BUSINESS CONTINUITY
SAN DIEGO STATE UNIVERSITY

Audit Report 10-57
November 3, 2010

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CONTENTS

Executive Summary ......................................................................................................................... 1

Introduction ................................................................................................................................. 2
  Background ............................................................................................................................. 2
  Purpose .................................................................................................................................. 4
  Scope and Methodology ......................................................................................................... 5

OBSERVATIONS, RECOMMENDATIONS, AND CAMPUS RESPONSES

Program Administration ............................................................................................................ 6

Business Continuity Planning .................................................................................................. 7
APPENDICES

APPENDIX A: Personnel Contacted
APPENDIX B: Campus Response
APPENDIX C: Chancellor’s Acceptance

ABBREVIATIONS

BC Business Continuity
BCP Business Continuity Plan(s)
CGC-1 Continuity Guidance Circular 1
COOP/COG Continuity of Operations/Continuity of Government Plan
CSU California State University
EO Executive Order
OES Office of Emergency Services
ORM Office of Risk Management
EXECUTIVE SUMMARY

As a result of a systemwide risk assessment conducted by the Office of the University Auditor during the last quarter of 2009, the Board of Trustees, at its January 2010 meeting, directed that Business Continuity (BC) be reviewed. Similar audits of Business Continuity were performed during our Disaster and Emergency Preparedness audits in 2006.

We visited the San Diego State University campus from August 23, 2010, through September 3, 2010, and audited the procedures in effect at that time.

Our study and evaluation did not reveal any significant internal control problems or weaknesses that would be considered pervasive in their effects on BC activities. However, we did identify other reportable weaknesses that are described in the executive summary and body of this report. In our opinion, the operational and administrative controls for BC activities in effect as of September 3, 2010, taken as a whole, were sufficient to meet the objectives stated in the “Purpose” section of this report.

As a result of changing conditions and the degree of compliance with procedures, the effectiveness of controls changes over time. Specific limitations that may hinder the effectiveness of an otherwise adequate system of controls include, but are not limited to, resource constraints, faulty judgments, unintentional errors, circumvention by collusion, and management overrides. Establishing controls that would prevent all these limitations would not be cost-effective; moreover, an audit may not always detect these limitations.

The following summary provides management with an overview of conditions requiring attention. Areas of review not mentioned in this section were found to be satisfactory. Numbers in brackets [ ] refer to page numbers in the report.

PROGRAM ADMINISTRATION [6]

The campus had not fully implemented a business continuity program. Only eight of the 42 business units that provide essential functions had completed business continuity plans.

BUSINESS CONTINUITY PLANNING [7]

Business continuity plans were not signature-approved.
INTRODUCTION

BACKGROUND

Business continuity (BC) is the ability of an organization to provide service and support for its customers and to maintain viability following a catastrophic event. BC is closely related to emergency preparedness, as they both involve substantial planning, risk assessment, and evaluation of impact to the business. However, the two areas differ in scope. The goal of emergency preparedness is to address the immediate impacts of a disaster and to respond as needed to end the emergency. In contrast, BC is a broader process of preparation that includes disaster, response, recovery, mitigation, risk reduction, prevention, and preparedness.

A business continuity plan (BCP) defines how business activities will be restored after an interruption. Key resources for guidance in creating such a plan include the Federal Emergency Management Agency Continuity Guidance Circular 1 (CGC-1), Continuity Guidance for Non-Federal Entities, which provides broad principles that are applicable to agencies and businesses nationwide. In addition, the Continuity of Operations/Continuity of Government Plan (COOP/COG), released by the California Office of Emergency Services (OES) (now the California Emergency Management Agency), provides guidance on applying the principles put forth in CGC-1 within the State of California.

