

**NATIONAL SCIENCE FOUNDATION**  
4201 Wilson Boulevard  
ARLINGTON, VIRGINIA 22230



**OFFICE OF  
INSPECTOR GENERAL**

**MEMORANDUM**

**DATE:** March 4, 2009

**TO:** Mary Santonastasso  
Division of Institution and Award Support

**THRU** Jannifer C. Jenkins /s/  
Senior Audit Manager

**FROM:** Sherrye McGregor  
Attorney-Advisor

**SUBJECT:** NSF OIG Audit Report No. OIG-09-1-003  
Bermuda Institute for Ocean Sciences  
Audit Report on Financial Capability

In response to NSF's request for audit support, we contracted with the Defense Contract Audit Agency (DCAA), Tampa Bay Branch Office, to examine the financial condition and capability of Bermuda Institute for Ocean Sciences (BIOS). The purpose of a financial capability examination is to determine if BIOS has adequate financial resources to perform on Government grants in the current and near-term (up to one year from the date of the DCAA report.) BIOS had 31 active multi-year NSF awards aggregating at approximately \$28.4 million during FY 2008. Most of the awards are funded by NSF's Division of Ocean Sciences and include one large award (OCE-0505888) for \$8.3 million for the operation of the *Atlantic Explorer* Research Vessel.

The objectives of the financial capability audit were designed to examine BIOS' financial condition to determine if the grantee has adequate financial resources to perform on Government grants in the near-term. To meet the audit objectives, DCAA: 1) examined the grantee's audited financial statements and interim statements (CY 2005 through 2007 and interim for the period ended June 30, 2008); 2) examined BIOS' cash flow projections; 3) determined currency in liquidating its accounts; 4) reviewed tax payments, 5) examined net worth, working capital and key financial ratios; 6) determined BIOS' compliance with loan agreements; and 7) examined changes in net worth. The audit was performed in accordance with Generally Accepted Government Auditing Standards.

The results of DCAA's audit on BIOS' financial capability are summarized below. The DCAA audit report is attached.

### **Other Matters from Recently Issued BIOS Audits**

The OIG previously issued two DCAA audit reports: one on the adequacy of BIOS' Accounting System; and, one on Multi-Year Incurred Costs Claimed under NSF awards and Final Indirect Cost Rates for FY 2005.<sup>1</sup> As we previously reported to NSF, DCAA considered BIOS' accounting system inadequate in part, because BIOS does not routinely adjust its accounting records to reflect actual indirect costs on its federally funded controls and awards. When BIOS' records do not reflect its actual indirect costs, the true total cost of the research is not captured or recovered from the federal agency, where allowed. However, it was determined that BIOS is accurately billing NSF indirect expenses on its awards. This accounting issue does not affect the scope of this financial capability audit. The scope of this audit reflects DCAA's assessment of control risk and includes audit tests designed to provide a reasonable basis for DCAA's opinion on BIOS' financial capability.

### **Summary Results of the Audit**

The results of the financial capability review indicate that BIOS' financial condition is acceptable for performing on Government grants in the near-term – defined as one year from the date of the DCAA report through October 31, 2009.

### Results of Audit of Financial Capability

DCAA's analysis of each issue in the scope of the audit is addressed in length in the Appendix to DCAA's report. Highlights of those notes include:

- BIOS' net increase in cash from all sources rose from [REDACTED] in 2007, the first full year of operation of the *Atlantic Explorer*.)
- BIOS' projected adequate cash flow through March 2009 and the projections are reasonable.
- BIOS is liquidating its accounts payable on a timely basis.
- Key Financial Ratios computed using BIOS' financial statement data are mostly favorable, with few exceptions. (Note 5 in Appendix A of the DCAA report contains Key Financial Ratios, which are important to this examination and may be important to track in analyzing BIOS' future financial condition through its financial statements.)
- Long-term liabilities, although fluctuating during the period examined, do indicate a downward trend. Decrease in debt indicates that BIOS has not obtained any new debt and has been making payments on its existing debt.

---

<sup>1</sup> NSF OIG Audit Report No. OIG-07-1-018, *Post Award Accounting System Audit of Bermuda Institute of Ocean Sciences*, dated September 27, 2007; NSF OIG Audit Report No. OIG-08-1-008, *Bermuda Institute of Ocean Sciences Multi-Year Incurred Cost Audit and FY 2005 Final Indirect Rates*, dated March 26, 2008.

