BUSINESS RESUMPTION PLAN University of California, Berkeley

Prepared by the

Business Operations Seismic Recovery Committee

& the

Human Resources Subcommittee

UCB Business Operations Seismic Recovery Committee

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Executive Summary

In the aftermath of an earthquake or other major disaster, business resumption at UCB will depend on well-trained employees and functional information systems. An earthquake on the Hayward fault will affect UCB employees at home and at work; it will damage central and satellite computing systems. Without plans and policies for operating in such difficult circumstances, successful business recovery at UCB will be compromised.

Under the SAFER Program (Seismic Action Plan for Facilities Enhancement and Renewal), established by Chancellor Berdahl in 1997, several seismic recovery committees were created in areas essential to UC Berkeley's mission. The Business Operations Seismic Recovery Committee was charged with developing a plan to recover the business functions that support the university's teaching and research mission. This plan supports the recovery strategies recommended in the reports of three other SAFER committees: *Classroom Seismic Recovery Plan; Research Seismic Recovery Report*; and *Utilities Infrastructure Seismic Response and Recovery Report*.

This document sets out the human resource and information system issues involved in planning for the continuity of high-criticality business functions, and outlines what each responsible unit or office must do to ensure that they have the capacity to carry on the "business" of UCB. Included herein is an inventory of preparatory tasks and detailed training needs for employees.

As Section I explains, the planning goal for the comprehensive Business Operations Seismic Recovery effort is to have the university open for business within 30 days of a major earthquake on the Hayward fault. Analysis by the Business Operations Seismic Recovery Steering Committee identified the functions that must be viable in order for the University to be operational; if the people and the systems that support the high-priority functions are not functioning, that goal will not be met. Most elements of this business resumption plan are workable in the aftermath of all natural and human-caused disasters.

Section II comprises the Information Systems Action Plan; recommendations related to computing systems include the following:

- Move the computing and communications hub from Evans Hall as quickly as possible.
- Contract for a hot site (data center providing emergency computing resources) in order to guarantee an acceptable level of computing capacity after an earthquake. At a minimum, the hot site will back up IS&T systems that support Criticality 1 functions (see Appendix A).
- Establish funding for a hotsite and staff to document, test, and maintain system recovery procedures.
- Require other functional units that maintain their own servers, LANs, databases, and software must develop information system business resumption plans of their own, especially if computing capacity is critical to the discharge of their mission-critical roles.

Section III presents the detailed Human Resources Action Plan. Human resources recommendations address three main areas of concern:

- The logistics of getting people back to work: implementing systems for notification; developing procedures for staff referrals and redeployment, arranging for temporary employees, establishing alternate work sites, and telecommuting; and making special arrangements for parking and transportation.
- Establishment of emergency compensation policies that include disaster leaves for employees and retention measures.
- Provision of information and support to accommodate employee stress and family life issues that will include child and elder care, and counseling and mental health.

Section IV addresses implementation and maintenance issues. It recommends the establishment of a campus-wide Business Resumption Coordination Group (BRCG), with members from various essential functional areas, as well as the creation of business resumption teams in IS&T, satellite computing departments, and administrative services. The proposed coordination group will be chaired by the Associate Vice Chancellor for Business and Administrative Services; it will review the activities of the teams, ensure that they are integrated, and report to the SAFER Oversight Committee annually on business resumption planning progress and needs.

Training, exercising, and updating are absolutely necessary. To support the ongoing demand for training, an additional position for Business Resumption Coordinator will be needed in BAS, reporting to the Director of Business Services. Responsibility for training and exercising will reside with this position, with assistance from other relevant organizational units. Exercises will be developed by the teams, with involvement of the BRCG, and they will be scheduled annually, at a minimum. Business resumption elements will also be tested during the annual campus disaster response exercise, in concert with the Office of Emergency Preparedness (Section IV).

This plan provides for functions within the central administration, but it recognizes that the mission-critical functions of UCB--teaching and research--are decentralized. The overall efficacy of this plan relies on a business recovery capacity in each research unit and department. To that end, guidelines are provided in this document to assist each of these entities in making its own plan (see Section V). In the coming year, the Vice Provost-Academic Affairs & Faculty Welfare and the Academic Senate will oversee planning to accommodate the needs of academic personnel in the business resumption process, and will contribute to the creation of planning materials for all academic departments and research units. The Business Resumption Coordination Group and the Vice Chancellor responsible for each department or unit will monitor the departmental planning progress. Personnel issues should be resolved and plans completed by January, 2003. Section VI presents organization charts for all responsible units.

This plan assumes that UCB's commitment to structural safety improvements will not waver over the time necessary to improve our structures and infrastructure. Furthermore, it urges that programs to reduce nonstructural, or content, hazards continue and increase. Such programs will not only cut UC Berkeley's losses substantially, but will help to sustain research, teaching and business operations in the wake of an earthquake. In order for this business resumption plan to be effective, it must constantly evolve in response to changes in the organizational structure, technology, or the environment. Routine training, regular testing, sufficient financial and personnel resources, and ongoing executive support will assure its viability.

Section I.

PURPOSE

A plan for campus business resumption following an earthquake is critical to the future of UC Berkeley. Under the SAFER Program (Seismic Action Plan for Facilities Enhancement and Renewal), established by Chancellor Berdahl in 1997, several seismic recovery committees were created in areas essential to UC Berkeley's mission. The Business Operations Seismic Recovery Committee was charged with developing a plan to recover the business functions that support the university's teaching and research mission.

This plan addresses specifically business operations, but these operations support the mission-critical functions of teaching, research and public service. Specific plans for the recovery of these areas can be found in the reports of the three other SAFER committees:

The Classroom Seismic Recovery Plan
The Research Seismic Recovery Report
The Utilities Infrastructure Seismic Response and Recovery Report.

This business resumption plan incorporates pertinent practices and recommendations of those reports, synthesizes them, and represents the best hope that comprehensive business recovery can take place at UCB.

A) Planning Goal

The *Strategic Risk Management Plan*, which grows out of the SAFER Program, recommends that all recovery plans have as their goal the development of an institutional capacity to resume operations within 30 days of a damaging earthquake. Failure to open for business within that period of time constitutes a considerable threat to the viability of UC Berkeley.

The goal of reopening within 30 days is a planning tool, a desirable outcome toward which UCB will work. "Open" does not mean that every building is occupied, every class is being taught, and research is humming along exactly as before. It will take considerably longer than one month for recovery to be complete. However, after the "grace" period of 30 days, core classes must be taught and substantial numbers of research projects must be underway, or the university will begin to lose students, grad students, faculty, research funding, and public credibility. If that happens, UCB may never regain its preëminent standing.

Business risks are associated not only with recovery planning, but also are a vital part of UCB's internal control structure. The lack of business resumption planning was noted in the external auditor's September, 2000, report on the financial practices of the campus. The auditors suggested an ongoing risk assessment process that identifies campus-wide risks, identifies gaps in control, and makes necessary changes. Implementation of many of the proposals in this

business resumption plan will go a long way toward following the recommendations made in the Price-Waterhouse-Coopers recent report.

B) The Planning Process

The Business Operations Seismic Recovery Committee identified crucial business functions, analyzed the impact of their loss or interruption, and determined priorities for recovery of specific functions and support systems. Those deliberations led to recommended steps to ensure mission-critical business operations will be sustained or restored quickly following a damaging earthquake. The plan was developed in three phases:

1) Assessment

The Committee inventoried business functions and assessed the criticality of each to the university's mission. Then, the Committee reviewed the risk of failure for each function and its support systems. Lastly, functions were classified according to how many people and departments would be affected by their failure, and a determination was made as to how long the university can survive the failure of critical functions.

The committee began in May, 2000, to identify mission-critical business functions. After much debate and fact-finding, the Committee has created an eight-page matrix (Appendix A) that assesses the criticality of each function (ranked from Criticality 1 to Criticality 5 in descending order of importance). The matrix also identifies the lead department, interdependent departments, and the information systems needs for each function.

Once a function made the critical list, further information on it was gathered through an interview process with a representative of the lead department. Using two information-gathering tools--the Time Sensitivity Questionnaire and the Risk Assignment Matrix--work group members collected important details on the function and its interdependencies. The two matrices (Appendices B&C) capture information on the institutional impacts of failures or interruptions of each critical function. The information collected with these tools informed the assessment of data and network needs for each function. Furthermore, it captured what could be done now to sustain each through a disaster, and what resources will be necessary to reestablish its operation should it be interrupted. This information was distilled onto one-page Function Summaries (see Appendix D).

2) Action Plan

With the data collected in the first phase, the Committee assigned priorities for recovering functions and support systems. It identified pre-disaster preparedness and mitigation steps that would help sustain critical functions and support systems, and determined steps for restoring functions should they be interrupted.

Work group members met with representatives of IS&T to create an action plan for communications services and networks. Similarly, work group members served on two special Human Resources Subcommittees to address the important human resources issues that are involved in business resumption.

3) Maintenance Plan

A business resumption plan is essentially a collection of business resumption team plans. The Committee considered the makeup and duties of business resumption teams and the training they should receive. It strongly urged that plans be kept current and exercised frequently, and proposed that roles and responsibilities for doing so be institutionalized according to position titles. Oversight will rest with the campus Business Resumption Coordination Group, and routine coordination responsibilities will lie in the Office of Associate Vice Chancellor for Business and Administrative Services.

C) Next Steps

Critical to the success of this plan is the creation of a campus Business Resumption Coordination Group, chaired by the Associate Vice Chancellor for Business & Administrative Services, and the establishment of a few business resumption teams, particularly those for IS&T and Human Resources. Furthermore, a full-time Business Resumption coordination position should be created that will have primary responsibility for business resumption plan updates and personnel training. This will be done in partnership with relevant offices on campus, and perhaps with assistance from their personnel. These roles should be made part of the standard duties for each involved position. The coordination position is necessary to assure that the plan is updated, employees are trained regularly, and the plan is exercised annually. Without those very important maintenance activities, this plan will not fulfill its goal.

Clearly, the SAFER Oversight Committee must review and validate the plan's priorities, and the Chancellor and Vice Chancellors should provide the funding and personnel necessary. The cabinet must take an active and ongoing interest in both the letter and the spirit of the plan. Business resumption costs should become a part of each year's budget.

But UCB is not alone in either the need for a business resumption plan, or the associated information systems and human resources challenges. Every UC campus needs a business resumption plan and UCOP should consider extending assistance to all campuses in developing one. One arrangement to back-up information systems could benefit nine campuses, and at an economic scale. UCB should consider offering the human resources necessary to seek extramural funding in partial support of this initiative.

Lastly, the Steering Committee has created a template from the steps thus far that can be used by other control units and departments in developing their own business resumption plans. Departmental business resumption plans are necessary for comprehensive planning and a robust recovery capacity. Furthermore, the Academic Senate and Vice Provost-Academic Affairs & Faculty Welfare will oversee planning to accommodate the needs of academic personnel in the business resumption process. All these plans are expected to be developed before the end of January, 2003.

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Section II.

