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May 19, 2021

Dr. Tomás D. Morales, President
California State University, San Bernardino
5500 University Parkway
San Bernardino, CA 92407

Dear Dr. Morales:

Subject: Advisory Report 20-103B, *Accessible Technology Initiative*,
California State University, San Bernardino

Per your request, we have completed our advisory review of the *Accessible Technology Initiative* and the report is attached for your review. Our review was conducted in accordance with the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing* as they pertain to consulting and advisory services.

The campus is not required to formally respond to observations for advisory reviews; however, we recommend that campus management review all observations and take any necessary corrective actions to remediate and/or mitigate the risk(s) associated with the noted observations. Any observations requiring immediate attention were communicated to management during the course of the review.

I wish to express my appreciation for the cooperation extended by the campus personnel during the course of this review.

Sincerely,

Vlad Marinescu
Vice Chancellor and Chief Audit Officer

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ACCESSIBLE TECHNOLOGY INITIATIVE
Advisory Services Review

California State University, San Bernardino

Advisory Services Report 20-103B

May 19, 2021

EXECUTIVE SUMMARY

OBJECTIVE

The president of California State University, San Bernardino (CSUSB) requested an Advisory Services review of practices surrounding accessibility services. As part of that advisory review, we were asked to also examine the campus Accessible Technology Initiative (ATI).

Based on discussion with campus management, the objectives of the advisory project were to ascertain the effectiveness of operational and administrative controls related to the California State University (CSU) ATI and to ensure compliance with relevant federal and state regulations; Trustee policy; Office of the Chancellor (CO) directives; and campus procedures. The CSU ATI provides guidelines for compliance with regulations related to the implementation and monitoring of this federal statute.

The ATI is a proactive program to ensure accessibility standards are being reached across the CSU system. This initiative focuses primarily on accessibility standards in the areas of procurement, website accessibility, and instructional materials. The intent of the program is to ensure that all CSU programs, services, and activities are made accessible to all students, staff, faculty, and the general public.

The purpose of the ATI program is to help ensure that technology systems are accessible to all students when they are procured or implemented, so that students have equal access to all campus technologies, and to reduce the demand for individual accommodations.

CONCLUSION

CSUSB had a robust ATI program with strong governance and had an employee dedicated to enhancing the ATI processes and reporting.

For each of the three areas that we examined – procurement of information technology (IT) equipment, website development, and instructional materials – the key objectives of the ATI program were effective in assuring system accessibility.

We did identify some ancillary processes and areas in which the campus could make additional improvements to its ATI program. Specifically, these processes and areas were the use of Procards for procurement of IT equipment and systems, the expansion of website accessibility testing to faculty-developed websites, and the enhancement of newly implemented processes in instructional materials to help ensure that documents added to the learning management system were examined and monitored for accessibility compliance.

Each of these topics, as well as additional observations noted below, are presented in the following pages of this report. We recommend that the campus work to resolve these procedures and practices to ensure that accessible technology is managed across the entire campus.

OBSERVATIONS AND RECOMMENDATIONS

1. ANNUAL PROGRESS REPORT

OBSERVATION

The CSU has provided an ATI maturity model to record the status of 154 procedures that must be in place to improve campus compliance with the CSU ATI. In 2019, the chancellor's office established a minimum baseline expectation of "established" for each status indicator. Of the campus's 154 ATI procedures, 49 had not matured to the minimal level. As shown in the table below, two of the three areas, Procurement and Instructional Materials, were adequate, but more improvement was needed for Website Accessibility compliance. The campus had increased its overall maturity levels by 36 percent from the prior year of reporting.

The maturity model has procedures specific to each of the three key accessible technology processes, ensuring procurement of accessible equipment and systems, website accessibility, and accessibility of instructional materials. Each of the procedures in the maturity model must be rated by the campus according to the maturity of the controls in place. The maturity ratings, called status indicators, are: (1) Not Started, (2) Initiated, (3) Defined, (4) Established, (5) Managed, and (6) Optimized. Ideally, all status indicators should be toward the higher end of maturity. To increase emphasis on the maturity of ATI procedures on a campus, in February 2019, the CO leadership established a minimum maturity baseline of (4) Established for every ATI procedure.

The maturity model is referred to as the Annual Report, which is completed by each campus and sent to the CO every November.

We obtained a copy of the most recent report, from 2018/19, prepared by CSUSB and noted that 49 of 154 status indicators were below the level of (4) Established. We also made random selections of the reported status indicators and confirmed that the maturity level being reported was accurate.

The status indicators that are below the baseline standard of (4) Established (e.g., not started, initiated, or defined) require timely action to reach the minimum baseline standard.

