



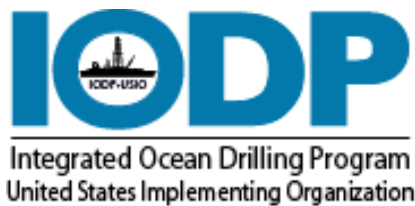
INTEGRATED OCEAN DRILLING PROGRAM United States Implementing Organization

**Consortium for Ocean Leadership, Inc.
Lamont-Doherty Earth Observatory of Columbia University
Texas A&M University**

FY09 ANNUAL PROGRAM PLAN APPENDIX to NSF

**For Time Period
1 October 2008 to 30 September 2009**

**Amount Proposed FY09: \$7,684,506 (SOC Operations)
Amount Proposed FY09: \$43,423,823 (POC)
Amount Proposed FY09: \$1,057,042 (SIC)
Total Amount Proposed FY09: \$52,165,371 (SOC Operations + POC + SIC)**



Respectfully Submitted to:
National Science Foundation

David L. Divins
Director, Ocean Drilling Programs
Consortium for Ocean Leadership, Inc.
Washington, D.C. 20005

8 April 2009

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1. EXECUTIVE SUMMARY

1.1. ANNUAL PROGRAM PLAN APPENDIX OVERVIEW

The IODP-USIO FY09 SIC Annual Program Plan Appendix outlines the U.S. Implementing Organization (USIO) scope of work for those Integrated Ocean Drilling Program (IODP) activities and deliverables for FY09 that are specifically covered under the U.S. Systems Integration Contract OCE-0352500. The scope and budget justification for these activities were derived from the National Science Foundation (NSF) guidance to the USIO and the outcomes from other related discussions.

This Appendix is written as a companion to the “Integrated Ocean Drilling Program, United States Implementing Organization (Consortium for Ocean Leadership, Inc.; Lamont-Doherty Earth Observatory of Columbia University; and Texas A&M University¹) FY09 Annual Program Plan to IODP-MI,” submitted on 7 April 2009, which contains requests for USIO science operating cost (SOC) and platform operating cost (POC) activities. In addition, SOC costs are partitioned into “operational” costs (SOC Operations), which are to be funded directly from NSF through the USIO Systems Integration Contract and other costs (SOC Nonoperations), which are to be funded through the IODP Management International, Inc. (IODP-MI) contract (see Section 1.3.1. “Budget Structure: SOC and POC” in the IODP-USIO FY09 Annual Program Plan).

This section of the Appendix provides budget definitions, assumptions and directives used to construct the Annual Program Plan, and details regarding the IODP-USIO FY09 Annual Program Plan SOC, POC, and SIC budget request organized by institutional breakdowns (e.g., Consortium for Ocean Leadership, Inc. [Ocean Leadership]; Lamont-Doherty Earth Observatory [LDEO] of Columbia University; and Texas A&M University [TAMU]) for each work breakdown element (WBE).

The Executive Summary presentation is meant to provide NSF Program Managers with a breakdown of the USIO institutional budget requests, which relate to the contractual relationships and fiscal reporting structure of the USIO as presented in quarterly reports submitted to NSF for SOC Operations, SOC Nonoperations, POC, and SIC budgets. This breakdown provides supplemental information in support of the roll-up USIO SOC Nonoperations and POC budgets that are provided in the main body of the IODP-USIO FY09 Annual Program Plan and the roll-up USIO SIC budgets. See the IODP-USIO FY09 Annual Program Plan for detailed descriptions of SOC Nonoperations– and POC-supported USIO activities for FY09.

In addition to the institutional summary provided in the Executive Summary, USIO tasks and budgets specific to SIC-supported activities are addressed in Sections 3–5 of this Appendix. Section 2 describes the organizational structure of the USIO as it relates to all USIO activities. The “Appendix: USIO IT Security Summary” provides information requested by NSF regarding information technology (IT) security policies,

¹ In this document, references to TAMU include Texas A&M Research Foundation (TAMRF).

procedures, and practices as employed by the USIO to protect contractual research and education activities.

1.2. USIO BUDGET DEFINITIONS

1.2.1. NSF GUIDANCE

As called for in NSF Contract OCE-0352500, NSF provided guidance to the USIO that outlined the FY09 Mission Forecast for the USIO as the U.S. System Integration Contractor for IODP. The mission forecast included guidance to conduct 4 expeditions in FY09 and a budget target of \$60,000,000.

The additional assumptions that were used to estimate SIC-related costs are presented below and in the subsequent sections of this Appendix. These include contractual costs not considered as SOCs or POCs, such as USIO platform-related Education and Outreach activities (e.g., Historically Black Colleges and Universities [HBCU] fellowships, Teacher at Sea initiative, and curriculum development).

1.3. USIO BUDGET ASSUMPTIONS

1.3.1. PROGRAM-WIDE ASSUMPTIONS FOR USIO ACTIVITIES

The requested USIO budgets for SOC-, POC-, and SIC-supported activities are based on a number of assumptions. Please refer to Section 1.3.2. "FY09 USIO Budget Assumptions" of the IODP-USIO FY09 Annual Program Plan, submitted on 7 April 2009, for the assumptions used to develop the SOC and POC budgets. The budget target for Contract OCE-0352500, covering SOC Operations, POC, and SIC activities, is \$60,000,000. NSF intends to bring the U.S. Scientific Ocean Drilling Vessel (SODV) to the international IODP on 5 March 2009 and conduct science operations for ~8 months or 4 expeditions annually.

1.3.2. POC AND SIC ESTIMATED BUDGETS FOR USIO ACTIVITIES

Following the guidance provided by NSF, the USIO total budget request to NSF can be partitioned into three programmatic categories: (1) SOC Operations costs, which are defined as "that which funds SODV SOC operations at sea and all costs in support of these operations such as planning, logistics, engineering science support, etc." and are detailed in the budget submitted on 7 April 2009, (2) POC costs to support USIO platform operations, which are detailed in the budget submitted on 7 April 2009; and (3) SIC costs that cover USIO efforts for education and outreach and associated management and administrative support.

The USIO operations budget for FY09 (SOC Operations + POC + SIC) is \$52,165,371. This is \$7,834,629 less than the budget guidance provided by NSF.

The cost breakdown for FY09 is a request for \$7,684,506 in SOC Operations expenses, \$43,423,823 in POC expenses, and \$1,057,042 in SIC expenses. In addition to the budget guidance given, if additional funds are identified, the USIO will use them to purchase and install large-diameter drill pipe infrastructure aboard the *JOIDES Resolution*. Other drilling, science, or data management supplies or high-priority

capital replacement items may be purchased in support of USIO deliverables using cost avoidances gained during the fiscal year.