INFORMATION SYSTEMS BUSINESS RESUMPTION ACTION PLAN

A) Introduction

In the aftermath of an earthquake, business resumption at UCB will involve numerous information systems that support many functions that are critical to UCB's mission. Central administration operations rely on many IS&T systems, while numerous other critical units have their own systems. An earthquake on the Hayward fault will affect the survivability of central and satellite systems alike.

This section sets out the issues involved in planning for the continuity of high-priority business functions, and describes the computer recovery facilities (hot sites and cold sites) that can serve as backups if the central hub and networks are disabled. It also identifies units that operate their own servers and computer systems, and outlines what they must do in order to ensure that they have the capacity to carry on the "business" of UCB. Lastly, this plan serves as both a checklist of preparatory tasks and an indication of training needs.

B) Goal

UCB depends on computer-supported information processing and telecommunications, and the dependency will continue to grow as we decentralize information technology to individual offices within the administration and throughout the campus. The growing requirement for computers and telecommunications increases the risk that a lengthy loss of these information systems will seriously affect the overall viability of the University.

The planning goal for the comprehensive Business Operations Seismic Recovery effort is to have the university open for business within 30 days of a major earthquake on the Hayward fault. It is recognized that a capability to accomplish that would extend to any smaller earthquake or less extensive disaster. An analysis performed by the Business Operations Seismic Recovery Steering Committee identified numerous functions that must be viable in order for the University to be operational. If the systems that support the high-priority functions fail, and can't be brought up within a few days, that goal will be compromised.

Damage to data processing, telecommunications, and other support services will result across the campus from an earthquake on the Hayward fault. The location of the computer hub in the basement of Evans Hall, a seismically poor building, exacerbates the vulnerability. Damage to systems and equipment may result from not only from shaking, but also from the ancillary hazards such as water, steam, and electrical shorts. Access to the building will likely be controlled as damages will be extensive enough to merit lengthy inspections.

It is vital to have a plan for reducing the risk of lengthy downtimes. The IS Business Resumption Action Plan is designed to restore important processing capacity within days of widespread damage. This plan identifies information processing and telecommunications systems needed by high-priority functions, and specifies the resources required to support them. It provides guidelines for making needed personnel and resources available for planning, training, maintenance, and post-disaster business resumption activities.

C) Major Recommendations

The plan is based on six premises:

- The computing and communications hub must be removed from Evans Hall as quickly as possible.
- A hot site (data center providing emergency computing resources) must be available in order to guarantee an acceptable level of computing capacity after an earthquake. At a minimum, the hot site will back up IS&T systems that support Criticality 1 functions. Over time, other important functions will be supported, as resources dictate.
- Senior campus management determines the priority order for restoration of business functions, and that priority may change depending on the time of the semester or year. IS&T will restore computer systems required to support the priority business functions (see Supplement 2 at the end of this section).
- Funding for a hotsite, and for IS&T staff to develop a disaster recovery plan, document system recovery procedures, test them, and maintain them is crucial to the implementation of this plan.
- Other functional units (for example, Library, PPCS, RSSP, UHS) that maintain their own servers, LANs, databases, and software must develop information system business resumption plans of their own, especially if computing capacity is critical to the discharge of their mission-critical roles. The campus may consider providing a hotsite to which these units could subscribe.
- Whenever a new information system--either a central or departmental one--is considered in the future, the implementation strategy must include a section on business recovery. The strategy will be reviewed by the Business Resumption Coordination Group for assurance that business resumption issues have been considered.

D) The IS&T Plan

1) Development

UCB IS&T, with assistance from key support areas, is responsible for developing the IS&T plan. Development of business resumption plans for units not supported by IS&T are the responsibility of those units.

2) Maintenance

To ensure that the plan reflects ongoing changes to resources, IS&T will update the plan, test the plan, and train personnel. The UCB Information Systems Business Resumption Team oversees this comprehensive maintenance task. Testing of business resumption plans for units not supported by IS&T are the responsibility of those units; however, IS&T will annually gather the managers of satellite units for information sharing and collaborative planning.

3) Testing

Testing the IS&T Business Resumption Plan is an essential part of it. Partial tests of individual components and recovery plans of specific units will be carried out on a regular basis. A comprehensive exercise of campus capabilities and support from recovery facilities will be performed on an annual basis, coordinated by IS&T.

4) Information Systems & Technology Business Resumption Team

For actual business resumption, the IS&T Business Resumption Team will be responsible for central computing. The Team is composed of upper-level managers in IS&T, and the Associate Vice Chancellor for IS&T is the leader of the team.

- Associate Vice Chancellor for Info Systems and Technology, Leader
- Director of Administrative Systems Department
- Director of Central Computing Services
- Director of Communication and Network Services
- Director of Student Information Systems
- Enterprise Architect
- CCS Operations Manager
- Non-IS&T computer system manager
- IS Recovery Coordinator
- Business Resumption Coordinator

Units with stand-alone information systems will recover their systems, following more or less the same steps as IS&T, and will coordinate with IS&T.

5) Following an Earthquake

After an earthquake, IS&T staff will follow their Emergency Response Plan. There are six elements to that plan: the first two tasks are part of emergency response; the other four will be necessary when damage to facilities and equipment is extensive.

- a) **Assess damage and its extent:** The assessment of damage to information processing systems is the responsibility of the Communications DOC, made up of personnel from CCS and CNS. This task generally takes up to 72 hours.
- b) **Notify persons responsible for recovery:** When damage occurs that could result in lengthy interruption of major information processing systems or networks on campus, the

Communications DOC will inform the campus EOC. Should that not be possible for any reason, the Associate Vice Chancellor for IS&T will inform the Chancellor.

- c) Initiate the plan: As soon as the damage assessment is complete enough to allow it, the IS&T Business Resumption Team will determine whether the Business Resumption Plan should be followed, or whether normal recovery procedures will suffice. Initiation of the plan is the responsibility of the Communications DOC team leader and the IS&T Business Resumption Team Coordinator (Assistant Vice Chancellor). In the absence of the AVC, any member of the Business Resumption Team may make the decision. When the plan is initiated, IS&T will move from standard system recovery priorities set forth in its Emergency Response Plan to procedures required by the extraordinary situation.
- d) Activate the designated hot site: As soon as the DOC/Business Resumption Team determine that occupancy or recovery cannot be accomplished within 7 days, the designated back-up site will be notified of the intention to utilize it. The responsibility for activating any of the designated hot sites or back-up resources belongs to the Associate Vice Chancellor of Information Systems and Technology. In the absence of the Associate Vice Chancellor, responsibility reverts to the Director of Central Computing Services. Transition from DOC operations to business resumption activities will be coordinated with the Finance Team in the EOC. The IS&T team leader will work closely with the EOC Finance Team leader.
- e) **Recover systems in the priority order already established:** Systems supporting the highest priority functions will be recovered first. Other systems will be brought back up in priority order as circumstances permit. If the time (of the year, semester, month) causes a critical need for a system that isn't first priority, the IS&T Business Resumption Team Coordinator, in consultation with the EOC Finance Team leader, will change the priority for system recovery, as necessary.
- f) Communicate recovery status with the EOC: The Assistant Vice Chancellor for Public Affairs is responsible for directing all meetings and discussions with the news media and the public. The Public Affairs Office will work with IS&T to post accurate information about computing capacity and plans on the shadow homepage: *Emergency.Berkeley.Edu*.

E) Satellite Computing Systems

Satellite information systems (not supported by IS&T) will recover their systems, following more or less the same steps as IS&T, and will coordinate with IS&T.

1) Business Resumption Team

Each satellite unit should create a team that will deal with actual business resumption. The team should be composed of the computer technicians in the unit, and be chaired by the Information Systems Manager. The team will oversee plan development, maintenance and testing.

2) Development

Development of business resumption plans for satellite units is the responsibility of those units.

3) Maintenance

Updating the plan, testing the plan, and training personnel for satellite units are the responsibilities of those units.

4) Testing

Partial tests of individual components and recovery plans of specific units will be carried out on a regular basis, by each satellite computing unit. A comprehensive exercise of campus capabilities and support from recovery facilities will be performed on an annual basis, coordinated by IS&T.

5) Following an Earthquake

Units with stand-alone information systems will recover their systems, following more or less the same steps as IS&T (above), and will coordinate with IS&T. See Supplement 4 at the end of this section for a checklist.

F) Business Resumption Strategy

The business resumption process begins immediately after the disaster and takes place in parallel with emergency operations. This business resumption strategy pertains specifically to central campus computing services and communications networks that provide support to administrative applications. Systems that support the highest criticality business functions must be brought back up first.

We have created two categories to guide system recovery: Core Systems, and Essential Systems. Core Systems support Criticality 1 functions and belong to IS&T central computing. These functions will be backed up by the hotsite. Essential Systems also support some Criticality 1 functions, but are the responsibility of satellite units or departments. If an impact analysis reveals that their loss renders the unit unable to perform mission-critical functions, the unit will be required to develop a business resumption plan (see Supplements 2 & 3).

The object of the plan is to restore some Core Systems within 7 days, and to restore Essential Systems within 15 days of a disaster. The information systems that provide university-wide services and/or support the work of unit and departmental systems will be recovered based on the priorities set in this plan.

1) Emergency Computing

Short of bringing back up all the Core Systems, it may be possible to establish an emergency computing center in some undamaged building on campus, if the campus network is functional. In this center there could be a server to provide e-mail and Internet service to campus users. It is unlikely that many other systems will be supported by emergency computing, however.

2) Resumption Phase

Processing of data for high-criticality functions will resume either at the data center or at the hot site, depending on the results of the assessment of damage to equipment and the physical structure of the building. In this period, the unit data center will be returned to full operational status, if possible. The time frame for full resumption will vary from several days to several months.

Supplement 1 - Recovery Facilities for Information Systems

The following facilities have been recommended as recovery sites for restoration of data processing and communications under the *UCB Business Resumption Plan*.

Hot Site

A hot site is a fully prepared business continuity and recovery service center that is available by subscription. It has a subscriber's pre-specified computing equipment available within 24 hours of the subscriber declaring a disaster. Hot sites are typically state-of-the-art computing facilities with dual power feed, uninterrupted power supply, redundant chillers/air conditioners, full security, smoke detectors, water detectors, redundant networking, etc. They provide fully equipped office space for the subscriber's staff who work at the facility to restore systems and applications. Typically, a hot site is used for 1 to 2 weeks following a disaster. Hot sites limit customers to 6 weeks of use for any one disaster.

Cold Site

A cold site is really the same thing as a hot site without a subscriber's equipment on site. It should be a state-of-the-art computing facility with all the redundancy, environmental controls and security of a hot site. Customers can move from a hot site to a cold site if they are unable to restore their own computer center in a timely fashion.

Costs

To meet the requirements of all the systems identified as critical, it would cost approximately \$20,000 per month at a hot site. If UCB declared an emergency and used the site, it would cost 80% of the monthly fee per day to do so. Roughly, costs would be \$240,000 annually for a hot site, and funding for a new Principal Analyst or P/A IV position.

There are numerous options that would have to be explored more fully to make a final plan and an acceptable cost estimate for UC Berkeley. To cut costs we could reduce the number of systems we are recovering, or use the hot site only for the IBM MVS system and use local cold sites or their equivalent for the other hardware.

