UNIVERSITY of SOUTH FLORIDA
Office of Internal Audit

MEMORANDUM

TO:	Dr. Prasant Mohapatra Provost and Executive Vice President for Academic Affairs
FROM:	Virginia L. Kalil, CIA, CISA, CFE, CRISC Executive Director/Chief Internal Auditor
DATE:	February 2, 2024
SUBJECT:	24-010 Performance Based Funding Data Integrity Audit

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Virginia kalil
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The University of South Florida (USF) Office of Internal Audit (IA) performed an audit of the internal controls that ensure the completeness, accuracy, and timeliness of data submissions to the Board of Governors (BOG). These data submissions are relied upon by the board in preparing the measures used in the performance-based funding (PBF) process. This audit also provides an objective basis of support for the President and Board of Trustees (BOT) Chair to sign the representations included in the Data Integrity Certification to be filed with the BOG by March 1, 2024. This project is part of the approved 2023-2024 Work Plan.

The PBF measures are based on data submitted through the State University Database System (SUDS) utilizing a state-wide data submission process for BOG files. For additional information on data files included in this audit, see Appendix A.

IA's overall conclusion was that there was an adequate system of internal controls in place to meet the audit objectives.

OVERALL CONCLUSION	
☒ Adequate System of Internal Control	Findings indicate that, as a whole, controls are adequate. Identified risks, if any, were low-priority requiring timely management attention within 90 days.
☐ Adequate System of Internal Control – with reservations	Medium-priority risks are present requiring urgent management attention within 60 days.
☐ Inadequate System of Internal Control	High-priority risks are present requiring immediate management attention within 30 days.

We appreciated the outstanding cooperation received throughout this audit. Please contact IA at (813) 974-2705 if you have any questions.

cc: Gerard Solis, Senior Vice President for Legal Affairs & General Counsel, Chief Strategy Officer
Dr. Charles J. Lockwood, Executive Vice President, USF Health & Dean College of Medicine
Dr. Christian E. Hardigree, Regional Chancellor, USF St. Petersburg Campus
Dr. Karen Holbrook, Regional Chancellor, USF Sarasota-Manatee Campus
Jennifer Condon, Vice President, Business and Finance, and Acting Chief Financial Officer
Sidney Fernandes, Vice President and Chief Information Officer, Information Technology
Dr. Theresa Chisolm, Vice Provost for Strategic Planning, Performance & Accountability
Dr. Cynthia DeLuca, Vice President, Student Success
Masha Galchenko, Associate Vice President, Budget and Financial Analysis, and Controller
Dr. Allison Crume, Associate Vice President and Dean of Undergraduate Studies, Student Success
Dr. Valeria Garcia, Associate Vice President, Office of Decision Support
Billie Jo Hamilton, Associate Vice President, Enrollment Planning & Management
Catherine Mund, University Registrar, Registrar's Office

BACKGROUND

In 2014, the BOG implemented the PBF Model which includes 10 metrics intended to evaluate Florida institutions on a range of issues (e.g., graduation and retention rates, average student costs). Nine of the metrics are common to all institutions, while the remaining one varies by institution and focuses on areas of improvement or the specific mission of the university.

The metric calculations are based on data submitted through the State University Database System (SUDS) utilizing a state-wide data submission process for BOG files. In order to ensure the integrity of the data being submitted to the BOG to support the calculation of the metrics, USF has established specific file generation, review, certification, and submission processes.

File Generation Process

USF utilizes an automated process, Application Manager, to extract data files from the original systems of record and reformat and redefine data to meet the BOG data definition standards. The only data file that can be impacted outside the Application Manager process is the Hours to Degree (HTD) submission. (See HTD File Generation Process below.)

This Application Manager process includes the following key controls:

- ✓ The Application Manager jobs can only be launched by authorized Data Stewards. In addition, individuals responsible for the collection and validation of the data have no ability to modify the Application Manager jobs.
- ✓ The Retention File generated by the BOG is downloaded from the BOG SUDS portal to HubMart by the Office of Decision Support – Data Administration (ODS-Data Administration). The Data Stewards and Sub-certifiers cannot change the files.
- ✓ Corrections are made to the original systems of record and the Application Manager job is re-run until the file is free of material errors.
- ✓ Any changes to the data derivations, data elements, or table layouts in the Application Manager jobs are tightly controlled by ODS-Data Administration and Information Technology (IT) utilizing a formal change management process.
- ✓ There are IT controls designed to ensure that changes to the Application Manager jobs are approved via the standard USF change management process and that access to BOG submission-related data at rest or in transit is appropriately controlled.

Hours to Degree File Generation Process

The HTD file submission has two primary tables: 1) HTD that contains information regarding the students and the degrees issued and 2) Courses to Degree (CTD) that includes information regarding the courses taken and utilization of the courses to degree. The HTD file is derived based on data in HubMart (Degrees_Submitted_Vw) and data from the student records system, OASIS (Online Access Student Information System)-a Banner product. The CTD file is generated from a combination of OASIS data and data obtained from the degree certification and advising system (DegreeWorks).