1.4. FY09 USIO BUDGET SUMMARIES

The following budget summaries and detailed budgets describe the overall USIO FY09 requests to both IODP-MI (for SOC Nonoperations) and NSF (for SOC Operations, POC, and SIC), subdivided by USIO institution. This information is provided to orient NSF Program Managers about the institutional breakdowns for the overall USIO roll-up budgets and provide a framework for interpreting fiscal data in quarterly reports delivered by the USIO.

1.4.1. FY09 USIO SOC, POC, AND SIC BUDGET SUMMARY

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Total SOC Costs	390,865	4,283,725	6,814,165	11,488,755
Subtotal SOC Operations	165,316	3,626,686	3,892,504	7,684,506
Subtotal SOC Nonoperations	225,549	657,039	2,921,661	3,804,249
Total POC Costs	635,417	2,281,902	40,506,504	43,423,823
Total SIC Costs	1,057,042	0	0	1,057,042
Grand Total	\$2,083,324	\$6,565,627	\$47,320,669	\$55,969,620

In the following USIO budget summary tables, the line item total requested for each WBE is defined as the total of both the direct and indirect costs for that element. These costs are separated out for each USIO institution in the summary totals that add to the “grand total” for each institution. Ocean Leadership and LDEO calculate indirect costs on a percentage of the direct costs using formulas described in the “Budget” subsections of each WBE section of this Appendix. The TAMU budget is structured with indirect costs based on a negotiated ship administrative rate that can be found in the Management and Administration element budget for the SOC and POC budget requests in the IODP-USIO FY09 Annual Program Plan. The grand totals for direct, indirect, and total costs for each institution and the entire USIO are shown for the SOC, POC, and SIC budget requests, respectively. The budget summary tables provide an integrated view of all the budget requests detailed in the WBE sections of the IODP-USIO FY09 Annual Program Plan and this Appendix. The detailed budget justification for these requests can be found in Sections 3–5 of this Appendix.

1.4.2. FY09 USIO SOC, POC, AND SIC WBE BUDGET SUMMARIES BY INSTITUTION**FY09 USIO SOC CUMULATIVE WBE BUDGET SUMMARY**

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Management and Administration	336,626	292,815	424,709	1,054,150
Technical, Engineering, and Science Support	0	3,206,825	3,082,101	6,288,926
Engineering Development	0	0	0	0
Core Curation	0	0	467,951	467,951
Data Management	0	784,085	1,558,543	2,342,628
Publications	0	0	1,280,861	1,280,861
Education	0	0	0	0
Outreach	54,239	0	0	54,239
Total USIO Cumulative SOC WBE	\$390,865	\$4,283,725	\$6,814,165	\$11,488,755
Total Direct Costs	266,317	3,480,050	6,619,454	10,365,821
Indirect Costs and Administrative Fees	124,548	803,675	194,711	1,122,934
Total USIO Cumulative SOC WBE	\$390,865	\$4,283,725	\$6,814,165	\$11,488,755

FY09 USIO SOC OPERATIONS WBE BUDGET SUMMARY

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Management and Administration	165,316	175,078	114,999	455,393
Technical, Engineering, and Science Support	0	2,903,284	3,021,101	5,924,385
Engineering Development	0	0	0	0
Core Curation	0	0	106,738	106,738
Data Management	0	548,324	595,900	1,144,224
Publications	0	0	53,766	53,766
Education	0	0	0	0
Outreach	0	0	0	0
Total USIO SOC-Ops WBE	\$165,316	\$3,626,686	\$3,892,504	\$7,684,506
Total Direct Costs	123,370	3,041,343	3,892,504	7,057,217
Indirect Costs and Administrative Fees	41,946	585,343	0	627,289
Total USIO SOC-Ops WBE	\$165,316	\$3,626,686	\$3,892,504	\$7,684,506

Notes: Ocean Leadership Indirect Costs are included in the Management and Administration (M&A), Education, and Outreach elements. LDEO Indirect Costs are included in the M&A; Technical, Engineering, and Science Support; and Data Management elements. The TAMU Administrative Fee is included in the M&A element. (Continued on next page.)

FY09 USIO SOC NONOPERATIONS WBE BUDGET SUMMARY

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Management and Administration	171,310	117,737	309,710	598,757
Technical, Engineering, and Science Support	0	303,541	61,000	364,541
Engineering Development	0	0	0	0
Core Curation	0	0	361,213	361,213
Data Management	0	235,761	962,643	1,198,404
Publications	0	0	1,227,095	1,227,095
Education	0	0	0	0
Outreach	54,239	0	0	54,239
Total USIO SOC-NonOps WBE	\$225,549	\$657,039	\$2,921,661	\$3,804,249
Total Direct Costs	142,947	438,707	2,726,950	3,308,604
Indirect Costs and Administrative Fees	82,602	218,332	194,711	495,645
Total USIO SOC-NonOps WBE	\$225,549	\$657,039	\$2,921,661	\$3,804,249

FY09 USIO POC WBE BUDGET SUMMARY

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Management and Administration	635,417	537,241	2,231,713	3,404,371
Technical, Engineering, and Science Support	0	1,689,254	37,446,736	39,135,990
Engineering Development	0	0	0	0
Core Curation	0	0	0	0
Data Management	0	55,407	828,055	883,462
Publications	0	0	0	0
Education	0	0	0	0
Outreach	0	0	0	0
Total USIO POC WBE	\$635,417	\$2,281,902	\$40,506,504	\$43,423,823
Total Direct Costs	448,819	2,068,921	40,311,793	42,829,533
Indirect Costs and Administrative Fees	186,598	212,981	194,711	594,290
Total USIO POC WBE	\$635,417	\$2,281,902	\$40,506,504	\$43,423,823

FY09 USIO SIC WBE BUDGET SUMMARY

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Management and Administration	226,417	0	0	226,417
Technical, Engineering, and Science Support	0	0	0	0
Engineering Development	0	0	0	0
Core Curation	0	0	0	0
Data Management	0	0	0	0
Publications	0	0	0	0
Education	438,625	0	0	438,625
Outreach	392,000	0	0	392,000
Total USIO SIC WBE	\$1,057,042	\$0	\$0	\$1,057,042
Total Direct Costs	788,837	0	0	788,837
Indirect Costs and Administrative Fees	268,205	0	0	268,205
Total USIO SIC WBE	\$1,057,042	\$0	\$0	\$1,057,042