We must also develop and test a detailed recovery plan to make the hot site useable. One-time costs for consulting services on this will be between \$50-100K. Considerable time will be required from the systems programmers, database administrators and applications programmers to develop and maintain the plan. ITS will need a full-time project manager to oversee the development of a plan, work with vendors, test the plan annually, and work CCS, ASD and SIS to maintain the plan. The project manager should be a Principal Analyst or a P/A IV.

Supplement 2 - Core Systems

(support Criticality 1 functions and belong to IS&T central computing)

A. Instruction and Research

1. Research Administration Sponsored Projects Office (SPO)

2. Research Animals Office of Laboratory Animal Care (OLAC)

3. Student Systems Registrar

B. Payments

Accounts Payable Berkeley Financial System (BFS)
 Death Payments Payroll Personnel System (PPS)
 Emergency Loans Loans & Receivables (LRO)
 Fellowships financial aid system (SAM))

5. Payroll PPS6. Purchasing BFS

C. Revenue

1. Research accounts Sponsored Projects Office System (SPO, EFA)

D. Student/Faculty/Staff

- 1. Emergency Hiring/Staffing PPS
- 2. Student Health Insurance Services SIS IDMS
- 3. Medical Care SIS IDMS
- 4. Personnel HRMS

Supplement 3 - Essential Systems

(support some Criticality 1 functions, but are the responsibility of satellite computing units or departments)

Capital Projects--

Chancellor's Office Information Systems

Environment, Health and Safety--

Financial Aid--

Library--

Office of Laboratory Animal Care--

Physical Plant and Campus Services--

Residential Services and Student Programs--

UCPD--

University Health Service--

Supplement 4 - Recovery Process for Essential Information Systems

Units with independent computing systems that support mission-critical functions of UCB can follow the steps below. The first two business resumption tasks below are part of emergency response; the other four will be necessary when damage to facilities and equipment is extensive.

The assessment of damage to information processing systems is the responsibility of the appropriate DOC. This task generally takes up to 72 hours.
When damage occurs that could result in lengthy interruption of major information processing systems, the DOC of the affected unit will inform the campus EOC. Should that not be possible for any reason, the director of the unit will inform IS&T.
As soon as the damage assessment is complete enough to allow it, the IS&T Business Resumption Team will determine whether the Business Resumption Plan should be followed, or whether normal recovery procedures will suffice.
If the estimated occupancy of a facility or recovery of a system cannot be accomplished within 5 days, the designated back-up site will be activated, and satellite units will be informed.
Systems supporting the highest priority functions will be recovered first. Other systems will be brought back up in priority order as circumstances permit. If the time (of the year, semester, month) causes a critical need for a system that isn't first priority, the satellite computing unit will inform the IS&T Business Resumption Team of a need to change the priority for system recovery.
The Assistant Vice Chancellor for Public Affairs is responsible for directing all meetings and discussions with the news media and the public. The Public Affairs Office will work with satellite units to post accurate information about computing capacity and plans on the shadow homepage (<i>Emergency.Berkeley.Edu</i>).

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Section III.

HUMAN RESOURCES BUSINESS RESUMPTION ACTION PLAN

Just as business resumption will require information systems, it will also place huge demands on UC Berkeley's employees. It is inconceivable that UCB can recover quickly without its employees working long, hard hours. An earthquake on the Hayward fault will affect employees both at work and at home, and recognition of that is important for the *Business Resumption Plan*. Without special procedures to accommodate extenuating circumstances--from personal issues to damaged transportation routes--UCB will not enjoy the full attention and effort of its employees.

The Human Resources Subcommittee was convened on two separate occasions to give detailed attention to specific human resources issues critical to business recovery. Their recommendations are set forth below in the action plan that delineates the human resources policies, procedures and practices that should be altered to the mutual benefit of UCB and its employees in a post-disaster situation. The Subcommittee urges that needed changes be accomplished by June 1, 2002. Lastly, preparatory tasks and training needs are indicated.

This section addresses mainly issues related to administrative and staff employees; issues pertinent to academic personnel will be considered in the coming year by the Vice Provost-Academic Affairs & Faculty Welfare, the Academic Senate, and each department and research unit. By the end of January, 2003, the appropriate policies and procedures should be adopted and set forth in a document that can be used by departments and research units to complete their planning.

A) Getting People Back to Work:

1) Notification

At the present time, there is little formal structure in place to communicate with employees and students in the event of a major disaster. Individuals involved in the Emergency Operations Center have been trained to report in to their assigned duties; however, there is no campus-wide strategy in place to notify other faculty, staff, and students whether or not they should return to work in the days following a disaster. A notification system is essential for the success of business recovery operations. The system should include the following elements:

- a) In addition to UCB's present ability to communicate through KALX (90.7FM), the Offices of Emergency Management and Public Affairs should make formal arrangements with at least one AM radio station and other local radio and TV media to provide general information to the campus community.
- b) Information will also be posted on the University's homepage and shadow homepage [*Emergency.Berkeley.Edu*] so people who still have web access from home can obtain updates via the web. The Public Affairs Office will work with IS&T to post accurate

information about plans and requirements for employee return, with input from the EOC or the BRCG.

- c) Define three job classifications--those that are expected to respond to the emergency and report immediately (A Team), those that are expected to report 2-3 days after the disaster in order to begin business recovery operations (B Team), and those that will be asked to stand by and await their assignments (Team C). On an on-going basis, require unit and department managers to specify in each job description which team the position is on, and to make sure all employees know their team. Furthermore, require unit and department managers to inform Human Resources of assignments for notification and security purposes.
- d) Departments should develop and maintain a contact list to ensure that appropriate individuals can be reached with news about the recovery effort. Departments should annually inform staff of the team assignments and remind them of plans to contact them and request their presence. Staff and faculty living near campus may be asked to report in as soon as recovery begins. Supplement 5 at the end of this section presents a checklist for guiding the creation of a departmental contact system.
- e) On an annual basis, Payroll will request from each department's payroll specialist a listing of all employees' home zip codes, so their proximity to the campus can be determined. When HRMS is functioning, this information will be readily available.
- f) Departments will give training to all faculty and staff regarding business resumption planning, including emergency contact lists. Depending on the circumstance, this should be the responsibility of the building coordinator, facility manager, or the department safety coordinator, working with the Business Resumption Coordinator. Advance information should include Deans & Directors memos, an item on the agenda of the Deans and Chairs annual retreat, information in new employee orientations, and briefings of faculty members and research directors.

2) Staff Referrals and Redeployment

Based on business resumption priorities, as listed in the business functions matrix, there will likely be a need to deploy individuals with specific skills to other units on a temporary basis. In addition, employees from units that are not yet operational will likely seek meaningful activities during the recovery period. Toward that end, Human Resources should develop and coordinate an emergency placement and referral service for employees who could contribute to the success of business recovery operations, and coordinate the emergency arrangements with pertinent unions. Action items include:

- a) HR will establish a location on campus for staff employees to report for referral to other units, and see that it's announced through all notification channels.
- b) HR will establish a communication process for staff in core business functions to report their needs to the central referral staff.
- c) HR will create a pool of Human Resource Coordinators to oversee the staff referral operations, including identifying the needs of units.

d) When possible, staff employees will be assigned to their "home" unit; however, UCB policy is that, during the first 30 days of the business resumption period, home departments will pay their employees regardless of where those employees may be working temporarily.

3) Temporary Employees

Despite the best efforts of our employees to return to their jobs following a seismic event, we anticipate that there will be business functions in need of additional assistance, either through external resources or people already on the campus. In order to ensure that sufficient staff is available to assist in the business recovery efforts, the following temporary employment strategies should be deployed:

- a) Utilize staff referrals as described previously.
- b) Provide employment to displaced work study students and students in academic titles where fees are covered. If their normal assignments are not available due to building failures or clean-ups, find others or continue to support them. The Chancellor will designate where funds will come from for all categories of special employees.
- c) PIs are expected to make arrangements before an emergency to allow for their graduate students, post-docs, and laboratory personnel to continue the research with colleagues at other institutions (as recommended in the *Research Seismic Recovery Report*).
- d) In order to retain graduate students or post-docs for whom alternative research arrangements are not possible, the Vice Provost-Academic Affairs & Faculty Welfare, the Academic Senate, and the Vice Chancellor-Research should recommend policies, procedures and funding approaches that will equitably and efficiently do so.
- e) Use temporary agencies to provide specialized staff to assist in business recovery operations, particularly in computer systems support

4) Alternate Work Sites

Following a major disaster, it is anticipated that many essential buildings will not be open to support business activities. If networks are also down throughout all or part of the campus, users of central systems may not be able to resume their duties at their regular work site. For this reason, the campus needs to add to its policy regarding the assignment of employees to alternate work sites, either on campus, or at the hot site location. The addenda should address the following:

- a) Assignments to remote hot site locations for any period of time must be on a voluntary basis, unless otherwise specified in a job description. As part of the notification strategy listed above, employees should be asked whether they might be willing to travel elsewhere to perform their jobs. Following the actual disaster, these employees should be asked to confirm whether such travel is still possible for them. This would also cover employees who may volunteer to perform their duties at another UC campus.
- b) The University will reimburse travel, lodging and meal expenses for staff employees who volunteer and are approved to work at alternate sites. If employees need to move dependents

with them during this time, reimbursement may be allowed if the employee is involved in the resumption of a business activity. This will be determined on a case-by-case basis by supervisors. UCB will cover moving expenses incurred by employees, as set out in current policy.

- c) Assignments of available staff to alternate work sites at campus locations would be mandatory for employees engaged in business activities that are moved to other locations. As noted elsewhere, some business activities may be temporarily housed in computer laboratories, at University Extension, or other facilities. Management will have the right to move employees to alternate work sites on campus.
- d) Whenever practicable, graduate students, post-docs and laboratory personnel will be moved to other campuses or settings in order to continue their research. Specific recommendations for accomplishing that are set forth in the *Research Seismic Recovery Plan*.

5) Flex Time/Hours of Work

During the business recovery period, there will need to be considerable flexibility surrounding employee work schedules and the hours of work. Many employees may_wish to work fewer days in longer shifts, while others will need time off during the day to meet with contractors and conduct personal business. Current policy on alternate work arrangements allows for the emergency provisions below. These will be required during the first 30 days following a disaster, at a minimum.

- a) Subject to the approval of departmental managers or designees, allow longer working hours over fewer days, or working hours that are different from the normal hours of the department on a case-by-case basis.
- b) Subject to the approval of departmental managers or designees, allow overtime for eligible employees even when regular departmental practices or budgetary constraints prohibit it.

6) Telecommuting

Telecommuting is currently permitted for campus employees on a department-by-department basis in accordance with policies and procedures administered by Human Resources. Given that many employees with responsibility for business processes live some distance from the campus, telecommuting may be a viable way to resume come campus business operations. In addition, as it is possible that schools will be closed for some period of time, working parents may need the flexibility of working from their homes so they can supervise their children. Add a phrase to the existing telecommuting policy extending it to extraordinary post-disaster situations, making note of the following:

- a) In accordance with telecommuting guidelines, the time limitation for telecommuting will be renewable by agreement between the employee and his/her supervisor. The initial period should be 30 calendar days, consistent with the target date for business recovery activities.
- b) Add clear statements to the current telecommuting policy that telecommuting may be ordered by a supervisor following a disaster, if circumstances require it.

c) Develop a departmental plan for distributing and retrieving work from employees participating in the telecommuting program. This would be particularly critical for areas like Disbursements or Payroll who rely on paper forms for data entry.