While an Application Manager process is used to create the HTD file, the process utilizes a series of complex scripts to select the population, normalize the data fields to meet BOG data definition

standards, and populate course attributes used by the BOG to identify excess hours exemptions. This includes deriving whether courses are "used to degree" or "not used to degree" from DegreeWorks.

The systematically-identified HTD population and CTD file are loaded into two custom Banner reporting tables for validation. Any necessary corrections are made manually by the Data Steward utilizing custom Banner forms.

BOG File Review and Certification Process

USF utilizes a formal review process managed by ODS-Data Administration for all BOG file submissions. The review and certification process includes the following key controls:

- ✓ Data Stewards, Sub-certifiers and Executive Reviewers who had operational and/or administrative responsibility for the institutional data are assigned key roles and responsibilities. The ODS website defines each of these roles.
- ✓ A central repository (DocMart) contains detailed information regarding data elements for each BOG SUDS file.
- ✓ A secured file storage location (HubMart) provides read-only access and functionality to the data collected and extracted into the Data Warehouse from transactional source systems in order to allow Data Stewards and Sub-certifiers to review and validate data.
- ✓ A formal sub-certification and executive review process is in place to ensure that institutional data submitted to the BOG accurately reflects the data contained in the primary systems of record. No BOG file is submitted to the BOG by the Data Administrator until the Executive Reviewer(s) approves the file.
- ✓ A formal process for requesting and approving resubmissions includes a second executive review process.

BOG File Submission Process

Once all data integrity steps are performed and the file is ready for upload to the SUDS portal, a secure transmission process is used by ODS-Data Administration to ensure data cannot be changed prior to submission.

Key controls within this process include:

- ✓ A dedicated transfer server is used to transmit the BOG SUDS files. Only ODS-Data Administration and IT server administrators have access to the transfer server.
- ✓ Only ODS-Data Administration staff can upload a file from the transfer server to SUDS, edit submissions, generate available reports, or generate reports with re-editing.
- ✓ Only the Data Administrator and Back-up administrator can submit the final BOG file.

SCOPE AND OBJECTIVES

The audit focused on the internal controls established by USF as of September 30, 2023 to ensure the completeness, accuracy, and timeliness of data submissions to the BOG, which support the PBF measures.

The primary objectives of our audit were to:

- Determine whether the processes and internal controls established by the university ensure the completeness, accuracy, and timeliness of data submissions to the BOG which support the PBF measures.
- Provide an objective basis of support for the President and BOT Chair to sign the representations included in the Performance-Based Funding Data Integrity Certification, which will be submitted to the BOT and filed with the BOG by March 1, 2024.

The scope and objectives of the audit were set jointly and agreed to by the President, BOT Chair, the BOT Audit & Compliance Committee Chair, and the university's Chief Audit Executive. IA followed its standard risk assessment, audit program, and reporting protocols.

PROCEDURES PERFORMED

We followed a disciplined, systematic approach using the *International Standards for the Professional Practice of Internal Auditing*. The information system components of the audit were performed in accordance with the *ISACA (Information Systems Audit and Control Association) Standards and Guidelines*. The COSO (Committee of Sponsoring Organizations of the Treadway Commission) and COBIT (Control Objectives for Information and Related Technologies) Control Frameworks were used to assess control structure effectiveness.

For term-based submissions, testing of the control processes was performed on the files covering the period Summer 2022 through Spring 2023. For files submitted annually, the current year file was selected for testing if available by November 17, 2023. Our testing focused on the tables and data elements in the files which were utilized by the BOG to compute the performance measure. For additional information on the files included in this review see Appendix A.

Minimum audit guidelines were established by the BOG in year one which outlined eight key objectives. Although not required, these key objectives have been incorporated into the audit each subsequent year:

1. Verify the Data Administrator has been appointed by the university president and PBF responsibilities incorporated into their job duties.
2. Validate that processes and internal controls in place are designed to ensure completeness, accuracy, and timeliness of data submissions.
3. Determine whether policies, procedures, and desk manuals are adequate to ensure integrity of submissions.
4. Evaluate the adequacy of system access controls.
5. Verify data accuracy through sample testing of key files and data elements.
6. Assess the consistency of Data Administrator's certification of data submissions.

7. Confirm the consistency of data submissions with the BOG data definitions (files and data elements).
8. Evaluate the necessity and authorization of data resubmissions.

In year one, a comprehensive review of processes and controls was conducted followed by a risk assessment. In each subsequent year, system process documentation was updated to reflect any material changes that took place; a new risk assessment was performed based on the updated system documentation and processes; and a new work plan was developed based on the updated risk assessment. Fraud-related risks, including the availability and appetite to manipulate data to produce more favorable results, were included as part of the risk assessment.

