Fiscal Year 2006
Audit Results for
Nevada System of Higher Education
Report to the Board Regents of the Nevada
System of Higher Education

Management Letter

October 12, 2006

To Board Regents of the Nevada System
    of Higher Education

In planning and performing our audit of the financial statements of the Nevada System of Higher Education (the "System" or "NSHE") for the year ended June 30, 2006, we considered its internal control in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide assurance on internal control. However we noted one matter involving internal control and its operation that we consider to be a reportable condition under standards established by the American Institute of Certified Public Accountants. Reportable conditions involve matters coming to our attention relating to significant deficiencies in the design or operation of the internal control that, in our judgment, could adversely affect the System's ability to initiate, record, process, and report financial data consistent with the assertions of management in the financial statements.

Per AU section 328.04 of the American Institute of Certified Public Accountants (AICPA) Professional Standards, and page 4 of the AICPA Practice Aid "Alternative Investments-Audit Considerations", it is management's responsibility for making the fair value measurements and disclosures included in the financial statements for alternative investments. It also clearly states in the Practice Aid that this responsibility cannot, under any circumstances, be outsourced or assigned to a party outside of the investor entity's management. Per our discussions with management and testing of alternative investments, management has outsourced this responsibility to Cambridge Associates LLP. As part of fulfilling its responsibility, management needs to establish an accounting and financial reporting process for determining the fair value measurements and disclosures, select appropriate valuation methods, and identify and adequately ensure that the presentation and disclosure of the fair value measurements are in accordance with Generally Accepted Accounting Principles. We encourage management to implement the appropriate policies and procedures to ensure they are in compliance with the requirements of AU section 328.04 and the responsibilities described above.

A material weakness is a reportable 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 caused by error or fraud in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. Our consideration of internal control would not necessarily disclose all matters in internal control that might be reportable conditions and, accordingly, would not necessarily disclose all reportable conditions that are also considered to be material weaknesses as defined above. However, the reportable condition described above is not believed to be a material weakness.

In addition, during our audit we became aware of matters that are an opportunity for strengthening internal controls and operating efficiency. The attachments that accompany this letter summarize our comments and suggestions regarding those matters. They are summarized into Financial, Federal Compliance, and Information Technology (IT) issues. We would like to mention that although we believe these matters are not materially significant to the financial statements, they may be significant to the public and should be considered accordingly. This letter does not affect our report dated October 12, 2006, on the financial statements of the System.

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We have discussed these comments with System personnel, and would be pleased to discuss them in greater detail at your convenience, to perform any additional study of these matters, or to assist you in implementing these recommendations.

This report is intended solely for the use of the Board of Regents of the Nevada System of Higher Education, management and others within the System and should not be used by anyone other than these specified parties.

Very truly yours,

Mary Case

Mary Case
For Moss Adams LLP

AUDIT FINDINGS AND RECOMMENDATIONS - FINANCIAL

Observations	Recommendation
Nevada System of Higher Education ("System" or "NSHE") **1. Preparation of the Consolidated Financial Statements by the Assistant Vice Chancellor for Internal Audit and Risk Management** For the current fiscal year the consolidated financial statements were prepared by the Assistant Vice Chancellor for Internal Audit and Risk Management. The consolidating effort requires significantly more preparation time, accounting principles research, and time to identify and research resolutions to inconsistencies between campuses than the simple compilation of data from previously audited campus level financial statements in past years. It also requires the person in that position to make system-wide accounting and presentation decisions when there are differences in how data is recorded and presented by the campuses. In some cases, this may require the person performing the consolidation to override the presentation desires of a campus to accomplish uniformity at the consolidated level. Preparation of the financial statements is considered a management function and impairs the internal auditor's independence. This also impairs our ability to place reliance on work performed by the internal audit department during the year as part of our financial statement audit of the System's consolidated financial statements.	We recommend the consolidated financial statements be drafted by someone in the accounting and finance area, outside the internal audit department, or outsourced to a qualified third party in order to preserve the independence of the internal audit function.
2. Timeliness of the Consolidated Financial Statements and Supporting Schedules The draft of the consolidated financial statements we received at the start of fieldwork was incomplete and missing key disclosures. It required significant modifications and adjustments. In addition there were a number of changes and adjustments made to the consolidated financial statements during the course of our audit. This was because the individual assigned the duty of preparing the consolidated financial statements was required to add the preparation of the statements to her other key duties and because she received incomplete financial information from the various institutions. Also at the start of year end fieldwork we did not receive from the various institutions key schedules that were requested or the information received was incomplete and did not reconcile to amounts recorded in the consolidated	We recommend the drafting of the financial statements be outsourced to a qualified third-party who has experience with drafting consolidated financial statements in accordance with Generally Accepted Accounting Principles or to an employee of the System who has the appropriate technical skills, experience in preparing university financial statements, adequate time to devote to researching accounting changes, coordinating interface with the campuses, and preparation of the consolidated financial statements. We also suggest that each institution implement a process to ensure its financial

Observations	Recommendation
statements. The delay in receiving a complete copy of the consolidated financial statements and the requested supporting schedules caused audit inefficiencies and additional time to be spent investigating inconsistencies, processing and reworking the changes through our audit analyses.	statements and all supporting schedules are accurate, in agreement with each other, and complete by the deadline established by the System in order for the consolidated financial statements to be completed in a timely manner.
3. Bank Reconciliation Policy During the audit, we reviewed internal controls at each individual institution. As part of the process we reviewed the policies and procedures surrounding the bank reconciliation process. We noted that the Policy in place requires the institutions to reconcile their bank accounts within 60 days of the receipt of the bank statements. It was noted that the some institutions obtained bank statements daily from various Banks' internet sites and were therefore able to reconcile cash accounts more timely.	We recommend the System reduce the number of days institutions have from the date of receipt of their bank statements to reconcile their cash accounts. In addition we recommend all schools utilize online banking in order to obtain their bank statements in a timely manner. This will allow for timelier reporting and shorten the discovery time of any errors or fraud that may occur from a cash transaction.
4. Preparation of the System Office's Stand Alone Financial Statements and General Ledger Reconciliations The System Office's general ledger is part of the UNR information system and a portion of the general ledger reconciliations and the System Office's stand alone financial statements are prepared by UNR staff. Since both System Office and UNR personnel are involved in the accounting function, there does not appear to be a person who understands how all the information flows and ties together. This can make it difficult for certain accounts to be reconciled, to follow transactions through the System's general ledger, and to tie out amounts recorded in the financial statements.	We recommend a System Office employee be designated to oversee all accounting functions for the System Office. This will result in timely and efficiently prepared reconciliations and stand alone financial statements. This person could possibly be the designated consolidated financial statements preparer discussed in the previous recommendation.
University of Nevada, Reno (UNR) **5. Travel Claim Authorization** While testing the internal controls surrounding disbursements, we sampled transactions relating to travel claims. Per UNR policies, travel claims must be signed by a supervisor or higher and a person authorized to sign on the account being charged. A database is kept of all authorized signers for each department. Our sample included a claim that had been approved by a supervisor, however, the supervisor was not an authorized signer included in the database.	We recommend that UNR review documents to ensure that they have been signed by an authorized account signer before they are processed for payment. This is an important facet of internal control.