7) Parking and Transportation

The present situation regarding parking on campus will only be exacerbated by a disaster. Assuming that many of the surface lots will be used for the mobilization of recovery materials, and further assuming that many of the parking structures will not be usable following a disaster, allowing employees to park once they get to work may become one of the largest logistical impediments for the success of the business recovery efforts. In addition, various means of mass transit may also be unavailable for some period of time. Parking and Transportation should develop an emergency parking and transit plan that addresses the following:

- a) Expansion of shuttle services to off-campus parking sites or commuter lots in the greater Berkeley area.
- b) Steps to encourage utilization of bicycles, to and from campus, and on campus.
- c) Communication and coordination with mass transit partners, particularly BART, AC Transit and ferry service providers.
- d) Subsidized fares for mass transit in order to encourage the use of public transportation.
- e) Establishment of priorities for limited on campus parking.
- f) Communication of all plans to staff and faculty through all notification systems. Plans should also be communicated to Human Resources.

B) Compensation Protocol

1) Disaster Leave for Employees

For several weeks following a major disaster, we anticipate that many employees will be unable to report to work due to transportation problems, child or elder care issues, or the need to deal with damage to their homes. Other employees may be able to report to work to assume their business recovery responsibilities. Since all employees will be paid, we must ensure that employees available to work on business resumption receive an additional reward. One equitable way to do this is for the Chancellor to implement a disaster leave policy, as follows:

• Granting of up to 10 days of disaster leave to all (exempt and non-exempt) employees that work on business recovery during the first 30 days after the disaster. This time may be used within one year of the emergency declaration. Such an act will promote fairness and should improve morale during the months following the seismic event.

2) Retention

Because of UCB's desire to act as a responsible employer, as well as the need to retain employees for business operations, emergency retention procedures are advisable. Under normal

circumstances, a significant change in the business environment on the campus would result in laying off or furloughing some employees; however, in the extraordinary situation anticipated after a major earthquake, special provisions will be made, as follows:

- a) For the first 30 days, there will be no loss of pay or seniority.
- b) Create alternative work assignments for displaced employees whose normal positions will not be available at the end of the 30-day period. For employees who decline alternative work assignments, proceed with granting leaves, layoffs or furloughs in accordance with University policy.
- c) Special arrangements will be required for all employees compensated through grants and contracts. The campus will need permission from funding agencies to pay those employees against the grants, or it may make a management decision to use state appropriations for this purpose. Ensure continuity of seniority and benefits.

C) Stress and Family Life Issues

To support staff in going back to work in difficult conditions, we need to be ready to provide special services. The degree to which we can do so will significantly affect their willingness to work and their morale over the long haul.

We acknowledge that our staff, faculty and students will be dealing with many personal issues and we should assist them as much as possible. We recommend that Human Resources create a central resource center with information available to help people identify university and community resources available to assist them in dealing with their situations.

Currently, University Health Services publishes a booklet titled "A Guide for Balancing Work and Family, Information for University of California, Berkeley Faculty and Staff." The booklet lists numerous public and private agencies involved in child care, elder care, and other health services, and should be used as the model for the type of information UHS should make available after a disaster.

Other areas of concern that will be important to UCB personnel are listed below, with the units and departments that have responsibility for them:

Emergency Loans Loans & Receivables
Caregiving University Health Services
Counseling & Mental Health University Health Services

Housing and Food Residential and Student Services Programs

All lead departments are to develop plans and communicate them to UHS and to Human Resources.

D) Implementing and Maintaining this Plan

1) Administrative Business Resumption Team

The Administrative Business Resumption Team will deal with both planning and recovery. Units with high-criticality functions will work with the team on specific coordination issues. The Team is composed of upper-level managers:

- Assistant Vice Chancellor-Human Resources, Leader
- Assistant Vice Chancellor-University Health & Counseling Services
- Manager, Employee Relations, Human Resources
- Manager, Labor Relations, Human Resources
- Director, Business Services
- Director, Residential and Student Services Programs
- Director, Academic Personnel Office
- Risk Manager, Business & Administrative Services
- Staff Ombudsperson, Business and Administrative Services
- Berkeleyan staff, Public Affairs
- Business Resumption Coordinator

The Assistant Vice Chancellor-Human Resources is the leader of the team, and will serve on, and report to the campus Business Resumption Coordination Group.

2) Updating and Maintaining the HR Plan

The ABRT will meet at least twice a year to review elements of the plan and revise them as circumstances and resources dictate. Training for employees newly assigned to business resumption duties is ongoing. At least once a year some aspect of the HR Business Resumption Plan will be exercised.

3) Following an Earthquake

After an earthquake, the Administrative Business Resumption Team will follow the campus emergency response plan. When damage assessment is complete and some buildings are safe for occupancy, and the recovery plan for information systems is decided upon, the ABRT will attend to the following tasks:

- 1. Notify persons responsible for recovery.
- 2. Disseminate public information
- 3. Activate a check-in site on campus
- 4. Reassign employees as needed by critical units
- 5. Engage temporary employees as necessary
- 6. Keep track of reassigned employees

Supplement 5 - Sample Post-Earthquake Notification Procedures

Before the Disaster

- ✓ Each department and unit should have an up-to-date phone list. Assign ongoing responsibility for maintaining the list to someone.
- ✓ Each employee in each department or unit should have been informed that he or she is Team A, Team B, or Team C (Subsection A.2.c above), and be familiar with the associated expectations for reporting to work following a disaster.
- ✓ Everyone on campus should be aware of the back-up hotsite (*Emergency.Berkeley.Edu*) UCB has established for emergency information. On this site there will be instructions for Team A and Team B employees.
- ✓ Likewise, everyone on campus should be aware of the radio stations which will carry information about the campus situation (KALX 90.7 FM). An AM station will also be designated to broadcast information.

Following the Disaster

- ✓ If phones are working, supervisors should phone employees on their phone lists and tell them what the plans are for their work.
- ✓ Employees should tune their portable radios to KALX or the AM station.
- ✓ If phones are not working, but there is electricity and Internet connectivity, employees should visit the back-up hotsite to determine what is being asked of them.
- ✓ If there are neither phones nor electricity nor connectivity, employees should follow directions they have been given regarding expectations for Team A or Team B employees.

Section IV.

BUSINESS RESUMPTION PLAN MAINTENANCE & TRAINING

As successful recovery from a disaster is predicated on advance planning, so is a good plan dependent on regular attention. Planning is an ongoing process.

A) Maintenance

The heart of business resumption planning at UCB is the Business Resumption Coordination Group. In the event of a disaster, the Business Resumption Coordination Group will implement this plan and initiate specific actions for resumption. Following a disaster, the BRCG is called into action under the authority of the UCB *Emergency Response Plan*, and its actions follow on those of the EOC Finance Team. The Business Resumption Coordination Group is composed of upper-level managers in UCB administration with knowledge of, or responsibility for mission critical operations.

Ensuring that the plan reflects ongoing changes to resources is crucial. This task includes updating the plan; testing the updated plan; and training personnel. The Associate Vice Chancellor for Business and Administrative Services has designated the Director of Business Services as responsible for updating the plan and training personnel. Tests will be coordinated among the AVC-BAS unit, the Business Resumption Coordination Group, and the IS&T, satellite computing, and administrative business resumption teams.

1) Function

The BRCG oversees the development, maintenance and testing of resumption plans addressing all Criticality 1 business functions. The Director of Business Services office updates the plan and trains the personnel involved, with the Business Resumption Coordinator and other relevant offices. In the event of a disaster, BRCG coordinates the business recovery efforts and ensures support for key business functions.

2) Organization

The Coordination Group is composed of key management personnel from each of the major operational areas involved in the recovery process. Responsibility to serve on the BRCG will be included in the duties for these positions.

- Associate Vice Chancellor, Business and Administrative Services, Chair
- Associate Vice Chancellor, Information systems and Technology (rep of IS BR Team)
- Assistant Vice Chancellor, Human Resources (rep of Administrative BR Team)
- Assistant Vice Chancellor for Finance & Controller
- Assistant Vice Chancellor, RSSP
- Assistant Vice Chancellor, Public Affairs
- Directors ASD, CCS, CNS, SIS

- Manager of one satellite (non-IS&T) computer system
- Director, Business Services
- Director, PP-CS
- Director, Office of Emergency Preparedness
- Director, EH&S
- Registrar
- Director, SPO
- Director, APO
- Assistant Risk Manager
- Special Assistant, Office of the Vice Provost-Academic Planning and Facilities
- Academic Senate representatives

The Business Resumption Coordinator will staff this group. A smaller working group will assist in developing materials and planning.

3) Preparation Requirements

On a quarterly basis, BRCG will review IS&T, satellite computing systems, and administrative plans that have been revised in the last quarter. The BRCG will meet with IS&T and managers of satellite systems to exchange information and plan collaborative projects. The training office will participate, and update general procedures to reflect any changes.

On an annual basis, the BRCG will sponsor a business resumption exercise, and cooperate with OEP to participate in the campus emergency response exercise.

It will be the responsibility of the BRCG to assess the overall status of the campus business resumption capacity, and report on this status through the Chair to the SAFER Oversight Committee. Furthermore, the BRCG will review the recommendations in the three other seismic recovery plans and, wherever possible, will incorporate pertinent elements of the other three plans in the *Business Resumption Plan*.

The BRCG will ensure that continuing levels of support are available for the requisite training and exercising.

B) Training

After the annual plan review and test, major revisions will be made as necessary. These revisions will then be communicated to all business resumption teams, and to all campuswide Team A & Team B employees. Supervision of training will be the responsibility of the Director of Business Services. Given the employee turnover rate, training will be an ongoing activity and take various forms throughout the year.

Training will involve communication of the business resumption plan goals and procedures to each employee on either Team A or Team B. The communication may take the form of written fact sheets or oral briefings to units or departments. Electronic resources will be used for a number of information dissemination and training purposes. A website will make accessible all

the business resumption plans, checklists, and plan updates. A list-serve will push pertinent information to all Team A and B employees. Training sessions will be announced on the website, among other media. There will be semi-annual briefings for all employees to update them on plan changes.

The Business Resumption Coordinator, supervised by the Director of Business Services, will deliver training, with assistance from other relevant departments. Elements of business recovery should be incorporated into all financial management training. Curriculum will be developed by the Coordinator and other knowledgeable departments, and reviewed by the Business Resumption Coordination Group before being used.

C) Exercising

No business resumption plan is ever complete. As ways of doing business change, so must the plan. There is no better way to keep the plan current than by testing its accuracy and logic regularly. Partial tests of individual components of individual plans will be carried out on a regular basis. Annually, there will be a comprehensive exercise of resumption capabilities, overseen by the BRCG, and created by the business resumption teams and the Business Resumption Coordinator.