ATI Priority Area	Below Baseline	At Minimal Baseline	Above Baseline
Procurement	10	22	1
Website Accessibility	33	36	3
Instructional Material	6	31	12

Based on our testing of campus documentation and our reviews of other campuses, CSUSB's ATI maturity and reporting process is one of the better operations that we have observed. We selected a sample of five metrics for testing listed at minimal baseline from each ATI priority area, and we found no discrepancies between the metrics reported to the CO and the

reported level. Each metric has an established criteria, and on a sample basis, we validated that the campus had documented and validated the reported improvement.

RECOMMENDATION

We recommend that the campus provide additional emphasis to improve all procedures that have not reached at least the minimum CSU expectation of (4) Established.

2. CAMPUS SOFTWARE PROCUREMENT WITH PROCARDS

OBSERVATION

At CSUSB, IT equipment and software can be acquired through the purchase order process or by using the campus-issued credit cards, called Procards. We found that when Procards were used to make purchases, the campus did not have a method for requiring the vendor to accept the CSU General Provisions for IT Acquisitions, a required step in the traditional purchase order process. Last year, more than 25 percent of IT acquisitions were completed using Procards, whereas other campuses prohibit the use of procards to acquire IT equipment.

One of the objectives when procuring IT equipment and software is to ensure that the product being procured is in compliance with California and federal disability laws and regulations, including the accessibility requirements found in Section 508 of the Rehabilitation Act of 1973. Assurance of compliance is obtained by including the additional contract language titled CSU General Provisions for IT Acquisitions.

When IT equipment and software is purchased with a Procard, it bypasses the established procurement review process for compliance and the campus does not obtain assurance that the product complies with the CSU accessibility standards or other CSU provisions for IT acquisitions.

RECOMMENDATION

We recommend that the campus reevaluate the use of Procards for software purchases or refine the purchasing process to ensure that such acquisitions include a review for the CSU General Provisions for IT Acquisitions.

3. AUXILIARY SOFTWARE PROCUREMENT

OBSERVATION

Campus auxiliary units had the authority to purchase electronic and information technology (E&IT) with their own standards and practices, but their practices did not adequately ensure compliance with technology accessibility.

We examined the IT procurement practices of these organizations and noted:

- The Santos Manuel Student Union (SMSU) and Associated Students Incorporated (ASI) had procurement practices that mostly followed the CSUSB centralized purchasing department guidelines. However, the procurement processes at these auxiliary organizations did not adequately examine low-dollar or no-dollar purchases to ensure that they also complied with federal and state accessibility requirements.

- The University Enterprises Corporation (UEC) did not follow the same purchasing guidelines as the campus and therefore lacked methods to ensure that IT equipment and software was being assessed for accessibility prior to purchase.

RECOMMENDATION

We recommend that:

a. The SMSU and ASI refine their purchasing processes to ensure that accessibility reviews are included for IT purchases, including low-dollar and no-dollar purchases.

b. The UEC amend its purchasing process to include a review of accessibility for all IT equipment and software purchases.

4. WEBSITE ACCESSIBILITY

OBSERVATION

Websites managed by contractors were not consistently tested for accessibility, and accessibility issues on websites developed by third parties were not timely resolved.

We reviewed five colleges/business areas of campus that independently developed or supported websites and found that the campus had robust procedures for ensuring that campus websites were meeting acceptable accessibility compliance.

The campus was performing automated website scans and had developed a manual evaluation process to provide further accessibility tests. In addition, the campus had a dedicated website accessibility coordinator who worked with multiple departments that performed website development or added website content to ensure that accessibility scores were being managed across the campus.

However, we observed that:

- Some websites managed by contractors were not included in the testing process and were not being made accessible. One example of this was found with the vendor-managed Athletics (Sidearm Sports) website, where over 250,000 accessibility issues were reported. The business unit that contracted this website had less than 1,000 issues identified across 34 websites that were built by and supported by the ITS team. Also, the Palm Desert campus websites had fewer than 25 accessibility issues identified for their six ITS-supported websites but had a vendor-managed site that had more than 12,000 accessibility issues.

- Websites developed by third parties were reviewed for accessibility, but some contained multiple accessibility errors that had been reported but had not been resolved, even though the campus had notified the developers of the accessibility issues dating back to June of 2019. The campus is ultimately responsible for ensuring that accessibility issues on websites representing the campus are being timely remediated. Our review did not identify a consistency in coordinating with the vendors of these websites to ensure that the accessibility issues were being addressed and resolved.

RECOMMENDATION

We recommend that the campus enhance the website review process to ensure that all websites are included in the testing process and that web accessibility issues on websites developed by third parties are timely resolved.