Observations	Recommendation
6. Bookstore Purchasing Policy While testing internal controls surrounding disbursements, we sampled transactions relating to bookstore purchases. The University's policy states that the UNR Bookstore has delegated authority to purchase resale items in excess of $2,000 without going through Business Center North. However, it was noted during testing that the UNR Bookstore also purchased non-resale items in excess of $2,000 directly and did not go through Business Center North.	While UNR had a policy in place related to Bookstore purchases, they did not have procedures in place to monitor adherence to this policy. We suggest that the UNR monitor the Bookstore's purchases to ensure adherence to policies. This can be accomplished by reviewing a sample of purchases on a monthly basis to ensure transactions do not bypass the approval process.
7. P-Card Alcohol Policy As part of our internal control testing we reviewed P-Card transactions and supporting documentation. Three of the transactions reviewed included the purchase of alcohol. Per review of the P-Card policy manual, P-Cards cannot be used to purchase alcohol. Per discussions with Management they explained that alcohol could be purchased using a P-Card if prior approval was received before the purchase. We reviewed the supporting documentation for the three alcohol purchases noting that approval was received prior to the purchases being made.	We recommend that the P-Card policy manual be revised to document that alcohol purchases are allowed if prior approval is received. This will codify the unwritten policy currently in process.
University of Nevada, Las Vegas (UNLV) **8. Missing Invoices** While testing fixed assets, we sampled current year additions for propriety and requested supporting documentation. UNLV personnel were unable to locate three out of eleven invoices. While testing purchase card transactions, we selected a sample of transactions to test and requested supporting documentation. UNLV personnel were unable to locate the supporting documentation for one out of ten selections.	We recommend that UNLV review its procedures to ensure that invoices and other relevant support are kept for all purchases in accordance with its policy and to comply with federal regulations. A walk through of the system controls or review of a sample of transactions could assist in determining where procedures should be adjusted to ensure all documentation is properly maintained.
9. Estimated Useful Lives of Fixed Assets While testing fixed asset additions, we noted the University's policy states that all golf carts be depreciated over a six-year useful life. We noted one instance where a golf cart was being depreciated over a ten-year life. Per the client, this error was due to a clerical oversight. While this error by itself is not extremely significant, it could be	We recommend UNLV consider a more detailed review of useful life assignments when new assets are added to the system. Supervisory challenge should be exercised on assets entering the system because each error will usually cause a misstatement for

Observations	Recommendation
indicative of the contents of the listing.	several years. Estimates of useful lives of fixed assets are important to the recognition of depreciation expense which is material to the financial statements.
10. Purchase Order Process While testing controls surrounding disbursements, we noted that all purchases in excess of $500 are required to go through the purchase order process. In our testing, we discovered one disbursement did not follow the purchase order process, although the order was placed and the vendor was subsequently paid.	We recommend that purchase orders accompany all purchases in accordance with UNLV's policies or smaller purchases be obtained using a purchase card. The use of purchase orders document the internal control designed to ensure the appropriate approval process was followed. If it is determined that certain departments repeatedly ignore purchase order procedures, then disciplinary actions should be taken.
Western Nevada Community College (WNCC) **11. Delegated Purchase Authority** We noted that the WNCC library has delegated purchase authority to purchase without going through Business Center North. This appears to be standard procedure at WNCC, however; WNCC does not have a written policy giving Library Media authority to circumvent purchasing procedures.	We recommend WNCC develop a written policy to match its procedures giving the Library Media direct purchasing authority. It is important that all policies be documented to maintain consistency in practice.
Truckee Meadows Community College (TMCC) **12. Gift Revenue** During the audit, we noted that TMCC recorded a one-time gift for the IGT Manufacturing program as deferred revenue. A gift does not constitute an exchange transaction and the earning process has been complete upon receipt. This gift should have been recognized immediately as restricted non-operating revenue.	We suggest that TMCC review its procedures for identifying and recording gifts to ensure amounts are recorded in accordance with Generally Accepted Accounting Principles. Once it is determined all procedures are in accordance with Generally Accepted Accounting Principles, all individuals involved in the recording process should be educated on the proper recording and classification of gifts.

Observations	Recommendation
Great Basin College (GBC) **13. Policy and Procedure Manual** We noted during our testing of internal controls that GBC has policies and procedures in place surrounding its procurement/accounts payable cycle. However, we noted that GBC does not have a policy and procedures manual detailing policies and procedures currently in place.	We recommend that GBC develop a policies and procedures manual documenting the policies and procedures they have in place related to procurement/accounts payable to help maintain consistency in practice. If resources are too limited to develop a policy manual, GBC might consider using another institution's policy manual as a starting point.

AUDIT FINDINGS AND RECOMMENDATIONS – FEDERAL COMPLIANCE

Observations	Recommendation
1. Preparation of the Schedule of Expenditures of Federal Awards (SEFA) OMB Circular A-133 requires recipients of Federal awards to identify, account for, and report all federal awards expended. The Circular provides guidance on distinguishing types of federal awards and excludes certain types of transactions from its provisions, most notably vendor-type transactions. Additionally, the Circular specifies reporting requirements for the Schedule of Expenditures of Federal Awards (SEFA). The Nevada System of Higher Education prepares a system-wide SEFA, with input from each institution. Our testing of that input and review of the preparation process revealed several areas needing additional emphasis and consistency:	
a. Initial SEFA did not exclude payments for subcontracts internal to NSHE, essentially double counting those amounts and overstating the SEFA by several million dollars. That practice has been corrected and this year's final SEFA excludes those amounts.	a. We recommend the NSHE continue to monitor the SEFA on an annual basis to ensure internal subcontracts are being appropriately excluded.
b. The system-wide SEFA is prepared on the accrual basis of accounting, the same basis as for the financial statements. However, one institution, Community College of Southern Nevada (CCSN), was reporting on the cash basis, causing an inconsistent treatment across institutions. The differences in the reporting basis were not significant, but consistency is an important aspect of the composite report. Those differences have been applied to this year's SEFA, and CCSN has subsequently adopted accrual-based reporting.	b. We recommend the NSHE continue to monitor each institution's practice of preparing its SEFA and ensure they are being prepared on the accrual basis of accounting.
c. The providers of federal awards, either federal agencies or other organizations, are required to provide the associated Catalog of Federal Domestic Assistance (CFDA) number to award recipients for reporting purposes. In practice, that does not always happen, and recipients have to determine the CFDA number using other means. All three of the NSHE research institutions (UNR, UNLV, and DRI) have had to do this	c. We recommend all three noted institutions place more emphasis in this area to demonstrate effort to comply with federal requirements.

Observations	Recommendation
determination with certain awards, but we noted various levels of effort. We did not observe strong procedures for follow up with grantor agencies, but rather noted a tendency to assign a two digit agency number as a reasonable estimate.	
d. None of the three research institutions had established, written procedures in place to distinguish a vendor relationship from a sub award. Because of the inherent nature of educational and research institutions, we acknowledge that the majority of activities will not be vendor type transactions. However the lack of formal processes to correctly identify the few that are may result in the incorrect inclusion of those activities on the SEFA.	d. We recommend all three institutions strengthen their procedures in this area.
2. Subrecipient Monitoring: Review of Subcontractor Invoices and Subcontractor Audit Reports OMB Circular A-133, Section 400(d) outlines the responsibilities of recipients of Federal awards regarding funds passed-through to other organizations. Specifically, the pass-through entity is to: (1) monitor the activities of subrecipients as necessary to ensure that Federal awards are used for authorized purposes in compliance with laws, regulations and the provisions of contract or grant agreements and that performance goals are achieved; and (2) ensure that subrecipients, as qualified, meet the audit requirements of Circular A-133, and to review subrecipient audit findings and corrective action. At the Desert Research Institute (DRI), review and approval of several subcontractor invoices for payment for work performed on Federal awards were done by business managers, not by the grant Principal Investigator (PI) or other qualified research personnel. At University Nevada, Reno (UNR) the process for obtaining and reviewing subcontractor audit reports was not timely or complete in fiscal year 2006, and we noted one subcontractor invoice out of a sample of twenty-two that was not approved by the grant PI. Review and approval of subcontractor invoices done by administrative or fiscal personnel raises questions about the technical skills and abilities of those individuals to gauge the adequacy and correctness of research work performed by the subcontractor, typically research staff at other institutions.	We recommend DRI implement a policy to specify, by level or position, review and approval responsibilities for subcontractor requests for payment, with consideration of the technical skills required. Secondly, we recommend that UNR review the existing policies for monitoring subcontractor audits, and take appropriate action to ensure compliance with those policies in the future. We recommend UNR implement procedures to ensure all subcontractor invoices are approved by the grant PI or designated research staff.