- BIOS' net worth increased during the period examined.
- Unrestricted Net Assets and Total Net Assets increased over the period of the examination.
- BIOS appears to have sufficient working capital to support operations and liquidate current liabilities.
- BIOS is current in paying its payroll taxes.
- [REDACTED]
- Other income, reclassifications and Trustee Loans did not reflect any irregularities.
- BIOS' current ratio, which indicates adequate current assets to cover current obligations and the quick ratio, which indicates the ability to meet all short-term obligations with assets readily converted to cash, are both considered to be favorable indicators of BIOS' financial condition.
- BIOS reported [REDACTED]

BIOS concurred with the results of the DCAA audit.

Because the scope of DCAA financial analysis is limited to one year from the date of the report, if NSF has future concerns about BIOS' financial capability, we suggest that NSF continue to monitor the financial condition of BIOS by annually reviewing financial statements and key financial ratios, as well as review BIOS' annual OMB A-133 audits, and related management letters issued by BIOS' auditors.

We are providing a copy of this memorandum to the NSF Division Director of Ocean Sciences (OCE) and the Program Official responsible for making ship operation funding recommendations for OCE. The responsibility for audit resolution rests with DIAS. Accordingly, we ask that no action be taken concerning the report's findings without first consulting DIAS at (703) 292-8230.

### **OIG Oversight of Audit**

To fulfill our responsibilities under Generally Accepted Government Auditing Standards, the Office of Inspector General:

- Reviewed DCAA's approach and planning of the audit;
- Monitored the progress of the audit at key points;

- Coordinated periodic meetings with DCAA and NSF officials as necessary to discuss audit progress, findings, and recommendations;
- Reviewed the audit report prepared by DCAA to ensure compliance with Generally Accepted Government Auditing Standards and Office of Management and Budget Circulars; and
- Coordinated issuance of the audit report.

DCAA is responsible for the attached auditor's report on BIOS and the conclusions expressed in the report. The NSF OIG does not express any opinion on BIOS' financial condition, financial statements, ability to operate in the near- or long- term, or the conclusions presented in DCAA's audit report.

We thank you and your staff for the assistance extended to us during the audit. If you have any questions about this report, please contact Sherrye McGregor at (703) 292-5003 or Jannifer Jenkins at (703) 292-4996.

Attachment: DCAA Audit Report No. 1271-2008F17600005, Audit Report on Financial Capability of Bermuda Institute of Oceans Sciences, Inc.

cc: Julie D. Morris, Division Director, OCE  
Linda Goad, Program Officer, OCE  
Carol Orlando, Cost Analyst, CAAR  
Karen Tiplady, Director, DGA



**DEFENSE CONTRACT AUDIT AGENCY**  
**AUDIT REPORT NO. 1271-2008F17600005**



October 31, 2008

**PREPARED FOR:** Office of Inspector General  
ATTN: Ms. Deborah H. Cureton, Associate Inspector General for Audit  
National Science Foundation  
4201 Wilson Boulevard  
Arlington, Virginia 22230

**PREPARED BY:** DCAA Tampa Bay Branch Office  
10200 49th Street North, Suite 201  
Clearwater, FL 33762-5030  
Telephone No. (727) 299-1100  
FAX No. (727) 299-1135  
E-mail Address dcaa-fao1271@dcaa.mil

**SUBJECT:** Audit Report on Financial Capability

**REFERENCES:** Relevant Dates: See Page 7  
DCAA Chron. No.: 9-9003

**GRANTEE:** Bermuda Institute of Ocean Sciences, Inc.  
Formerly Bermuda Biological Station for Research, Inc.  
17 Biological Lane, Ferry Reach  
St. George's GE 01, Bermuda

**REPORT RELEASE RESTRICTIONS:** See Page 8

	<u>Page</u>
<b>CONTENTS:</b> Subject of Audit	1
Executive Summary	1
Scope of Audit	2
Results of Audit	3
Grantee Organization and Systems	5
DCAA Personnel and Report Authorization	7
Audit Report Distribution and Restrictions	8
Appendix – Key Financial Data and Information	9



**SUBJECT OF AUDIT**

As requested by the National Science Foundation (NSF) in an email request received on December 7, 2007, and as coordinated with Ms. Sherrye L. McGregor, Attorney Advisor, we examined the Bermuda Institute of Ocean Sciences, Inc.'s (BIOS) financial condition and capability to determine if the grantee has adequate financial resources to perform on Government grants in the current and near-term (up to one year from the date of this report). Our examination included an evaluation of the grantee's audited financial statements as of December 31, 2005 through 2007, and interim financial statements for the period ended June 30, 2008. We also evaluated BIOS cash flow forecast through March 31, 2009.