1.4.3. FY09 USIO SOC CUMULATIVE WBE BUDGET DETAIL BY INSTITUTION

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Management and Administration				
Salaries and Fringes	175,540	162,088	196,000	533,628
Travel	25,000	20,205	10,160	55,365
Supplies	4,000	4,500	2,300	10,800
Shipping	800	150	394	1,344
Communication	4,000	3,539	2,574	10,113
Contractual Services	4,400	0	0	4,400
Equipment	6,000	0	200	6,200
Other Direct Costs	6,100	900	18,370	25,370
Total Direct Costs	225,840	191,382	229,998	647,220
Modified Total Direct Costs (if applicable)	0	172,287	0	172,287
Indirect Costs or Administrative Fees	110,786	101,433	194,711	406,930
Total Management and Administration	\$336,626	\$292,815	\$424,709	\$1,054,150
Technical, Engineering, and Science Support				
Salaries and Fringes	0	669,591	1,853,000	2,522,591
Travel	0	68,149	393,826	461,975
Supplies	0	38,100	141,100	179,200
Shipping	0	6,600	240,100	246,700
Communication	0	8,016	9,400	17,416
Contractual Services	0	1,944,780	0	1,944,780
Equipment	0	7,000	225,250	232,250
Other Direct Costs	0	21,175	219,425	240,600
Day Rate	0	0	0	0
Fuel and Lubricants	0	0	0	0
Per Diem	0	0	0	0
Port Calls	0	0	0	0
Insurance	0	0	0	0
Travel—ODL	0	0	0	0
Other	0	21,175	219,425	240,600
Total Direct Costs	0	2,763,411	3,082,101	5,845,512
Modified Total Direct Costs (if applicable)	0	836,631	0	836,631
Indirect Costs or Administrative Fees	0	443,414	0	443,414
Total Tech., Engineering, and Science Support	\$0	\$3,206,825	\$3,082,101	\$6,288,926
Engineering Development				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Engineering Development	\$0	\$0	\$0	\$0

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FY09 USIO SOC CUMULATIVE WBE BUDGET DETAIL BY INSTITUTION (CONTINUED)

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Core Curation				
Salaries and Fringes	0	0	373,000	373,000
Travel	0	0	48,421	48,421
Supplies	0	0	12,000	12,000
Shipping	0	0	18,000	18,000
Communication	0	0	3,315	3,315
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	13,215	13,215
Core Curation Total Direct Costs	0	0	467,951	467,951
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Core Curation	\$0	\$0	\$467,951	\$467,951
Data Management				
Salaries and Fringes	0	433,904	1,009,000	1,442,904
Travel	0	8,830	68,311	77,141
Supplies	0	24,100	12,062	36,162
Shipping	0	1,638	231	1,869
Communication	0	2,782	11,539	14,321
Contractual Services	0	0	0	0
Equipment	0	16,903	55,032	71,935
Other Direct Costs	0	37,100	402,368	439,468
Total Direct Costs	0	525,257	1,558,543	2,083,800
Modified Total Direct Costs (if applicable)	0	488,354	0	488,354
Indirect Costs or Administrative Fees	0	258,828	0	258,828
Total Data Management	\$0	\$784,085	\$1,558,543	\$2,342,628
Publications				
Salaries and Fringes	0	0	1,135,000	1,135,000
Travel	0	0	65,807	65,807
Supplies	0	0	29,820	29,820
Shipping	0	0	6,886	6,886
Communication	0	0	8,000	8,000
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	35,348	35,348
Total Direct Costs	0	0	1,280,861	1,280,861
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Publications	\$0	\$0	\$1,280,861	\$1,280,861

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FY09 USIO SOC CUMULATIVE WBE BUDGET DETAIL BY INSTITUTION (CONTINUED)

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Education				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Education	\$0	\$0	\$0	\$0
Outreach				
Salaries and Fringes	20,227	0	0	20,227
Travel	6,000	0	0	6,000
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	14,250	0	0	14,250
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	40,477	0	0	40,477
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	13,762	0	0	13,762
Total Outreach	\$54,239	\$0	\$0	\$54,239
Grand Total Direct Costs	266,317	3,480,050	6,619,454	10,365,821
Indirect Costs/Administrative Fee	124,548	803,675	194,711	1,122,934
TOTAL FY09 SOC Operations	\$390,865	\$4,283,725	\$6,814,165	\$11,488,755

1.4.4. FY09 USIO SOC OPERATIONS WBE BUDGET DETAIL BY INSTITUTION

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Management and Administration				
Salaries and Fringes	87,770	104,891	98,000	290,661
Travel	15,000	4,992	5,080	25,072
Supplies	3,000	2,700	1,150	6,850
Shipping	600	90	197	887
Communication	3,000	1,217	1,287	5,504
Contractual Services	3,400	0	0	3,400
Equipment	4,500	0	100	4,600
Other Direct Costs	6,100	540	9,185	15,825
Total Direct Costs	123,370	114,430	114,999	352,799
Modified Total Direct Costs (if applicable)	0	95,335	0	95,335
Indirect Costs or Administrative Fees	41,946	60,648	0	102,594
Total Management and Administration	\$165,316	\$175,078	\$114,999	\$455,393
Technical, Engineering, and Science Support				
Salaries and Fringes	0	506,093	1,813,000	2,319,093
Travel	0	37,612	379,826	417,438
Supplies	0	38,100	141,100	179,200
Shipping	0	5,850	233,100	238,950
Communication	0	4,408	9,400	13,808
Contractual Services	0	1,944,780	0	1,944,780
Equipment	0	7,000	225,250	232,250
Other Direct Costs	0	21,175	219,425	240,600
Day Rate	0	0	0	0
Fuel and Lubricants	0	0	0	0
Per Diem	0	0	0	0
Port Calls	0	0	0	0
Insurance	0	0	0	0
Travel—ODL	0	0	0	0
Other	0	21,175	219,425	240,600
Total Direct Costs	0	2,565,018	3,021,101	5,586,119
Modified Total Direct Costs (if applicable)	0	638,238	0	638,238
Indirect Costs or Administrative Fees	0	338,266	0	338,266
Total Tech., Engineering, and Science Support	\$0	\$2,903,284	\$3,021,101	\$5,924,385
Engineering Development				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Engineering Development	\$0	\$0	\$0	\$0

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FY09 USIO SOC OPERATIONS WBE BUDGET DETAIL BY INSTITUTION (CONTINUED)