Various types of tests should be used, depending on the evolving needs of participants and changes in the plan. Objectives should start small and get more complicated over time. Four useful tests are described below.

1) Tabletop walk-through

Before any detailed testing, key stakeholders are convened in a conference room, and they perform a detailed review of the plan. Many small events are described and the participants are asked to state how the plan would guide their reactions. The events should require utilization of: IS&T resources, human resources approaches, and all transition from emergency response to business resumption. Following tabletops, team members are much better prepared for operations and simulation tests.

2) Operational testing

It is advisable to test the complete process of damage assessment, hot site initiation, using off-site files and backup resources, and recovering business functions. The data processing area is the area to test in this regard. The scope could include a semi-annual off-hour call to the manager of CCS, assembly of the backup site operations team, acquisition of backup materials from an off-site location, travel to a backup hot/cold site, installation of systems and applications software, loading production data, and systems test of several critical applications.

3) Simulation testing

Simulation is the most feasible approach for testing the decision-making aspects of a business resumption plan. These exercises are paper and pencil simulations. Teams are placed at tables representing their responsibilities, and are presented with the description of an evolving disaster. The teams communicate using back-up communication resources or forms, make

decisions, and everyone pretends that what is ordered actually happens. Debriefings and evaluation studies follow to correct any flaws in the plan.

A scenario for use in simulation testing must fulfill several objectives: a) be solvable for a majority of the business functions participating, using existing plans and backup resources; b) represent a realistic risk and require a detailed knowledge of the buildings, groups and systems involved; c) be capable of being dissected into practical time steps which require a significant action from each business resumption team; and d) be well-documented.

4) Coordination with Campus Emergency Response Exercise

Every effort should be made to coordinate business resumption training and exercising with emergency response training and exercising. The annual OEP disaster exercise provides an important opportunity for testing small or large parts of the business resumption plan. After each year's exercise scenario is developed, the Business Resumption Coordination Group will determine the degree to which it can be used to exercise various business resumption teams or processes.

Section V

DEPARTMENTAL BUSINESS RESUMPTION PLANNING

This plan provides for functions within the central administration, but it recognizes that the mission-critical functions of UCB--teaching and research--are decentralized. The overall efficacy of this plan relies on a business recovery capacity in each research unit and department. The Business Seismic Recovery Steering Committee strongly recommends that departmental plans be completed by January, 2003, and that the Business Resumption Coordination Group and the Vice Chancellor responsible for each department or unit monitor the planning process.

Below are general guidelines for departmental chairs, derived from the process followed in creating this plan. Detailed recommendations for ORUs can be found in the *Research Seismic Recovery Report*.

	Create a small business resumption planning group, chaired by someone familiar with the overall operations of the department.
	Direct the group to meet and consider how the department will function under the following conditions which are very likely following an earthquake (see Appendix B for time considerations, and see Appendix C for sample risk analysis steps): Program space is damaged or inaccessible Critical equipment is damaged or inaccessible
	✓ There is no power
	There is no phone service or fax
	There is no Internet or e-mail
	✓ There is no snail mail✓ Critical data are lost or inaccessible
	✓ Staff are affected by the disaster and unable to come to work
	✓ Start are directed by the disaster and unable to come to work ✓ Important vendors or other business partners are unable to provide goods or
	services
	The departmental planning group should consider the business recovery process that will be followed by central administration, Information Systems, and Human Resources, as
	set forth in this plan, as well as the academic personnel plan to be developed by 5/2002. The departmental planning group will consider solutions to the problems anticipated and propose alternative procedures to follow during the recovery period. These should be
	formalized through appropriate steps into business recovery policies and practices.
	The departmental chair and the planning group should see to it that everyone in the
_	department is familiar with the business recovery plans and expectations.
	Efforts should be made to coordinate an individual department's plans with those of the college to which it belongs.
	Each year the business resumption plan should be reviewed and updated as necessary.
	For additional information and assistance, the planning group should contact the Business
	Resumption Coordination Group.

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Appendix A

UCB Business Functions and Categories, ranked by Criticality * * 1 = highly critical, 5 = less critical

| 12/31/2001 |

Criticality	Category/Function	Lead Department	Interdependent Departments (IS&T depts BOLD)	Addl. Info
	BUILDINGS			
1	◆Building Inspections/Occupancy	СР	EH&S, PP	own server
1	◆Computer Network	CNS	PP, CCS	
1	◆Emergency Radios	CNS	PP	
1	◆Hazardous Materials Cleanup	EH&S	CP, PP	
1	◆Lease Agreements/Temporary Space	RESO	P&BC, D, SMCP, ACAD, CNS	own server
1	◆Repairing buildings:	СР		own server
	a) demolition		PP, EH&S, VC-BUD, D, CNS	
	b) repair		PP, EH&S, SMCP, VC-BUD,	
			D, CNS	
	c) new construction		PP, EH&S, SMCP, VC-BUD,	
			D, RESO, UCOP, CNS	
1	◆Space Allocation	SMCP	PP, RESO, CP, R, ACAD	own server(FDX)
			VP-APF	
1	◆Telecomphones	CNS	PP	
1	◆Utility repairs	PP	СР	own server

Criticality	Category/Function	Lead Department	Interdependent Departments (IS&T depts BOLD)	Addl. Info
	INSTRUCTION & RESEARCH			
1	◆Assignment of Classrooms	ACAD	R, CNS, SIS	date-sensitive
1	◆Enrollment	R	CCS, CNS, SIS	date-sensitive
1	◆Instructional Labs	ACAD	CD, EH&S, EM, R, P&BC,	
			SMCP, CCS, CNS	
1	◆Registration fees	R	CCS, CNS, SIS	date-sensitive
1	◆Research animals	OLAC	ORUs, PIs, ACAD, EH&S,	own server
			UCPD, PP, CCS, CNS	
1	◆Research Labs	PIs	SPO, P&BC, EM, SMCP, CNS	
			CD (equipment replacement)	
1	◆Scheduling classes	R	ACAD, CCS, CNS, SIS	date-sensitive
	PAYMENTS			
1	◆ Accounts Payable	D	ASD, CCS, CNS	
1	◆Death Payments (faculty & staff)	HR	P, UHS, ACAD, PS, MS	
			ASD, CCS, CNS	
1	◆Emergency Loan Disbursements (faculty)	LRO	ASD, CCS, CNS	

Criticality	Category/Function	Lead Department	Interdependent Departments (IS&T depts BOLD)	Addl. Info
1	◆Emergency Loan Disbursements (students)	FA	T&E, CCS, CNS, SIS	
1	◆ Fellowships	GD	R, LRO, D, FA CCS, CNS, SIS	
1	◆Paying Employees (Faculty, Staff, Students)	P	PS, MS, GD, ASD, CCS, CNS	date sensitive
1	◆Purchase Goods & Services	P&BC	MS, CD, CS, ASD, CCS, CNS	
	REVENUE			
1	Funding for post-EQ facilities	VC-B&F	CP, SMCP, UCOP. CCS, CNS	own server(COIS)
1	Government relations	PA	CO, UCOP, MRel, URel	
			CCS, CNS	
1	◆Research accounts coordination	SPO	EFA	date-sensitive
1	◆Research award acceptance	SPO	CCS, CNS	date-sensitive
1	◆Research proposal submittal	SPO	CCS, CNS	date-sensitive
1	◆Research proposal tracking	SPO	CCS, CNS	
	STUDENTS/FACULTY/STAFF			
1	◆Communication/Internal & External	PA, CO	R, HR, RSSP, CR, ORUs, ACAD,	
			UCPD, VC-BAS, CP, EH&S,	
			Urel, UHS, ASD, CCS, CNS	
1	◆Death Notification (fac/staff)	СО	HR, UHS, AP, P, CCS, CNS	

Criticality	Category/Function	Lead Department	Interdependent Departments (IS&T depts BOLD)	Addl. Info
1	◆Death Notification (student)	UA, GD	R, SPO, UHS, CCS, CNS, SIS	
1	◆Emergency Hiring/Staffing	HR	P, ASD, CCS, CNS	
1	◆Food Service	RSSP	D, CS, EH&S, P&BC	own server
1	◆Housing/Shelter	RSSP	D, CP, PP, RESO, P&BC	own server
1	◆MailOut	MS	all other depts, CCS, CNS	own server
1	◆Medical Care	UHS	CS, P&BC, MS, CNS, SIS	own server
1	◆Residence Hall Disabled Program	DSP	RSSP, UHS	
1	◆Residence Hall Security	RSSP	UCPD	own server
1	◆Student Health Insurance Services	UHS	private carriers, CNS, SIS	own server
1	◆Transportation Modes	P&T	FS, R, RM, UCPD, AC Transit CCS, CNS	own server
1	◆ Use of 911	UCPD	CNS	own server
	BUILDINGS			
2	◆Campus Facilities Services	PP	CS, CNS?	own server
2	◆Card Keys	UCPD	PP	own server

Criticality	Category/Function	Lead Department	Interdependent Departments (IS&T depts BOLD)	Addl. Info
2	◆Grounds	PP	FS, Richmond Landfill, gasoline	
			distributors, CNS	
2	◆Parking Facilities	P&T	СР	own server
	INSTRUCTION & RESEARCH			
2	◆Library Services	L	D, P&BC, EH&S, HR, CP,	date-sensitive
			PP, CNS	own server
2	◆Personnel (academic)	AP, Depts, Deans	ORUs, PIs, P, ASD, CNS	date-sensitive
			ASen Budget Committee	own server(COIS)
2	◆Remote Classes	OMS	R, ENG, ACAD	
			CCS, CNS, WSS	
	PAYMENTS			
2	◆Student Schols/Loans/Grants	FA	R, LRO, ASD	date-sensitive
	REVENUE			
2	◆Departmental Deposits & Student Payments	С	GD, IC, LRO, RSSP	
			ASD, CCS, CNS	
2	◆Fundraising	DEV	C, EFA, EM, SPO, UCOP, URel	own server
			& 46 campus fundraising units	
			ASD, CCS, CNS	
2	◆Grant Accounts	EFA	SPO, C, CCS, CNS	date-sensitive
2	◆Student Billing	LRO	R, GD, ASD, CCS, CNS, SIS	date-sensitive

Criticality	Category/Function	Lead Department	Interdependent Departments (IS&T depts BOLD)	Addl. Info
	STUDENTS/FACULTY/STAFF			
2	•Admissions			
	Graduate	GD, ACAD	CCS, CNS, SIS	date-sensitive
	Undergraduate	UA, UCOP	CCS, CNS, SIS	date-sensitive
2	◆Child & Elder Care Services	HR	RSSP, RM, EH&S, UHS	
	(emergency provisions for UCB personnel)			
2	◆Disabled Students Services (academic)	DSP	R, CNS	
2	Distribution of supplies and materials	CD	P&BC	
2	◆Faculty room assignments	ACAD	SMCP	own server(FDX)
2	◆Mental health services	UHS	HR, OMB, MS, AP	
			RSSP, ACAD (residence halls)	
2	◆Personnel Assignments & Reassignments	HR	P, ASD, CCS, CNS	
2	◆Parking Services	P&T	UCPD, ASD, CCS, CNS	own server
2	◆Patrol	UCPD	P&T, CNS	own server
2	◆Staff Room assignments	ACAD, VCs	SMCP	