This year's audit included:

1. Evaluating any changes to key processes used by the Data Administrator and data owners/custodians to ensure the completeness, accuracy, and timeliness of data submissions to the BOG. This includes identifying changes in key personnel performing these processes and verifying new controls put in place to resolve deficiencies identified in the prior year's audit.
2. Reviewing all requests to modify data elements and/or file submission processes to ensure they followed the standard change management process and are consistent with BOG expectations.
3. Reviewing the Data Administrator's data resubmissions to the BOG from January 1, 2023, to December 31, 2023, to ensure these resubmissions were both necessary and authorized, as well as evaluating that controls were in place to minimize the need for data resubmissions and were functioning as designed.
4. Tracing samples from the Retention (RET), Student Instructional File (SIF), SIF Degrees Awarded (SIFD), Student Financial Aid (SFA), and Hours to Degree (HTD) BOG files to OASIS (Online Access Student Information System), the system of record. The integrity of these files collectively impacts metrics one through 10.
5. Tracing samples from the HTD BOG file to DegreeWorks, a system used to derive whether courses are used towards a degree. The integrity of this file impacts Metric Three – Cost to the Student.

PRIOR AUDIT PROJECTS

In FY 2022-2023, an audit of the controls established by the university to ensure the completeness, accuracy, and timeliness of data submissions to the BOG which supported the PBF metrics (Audit 23-010, issued February 7, 2023) was performed and two medium-priority risk issues were reported.

The recommendations related to these issues have been reported by management as implemented and IA has verified that controls in place to mitigate the risks identified are operating effectively.

CONCLUSION

IA's overall conclusion was that there was an adequate system of internal controls in place to meet the audit objectives.

APPENDIX A

PERFORMANCE MEASURES DATA SOURCES

Metric	Metric Description	BOG File	Data Used/Created by the BOG
One	Percent of Bachelor's Graduates Employed (Earning $40,000+) or Continuing their Education – One Year After Graduation	SIFD	National Student Clearinghouse (NSC), Florida Department of Economic Opportunity (DEO) and the State University System Institutions
Two	Median Wages of Bachelor's Graduates Employed Full-time – One Year After Graduation	SIFD	Florida Department of Economic Opportunity (DEO) provides Unemployment Insurance (UI) wages from the State Wage Interchange System (SWIS)
Three	Average Cost to the Student (Net Tuition per 120 Credit Hours)	SIF, SFA, HTD	College Board national average book cost
Four	Four Year Graduation Rate (Full-time First Time In College (FTIC))	SIF, SIFD, RET	BOG created Cohort and Retention File
Five	Academic Progress Rate (2nd Year Retention with GPA Above 2.0)	SIF, SIFD, RET	BOG created Cohort and Retention File
Six	Bachelor's Degrees Awarded in Areas of Strategic Emphasis	SIFD	
Seven	University Access Rate (Percent of Undergraduates with a Pell-grant)	SIF, SFA	
Eight	Graduate Degrees Awarded in Areas of Strategic Emphasis	SIFD	
Nine[1]	a. Three-Year Graduation Rate for Florida Community System (FCS) Associate in Arts Transfer Students b. Six-Year Graduation Rate for Students who are Awarded a Pell Grant in their First Year	SIF, SIFD, RET, SFA	BOG created Cohort and Retention File
Ten	Six-year FTIC graduation rate (Full and Part-time)	SIF, SIFD, RET	BOG created Cohort and Retention File

[1] Beginning in fiscal year 2022-2023 the three-year graduation rate for associate in arts transfer students must be included in the performance-based metrics.

BOG FILES REVIEWED

Submission	System of Record	Table	Submission Reviewed
Hours to Degree (HTD)	OASIS, DegreeWorks	Hours to Degree Courses to Degree	2022-2023
Student Financial Aid (SFA)	OASIS	Financial Aid Awards	2022-2023
Student Instructional File - Degree (SIFD)	OASIS	Degrees Awarded	Summer 2022, Fall 2022, Spring 2023
Student Instructional File (SIF)	OASIS, GEMS	Person Demographics Enrollments	Summer 2022, Fall 2022, Spring 2023
Retention File (RET)	BOG	Retention Cohort Change	2021-2022

UNIVERSITY of SOUTH FLORIDA
Office of Internal Audit

MEMORANDUM

TO: Dr. Prasant Mohapatra, Provost and Executive Vice President for Academic Affairs
Dr. Sylvia Wilson Thomas, Vice President for Research and Innovation

FROM: Virginia L. Kalil, CIA, CISA, CFE, CRISC
Executive Director/Chief Internal Auditor

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Virginia kalil
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DATE: February 2, 2024

SUBJECT: 24-020 Preeminence Data Integrity Audit

The University of South Florida (USF) Office of Internal Audit (IA) performed an audit of the University's processes and internal controls which ensure the completeness, accuracy, and timeliness of data submissions supporting the 12 preeminence metrics. These data submissions are relied upon by the Florida Board of Governors (BOG) in assessing USF's eligibility under Florida Statute 1001.7065 Preeminent state research universities program. This audit also provides an objective basis of support for the President and Board of Trustees (BOT) Chair to sign the representations included in the Data Integrity Certification to be filed with the BOG. This project was included on the 2023-2024 Internal Audit Work Plan.

