Unfunded Liabilities	9,414	8,865
Total Liabilities	$ 131,346	$ 126,879
NET POSITION		
Fund Balance (Note 5)	46,071	48,691
Net Position	46,071	48,691
Total Liabilities and Net Position		

The accompanying notes are an integral part of these statements.

NATIONAL INSTITUTES OF HEALTH
MANAGEMENT FUND
STATEMENT OF OPERATIONS AND CHANGES IN NET POSITION
FOR THE PERIODS ENDED SEPTEMBER 30, 1993 AND 1992
(DOLLARS IN THOUSANDS)

	1993	1992
REVENUES AND FINANCING SOURCES		
Intragovernrnental Reimbursements for Goods and Services	$ 415,956	$ 407,030
Other Revenues and Financing Sources	271	40
Total Revenues and Financing Sources	416,227	407,070
EXPENSES		
Program Operating Expenses: (Note 6)		
Clinical Services	190,843	185,434
Intramural Research Support Services	128,325	110,497
Grant Review and Approval	30,794	30,430
Intramural Scientific Services	21,605	23,012
Computer Services	17,680	17,514
Rentals	22,664	20,444
Depreciation	6,855	6,422
Other Expenses	81	8
Total Expenses	418,847	393,761
(Shortage) Excess of Revenues and Financing Sources over Total Expenses before Adjustments	(2,620)	13,309
Prior Period Adjustments (Note 7)	0	(3,497)
(Shortage) Excess of Revenues and Financing Sources over Total Expenses	$ (2,620)	$ 9,812
Net Position, Beginning Balance	48,691	38,879
Excess of Revenues and Financing Sources over Total Expenses	(2,620)	9,812
Net Position, Ending Balance		$ 48,691

The accompanying notes are an integral part of these statements.

NATIONAL INSTITUTES OF HEALTH
MANAGEMENT FUND
STATEMENT OF CASH FLOWS
FOR THE PERIODS ENDED SEPTEMBER 30, 1993 AND 1992
(DOLLARS IN THOUSANDS)

	1993	1992
CASH FLOWS FROM OPERATING ACTIVITIES		
(Shortage) Excess of Revenues and Financing Sources over Total Expenses	$ (2,620)	$ 9,812
Adjustments to Reconcile (Shortage) Excess of Revenues and Financing Sources over Total Expenses to Net Cash Provided by Operating Activities:		
Depreciation Expense	6,855	6,422
Decrease in Accounts Receivable	106	330
Decrease (Increase) in Advances	502	(62)
Increase (Decrease) in Accounts Payable	13,312	(6,113)
(Decrease) in Other Liabilities	(9,394)	(1,303)
Other Unfunded Expenses	549	671
Total Adjustments	11,930	(55)
Net Cash Provided by Operating Activities	9,310	9,757
CASH FLOWS FROM INVESTING ACTIVITIES		
Net Change in Inventories Not Held for Sale	1,031	(398)
Net Property Acquisitions	(6,193)	(7,417)
Net Cash Used in Non-Operating Activities	(5,162)	(7,815)
Net Cash Provided by Operating and Non-Operating Activities	4,148	1,942
Fund Balance with Treasury, Beginning	124,788	122,846
Fund Balance with Treasury, Ending	$ 128,936	$ 124,788

The accompanying notes are an integral part of these statements.

NATIONAL INSTITUTES OF HEALTH
MANAGEMENT FUND
STATEMENT OF BUDGET AND ACTUAL EXPENSES
FOR THE PERIOD ENDED SEPTEMBER 30, 1993
(DOLLARS IN THOUSANDS)

	BUDGET			ACTUAL
		Obligations		
Program Name	Resources	Direct	Reimbursed	Expenses
Management Fund	$ 448,562		$ 448,562	$ 418,847
Totals	$ 448,562	$ 0	$ 448.562	$ 418.847

BUDGET RECONCILIATION:

Total Expenses	$ 418,847
Add:	
Inventory Acquisitions, net	(1,031)
Equipment Acquisitions, net	6,193
Prior Period Adjustments	3,497
Less:	
Depreciation and Amortization	6,855
Unfunded Annual Leave Expense	549
Unfunded -- Other Expense	2,088
Accrued Expenditures	418,014
Less Reimbursements	(416,2271
Accrued Expenditures, Direct	$ 1.787

The accompanying notes are an integral part of these statements.

