

R30B34
University of Maryland Center for Environmental Science
University System of Maryland

Operating Budget Data

(\$ in Thousands)

	FY 04	FY 05	FY 06	FY 05-06	% Change
	<u>Actual</u>	<u>Working</u>	<u>Allowance</u>	<u>Change</u>	<u>Prior Year</u>
General Funds	\$13,019	\$13,152	\$13,893	\$742	5.6%
Other Unrestricted Funds	5,232	4,403	4,382	-21	-0.5%
Total Unrestricted Funds	18,250	17,555	18,275	721	4.1%
Restricted Funds	<u>16,622</u>	<u>17,056</u>	<u>17,056</u>	<u>0</u>	
Total Funds	\$34,872	\$34,611	\$35,331	\$721	2.1%

- In the fiscal 2006 allowance, general funds increase \$741,551, which is 5.6% above the 2005 level.

Personnel Data

	FY 04	FY 05	FY 06	FY 05-06
	<u>Actual</u>	<u>Working</u>	<u>Allowance</u>	<u>Change</u>
Regular Positions	283.11	283.11	283.11	0.00
Contractual FTEs	<u>39.00</u>	<u>37.00</u>	<u>37.00</u>	<u>0.00</u>
Total Personnel	322.11	320.11	320.11	0.00

Vacancy Data: Regular Positions

Turnover, Excluding New Positions	7.42	2.62%
Positions Vacant as of 12/31/04	6.00	2.10%

- The fiscal 2006 allowance does not include any additional regular or contractual positions.

Note: Numbers may not sum to total due to rounding.

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Analysis in Brief

Major Trends

After a Two-year Decline, Grants Received Exceeding \$300,000 Increase in 2004: After declining from fiscal 2001 to 2003, the number of grants received exceeding \$300,000 reached 19 in 2004.

K-12 Education Programs Focus on Teachers: The number of K-12 students participating in environmental education programs decreased from 12,500 in fiscal 2002 to 10,250 in 2004. The number of teachers participating in education programs has increased, reaching 351 in fiscal 2004.

Issues

Measuring Performance Is Difficult Without Peers: University of Maryland Center for Environmental Science (UMCES) has a different structure from research institutes in other states in that it is not affiliated with a single university. This unique structure makes it difficult to conduct comparisons and measure performance.

UMCES Will Participate in University System of Maryland's Administrative Efficiency Initiatives: The University System of Maryland (USM) has begun an ambitious efficiency initiative. UMCES' share of the administrative savings is estimated at \$148,597 for fiscal 2006.

Personnel Surpasses 2002 Level: The total UMCES workforce has surpassed the level it was before the cost containment measures of the last several years. Research faculty account for 31% of the filled regular positions in fiscal 2005.

Recommended Actions

1. Concur with Governor's allowance.

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University of Maryland Center for Environmental Science
University System of Maryland

Operating Budget Analysis

Program Description

The University of Maryland Center for Environmental Science (UMCES) is a research institution for environmental studies. Its research focuses on the watersheds, estuaries, and coastal areas of the State of Maryland and the greater Chesapeake Bay region. One of the institution's goals is to use research to help predict conditions in Maryland's ecology.

UMCES includes three geographically distinct laboratories under a single administration. The labs are:

- Appalachian Laboratory at Frostburg;
- Chesapeake Biological Laboratory at Solomon's Island; and
- Horn Point Laboratory at Cambridge.

Each of the laboratories serves as a regional center. To support the institution's goal of strengthening K-12 education and teacher training in environmental education, each site offers education programs about natural sciences to teachers and students from K-12 schools. Environmental education programs also serve environmental interest groups and institutions within and beyond the University System of Maryland that are concerned with environmental research, education, and service.

UMCES provides advisory services to local Chesapeake Bay industries and also is the principal source of independent scientific information on environmental matters for Maryland's lawmakers, State agencies, and regional and national coastal management programs. To shore up financial support for its services, UMCES seeks to increase contract and grant agreements and contributions from private sources.