Data supporting these metrics comes from a variety of sources including data submitted to the BOG via routine and ad hoc requests, financial data submitted by the USF Foundation regarding endowments, data reported to external entities, and data created and reported by independent entities external to USF's control. USF may assist the BOG's Office of Data Analytics (BOG-ODA) by gathering the data or confirming the data. For additional information on metrics and data sources included in this review see Appendix A.

IA's overall conclusion was that there was an adequate system of internal controls in place over all 12 metrics (Metrics A-L), assuming corrective actions are taken timely to address two medium-priority risks related to additional control improvements over the research and development (R&D) expenditures in the National Science Foundation (NSF) Higher Education Research and Development (HERD) Survey as outlined in Appendix B. Despite the risks identified, there was no impact on the overall status of each metric.

OVERALL CONCLUSION	
☐ Adequate System of Internal Control	Findings indicate that, as a whole, controls are adequate. Identified risks, if any, were low priority requiring timely management attention within 90 days.
☒ Adequate System of Internal Control – with reservations	Medium-priority risks are present requiring urgent management attention within 60 days.
☐ Inadequate System of Internal Control	High-priority risks are present requiring immediate management attention within 30 days.

The outstanding cooperation received throughout this review was appreciated. Please contact IA at (813) 974-2705 if you have any questions.

cc: Gerard Solis, Senior Vice President for Legal Affairs & General Counsel, Chief Strategy Officer
    Dr. Christian E. Hardigree, Regional Chancellor, USF St. Petersburg Campus
    Dr. Karen Holbrook, Regional Chancellor, USF Sarasota-Manatee Campus
    Jay Stroman, Senior Vice President for Advancement and Alumni Affairs and USF Foundation CEO
    Dr. Charles J. Lockwood, Executive Vice President, USF Health & Dean College of Medicine
    Jennifer Condon, Vice President, Business and Finance, Acting Chief Financial Officer
    Sidney Fernandes, Vice President and Chief Information Officer, Information Technology
    Dr. Theresa Chisolm, Vice Provost for Strategic Planning, Performance and Accountability
    Dr. Cynthia DeLuca, Vice President, Student Success
    Dr. Ruth Huntley Bahr, Dean, Office of Graduate Studies
    Dr. Darren Schumacher, CEO Institute of Applied Engineering
    Masha Galchenko, Associate Vice President, Budget and Financial Analysis, and Controller
    Dr. Valeria Garcia, Associate Vice President, Office of Decision Support

BACKGROUND

Regulatory Requirements

In 2013, the Legislature and Governor approved Senate Bill 10761, (see Florida Statute 1001.7065), creating the Preeminent State Research Universities Program, specifying 12 benchmarks and providing added resources and benefits to those eligible universities meeting six out of those 12 benchmarks for emerging preeminence and 11 out of 12 for preeminence. Florida Statute 1001.7065 established the academic and research excellence standards and data sources for the preeminent state research universities program. The university's performance results related to the preeminence metrics are reported to the BOG via the Accountability Plan, after review and approval by the USF BOT. The 2023 Accountability Plan was approved by the USF BOT on April 19, 2023. The BOG Strategic Planning Committee reviewed and approved the Accountability Plan on June 21, 2023. The 2023 Accountability Plan was based on data for all USF campuses.

BOG Regulation 2.002 University Accountability Plans requires each university BOT to "prepare an accountability plan and submit updates on an annual basis for consideration by the Board of Governors. The accountability plan shall outline the university's top priorities, strategic directions, and specific actions for achieving those priorities, as well as progress towards previously approved institutional and system-wide goals."

Florida Statute 1001.706 Section (5) (e) requires the BOG to define the data components and methodology used to implement Florida Statute 1001.7065 and requires each university to conduct an annual audit to verify that the data submitted pursuant to Florida Statute 1001.7065 complies with the data definitions established by the Board. The BOG most recently updated the Preeminent Metrics Methodology Document in October 2020.

The data supporting preeminence metrics comes from a variety of sources including:

- Data reported to external entities, which is managed in accordance with USF Policy 11-007.

- Data submitted to the BOG via routine and ad hoc requests, which is managed by the USF Office of Data Administration & State Reporting.

- Financial data submitted by the USF Foundation (USFF) regarding endowments to the National Association of College and University Business Officers (NACUBO).

- Data that is created and reported by independent external entities outside of USF's control. USF may assist the BOG's Office of Data Analytics (BOG-ODA) by gathering the data or confirming the data, but USF has no ability to impact the data.