The California State University (CSU) system has been involved in BC activities for many years. However, it was not until recently that the CSU established formal guidelines for BC activities. In early 2006, the CSU Office of Risk Management (ORM) requested that each campus prepare a written BCP in the event a pandemic influenza were to occur. The ORM distributed the Avian Pandemic Influenza Business Continuity Planning Guide to all CSU campuses in order to aid campus staff involved in emergency and restoration planning to develop their own BCP. To ensure the adequacy and consistency of pandemic influenza BCPs systemwide, the ORM commissioned James Lee Witt Associates, a part of GlobalOptions Group, Inc., to review all pandemic influenza BCP and report the results to the ORM. In August 2007, James Lee Witt Associates’ Pandemic Influenza Business Continuity Plan Assessment Final Report was issued, and it provided key recommendations in the form of strategic themes for each campus and the entire CSU system as a whole.

In October 2007, the CSU finalized and implemented Executive Order (EO) 1014, California State University Business Continuity Program. It models the California OES COOP/COG, though in a streamlined format, and is a fundamental guidance document for the chancellor’s office and the campuses as they develop and implement BCP for essential business units. EO 1014 clearly defines responsibility for BC, including significant roles at the campuses, and outlines specific procedures for the business impact analysis, risk assessment, and development of BCP, as well as testing and exercising of BCP, maintenance of BCP, required communications, training, and record retention. It also indicates that BC programs at campuses must include disaster recovery planning, and therefore necessitates BCP for significant information technology areas.

Under the plan, any business unit that a campus deems essential must develop a business impact analysis, which is defined in EO 1014 as:

A process designed to prioritize business functions by assessing the quantitative (financial) and qualitative (non-financial) impact that might result if an organization was to experience a catastrophic
event. The business impact analysis will identify essential functions and workflow, determine the qualitative and quantitative impacts of a vulnerability/threat to essential functions, prioritize and establish recovery time objectives for the essential functions, and, if appropriate, establish recovery point objectives for essential functions.

In addition, each of these business units must develop a risk assessment, which is defined in EO 1014 as:

A process of identifying risks to an organization, assessing the essential functions necessary for an organization to continue business operations, defining the controls in place to reduce organization exposure, and evaluating the cost for such controls. Risk analysis often involves an evaluation of the probabilities of a particular event. The risk assessment will identify vulnerabilities and threats that may impact the business units’ ability to fulfill the mission of the campus and define the controls in place to reduce the exposure to vulnerabilities/threats.
INTRODUCTION

PURPOSE

Our overall audit objective was to ascertain the effectiveness of existing policies and procedures related to BC and to determine the adequacy of controls that ensure compliance with relevant governmental regulations, Trustee policy, Office of the Chancellor directives, and campus procedures.

Within the audit objective, specific goals included determining whether:

- Administration of BC incorporates a defined mission, stated goals and objectives, and clear lines of organizational authority and responsibility.

- The BC program as a whole coordinates and integrates with the emergency response plan, safety and health plans, or other related plans.

- Necessary contacts for essential business units have been identified.

- Policies and procedures around key aspects of BC programs have been documented and implemented.

- Business resumption and continuity strategies have been developed.

- Information backup procedures are sufficient to provide the availability of backup data subsequent to an emergency.

- Business impact analyses, risk assessments, and BCPs have been developed for each business unit identified as essential to operations continuity.

- Campuses have developed campuswide pandemic influenza BCPs, conducted periodic testing of the plans, and reviewed and updated the plans cyclically.

- BCPs are tested periodically, and test results and lessons learned are reviewed, documented, and applied.

- BCPs are adequately monitored and maintained.

- Ongoing communication of BC activities adequately provides oversight, monitoring, and feedback to involved management.

- A formalized BC training program exists, and all individuals responsible for developing and implementing BCP have been adequately trained.

- All BC records are maintained for no less than five years.
SCOPE AND METHODOLOGY

The proposed scope of the audit as presented in Attachment B, Audit Agenda Item 2 of the January 26 and 27, 2010, meeting of the Committee on Audit stated that BC includes program and facility readiness and resource planning for the recovery, within a predetermined time, from any catastrophic event, be it natural or man-made. Proposed audit scope would include review of Trustee policy, systemwide directives, and campus policies and procedures; a study of the essential functions or operations following a catastrophic event; business impact analysis and risk assessment; BC and disaster recovery plans; testing and exercising of plans; plan maintenance, communications, and training; and necessary retention of key records.