While UMCES does not grant degrees, its faculty members contribute to graduate education by advising, teaching, and supervising the research of students enrolled in the systemwide Marine-Estuarine-Environmental Sciences program. Additional graduate education activities include cooperative programs in fisheries, wildlife management, and toxicology. These activities further the institution's goals of providing quality research and graduate education and helping to build an educated workforce.

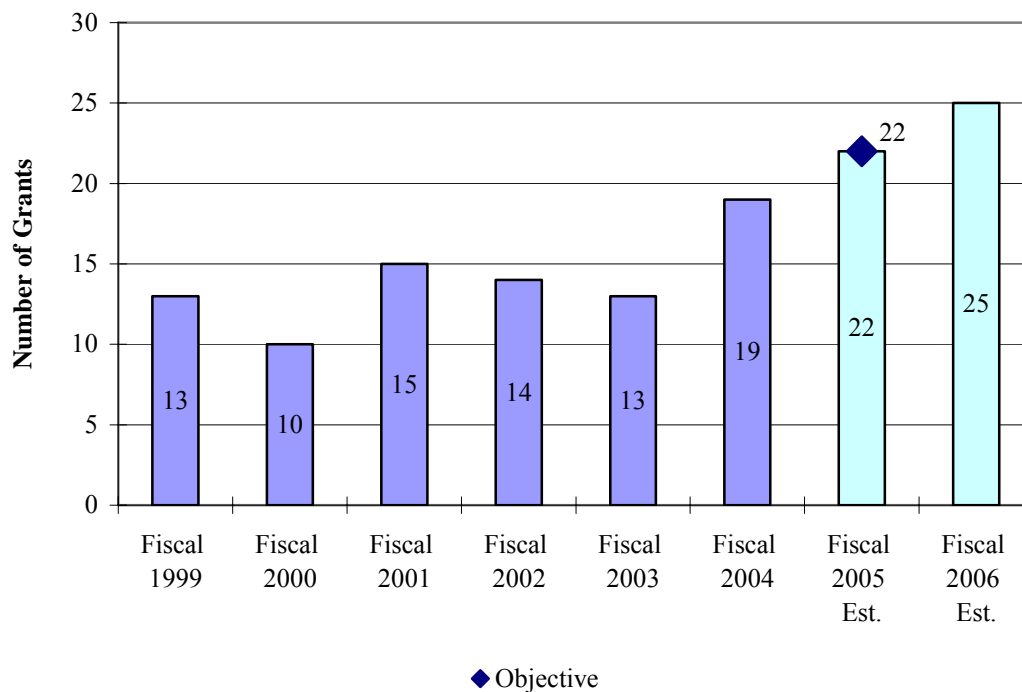
Performance Analysis: Managing for Results

Research is central to the mission of UMCES. Overall, performance measures on research are on track. The number of Chesapeake Bay restoration projects is increasing, totaling 142 in fiscal 2004. The number of peer reviewed publications is rising, totaling 110 in fiscal 2004, which reflects the prominence of the institution’s research in the scientific community.

After a Two-year Decline, Grants Received Exceeding \$300,000 Increase in 2004

Another research-related measure is the number of grants awarded that exceed \$300,000. After declining from fiscal 2001 to 2003, the number of grants grew to 19 in 2004, as shown in **Exhibit 1**. UMCES expects to achieve its fiscal 2005 objective of 22 awards. UMCES also reports its two-year running average of extramural research funding, which increased to \$22.1 million in fiscal 2004.