The grantee's financial records and related supporting data are the responsibility of the grantee. Our responsibility is to express an opinion on the grantee's financial capability based on our examination.

**EXECUTIVE SUMMARY**

In our opinion, the grantee's financial condition is acceptable for performing on Government grants. Our examination of BIOS' financial capability disclosed that it will be capable of performing on its Government grants in the near-term.

**SIGNIFICANT ISSUES:**

- BIOS projects adequate cash flow through March 31, 2009;
- BIOS liquidates its accounts payable on a timely basis;
- BIOS is current in paying payroll taxes;
- BIOS reported a positive net worth which increased during the period evaluated;
- BIOS' working capital favorably increased from [REDACTED] between for FYs 2005 and 2007;

[REDACTED]

- BIOS is complying with its loan agreements and covenants, and its loans are paid in a timely basis; and

[REDACTED]

## **SCOPE OF AUDIT**

We conducted our examination in accordance with generally accepted Government auditing standards. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether the data and records reviewed are free of material misstatement. An examination includes:

- Obtaining an understanding of the grantee's internal controls and determining the extent of audit testing needed based on this understanding of internal controls;
- examining, on a test basis, evidence supporting the amounts and disclosures in the data and records examined;
- assessing the accounting principles used and significant estimates made by the grantee;
- evaluating the overall data and records presentation; and
- determining the need for technical specialist assistance.

We used the criteria contained in NSF Grant Policy Manual (GPM), Award Guidelines Section A(3) in the performance of this examination. Our examination of BIOS' financial capability and its ability to perform on Government grants was based primarily on our review of the following areas:

- Financial statements and related statement of cash flows;
- Grantee's confirmation of off-balance sheet arrangements and related party transactions;
- Cash flow analyses including cash flow projections;
- Financial ratios and trends;
- Loan agreements/guarantees;
- Liquidation of accounts payable;
- Minutes of meetings of board of directors; and
- Payroll tax returns.

BIOS claims exemption under 48 CFR 9903.201-1(b)(7) from the practices required by the Cost Accounting Standards Board rules and regulations because the company's grants are executed and performed entirely outside the United States, its territories, and its possessions.

As reported in Audit Report No. 1271-2007F17740001, dated May 24, 2007, we considered BIOS' accounting system inadequate in part, as described in the Grantee Organization and Systems section of this report, Page 5. BIOS' accounting system is deficient in complying with the requirements of the Office of Management and Budget (OMB) Circular A-122, Attachment A, Paragraph E.2.f. However, the identified deficiency does not affect the scope of this audit. The scope of our examination reflects our assessment of control risk and includes audit tests designed to provide a reasonable basis for our opinion.

RESULTS OF AUDIT

In our opinion, the grantee's financial condition is acceptable for performing on Government grants. Our examination of BIOS' financial capability disclosed that it will be capable of performing on its Government grants in the near-term (up to one year from the date of this report). For additional details on key financial information, reference the Appendix to this report, Page 9.

BIOS projects adequate cash flow through March 31, 2009. Total net cash for the current fiscal year ending December 31, 2008, is projected to be \$ [REDACTED], and for the quarter ended March 31, 2009, is projected to be \$ [REDACTED]. The projected revenues and other contributions are based on existing grants and recurring donations only. We consider the overall cash flow projections reasonable.

We reviewed the accounts payable aging schedules from May 2008 through July 2008, and determined that the grantee is current in liquidating its accounts payable. On a test basis, we compared debts cancellation dates with cancelled checks. We evaluated the number of days outstanding in the accounts payable aging schedules and did not find any significant payables over 90 days, or deviations from accounts payable procedures.

BIOS is current in paying its payroll taxes to the Internal Revenue Service (IRS). On a test basis, we reviewed BIOS' payroll quarterly federal tax returns, along with documentation to substantiate that the payments were made.

BIOS reported substantial net worth (Total Net Assets) of [REDACTED] million during FYs 2005, 2006 and 2007, respectively. The consistent and substantial net worth is a favorable indicator of the grantee's financial condition.

