

SEISMIC SAFETY & DISASTER READINESS
SYSTEMWIDE

Report Number 97-21
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CONTENTS

INTRODUCTION

Purpose.....	1
Scope and Methodology.....	1
Background	2
Opinion.....	4
Executive Summary.....	4

OBSERVATIONS, RECOMMENDATIONS, AND MANAGEMENT RESPONSES

Seismic Peer Reviews.....	7
Seismic Program Reports	8
Outdated Executive Order.....	9
Report Of The Ad Hoc Committee On Emergency Preparedness	11
Volunteers	12
Mutual Aid.....	13
Expenditures	14

APPENDICES

- Appendix A: Personnel Contacted
- Appendix B: Management's Response
- Appendix C: Chancellor's Acceptance

ABBREVIATIONS

BOT	Board of Trustees, The California State University
CCR	California Code of Regulations
CRU	Critical Response Units, northern and southern Public Safety teams
CSU	California State University
EMEP	Earthquake/Major Emergency Preparedness (a CSU task force formed in spring 1985 and disbanded in 1990)
EO	Executive Orders from the Chancellor
EOC	Emergency Operations Center
FEMA	Federal Emergency Management Agency
ICS	Incident Command System protocols required by SEMS regulations
MHEMP	Multi-Hazard Emergency Management Plan
OES	Office of Emergency Services, State of California–Governor's Office
PP&D	Physical Planning and Development, Chancellor's Office
RCPBG	Resolution of the BOT Committee on Campus Planning, Buildings and Grounds
SEMS	Standardized Emergency Management System regulations issued by OES in September 1994
SRB	Seismic Review Board of The CSU formed in 1992

INTRODUCTION

PURPOSE

Our overall audit objective was to furnish an independent appraisal of the seismic safety and disaster readiness functions, to ascertain compliance with established policies and procedures, to determine adequacy of internal controls, and to identify opportunities for operational improvements which would help better achieve goals and objectives.

Within the overall audit objective, specific goals included determining whether:

- ▶ necessary seismic retrofitting has been completed to ensure that facilities meet the relevant building standards in Title 24 of the California Code of Regulations;
- ▶ new construction complies with Board of Trustee policy for seismic peer review (RCPBG 05-93-13);
- ▶ reasonable facility measures for disaster avoidance and prevention have been implemented, e.g., anchoring unsecured furniture and equipment or providing for fire-suppression automatic sprinklers and portable extinguishers;
- ▶ there has been coordinated campuswide planning and preparation for disaster preparedness and response, development and promulgation of sound plans and strategies, and continued vigilance to maintain and update plans;
- ▶ campuses have effective response capabilities to the most probable incidents which may affect the safety of personnel, damage assets, or cause significant business interruption;
- ▶ buildings can be evacuated during disasters/emergencies;
- ▶ reasonable provisions have been made for the availability of equipment, information systems, records, supplies, and trained personnel when needed; and
- ▶ tests/exercises have been conducted to prove plan viability and identify deficiencies or weaknesses in response instructions.

SCOPE AND METHODOLOGY

The review emphasized but was not limited to: compliance with state laws; Board of Trustee policy; and Chancellor's Office and campus policies, letters, and directives.

INTRODUCTION

Various campus functions and offices were involved including, but not limited to, facilities management, environmental health and safety, public safety, student health center and computer center. Auxiliary organizations were generally excluded from the audit, with the exception of the seismic safety of occupied buildings that have been prioritized by CSU's Seismic Review Board for retrofitting.

Fiscal years 1995/96 and 1996/97 were the primary periods reviewed for disaster preparedness and planning. However, earlier years were also included as needed, in part, because the seismic safety action plan for the system dates back to the Board of Trustees resolution in May 1993.

During the course of the audit, we visited eight campuses (Hayward, Humboldt, Long Beach, Los Angeles, Northridge, Pomona, San Francisco, and San Jose) and:

- interviewed responsible personnel;
- inspected certain facilities such as the emergency operations centers, computer centers, and telephone switching rooms;
- reviewed various plans and documents;
- examined emergency equipment and supplies; and
- tested selected devices and features integral to the campus system for disaster mitigation, preparedness, response and recovery.

BACKGROUND

As indicated in the May 1993 Agenda Item 7 of the Board of Trustees' Committee on Campus Planning Buildings and Grounds, the CSU relies upon the requirements of Title 24 of the California Code of Regulations (CCR) for seismic safety building standards. From a structural standpoint, the CSU has been involved in a seismic retrofitting program since 1992. In the 1992/93 Budget Act, funds were provided for seismic reviews of CSU facilities. In implementing this program, the CSU formed a Seismic Review Board (SRB) which has been active with essentially the same membership since its original formation. The focus of this program has been to identify and mitigate the highest life safety risks. Part of the program has been for the SRB to rank order facilities on the degree of seismic risk, subject the highest risks to further engineering investigation and capital outlay retrofit projects, if warranted. The resolution of the committee in May 1993 (RCPBG 05-93-13) also provided for independent technical peer reviews of the seismic aspects of all construction projects from their design initiation, including both new construction and remodeling. The SRB members have each been assigned campus responsibilities for completing seismic peer reviews.