Exhibit 1
UMCES Grants Awarded in Excess of \$300,000
Fiscal 1999 – 2006



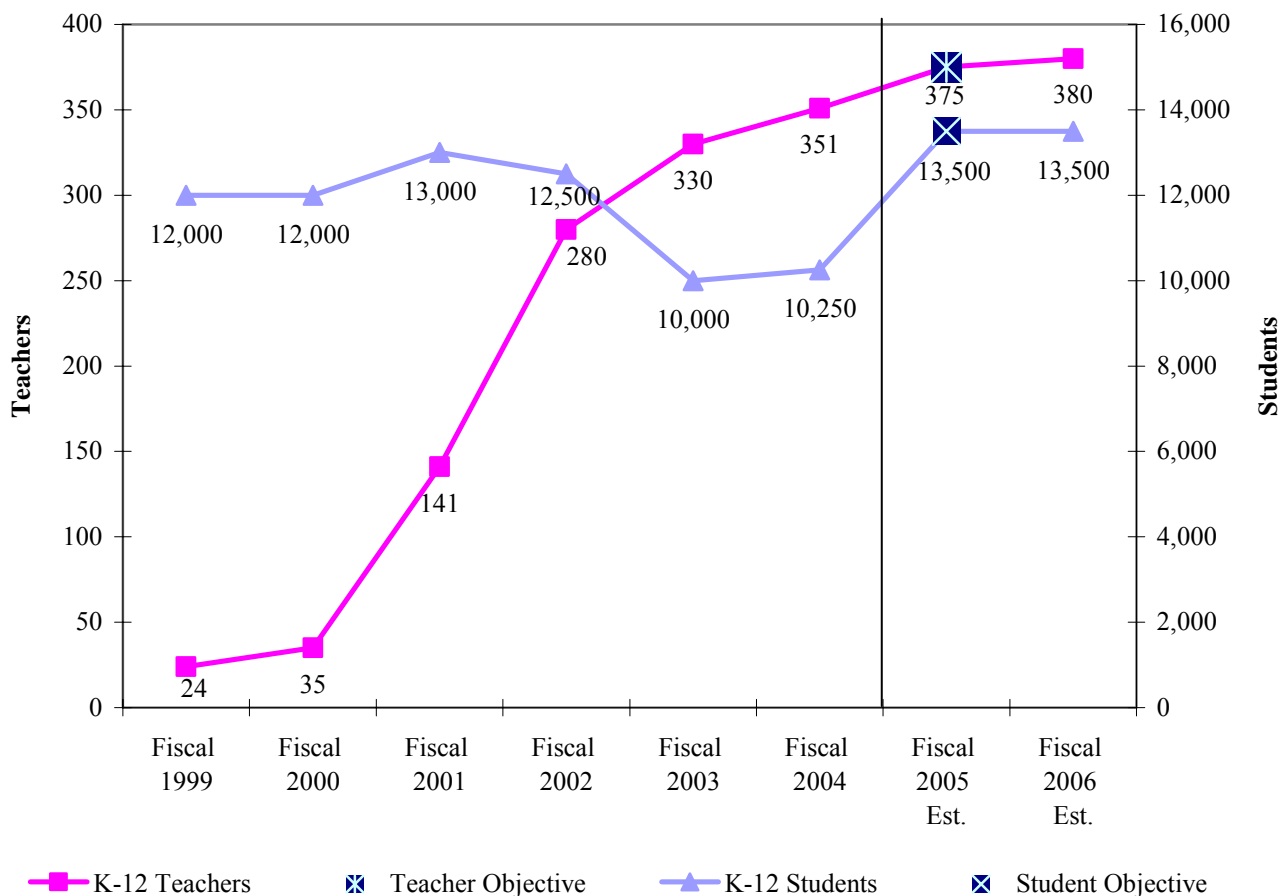
Source: Maryland State Budget Books

K-12 Education Programs Focus on Teachers

In addition to research, UMCES has a goal to strengthen K-12 education and teacher training in environmental education programs. The number of K-12 students participating in these programs remained between 12,000 and 13,000 until fiscal 2002 and then it dropped, as shown in **Exhibit 2**.

Although the Managing for Results data indicate that UMCES expects to meet its fiscal 2005 objective of 13,500 participating students, the institution reports that actually it does not anticipate meeting the objective because it has shifted its focus to K-12 teachers. Indeed, the number of teachers participating in the education programs has increased dramatically, and the fiscal 2005 objective of 375 teachers is expected to be met.