National Institutes of Health
Management Fund
Notes to the Financial Statements
For the Period Ended September 30, 1993

Not 1 Significant Accounting Policies

Basis of Presentation

These financial statements have been prepared to report the financial position and results of operations, cash flows, and budget and actual expenses of the National Institutes of Health (NIH), Management Fund (MF), as required by the Chief Financial Officers Act of 1990. The financial statements have been prepared from the books and records of the MF in accordance with the form and content for entity financial statements specified by Office of Management and Budget (OMB) Bulletin 93-02, "Form and Content of Agency Financial Statements," and the MF's accounting policies, which are summarized in this note. These statements are therefore different from the financial reports, also prepared by the MF pursuant to OMB directives, that are used to monitor and control the MF's use of budgetary resources.

Reporting Entity

The MF was established on June 29, 1957, by Public Law 85-67 to facilitate the accounting and administration of funds spent on intragovernmental activities by two or more appropriations. These activities are required for the efficient and effective operations of all NIH programs and facilities.

The MF is an integral part of the operations of the NIH, an agency of the Department of Health and Human Services (HHS). Thus, the MF is subject to financial decisions and management controls of the Directors of NIH. Similarly, the MF is also subject to financial decisions and management controls of the Public Health Service, the Secretary of HHS, and the OMB. Because the MF is not an independent entity, its operations might not be conducted, nor its financial position reported, as they would if the MF were autonomous.

Basis of Accounting

The accompanying financial statements have been prepared on an accrual accounting basis. Under the accrual method, revenues are recognized when earned and expenses are recognized when a liability is incurred, without regard to receipt or payment of cash. All intrafund balances and transactions have been eliminated.

Revenues and Other Financing Sources

The MF does not receive annual appropriations directly from Congress. Instead, the fund is financed by agreed-upon advances from other NIH and federal agency appropriations supported by the MF. The assessment of agreed-upon advances is formula-driven, based on estimated obligations. The objective is to maintain an equitable system for charging the costs of the MF activities to the appropriations it supports. The formulas applied include

composite usage, the number of positions budgeted for full time employees, and the number of square feet utilized.

Because MF expenses cannot be readily associated with a single customer, incurred expenses are distributed to MF customers on an allocated basis. Revenues are recognized as expenses are incurred.

Fund Balance with Treasury

The NIH does not maintain cash in commercial bank accounts. Receipts and disbursements are processed by the U.S. Treasury. The balance of funds with the U.S. Treasury represents funds that are available to pay current liabilities and finance authorized purchase commitments relative to goods or services which have not been received. For purposes of the Statement of Cash Flows, the Fund Balance with Treasury is considered to be a cash equivalent.

Inventories not Held for Sale

The MF inventories are comprised of unissued pharmaceutical and hospital/medical supplies that will be consumed in future operations. Inventories are valued using the moving average method. An annual physical inventory count is performed and balances are adjusted to reflect the result of the physical count. Inventories are expensed when consumed.

Property, Plant and Equipment

Property and equipment are stated at cost. Depreciation and amortization is calculated on a straight-line basis over the estimated useful lives of the assets. The average service life of personal property is ten years. Software and systems are depreciated over three years. Expenditures for furniture and fixtures, machines, and equipment costing less than $5,000 or having an estimated useful life of less than two years are expensed as incurred, as are maintenance and repair costs.

Liabilities

Liabilities represent the amount of monies or other resources that are likely to be paid by the MF as the result of a transaction or event that has already occurred. However, no liability can be paid by the MF absent approved budget authority. Liabilities for which there is no approved budget authority are classified as unfunded liabilities and there is no certainty that the authority will be granted.

Deferred Revenue

The MF receives quarterly advances from its customers, which are recorded as deferred revenue until the revenue is earned. These cash advances are based upon the estimated cash required for payment of unliquidated obligations.

Annual, Sick, and Other Leave

Annual leave is accrued as it is earned and reduced as it is taken. Sick and other types of leave are expensed as taken but not accrued when earned. To the extent current authority is not available to fund annual leave earned but not taken, authority must be obtained in future years.

Retirement Benefits

Many of the MF's employees participate in the Civil Service Retirement System (CSRS), to which the MF makes matching contributions equal to seven percent of pay. The MF does not report CSRS assets, accumulated plan benefits, or unfunded liabilities, if any, applicable to its employees. Reporting of such amounts is the responsibility of the Office of Personnel Management.

On January 1, 1987, the Federal Employees Retirement System (FERS) went into effect pursuant to Public Law 99-335. Most employees hired after December 31, 1983, are automatically covered by FERS and Social Security. Employees hired prior to January 1, 1984, can elect to either join FERS and Social Security or remain in CSRS. For most employees hired since December 31, 1983, the MF also contributes the empioyer's matching share for Social Security.