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Core Curation				
Salaries and Fringes	0	0	83,000	83,000
Travel	0	0	12,105	12,105
Supplies	0	0	3,000	3,000
Shipping	0	0	4,500	4,500
Communication	0	0	829	829
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	3,304	3,304
Core Curation Total Direct Costs	0	0	106,738	106,738
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Core Curation	\$0	\$0	\$106,738	\$106,738
Data Management				
Salaries and Fringes	0	323,645	365,000	688,645
Travel	0	6,245	26,078	32,323
Supplies	0	14,460	5,656	20,116
Shipping	0	1,038	103	1,141
Communication	0	1,765	4,458	6,223
Contractual Services	0	0	0	0
Equipment	0	10,142	27,516	37,658
Other Direct Costs	0	4,600	167,089	171,689
Total Direct Costs	0	361,895	595,900	957,795
Modified Total Direct Costs (if applicable)	0	351,753	0	351,753
Indirect Costs or Administrative Fees	0	186,429	0	186,429
Total Data Management	\$0	\$548,324	\$595,900	\$1,144,224
Publications				
Salaries and Fringes	0	0	14,000	14,000
Travel	0	0	39,766	39,766
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	53,766	53,766
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Publications	\$0	\$0	\$53,766	\$53,766

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FY09 USIO SOC OPERATIONS WBE BUDGET DETAIL BY INSTITUTION (CONTINUED)

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Education				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Education	\$0	\$0	\$0	\$0
Outreach				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Outreach	\$0	\$0	\$0	\$0
Grand Total Direct Costs	123,370	3,041,343	3,892,504	7,057,217
Indirect Costs/Administrative Fee	41,946	585,343	0	627,289
TOTAL FY09 SOC Operations	\$165,316	\$3,626,686	\$3,892,504	\$7,684,506

1.4.5. FY09 USIO SOC NONOPERATIONS WBE BUDGET DETAIL BY INSTITUTION

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Management and Administration				
Salaries and Fringes	87,770	57,197	98,000	242,967
Travel	10,000	15,213	5,080	30,293
Supplies	1,000	1,800	1,150	3,950
Shipping	200	60	197	457
Communication	1,000	2,322	1,287	4,609
Contractual Services	1,000	0	0	1,000
Equipment	1,500	0	100	1,600
Other Direct Costs	0	360	9,185	9,545
Total Direct Costs	102,470	76,952	114,999	294,421
Modified Total Direct Costs (if applicable)	0	76,952	0	76,952
Indirect Costs or Administrative Fees	68,840	40,785	194,711	304,336
Total Management and Administration	\$171,310	\$117,737	\$309,710	\$598,757
Technical, Engineering, and Science Support				
Salaries and Fringes	0	163,498	40,000	203,498
Travel	0	30,537	14,000	44,537
Supplies	0	0	0	0
Shipping	0	750	7,000	7,750
Communication	0	3,608	0	3,608
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Day Rate	0	0	0	0
Fuel and Lubricants	0	0	0	0
Per Diem	0	0	0	0
Port Calls	0	0	0	0
Insurance	0	0	0	0
Travel—ODL	0	0	0	0
Other	0	0	0	0
Total Direct Costs	0	198,393	61,000	259,393
Modified Total Direct Costs (if applicable)	0	198,393	0	198,393
Indirect Costs or Administrative Fees	0	105,148	0	105,148
Total Tech., Engineering, and Science Support	\$0	\$303,541	\$61,000	\$364,541
Engineering Development				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Engineering Development	\$0	\$0	\$0	\$0

(Continued on next two pages.)

FY09 USIO SOC NONOPERATIONS WBE BUDGET DETAIL BY INSTITUTION (CONTINUED)

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Core Curation				
Salaries and Fringes	0	0	290,000	290,000
Travel	0	0	36,316	36,316
Supplies	0	0	9,000	9,000
Shipping	0	0	13,500	13,500
Communication	0	0	2,486	2,486
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	9,911	9,911
Core Curation Total Direct Costs	0	0	361,213	361,213
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Core Curation	\$0	\$0	\$361,213	\$361,213
Data Management				
Salaries and Fringes	0	110,259	644,000	754,259
Travel	0	2,585	42,233	44,818
Supplies	0	9,640	6,406	16,046
Shipping	0	600	128	728
Communication	0	1,017	7,081	8,098
Contractual Services	0	0	0	0
Equipment	0	6,761	27,516	34,277
Other Direct Costs	0	32,500	235,279	267,779
Total Direct Costs	0	163,362	962,643	1,126,005
Modified Total Direct Costs (if applicable)	0	136,601	0	136,601
Indirect Costs or Administrative Fees	0	72,399	0	72,399
Total Data Management	\$0	\$235,761	\$962,643	\$1,198,404
Publications				
Salaries and Fringes	0	0	1,121,000	1,121,000
Travel	0	0	26,041	26,041
Supplies	0	0	29,820	29,820
Shipping	0	0	6,886	6,886
Communication	0	0	8,000	8,000
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	35,348	35,348
Total Direct Costs	0	0	1,227,095	1,227,095
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Publications	\$0	\$0	\$1,227,095	\$1,227,095

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FY09 USIO SOC NONOPERATIONS WBE BUDGET DETAIL BY INSTITUTION (CONTINUED)

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Education				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Education	\$0	\$0	\$0	\$0
Outreach				
Salaries and Fringes	20,227	0	0	20,227
Travel	6,000	0	0	6,000
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	14,250	0	0	14,250
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	40,477	0	0	40,477
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	13,762	0	0	13,762
Total Outreach	\$54,239	\$0	\$0	\$54,239
Grand Total Direct Costs	142,947	438,707	2,726,950	3,308,604
Indirect Costs/Administrative Fee	82,602	218,332	194,711	495,645
TOTAL FY09 SOC NonOperations	\$225,549	\$657,039	\$2,921,661	\$3,804,249

1.4.6. FY09 USIO POC WBE BUDGET DETAIL BY INSTITUTION

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Management and Administration				
Salaries and Fringes	289,019	333,649	1,731,000	2,353,668
Travel	70,000	2,634	91,440	164,074
Supplies	6,000	10,500	20,700	37,200
Shipping	1,200	350	3,556	5,106
Communication	6,000	1,905	23,176	31,081
Contractual Services	58,000	0	0	58,000
Equipment	9,000	0	1,800	10,800
Other Direct Costs	9,600	2,100	165,330	177,030
Total Direct Costs	448,819	351,138	2,037,002	2,836,959
Modified Total Direct Costs (if applicable)	0	351,138	0	351,138
Indirect Costs or Administrative Fees	186,598	186,103	194,711	567,412
Total Management and Administration	\$635,417	\$537,241	\$2,231,713	\$3,404,371
Technical, Engineering, and Science Support				
Salaries and Fringes	0	0	2,873,000	2,873,000
Travel	0	0	459,382	459,382
Supplies	0	3,000	1,358,400	1,361,400
Shipping	0	3,000	348,900	351,900
Communication	0	500	11,600	12,100
Contractual Services	0	1,660,069	0	1,660,069
Equipment	0	7,000	593,750	600,750
Other Direct Costs	0	8,000	31,801,704	31,809,704
Day Rate	0	0	27,647,743	27,647,743
Fuel and Lubricants	0	0	1,241,095	1,241,095
Per Diem	0	0	492,900	492,900
Port Calls	0	0	602,280	602,280
Insurance	0	0	912,917	912,917
Travel—ODL	0	0	480,000	480,000
Other	0	8,000	424,769	432,769
Total Direct Costs	0	1,681,569	37,446,736	39,128,305
Modified Total Direct Costs (if applicable)	0	14,500	0	14,500
Indirect Costs or Administrative Fees	0	7,685	0	7,685
Total Tech., Engineering, and Science Support	\$0	\$1,689,254	\$37,446,736	\$39,135,990
Engineering Development				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Engineering Development	\$0	\$0	\$0	\$0

(Continued on next two pages.)