[REDACTED]

[REDACTED]

(see Appendix Item No. 5, Page **Error! Bookmark not defined.**, for detailed information).

BIOS complies with its loan agreements and covenants, and its loans are paid in a timely basis. The loan balances [REDACTED] in FY 2005, to [REDACTED] for the interim period ended June 30, 2008.

[REDACTED]

[REDACTED]

**Audit Report No. 1271-2008F17600005**

Additionally, we evaluated areas of concern identified by NSF and included specifically in our scope of audit, as summarized below. For additional details of our evaluation, reference the Appendix to this report, Page 9, and referenced notes.

- Statement of Activities' reclassifications for comparative purposes, refer to Note 4 (g);
- Statement of Financial Position's Retention Payable, refer to Note 4 (b);
- Statement of Financial Position's Trustee Loans, refer to Note 2 (c);
- Statement of Financial Position's Grants and Other Advances, refer to Note 4 (a); and
- Statement of Activities' Other Income, refer to Note 4 (f) 1.

We discussed the results of audit with [REDACTED] in an exit conference held on September 17, 2008. At the request of NSF, we provided the grantee a draft copy of the audit report on September 30, 2008. Accordingly, the grantee concurred with the results of audit.

**GRANTEE ORGANIZATION AND SYSTEMS**

1. Organization:

The Bermuda Institute of Ocean Sciences, Inc. (BIOS) formerly Bermuda Biological Station for Research, Inc. (BBSR) was founded in 1903 by scientists as a station for research in biology and zoology. BBSR was incorporated in New York in 1926 as a United States not-for-profit organization and by 1932 its present location was opened in Ferry Reach, St. George's, Bermuda. BBSR changed its name to Bermuda Institute of Ocean Sciences, Inc. (BIOS) on April 4, 2007, to reflect the change of the research station into an institute focused on the study of marine and atmospheric systems. BIOS' revenues for its fiscal year ending December 31, 2007, were approximately \$12.3 million, of which approximately 45 percent were from the United States Federal Government.

2. Accounting System:

As reported in Audit Report No. 1271-2007F17740001, dated May 24, 2007, BIOS' accounting system is inadequate in part for accumulating and billing costs under Government awards. BIOS' accounting system was deficient in complying with the requirements of the Office of Management and Budget (OMB) Circular A-122, Attachment A, Paragraph E.2.f. We did not perform a comprehensive examination of the contractor's overall accounting system and its related internal control. Accordingly, we express no opinion on BIOS' system of internal control taken as a whole.

BIOS' accounting period is from January 1st to December 31st. BIOS maintains an accounting system on the accrual basis in accordance with generally accepted accounting principles. BIOS' accounting system is posted on a current basis. Appropriate adjusting entries are made at the end of each month and at year end. BIOS' prepares financial statements on an annual basis. The annual financial statements are audited by O'Connor, Davies, Munns, and Dobbins, LLP, Accountants and Consultants.

BIOS maintains a job cost accounting system which is fully integrated in the overall accounting system, wherein grants are assigned individual project numbers and direct costs are identified and charged to those numbers. Indirect costs are identified and accumulated under individual departments, which in turn are identified to the various indirect cost pools. Indirect expenses are grouped in indirect pools. The following schedule describes BIOS indirect cost pools and related allocation bases, and the type of effort normally charged direct and indirect:

Indirect Cost Pools and Allocation Bases

<u>Indirect Cost Pool</u>	<u>Allocation Base</u>
Resident Science	Total direct costs excluding capital expenditures in excess of \$ [REDACTED] each, individual subcontract costs in excess of \$ [REDACTED] and participant support costs.
Ship Operations	Total direct costs excluding dry dock overhauls and participant

support costs.

The Following Effort Is Normally Charged Direct:

- Direct time of direct labor employees;
- Premium (overtime, shift, field) time of direct labor;
- Raw material, purchased parts and subcontracted items;
- Travel expenses incurred by direct employees;
- Freight charges for direct raw materials, purchased parts, and subcontracted items;
- Purchase, fabrication or rental of special tooling or test equipment;
- Professional services and consultant fees for direct effort; and
- Temporary help to perform direct effort.