From a facility standpoint, the CSU first established a priority list in October 1992 of 89 seismic retrofit projects (exclusive of falling hazards). The SRB revisits this list on a periodic basis and, specifically, in response to lessons learned from individual seismic events such as the January 17, 1994, Northridge earthquake. At the December 16, 1997, SRB meeting, the most current priority list had grown to 111 projects. The updated status of these projects is reported under such headings as *under construction/construction complete, awaiting retrofit design contract, or assessment complete/no life safety problems*.

The CSU has been funded for a Seismic Safety Action Plan based on SRB priorities in each of the fiscal years since its inception. In fiscal years 1991/92 and 1992/93, the program received systemwide planning funds in the amounts of \$500,000 and \$5 million, respectively. Beginning with fiscal year 1992/93, the following seismic safety projects were funded:

Seismic Safety Action Plan Funding

F/Y	Amount
1992/93	\$ 519,000
1993/94	7,333,000
1994/95	1,446,000
1995/96	35,834,000
1996/97	6,518,000
1997/98	16,049,000
Total	\$ 67,699,000

For fiscal year 1998/99, an additional \$23.4 million is proposed for the Seismic Safety Action Plan. Funds from the state over the course of the last seven or eight years have enabled retrofitting of a broad range of campus projects. Excluded from the above totals are separate funds for seismic bracing of library stacks, any non state funded seismic retrofitting (including Federal Emergency Management Agency [FEMA] reimbursements) and seismic-related costs of new construction.

In terms of the CSU relationship with FEMA, the most substantial activity in recent times occurred as a result of the January 17, 1994, Northridge earthquake. At the Northridge campus alone, the cost of recovery has been estimated at \$328.7 million, which includes significant FEMA reimbursements. One long-standing, unresolved FEMA issue is Verducci Hall on the San Francisco campus. This building has been closed as a result of severe damages sustained during the October 17, 1989, Loma Prieta earthquake.

Appendix I_a of the July 19, 1995, *Report of the Ad Hoc Committee on Emergency Preparedness* contains a recent history of emergency planning in the CSU. This report indicates that much of what is in place within the CSU at the current time can be traced to the Task Force on Earthquake/Emergency Preparedness (EMEP) formed in the spring of 1985. The EMEP Task Force was instrumental in the development of Executive Order (EO) 524 issued on April 5, 1988. While this EO is dated, it is still in effect as systemwide policy.

In April 1994 (approximately three months after the Northridge earthquake) the CSU convened the Ad Hoc Emergency Preparedness Committee. The July 19, 1995, report of the committee was circulated to the campuses but it has not been implemented on a systemwide basis.

In September 1994, the governor's Office of Emergency Services issued new Standardized Emergency Management System (SEMS) regulations with which the CSU and all other state agencies, as well as local governments and special districts, must comply.

Disaster readiness terminology varies. Disaster is associated with emergency management or emergency

INTRODUCTION

operations and, at times, with other terms such as business continuity. The “3 R’s” of business continuity planning have been described as readiness, recovery, and restoration and are defined as follows:

READINESS

- Disaster Prevention and Avoidance
- Emergency Preparedness
- Corporate-wide Planning
- Business Unit Recovery Planning

RECOVERY

- Incident Management and Initial Recovery

RESTORATION

- Long-term Business Recovery

For audit purposes, terms such as readiness/preparedness and disaster/emergency are used interchangeably.

On a systemwide basis, there are two strong mutual aid arrangements among CSU campuses relating to disaster/emergency preparedness. These two groups are the Critical Response Unit (CRU) teams (north and south) in public safety and the Hazardous Materials/Emergency Response Mutual Aid Plan, for ten southern California campuses in environmental health and safety.

OPINION

We visited the eight campuses mentioned above from April 7, 1997, through January 9, 1998, and audited the respective structures that were in effect at that time.

In our opinion, each of the eight campuses visited could have been better prepared. Recommendations were made with regards to the individual circumstances of each campus. On a systemwide basis and from a facility standpoint, we found that there has been reasonable continuity in seismic safety preparedness through involvement of the Seismic Review Board and Physical Planning and Development (PP&D). However, in all other aspects of preparedness, in recent years there has been a significant tapering off in systemwide advocacy, coordination and guidance. In our opinion the system, as a whole, could improve disaster readiness through such actions as updating Executive Order 524 and encouraging further cooperative arrangements among the campuses. These improvements and others are discussed in both the body of the report and the executive summary below.

EXECUTIVE SUMMARY

The purpose of this section is to provide management with an overview of conditions that require attention. Areas of review not mentioned in this section were found to be satisfactory. Numbers in brackets [] refer to page numbers in the report.

SEISMIC PEER REVIEWS [7]

Seismic peer reviews were not generally well documented for projects at several of the campuses visited. Complete records reduce risks related to life safety concerns and related liabilities.

SEISMIC PROGRAM REPORTS [8]

Annual seismic program reports have not described outstanding seismic risks, seismic project priorities and the sequencing status of projects in the seismic safety action program. Inclusion of such information would help assure that the trustees are well informed of outstanding seismic life safety risks, mitigating measures, and program obstacles/progress in achieving goals.