FY09 USIO POC WBE BUDGET DETAIL BY INSTITUTION (CONTINUED)

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Core Curation				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Core Curation Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Core Curation	\$0	\$0	\$0	\$0
Data Management				
Salaries and Fringes	0	32,482	454,000	486,482
Travel	0	964	36,000	36,964
Supplies	0	2,000	10,562	12,562
Shipping	0	100	179	279
Communication	0	668	6,292	6,960
Contractual Services	0	0	0	0
Equipment	0	0	55,031	55,031
Other Direct Costs	0	0	265,991	265,991
Total Direct Costs	0	36,214	828,055	864,269
Modified Total Direct Costs (if applicable)	0	36,214	0	36,214
Indirect Costs or Administrative Fees	0	19,193	0	19,193
Total Data Management	\$0	\$55,407	\$828,055	\$883,462
Publications				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Publications	\$0	\$0	\$0	\$0

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FY09 USIO POC WBE BUDGET DETAIL BY INSTITUTION (CONTINUED)

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Education				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Education	\$0	\$0	\$0	\$0
Outreach				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Outreach	\$0	\$0	\$0	\$0
Grand Total Direct Costs	448,819	2,068,921	40,311,793	42,829,533
Indirect Costs/Administrative Fee	186,598	212,981	194,711	594,290
TOTAL FY09 POC	\$635,417	\$2,281,902	\$40,506,504	\$43,423,823

1.4.7. FY09 USIO SIC WBE BUDGET DETAIL BY INSTITUTION

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Management and Administration				
Salaries and Fringes	80,468	0	0	80,468
Travel	27,000	0	0	27,000
Supplies	5,000	0	0	5,000
Shipping	2,000	0	0	2,000
Communication	3,000	0	0	3,000
Contractual Services	40,000	0	0	40,000
Equipment	7,500	0	0	7,500
Other Direct Costs	4,000	0	0	4,000
Total Direct Costs	168,968	0	0	168,968
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	57,449	0	0	57,449
Total Management and Administration	\$226,417	\$0	\$0	\$226,417
Technical, Engineering, and Science Support				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Day Rate	0	0	0	0
Fuel and Lubricants	0	0	0	0
Per Diem	0	0	0	0
Port Calls	0	0	0	0
Insurance	0	0	0	0
Travel—ODL	0	0	0	0
Other	0	0	0	0
Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Tech., Engineering, and Science Support	\$0	\$0	\$0	\$0
Engineering Development				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Engineering Development	\$0	\$0	\$0	\$0

(Continued on next two pages.)

FY09 USIO SIC WBE BUDGET DETAIL BY INSTITUTION (CONTINUED)

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Core Curation				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Core Curation Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Core Curation	\$0	\$0	\$0	\$0
Data Management				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Data Management	\$0	\$0	\$0	\$0
Publications				
Salaries and Fringes	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	0	0	0	0
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	0	0	0	0
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	0	0	0	0
Total Publications	\$0	\$0	\$0	\$0

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FY09 USIO SIC WBE BUDGET DETAIL BY INSTITUTION (CONTINUED)

Element/Expense Category	Ocean Leadership	LDEO	TAMU	Total
Education				
Salaries and Fringes	151,732	0	0	151,732
Travel	72,600	0	0	72,600
Supplies	10,600	0	0	10,600
Shipping	6,100	0	0	6,100
Communication	0	0	0	0
Contractual Services	86,300	0	0	86,300
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	327,332	0	0	327,332
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	111,293	0	0	111,293
Total Education	\$438,625	\$0	\$0	\$438,625
Outreach				
Salaries and Fringes	121,387	0	0	121,387
Travel	88,500	0	0	88,500
Supplies	10,500	0	0	10,500
Shipping	0	0	0	0
Communication	0	0	0	0
Contractual Services	72,150	0	0	72,150
Equipment	0	0	0	0
Other Direct Costs	0	0	0	0
Total Direct Costs	292,537	0	0	292,537
Modified Total Direct Costs (if applicable)	0	0	0	0
Indirect Costs or Administrative Fees	99,463	0	0	99,463
Total Outreach	\$392,000	\$0	\$0	\$392,000
Grand Total Direct Costs	788,837	0	0	788,837
Indirect Costs/Administrative Fee	268,205	0	0	268,205
TOTAL FY09 SIC	\$1,057,042	\$0	\$0	\$1,057,042

2. ORGANIZATIONAL STRUCTURE

The organizational structure of the USIO is described in Section 3. “Organizational Structure” in the IODP-USIO FY09 Annual Program Plan, submitted to IODP-MI on 7 April 2009. The organizational structure employed by the USIO is designed to mirror the WBE accounting structure used by IODP and allows us to effectively and efficiently carry out the mission of the USIO. This structure also aligns the organization to efficiently and economically provide the full array of science, operations, logging, engineering, information technology, technical, and publications services; laboratory facilities; core repositories; and administrative services deliverables.

2.1 FTE ALLOCATION TABLE

The full-time equivalent (FTE) allocation tables present an accounting of the cumulative estimated effort as partitioned between the WBE(s) to which positions are assigned and as partitioned between SOC Operations, SOC Nonoperations, POC, SIC, and other costs. Because staffing revisions were initiated in the middle of the fiscal year, the FTE allocation tables reflect actual FTEs as of 1 April 2009 plus projected FTEs for the remainder of the fiscal year. Staffing levels may change annually due to unanticipated changes in the operations schedule and/or scope of work. NonUSIO SOC-NonOPS FTEs shown in the second table include effort devoted to providing assistance to the European Consortium for Ocean Research Drilling (ECORD) Science Operator (ESO) and Center for Deep Earth Exploration (CDEX) as noted in the TE&SS, Data Management, and Publications chapters and to IODP-MI as noted in the Publications chapter of the IODP-USIO FY09 Annual Program Plan submitted on 7 April 2009.