Our study and evaluation were conducted in accordance with the *International Standards for the Professional Practice of Internal Auditing*, issued by the Institute of Internal Auditors, and included the audit tests we considered necessary in determining that accounting and administrative controls are in place and operative. This review emphasized, but was not limited to, compliance with state and federal laws, Board of Trustee policies, and Office of the Chancellor policies, letters, and directives. The audit focused on procedures in effect from August 23, 2010, through September 3, 2010.

A preliminary risk assessment of campus BC was used to select for our audit testing those areas or activities with highest risk. This assessment was based upon a systematic process using management’s feedback and professional judgments on probable adverse conditions and other pertinent information, including prior audit history in this area. We sought to assign higher review priorities to activities with higher risks. As a result, not all risks identified were included within the scope of our review.

Based upon this assessment of risks, we specifically included within the scope of our review the following:

- Organization and responsibilities for BC.
- Cooperative interaction between the BCP and other internal plans and policies.
- Strategies for business resumption and continuity.
- Policies and procedures documenting key aspects of BC programs.
- Existence of business impact analyses and risk assessments.
- Existence, review, and testing of BCP and pandemic influenza BCP.
- Sufficiency of information backup and recovery procedures for critical data.
- Monitoring and maintenance of BCP and pandemic influenza BCP.
- Sufficiency of BC communications both on and off campuses.
- BC training and formalized training programs.
- Recordkeeping for BC.
OBSERVATIONS, RECOMMENDATIONS, AND CAMPUS RESPONSES

PROGRAM ADMINISTRATION

The campus had not fully implemented a business continuity (BC) program.

We noted that although the campus had completed significant planning for the implementation of a BC program, it had not completed many of the program requirements for each campus-identified essential business unit. Specifically:

- Although two individuals had been given responsibility for developing the BC program, there was no official presidential designation of either a BC planning committee or a BC coordinator, and there was no organizational structure that delineated clear lines of authority and responsibility.

- Business continuity plans (BCP) and risk assessments had been completed at only eight of the 42 business units that provide essential functions. However, the campus had a timeline in place for the completion of the remaining BCPs.

- The campus did not provide documented BC training to individuals responsible for developing and implementing BCPs.

Executive Order (EO) 1014, *California State University Business Continuity Program*, dated October 8, 2007, states, in part, that the president has delegated the responsibility for the implementation and maintenance of an effective BC program to each campus. The president shall designate either a BC planning committee or a primary and secondary person with responsibility for BC planning activities. In addition, each business unit that is determined by the university to provide essential functions shall develop a BCP that reflects sufficient forethought and detail to ensure a high probability of successful maintenance or restoration of essential functions following an unfavorable event. For each business unit with essential functions, the BC program shall include, but not be limited to, the following procedures: a business impact analysis and risk assessment, a BCP, testing and exercising of plans, plan maintenance, ongoing communications of BC activities to campus communities, training, and record retention.

The associate vice president of financial operations stated that program implementation is in progress. He added that under the campus implementation plan, formal program organization and delegation would be determined once all BCPs were completed and reviewed. He further stated that the eight BCPs completed included critical campus functional areas and, therefore, were given priority, but that the remaining essential units had received templates and were currently developing plans. Finally, he stated that guidance and training regarding plan development was provided informally on an individual basis to those requesting assistance.

Failure to fully implement a BC program, including all essential program requirements, increases the risk that essential campus functions would be unable to effectively and quickly recover from a catastrophe or disaster.
Recommendation 1

We recommend that the campus:

a. Fully implement the campus’ BC program requirements to show clear lines of authority and responsibility, and include a formally designated BC committee or BC coordinator.

b. Complete the remaining BCPs as prescribed by the campus timeline.

c. Provide a documented BC training program for individuals responsible for implementing BCPs.

Campus Response

We concur. The BC program will be implemented by April 30, 2011. This will include formally designating a business continuity coordinator, ensuring that all outstanding plans are completed, and documenting a training program for individuals responsible for implementing the plan.