OUTDATED EXECUTIVE ORDER [9]

Certain provisions of Executive Order (EO) 524, issued May 5, 1988, are not being carried out and/or are outdated. Updating requirements should reduce confusion and the potential for misunderstandings.

REPORT OF THE AD HOC COMMITTEE ON DISASTER PREPAREDNESS [11]

Five of the six recommendations contained in the July 1995 *Report of the Ad Hoc Committee on Emergency Preparedness* have not been implemented consistently. Implementation of all recommendations will contribute to a higher level of emergency preparedness.

VOLUNTEERS [12]

The majority of CSU campuses have not requested a delegation of authority from the state Office of Emergency Services to register disaster service workers. Obtaining this authority will clarify questions of liability.

MUTUAL AID [13]

With two notable exceptions, mutual aid understandings among the campuses visited were incomplete, informal, and not subject to testing. Additional mutual aid arrangements with provisions for periodic testing as needed would assist the CSU in preparedness on a systemwide basis.

EXPENDITURES [14]

The CSU lacks a common basis for capturing and evaluating its investment in disaster readiness. Tracking and evaluating these expenditures provides the system with a means of benchmarking campus commitments and helps to attain appropriate levels of preparedness.

OBSERVATIONS, RECOMMENDATIONS, AND MANAGEMENT RESPONSES

SEISMIC PEER REVIEWS

Seismic peer reviews were not generally well documented at several of the campuses visited.

Seismic peer review engineers were involved with campus projects, however, final reports were not consistently available. These reports are necessary to finalize the resolution of design comments and formally document conclusions on the seismic safety of structural retrofitting and new construction projects.

Since the May 1993 resolution of the Board of Trustees' (BOT) Committee on Campus Planning, Buildings and Grounds (RCPBG 05-93-13), the policy of the CSU has been:

The California State University shall cause to be performed independent technical peer reviews of the seismic aspects of all construction projects from their design initiation, including both new construction and remodeling, for conformance with good seismic resistant practices...

Responsibility for monitoring and ensuring compliance with the seismic peer review process and maintaining documentation of this effort is unclear. Files in the Chancellor's Office, Physical Planning and Development (PP&D) are incomplete, although they are generally part of the contract relationship with the peer reviewers. Files at the campuses visited did not augment PP&D records, while the manner in which projects are administered and accepted indicates that the campuses share in the responsibility for ensuring compliance with BOT policy for thorough seismic peer review.

A second aspect of peer review documentation was the lack of peer reviewer involvement beyond the design process. The BOT policy states, in part, that:

The California State University shall cause to be performed independent technical peer reviews of the seismic aspects of all construction projects from their design initiation, including both new construction and remodeling, for conformance to good seismic resistant practices consistent with this policy.

While a well-conceived design is necessary, it is equally important to ensure that seismic provisions do not become compromised during construction. Incomplete records do not adequately document the mitigation of life/safety risks and related liabilities sought through the seismic peer review program.

Recommendation 1

We recommend that the Chancellor's Office define expected seismic peer review work products and responsibilities for seismic peer review contract administration and recordkeeping at all phases of project development.

Management's Response

We concur that a more consistent and complete method of recordkeeping is advisable. This will be accomplished by having the peer review engineer copy PP&D with the phase-specific peer review letter. All peer review letters will be kept in a central file as of this date.

SEISMIC PROGRAM REPORTS

Reports to the trustees do not describe outstanding risks, project priorities and the status of program implementation measured against goals and objectives.

In Agenda Item 7 of the May 1993 meeting of the Committee on Campus Planning, Buildings and Grounds, which established the CSU Policy on Seismic Safety, the chancellor committed to annual reports to the trustees on actions taken and actions planned. Annual committee reports were presented in July 1995, 1996 and 1997. However, none of these reports addressed the status of individual projects or measured progress against goals and priorities established by the Seismic Review Board (SRB).

As of December 1997 the SRB priority list included 117 projects. These projects have been split, for presentation purposes, into quartiles according to the SRB-assigned priority ranking. The highest level of risk are those thirty projects in group I. The relative amount of risk in this group in relation to the total program is uncertain. However, it has been hypothesized that the highest ranked projects represent the greatest majority of the life-safety risk with rapidly diminishing importance of other projects. The following table exhibits progress in each grouping:

Table 2
Project Status by Priority Grouping

CURRENT STATUS	REFERENCE	I	II	III	IV	TOTAL	%
No life safety problems	(1)		1	11	6	18	15.4%
Bidding/under construction	(2)	9	5		2	16	13.7
Construction complete	(3)	6	6	2	5	19	16.2
Other	(5)	1	1		1	3	2.6
S.T. – Essentially Complete	(6) (1-5)	16	13	13	14	56	47.9
Awaiting retrofit design	(7)	5	6	2	7	20	17.1
Retrofit design in progress	(8)	1	1		1	3	2.6
Awaiting working drawings	(9)	5	2	2	1	10	8.5
Working drawings in progress	(10)	1	1			2	1.7
Awaiting construction funding	(11)			1	1	2	1.7
S.T. – Unresolved	(12) (7-11)	12	10	5	10	37	31.6

New investigation	(13)	2	7	12	3	24	20.5
TOTAL	(14) (6+12+13)	30	30	30	27	117	100.0%

Of the thirty highest priority projects in group I, only slightly more than half (16) have been completed. From the twelve unresolved projects, six have been ranked among the top twenty riskiest projects since the inception of the Seismic Safety Action Plan in 1992. While completion timelines for the riskiest projects are uncertain, other less risky projects have been funded and have progressed faster to completion.