5. WEBSITE APPROVAL PROCESS

OBSERVATION

The campus' formal process to request establishment of official websites, which involves completion of a webform that goes to the ITS group for review, did not include websites that were created independently by faculty, did not have a method for identifying all websites, and was not adequate to ensure that software development standards specifically for website accessibility were followed.

Specifically, we noted that:

- The campus allowed faculty to provide instructional materials on their personal websites. These personal websites were outside the campus website review process and therefore were not included in the campus accessibility scanning and security controls. Additionally, there was no way to report ATI deficiency complaints about these websites to the campus.

- The process for creating new websites did not include a step notifying the website accessibility specialist that the website was being created. As a result, some websites were not regularly scanned for accessibility compliance because the website accessibility specialist did not know about them.

- The campus process for web development was not documented sufficiently to ensure that it achieved compliance with the required industry standard, Website Content Accessibility Guidelines (WCAG). The website accessibility specialist had written procedures for reviewing website digital content and digital forms, but those procedures were not being used by the web services group to ensure website content was accessible as it was being developed. When accessibility standards are not considered as content is is initially being created, a website might need to be reworked extensively.

RECOMMENDATION

We recommend that the campus:

a. Develop a way to ensure that accessibility issues, including accessibility issues of instructional materials on personal faculty websites, can be reported and resolved on all faculty websites. Alternately, the campus could develop a policy to ensure that instructional materials are permitted only in the Learning Management System (LMS).

b. Develop a process to ensure that the web accessibility specialist is informed when a new website is created so that they can be included in the accessibility scanning.

c. Enhance the website development process to ensure that the written procedures for WCAG are used to review a website's content when it is initially created.

6. FACULTY PARTICIPATION WITH ATI REQUIREMENTS

OBSERVATION

The campus currently provides training in accessibility requirements for all newly hired faculty members. However, the campus had faculty members whose employment predated this training for new faculty members, and accordingly, many faculty members were not provided with training on accessibility requirements.

Faculty need to be aware of accessibility requirements for instructional materials so that the classroom materials they create are accessible for all students.

RECOMMENDATION

We recommend that the campus either develop a procedure to ensure that all faculty members are trained in ATI requirements or provide an alternative method to assist faculty to ensure that their instructional materials are made accessible.

7. LEARNING MANAGEMENT SYSTEM ACCESSIBILITY COMPLIANCE

OBSERVATION

Instructional materials created by faculty and uploaded into the LMS were not uniformly accessible, and non-compliant materials, once identified, were not consistently remediated in a timely manner.

Faculty create Word documents, PowerPoint presentations, Excel spreadsheets, PDFs, image files, and other materials and upload them into the LMS. If they are not accessible, some students may not be able to use them.

To help identify materials in the LMS that are not accessible, the campus recently implemented a software product, ALLY, that can check the accessibility compliance of instructional materials in the LMS.

At the time of our review, the campus was using ALLY to notify faculty who have instructional materials in the LMS that are not compliant with accessibility standards. However, there is no method to ensure that the faculty remediate the materials. The accessibility of materials uploaded into the LMS had increased over the past year from 67 percent to 73 percent, even with the addition of 40,000 instructional material items uploaded into the LMS from Spring 2020 to Spring 2021, which is significant progress.

The campus was working on a process to provide some managerial oversight over the remediation process to ensure that the instructional materials that are flagged as non-accessible are timely remediated.

RECOMMENDATION

We recommend that the campus develop a process to help ensure that instructional materials are accessible before they are uploaded into the LMS, and develop a review process to ensure that any non-accessible materials are identified, and monitored and tracked until they are remediated. The review and remediation process could be administered by an accessibility compliance team with authority to ensure that remediation occurs, or could be under the purview of the college deans, who would ensure that remediation occurs.

GENERAL INFORMATION

BACKGROUND

In August 1998, President Bill Clinton signed into law the Rehabilitation Act Amendments of 1998. Among other things, the law requires federally funded programs and services to provide people with disabilities access to electronic and information technology. It also strengthened Section 508 of the Rehabilitation Act, which was enacted to eliminate barriers in information technology, make new opportunities available for people with disabilities, and encourage development of technologies that will help achieve these goals. The law applies to all federal agencies, which must ensure that any electronic and information technology that is developed, procured, maintained, or used is accessible to employees and members of the public with disabilities. Section 508 also describes various means for disseminating information, including computers, software, and electronic office equipment. It applies to, but is not solely focused on, federal web pages on the Internet. The law does not apply to private industry or state and local government, but those entities must comply with the law if they are receiving federal funds or under contract with a federal agency. Government Code §11135 requires the CSU and other state governmental entities to comply with the accessibility requirements of Section 508 of the Rehabilitation Act of 1973, as amended.