Observations	Recommendation
3. Special Tests and Provisions: Changes in Key Personnel Per the OMB Circular A-133 March 2006 Compliance Supplement for the Research and Development Cluster, "The institution may change the staffing mix and level of involvement within limits specified by agency policy or in the agreement, but is required to obtain Federal awarding office approval of changes in key personnel (as identified in the agreement, which may differ from the institution's designation in the application/proposal)." During testing of changes in key personnel at University of Nevada, Reno (UNR) and University of Nevada, Las Vegas (UNLV), we noted no formalized monitoring procedures to track changes in key personnel and to report the changes to the Federal awarding office. As such, assurance of compliance was unpredictable and not visible to the campus grants oversight offices.	We recommend that UNR and UNLV develop policies and implement procedures to strengthen the reporting of changes in key personnel, as required, to grantor agencies.
4. Equipment Management OMB Circular A-110, Subpart C, Property Standards ____.34 Paragraph f) outlines equipment management responsibilities for equipment acquired with federal funds. "The recipient's property management standards for equipment acquired with Federal funds and federally-owned equipment shall include all of the following. (1) Equipment records shall be maintained accurately and shall include the following information- (vii) Location and condition of the equipment and the date the information was reported. Also, (3) A physical inventory of equipment shall be taken and the results reconciled with the equipment records at least once every two years. Any differences between quantities determined by the physical inspection and those shown in the accounting records shall be investigated to determine the causes of the difference. The recipient shall, in connection with the inventory, verify the existence, current utilization, and continued need for the equipment, and g) if the recipient has no need for the equipment, the recipient shall request disposition instructions from the Federal awarding agency. The Federal awarding agency shall determine whether the equipment can be used to meet the agency's requirements". At the Desert Research Institute (DRI), we noted one piece of federal equipment out of a sample of six pieces of equipment that had been missing since 1992, but had not been reported to the federal agency. At the University of	We recommend UNR and UNLV develop policies and implement procedures to strengthen the controls and surrounding inventory records and management of equipment acquired with federal funding. We recommend that the DRI renew its attempts to obtain agency approval to remove lost items from its list.

Observations	Recommendation
Nevada, Reno (UNR), we noted one piece of equipment out of a sample of five pieces of equipment that had been moved to a different location in 2004, but the inventory records documenting the location had not been updated during the physical inventory of equipment. At the University of Nevada, Las Vegas (UNLV), we noted one piece of equipment out of a sample of five pieces of equipment that did not have an inventory tag with barcode. The inventory tags are used to count the inventory during the physical inventory of equipment. Since the piece of equipment did not have an inventory tag, there was no record that the piece of equipment had been inventoried within the past two years.	
5. Eligibility and Enrollment Reporting: Limitations of Student Financial Aid System During our testing of financial aid internal controls and student files across the Nevada System of Higher Education (NSHE), we observed the following limitations of the SIS system at all campuses except UNLV: There was no built-in mechanism to prevent an over-award of aid from occurring in student accounts. Most financial aid software we have observed in the last few years contains some type of system control to either block an over-award or at least force an override by the user. To compensate for this system limitation, the award process was monitored by student financial aid directors by use of special reports, however that process was not automatic or assured. Over-award of aid to students is a highly visible issue with the Department of Education, with possibilities for penalties or other sanctions. During our testing of student files for return of Title IV funds for withdrawn students, we observed that SIS did not properly report the last day of attendance in the report generated for submission to the National Student Loan Data System (NSLDS). SIS uses the day the information was extracted from the system for the report, not the actual last day of attendance, a critical date for several purposes. While we did note the majority of the instances reported were within a week of the actual last day of attendance, we nonetheless believe the system limitation promotes inaccurate reporting, requiring extra monitoring by the institutions.	We understand NSHE is currently exploring alternative systems for financial aid and other student functions. We recommend the system requirements used in that analysis includes built-in controls to prevent over-awards and the capability to report dates other than the date of the query.

Observations	Recommendation
6. Unallowable Activities and Costs-Fringe Benefits for Federal Work Study Students During the reconciliation process for the various student financial assistance programs, we noted the Community College of Southern Nevada (CCSN) charged approximately $6,100 of employer-paid fringe benefits for students to the Federal Work Study (FWS) program. These types of costs are specifically prohibited by Department of Education regulations and guidelines. The amount of $6,100 is below the reporting threshold for questioned costs of $10,000, so a finding of non-compliance is not warranted. However, the amount of the infraction was coincidence, as the lack of awareness of the requirements would not have precluded a larger amount from being charged.	We recommend CCSN develop and implement procedures to prevent these types of unallowable charges to student financial assistance programs. We further recommend CCSN reimburse the Department of Education for the unallowable costs charged to the FY 2005-06 award year.

AUDIT FINDINGS AND RECOMMENDATIONS – INFORMATION TECHNOLOGY

Observations	Recommendation
1. User security for the Advantage Financials system is administered at the campus level. Given that SCS serves as only a "recommending body" on issues related to system and network security at each of the institutions, the responsibility for ensuring user security for Advantage Financials occurs at the campus level. Each campus has an Application Coordinator whose responsibility is to define Advantage Financials security groups for that campus location. Additionally, a Security Coordinator is responsible for ensuring user setups and access changes are appropriate and user account terminations in the systems are completed in a timely manner. As a result, there may be some inconsistencies within each institution's IT operations that may adversely impact the overall security posture of NSHE. Therefore, it is unclear whether sound, standard security procedures are followed uniformly for ensuring user security of the Advantage Financials system.	It is recommended that NSHE adhere to a uniform process for authorizing, granting, and terminating user access to key systems with SCS providing recommended guidance as needed for each institution.
2. Based on fieldwork conducted at University of Nevada – Reno, termination notices for Advantage Financials users are not consistently submitted to Security Coordinators. UNR procedures require users to fill out the online termination form which is automatically distributed to the Security Coordinators group. However, there are no mechanisms in place to ensure that this process occurs for every termination. To aid in the detection of terminated employees, SCS has created a daily report that lists all terminated employees in HRMS that still have an active RACF user account. Through observation of the current reports, it was noted that there were several accounts still established for terminated users. A financial risk exists whereby one of these accounts could be used to gain access to data and potentially process fraudulent transactions.	It is recommended that NSHE develop and implement a uniform process for executing the user termination process. This process may entail more involvement from the campus Security Coordinators to proactively utilize the daily termination reports to audit the existing Advantage Financials accounts for orphaned or terminated users.

Observations	Recommendation
3. **Based on fieldwork conducted at University of Nevada – Las Vegas, termination notices for Advantage Financials users are not consistently submitted to Security Coordinators.** The UNLV Security Administrator is notified via email when user accounts need to be terminated. However, there is no mechanism in place to ensure that the Security Coordinator is notified of every termination. To aid in the detection of terminated employees, SCS has created a daily report that lists all terminated employees in HRMS that still have an active RACF user account. Through observation of the current report, it was noted that there were several accounts still established for terminated users. A financial risk exists whereby one of these accounts could be used to gain access to data and potentially process fraudulent transactions.	It is recommended that NSHE develop and implement a uniform process for executing the user termination process. This process may entail more involvement from the campus Security Coordinators to proactively utilize the daily termination reports to audit the existing Advantage Financials accounts for orphaned or terminated users.
4. **Based on fieldwork conducted at University of Nevada – Las Vegas, user accounts and account access for Advantage Financials and HRMS are not reviewed on a regularly basis.** Although it was reported that some efforts are currently in process to review Advantage Financials user accounts, a completed review of user accounts and account access has not been performed previously. Reviews of user accounts and security access controls should be performed on a regularly basis to ensure that unauthorized users are not allowed access to critical application functionality and that different types of authorized users have their access appropriately restricted.	It is recommended that a process for user account auditing for key systems such as Advantage Financials be developed for campus Security Coordinators with assistance from Application Coordinators. Given that a user account review has not been conducted previously, it may be prudent to conduct a full user audit initially. Once this audit has been performed, quarterly or semester-based auditing should be conducted as a follow-up to the implementation of more stringent access controls.
5. **The IBM mainframe servers hosting the Advantage Financials application are not positioned behind the network firewall.** Given the positioning of the IBM mainframe servers on the network, there is the risk that they are exposed to potentially malicious traffic from the Internet. This potential threat exposure could adversely impact the availability of the Advantage Financials application or potentially introduce malicious code into the system, thus, affecting the reliability of the data.	It is recommended that SCS make it a priority to move the Advantage Financials servers behind the network firewall in a protected subnet or DMZ. Although it is acknowledged that the mainframe servers have the RACF layer of security as a compensating control, positioning the