USF Roles and Responsibility for External Data Requests

In order to ensure the integrity of the data submitted to external agencies outside of the BOG process, USF promulgated USF Policy 11-007 Data Submission to External Entities, last revised January 30, 2023, which communicates "to USF, the roles and responsibilities for responding to requests from external entities that involve provision of institutional data." "The policy applies to all units/offices across USF and provides guidelines for processing data requests by external entities." External data requests not exempted from this policy, "must go through the USF's Office of

Decision Support (ODS) which has established procedures for processing those requests, details of which may be accessed on the ODS Data Request site."

According to USF Policy 11-007, institutional data is defined as "all data elements created, maintained, received, or transmitted as a result of business, educational or research activities of a USF unit or office." External data requests include, but are not limited to, "publications by external entities (NSF, CUPA, ACT, etc.), ranking publications – international and domestic (U.S. News and World Report, Times Higher Education, etc.), surveys administered by or on behalf of external entities (NSSE, THE-WSJ, Princeton Review, etc.), other external reports available to the general public, and mandated reports (IPEDS, etc.)."

ODS Validation Process

There are three surveys used as data sources for the preeminence metrics: The NSF HERD Survey, the NSF/National Institutes of Health (NIH) Graduate Students and Post Doctorates in Science and Engineering (GSS) Survey, and the NACUBO – TIAA Study of Endowments (NTSE) Survey. Due to the financial nature of the NTSE Survey, this survey follows the BOG ad hoc review process.

The external survey results reviewed by ODS are used in four metrics: Research Expenditures in Science & Engineering (Metric F), Research Expenditures in Non-Medical Science & Engineering (Metric G), Top 100 Rank in Research Funding (Metric H), and Post-doctoral appointees (Metric K).

BOG Submission Validation Process

Specifically excluded from USF Policy 11-007 Data Submission to External Entities are requests from the BOG including official information requests, routine annual requests, and ad hoc special requests, which are managed by the USF Office of Data Administration & State Reporting. The Institutional Data Administrator collaborates with ODS for review before submission to the BOG.

The Office of Data Administration & State Reporting is responsible for certifying and managing the submission of data to the BOG on behalf of USF pursuant to BOG Regulation 3.007. The Office of Data Administration and State Reporting serves as a liaison between the BOG-ODA and USF regarding requests for information and coordinates the efforts of academic and administrative resources to ensure timely and accurate reporting. The USF Institutional Data Administrator has established roles and responsibilities for those involved in maintaining institutional data, preparing required files for submission to the BOG, and validating the files are accurate and consistent with BOG data definitions. Each data submission is assigned to a primary executive reviewer who is responsible for the review and approval of the institutional data submission prior to the official submission to the BOG. As an additional data integrity control the USF Institutional Data Administrator collaborates with ODS for review before submission to the BOG.

The process used to create standard BOG submissions, submitted via the State University Data System (SUDS), is audited each year by IA. For more information on the control process, see Audit 24-010 Performance Based Funding (PBF) Data Integrity Audit.

The following BOG SUDS file submissions are utilized by the BOG to calculate or validate preeminence metrics:

- Admission file used to compute Average Grade Point Average and Average Scholastic Aptitude Test Score (Metric A).
- Student Instruction file used to generate the First Time in College cohort used in Metrics A, C (Retention Rate), and D (4-yr Graduation Rate) and to calculate metrics.
- Degrees Awarded file used to compute Number of Doctoral Degrees Awarded Annually (Metric J) and Metric D (4-yr Graduation Rate).

BOG Ad hoc Report Process

The USFF is responsible for calculating and reporting the data for the NTSE Survey which is used for Metric L (Endowments >= $500 Million). The USFF utilizes the NACUBO definition of endowments to complete the survey. Once compiled, the endowment team reviews the data, and the survey is approved by the Senior Vice President for Legal Affairs and General Counsel, Chief Strategy Officer. The endowment team includes the Vice President and two additional USFF team members (Senior Director of Investments, and USFF Accounting Manager). The NTSE Survey is also subject to the ODS ad hoc data executive review process.

All BOG ad hoc reports are assigned to a sub-certifier who has been given the responsibility to oversee the definition, management, control, integrity, and maintenance of institutional data. A formal executive review meeting may be held, or an executive review is performed via email in which institutional data is reviewed and approved prior to submission to the BOG. Upon approval by the executive review team, the data is provided to ODS for inclusion in the Accountability Plan.

Process Used to Validate Metrics Using External Sources

The results of three of the metrics are based on data maintained by external sources including: Public University National Ranking (Metric B), National Academy Memberships (Metric E), and Utility Patents Awarded (Metric I).

University ranking (Metric B) is tracked on an on-going basis by ODS. Annually, the BOG provides the rankings which are reviewed by ODS who validates the rankings on the external entities' websites. USF does not submit the data to the BOG for Metric E or I, the BOG obtains the number of faculty members who are members of a National Academy by reviewing public data without the assistance of USF and obtains the number of patents directly from the United States Patent and Trademark Office (uspto.gov). ODS (Metric E) and the Office of Research & Innovation (Metric I) validate the BOG data.