The picture of seismic project priorities and rankings was altered significantly in February 1998 in response to the report of the Legislative Analyst's Office on the 1998/99 budget bill. For example, the combined list of 117 state and non state funded projects was separated and reduced to 55 state funded projects that were not new investigations or continuing life safety concerns after SRB analysis. While the presentation of projects varied their status was not altered, with the exception of updating purposes. Information supplied to the trustees has not been affected.

There is not a prescribed format for the annual report. With the absence of project-specific information, the annual reports are incomplete: They do not describe planned program actions to expedite projects of the highest seismic life safety concern.

Recommendation 2

We recommend that the Chancellor's Office report to the trustees project specific information on the riskiest seismic safety projects ranked by the Seismic Review Board.

Management's Response

We concur with concern addressed in this section. However, the annual report produced for the trustees was intended to provide information on the global actions taken and planned by the Seismic Review Board, e.g., the evaluation of steel moment frames, the re-evaluation of parking structures, new ground motion studies, and new fault evaluations.

Beginning with the September 1998 Board of Trustees meeting, the annual five-year capital outlay program will be adjusted to provide specific seismic project information for the previous five years and the planned five years.

OUTDATED EXECUTIVE ORDER

Certain provisions of Executive Order (EO) 524, issued May 5, 1988, are not being carried out and/or are outdated.

The following requirements have not been implemented:

- ▶ The Chancellor's Office should be apprised of substantive changes in the campus-specific emergency preparedness plans;

- ▶ A systemwide Emergency Preparedness Committee broadly representative of the campuses and the Chancellor's Office should be formulated;
- ▶ Regular tri-annual visits to each campus should be made by an assessment team charged with evaluating the extent of readiness and its findings should be reported to the vice chancellor and the Emergency Preparedness Committee; and
- ▶ Chancellor's Office staff reporting to the vice chancellor, faculty and staff relations should review the systemwide state of emergency preparedness and provide a status report to the Chancellor at least once per year.

A particularly contentious provision in the EO (at the campuses audited) was the frequency and breadth of exercises as part of the ongoing program to test the emergency preparedness plan. Present EO provisions are threefold as follows:

- ▶ At least limited semi-annual exercises (drills or simulations) involving appropriate segments of the campus population and necessary physical resources;
- ▶ Participation in a total exercise program by all segments of the response organization at least once per year; and
- ▶ A campuswide test event at least every two years.

Several campuses indicated that there was a need for flexibility to stagger test events. For example, rather than conducting a campuswide evacuation drill, the drill would be broken down to evacuate different sections of the campus or different buildings at separate times. These multiple events would be scheduled on different days (sometimes clustered together or spread out over different months throughout the academic year) in order to focus on monitoring the process and evaluating the results.

In July 1995, the Ad Hoc Committee on Emergency Preparedness recommended the issuance of an updated Executive Order. However, the recommendation was never implemented.

Existence of the outdated executive order creates misunderstandings on systemwide policy and projects the wrong impression on the role of the Chancellor's Office and extent of systemwide involvement in emergency preparedness, particularly relating to the intensity and frequency of test events.

Recommendation 3

We recommend that the Chancellor's Office update Executive Order 524 to address current systemwide expectations, particularly with respect to plan testing.

Management's Response

We agree with the general concept that executive orders should be reviewed and updated periodically. Financing and risk Management, with campus involvement, will review the specific issues discussed in the audit findings and update Executive Order 524 to provide clear directions to the campuses as needed. This review will be completed by July 31, 1998, and a revised Executive Order 524, if necessary, will be issued during August 1998.

REPORT OF THE AD HOC COMMITTEE ON EMERGENCY PREPAREDNESS

Five of the six recommendations contained in the July 1995 *Report of the Ad Hoc Committee on Emergency Preparedness* have not been implemented consistently.

Following the January 1994 Northridge earthquake, the Chancellor's Office convened an ad hoc committee for "revision and updating of the extant campus plans in light of lessons learned from actual experience, with additional attention paid to concerns for problems of violence in the workplace." The July 19, 1995, *Report of the Ad Hoc Committee on Emergency Preparedness* recommended six actions as follows:

1. The chancellor should immediately issue an updated Executive Order to direct current emergency preparation throughout the CSU and establish a priority commitment for funding ongoing systemwide emergency preparedness activities.
2. The CSU should hire a consultant to coordinate systemwide planning and compliance with the newest SEMS and ICS requirements. The consultant should be responsible for estimating relevant material needs and strategies for their accommodation.
3. Each campus should hire or assign an emergency preparedness coordinator.
4. Each campus should take immediate action regarding: a) facilities, equipment, and supplies; b) pre-emergency planning; c) off-campus supportive resources; and d) education and training to cope with violence in the workplace.
5. Long-range emergency planning should follow the immediate actions cited above with primary emphasis on post-disaster recovery.
6. The CSU should purchase two portable (for established north and south group use) critical response satellite-related long-range communication units to facilitate immediate coordination of inter-campus mutual support in dealing with emergencies.