Exhibit 2
K-12 Teachers and Students Participating in Environmental Education Programs
Fiscal 1999 – 2006



Sources: Maryland State Budget Books

Governor's Proposed Budget

The general fund allowance for fiscal 2006 is \$741,551 above the 2005 level, an increase of 5.6%, as shown in **Exhibit 3**. UMCES reports that it intends to use \$675,000 of the additional general funds for its Aquaculture and Restoration Ecology Laboratory (AREL).

Exhibit 3
Governor's Proposed Budget
University of Maryland Center for Environmental Science
(\$ in Thousands)

	<u>FY 04</u> <u>Actual</u>	<u>FY 05</u> <u>Working</u>	<u>FY 06</u> <u>Allowance</u>	<u>FY 05-06</u> <u>Change</u>	<u>% Change</u> <u>Prior Year</u>
General Funds	\$13,019	\$13,152	\$13,893	\$742	5.6%
Other Unrestricted Funds	5,232	4,403	4,382	-21	-0.5%
Total Unrestricted Funds	18,250	17,555	18,275	721	4.1%
Restricted Funds	16,622	17,056	17,056	0	0.0%
Total Funds	\$34,872	\$34,611	\$35,331	\$721	2.1%

Note: Numbers may not sum to total due to rounding.

AREL began operation in fiscal 2004, but its activities have been scaled back due to reduced general funds. The fiscal 2006 general fund increase would enable AREL to be fully functional. The remaining general funds would be used for other equipment and mandatory cost increases. Other unrestricted funds in the allowance include a \$20,906 decrease in sales and services of educational activities. Overall, UMCES' budget increases 2.1%.

UMCES’ State-supported budget by program is shown in **Exhibit 4**. State-supported funds account for 44% of UMCES’ total budget. Of the State-supported amount, general funds are about 90%. In the fiscal 2006 allowance, plant expenditures are set to increase 25% over 2005, which represents the new general funds going to AREL.

Exhibit 4
UMCES State-supported Budget Changes by Program
Fiscal 2002, 2005, and 2006
(\$ in Thousands)

	<u>FY 02</u>	<u>FY 05</u> <u>Working</u>	<u>FY 02-05</u> <u>% Change</u>	<u>FY 06</u> <u>Allowance</u>	<u>FY 05-06</u> <u>Change</u>	<u>FY 05-06</u> <u>% Change</u>
Expenditures						
Research	\$7,873	\$10,246	30.1%	\$10,380	\$135	1.3%
Plant	3,821	2,169	-43.2%	2,710	540	24.9%
Institutional support	3,682	2,368	-35.7%	2,414	46	1.9%
Public service	72	77	7.2%	77	0	0.0%
Total	\$15,448	\$14,860	-3.8%	\$15,580	\$721	4.8%
Revenues						
General Funds	\$13,479	\$13,152	-2.4%	\$13,893	\$742	5.6%
Other State Support	1,969	1,708	-13.3%	1,687	-21	-1.2%
Use of Fund Balance	0	0	0.0%	0	0	0.0%
Total	\$15,448	\$14,860	-3.8%	\$15,580	\$721	4.8%

Source: University of Maryland Center for Environmental Science

Issues

1. Measuring Performance Is Difficult without Peers

UMCES has an unusual structure in that it is an independent research institution not affiliated with a single university. Research institutions usually are part of larger research universities and are closely linked with particular colleges or departments.