FTE by Work Breakdown Elements									
USIO Office	M&A	TESS	ED	CC	DM	Pubs	Ed	Otrch	Total
Ocean Leadership	3.53	0.00	0.00	0.00	0.00	0.00	1.50	1.07	6.10
LDEO	4.75	9.71	0.00	0.00	4.71	0.00	0.00	0.00	19.17
TAMU	5.83	57.91	0.00	10.19	20.00	16.55	0.00	0.00	110.49
Totals	14.11	67.62	0.00	10.19	24.71	16.55	1.50	1.07	135.76

FTE by Expense Category							
USIO Office	USIO SOC-NonOps	NonUSIO SOC-NonOps*	SOC-Ops	POC	SIC	Other	Total
Ocean Leadership	0.71	0.00	0.60	1.81	2.98	0.00	6.10
LDEO	3.55	0.06	11.96	3.60	0.00	0.33	19.50
TAMU	23.51	8.39	33.03	45.56	0	0.59	111.08
Totals	27.77	8.45	45.59	50.97	2.98	0.92	136.68

Note: FTE = full-time equivalent; M&A = Maintenance and Administration; TE&SS = Technical, Engineering, and Science Support; ED = Engineering Development; CC = Core Curation; DM = Data Management; Pubs = Publications; Ed = Education; Otrch = Outreach; SOC = science operating costs; SOC-Ops = SOC Operations costs; SOC-NonOps = SOC Nonoperations costs; POC = platform operating costs; SIC = systems integration contract costs; Other = efforts funded by other sources (e.g., SODV). TAMRF administrative support staff are not included in the table.

3. MANAGEMENT AND ADMINISTRATION

3.1. GOALS

The USIO provides integrated management that is led by the contractor (Ocean Leadership) in coordination with the other two USIO members (LDEO and TAMU).

Goals of the USIO management staff include planning, coordinating (with other IODP-related entities), overseeing, reviewing, and reporting on IODP activities.

3.2. DELIVERABLES IN FY09

- Exercise management and financial controls to ensure compliance with contract provisions and encourage creative, effective, and efficient delivery of SIC-related tasks and services that will ensure the preservation of U.S. scientific ocean drilling capability as defined by NSF guidance.

3.3. BUDGET

Management and Administration	
Element/Expense Category	SIC
Salaries and Fringes	80,468
Travel	27,000
Supplies	5,000
Shipping	2,000
Communication	3,000
Contractual Services	40,000
Equipment	7,500
Other Direct Costs	4,000
Services	4,000
Total Direct Costs	168,968
Modified Total Direct Costs (if applicable)	0
Indirect Costs or Administrative Fees	57,449
Total Management and Administration	\$226,417

Funds for this WBE are budgeted as follows:

Salaries and Fringes—Salaries and fringes, including an anticipated cost-of-living allowance and estimated fringe benefits rate, for staff supporting the USIO (see Section 2.1. FTE Allocation Table).

Travel—Transportation, per diem, and lodging for USIO meetings, contractor meetings, scientific and technical meetings, and port call visits.

Supplies—General office supplies, expendables, and operational supplies.

Shipping—Postage, express mail, and courier services.

Communication—Telephone and fax charges.

Contractual Services—Consultant and contract services.

Equipment—Procurement, upgrading, or fabrication of equipment, including equipment replacement during FY09.

Other Direct Costs—Costs not covered in other categories.

Training—Registration, transportation, per diem, and lodging expenses related to professional training.

Indirect Costs—Administrative and financial costs associated with operating the Program. The approved provisional rate of 34% was used to calculate Ocean Leadership general and administrative (G&A) costs. Each year, G&A costs are charged on all Ocean Leadership direct costs and on the first \$100,000 of all subcontracts Ocean Leadership administers under a particular contract (e.g., total annual G&A on TAMRF and LDEO subcontracts = \$68,000). The G&A costs for the two subcontracts (LDEO and TAMRF) are split 50-50 between SOC G&A and POC G&A (\$34,000 each = \$17,000 SOC + \$17,000 POC).

4. EDUCATION

4.1. GOALS

USIO Education responsibilities include developing and disseminating expedition-specific and thematic education materials for elementary through post-secondary and free-choice learning audiences, and promoting diversity programs and partnerships to provide learning opportunities, mentoring, fellowships, and other horizon-building experiences for minority students to explore careers in the Earth System sciences.

Expedition-specific activities will include current expeditions and supporting legacy resources. Content priorities for 2009 are likely to focus on the upcoming ship's launch and paleoclimate topics.

4.2. DELIVERABLES IN FY09

- **Professional Development:** Provide professional development opportunities for elementary through postsecondary faculty and museum educators through teacher research experiences and School of Rock programs aboard the *JOIDES Resolution* and workshops at conferences, museums, and other strategic venues.
- **Expedition-based Activities and Materials:** Link school and public audiences to activities aboard the *JOIDES Resolution* via Web 2.0 technologies, the *JOIDES Resolution* Web portal, video conferencing, and pod casting. Produce new video and learning materials based on the new ship and FY09 expeditions.
- **Strategic Partnerships:** Foster current partnerships and develop new alliances with related science programs, national associations, organizations, and agencies with synergistic goals and objectives.
- **Scientists as Educators:** Target and advertise opportunities for participation ranging from museum lectures and classroom programs to expedition-specific plans and grant writing for FY09 expeditions.
- **Outside Funding and Sponsorships:** Work with USIO partners, Ocean Leadership education partners, member organizations, and advisers to secure outside funding sources and sponsorships.
- **Diversity Support:** Promote diversity in ocean drilling through HBCU fellowships and support for activities of the Minorities Striving and Pursuing Higher Degrees of Success in Earth Science (MS-PHD'S) initiative.

4.3. BUDGET

Education	
Element/Expense Category	SIC
Salaries and Fringes	151,732
Travel	72,600
Supplies	10,600
Shipping	6,100
Communication	0
Contractual Services	86,300
Equipment	0
Other Direct Costs	0
Total Direct Costs	327,332
Modified Total Direct Costs (if applicable)	0
Indirect Costs or Administrative Fees	111,293
Total Education	\$438,625

Funds for this WBE are budgeted as follows:

Salaries and Fringes—Salaries and fringes, including an anticipated cost-of-living allowance and estimated fringe benefits rate for staff supporting the USIO (see Section 2.1. FTE Allocation Table).

