

AUDIT SUMMARY

Our audit of the University of Virginia for the year ended June 30, 1998, found:

- The financial statements are presented fairly, in all material respects.
- Internal control matters that we consider to be reportable conditions, however, we do not consider any of these to be material weaknesses. Our findings include the following issues:
 - The Human Resources Department's disaster recovery plan for its systems does not assess risk, analyze business impact, nor adequately detail procedures to follow.
 - The Bayly Art Museum stores valuable works in its collection, but not on display, in conditions that may unnecessarily hasten their deterioration.
 - Management has delayed completion of the Medical Center's risk assessment pending the completion of the planning for the Integrated Healthcare Management Information System.
 - Medical Center Computing does not have any policies or procedures for changing access rules when employees are assigned different duties, employees terminate, or workstation addresses are changed or are no longer needed.
 - Medical Center Computing must continue to strengthen the security over the PeopleSoft systems.
- No material instances of noncompliance required to be reported under Government Auditing Standards.
- Adequate corrective action of prior audit findings except that the Medical Center has not completed corrective action with respect to the previously reported finding entitled, "Strengthen Security Over the PeopleSoft System."

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UNIVERSITY OFFICIALS

October 15, 1998

The Honorable James S. Gilmore, III
Governor of Virginia

The Honorable Richard J. Holland
Chairman, Joint Legislative Audit
and Review Commission

The Board of Visitors
University of Virginia

INDEPENDENT AUDITOR'S REPORT ON SUPPLEMENTARY INFORMATION

We have audited the financial statements of the **University of Virginia** as of and for the year ended June 30, 1998, and have issued our report thereon dated October 15, 1998. Our report on the financial statements is contained in the President's Report 1997-98 issued by the University. The financial statements are the responsibility of the University's management. Our responsibility is to express an opinion on the financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

Our audit was performed for the purpose of forming an opinion on the financial statements of the University taken as a whole. The accompanying Schedule of Auxiliary Enterprises – Revenues and Expenditures and the State Student Loan Schedule are presented for purposes of additional analysis and is not a required part of the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and, in our opinion, is fairly stated, in all material respects, in relation to the financial statements taken as a whole.

INDEPENDENT AUDITOR'S REPORT ON COMPLIANCE AND ON INTERNAL
CONTROL OVER FINANCIAL REPORTING

We have audited the financial statements of the University of Virginia as of and for the year ended June 30, 1998, and have issued our report thereon dated October 15, 1998. Our report on the financial statements is contained in the President's Report 1997-1998, issued by the University. We conducted our audit in accordance with generally accepted auditing standards and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States.

Management's Responsibility

The University's management is responsible for establishing and maintaining an internal control structure and complying with applicable laws and regulations. In fulfilling this responsibility, estimates and judgments by management are required to assess the expected benefits and related costs of internal control policies and procedures. The objectives of an internal control structure are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition; transactions are executed in accordance with management's authorization and recorded properly to permit the preparation of the financial statements in accordance with generally accepted accounting principles; and the University has complied with applicable laws and regulations.

Compliance

As part of obtaining reasonable assurance about whether the University's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grants, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no material instances of noncompliance that are required to be reported under Government Auditing Standards.

Internal Control Over Financial Reporting

In planning and performing our audit, we considered the University's internal control over financial reporting in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide assurance on the internal control over financial reporting. However, we noted certain matters involving the internal control over financial reporting and its operation that we consider to be reportable conditions. Reportable conditions involve matters coming to our attention relating to significant deficiencies in the design or operation of the internal control over financial reporting that, in our judgment, could adversely affect the University's ability to record, process, summarize, and report financial data consistent with the assertions of management in the financial statements. Reportable conditions are described in the section entitled, "Internal Control Findings and Recommendations."

We believe none of the reportable conditions are a material weakness. A material weakness is a condition in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements in amounts that would be material in relation to the financial statements being audited may occur and not be detected promptly by employees in the normal course of

performing their duties. Our consideration of the internal control over financial reporting would not necessarily disclose all matters in the internal control that might be reportable conditions and, accordingly, would not necessarily disclose all reportable conditions that are also considered to be material weaknesses.

Status of Prior Findings

The University has not completed corrective action with respect to the previously reported finding entitled, "Strengthen Security Over the PeopleSoft System." Accordingly, we have included this finding in the section entitled, "Internal Control Findings and Recommendations." The University has completed corrective action on all previously reported findings not included in this report.

Exit Conference And Report Distribution

We discussed this report with management at an exit conference held on November 30, 1998. This report is for the information of the Governor and General Assembly, Board of Visitors, management, and the people of the Commonwealth of Virginia and is a public record.