Higher Education Research & Development (HERD) Portal

In FY 2022, the USF Office of Research & Innovation (ORI) transitioned from using a Microsoft (MS) Access database to a research portal using an SQL database that compiles data used to generate the HERD survey. Data from USF systems of record is exported to MS Excel files then uploaded into the research portal. Additionally, each Direct Support Organizations (DSO) logs into the research portal to complete an individual National Science Foundation (NSF) HERD Survey form. The data files from the various inputs are compiled within the research portal to generate the NSF HERD survey that includes data from all USF campuses, One USF. The final survey is reconciled to the data files and reviewed by ORI and then by ODS in accordance with USF Policy 11-007 prior to submission to the NSF. The NSF HERD Survey contains data validation edits that identify

variances and inconsistencies between questions and require explanations for any large year-to-year variances.

SCOPE AND OBJECTIVES

Our audit focused on the internal controls established by USF as of September 30, 2023, to ensure the completeness, accuracy, and timeliness of data submissions, which support the preeminence measures.

The primary objectives of our audit were to:

- Determine whether the processes and internal controls established by the university ensure the completeness, accuracy, and timeliness of data submissions which support the preeminence measures.
- Provide an objective basis of support for the President and BOT Chair to sign the representations included in the Data Integrity Certification, which will be submitted to the BOT and filed with the BOG.

BOG submission files are used in both PBF and Preeminence. As a result, our audit scope excluded controls in place to produce the data files supporting the PBF metrics, which were reviewed during the PBF Data Integrity Audit (IA 24-010).

The scope and objectives of the audit were set jointly and agreed to by the President, BOT Chair, the BOT Audit & Compliance Committee Chair, and the university's Chief Audit Executive. IA followed its standard risk assessment, audit program, and reporting protocols.

We followed a disciplined, systematic approach using the *International Standards for the Professional Practice of Internal Auditing*. The information system components of the audit were performed in accordance with the *ISACA (Information Systems Audit and Control Association) Standards and Guidelines*. The COSO (Committee of Sponsoring Organizations of the Treadway Commission) and COBIT (Control Objectives for Information and Related Technologies) Control Frameworks were used to assess control structure effectiveness.

PROCEDURES PERFORMED

Although not required by the BOG, the following key objectives have been incorporated into the audit each year:

1. Evaluate key processes and controls used by the data owner to ensure the completeness, accuracy, and timeliness of data submission.
2. Validate all populations utilized and recalculate metrics using internal and external data sets, when available.
3. Verify data accuracy through sample testing of key files and data elements.
4. Review the processes used by the data administrators in ODS to ensure the completeness, accuracy, and timely submission of data supporting the metrics.
5. Confirm the consistency of data components and methodology with the BOG's expectations for the implementation of Florida Statute 1001.7065 (Preeminent state research universities program).

6. Determine the overall risk of a data submission being inaccurate or incomplete.
7. Recommend corrective actions where weaknesses were identified.

In the initial year for the audit, a comprehensive review of processes and controls was conducted, followed by a risk assessment. In each subsequent year, system process documentation was updated to reflect any material changes that took place; a new risk assessment was performed based on the updated system documentation and processes; and a new work plan was developed based on the updated risk assessment. Fraud-related risks, including the availability and appetite to manipulate data to produce more favorable results, were included as part of the risk assessment.

This year's audit also included:

1. Evaluating any changes to key processes used to ensure the completeness, accuracy, and timeliness of data submissions used in the metrics. This includes verifying new controls put in place to resolve deficiencies identified in the prior year's audit and identifying changes in key personnel performing these processes.
2. Validating the accuracy of the data submitted via external surveys: NACUBO NTSE Survey, NSF GSS Survey, and the NSF HERD survey.
3. Verifying data accuracy through sample testing of key files and data elements from the Admission (ADM) BOG files to OASIS (Online Access Student Information System), the system of record. The Admission file is not tested in the PBF audit, and the integrity of this file affects Metric A.

PRIOR AUDIT PROJECTS

IA's 2022-2023 Work Plan included an audit to assess the completeness, accuracy, and timeliness of data submissions that support the calculation of the 12 preeminence metrics as reported in the 2022 Accountability Plan. The 23-020 Preeminence Data Integrity Audit report was issued on February 7, 2023. The report contained two medium-priority risk issues. The recommendations related to these issues have been reported by management as implemented and the implementation status has been confirmed by IA.

CONCLUSION

IA's overall conclusion was that there was an adequate system of internal controls in place over all 12 metrics (Metrics A-L), assuming corrective actions are taken timely to address two medium-priority risks related to additional control improvements over the research and development (R&D) expenditures in the National Science Foundation (NSF) Higher Education Research and Development (HERD) Survey as outlined in Appendix B. Despite the risks identified, there was no impact on the overall status of each metric.