Criticality	Category/Function	Lead Department	Interdependent Departments (IS&T depts BOLD)	Addl. Info
	BUILDINGS			
3	•Alarms	UCPD	PP, CNS	own server
	INSTRUCTION & RESEARCH			
3	◆Instructional Equipment	OMS	ACAD, CD, EM, P&BC, PP, R	
			CNS, WSS	
3	◆Research Compliance Committees	VC-R, SPO	EH&S, RM, CCS, CNS	
3	◆Restore Library Collections	L	UCOP, ACAD, P&BC, P&T	own server
			CP, PP	
3	•Restore Museum Collections	М	ACAD	
	PAYMENTS			
3	◆Campus Supply	MM	D, ASD, CCS, CNS	
3	◆Diners Club Use	T&E	D, ASD, CCS, CNS	
3	◆Fleet Services	MM	D, RM, ASD, CCS, CNS	
3	◆Procurement Card Use	P&BC	D, ASD, CCS, CNS	
3	◆Travel Claims	T&E	D, ASD, CCS, CNS	
	PAYMENTS/REVENUE			
3	◆Budget & Accounting Administration	VC-B&F	GA, campus depts,	own server(COIS
			ASD, CCS, CNS	

Criticality	Category/Function	Lead Department	Interdependent Departments (IS&T depts BOLD)	Addl. Info
	REVENUE			
3	•Licensing/Patents	OTL	C, CS, D, LRO, SPO, VC-R,	own server
			private law firms, CCS, CNS	
3	*Collections	LRO	ASD, CCS, CNS	
	STUDENTS/FACULTY/STAFF			
3	◆MailIn	MS	* every dept is dependent	
3	Occupational Health Services	UHS	UCOP	
3	◆Workers' Compensation	UHS	HR, ACAD, MS, P, UCOP, CNS	
	INSTRUCTION & RESEARCH			
4	◆Curriculum Development	ACAD	ASen, R, CCS, CNS	
4	◆Grades	ACAD	R, CCS, CNS, SIS	
4	◆Transcripts	R	CCS, CNS, SIS	
	STUDENTS/FACULTY/STAFF			
4	◆Early Childhood Education	RSSP	EH&S	own server
4	◆Equipment Management	MM	GA, CD, P&BC, RM, SPO	own server
			ASD, CCS, CNS	

Criticality	Category/Function	Lead Department	Interdependent Departments (IS&T depts BOLD)	Addl. Info
Criticality	Category/Function	Lead Department	(IS&I depts BOLD)	Audi, Illio
	PAYMENTS			
5	◆Dept Budget Administration	ACAD	Dean, GA, CCS, CNS	
5	◆Meetings & Conference Contracts	T&E	D	
	STUDENTS/FACULTY/STAFF			
5	◆Teleconferencing	OMS	ACAD, CCS, CNS	

KEY TO DEPARTMENT LISTING

Abbreviation	Full Department Name
ACAD	Academic departments
AP	Academic Personnel
ASen	Academic Senate
ASD	Administrative Systems Department
С	Cashier
CCS	Central Computing Systems
CD	Central Distribution
CNS	Central Communications & Network Services
CO	Chancellor's Office
COIS	Chancellor's Office Information System
СР	Capital Projects
CR	Community Relations
CS	Campus Supply
D	Disbursements
DEV	Development
EFA	Extramural Funds Accounting
EH&S	Environment, Health and Safety
EM	Equipment Management
ENG	Engineering
FA	Financial Aid
FS	Fleet Services
GA	General Accounting
GD	Graduate Division
GovA	Governmental Affairs
HR	Human Resources
IC	Internal Control
L	Libraries
LRO	Loans and Receivables Office
M	Museums
MM	Materiel Management
MRel	Media Relations

KEY TO DEPARTMENT LISTING

Abbreviation	Full Department Name
MS	Mail Services
OLAC	Office of Laboratory Animal Care
OMB	Ombudsperson offices
OMS	Office of Media Services
ORU	Organized Research Unit
OTL	Office of Technology Licensing
P	Payroll
P&BC	Procurement & Business Contracts
P&T	Parking and Transportation
PA	Public Affairs
PI	Principal Investigator
PP	Physical Plant
PS	Printing Services
R	Registrar's Office
RESO	Real Estate
RM	Risk Management
RSSP	Residential and Student Service Programs
SIS	Student Information Systems
SMCP	Space Management & Capital Programs
SPO	Sponsored Projects Office
T&E	Travel & Entertainment Disbursements
UA	Undergraduate Affairs
UCOP	University of California Office of the President
UCPD	University of California Police Department
UHS	University Health Services
URel	University Relations
VC-BAS	Vice Chancellor for Business and Administrative Services
VC-B&F	Vice Chancellor for Budget and Finance
VC-R	Vice Chancellor for Research
VP-APF	Vice Provost for Academic Planning & Facilities
WSS	Work Station Support

APPENDIX B

Time Sensitivity Questionnaire

Function Paying Employees

How long can UCB operate without the function listed above? At what point would there be problems with the considerations listed vertically on the left? Specify problems in the boxes according to time period.

Time →	48 Hours after the Disaster	2-5 Days after the Disaster	2 Weeks after the Disaster	30 Days after the Disaster
Payment Deadlines	Likely a major problem since there are paydays each week, however, the specific date of the disaster would determine the severity of the problem at this point.	Would affect a major or minor payday within 1 week.	Would affect 2 paydays within 2 weeks.	Would affect every employee within 30 days.
Loss of Revenue	None at this point.	Employees who are unable to take care of emergencies at home due to lack of funds are less likely to report to work.	Employees who are unable to take care of emergencies at home due to lack of funds are less likely to report to work.	Employees who are unable to take care of emergencies at home due to lack of funds are less likely to report to work.
Legal Harm	None at this point.	Probably none at this point.	Possible involvement by bargaining unions, federal agencies, etc. to pressure for payment to employees.	Possible involvement by bargaining unions, federal agencies, etc. to pressure for payment to employees.
Public Embarrassment	None at this point	Probably none at this point	Many employees would urgently need a paycheck. Insufficient response could create embarrassment as UCB is a major employer in the East Bay	Most employees would urgently need a paycheck. Insufficient response could create embarrassment as UCB is a major employer in the East Bay
Other				

APPENDIX B

Time Sensitivity Questionnaire

Function: Proposal & Award Tracking

How long can UCB operate without the function listed above? At what point would there be problems with the considerations listed vertically on the left? Specify problems in the boxes according to time period.

Time →	48 Hours after the Disaster	2-5 Days after the Disaster	2 Weeks after the Disaster	30 Days after the Disaster
Payment Deadlines	Not applicable – tracking proposals and awards does not involve making payments.	Not applicable	Not applicable	Not applicable
Loss of Revenue	The Sponsored Projects Office COUES system feeds other campus systems and is used in other central offices. However, revenue is not driven by whether or not we maintain this system. We could keep paper records on hold until systems are running again. No loss of revenue from not tracking.	We could keep paper records on hold until systems are running again. No loss of revenue from not tracking.	We could keep paper records on hold until systems are running again. No loss of revenue from not tracking.	It would begin to get more difficult to work with other campus units and to inform the Pls about their funding obligations but no loss of revenue would occur from not tracking the proposals and awards via COUES.
Legal Harm	None that are obvious	None that are obvious	None	None
Public Embarrassment	None that are obvious	None that are obvious	None	More of an embarrassment for the faculty with their sponsoring agencies than with the public
Staff workload			If the SPO can't access COEUS this it would cause a large work load for staff within two weeks	The longer SPO can't access COEUS the larger the workload for SPO staff. A month's worth of backlog would be a critical problem.

Risk Assignment Matrix* *see key on last page

Function Payroll

NOTE: do Time Sensitivity Questionnaire first

Condition	1) vulnerable?	2) alternatives?	3) specifics	RISK
Critical program space is damaged or not available	University Hall Evans Hall Banway Building (PPS is the payroll system) Yes	Off site storage of current payroll data & hot site to re-run previous corresponding compute.	Currently approximately 10 core payroll reports are stored on tape at a site in the south bay. Procedures for hot site to be determined.	High
Critical equipment is damaged or not available	University Hall Evans Hall Banway Building Yes	Off site storage of current payroll data & hot site to re-run previous corresponding compute.	Currently approximately 10 core payroll reports are stored on tape at a site in the south bay. Procedures for hot site to be determined.	High
Centrally provided Power is unavailable	University Hall Evans Hall Banway Building Yes	Off site storage of current payroll data & hot site to re-run previous corresponding compute.	Currently approximately 10 core payroll reports are stored on tape at site in the south bay. Procedures for hot site to be determined.	High
Communication via phone, fax, and snail mail is unavailable	University Hall Evans Hall Banway Building Yes	Compute can still be run at Berkeley.		Low
Communication via e- mail and Internet is unavailable	University Hall Evans Hall Banway Building Yes	Compute can still be run at Berkeley.		Low

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Condition	1) vulnerable?	2) alternatives?	3) specifics	RISK
Mission-critical data are not available	Payroll information necessary for compute Yes	Re-run previous corresponding compute at Berkeley.	Procedures to be determined.	Medium
Local information systems (LAN or desktops) are non- functional	No			
Staff is affected by the disaster and not available to work	Yes	Plan alternative staff assignments for emergencies.	Identify staff who can be available for emergency duty.	High
Critical business partners or vendors are unable to provide goods or services	EFT clearing bank Yes	Unlikely scenarioWells Fargo & Mellon Bank have indicated that they have a back-up procedure.	Confirm back-up procedure with Wells and Mellon.	Low

KEY

** This matrix will be used to determine a mission-critical unit's ability to function after an earthquake, and how soon it could be brought back in the event it cannot withstand the associated damages. Our goal is to be able to open the university within 30 days of a damaging earthquake.

Before filling this out for a particular function, complete a Time Sensitivity Questionnaire for that function in order to get a full picture of the timing involved.

KEY:

Vertically along the left are listed likely problems following an earthquake

Horizontally across the top are questions about how that function would operate when faced with any of those problems.