With the exception of recommendation 6, the ad hoc committee's report was not implemented systemwide. Rather, the report was distributed to campus presidents for consideration and there were mixed results as to implementation. The absence of systemwide implementation has contributed to a disparate level of preparedness among the campuses.

Recommendation 4

We recommend that the Chancellor's Office reconsider systemwide implementation of recommendations 1-5 in the July 1995 *Report of the Ad Hoc Committee on Emergency Preparedness*.

Management's Response

We concur with the recommendation. Financing and risk Management will take the lead with members of the Ad Hoc Committee to reconsider implementation of recommendations in the 1995 Ad Hoc Committee report with special emphasis on the personnel and strategic planning issues as well as revisiting the need for funding of certain equipment and coordination of systemwide emergency preparedness activities. These activities will take place during August and September 1998 with a report to the Senior Vice Chancellor, Business and Finance and the Vice Chancellor, Faculty and Staff Relations by October 31, 1998.

VOLUNTEERS

The majority of CSU campuses have not requested a delegation of authority from the State Office of Emergency Services (OES) to register disaster service workers.

Disaster service workers are generally non-paid volunteers who converge on the scene after a disaster. According to the December 1995 OES publication *They Will Come*, only properly registered disaster service workers are covered by the state's Workers' Compensation program. The OES director can delegate authority to register such workers; however, the process requires that each individual campus request the delegation.

At the commencement of this audit, two campuses (Fullerton and San Jose) had already obtained the OES delegation of authority to register volunteers. Two other campuses (Humboldt and Long Beach) obtained the delegation during the course of the audit. Recommendations were made to each of the other campuses visited that they request the OES delegation. To date no campuses, other than these four, have received the OES delegation.

Table 3
Campuses with OES Authority
To Register Volunteers

CAMPUS	DATE OF OES DELEGATION
Fullerton	5/5/94
Humboldt	11/6/97
Long Beach	8/5/97
San Jose	3/1/97

In the absence of OES authorization, there are concerns as to liability for disaster service volunteers and their access to benefits.

Recommendation 5

We recommend that the Chancellor's Office apprise all campuses of the OES program for disaster service workers and encourage all campuses to obtain the appropriate OES delegation of authority.

Management's Response

We agree with the recommendation. Financing and Risk Management will provide information and encourage campuses that use volunteers to obtain the appropriate OES delegation of authority. This authority is necessary to ensure that only properly registered disaster service volunteers are covered by the State Worker's Compensation program. Financing and Risk Management has requested the documents from OES and will distribute these packets with instructions for completion to campuses by July 15, 1998. This item will also be discussed at the upcoming CSU emergency Preparedness Workshop May 11-12, 1998.

It should be noted that CSU Fullerton, Humboldt, Long Beach, and San Jose have already completed the documentation and received the OES delegation.

MUTUAL AID

With two notable exceptions, mutual aid understandings among the campuses visited were incomplete and very informal.

The CSU has done an excellent job in organizing public safety response capabilities on a statewide basis. North and south CRU (Critical Response Unit) teams have been formed and partially funded with a significant systemwide commitment for procurement of satellite communications equipment.

The second regionally coordinated effort is the *Hazardous Materials/Emergency Response Mutual Aid Plan* for ten participating southern campuses. No comparable arrangement was noted for other campuses.

At the campuses visited, there were other more informal arrangements such as in the information technology area, where one campus is relying on another for an alternate processing location. These one-on-one relationships were recognized at Humboldt (supported by Sonoma), Long Beach (San Luis Obispo), Northridge (Fresno), and Pomona (Bakersfield). However, with the exception of Fresno's support for Northridge immediately after the January 1994 earthquake, there was no other actual testing of these arrangements.

Much more can be done in cooperative arrangements in other areas such as supplies and services. An example is stand-by contracts that a consortium of campuses might be better able to execute or regional warehousing of emergency equipment and supplies that each campus might not be able to afford individually.

Additional mutual aid arrangements with provisions for periodic testing as needed would assist the CSU in preparedness on a systemwide basis. It also may reduce overall costs.

Recommendation 6

We recommend that the Chancellor's Office encourage additional mutual aid arrangements and formalizing/testing of existing informal agreements.

Management's Response

We concur with the recommendation, Financing and Risk Management will issue a written communication encouraging additional mutual aid arrangements and the formalization/testing of existing informal agreements by June 30, 1998.

EXPENDITURES

The CSU lacks a common basis for capturing and evaluating the investment in disaster readiness.

Humboldt and Long Beach both tracked campuswide expenditures for emergency/disaster readiness. Other campuses visited did not capture this information. These campuses indicated that the information was never required and there was no standard coding methodology established for this purpose.

State Administrative Manual § 20003 states that the elements of a satisfactory system of internal accounting and administrative control shall include a system of authorization and recordkeeping procedures adequate to provide effective accounting control over assets, liabilities, revenues, and expenditures.

The absence of expenditure data results in missed opportunities for benchmarking and comparison among CSU campuses. At the campus level, there is potential lack of control, duplication and overlap in expenditures. On a systemwide basis, no data could imply a lack of emphasis on the importance of adequately funding readiness activities.