As part of its systemwide efficiency initiative, the Board of Regents is studying whether changes to USM's two research institutions – UMCES and the University of Maryland Biotechnology Institute (UMBI) – might better serve the institutions and the system as a whole. The independent structure allows UMCES and UMBI to focus on research and thus recruit top-notch scientists. At the same time, their disadvantage is an inability to generate tuition revenues. **As mentioned in the UMBI analysis, the Department of Legislative Services (DLS) recommends that the USM office report on the findings of its study concerning the structure of UMCES and UMBI.**

The institutes' unique structure prevents meaningful comparison to other institutions on performance measures related to their missions. Neither UMCES nor UMBI has peer institutions identified. **The President should comment on the outlook for identifying peer institutions or reporting comparative data for UMCES.**

2. UMCES Will Participate in University System of Maryland's Administrative Efficiency Initiatives

Given the continuing constrained State fiscal environment, the USM Board of Regents examined how the system can improve its efficiency. After more than a year of study, USM unveiled its efficiency and effectiveness plan in October 2004. The system will pursue more than a dozen initiatives beginning in fiscal 2006, and some of them will continue through 2008.

In its report, USM estimates fiscal effects for administrative and academic efficiency initiatives. Across USM institutions, administrative cost savings are expected to be \$17.1 million in fiscal 2006. These savings are built into the 2006 allowance, meaning estimates of mandatory cost increases would be \$17.1 million higher without the efficiency savings.

The UMCES share of the administrative savings is estimated at \$148,597 in fiscal 2006. To achieve these savings, UMCES will work to automate certain processes and to partner with the University of Maryland, College Park on certain processes. Also, UMCES will benefit from systemwide energy procurement savings.

To estimate the fiscal effects of academic initiatives, the USM Office identified the number of additional full-time equivalent students that system institutions can serve with existing resource levels as a result of the efficiency efforts. Most of the academic effects will be realized through increases in faculty instructional workload. Although UMCES faculty may teach, they do not technically have

instructional workloads and so are not included in the system's overall academic efficiency estimates. **The President should comment on how UMCES will achieve its administrative efficiency target and whether any academic efficiency initiatives are planned.**

3. Personnel Surpasses 2002 Level

The total UMCES workforce has surpassed the level it was before recent cost containment measures. In fiscal 2002, full-time equivalent regular and contractual personnel totaled 294, and in 2005 the total is 320. Contractual positions have declined, but regular positions have increased by 53. These numbers include filled and unfilled positions.

Since UMCES classifies all of its personnel as research, DLS cannot evaluate changes in the composition of personnel by program, which include operations and maintenance of physical plant, institutional support, and public service. However, DLS evaluated personnel across USM – including UMCES – by faculty, exempt, and non-exempt categories. These numbers are for filled regular positions only.

At UMCES, faculty account for 31.4% of the fiscal 2005 total. Although some UMCES faculty teach courses, all are categorized as research faculty. For USM as a whole, the faculty proportion is 38.4%. UMCES reports that some of its faculty are contractual and so are not included in the data. If these personnel were included, the faculty level would be 46%. Exempt personnel, who generally are higher-paid administrators and managers and are exempt from overtime pay, account for 29.7% of the UMCES total. Non-exempt personnel account for 38.9%.

Recommended Actions

1. Concur with Governor's allowance.

Current and Prior Year Budgets

Current and Prior Year Budgets University of Maryland Center for Environmental Science (\$ in Thousands)

	<u>General Fund</u>	<u>Other Unrestricted Fund</u>	<u>Total Unrestricted Fund</u>	<u>Restricted Fund</u>	<u>Total</u>
Fiscal 2004					
Legislative Appropriation	\$13,021	\$4,681	\$17,702	\$16,556	\$34,258
Deficiency Appropriation	0	0	0	0	0
Budget Amendments	0	870	870	150	1,020
Cost Containment	-2	0	-2	0	-2
Reversions and Cancellations	0	-321	-321	-84	-405
Actual Expenditures	13,021	5,230	18,250	16,622	34,872
Fiscal 2005					
Legislative Appropriation	\$13,015	\$4,403	\$17,417	\$16,556	\$33,973
Budget Amendments	137	0	137	500	637
Working Appropriation	\$13,152	\$4,403	\$17,555	\$17,056	\$34,611

Note: Numbers may not sum to total due to rounding.

Fiscal 2004

General funds at UMCES were reduced \$2,489 in fiscal 2004 through the Governor's July 2003 cost containment action. The Chancellor virtually exempted UMCES from contributing to the cost containment amount so it could redirect funds to its newly-opened aquaculture and ecology lab.