To determine the risk for each function, answer the questions as follows:

- 1) vulnerable? -- yes or no (would the function be made inoperable by the problem?)
- 2) alternatives? -- yes or no (could the function be made operable in some other way?)
- 3) specifics -- HOW could it be made to work? (briefly SPECIFY what would make it operable)

Resultant risk: the answers to the first two questions in one of the following combinations

- 1) yes and 2) no=HIGH
- 1) yes and 2) yes=MEDIUM
- 1) no and 2) yes=LOW

Risk Assignment Matrix*

Function Proposal and Award Tracking

*see key on last page

NOTE: do Time Sensitivity Questionnaire first

Condition	1) vulnerable?	2) alternatives?	3) specifics	RISK
Critical program space is damaged or not available	Yes Sproul Hall	No	The proposal and award tracking is done via a computer system managed by SPO. The computer personnel would have to be able to access our records in order to enter data.	High
Critical equipment is damaged or not available	Yes Desk top computers Xerox machine for scanning University computing services	No If central computer services and desktop computers were not available we could not enter and track data.	The proposal and award tracking is done via a computer system managed by SPO. The computer system personnel would have to have equipment available to do their job.	High
Centrally provided power is unavailable	Yes	No		High
Communication via phone, fax, and snail mail is unavailable	No	Yes If personnel can access the office and records then they could enter data. However those awards that are faxed will not be entered.		Medium
Communication via e- mail and Internet is unavailable	Yes		We would not be able to continue for long without these functions. Most of our work is done via email and the internet.	Medium/High

Condition	1) vulnerable?	2) alternatives?	3) specifics	RISK
Mission-critical data are not available	Yes	No	Without the appropriate information we are out of business	High
Local information systems (LAN or desktops) are non- functional	Yes	No Data entry would be impossible	Our data base is on a central campus computer and a local citrix server, we would be unable to track data without desktops or local systems.	High
Staff is affected by the disaster and not available to work	Yes	No	The longer staff is unable to work the more workload for data entry we will have when we are back up and running. This might get very hard to maintain but we can continue the process of submitting proposals and accepting awards the old fashion way. No computer tracking and no interfacing with other units.	High
Critical business partners or vendors are unable to provide goods or services	Yes	No If the faculty were not available to write proposals we would not have any to submit. There would be no business for SPO in this area.	If we consider the faculty our business partners in the endeavor then if they are unable to submit proposals and accept awards we will nothing to track.	High

KEY

** This matrix will be used to determine a mission-critical unit's ability to function after an earthquake, and how soon it could be brought back in the event it cannot withstand the associated damages. Our goal is to be able to open the university within 30 days of a damaging earthquake.

Before filling this out for a particular function, complete a Time Sensitivity Questionnaire for that function in order to get a full picture of the timing involved.

KEY:

Vertically along the left are listed likely problems following an earthquake

Horizontally across the top are questions about how that function would operate when faced with any of those problems.

To determine the risk for each function, answer the questions as follows:

- 1) vulnerable? -- yes or no (would the function be made inoperable by the problem?)
- 2) alternatives? -- yes or no (could the function be made operable in some other way?)
- 3) specifics -- HOW could it be made to work? (briefly SPECIFY what would make it operable)

Resultant risk: the answers to the first two questions in one of the following combinations

- 1) yes and 2) no=HIGH
- 1) yes and 2) yes=MEDIUM
- 1) no and 2) yes=LOW

Appendix D

Paying Employees - Function Summary

Function: (name of function) Paying employees
Area: (buildings, instruction and research, payments, student/faculty/staff) Payments
Brief Description: Paying faculty, staff and students, which involves data entry, electronic transmission of data, printing and mail out.
Responsibility: (lead department)
Other Units Involved: (other units necessary for performing function, non-IS&T) PS, MS, GD. External Partners: Wells Fargo, Mellon Bank
Information Systems Needs: (all IS&T systems used) ASD, CCS, CNS
Special databases and data processing programs PPS, EFT Clearing Bank (Mellon Bank)
Criticality: 1 - Highest
Risk: High
Key Points of Failure: (three points of greatest vulnerability, e.g., space, power, personnel etc.) Computer system, personnel, Evans Hall, Banway Building, University Hall
Survivability: (amount of time the campus can go without this function) 5 days
Scope: (how many people and departments will be affected by failure of function) All employees, graduate students and post docs
Consequences to Institution: (impacts of function losslife safety, infrastructure, financial, organizational [teaching/research/reputation]) Organizational, legal, public embarrassment
Action Plan: Yes Last Updated No x_ Maybe

9/14/00

Appendix D

Research Proposal & Award Tracking - Function Summary

Function: (name of function) Research proposal and award tracking
Area: (buildings, instruction and research, payments, student/faculty/staff) Revenue
Brief Description: Tracking who has submitted a research proposal to what funding agency and which proposals have been funded.
Responsibility: (lead department) SPO
Other Units Involved: (other units necessary for performing function, non-IS&T All research departments and units
Information Systems Needs: (all IS&T systems used) CCS, CNS
Special databases and data processing programs Own server and database − SPO's database is on a central campus computer and a local Citrix server.
Criticality: 1 - Highest
Risk: High
Key Points of Failure: (three points of greatest vulnerability, e.g., space, power, personnel etc.) Power, Central Computing and SPO server
Survivability: (amount of time the campus can go without this function) 30 days
Scope: (how many people and departments will be affected by failure of function) All researchers, and graduate students and post-docs that they employ
Consequences to Institution: (impacts of function losslife safety, infrastructure, financial, organizational [teaching/research/reputation]) Organizational (research and reputation) and financial
Action Plan: Yes Last Updated No_x_ Maybe

9/14/00

Appendix E

Communications Blueprint for the

UC BERKELEY BUSINESS RESUMPTION PLAN

Part 1. General Lines of Communication

Part 2. Information Systems

Part 3. Human Resources

Part 4. Plan Maintenance

Part 5. Departmental Planning

1) General Lines of Communication

UCB's business resumption plan requires extensive communication with staff, faculty and students. This appendix specifies which position or group is responsible to create and disseminate important information about roles and responsibilities in business resumption, both before a disaster and in its aftermath.

Under the plan, the Business Resumption Coordination Group (BRCG), chaired by the Associate Vice Chancellor for Business and Administrative Services, is in charge of communications. Specific materials and messages will be crafted by the Business Resumption Training Coordinator, working closely with the business resumption teams in IS&T, HR, and satellite computing operations. All materials are reviewed by the BRCG. The Office of Public Affairs will be used for getting information out.

Part 2 addresses communications requirements for the Information Systems Action Plan. Three significant areas are covered: intra-IS&T; among IS&T and other functional units that maintain their own servers, LANs, databases, and software; and between IS&T and the BRCG.

Part 3 covers the numerous communications requirements in the Human Resources Action Plan. For the HR post-disaster policies and procedures to be effective, extensive communication will be necessary in four major areas: inside HR; between HR and all campus personnel managers; between HR and the Business Resumption Training Coordinator; and between HR and the BRCG.

Before a disaster, campus personnel must be informed of the following:

- Notification systems for informing all employees about when and where to return to work
- Expectations for whom will return, when
- Procedures for staff referrals and redeployment
- Arrangements for alternate work sites

- Telecommuting
- Special provisions for parking and transportation.
- Policies for disaster leave for employees; flex time/hours of work; and stipends for employees.
- Planned provisions for assisting employees with stress and family life issues.

After a disaster, the notification systems established must be used as per the plan, and the pertinent policies and procedures followed.

Part 4 addresses training and exercising needs before the disaster. The Business Resumption Training Coordinator, under the Director of Business Services, will conduct training sessions for all employees and coordinate exercises. The Business Resumption Coordination Group will oversee the program, monitor exercises, and authorize appropriate plan updates. Business resumption teams in IS&T, satellite computing departments, and Human Resources will work closely with the BRCG. The Business Resumption Training Coordinator will work closely with the BRCG and with the Office of Public Affairs and other campus communication channels.

Part 5 deals with communications with each research unit and department to assist them in developing their own recovery plans. The BRCG and the Business Resumption Training Coordinator, with the advice and assistance of the Academic Senate, will create and deliver guidelines and provide planning assistance when asked.

2) Information Systems

The IS Business Resumption Action Plan is designed to restore important processing capacity within days of widespread damage. It is critical that the IS plans and procedures be communicated to the campus community that depends on information systems to do its work.

a) Major Issues for IS&T

- Senior campus management must be apprised regularly of the priority order for restoration of business functions, and change the rankings if circumstances dictate. IS&T will restore computer systems as directed.
- IS&T Business Resumption team leader must communicate with IS&T staff to keep track of the disaster recovery plan, system recovery procedures, tests, and maintenance.
- The IS&T Business Resumption team must communicate with other functional units (for example, Library, PPCS, RSSP, UHS) that maintain their own servers, LANs, databases, and software in order to assist them in developing information system business resumption plans of their own, and monitor their upkeep.
- The Business Resumption Coordination Group leader must communicate with all campus units to make it clear that whenever a new information system is considered in the future,

the implementation strategy must include a section on business recovery. The BRCG will review each to ensure that business resumption issues have been considered.

i) Lines of Communication before a Disaster

Plan Development

IS&T Business Resumption Team to IS&T staff IS&T BRT to satellite BRTs IS&T BRT to BRCG and SAFER Oversight

Plan Maintenance (Training)

IS&T BRT to IS&T employees IS&T BRT to BRCG BRCG to SAFER Oversight

Plan Testing

IS&T BRT to IS&T employees
IS&T BRT to Office of Emergency Preparedness
IS&T BRT to BRCG and SAFER Oversight

ii) Lines of Communication After a Major Disaster

After an earthquake, IS&T staff will follow their Emergency Response Plan. A number of communications nodes are present:

- After assessing the damage to information processing systems, the Communications DOC, made up of personnel from CCS and CNS, will inform the campus EOC. Should that not be possible for any reason, the Associate Vice Chancellor for IS&T will inform the Chancellor.
- When the IS&T Business Resumption Team determines that damage is extensive enough to warrant triggering the Business Resumption Plan, the Communications DOC team leader and the IS&T Business Resumption Team Coordinator (Assistant Vice Chancellor) will inform the EOC.
- Systems supporting the highest priority functions will be recovered first. The IS&T Business Resumption Team Coordinator will consult with the EOC Finance Team leader and change the priority for system recovery, if circumstances dictate.
- Once the IS&T Business Resumption team determines which computing systems will be recovered, and when, the leader will inform the EOC, the BRCG, and the Assistant Vice Chancellor for Public Affairs. The Human Resources Business Resumption Team will decide which employees need to be called back and will inform the Assistant Vice Chancellor for Public Affairs. The Assistant Vice Chancellor for Public Affairs is responsible for all announcements to the news media and the public, and will furnish them with appropriate information about business resumption. Public Affairs will work with IS&T

to post accurate information about computing capacity and plans on the homepage or the shadow homepage: *Emergency.Berkeley.Edu*.

b) Satellite Computing Systems

i) Before

Development of business resumption plans for satellite units is the responsibility of those units. Each satellite unit BR team will oversee plan development, maintenance and testing. Each BR team will communicate with the IS&T BR team about progress.

To update plans, test plans, and train personnel, satellite BR teams will work with the IS&T BR team and the Business Resumption Coordinator. The Emergency Preparedness Manager will provide assistance in exercise design.

ii) After

Satellite information systems (not supported by IS&T) will recover their systems, following more or less the same steps as IS&T, and will communicate with the IS&T BR team. They will also report their status to their Vice Chancellors, who will report to the BRCG.

3) Human Resources

Good communication is critical to this part of the plan. All UCB employees must be informed about plans and procedures, and trained in performing their business resumption responsibilities.