Recommendation 7

We recommend that the Chancellor's Office require the campuses to track disaster readiness expenditures based on a common definition and system of account codes.

Management's Response

We disagree with the recommendation. The audit contains four statements to conclude that the campuses should establish a cost center called disaster readiness and book expenditures to this cost center. They are summarized as: 1) that current procedures do not provide effective accounting control over . . . expenditures; 2) there are missed opportunities for comparison of expenditures and benchmarking; 3) there is a potential lack of control. . .; and 4) lack of data could imply a lack of emphasis on disaster readiness. We feel that the recommendation is not warranted for the following reasons related to the four statements above:

1. The audit did not show that current accounting procedures do not provide control of expenditures on the campuses. Currently campuses control expenditures in a manner that makes the most management sense to the managers responsible in the chain of command. Accounting for expenditures according to disaster preparedness groupings is only one of many possible methods of categorization. Our management philosophy is to hold managers accountable for results, rather than prescribing to them the detail methods about how to achieve those results.
2. The audit did not show that comparison and benchmarking in the disaster preparedness area would produce benefits for the system. Our campuses are very different in physical location which is a key determinate in the risk exposure to the various disaster possibilities. Benchmarking and cost comparison work well in situations that are similar. We do not believe benchmarking and cost comparisons would produce usable management information in this situation. Our CSU benchmarking task group also has not selected this as an area that would be a productive use of the benchmarking technique.
3. The audit did not disclose any evidence about lack of control of expenditures, duplication and overlap of expenditures. Absent direct substantive evidence, we believe any such risk is not significant.
4. The audit did not show that a lack of data in the format requested in the recommendation contributes to lack of emphasis on disaster readiness. Therefore, we do not believe the recommendation is supported by the audit findings.

APPENDIX A: PERSONNEL CONTACTED

CHANCELLOR'S OFFICE

Thomas E. Coffin	Chief of Architecture and Engineering – Physical Planning and Development
Richard K. Leffingwell	Director, Financing and Risk Management
Michael Lordanich	Systemwide Public Safety Coordinator
Shirleen McNamee	Personnel Programs Manager
Charlene Minnick	University Risk Manager
Jon H. Regnier	Senior Director, Physical Planning and Development
Richard P. West	Senior Vice Chancellor, Business and Finance

CALIFORNIA STATE UNIVERSITY, HAYWARD

Norma S. Rees	President
Noreen Alldredge	Director, University Library
Anthony Alvarez	Director of Public Safety
Jon Aman	Sergeant, Department of Public Safety
Lee Bateman	Associate Vice President, Business Affairs
James Banish	Director, Facility Operations – Contra Costa Campus
James Buckley	Assistant Vice President, Human Resources
Frank Correa	Director, Server and Network Operations–Information and Computing Services
Kathleen Coulman	Director, Student Health Center
David Cowden	Engineering Manager, Facilities Management
Craig Ishida	Director, Environmental Health and Safety
Ron Kihara	Assistant Vice President, Administration and Business Affairs
Mario Lavagnino	Sergeant, Department of Public Safety
Richard Metz	Vice President, Administration and Business Affairs
Judy Miller	Telecommunications Coordinator
Mark Nickerson	Director, Contra Costa Campus
Leone Nidiffer	Assistant Vice President, Institutional Research and Analysis
Bob Pitta	Administrative Services Officer, Department of Public Safety
Randall Porter	Associate Vice President, Facilities Planning and Operations
Jordan Rich	Associate Director, Operations and Maintenance–Facilities Management
Jerry Rose	User Services Director, Information and Computing Services
Ricardo Sanchez	Director, Facilities Management
Eric Thompson	Procurement and Support Services Officer
Varon Smith	Environmental Compliance Manager

HUMBOLDT STATE UNIVERSITY

Alistair McCrone	President
William C. Canon	Director, Computing and Telecommunication Services
John Capaccio	Associate Director, Housing

APPENDIX A

Don A. Christensen	Vice President, Development & Administrative Services
Kenneth I. Combs	Director, Physical Services
R. Kevin Creed	Director, Environmental Health & Occupational Safety
Tammy Curtis	Administrative Assistant, Public Safety
Lori A. Dengler	Professor, Geology
Charlotte M. Ferguson	Systems Administrator, Plant Operations
Robert E. Foster	Director, Public Safety
Richard A. Giacolini	Director, Procurement & Support Services
Alfred J. Guillaume	Vice President/Provost, Academic Affairs
Debra Hopkins	Construction Management Specialist
James E. Hulsebus	Lieutenant, Public Safety
Lynda Moore	Director, Personnel Services
Tim S. Moxon	Director, Plant Operations
Carolyn J. Mueller	Executive Assistant to the President
Phil M. Perez	Physical Planner
Cliff Schall	Manager, Telecommunications
Robert Seltzer	Personnel Analyst
David W. Simpson	Manager, Computing Services
J. Michael Slinker	Director of University Relations
Edward M. Webb	Vice President, Student Affairs