AUDITOR OF PUBLIC ACCOUNTS

JHS:pym
pym:152

INTERNAL CONTROL FINDINGS AND RECOMMENDATIONS

ACADEMIC DIVISION

Prepare Disaster Recovery Plan and Backup Data

The Human Resources Department does not have an adequate disaster recovery plan for its systems. The current plan does not assess risk, analyze business impact, or adequately detail procedures to follow. In addition, Human Resources has no documented procedures for backing up its programs and data. Internal Audit reported similar findings in 1994.

In the event of a disaster, the University could lose critical information and disrupt Human Resources functions for an extended period. Human Resources should develop a formal disaster recovery plan that assesses risks affecting its systems, identifies business impact in the event of the loss of computing, and includes detailed recovery procedures. The contingency plan should also identify a specific location for operations should present facilities be unavailable. Additionally, Human Resources should document procedures for backing up its programs and data. We understand that Human Resources has begun work to complete disaster recovery and backup data plans.

Improve Conditions at Bayly Art Museum

The Bayly Art Museum stores valuable works in its collection, but not on display, in conditions that may unnecessarily hasten their deterioration. While the Museum staff has attempted to mitigate potential losses by covering artwork with plastic and installing environmental monitoring devices, the storage areas for works not on display are generally not appropriate. On-site storage in the basement has pipes for the radiator heating system running along the ceiling of the artwork storage room creating the potential for loss should those pipes leak or rupture. Off-site storage in the Seig Warehouse is unsuitable due to a leaky roof and lack of environmental controls. An independent architect cited these problems in the Conservation Assessment Survey Report in July 1995.

The University recently developed a plan for a new museum that would include adequate storage in a new museum building and in a new off-site building. However, the University should develop an immediate plan to properly safeguard all works not on display. This plan should include storing off-site in an appropriately secure location the items not on display. The University could lose valuable artwork collections in event of a disaster or rapid deterioration due to improper environmental conditions.

MEDICAL CENTER

Improve Information Security Plan

The Medical Center's risk assessment does not identify the possible risks and vulnerabilities to critical applications and sensitive data. Medical Center Computing (MCC) had planned to perform a risk assessment and disaster recovery for the entire network and the client/server system by December 1997. Management decided to complete the planning for the Integrated Healthcare Management Information System before starting to update the Business Impact Analysis and Disaster Recovery Plan. This delay would allow the new assessment to include the new system's hardware and computing environment.

Since MCC is completing the planning for the new system, it should undertake the comprehensive risk assessment to identify possible risks and vulnerabilities to critical applications and sensitive data. This assessment should make recommendations for implementation of security safeguards to mitigate those risks. Management concurs and anticipates completing this plan by July 1999.

Improve Access Controls

Medical Center Computing does not have any policies or procedures for changing access rules when employees are assigned different duties, employees terminate, or workstation addresses are changed or are no longer needed. While reviewing access to the Medical Center's systems, we found accounts for people no longer employed by the Medical Center and invalid workstation addresses with access. In addition, we found current employees with access they did not need for their changed job duties. The presence of unnecessary access points increases the likelihood of inappropriate transactions or access to sensitive data.

Medical Center Computing should develop a policy for Medical Center departments to follow when an employee terminates or receives reassignment to another department. Data Base Administrators should periodically review the workstation address listing and remove invalid addresses from the list. Implementation and enforcement of such policies would further secure the Medical Center's critical systems and sensitive data.

Strengthen Security Over the PeopleSoft System

In our last audit, we identified two security weaknesses in the Medical Center's new financial systems. These weaknesses could lead to unauthorized use or alteration of the Medical Center's critical financial data. Our specific concerns follow:

- PeopleSoft application password security does not limit the number of failed logon attempts, does not require users to periodically change passwords, and does not use a specific password for a user's initial logon.
- The Medical Center has not installed data security firewalls to prevent network access by unauthorized users from outside networks including the Internet. Lack of firewalls make it easier for unauthorized external users to gain access to the financial databases and possibly alter or destroy financial data.

During this audit, we identified two additional security weaknesses. These weaknesses could result in making critical financial systems unavailable to users.

- The UNIX server running the financial system allows users to telnet (communicate from remote locations) and establish sessions. The ability to telnet to this server, especially in the absence of a firewall, significantly increases the possibility of a "hacker" attack to the server. An attack could result in bringing the entire server down. The database administrator (DBA) should strictly limit telnet to only those individuals that actively require this access and should regularly review whether users continue to need telnet access.