The Following Effort Is Normally Charged Indirect:

- Management, supervisory, and clerical salaries;
- Indirect time of direct employees;
- Premium (overtime and shift) of indirect employees;
- Social Security, unemployment insurance, workmen's compensation, group insurance, pension expense, vacation and holiday pay;
- Travel expense associated with indirect labor effort; and
- Other expenses such as general operating supplies, depreciation, utilities, rental costs of facilities, and general purpose equipment.

3. Billing System:

As reported in Audit Report No. 1271-2007F17740001, dated May 24, 2007, BIOS' accounting system is inadequate in part for billing costs under Government contracts. Our examination was limited to determining whether BIOS' accounting system is adequate for accumulating and billing costs under Government contracts. We did not perform a comprehensive examination of the contractor's overall accounting system and its related internal control. Accordingly, we express no opinion on BIOS' system of internal control taken as a whole. BIOS processes its billings electronically via the National Science Foundation's Fast Lane Cash Request System.

**DCAA PERSONNEL**

Telephone No.

Primary contacts regarding this audit:

[REDACTED]

[REDACTED]

Other contacts regarding this audit report:

[REDACTED]

[REDACTED]

FAX No.

[REDACTED]

[REDACTED]

Tampa Bay Branch Office

E-mail Address  
dcaa-fao1271@dcaa.mil

General information on audit matters is available at <http://www.dcaa.mil>.

**RELEVANT DATES**

Request for Audit: Office of Inspector General, National Science Foundation (NSF),  
Dated December 7, 2007.

Due Date Extension: Coordinated on September 26, 2008, Extended to October 31, 2008.

**AUDIT REPORT AUTHORIZED BY:**

/signed/  
Gary R. Ricketts  
Branch Manager  
DCAA Tampa Bay Branch Office

[REDACTED]

**AUDIT REPORT DISTRIBUTION AND RESTRICTIONS**

**DISTRIBUTION**

E-mail Address

National Science Foundation  
ATTN: Deborah H. Cureton  
Associate Inspector General for Audit  
4201 Wilson Boulevard  
Arlington, VA 22230

dcureton@nsf.gov

National Science Foundation  
ATTN: Sherrye McGregor  
Attorney Advisor  
4201 Wilson Boulevard  
Arlington, VA 22230

smcgrego@nsf.gov

Bermuda Institute of Ocean Sciences, Inc.  
17 Biological Lane, Ferry Reach  
St. George's GE 01, Bermuda

(Copy furnished thru NSF)

Defense Contract Audit Agency  
ATTN: OAL - Sr. FLA Non-DoD Army Team 1 [REDACTED]  
8725 John J. Kingman Road, Suite 2135  
Fort Belvoir, VA 22060-6219

DCAA-SRFLA-NONDoD-[REDACTED]

Telephone No.  
[REDACTED]

**RESTRICTIONS**

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]



**KEY FINANCIAL DATA AND INFORMATION**

The grantee’s key financial data and other information used in this examination are listed below:

1. Cash Flow

As summarized in the table below, BIOS reported [REDACTED] in cash from operations, investing, and financing of [REDACTED] in its audited financial statements for FYs 2005, 2006 and 2007, respectively.

	Audited FY 2005	Audited FY 2006	Audited FY 2007
Cash Beginning Balance	[REDACTED]	[REDACTED]	[REDACTED]
Net Cash Flow from:			
Operations	[REDACTED]	[REDACTED]	[REDACTED]
Investing	[REDACTED]	[REDACTED]	[REDACTED]
Financing	[REDACTED]	[REDACTED]	[REDACTED]
Net Increase/(decrease)	[REDACTED]	[REDACTED]	[REDACTED]
Cash, Ending Balance	[REDACTED]	[REDACTED]	[REDACTED]

Additionally, BIOS provided cash flow projections showing projected operating income and expenses, as well as detailed cash inflows/outflows for the period April 1, 2008 through March 31, 2009. We reviewed the grantee’s cash flow projections, which projects a [REDACTED], and a cash ending balance of \$[REDACTED]. We compared the cash flow projections to historical actuals. Also, we reviewed the grantee’s assumptions used to develop the projected cash flow from operations including projected operating revenues and expenses. Finally, we considered other relevant data including existing grants, and debt agreements. In our opinion, the grantee’s cash flow projection summarized below is reasonable.