BUSINESS CONTINUITY PLANNING

BCPs were not signature-approved by the head of the applicable business unit or the BC coordinator.

EO 1014, California State University Business Continuity Program, dated October 8, 2007, states that the BCPs shall be approved or signed off by the head of the business unit and the BC coordinator or the BC planning committee.

The associate vice president of financial operations stated that the failure to signature-approve the BCPs was due to the lack of a signature page on the BCP template, which was an oversight.

Failure to obtain BCP approval by authorized individuals increases the risk that BCPs are incomplete and do not adequately provide for the continuity issues facing the applicable business unit.

Recommendation 2

We recommend that the campus signature-approve the existing BCPs, as well as all future BCPs.

Campus Response

We concur. The BCP template has been revised to include a signature approval page.
APPENDIX A:
PERSONNEL CONTACTED

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stephen L. Weber</td>
<td>President</td>
</tr>
<tr>
<td>Scott Burns</td>
<td>Associate Vice President, Financial Operations</td>
</tr>
<tr>
<td>Valerie Carter</td>
<td>Audit and Tax Director, Business and Financial Affairs</td>
</tr>
<tr>
<td>Shawndalyn Duncan</td>
<td>Dispatcher II, Public Safety</td>
</tr>
<tr>
<td>Chrys Dutton</td>
<td>Director, Office of Financial Aid and Scholarships</td>
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<tr>
<td>Asami Guenther</td>
<td>Tax Analyst, Business and Financial Affairs</td>
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<td>Alicia Hokenson</td>
<td>Manager, Information Systems</td>
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<tr>
<td>Nancy Lopez</td>
<td>Assistant to the Vice President, Business and Financial Affairs</td>
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<tr>
<td>Catherine Love</td>
<td>Employment Manager, Human Resources</td>
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<tr>
<td>Elvira McCalip</td>
<td>Director of Human Resources</td>
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<tr>
<td>Chip Pierce</td>
<td>Assistant Director, Systems, Office of Financial Aid and Scholarships</td>
</tr>
<tr>
<td>Debbie Richeson</td>
<td>Director of Auxiliary Services, Public Safety</td>
</tr>
<tr>
<td>Sally Roush</td>
<td>Vice President for Business and Financial Affairs</td>
</tr>
<tr>
<td>Lisa Winters</td>
<td>Payroll and Benefits Manager, Human Resources</td>
</tr>
</tbody>
</table>
November 17, 2010

Mr. Larry Mandel
University Auditor
The California State University
401 Golden Shore, 4th Floor
Long Beach, CA 90802

Dear Mr. Mandel:

Attached is San Diego State University’s response to Audit Report 10-57, *Business Continuity*. Documentation of policy and control changes will follow under separate cover.

Should you have any questions or require additional information, please contact Valerie Carter, Audit and Tax Director, at 619-594-5901.

Sincerely,

[Signature]

Sally F. Roush
Vice President, Business and Financial Affairs

Attachment

c: Stephen L. Weber, President
Scott Burns, Associate Vice President, Financial Operations
Valerie Carter, Director, Audit and Tax
BUSINESS CONTINUITY

SAN DIEGO STATE UNIVERSITY

Audit Report 10-57

PROGRAM ADMINISTRATION

Recommendation 1

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Campus Response

We concur. The BC program will be implemented by April 30, 2011. This will include formally designating a business continuity coordinator, ensuring that all outstanding plans are completed, and documenting a training program for individuals responsible for implementing the plan.

BUSINESS CONTINUITY PLANNING

Recommendation 2

We recommend that the campus signature-approve the existing BCPs, as well as all future BCPs.

Campus Response

We concur. The BCP template has been revised to include a signature approval page.
December 15, 2010

MEMORANDUM

TO: Mr. Larry Mandel  
University Auditor

FROM: Charles B. Reed  
Chancellor

SUBJECT: Draft Final Report 10-57 on Business Continuity,  
San Diego State University

In response to your memorandum of December 15, 2010, I accept the response as submitted with the draft final report on Business Continuity, San Diego State University.

CBR/amd