Observations	Recommendation
	servers behind the firewall will help protect the systems from denial of service attacks and other Internet-based threats and will contribute to a defense-in-depth, layered security approach.
6. NSHE is considering deploying individual ERP systems at some of the institutions in the near future. As part of project plans for 2007, NSHE is exploring the possibility of deploying individual ERP systems at some of the institutions and retiring the Advantage Financials system. As with any major system implementation, there are major risks involved and critical items to be considered. Most notable of these risks is the data conversion from Advantage Financials to the new system. With the possibility of each institution having systems from different vendors (Datatel, PeopleSoft, Banner, etc.), the amount and degree of data conversion along with any customization will be a significant cost in terms of time, manpower, and money. In addition, system security will be the sole responsibility of the institution. It is necessary for NSHE to ensure that there is proper staffing at the institutions for supporting the ERP systems and the underlying platforms with strong consideration for security-related skills. Although, to some degree, application security for Advantage Financials is decentralized, there are controls on the network backbone that help to contribute to overall system security. In a decentralized environment, this responsibility will shift to the individual institutions.	We recommend a thorough analysis of the fiscal and staffing impacts to NSHE be performed.
7. Penetration testing and vulnerability assessments against the network have not been performed during the audit year by an independent security expert. The network has not been evaluated by an independent third-party for potential vulnerabilities along the network perimeter. Without an independent review of the technology environment by an information security expert, the level of risk of unauthorized access to the Advantage Financials system may be considerable.	It is recommended that NSHE consider engaging an information security expert to conduct penetration testing and vulnerability assessments against the network firewalls to ensure that the devices are properly secured against external threats. In addition, an independent assessment would also cover other aspects of information security including process controls, incident response, disaster

Observations	Recommendation
	recovery planning, security awareness, etc. This approach would allow NSHE to obtain an independent and objective assessment of the overall security posture of each of the campuses and SCS. From this assessment process, it may be possible to develop an overarching information security plan to provide a standard base of security controls that should be in place at each of the campuses resulting in decreased risk.
8. SCS Network Support does not regularly review system and security logs for Novell and Windows systems. The primary authentication system used for the SCS network domain is Novell NetWare eDirectory. System and security logs are only reviewed if a problem is reported by the users or the System Administrators identify abnormal behavior from the servers. Regular reviews of the system and security logs provide the System Administrators early warning signs for security breaches or potential hardware or software failures.	It is recommended that regular system and security log reviews occur for key Windows and Novell-based systems at SCS that interact or provide data to Advantage Financials. Regular reviews of logs will help to ensure the stability and security of the systems that may impact the accuracy and reliability of financial reporting for NSHE.
9. There is no intrusion detection/prevention system in place to identify and alert SCS staff of potential attacks to the Advantage Financials system. Although SCS utilizes several tools for monitoring bandwidth spikes and other traffic anomalies on the network, none of them are used to actively alert Network Engineers about potential attacks against the critical systems. As such, attacks against the system could go undetected for some time and affect the overall health and availability of the Advantage Financials system and other critical NSHE systems.	While it is acknowledged that the Sr. Network Engineer proactively monitors for potential attacks against the critical routers and devices along the network backbone infrastructure, the console needs to be running and the Sr. Network Engineer needs to be constantly monitoring for malicious activity. An IDS/IPS with multiple sensors strategically positioned throughout the network would provide the proactive alerting mechanism needed for timely reaction to attacks and intrusion attempts.

Observations	Recommendation
10. Workstations are not configured to lockout during periods of non-use. Workstations are the primary means of accessing critical financial applications. Without automatic lockouts (triggered via screensaver settings), unattended workstations that have already been authenticated to the network and logged into the Advantage Financials application are at risk for unauthorized access. It is noted that the Advantage Financials application automatically disconnects after 20 minutes of idle processing.	It is recommended that workstation lockouts are enabled as an extra layer of protection for systems that may have direct access to the Advantage Financials system.
11. The granting of local administrator access to user workstations may impact the successful and uniform deployment of software patches and updates on a consistent basis. Users have local administrator access to their workstations. This type of access allows users to have the ability to interrupt the automatic Windows operating system updates that may be in progress or disable the auto update function altogether. Although deployment of patch management software (Patch Link) is being considered, currently SCS is not able to monitor the success of the patch management process. This lack of monitoring in conjunction with local administrator access could allow user workstations to exist in an unprotected state without required security patches being applied, thus, exposing NSHE's network to known risks.	It is recommended patch management software continue to be considered for deployment at SCS and that the business reason behind allowing local administrator access be revisited. Given the level of workstation access associated with administrative privileges and the potential adverse impact that could result, SCS should analyze the business reason for this type of access and remove if warranted.
12. Las Vegas SCS staff are unaware of the current disaster recovery plan. Although SCS's disaster recovery plan has been recently updated, it was reported that the Las Vegas SCS team has not received a copy and was not included in the development of the new plan. As a result, it is unclear if SCS would be able to recover data in timely manner during the aftermath of a disastrous event.	It is recommended that Las Vegas SCS staff be involved in the development and implementation of the disaster recovery plan to ensure that emergency, notification, cutover, and recovery procedures are known to all stakeholders who will be involved in the recovery effort. Las Vegas SCS staff should be included in any testing performed as well.

Observations	Recommendation
13. Comprehensive disaster recovery testing has not been completed. Although SCS's disaster recovery plan has been recently updated and restoration testing of archived data was performed during the audit year, the disaster recovery plan has not been tested in its entirety in simulated disaster drills to ensure its viability and timeliness of execution. As a result, it is unclear if SCS would be able to recover data in timely manner during the aftermath of a disastrous event.	While it is acknowledged that the disaster recovery plan is currently being developed by SCS, NSHE should make plans to test the feasibility of the plan and ensure that all involved stakeholders are aware of their roles and responsibilities during the recovery effort.
14. The University of Nevada – Las Vegas Novell NetWare system password policy is inadequate. The UNLV Novell NetWare password policy only requires a password of 5 characters. Industry best practices indicate that a strong password policy would consist of minimum password lengths of 8 characters, password expiration after 90 days, account lockouts after 3 failed attempts for duration of at least 15 minutes, and password complexity requirements. In addition, UNLV workstations are configured to have Internet access after logging onto the desktop and do not require authentication to the network domain. A financial risk exists whereby access to a UNLV workstation could be used to gain access to data and potentially process fraudulent transactions.	It is recommended that UNLV strengthen its eDirectory password policy to align with best practices. A stronger password policy with higher character counts, frequent aging, and complexity requirements contributes to a stronger overall information security posture.
15. Wet pipe sprinkler systems are used in both the Reno and Las Vegas datacenters. For fire suppression in the datacenters which house the Advantage Financials systems, wet pipe sprinkler systems are used. Given that wet pipe systems are fully charged with water at all times, a pipe breakage or an accidental trip of the fire alarm may release water onto critical servers and equipment, thus, impacting the availability of those systems. Ideally, an electronics-friendly, gas-based system should be used for housing critical NSHE systems.	It is recommended that the datacenters' fire suppression systems are upgraded to Inergen-based FM-200 systems that will not damage the sensitive server and network electronics in the event of a localized fire in one of the datacenters. The current wet-pipe sprinkler system presents an "all or nothing" compromise. If fire and smoke is detected, all nozzles will activate even if the fire is encompassing a small area of the server room. A gas-based or dry-pipe sprinkler system will help reduce overall damage by limiting the water exposure of other servers that are not in the immediate vicinity of the fire.