APPENDIX A

PREEMINENCE DATA SOURCES

Metric	Description	Responsible Unit	Source	Data Used/Created by the BOG
A	Average Grade Point Average (GPA) and SAT score for incoming freshman in Fall semester.	BOG-ODA	BOG Submission File	BOG-ODA performs concordance of SAT scores and calculates averages based on the Admission (ADM) file tables provided by USF.
B	Top 50 in national public university rankings	ODS	External websites	List of acceptable organizations maintained by BOG-ODA. USF's performance for listed organizations is prepared by BOG. ODS validates using external websites.
C	Freshman retention rate (Full-time, first time in college (FTIC))	ODS	BOG Submission Files	Data based on BOG Student Instruction Files (SIF, SIFP) used to calculate the FTIC Cohort and the retention rate.
D	Four-year FTIC graduation rate	ODS	BOG Submission File	Data based on BOG files SIF, SIFP used to calculate the FTIC cohort and Degrees Awarded file (SIFD). BOG computes graduation rates based on BOG files (SIF, SIFP, and SIFD).
E	National Academy memberships	BOG-ODA	Official membership directories	Calculated by BOG but validated by ORI using external websites. List of acceptable organizations maintained by BOG.
F	Total annual research expenditures: Science & engineering only	ORI	NSF HERD Survey	Survey utilized GEMS, FAST, FAIR, and BLACKBAUD financial data, and R&D activities reported by DSO via manual survey tools.
G	Total annual research expenditures in diversified non-medical sciences	ORI	NSF HERD Survey	Same as Metric F.
H	Top 100 national ranking in research expenditures in at least five STEM disciplines	ORI	NSF HERD Survey	Same as Metric F, except ORI utilizes department ID number to associate R&D activities with a discipline.
I	Patents awarded over three-year period	BOG-ODA	USPTO website	As reported by USPTO for the most recent three years.
J	Doctoral degrees awarded annually	BOG-ODA	BOG Submission File	BOG computes and ODS validates based on SIFD.
K	Number of post-doctoral appointees	OPA	NSF GSS Survey	Survey utilized GEMS, FAST, and FAIR.
L	Endowment size	USFF	NACUBO NTSE Survey	Survey utilized BLACKBAUD financial data and external investment statements.

APPENDIX A

KEY TERMS

Term	Description
BLACKBAUD	Blackbaud Financial Edge NXT financial accounting system used by USFF & USF Research Foundation (USFRF)
BOG-ODA	Florida Board of Governors' Office of Data Analytics
FAIR	Faculty Academic Information Reporting System used to obtain departmental funded research efforts
FAST	Financial Accounting System used by USF to manage contracts and grant activities
FTIC	First-time in College as defined by IPEDS and BOG
GEMS	Global Employment Systems used by USF to manage human resource and payroll activities
NACUBO NTSE	National Association of College and University Business Officers TIAA Study of Endowments
NSF GSS	NSF/National Institutes of Health (NIH) Survey of Graduate Students and Post-doctorates in Science and Engineering
NSF HERD	National Science Foundation Higher Education Research & Development Survey
ODS	Office of Decision Support in the Office of the Provost
OPA	Office of Post-Doctoral Affairs in the Office of Graduate Studies
ORI	Office of Research & Innovation
PBF	Performance Based Funding
USFF	USF Foundation, direct support organization of USF
USPTO	United States Patent & Trademark Office
R&D	Research & Development expenditures as defined by the HERD Survey

APPENDIX B

	MEDIUM PRIORITY RISKS	STATUS
1.	**Additional improvements to controls over the Research and Development (R&D) expenditures in the Higher Education R&D (HERD) survey are needed to ensure accurate reporting.** The National Science Foundation (NSF) provides guidance to institutions on how to define research activities as R&D. This guidance is contained in a document titled "Definitions of Research and Development: An Annotated Compilation of Official Sources". Additionally, the HERD Survey Questionnaire provides definitions and instructions for completing the survey and states that "R&D does not include Capital projects (i.e., construction or renovation of research facilities)." The Office of Research and Innovation (ORI) is responsible for compiling data from all sources and consolidating it into the OneUSF annual HERD Survey using the HERD Survey Guidelines. In completing the Executive Review Form – Performance Based Funding & Preeminence, the ORI annually certifies that proper procedures were followed and that the data presents an accurate and true representation of facts for the period reported. Per USF Policy 11-007 Data Submission to External Entities, subsection IV.G., a Unit Data Coordinator is a "University employee identified by the unit's Accountable Officer as the liaison/coordinator between the External Entity and USF and the USF Office of Decision Support". According to subsection V.1. of the policy, the responsibilities of a Unit Data Coordinator include but are not limited to maintaining proper documentation of the data submission and ensuring completeness of the data submission. A Business Analyst in Sponsored Research was the Unit Data Coordinator for the fiscal year (FY) 2022 HERD Survey. In reviewing the FY 2022 HERD Survey, IA noted issues in three areas as outlined below. USF Sarasota-Manatee (USFSM) USFSM campus offers a wide variety of degrees and programs to students including an accelerated second degree nursing program which launched in 2020. To support these programs, there are several labs and research locations available for use by USFSM. In compiling the FY 2022 HERD Survey, ORI included expenditures paid to maintain/renovate the research space totaling $1,240,974.52 and described these expenditures as 'imputed rent', although these expenditures were	In Progress