Travel—Transportation, per diem, and lodging costs to support participants in School of Rock activities, staffing of booths at national and regional meetings, expedition-specific activities, HBCU fellowship and intern program, MS-PHD'S partnerships in diversity, and dissemination of platform enrichment activities.

Supplies—General office supplies and expendables and operational supplies including partial costs of informational materials, posters, brochures, and platform enrichment activities.

Shipping—Postage, express mail, courier services, and freight, including shipping of booth materials to national and regional meetings.

Communication—None budgeted.

Contractual Services—Consultant and contract services for curriculum development and program implementation, stipends to teachers participating in School of Rock activities, stipends to fellowship and internship recipients from HBCU, and poster printing and design.

Equipment—None budgeted.

Other Direct Costs—None budgeted.

Indirect Costs—Administrative and financial costs associated with operating the Program. The approved provisional rate of 34% was used to calculate Ocean Leadership general and administrative (G&A) costs. Each year, G&A costs are charged on all Ocean Leadership direct costs and on the first \$100,000 of all subcontracts Ocean Leadership administers under a particular contract (e.g., total annual G&A on TAMRF and LDEO subcontracts = \$68,000). The G&A costs for the two subcontracts (LDEO and TAMRF) are split 50-50 between SOC G&A and POC G&A (\$34,000 each = \$17,000 SOC + \$17,000 POC).

5. OUTREACH

5.1. GOALS

USIO Outreach responsibilities include establishing measures to effectively communicate both shore- and ship-based components of IODP activities to the public and to Congress, and to encourage awareness of and interest in the scientific results of the Program.

Outreach goals for FY09 include the following:

- Raise visibility of IODP as a cutting-edge international earth science research program to new and existing audiences.
- Target informational outreach to the public and specific identified audiences including science and general-interest media, scientists-at-large, engineers-at-large, and communities/groups that can be considered agents of learning and change (i.e., educators and students, *not* in formal education contexts), managers of public space, and decision-makers at large national concerns.
- Use expeditions to promote scientific ocean drilling and the scientific data and analysis that emerge from it, and make the connection between the emerging scientific knowledge and its positive contribution to society worldwide.
- Build a foundation of knowledge about scientific ocean drilling (e.g., its achievements, merits, spectrum of national contributions, and high value to future scientific achievement) that is easily accessible to the public and other targeted communities online, in public spaces, and in the media.
- Maximize IODP human resources by working as an integrated outreach team, with common core messages and common informational materials.

5.2. DELIVERABLES IN FY09

- Sponsor events and exhibitions for U.S. Congress audiences.
- Media Awareness: Conduct media awareness training for future expedition Co-Chief Scientists.
- Media Outreach: Conduct media outreach at Geological Society of America and American Geophysical Union annual meetings, in support of Program scientists' publication in high-profile scientific journals, and for other opportunities.
- Outreach Activities: Coordinate outreach activities with IODP-MI, the European Consortium for Ocean Drilling Research, and the Center for Deep Earth Exploration (CDEX).

5.3. BUDGET

Outreach	
Element/Expense Category	SIC
Salaries and Fringes	121,387
Travel	88,500
Supplies	10,500
Shipping	0
Communication	0
Contractual Services	72,150
Equipment	0
Other Direct Costs	0
Total Direct Costs	292,537
Modified Total Direct Costs (if applicable)	0
Indirect Costs or Administrative Fees	99,463
Total Outreach	\$392,000

Funds for this WBE are budgeted as follows:

Salaries and Fringes—Salaries and fringes, including an anticipated cost-of-living allowance and estimated fringe benefits rate for staff supporting the USIO (see Section 2.1. FTE Allocation Table).

Travel—Transportation, per diem, and lodging costs to support participation in port calls, outreach to stakeholders, press events, media training, staffing booths at national meetings, and development of USIO informational materials.

Supplies—General office supplies and expendables and operational supplies including partial costs of informational materials, posters, and brochures for congressional outreach and platform enrichment activities.

Shipping—Postage, express mail, courier services, and freight, including shipping of booth materials to national and regional meetings.

Communication—None budgeted.

Contractual Services—Consultant and contract services for platform enrichment activities, promotional material printing and design, and booth costs at national meetings.

Equipment—None budgeted.

Other Direct Costs—None budgeted.

Indirect Costs—Administrative and financial costs associated with operating the Program. The approved provisional rate of 34% was used to calculate Ocean Leadership general and administrative (G&A) costs. Each year, G&A costs are charged on all Ocean Leadership direct costs and on the first \$100,000 of all subcontracts Ocean Leadership administers under a particular contract (e.g., total annual G&A on TAMRF and LDEO subcontracts = \$68,000). The G&A costs for the two subcontracts (LDEO and TAMRF) are split 50-50 between SOC G&A and POC G&A (\$34,000 each = \$17,000 SOC + \$17,000 POC).

APPENDIX: USIO IT SECURITY SUMMARY

ROLES AND RESPONSIBILITIES

System Administrator responsibilities include

- Applying platform technical safeguards.
- Supplying the first-level response (i.e., restoration services) to any security breach.
- Immediately reporting any security breach to the Departmental System Administrator.

Departmental System Administrator responsibilities include

- Assuring that best practices are followed in the administration of systems and software development.
- Disseminating education and security awareness training.
- Reporting criminal activity under applicable state code concerning computer or telecommunications crimes to the Director, department head, and their respective college computing and information services (CIS) department.
- Determining if a violation rises to the standard of fraud or fraudulent action and reporting it to the Chief Executive Officer.
- Determining the physical and electronic evidence to be gathered as part of incident investigation such as initiating, completing, and documenting the incident investigation.

RISK ASSESSMENT

Security and risk assessment represent primary job duties of the Ocean Leadership IT Manager, who continually monitors the threat environment. LDEO performs risk assessment on an on-going basis in order to respond to current conditions. TAMU completes an annual Information Security Assessment, Awareness, and Compliance (ISAAC) report as required by TAMU. The results are forwarded to the College of Geosciences, where they are reviewed and filed. Along with this annual risk assessment of computer systems and networks, TAMU is required to perform a physical security risk assessment of its facility.

TECHNICAL SAFEGUARDS

- Departmental IT personnel shall test security patches prior to implementation where practical. Departmental IT personnel are encouraged to have hardware resources available for testing security patches in the case of special applications.
- System Administrators shall ensure that vendor-supplied patches are routinely acquired, systematically tested, and installed promptly based on risk-management decisions.
- System Administrators shall remove unnecessary software, system services, and drivers.