Observations	Recommendation
16. The racks in the Las Vegas SCS server room are not anchored to the floor. During the walkthrough of the LV SCS server room, it was noted that the racks are not anchored to the floor. The LV Operations Supervisor acknowledged that anchoring the equipment was on the "to-do" list but had not been made a priority.	It is recommended that the necessary equipment be installed to anchor the server racks to the floor to ensure that the equipment is protected from sudden jarring or tipping.
17. SCS Network Support does not have written procedures for the user maintenance processes. The current SCS System Administrators appear to have good controls over the addition, changing and deleting of Novell user accounts. However, procedures for documenting this process were not available. Having this support documentation in place will help with day-to-day operations as well as orient future in-house IT staff to the network.	It is recommended that SCS Network Support staff develop written procedures for the user maintenance processes to ensure a uniform approach that is understood and acknowledged by all who are involved in this critical IT task.
18. SCS Novell NetWare user accounts, group assignments and folder security is not reviewed on a regular basis. Reviews of user accounts and security access controls should be performed on a regular basis to ensure that unauthorized users are not allowed access to critical systems and that different types of authorized users have their access appropriately restricted.	It is recommended that user accounts and a review of permissions to critical folders in the SCS environment be conducted on a regular basis. Specific scrutiny should be placed on auditing those user accounts that access folders containing financial data or have elevated privileges (i.e., Supervisor/ Administrator role).
19. Criminal background checks are not being accomplished as part of the new hire process for student and professional technology staff members. Although SCS has screening procedures in place for prospective technology staff including reference, prior employment, degree, and school accreditation checks, it does not include credit and criminal background checks on potential student and professional technology staff members.	Management should consider conducting credit and criminal background checks on future new hires. Organizations may be held liable for negligent hiring should there be business losses due to employee theft and fraud. Background screening may uncover notices of bankruptcy, liens, and judgments as well as any felony or misdemeanor filings. Including credit and criminal background checks in the screening process may prevent problems

Observations	Recommendation
	that can result from prospective employees misrepresenting their backgrounds and credentials.
20. Non-technology and campus advisory groups are not involved in the evaluation and recommendation of SCS IT projects. IT projects are evaluated and prioritized by the senior management team at SCS and implemented by staff of its Project Management Office. However, non-technology executives and campus advisory groups are not involved in reviewing and evaluating these projects. Additionally, SCS is lacking formal criteria for establishing major and minor IT projects.	Having non-technology personnel and campus advisory groups review these project decisions is important to ensure that the goals and strategic initiatives across the Nevada System of Higher Education are being addressed. It is also important to ensure that any significant changes are being acknowledged before they can negatively impact other departments or campuses. Consider having non-technology executives and campus advisory groups review any major strategic technology decisions in the future and establish written criteria for assessing the priority of major and minor IT projects.
21. Changes made to Rebel Aid are not approved by management prior to deployment into the production system. A change management policy has been implemented for the Rebel Aid system; however the policy does not include formal management approval of changes prior to migrating those changes into the production environment. Although lacking formal management approval of changes, approval by the UNLV Director of IT, Student Life Division, is occurring through informal practices including in-person and telephone conferences, and through regular review of issues being tracked in the change management software tool.	Consideration should be given to modifying the Rebel Aid change management policy to include requiring documented management approval of changes prior to deployment into the production environment. Implementation of this policy will provide further defense against modifications or interruptions that may adversely impact the Rebel Aid system or other systems within the same production environment.
22. Developer access to the production systems is not adequately restricted. Rebel Aid developers are not adequately restricted from accessing the production system. Indirect access occurs during the implementation of changes from the test environment by way of copying the modified files or executable file to a common shared area. These files are	Management should considering further restricting developer access to the production environment to insure that unauthorized changes do not go undetected. It is important that no single

Observations	Recommendation
then automatically deployed to the user's workstation the next time each user logs into the system. For changes that require database modifications, the designated Rebel Aid DBA implements these changes. However, all three developers share the same Rebel Aid Administrator permissions and thus have access to modify the production database.	person be in a position to completely compromise the system. Management should look for areas where two-person segregated access can be implemented so that each employee can audit the work of another.
23. End user acceptance is not occurring during major projects requiring a conversion of data. During the current fiscal year a significant change occurred to the Rebel Aid system. During March 2006 the system was migrated from running on a UNIX server with an Oracle 8i database to a Windows 2003 server with an Oracle 10g database. Through interviews with the UNLV Director of IT, Student Life Division, and a review of documentation, it appears this conversion of data project did not include user acceptance testing or financial data reconciliation prior to implementation. It was noted that the conversion did not require any database schema changes and the development team did perform verification of the data conversion through Oracle's built-in tools. This verification process included reconciling random row counts of tables between the two databases, but this automated process does not ensure accurate validation of the financial data within the tables itself. It should also be noted that full backups of the production database did occur prior to the cutover and the original UNIX server was available in the event the migration needed to be rolled back.	End user acceptance testing which includes documented pre-conversion and post-conversion financial data reconciling would ensure that data maintained its integrity and migrated between systems as expected, minimizing the chance that unexpected errors could adversely impact financial reporting. Formal end user acceptance testing is recommended for any future data conversion projects.
24. Backup tapes of the Rebel Aid development environment are not being stored offsite. The UNLV Rebel Aid source code is being maintained on a separate Novell network located on the UNLV campus in the student financial aid administrative offices. This separate network is managed by the UNLV Director of IT, Student Life Division. Backups of the source code are occurring nightly and these tapes are being rotated on a 4 week rotation schedule; however backup tapes are not being stored off-site. In addition to secure onsite storage, backups should be rotated off-site to a heat, fire and theft resistant facility so that information is available for use in disaster recovery.	Management should consider storing archived Rebel Aid development data off-site in a secure environment so that critical backup data can be retrieved if necessary.

Observations	Recommendation
25. Source code changes for Rebel Aid are not being adequately documented. Changes made to the Rebel Aid source code are not being documented through the use of comments within the code or being protected by an automated versioning control system. Documentation of changes within the source code allows for management or quality assurance personnel to easily verify that the changes made are valid and allows for errors to be easily traced during testing. Versioning control software also allows for changes between file versions to be easily identified as well as providing for changes to be rolled back to earlier versions if errors are discovered, and ensures proper coordination of changes among multiple developers making modifications.	Based upon discussions with the UNLV Director if IT, Student Life Division, the Rebel Aid application is not forecasted to undergo major changes over the next three years in anticipation of a replacement application being implemented. However, including source code comments and a versioning control system for use in any upcoming development would provide additional assistance during testing and help facilitate knowledge transfer to any new staff or resources who may be called upon to work on the Rebel Aid system.

Nevada System of Higher Education
Management Letter – Institution Responses
June 30, 2006

Reportable Condition - Accounting and Financial Reporting Process for Investments

NSHE - The Director of Banking and Investments will review the AICPA Practice Aid "Alternative Investments – Audit Consideration" to determine appropriate processes that should be implemented to address the issue raised by the external auditors. By January 15, 2007, the Director of Banking and Investments will make recommendations to the Assistant Vice Chancellor for Budget and the Vice Chancellor for Finance outlining options available to address this issue. The Vice Chancellor for Finance will determine a course of action no later than February 15, 2007.

Financial Observations
NSHE
Observation 1. Preparation of the Consolidated Financial Statements by the Assistant Vice Chancellor for Internal Audit and Risk Management

The System Administration Office has limited financial personnel who are trained to perform the consolidation process. We understand the desire to have the duties reassigned to another individual. The Vice Chancellor for Finance will evaluate the job duties of the available staff and determine whether the duties can be reassigned to another staff member.

Observation 2. Timeliness of the Consolidated Financial Statements and Supporting Schedules

The consolidation process has been discussed with the institution controllers. The controllers will work to provide more complete information with fewer changes. System Administration staff will develop an Access database that will allow the controllers to input their information directly. This will eliminate the time consuming duplication of effort to re-enter the data and changes by System Administration Office personnel. A similar database was developed for the OMB Circular A-133 report for the current year. The process provided for a much more efficient completion of the A-133 schedules.

Observation 3. Bank Reconciliation Policy

We disagree. We do not believe that the policy should be changed. Any reduction in time to complete the bank reconciliation process is not related to receiving timely bank reports. The bank reconciliation process is complex due to increased credit card activity, increased ACH activity, the use of a campus card on some campuses and the growth in sites/programs making deposits. At the smaller institutions, staffing is also a concern.

The institutions will continue to try to complete their bank reconciliations within 30 days on month end.

Observation 4. Preparation of the System Office's Stand Alone Financial Statements and General Ledger Reconciliations

The System Administration Office has limited financial personnel who are trained to perform the financial statement process. The Vice Chancellor for Finance will evaluate the job duties of the available staff and determine whether the duties can be reassigned to another staff member.

UNR
Observation 5. Travel Claim Authorization

Travel claims are audited by the Accounting Assistant III in the UNR travel office. She reviews the claims for compliance with university travel rules and checks for required documentation. The AAIII is now reviewing signatures on all travel claims against the signature database in the financial system to ensure that claims are signed by a person authorized to sign on the account being charged.