In 2004, the CSU implemented Executive Order 926, *Policy on Disability Support and Accommodations,* to make information technology resources and services accessible to all CSU students, faculty, and staff, as well as the general public. Concurrently, the CSU developed the Center for Accessible Media to help expedite the delivery of electronic instructional texts to eligible CSU students with disabilities. In January 2006, the CSU launched its ATI in order to develop the work plan, guidance, and resources to assist campuses in carrying out the accessible technology provisions of its revised *Policy on Disability Support and Accommodations*. CSU ATI plans are continuously developing and were revised and extended through policy every year from 2007 to 2014 based on experiences reported by the campuses and the understanding that ATI requirements and milestones should be flexible, allowing campuses to follow different plans for accomplishing them. It is anticipated that the ATI will continue to evolve as new needs are identified.

In January 2013, the CSU issued coded memorandum Academic Affairs (AA) 2013-3, *Accessible Technology Initiative*, to provide campuses with guidance for implementing AT. The memorandum establishes responsibilities and outlines overall governance, specified project planning, and established implementation timelines.

In December 2015, the CSU amended AA-2013-03 by issuing AA-2015-22 to enhance the guidance by outlining specific systemwide activities and responsibilities of the CO ATI department, and enhancing the reporting requirements to include annual reporting to both the CO ATI department and the campus president.

In May 2018, the CSU issued Executive Order 1111, which supersedes the original ADA EO 926.

At CSUSB, the responsibility for establishing and maintaining an effective ATI program resides with the executive sponsors of the ATI steering committee. The campus has a centralized team that works to ensure that accessibility standards are being met across CSUSB. The ATI steering committee and area specific subcommittees address accessibility issues across the

campus. These committees are co-chaired by the vice presidents of information technology services and student affairs and include members from across the campus, including the assistant vice president of human resources, the director and coordinator of the CSUSB Accessible Technology Services division, the web development lead, the director of services to students with disabilities, and a student advocate from Associated Students Incorporated (ASI). We evaluated areas including ATI governance, website accessibility, instructional materials accessibility, and procurement accessibility. During our fieldwork, we were able to evaluate the efficacy of these areas and have provided input into the campus' current practices.

SCOPE

We visited the CSUSB campus from July 30, 2020, through December 3, 2020. Our advisory project and evaluation included the tests we considered necessary in determining whether operational and administrative controls are in place and operative. The advisory project focused on procedures in effect from July 30, 2020, through December 3, 2020.

Specifically, we reviewed and tested:

• Monitoring of the quality and effectiveness of campus ATI program services.

• Resolution of complaints and grievances relating to program accessibility.

• Qualifications of services to students with disabilities staff and campuswide training practices.

• Provision of reasonable technology access and accommodations to applicants and employees.

• Provision of programs, services, and activities that are readily accessible to disabled individuals.

• Ongoing updates and monitoring of the ATI implementation plan.

• Prioritization of ATI implementation tasks and plans.

• Development, documentation, and communication of equally effective alternative access.

• Adequacy of ATI training.

• Compliance with the accessible electronic and information technology procurement program.

The ADA is broad in its scope, but we focused on compliance with Section 508, which the CSU refers to as ATI. The scope included both student and employee accessibility.   Specific areas reviewed included overall governance and responsibility for implementing the initiative, as well as review of the three key components of ATI: website accessibility, procurement, and instructional materials. Our review included compliance with Trustee policy, federal and state directives, and campus policies and procedures; technological compliance; procedures for handling complaints; communication; and employee training.

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 advisory project may not always detect these limitations.

Our testing and methodology, which was designed to provide a review of key operational and administrative controls, included interviews, process walkthroughs, and detailed testing on certain aspects of the ATI program. The review was limited to gaining reasonable assurance that essential elements of the ATI program were in place and did not examine all aspects of the program.

CRITERIA

Our advisory project was based upon standards as set forth in federal and state regulations and guidance; Trustee policy; Office of the Chancellor directives; and campus procedures; as well as sound administrative practices and consideration of the potential impact of significant risks. This advisory project was conducted in conformance with the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*.

This review emphasized, but was not limited to, compliance with:

• EO 1111, *The California State University Board of Trustees Policy on Disability Support and Accommodations*
• AA-2015-22, *Accessible Technology Initiative: Amendment to AA-2013-03*
• AA-2013-03, *Accessible Technology Initiative*
• Campus and auxiliary policies and procedures

REVIEW TEAM

IT Audit Manager: Greg Dove
Internal IT Auditor: Christopher Burk