CALIFORNIA STATE UNIVERSITY, LONG BEACH

Tom Angell	Director, Staff Personnel Services
Elizabeth Beall	Contracts Supervisor
Vic Cannon	Health Services Assistant, Student Health Center
Tom Capp	Ericsson Telecommunications
Scott Charmack	Associate Vice President for Physical Planning and Facilities Management
Peggy Douglas	Manager of Administrative Computing Services
Larry Elliott	Planned Maintenance Coordinator, Facilities Management
Will Glen	Sergeant, Public Safety
William Griffith	Vice President for Administration and Finance
Char Hankey	Director of Telecommunications and Resource Management
Kathleen Hext	Director of Internal Auditing
Charles Hughes	Director of Purchasing
Kristen Hunter	Environmental Health & Safety Coordinator, College of Natural Sciences and Mathematics
Ted Kadowaki	Assistant Vice President for Administration and Finance
Gloria Kapp	Director of Financial Aid
Steve La	Director of Network Services
Ron Lee	Associate Vice President for Information Management and Analysis
Robyn Mack	Director, Budget and Human Resources Management
Michael Mahoney	Associate Vice President of Information Technology, Academic Affairs
Michael Markoski	Assistant Director of Programming Services, Administrative Computing
Pat Matzke	Manager of Process and Preparation Services, Library

APPENDIX A

Jeffrey Mellon	Radiation Safety Officer, College of Natural Sciences and Mathematics
Jeanne O'Dell	Space and Facilities Manager
Jack Pearson	Director of Public Safety
Rob Quirk	Director of Facilities Management
Maryann Rozanski	Director of Safety and Risk Management
Ray Soliman	University Controller
Richard Timboe	Assistant Vice President for Information Technology Services
James Trowbridge	Manager of Personnel Systems
Renee Twigg	Director, Student Health Center
David Young	Director of Administrative Computing Services

CALIFORNIA STATE UNIVERSITY, LOS ANGELES

Steven N. Garcia	Vice President for Administration and Finance
Jacqueline Avery	Assistant to VP for Administration and Finance, Financial Management Services
Mark Canevari	Internal Auditor for Administration
Lillian Colores	Director of Purchasing and Contracts Office
Jim Corsar	Construction Engineer for Project Planning and Development
Connie A. Diggs	Director of Student Health Center
William T. Gaffney	Assistant Director of Human Resource Management and Risk Manager
Ray Gartsman	Construction Project Manager and Inspector
Silvia Gonzalez	Manager of Human Resources for Division of Human Resources Management
Maria Gutierrez	Coordinator of Volunteer Emergency Response Team
Thomas A. Huber	Manager of Data Base Administration and Technology Development
Pam Kisor	Director of Child Care Center
Gerald Lipson	Director of Public Safety
Jessie Lum	Business Systems Manager for Business Systems Office
Timothy Matonak	Environmental Health and Safety Officer
David McNutt	Director of Public Affairs
Sal Membreno	Director of Animal Care and Biological Hazards
Robert Pure	Auto Shop Supervisor for Facilities Planning and Management
Peter P. Quan	Associate Vice President for Information Resources Management
Robert Schulz	Principal Architect for Physical Planning and Development
Raquel Soriano	Director of Auxiliary Services Enterprise
Denzil Suite	Director of Residence Life and Housing Services
Roshni Thomas	Assistant to VP for Administration and Finance, Facilities Planning and Management
Glenn Venner	Assistant Director of Facilities Planning and Management
Angela Warren	Purchasing Agent for Purchasing and Contracts Office
Andrew Winnick	Associate Vice President for Academic Affairs

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

Sheri L. Berger	Program Specialist–Developmental Mathematics Program
Marlene Bloch	Manager, Academic Resources – College of Engineering & Computer Science
Thomas Brown	Assistant Director, Engineering Services – Physical Plant Management
William M. Cooper	Director, Purchasing & Logistical Services
Cheryl Connole	Manager, Academic Resources – College of Science & Mathematics
Ronald Clouse	Director, Budget Planning & Management
Mark Crase	Director, Technology Support Group – Information & Technology Resources
Susan C. Curzon	Vice Provost, Information & Technology Resources and Dean of the University Library
Arthur J. Elbert	Vice President, Administration & Finance
Eric Forbes	Director, Operations – Admissions & Records
Eric G. Geoffroy	Information Technology Consultant–Academic Affairs
Robert W. Harding	Manager, Academic Resources – College of Business Administration & Economics
Edward W. Harrison	Director, Public Safety
Hildo Hernandez	Director, Physical Plant Management
Darryl R. Johnson	Administrative Operations Analyst–Physical Plant Management
Steven L. Johnston	Sergeant–Public Safety
Eleanor L. Jones	Director, Systems & Technology
Ronald R. Kopita	Vice President, Student Affairs
Allen Lin	Operations Analyst – Journalism Department
Ramon Mendoza	Computer Systems Coordinator–College of Science & Mathematics
Raymond Miller	Facility Maintenance Supervisor – University Student Union
Marilyn Mindoro	Controller/Director of Administrative Services–CSUN Foundation
Marc Montemorra	Network Communications Specialist–Information & Technology Resources
Stephen H. Montgomery	Director, Human Resource Services
James E. Moore	Director of Technology – College of Engineering & Computer Science
L. Kendall Mower	Design Manager, Campus Reconstruction Support Office–DMJM/JGM
Ronald S. Norton	Manager, Environmental Health & Safety
Kevin Patrick	Inspector–Los Angeles City Fire Department
Nick Pencoff	Associate Director, Financial Aid
Peter Prager	Special Assistant to Vice Provost & Dean, Information & Technology Resources
Carlos E. Ramos	Manager, Computer Operations – Information & Technology Resources
Eloy Retamal	Structural Project Engineer, Campus Reconstruction Support Office – DMJM/JGM
Wayne Smith	Director of Technology – College of Business Administration & Economics
Judith Sternberg	Assistant Systems Analyst – Financial Aid