Observation 6. Bookstore Purchasing Policy

The Bookstore uses blanket purchases, purchase orders, and request for payment forms to purchase items not for resale. A purchasing card is used for items under $2,000.00, or request for payment forms are submitted with the original invoice to Accounts Payable in the Controller's Office. Blanket purchase orders and purchase orders are sent to the BCN Purchasing Department for review; once approved, the Bookstore will write the purchase order number on the original invoice and submit it to Accounts Payable in the Controller's Office to be paid. All contracts and agreements are reviewed by the Controller, who determines if a purchase order is necessary or if the document is an agreement or contract; the bookstore then proceeds accordingly. Campus auditors will periodically review expenditure transactions to ensure compliance with the policy.

Observation 7. P-Card Alcohol Policy

The purchasing card policy was revised in May 2006 to delete alcohol from items not allowed to be purchased with the purchasing card. The purchasing card auditors review alcohol purchases to ensure that the appropriate documentation and approvals have been obtained and submitted in accordance with UNR policies.

UNLV
Observation 8. Missing Invoices

We partially agree. Accounts Payable maintains records of invoices and supporting documentation and we would note there were no sample exceptions in accounts payable testing. Concerning the sample of 11 fixed asset additions, 3 fixed assets identified by

property tag numbers were not matched to invoices. For two of these assets, the invoices referenced the purchase order, but did not identify the specific equipment item sampled, as multiple assets were acquired on the order. The sampled fixed asset tag numbers do however match the itemized purchase order documents and the total of the purchase order equals the invoiced amount. The remaining equipment item was processed as a "cash with order", the PO serving as payment authorization. In this instance an invoice was not provided as the item was prepaid.

The controller has revised processing of fixed asset and equipment invoices, to include a review of such payments prior to submission to Accounts Payable, by the plant accountant hired in fiscal 2006. The review will include a cross reference to the invoice document on the purchase order.

Concerning the one missing pcard document out of ten sampled, the department experienced a staff change as the authorized pcard holder left the department and the documentation did not remain within the department. Purchasing has contacted the appropriate dean and will issue a reminder to all departments that documentation is to remain with departments when pcard holders leave the department.

Observation 9. Estimated Useful Lives of Fixed Assets

We agree that supervisory review of assets recorded in the fixed asset records will reduce the possibility that errors will occur. The Controller's Office will work with the fixed asset/property control section in Delivery Services to implement a review that considers asset cost and useful life to ensure accuracy and prevent a material misstatement. The useful life has been corrected for the audit exception.

Observation 10. Purchase Order Process

We agree. Purchasing has drafted procedures to be implemented in January 2007, which will update purchasing guidelines to include disciplinary actions to be taken if purchasing procedures are not followed. The department which did not follow procedures was advised and a purchase order has been created for the remainder of year.

WNCC
Observation 11. Delegated Purchase Authority

The Board of Regents Procedures and Guidelines Manual Chapter 5, section 2, c (5) exempts the following from the standard NSHE purchasing policy: 'Contracts which by their nature are not adapted to award by competitive bidding including contracts for such items or services which may only be contracted from a single or sole source; conventions; workshops; seminar rooms; special functions, purchase of perishable goods; books; subscriptions; library materials; '

A section has been added to the WNCC purchasing policy that extends this exemption to the WNCC library for the purchase of library materials.

TMCC
Observation 12. Gift Revenue

TMCC has reviewed our procedures for identifying and recording gifts to ensure amounts are recorded in accordance with Generally Accepted Accounting Principles and all individuals involved in the recording process have been educated on the proper recording and classification of gifts.

GBC
Observation 13. Policy and Procedure Manual

GBC is currently updating its policy and procedures manual. The procurement section of the policy manual was last updated in 1998. As a part of the procedures manual review and update process, GBC is reviewing the other NSHE institution manuals for comparison and consistency.

Federal Compliance
Observation 1. Preparation of the Schedule of Expenditures of Federal Awards (SEFA)

a. NSHE - NSHE will continue to monitor the SEFA on an annual basis to ensure internal subcontracts are being appropriately excluded.

b. NSHE - NSHE will continue to monitor each institution's practice of preparing its SEFA to ensure they are being prepared on the accrual basis of accounting.

c. UNR - The Office of Sponsored Projects (OSP) has improved its procedures in obtaining required CFDA numbers. Pre-award Grants Analysts have been instructed to follow up with the sponsor in order to obtain missing CFDA numbers. If the sponsor fails to respond within a reasonable time or does not know what CFDA # is associated with a program, the Grants Analyst will determine the appropriate CFDA number from the catalogue directly.

UNLV - We agree. The following process has been added to the OSP Procedures Manual. With regard to CFDAs, OSP pre-award staff check pertinent sponsor guidelines or instructions for information on the CFDA number. All federal agencies that provide domestic financial assistance (e.g. grants or cooperative agreements) have assigned CFDA numbers to their various programs. For federal contracts, there is no CFDA number because contracts are not considered financial assistance. To assist audit, UNLV will assign a CFDA number to federal contracts to compile data for the A-133 audit. In this instance, the top level CFDA number for the agency will be assigned.

For federal pass-through from state agencies or other third parties, OSP requests the CFDA number at the time of award if the funds appear to be federal. Many state agencies in Nevada will list whether funds provided are federal or state; if federal is indicated, we request CFDA information if it is not provided. OSP follows the same process with pass-through funding from other third parties (other universities, non-profits, etc.).

Additionally, post award OSP staff also check for CFDA numbers when a new award has been transmitted to the post award part of our office. If it appears a CFDA number is needed, post award staff will consult with OSP pre award staff to discover whether a CFDA number is required, and then check with the sponsor to obtain the information.

DRI - DRI concurs and has implemented a procedure for capturing the correct CFDA numbers at the Business Manager level in the divisions. Specific instructions have been provided to the division staff responsible for inputting the correct number into the grant and contract system so that the SEFA report reflects the correct CFDA numbers.

d. UNR - OSP has begun to separately identify state formula fund flow-through and other contractual arrangements separately from sub-grant agreements so these items can be excluded from the SEFA.

UNLV - We agree. The OSP Handbook will be updated with information related to the differences between vendors and subrecipients to assist Principal Investigators in making a determination. The update will be completed for January 2007.

With regard to distinguishing between vendors and subrecipients on sponsored projects, OSP reviews the budgets and statements of work for all awards for potential subrecipient and vendor agreements.

Pre-award staff within OSP determine, with the Principal Investigator's assistance, whether the entity is contributing to the overall direction of the project, or if they are merely providing a service (such as copier maintenance) or some large item (such as a piece of equipment).

Should the award documentation contain a quote for what appears to be a commercial item or service, OSP staff will consult with the Principal Investigator to determine if this information is sufficient to classify the entity as a vendor. Typically, if the entity does not provide any input into the direction of the project, and the services or goods are usually and uniformly provided to many buyers, the entity will be determined to be a vendor.

If the award documentation contains a statement of work and budget from the entity that clearly shows input into the direction of the research (such as

performing tasks under the project), the entity will be most likely categorized as a subrecipient.

DRI - DRI concurs and has drafted a policy which outlines the criteria to distinguish a vendor relationship versus a sub award. This policy will be finalized and implemented by January 31, 2007.

Observation 2. Subrecipient Monitoring: Review of Subcontractor Invoices and Subcontractor Audit Reports

UNR - The Office of Sponsored Projects (OSP) requests A-133 audit reports from all subcontractors annually. If reports are not received, follow up is done and additional requests are sent.

In June, the Office of Sponsored Projects (OSP) changed subcontract agreements to the FDP template and have requested that subcontractors send their invoices to OSP instead of directly to the PI for purposes of tracking timing from invoice to payment. Accounts Payable will coordinate with OSP and the PI to ensure that invoices are paid timely and are approved by the PI as required by OSP policy. Accounting assistants in Accounts Payable will review all payments made from grant accounts charged to subcontractor object codes for signature of the PI prior to processing.

UNLV - We agree. With regard to processing within OSP, subrecipient invoices are initially processed by Principal Investigators and transmitted to Accounts Payable for payment.

Accounts Payable provides copies of the invoices to OSP for review of 1) allowability; 2) whether the account retains funds sufficient to pay the invoice; 3) whether the cost falls within the period of performance; 4) whether proposed cost sharing by the subrecipient has been included in the invoice.

OSP will return any invoices without PI signature to Accounts Payable to obtain signature prior to review of invoices for the items noted above.