	Projected through March 2009 (000's)
Cash, Beginning Balance	[REDACTED]
Total Sources of Funds	[REDACTED]
Total Uses of Funds	[REDACTED]
Net Cash Increase (Decrease)	[REDACTED]
Cash, Ending Balance	[REDACTED]



**This page redacted in its entirety**

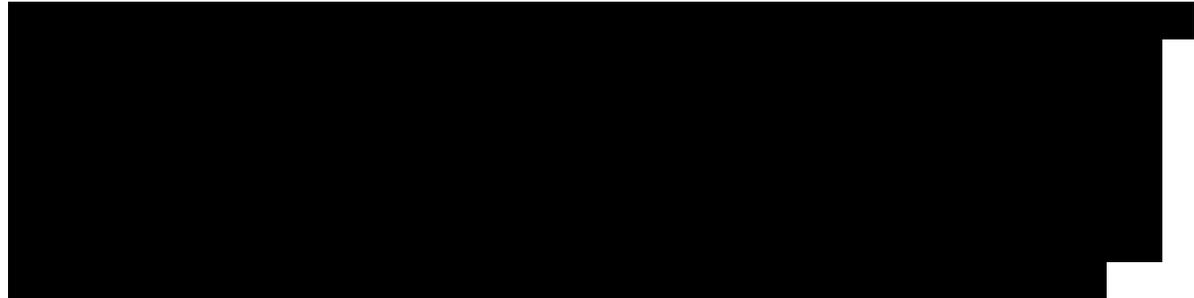
a.



b.

3. Liquidation of Accounts Payable

Based on our review of BIOS' accounts payable aging reports as of May 31, 2008, June 30, 2008, and July 31, 2008, we determined that the grantee is liquidating its accounts on a timely basis. On a test basis, we traced paid amounts to cancelled checks to determine the timeliness of the grantee's liquidation of accounts payable, and found no unusual items. We



4. Key Financial Data

The key financial data listed below is from BIOS' audited financial statements for the FYs ended December 31, 2005, 2006, and 2007; and for the unaudited data for the interim period ended June 30, 2008. As indicated below, the interim statement of activities data as of June 30, 2008, was annualized and may not be representative of the full accounting period. BIOS' key financial statement data was used to compute key financial ratios and is summarized as follows:



This page redacted in its entirety

\* Interim statement of activities data was annualized based on the results for the six months ended June 30, 2008. Financial data less than one year may show trends that are not representative of the full business cycle.

\*\* FY 2005 G&A and other expenses are reclassified for comparative purposes; see Note g.

a. Grant and Other Advances

Grant and other advances are deferred revenue. BIOS do not consider revenue as earned until the expenses are incurred, thus those grants that have funding provided in advance of expenditures generate deferred revenue. We reviewed a breakdown of the liability as of December 31, 2005 through 2007, as reported in the audited financial statements. We reconciled the financial statements' amounts to BIOS' trial balances. Grant and other advances as summarized below:

**Redacted**

We evaluated BIOS detailed trial balances to review if there are any grant advances pertaining to NSF. The only NSF related amount, is from the Major Overhaul Shipyard Account (MOSA) during FY 2007. The amount is funded by NSF, and budgeted for a period of 5 years.

[REDACTED]

BIOS is allowed to request bi-monthly reimbursements from NSF, and to take cash advances at anytime. Monthly internal reconciliations are performed, and quarterly submitted to NSF in the SF 272A. Therefore, we determined the MOSA advance [REDACTED] is allowable and in compliance with the awards' terms and conditions.

b. Retention Payable

BIOS reported retention payable of \$ [REDACTED] on December 31, 2005, and \$ [REDACTED] for December 31, 2006 and 2007. The retention pertains to the construction of BIOS' staff housing.

[REDACTED]

The construction contract includes provisions for various withholdings “retention” generally in the amount of [REDACTED].

c. Long Term Liabilities

[REDACTED]

d. Net Assets (Net Worth)

[REDACTED]

BIOS is required to report information regarding its financial position and activities according to three classes of net assets: permanently restricted, temporarily restricted, and unrestricted. Gifts and bequests that create endowment funds to provide a permanent source of income are classified as permanently restricted net assets. Gifts with stipulations that they be used for a particular purpose for a specified time period are classified as temporarily restricted assets until the purpose or stipulated time restriction is met. All other net assets are classified as unrestricted.

BIOS net worth including temporarily and permanently restricted net assets for FYs 2005 through 2007 is summarized below:

[REDACTED]

This Remainder of this Report has been Redacted in its Entirety

