

STATE OF FLORIDA AUDITOR GENERAL

Information Technology Operational Audit

TALLAHASSEE COMMUNITY COLLEGE

Workday® Enterprise Cloud Applications



Sherrill F. Norman, CPA
Auditor General

Board of Trustees and President

During the period October 2017 through February 2018, Dr. James T. Murdaugh served as President of Tallahassee Community College and the following individuals served as Members of the Board of Trustees:

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^a Elected Vice-Chair on 3-19-18.

^b Appointed by Governor on 2-20-18, to succeed Kevin Vaughn.

The team leader was Vikki Mathews, CISA, and the audit was supervised by Heidi Burns, CPA, CISA.

Please address inquiries regarding this report to Heidi Burns, CPA, Audit Manager, by e-mail at heidiburns@aud.state.fl.us or by telephone at (850) 412-2926.

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TALLAHASSEE COMMUNITY COLLEGE

Workday® Enterprise Cloud Applications

SUMMARY

This operational audit of Tallahassee Community College (College) focused on evaluating selected College information technology (IT) controls applicable to Workday® Enterprise Cloud Applications (Workday®), including the contractual relationship with Workday, Inc. as the provider for the College's Workday® Software as a Service subscription. As summarized below, our audit disclosed areas in which improvements in College controls and operational processes are needed.

Finding 1: College IT security controls related to security management and monitoring need improvement to ensure the confidentiality, integrity, and availability of College data and IT resources.

BACKGROUND

The Tallahassee Community College (College) is under the general direction and control of the Florida Department of Education, Division of Florida Colleges, and is governed by State law and State Board of Education rules. A Board of Trustees (Board) governs and operates the College. The Board constitutes a corporation and is composed of seven members appointed by the Governor and confirmed by the Senate. The College President serves as the Executive Officer and the Corporate Secretary of the Board, and is responsible for the operations and administration of the College.

The College uses Workday® Enterprise Cloud Applications (Workday®) for the recording, processing, and reporting of finance and human resources transactions. The College executed a Master Subscription Agreement (MSA) with Workday, Inc. on August 19, 2013, for the subscription to Workday® using Software as a Service (SaaS). Under the terms of the MSA, Workday, Inc. hosts the Workday® applications and maintains and manages the supporting information technology (IT) infrastructure.

FINDING AND RECOMMENDATION

Finding 1: Security Controls –Security Management and Monitoring

Security controls are intended to protect the confidentiality, integrity, and availability of data and IT resources. Our audit procedures disclosed that certain security controls related to security management and monitoring need improvement. We are not disclosing specific details of the issues in this report to avoid the possibility of compromising the confidentiality of College finance and human resources data and related IT resources. However, we have notified appropriate College management of the specific issues.

Without appropriate security controls related to security management and monitoring, the risk is increased that the confidentiality, integrity, and availability of College finance and human resources data and related IT resources may be compromised.

Recommendation: We recommend that College management improve certain security controls related to security management and monitoring to ensure the confidentiality, integrity, and availability of College finance and human resources data and IT resources.

OBJECTIVES, SCOPE, AND METHODOLOGY

The Auditor General conducts operational audits of educational entities to provide the Legislature, Florida's citizens, public entity management, and other stakeholders unbiased, timely, and relevant information for use in promoting government accountability and stewardship and improving government operations.

We conducted this IT operational audit from October 2017 through February 2018 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for the audit findings and our conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for the audit findings and our conclusions based on our audit objectives.

This IT operational audit focused on evaluating selected IT controls applicable to Workday®, including the contractual relationship with Workday, Inc. as the provider for the SaaS subscription during the period October 2017 through February 2018. The overall objectives of the audit were:

- To evaluate the effectiveness of selected IT controls in achieving management's control objectives in the categories of compliance with controlling laws, administrative rules, and other guidelines; the confidentiality, integrity, availability, relevance, and reliability of data; and the safeguarding of IT resources.
- To identify statutory and fiscal changes that may be recommended to the Legislature pursuant to Section 11.45(7)(h), Florida Statutes.

This audit was designed to identify, for the IT systems and controls included within the scope of the audit, deficiencies in management's internal controls; instances of noncompliance with applicable governing laws, rules, or contracts; and instances of inefficient or ineffective operational policies, procedures, or practices. The focus of this audit was to identify problems so that they may be corrected in such a way as to improve government accountability and efficiency and the stewardship of management. Professional judgment has been used in determining significance and audit risk and in selecting the particular IT controls, legal compliance matters, and records considered.