Fred Strache	Associate Vice President, Student Affairs
Michael J. Sugar	Lieutenant–Public Safety
Tom Tindall	Director, Facilities Planning
Barrington Walker	Telecommunications Specialist–Information & Technology Resources
Michael M. White	Supervising Electrician–Physical Plant Management
Eric P. Willis	Library Systems Administrator
Tiffany Wong	Technology Project Coordinator–Student Affairs

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA

Bob H. Suzuki	President
Calvin Allsup	Manager, Mechanical and Building Trades
Linda Bruner	Telecommunications Data Analyst
Patricia Chiappetta	Administrative Operations Analyst, Library
Stephanie Doda	Director, Telecommunications
Patricia Farris	Vice President for Administration
Gary Frederickson	Director, Student Health Center
Donald Green	Director, Procurement and Support Services
Edward Hohmann	Interim Vice President for Instructional and Information Technology
George Lwin	Associate Director, Facilities Management
Harmick Marcarian	Energy Services Manager
Chris McAlary	Director, Facilities Management
Debbie McFall	Emergency Services Coordinator
Alex Myerman	Operations, Systems, and Network Analyst
David Patterson	Director, Environmental Health and Safety
Gail Pipal	Director, Capital Planning and Project Development
Kimberly Plater	Chief of Police
Harold Schleifer	Director, Library
G. Paul Storey	Executive Director, Cal Poly Pomona Foundation

SAN FRANCISCO STATE UNIVERSITY

Gretchen Armstrong	Secretary to Associate Dean, College of Education
Christopher Bomar	Executive Assistant to Vice President, Business and Finance
John Bredimus	Director of Operations, College of Behavioral and Social Sciences
Phillip Evans	Assistant Director, Plant Operations
Denise Fox	Director, Human Resources
Kirk Gaston	Lieutenant, University Police
Michael Grodzicki	Manager, Telecommunications
Daniel Ho	Hazardous Materials Coordinator, Environmental Health and Occupational Safety
Robert Hutson	Director, Plant Operations
Phoebe Kwan	Director, Campus Systems Computing Services

APPENDIX A

Simon Lam	Project Manager, Capital Planning
Myra Lappin	Director, Student Health Services
Linda Madden	Supervisor, Access and Personnel Services, Library
Dave McCormick	Project Coordinator, Capital Planning
Dan McGough	Manager, Technical Services, College of Creative Arts
Richard Miller	Supervisor, Building Services Engineer, Plan Operation
Janice Norimoto	Director, Residential Dining Services
Melissa Purcell	Director, Housing and Residential Services
Robert Quinn	Vice President, Physical Planning and Development
J.E. Saffold	Vice President, Student Affairs/Dean of Students
Heidi Schmidt	Director, Computing Support Services Computing Services
Stephanie Schwartz	Administrative Assistant, Provost and Vice President for Academic Affairs
Don Scoble	Vice President, Business and Finance
Robert Shearer	Director, Environmental Health and Occupational Safety
Don Smalley	Coordinator, Purchasing and Contracts, Business and Finance
Richard Stevens	Chief Engineer, Plant Operations
Bernadette Tano	Compliance Specialist, Environmental Health and Occupational Safety
John True	Executive Director, Computing Services
Jim Van Ness	Internal Auditor, Business and Finance
Larry Ware	Controller/Chief Financial Officer, Business and Finance
Kim Wible	Director of Public Safety

SAN JOSE STATE UNIVERSITY

Robert L. Caret	President
Richard Abeyta	Director, Public Safety
Marlene Anderson	Director, Student Financial Services
Ray Balaora	Safety Manager, Facilities Development and Operations
Steve Bartz	Director, Human Resources
Colleen Brown	Interim Financial Aid Director
Florence Cappelloni	Business and Facilities Manager, Library
Marc Catto	Network Analyst, Telecommunications
Bonnie DeMalta	Production Control Supervisor
Alan Freeman	Director, Planning, Design and Construction, Facilities Development and Operations
Don Kassing	Vice President for Administration
Chandra Gowda	Hazardous Materials Specialist
Robert Latta	Director, Student Health Center
Veril Phillips	Executive Assistant to the Provost
Marilyn Radisch	Director, Records

James Schmidt	University Librarian
Aneeta Sharma	Associate Director, Environmental Health and Occupational Safety
Richard Sol	Senior Director of the Computer Center
Richard Staley	Emergency Preparedness Coordinator
Carl Vigil	Operations Systems Analyst for Accounts and Security
Mark Weisler	Associate Vice President, Networking and Telecommunications
Michael Werbach	Contracts Construction Coordinator
James Zavagano	Facilities Planner
Don Zitter	Chief Information Officer
Theodore Zsutty	Seismic Peer Reviewer