DRI - DRI has implemented a policy that requires the Principal Investigator or equivalent, with technical knowledge of the work performed, to approve all subcontractor invoices prior to payment.

Observation 3. Special Tests and Provisions: Changes in Key Personnel

UNR - The University has purchased the Committed Effort Management System (CEM) from MAXIMUS. The Office of Sponsored Projects will begin to collect proposal data regarding effort commitments in spring 2007. In preparation for beginning to collect this data, OSP has changed the transmittal routing form to have effort identified immediately on the form. Implementation of CEM with new data capture will begin in January 2008.

UNLV - UNLV will add guidance to its Faculty Handbook with regard to required notifications to sponsors of changes in key personnel. In addition, UNLV is reviewing its system for compliance with the requirements of A-21 with regard to monitoring of personnel time and effort and has made budget requests to provide upgrades to the current system to monitor personnel changes more effectively.

Observation 4. Equipment Management

UNR - The inventory has been updated to reflect the correct location of the one piece of equipment found in error during testing. The UNR Property Office will include instructions with the annual inventory requests that emphasize that the annual inventories need to be complete and accurate, including correct location codes, when they are submitted to the Property Office.

UNLV - We agree. UNLV has updated its internal notification process with regard to equipment disposition on sponsored programs. Principal Investigators are required to notify OSP of the pending transfer or relocation of any sponsored program funded equipment.

OSP staff utilize the OSP close out procedure for equipment disposition at project close, which references sponsor equipment requirements and OMB Circular A-110.

DRI - DRI concurs and will continue its attempts to contact the relevant federal agency to obtain approval to remove the missing item from its inventory list.

Observation 5. Eligibility and Enrollment Reporting: Limitations of Student Financial Aid System

NSHE – NSHE will include these requirements when exploring new systems for financial aid.

Observation 6. Unallowable Activities and Costs-Fringe Benefits for Federal Work Study Students

CCSN - CCSN concurs and will reimburse the US Department of Education for the unallowable costs charged to the FY 2005-2006 award year.

Procedures are being put into place to ensure that future employer paid fringe benefits for students charged to the Federal Work Study (FWS) program will not be charged to subsequent award years.

Information Technology
Observation 1. User security for the Advantage Financials system is administered at the campus level.

SCS understands how inconsistent operations may compromise application security.

SCS is working with NSHE Internal Audit and the institutions' Security Coordinators to address this matter. The Security Coordinators are developing a standard policy and procedures manual to resolve this inconsistency. Their goal is to have this manual approved and published before the end of the 2006 calendar year.

Observation 2. Based on fieldwork conducted at University of Nevada – Reno, termination notices for Advantage Financials users are not consistently submitted to Security Coordinators.

UNR - The UNR IT security coordinator will review the SCS report on terminated employees with active RACF accounts and update Advantage security on a weekly basis to ensure that all terminated employees are deleted.

SCS - Each campus has their own internal processes and forms for communicating employee terminations. SCS agrees that a risk may exist between the time an employee is terminated and their IDs removed from RACF. To bridge this gap, SCS provides a daily report of employee terminations from the Human Resources Management System for each Security Coordinator. The Security Coordinator may use this information to revoke the ID's application access. Additionally, the campus Security Coordinators are developing a standard policy and procedures manual to define a more uniform process for this situation. Their goal is to have this manual approved and published before the end of the 2006 calendar year.

Observation 3. Based on fieldwork conducted at University of Nevada – Las Vegas, termination notices for Advantage Financials users are not consistently submitted to Security Coordinators.

UNLV - We partially agree with the response. NSHE should work with the campuses to develop and subsequently implement processes for more timely removal of account access for terminated users.

The schedule for developing and implementing modified processes systemwide is dependent on NSHE taking the lead on the project. Human Resources and the Office of Information Technology at UNLV will work with NSHE as appropriate. A new staff member within the Office of Information Technology hired to assist with Application Security has almost completed training and should be able to help implement the modified processes.

SCS - Each campus has their own internal processes and forms for communicating employee terminations. SCS agrees that a risk may exist between the time an employee is terminated and their IDs removed from RACF. To bridge this gap, SCS provides a daily report of employee terminations from the Human Resources Management System for each Security Coordinator. The Security Coordinator may use this information to revoke the ID's application access. Additionally, the campus Security Coordinators are developing a standard policy and procedures manual to define a more uniform process for

this situation. Their goal is to have this manual approved and published before the end of the 2006 calendar year.

Observation 4. Based on fieldwork conducted at University of Nevada – Las Vegas, user accounts and account access for Advantage Financials and HRMS are not reviewed on a regular basis.

UNLV response: We agree. The UNLV Applications Security staff within the Office of Information Technology (i.e., Security Coordinator) is taking the lead to schedule meetings with the UNLV Application Coordinators to plan for a full account audit within each application and to establish a schedule for regular account access audits. The initial meetings are being scheduled early in 2007, at which time a time frame for the full audit and subsequent systematic audits will be established.

SCS - The campus Security Coordinators are developing a standard policy and procedures manual to define a more uniform process and schedule for this situation. Their goal is to have this manual approved and published before the end of the 2006 calendar year.

Observation 5. The IBM mainframe servers hosting the Advantage Financials application are not positioned behind the network firewall.

SCS - Previous throughput limitations on existing firewalls have been eliminated to allow SCS to proceed with moving the IBM servers behind the firewall. Planning for this relocation has begun. Actual implementation is targeted to be complete by the end of the fiscal.

Observation 6. NSHE is considering deploying individual ERP systems at some of the institutions in the near future.

SCS - An analysis of the fiscal and staffing impacts to NSHE will be recommended as part of the review process for this and any major implementation.

Observation 7. Penetration testing and vulnerability assessments against the network have not been performed during the audit year by an independent security expert.

SCS - While SCS agrees with this observation, we feel that the recommended external testing against only the network firewalls is insufficient to provide adequate security benefits. SCS plans to extend this external testing recommendation to all external facing systems as well as ongoing internal vulnerability assessment testing.

SCS has subscribed to a third party security testing service that will provide an internal assessment appliance for scheduled and ad hoc testing, reporting and trending. The service also provides external vulnerability testing assessments that will be performed

periodically on an ongoing basis. The internal tool implementation and first external testing are scheduled to be completed by 11/1/2006.

UNLV - We partially agree with the finding. While external testing of the network for external threats is desirable for many reasons, the level of risk to unauthorized access to Advantage Finanicals is mitigated by other security measures, and may not, by itself, be enough to justify the recommended independent assessment.

UNLV is prepared to work with NSHE on an independent assessment of potential vulnerabilities and to cooperate fully in the development and implementation of the campus components of an NSHE security plan.

Observation 8. SCS Network Support does not regularly review system and security logs for Novell and Windows systems.

SCS - SCS agrees with the finding but disagrees, in part, with the recommendation. The recommendation implies a manual review of logs. Logs produced by these systems may contain hundreds of thousands of events each day and finding relevant entries through manual searches is unlikely.

Rather than rely on manual log reviews, SCS is implementing an intelligent security threat management system to aggregate, correlate and alert staff of potential security and system issues. Novell and Windows systems will be included in the implementation to provide near-real time alerts for anomalies. We believe this automated system, with manual spot checks to ensure automation accuracy, is a much more effective and practical method for log review This system is scheduled to be in service by 10/30/2006.

Observation 9. There is no intrusion detection/prevention system in place to identify and alert SCS staff of potential attacks to the Advantage Financials system.

SCS - SCS has recently put on order the Cisco Monitoring Analysis and Response System (MARS) that aggregates and correlates information from a variety of monitoring devices. IDS/IPS blades have been purchased for the core network devices and other sensor will be deployed as necessary for added detection/prevention capabilities. This system is scheduled to be in service by 10/30/2006.

Observation 10. Workstations are not configured to lockout during periods of non-use.

SCS - All desktop and notebook computers in System Administration will be configured to automatically lock during periods of inactivity or non-use. All users will be required to re-authenticate to resume the use of locked computers.

UNLV - We partially agree with the recommendation. Additional layers of protection for individuals with direct access to the Advantage Financial systems are important. Workstation lockouts are not the only solution.

UNLV has many of the protections already in place. We will work with those staff who have direct access to the Advantage Financial system to ensure that they all have sufficient workstation security in place to protect against unauthorized access by December 2008.