The MF's costs associated with its employee retirement programs during fiscal years 1993 and 1992 were approximately $13,136,000 and $12,491,000, respectively.

Note 2. Inventories not Held for Sale
(Dollars in thousands)

	1993	1992
Drugs	$ 1,400	$ 1,579
Medical Supplies	1,529	2,381
Total	$ 2,929	$ 3.960

The MF values its inventories using the moving average method. An allowance account is not currently used to estimate future losses. Inventory losses are minimal and are expensed when incurred.

There are no restrictions on inventory use, sale, or disposition. Both the pharmaceutical inventory and the hospitallmedical supply inventory are for patient and research use within the NIH Clinical Center.'

Note 3. Property, Plant and Equipment

The following table summarizes property and equipment balances as of September 30, 1993 and 1992 (dollars in thousands).

Classes of Fixed Assets	Acquisition Value	Accumulated Depreciation1 Amortization	Net Book Value
Fiscal Year 1993			
Equipment	$ 64,852	$ 20,718	$ 44,134
Building and Other Structures	0	0	0
Total	$ 64,852	$ 20,718	$ 44,134

Classes of Fixed Assets	Acquisition Value	Accumulated Depreciation1 Amortization	Net Book Value
Fiscal Year 1992			
Equipment	$ 54,840	$ 13,863	$ 40,977
Building and Other Structures	3,819	0	3,819
Total	$ 58,659	$ 13,863	$ 44,796

Note 4. Deferred Revenue

The MF records customer advances as deferred revenue until the revenue is earned. The deferred revenue received from customers is maintained for future payment of unliquidated obligations. Deferred revenue and corresponding unliquidated obligations at the end of fiscal years 1993 and 1992 were as follows (dollars in thousands):

	1993	1992
Deferred Revenue	$ 76,229	$ 85,089
Unliquidated Obligations	$ 73,678	$ 78,897

Note 5. Fund Balance
(Dollars in thousands)

The MF's Net Position of $46,071 and $48,691 in fiscal years 1993 and 1992, respectively, consisted primarily of invested capital in property and inventories. The MF receives funding (which equates to spending authority) from the Institutes. Currently, the Institutes are billed for the full cost of the equipment received and not only the portion that has been expensed through annual depreciation.

Note 6. Program Operating Expenses

(Dollars in thousands)

Program Operating Expenses by Object Classification	1993	1992
Personnel Services and Benefits	$ 191,715	$ 186,475
Travel and Transportation	2,154	1,858
Rental, Communication and Utilities	53,622	47,525
Printing and Reproduction	2,304	2,427
Contractual Services	107,046	106,258
Supplies and Materials	43,368	36,786
Equipment not Capitalized	8,115	5,988
Grants and Fixed Expenses	9	0
Other	3,578	14
Total Program Operating Expenses by Object Class	$ 411,911	$ 387,331

Note 7. Prior Period Adjustments

During fiscal year 1993, corrective action to improve the MF's financial records resulted in the identification of several errors pertaining to financial statement amounts reported in prior years. Corrections of these items are reflected in the financial statements by adjusting the beginning Net Position in 1992. Corrective action continues and further adjustments to financial statement amounts reported for fiscal years 1993, 1992 and prior may be reported in future years. The prior period adjustment of $3,497,000 recorded in the fiscal year 1992 beginning Net Position balance is comprised of the following (dollars in thousands):

	1992
Eliminate invalid property, plant and equipment	$ 12,522
Eliminate invalid accounts payable	(7,934)
Adjust Fund Balance with Treasury to reconcile to U.S. Treasury reports	(1,091)
Total prior period adjustments	$ 3,497

Note 8. Leases

The MF leases real estate facilities, primarily office and warehouse space, from the General Services Administration under operating leases. These leases are cancelable with 120 days notice without penalty. The MF has no capital leases.

Note 9. Fair Value of Financial Instruments
(Dollars in thousands)

As of September 30, 1993	Carrying Value	Fair Value
Fund Balance with Treasury:	$128,936	$128,936
Accounts Receivable, net:	134	134
Advances:	1,284	1,284
Accounts Payable:	36,550	36,550
Accrued Payroll and Benefits:	9,153	9,153

As of September 30, 1992	Carrying Value	Fair Value
Fund Balance with Treasury:	$124,788	$124,788
Accounts Receivable, net:	240	240
Advances:	1,786	1,786
Accounts Payable:	23,238	23,238
Accrued Payroll and Benefits:	9,687	9,687

All of the above financial instruments are expected to be liquidated within one year. Therefore, management considers these instruments to be stated at fair value as of September 30, 1993 and September 30, 1992.