As described in more detail below, for the IT systems and controls included within the scope of this audit, our audit work included, but was not limited to, communicating to management and those charged with governance the scope, objectives, timing, overall methodology, and reporting of the audit; obtaining an understanding of the IT systems and controls; exercising professional judgment in considering significance and audit risk in the design and execution of the research, interviews, tests, analyses, and other procedures included in the audit methodology; obtaining reasonable assurance of the overall sufficiency and appropriateness of the evidence gathered in support of the audit findings and our conclusions; and reporting on the results of the audit as required by governing laws and auditing standards.

This audit included the selection and examination of IT system controls and records. Unless otherwise indicated in this report, these items were not selected with the intent of statistically projecting the results,

although we have presented for perspective, where practicable, information concerning relevant population value or size and quantifications relative to the items selected for examination.

An audit by its nature does not include a review of all records and actions of management and staff and, as a consequence, cannot be relied upon to identify all instances of noncompliance, fraud, abuse, or inefficiency.

In conducting this audit, we:

- Interviewed College staff and reviewed documentation applicable to College and Workday, Inc. operations to obtain an understanding of:
 - The delineation of responsibilities between the College and Workday, Inc. for the security, administration, support, and maintenance of Workday® and the supporting IT infrastructure, and the applicable contractual provisions.
 - IT infrastructure, including the hardware, operating systems, and database management system, as they relate to the support of the College's Workday® SaaS subscription.
 - Workday® controls that support the College's critical finance and human resources business processes.
- Evaluated the adequacy of College security management controls for ensuring the sufficiency of activities performed by Workday, Inc. related to data management and security.
- Evaluated the adequacy of College security management controls for ensuring the sufficiency of Workday, Inc. controls related to restricting administrative access privileges to the IT infrastructure supporting Workday®.
- Evaluated the adequacy of College security management controls for ensuring the sufficiency of Workday, Inc. controls related to appropriateness of selected authentication controls for the IT infrastructure supporting Workday®.
- Evaluated the adequacy of College security management controls for ensuring the sufficiency of Workday, Inc. logging and monitoring controls over privileged administrator actions for the servers and database that support Workday®.
- Evaluated the effectiveness of selected logical access controls for restricting administrative access privileges to the College's network domain.
- Evaluated the adequacy of the College's security management controls related to user authorization, periodic review of access, and identification of sensitive transactions for Workday®.
- Evaluated the adequacy of the College's system documentation relating to Workday® to promote efficient and effective operations.
- Evaluated the adequacy of the College's logging and monitoring controls over changes to the security and configuration of Workday®, including changes to user access, security group permissions, and business process rules.
- Evaluated the adequacy of the College's controls related to security group and business process rule creation, assignment, and ongoing maintenance.
- Evaluated the adequacy of the College's controls over the security administration function for Workday®.
- Evaluated the appropriateness of selected authentication controls used to protect IT resources and College data for Workday®.
- Examined and evaluated the appropriateness of administrative privileges for the College's network domain as of November 14, 2017.

- Examined and evaluated access granted to ten critical Workday® business processes to determine if the processes enforce an appropriate separation of duties.
- Communicated on an interim basis with applicable officials to ensure the timely resolution of issues involving controls and noncompliance.
- Performed various other auditing procedures, including analytical procedures, as necessary, to accomplish the objectives of the audit.
- Prepared and submitted for management response the findings and recommendations that are included in this report and which describe the matters requiring corrective actions. Management's response is included in this report under the heading **MANAGEMENT'S RESPONSE**.

AUTHORITY

Section 11.45, Florida Statutes, provides that the Auditor General may conduct audits of the IT programs, activities, functions, or systems of any governmental entity created or established by law. Pursuant to the provisions of Section 11.45, Florida Statutes, I have directed that this report be prepared to present the results of our IT operational audit.



Sherrill F. Norman, CPA
Auditor General

MANAGEMENT'S RESPONSE



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June 13, 2018

Ms. Sherrill Norman
Auditor General
Claude Denson Pepper Building, Suite G74
111 West Madison Street
Tallahassee, FL 32399-1450

Dear Ms. Norman,

This letter is in response to the preliminary and tentative audit findings and recommendations for the information technology audit of Tallahassee Community College as described in your letter of June 11, 2018.

As recommended, the College has put measures in place to improve certain security controls related to security management and monitoring to help ensure the confidentiality, integrity, and availability of College finance and human resource data and IT resources.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jim Murdaugh'.

Jim Murdaugh, Ph.D.
President