- System Administrators shall enable security features included in vendor-supplied systems, including but not limited to firewalls, virus scanning and malicious code protections, and other file protections, where possible. Audit logging shall also be enabled. User privileges shall be set utilizing the “least privileges” concept of providing the minimum amount of access required to perform job functions. Privileges may be added as need is demonstrated by the user. The use of passwords shall be enabled in accordance with guidelines provided by the respective USIO policies.
- System Administrators shall disable or change the password of default accounts.
- System Administrators or their designee shall test servers, especially, for known vulnerabilities periodically or when new vulnerabilities are announced.
- System Administrators shall seek and implement best practices for securing their particular system platform(s).
- Systems Administrators shall seek and implement best practices for securing wireless traffic. A minimum of 128 bit WEP (encryption) is required.

ADMINISTRATIVE SAFEGUARDS

The Ocean Leadership Administrative Policy Manual spells out IT administrative policies. New employees are required to acknowledge their understanding of these policies and all employees are required to review these policies periodically. University administrative safeguards followed by LDEO and TAMU are fully prescribed for all users and support personnel (www.ldeo.columbia.edu/it/pp/index.shtml; <http://cis.tamu.edu/security/>). The extensive Standard Administrative Procedures provided by Columbia University and TAMU are available at www.columbia.edu/cu/policy/ and <http://rules-saps.tamu.edu/PDFs/24.99.99.M1.04.pdf>, respectively.

PHYSICAL SAFEGUARDS

OCEAN LEADERSHIP

Network switchgear is secured in a locked suite network closet, though all organizations on the floor have access. The server room is within office-suite security, and servers and other equipment are stored in locked server racks. Ocean Leadership offices are monitored by on-site security 24 hours a day, 7 days a week. All Ocean Leadership workstations and laptops resident on the network continually sync to a redundant array of independent disks (RAID), which is backed up nightly. Off-site backup is achieved via mobile external hard drives, cycled regularly.

LDEO

The Borehole Research Group (BRG) building server room is secured unless the System Administrator is physically nearby. All network switches in both adjacent BRG office buildings reside in locked wall-mounted racks inside network rooms that are locked at all times. Access to any of the facilities is granted only to department personnel, vendors, or authorized personnel whose job responsibilities require access to the

facility. All BRG computers are backed up nightly via remote server. A near-line mirror of the log data Web site is maintained on a remote server.

TAMU

After business hours, building entry is allowed via identification (ID)/keycard. Information is logged and available for retrieval at a later date. An access list is maintained by the Departmental System Administrator. Entry into the main computer room is granted only to departmental personnel, vendors, or authorized personnel whose job responsibilities require access to the facility. Doors are secured using push-button locks for which codes are changed periodically and whenever there is personnel change, regardless of the employee's status upon termination. Access codes are not to be shared with others.

Power to the computer room is provided via 50 KVA uninterruptible power supply (UPS) and matching power distribution unit (PDU). In case of power outage, power is supplied to UPS and backup heating, ventilation, and air-conditioning (HVAC) by a diesel generator. The computer room is protected from fire by a halon fire suppression system.

Incremental backups are completed on a daily basis and full backups are completed weekly. One full backup copy is kept locally and another is removed to off-site storage.

POLICIES AND PROCEDURES

GENERAL POLICIES AND PROCEDURES

The USIO policy for communications to and from the U.S. SODV is available at http://iodp.tamu.edu/participants/policies/IODP_Comm_Policy.pdf.

OCEAN LEADERSHIP

The relevant sections of the Ocean Leadership Administrative Manual are available at http://www.oceanleadership.org/files/IT_Policies.pdf. These policies are undergoing wholesale review as a result of Joint Oceanographic Institution's merger with the Consortium for Oceanographic Research and Education (CORE). All changes will be compatible with the broader USIO IT infrastructure.

LDEO

IT-specific policies for LDEO are available at www.columbia.edu/cu/policy/.

TAMU

IT-specific policies for TAMU are available at the following links:

- IT Resources Acceptable Use Policy: http://iodp.tamu.edu/internal/infotech/IT_Resources_Acceptable_Use_Policy.pdf
- Web Policy: http://iodp.tamu.edu/internal/infotech/web_policy.html

AWARENESS AND TRAINING

OCEAN LEADERSHIP

All new employees are required to read and acknowledge their understanding of Ocean Leadership policies related to appropriate use of IT resources. With fewer than 30 users to support on site, regular face-to-face interaction and training/support tailored to the individual is the norm.

LDEO

All new LDEO employees receive personalized orientation regarding acceptable IT use. The orientation familiarizes employees with BRG computing policies. Some of the items discussed include information resources ownership, appropriate use of said resources, incidental use, unacceptable use, password management, password creation, virus awareness, software licensing, and administrative/special access.

TAMU

All new employees are required to attend an IT Acceptable Use Policy presentation. Some of the items discussed in the course are information resources ownership, appropriate use of said resources, incidental use, unacceptable use, password management, password creation, virus awareness, software licensing, and administrative/special access. All users are required to acknowledge that they have read, understand, and will comply with the IT Acceptable Use Policy.

All employees must take yearly security awareness training as required by our partnership with TAMU. As part of this training, all users are required to acknowledge that they have read, understand, and will comply with university requirements regarding computer security policies and procedures.

CYBERSECURITY BREACH NOTIFICATION PROCEDURES

In the event of a cyber-security breach:

1. System Administrators have information security roles and responsibilities that can take priority over normal duties.
2. System Administrators are responsible for notifying their department heads and initiating the appropriate action, including restoration.
3. Departmental System Administrators are responsible for determining the physical and electronic evidence to be gathered as part of the incident investigation, such as initiating, completing, and documenting the incident investigation.
4. Departmental System Administrators shall report security incidents that may involve criminal activity under their respective state's penal code concerning computer or telecommunications crimes to the Director or department head and CIS.
5. If fraud or theft is suspected as part of security incident detection, the person detecting the incident shall follow their respective system policies concerning the control of fraud and fraudulent actions.

6. If there is a substantial likelihood that security incidents could be propagated to other systems beyond departmental control, System Administrators or Departmental System Administrators shall report/escalate such incidents to their respective college CIS help desk as soon as an incident is identified.

7. (TAMU only) System Administrators shall file an after-action report through the Security Incident Reporting System (SIRS) to Information Technology Issues Management (ITIM) office of TAMU CIS (<http://sirs.tamu.edu>).

SECURITY MEASURES FOR NONEMPLOYEES

All subcontractors, researchers, and others who will have access to the systems employed in support of this contract are required to follow all of the policies of the respective organizations with the exception of the following for TAMU: The requirement that all users must attend an IT Acceptable Use Policy presentation or attend yearly security awareness training is waived for itinerant (short term) use of Internet access or if a visitor is at TAMU only for a short-term visit (less than four weeks).