Observation 11. The granting of local administrator access to user workstations may impact the successful and uniform deployment of software patches and updates on a consistent basis.

SCS - All desktop and notebook computers in System Administration will be maintained at vendor specified patch and release levels as approved by System Computing Services (SCS). SCS will continue with the implementation of its chosen patch management software, with a target of December, 2006 for completed implementation. System Administration personnel may not subvert or hinder the operation of these tools.

UNLV - We agree with the recommendation. UNLV is currently considering enterprise wide desktop management software that includes patch management to augment other patch management efforts currently in place on the campus network. Funding is being requested for FY08. The required hardware and software will be installed and deployed within 12 months of being purchased.

Observation 12. Las Vegas SCS staff are unaware of the current disaster recovery plan.

SCS - Both SCS Reno and Las Vegas staff were involved with the development of the majority of the 'Team Plans" section of the current Disaster Recovery Plan, containing procedures required for recovery. A structured walk-through of the plan is scheduled for 7/26/06 to check for gaps and other areas of improvement. Reno and Las Vegas team leaders have been invited and encouraged to participate in this process. A thorough communication plan will be developed and implemented for all stakeholders involved in the recovery effort.

Observation 13. Comprehensive disaster recovery testing has not been completed.

SCS - SCS understands the importance of continuous testing of its disaster recovery plan. A structured walkthrough of the plan is scheduled for 7/26/06 to check for gaps and other areas of improvement. Additionally, disaster simulation testing through a third party is targeted to be completed prior to 12/1/2006. A thorough communications plan will be developed and deployed to ensure all stakeholders are aware of their responsibilities for continuous update of the plan as well as their roles and responsibilities during a recovery effort.

Observation 14. The University of Nevada – Las Vegas Novell NetWare system password policy is inadequate.

UNLV - We partially agree with the recommendation. While best practices indicate that a password expiration of 90 days is desirable, UNLV's experience is that passwords that change frequently are more likely to be written down, creating a different security risk. UNLV is working on a plan for implementing stronger Novell NetWare passwords (e.g., higher character counts, and more complexity) to be fully implemented by July 1, 2007.

SCS - UNLV has reviewed this finding regarding our Novell Netware system password policy and will be taking the following actions:

- Develop and implement a communications plan relevant to changes in our current policy and the time frame for user adoption.
- Set the new minimum number of characters required to eight (8)
- Since UNLV's current version of Netware does not support password complexity requirements, our policy will strongly suggest the new password be complex and contain at least two numerics
- Implement account lockout for 15 minutes after three (3) failed attempts at submitting a correct password
- We will not be implementing a requirement to change passwords every 90 days. It is our opinion that such a requirement encourages the unwanted behavior of writing down complex passwords in order to remember them

Observation 15. Wet pipe sprinkler systems are used in both the Reno and Las Vegas datacenters.

SCS - SCS understands that the current fire suppression systems supporting the data centers are not desirable. A budget proposal and cost benefit analysis will be prepared and submitted for funding.

Observation 16. The racks in the Las Vegas SCS server room are not anchored to the floor.

SCS - All server racks in both the Reno and Las Vegas data centers will be immediately anchored to the floor to protect the equipment and the availability of the applications.

UNLV response: We partially agree with the recommendation. UNLV has several racks on the Las Vegas SCS server room floor. While it would be desirable to have the racks anchored, other priorities for a safe and secure server room environment are far more pressing.

If anchoring the racks becomes a priority UNLV will assist as necessary on a schedule mutually agreed upon by SCS and UNLV.

Observation 17. SCS Network Support does not have written procedures for the user maintenance processes.

SCS - High level documentation of the process for obtaining a user account will be developed and published before the end of the calendar year.

Observation 18. SCS Novell NetWare user accounts, group assignments and folder security is not reviewed on a regular basis.

SCS - User accounts with special privileges will be reviewed semi annually by NSHE Human Resources. Users with access to budget and other financial folders will be reviewed quarterly by NSHE's budget officer.

Observation 19. Criminal background checks are not being accomplished as part of the new hire process for student and professional technology staff members.

SCS - This recommendation will be forwarded to the NSHE Human Resources Department for review.

UNLV - We disagree with the recommendation. Recruiting and hiring practices at UNLV provide opportunities for determining whether prospective employees are misrepresenting their backgrounds and credentials. The current NSHE Code and UNLV bylaws offer ample corrective action in the event that an employee engages in theft and/or fraud. The inclusion of credit and criminal background checks for all technology staff creates an undue burden on hiring that is already challenging due to salary levels well below industry standards and may create a culture of mistrust within the technical units on campus.

A time frame for fully addressing the issue cannot be set until it is clear whether any changes in hiring procedures will be required.

Observation 20. Non-technology and campus advisory groups are not involved in the evaluation and recommendation of SCS IT projects.

SCS - We agree that functional campus executives should be involved in setting the priority of IT projects. We have begun work to address this with our institutions.

Observation 21. Changes made to Rebel Aid are not approved by management prior to deployment into the production system.

UNLV - We agree. A new change management policy and control form will be implemented for January 2007. The policy will define the path and processes that a change request must undergo before deployment into the production environment. All changes are to be approved by financial aid management, prior to any modifications being initiated.

SCS - Management agrees with this observation. A more formal change management policy will be developed by December 31, 2006. The policy will define the path and processes that a change request must undergo before deployment into the production environment. The change management process will be either web-based or document-based.

Observation 22. Developer access to the production systems is not adequately restricted.

UNLV - We agree. However, at this time, only one developer and the Associate Director have the means and capability to implement RebelAid PowerBuilder code changes. Should the case arise that additional developers are required to make RebelAid modifications, management will make the necessary adjustments to the methods by which executable files are deployed and will explore the two-person segregated access for employee audits. We look forward to migrating off this system to a new vendor system that is implemented as part of the iNtegrate project, and we see that as the ultimate solution to the system limitations of Rebel Aid.

SCS - Management agrees with this observation. However, at this time, only one developer and the Associate Director have the means and capability to implement RebelAid PowerBuilder code changes. Should the case arise that additional developers are required to make RebelAid modifications, management will make the necessary adjustments to the methods by which executable files are deployed and will explore the two-person segregated access for employee audits.

Student Life Technology is reconfiguring the database environment to include a QA environment. When complete, developers will have access to development and QA databases only. Approved modifications will be migrated from QA to production through the system DBA as defined by the Change Management Policy.

Observation 23. End user acceptance is not occurring during major projects requiring a conversion of data.

UNLV - We agree. Future system migrations will include the establishment of key data elements to serve as benchmarks. Post-migrated data will be validated against the pre-migration benchmarks. Formal user acceptance testing will also be implemented.

SCS - Management agrees with this observation. Future system migrations will include the establishment of key data elements to serve as benchmarks. Post-migrated data will be validated against the pre-migration benchmarks. Formal user acceptance testing will also be implemented.

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Observation 24. Backup tapes of the Rebel Aid development environment are not being stored offsite.

UNLV - We agree. Effective immediately, on a weekly basis, RebelAid PowerBuilder source code will be stored in a fireproof, media safe located off-site in Tonopah Hall.

SCS - Management agrees with this observation. On a weekly basis, RebelAid PowerBuilder source code will be stored in a fireproof, media safe located in Tonopah Hall.

Observation 25. Source code changes for Rebel Aid are not being adequately documented.

UNLV - We partially agree. A multi-developer environment does not exist. As previously stated, one primary developer and the Associate Director are responsible for enhancements to Rebel Aid code. For these reasons, management concludes that versioning control software is not appropriate for this environment. However, management will implement a plan to manually isolate differing versions of PowerBuilder source code. We look forward to migrating off this system to a new vendor system that is implemented as part of the iNtegrate project, and we see that as the ultimate solution to the system limitations of Rebel Aid.

SCS - Management does not completely agree with this observation. A multi-developer environment does not exist. As previously stated, one primary developer and the Associate Director are responsible for enhancements to Rebel Aid code. For these reasons, management concludes that versioning control software is not appropriate for this environment. However, management will implement a plan to manually isolate differing versions of PowerBuilder source code.

To address the concern regarding the commenting of PowerBuilder source code, general change comments will be recorded in the constructor event of the object associated with the change. In addition, more specific details will be recorded in the event or function of that object.