The Administrative Business Resumption team leader will take the lead in putting some systems into operation and drafting the information that explains each. Issues fall into a number of areas.

a) Post-Disaster Notification

Develop a campus-wide strategy to notify other faculty, staff, and students whether or not they should return to work in the days following a disaster. The system should include the following elements:

- In addition to UCB's present ability to communicate through KALX, the Offices of Emergency Management and Public Affairs should make formal arrangements with at least one AM radio station and other local radio and TV media to provide general information to the campus community.
- Information will also be posted on the University's homepage and shadow homepage [*Emergency.Berkeley.Edu*] so people who still have web access from home can obtain updates via the web. The Public Affairs Office will work with IS&T to post accurate information about plans and requirements for employee return, with input from the EOC or the BRCG

• Departments should develop a communication matrix to ensure that appropriate individuals can be contacted with respect to the recovery effort. Departments should annually inform staff living near the campus of the plan to contact them.

b) Staff Information

Department safety coordinators, building coordinators, or facility managers should provide advance notice to all faculty and staff regarding business resumption planning, including emergency contact listing. With assistance from building coordinators. Information will be developed by the Administrative BR team, the Business Resumption Coordinator, and the BRCG. Advance communications should include Deans & Directors memos, an item on the agenda of the Deans and Chairs annual retreat, information in new employee orientations, briefings of faculty members and research directors, items in the *Berkeleyan*, dispatches on CalMail, and other media.

c) Staff Position Definitions

- The Administrative BR team will define three job classifications--those that are expected to respond to the emergency and report immediately (A Team), those that are expected to report 2-3 days after the disaster in order to begin business recovery operations (B Team), and those that will await assignment (Team C). Unit and Department Managers will specify in each job description the team assignment, and will inform Human Resources.
- HR will provide notice to union representatives of how UCB plans to use workers after a significant disaster
- After the disaster, the Administrative BR team will establish a location on campus for employees to report for referral to other units, and see that it's announced through all notification channels.
- HR will establish a communication process for staff in core business functions to report their needs to the central referral staff

d) Students and Staff Supported by Contracts and Grants

• Encourage PIs to make arrangements before an emergency to allow for their graduate students, post-docs and laboratory personnel to continue the research with colleagues at other institutions. The VP-Academic Affairs & Faculty Welfare, Academic Senate, and VC-Research will recommend policies, and assist the BRCG in developing and disseminating appropriate information about this plan.

e) Alternate Work Sites

• As part of the definitions in #3 above, employees should be asked whether they might be willing to travel elsewhere to perform their jobs. Unit and department managers will compile the information and furnish it to the Administrative BR team.

f) Telecommuting

• HR will add a phrase to the existing telecommuting policy extending it to extraordinary post-disaster situations. Communicate the policy to employees through managers, newsletters, e-mails, *Berkeleyan*, etc.

g) Parking and Transportation

- P&T to communicate plans and assumptions to staff and faculty through all its current information systems. Work with HR BR team.
- After a disaster, P&T to work with Public Affairs and BRCG to get info out.

h) Compensation and Leave

After HR develops policies on disaster leave, it should use its communications channels
to let the campus community, all unit and department managers, know what it is. Public
Affairs to assist.

i) Support Services

• UHS, in conjunction with HR and other germane departments, will advise the campus community of services that will be available.

j) Updating and Maintaining the HR Plan

The Administrative BRT will meet at least twice a year to review elements of the plan and revise them as circumstances and resources dictate. The Business Resumption Coordinator will work closely with the team to ensure that updated information is incorporated into all training materials. The ABRT will report to the BRCG on a regular basis.

4) Plan Maintenance & Training

a) Responsibility

The Director of Business Services will be responsible for updating the plan and training personnel. The Business Resumption Coordinator will create most of the informational and training materials, working with the Business Resumption Coordination Group, the administrative, IS&T and satellite computing business resumption teams.

b) Training

Training will involve communication of the business resumption plan goals and procedures to each employee on each team. The communication may take the form of written fact sheets or oral briefings to units or departments. Electronic resources will be used for a number of information dissemination and training purposes.

A website will make accessible all the business resumption plans, checklists, and plan updates. A list-serve will push pertinent information to all team members.

Training sessions will be announced on the website, among other media. There will be semi-annual briefings for all employees to update them on plan changes.

Delivery of training will be done by the Business Resumption Training Coordinator, with assistance from other relevant departments. Curriculum will be developed by the Coordinator and other knowledgeable departments, and reviewed by the Director of Business Services and the Business Resumption Coordination Group before being used.

5) Departmental Planning

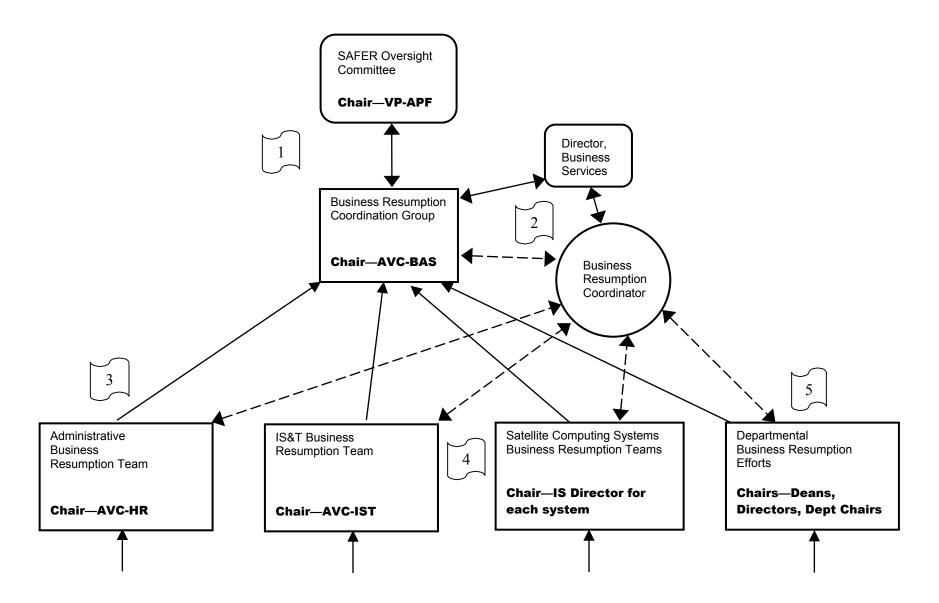
General guidelines are available for departmental chairs. More templates and model plans will be forthcoming in early 2002. The Business Resumption Coordinator will work with the Academic Senate, the Vice Provost-Academic Affairs & Faculty Welfare, the Vice Chancellor-Research, and the BRCG to develop necessary policies and procedures, and appropriate information. The Coordinator will work with others to disseminate it.

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Appendix F Operational Units: Organization Charts

- Main Business Resumption Operational Units
- Unit Details 1
- Unit Details 2
- Unit Details 3
- Unit Details 4
- Unit Details 5

Business Resumption Main Operational Units





SAFER Oversight Committee:

- Review recommendations; set priorities
- Secure resources for implementation
- Monitor progress
- Report to Chancellor and Cabinet

Chair--VP-APF

Business Resumption Coordination Group:

- Oversee the development, maintenance and testing of all plans for Criticality 1 business functions
- On a regular basis, review IS&T, satellite computing systems, HR and departmental plans
- Meet annually with chairs of business resumption teams to exchange info and ensure coordination
- Work with Director of Business Services and Business Resumption Coordinator on details relating to training and exercising
- Sponsor an annual business resumption exercise
- Report to the SAFER Oversight Committee on progress and resource needs
- **In the event of a disaster, monitor and coordinate the business recovery effort

Chair--AVC-BAS

2

Business Resumption Coordination Group:

- Oversee the development, maintenance and testing of all plans for Criticality 1 business functions
- On a regular basis, review IS&T, satellite computing systems, HR and departmental plans
- Meet annually with chairs of business resumption teams to exchange info and ensure coordination
- Work with Director of Business Services and Business Resumption Coordinator on details relating to training and exercising
- Sponsor an annual business resumption exercise
- Report to the SAFER Oversight Committee on progress and resource needs
- **In the event of a disaster, monitor and coordinate the business recovery effort

Chair--AVC-BAS

Director, Business Services

- Supervise BR Coordinator
- Monitor progress
- Report to BRCG

Business Resumption Coordinator

- Develop information and training materials
- Disseminate information
- Schedule training
- Deliver training
- Plan exercises
- Orient participants to exercise design
- Run exercises
- Coordinate with other Business Resumption Teams
- Assist departments with planning
- Report to Director of Business Services and BRCG
- **In event of disaster, assist teams and depts

3

Business Resumption Coordination Group

- Review HR plans & procedures
- Meet with chairs of business resumption teams
- Sponsor annual exercise

Chair--AVC-BAS

Business Resumption Coordinator

- Monitor HR developments and plans
- Incorporate into info and training

Administrative Business Resumption Team

- Put policies and procedures in place to support HR for all other departments
- Work with BRCG and ancillary units to update policies and procedures as appropriate
- Train HR personnel in HR responsibilities
- Participate in annual exercise
- Work with Business Resumption Coordinator on updates
- **In the event of a disaster, implement parts of the Business Resumption Plan:
- 1. Notify Team B
- 2. Disseminate info to employees
- 3. Create employee clearinghouse
- 4. Communicate with units & departments on needs
- 5. Reassign employees
- 6. Obtain appropriate temporary employees
- 7. Track employees
- 8. Coordinate with ancillary units

Chair--AVC-HR

- Payroll
- Business Services
- LRO
- RSSP
- UHS
- Public Affairs
- OEP



Business Resumption Coordination Group

- Review IS&T and satellite computing systems plans
- Meet with chairs of business resumption teams
- Sponsor annual exercise

Chair--AVC-BAS

Business Resumption Coordinator

- Monitor IS developments and plans
- Incorporate into info and training

IS&T Business Resumption Team

- Develop IS&T business resumption plan
- Maintain the plan--update
- Exercise the plan annually
- Meet with Satellite Computing Systems Business Resumption Team leads to inform and coordinate
- Participate in campuswide emergency response exercise
 - **In the event of a disaster, implement the systems recovery plan, in cooperation with the Finance Unit in the EOC

--AVC-IST

Satellite Computing Systems Business Resumption Teams

- Develop business resumption plan for unit
- Maintain the plan--update
- Exercise the plan frequently
- Work with IS&T Business Resumption Team to coordinate and test plans
- Participate in campuswide emergency response exercises
- **In the event of a disaster, implement the recovery plan for unit, in cooperation with IS&T Business Resumption Team

Chair--IS Director for each system

- ASD
- CCS
- CNS
- Enterprise Architect
- SIS

- COIS
- EH&S
- Financial Aid
- Libraries
- OLAC
- PP-CS
- RSSP
- UCPD
- UHS

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Business Resumption Coordination Group

- Review departmental plans & procedures
- Work with VC for each department and Academic Senate on planning
- Sponsor annual exercise

Chair--AVC-BAS

Business Resumption Coordinator

- Develop templates
- Assist departments with planning & training
- Incorporate into info and training

Departmental Business Resumption Efforts

- Develop plans
- Train personnel in responsibilities
- Participate in annual exercise
- Work with Business Resumption Coordinator on updates
- **In the event of a disaster, implement dept Business Resumption Plan:
- 9. Communicate with employees
- 10. Communicate with HR clearinghouse
- 11. Coordinate with Business Resumption Coordinator

Chairs--Deans, directors, department chairs

- · all departments
- all colleges
- all ORUs