- The Medical Center is not taking full advantage of using the trusted mode in UNIX. As a result, a “hacker” could use free Internet products to determine user ID’s and passwords to the UNIX server. With password information, a “hacker” could effectively take over the server, making it unavailable to Medical Center personnel.

Medical Center Computing is reviewing potential ways to improve password security and is developing a request for proposal to purchase and install “firewall” technologies. The Medical Center should continue to work to resolve these security risks and improve security over its financial systems.

SUPPLEMENTARY INFORMATION

UNIVERSITY OF VIRGINIA
SCHEDULE OF AUXILIARY ENTERPRISES - REVENUES AND EXPENDITURES
For the Year Ended June 30, 1998
(In thousands)

	Athletics	Faculty Housing	Food Services	Residential Facilities	Stores and Shops	Student Activities	Student Health	Parking and Transportation and Other	Long Distance Telephone	Total
Operating revenues:										
Student fees	\$4,961	\$ -	\$ -	\$ 1,273	\$ 1	\$ 3,637	\$ 4,817	\$ 1,478	\$ -	\$ 16,167
Sales and services (Note A)	14,458	708	4,315	18,238	26,401	1,788	215	8,644	1,153	75,920
Gross operating revenues	19,419	708	4,315	19,511	26,402	5,425	5,032	10,122	1,153	92,087
Cost of sales	-	-	77	-	23,768	52	-	-	-	23,897
Net operating revenues	19,419	708	4,238	19,511	2,634	5,373	5,032	10,122	1,153	68,190
Operating expenditures:										
Personal services	10,702	17	242	4,726	2,380	1,700	3,861	3,271	15	26,914
Contractual services	4,937	310	1,862	4,865	940	841	558	3,624	729	18,666
Supplies and materials	1,238	87	93	1,100	291	336	246	329	-	3,720
Equipment	172	11	7	145	50	71	106	92	-	654
Miscellaneous	2,810	41	706	144	(3,430)	210	130	28	9	648
Total operating expenditures	19,859	466	2,910	10,980	231	3,158	4,901	7,344	753	50,602
Interdepartmental recoveries and charges	(463)	-	(1,156)	(22)	265	(187)	5	(962)	-	(2,520)
Net operating expenditures	19,396	466	1,754	10,958	496	2,971	4,906	6,382	753	48,082
Excess of revenues over operating expenditures	23	242	2,484	8,553	2,138	2,402	126	3,740	400	20,108
Nonoperating revenues (expenditures):										
Interest income	159	25	215	273	135	74	190	119	193	1,383
Private gifts	328	-	-	-	-	-	-	-	-	328
Other sources	1	-	-	-	-	-	-	-	-	1
Scholarships and fellowships	(1)	-	-	(6)	(1)	(4)	(1)	(1)	-	(14)
Total nonoperating revenues (expenditures)	487	25	215	267	134	70	189	118	193	1,698
Transfers:										
Mandatory:										
Debt service	-	(1)	(791)	(3,427)	(581)	(79)	(2)	(2,050)	-	(6,931)
Nonmandatory:										
Capital improvements	(2,022)	(182)	(1,142)	(3,590)	(191)	(1,719)	(142)	(1,860)	(593)	(11,441)
Other	175	(21)	(30)	37	(334)	206	51	3	-	87
Total transfers	(1,847)	(204)	(1,963)	(6,980)	(1,106)	(1,592)	(93)	(3,907)	(593)	(18,285)
Net increase (decrease) for the year	(1,337)	63	736	1,840	1,166	880	222	(49)	-	3,521
Fund balances at beginning of year	1,128	416	909	(475)	5,510	732	1,921	414	-	10,555
Fund balances at end of year	\$ (209)	\$ 479	\$ 1,645	\$ 1,365	\$ 6,676	\$ 1,612	\$ 2,143	\$ 365	\$ -	\$ 14,076

Note A: Sales and Services revenue in Athletics is shown net of Atlantic Coast Conference contributions of \$849,650.

UNIVERSITY OF VIRGINIA
STATE STUDENT LOAN SCHEDULE
For the Year Ended June 30, 1998

In prior years, the University used its Commonwealth of Virginia Student Loan Fund to provide matching funds to meet the institutional contribution requirements of the federally sponsored Perkins Loan Program. At June 30, 1998, the fund balance of the State Student Loan Fund consisted of the following:

Cash	\$ 8,128
Due from Perkins Loan Program	<u>82,306</u>
Fund balance	<u>\$ 90,434</u>

The University transferred no funds from the State Student Loan Fund to the Perkins Loan Program during the fiscal year.

UNIVERSITY OF VIRGINIA
Charlottesville, Virginia

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