Other unrestricted funds increased \$872,023 through budget amendments. Of this net amount, increases included \$1.2 million from additional indirect cost recovery. Decreases included \$160,000 in federal grants and contracts and \$150,000 in sales and services of educational activities. Decreases also included \$117,977 to represent the amount of the General Assembly's general fund reduction in fiscal 2004; this amount was not originally deducted from the total unrestricted fund appropriation so an adjustment was needed.

Restricted funds increased \$150,000 through budget amendment to accommodate a grant from the Department of Natural Resources.

At the end of fiscal 2004, UMCES cancelled \$320,981 in unrestricted funds primarily because two payments associated with the aquaculture and ecology lab were deferred until fiscal 2005. UMCES also cancelled \$84,303 in restricted funds to align amounts with actual expenditures.

Fiscal 2005

For fiscal 2005, UMCES general funds were increased \$137,224 for the State employee cost-of-living increase. No changes have been made to other unrestricted funds. Restricted funds have increased \$500,000 due to additional expected federal grants.

Audit Findings

Audit Period for Last Audit:	August 28, 2000 – May 18, 2003
Issue Date:	October 2003
Number of Findings:	4
Number of Repeat Findings:	1
% of Repeat Findings:	25%
Rating: (if applicable)	

Finding 1: Cash Receipts: Cash receipts were not adequately controlled.

Finding 2: Accounts Receivable: The approval process for certain critical adjustments was not adequate.

Finding 3: Payroll: Payroll processing duties at one laboratory were not adequately separated.

Finding 4: **Equipment: Adequate accountability and control were not established at two laboratories.**

*Bold denotes item repeated in full or part from preceding audit report.

**Object/Fund Difference Report
USM – Center for Environmental Science**

<u>Object/Fund</u>	<u>FY04 Actual</u>	<u>FY05 Working Appropriation</u>	<u>FY06 Allowance</u>	<u>FY05 - FY06 Amount Change</u>	<u>Percent Change</u>
Positions					
01 Regular	283.11	283.11	283.11	0	0%
02 Contractual	39.00	37.00	37.00	0	0%
Total Positions	322.11	320.11	320.11	0	0%
Objects					
01 Salaries and Wages	\$ 20,963,000	\$ 20,986,576	\$ 21,164,096	\$ 177,520	0.8%
02 Technical & Spec Fees	396,806	30,294	30,294	0	0%
03 Communication	290,127	439,731	439,731	0	0%
04 Travel	821,903	737,347	737,347	0	0%
06 Fuel & Utilities	1,213,464	1,306,669	1,681,669	375,000	28.7%
07 Motor Vehicles	362,070	400,209	400,209	0	0%
08 Contractual Services	7,774,372	7,325,939	7,441,959	116,020	1.6%
09 Supplies & Materials	1,809,797	1,580,537	1,649,358	68,821	4.4%
10 Equip - Replacement	0	224,915	224,915	0	0%
11 Equip - Additional	605,536	1,038,992	1,038,992	0	0%
12 Grants, Subsidies, and Contributions	18,746	16,980	16,980	0	0%
13 Fixed Charges	447,819	392,465	375,749	-16,716	-4.3%
14 Land & Structures	168,525	130,000	130,000	0	0%
Total Objects	\$ 34,872,165	\$ 34,610,654	\$ 35,331,299	\$ 720,645	2.1%
Funds					
40 Unrestricted Fund	\$ 18,250,429	\$ 17,554,615	\$ 18,275,260	\$ 720,645	4.1%
43 Restricted Fund	16,621,736	17,056,039	17,056,039	0	0%
Total Funds	\$ 34,872,165	\$ 34,610,654	\$ 35,331,299	\$ 720,645	2.1%

Note: The fiscal 2005 appropriation does not include deficiencies, and the fiscal 2006 allowance does not reflect contingent reductions.