MEDIUM PRIORITY RISKS	STATUS
renovation and maintenance costs. This resulted in two errors on the FY 2022 HERD Survey: • The amount of $1,240,974.52 was included as imputed rent even though it was a capital expenditure and should not have been included in the HERD Survey. The entire amount impacted Metric F and G in the life sciences R&D field. • The amount was incorrectly reported in the life sciences category on the HERD Survey. While USFSM does maintain various labs and research space, only a small portion is used in life sciences. Even if the expenditure amount would have qualified as imputed rent, it should have been distributed among life sciences, physical sciences, social sciences, psychology, non-science and engineering. Institute for Applied Engineering (IAE) The Institute for Applied Engineering (IAE) is a Florida not-for-profit corporation and a direct support organization (DSO) of the University of South Florida. As a DSO, the IAE provides salary support for university employees who perform R&D activities by reimbursing USF for salary-related expenditures via convenience funds. While USF's systems and records are the primary source of R&D expenditures, the DSOs must report R&D expenditures accounted for in their financial systems. ORI relies on the DSOs to provide accurate and complete information. IA noted that IAE salary support expenditures on federal grants totaling $1,242,051.79 had been double counted or included by both IAE and USF. A similar issue with double counting of USF Foundation salaries was noted in the prior year audit report while reviewing the FY 2021 HERD Survey. As a result, ORI implemented IA's recommendation to develop a Direct Service Organization Review Methodology. However, the DSO Review Methodology was developed after the FY 2022 HERD Survey was prepared, therefore the implementation of the procedure in practice could not be verified by IA during the current audit. Additionally, regarding state and local government projects, IA noted that IAE did not record $323,481.35 of FY 2022 salaries, materials, and services in the applicable convenience fund until FY 2023. It should be noted that upon IA request, IAE had to recreate parts of the HERD survey supporting documentation. In the recent period, IAE experienced turnover and current IAE and ORI employees did not have the	

MEDIUM PRIORITY RISKS	STATUS
HERD Survey support previously provided by IAE to ORI as part of the 2022 HERD Survey. The total amount of $1,242,051.79 from IAE impacted Metric F and G, in the engineering fields. <u>Research Projects</u> Controls in place did not adequately identify and exclude all non-research instruction and training grants from the HERD Survey. IA tested a sample of 5 sponsored research instruction projects totaling $1,532,468.64 included in the FY 2022 HERD Survey to determine whether the projects were properly classified as R&D. IA determined that one of the five projects tested with expenditures in the amount of $292,322.93 (19.1%) was improperly classified and should not have been included in the survey. Total research expenditures which should have been excluded from the HERD Survey related to imputed rent, double counting IAE salaries and inappropriate inclusion of non-research instruction funds outlined above total to $2,775,349.42 and impacted Metrics F and G, of which $1,240,974.52 impacted the life sciences field and $1,534,374.72 impacted various science and engineering fields. The issues identified resulted from a combination of factors including a new Unit Data Coordinator in Sponsored Research, employee turnover within the DSOs, and inadequate training of new employees responsible for the HERD Survey data preparation process as well as a lack of detailed data review by ORI. Although ORI employees signed the Preeminence Executive Review form acknowledging the data "presents an accurate and true representation of facts for the period reported", an adequate review of the data was not performed to ensure that the data was complete and accurate. Additionally, as described in the finding, adequate support for data included in the HERD Survey was not always maintained by ORI. Errors in reporting data used to measure institutional performance create a reputational, compliance and financial risk. **Recommendation:** **ORI should:** 1. **Document a comprehensive HERD data review process which will ensure complete and accurate submission of the HERD data in accordance with the survey data definitions.**	

	MEDIUM PRIORITY RISKS	STATUS
	2. Implement the comprehensive HERD data review process in practice during the development of the FY 2023 HERD Survey and going forward in order to ensure that expenditures submitted for inclusion in the annual NSF HERD survey are research-related activities. 3. Maintain adequate support of the expenditure data provided by DSOs. 4. Consider implementing anomaly reports which will be used as part of the HERD Survey data review process. 5. Provide training to all new employees who are involved in the HERD Survey preparation process to ensure that they have an adequate understanding of expenditures which are eligible for inclusion in the HERD Survey. **Management Attention Required:** ☐ Immediate ☒ Urgent ☐ Timely **Resources/Effort Required:** ☐ Significant ☒ Moderate ☐ Minimal	
2.	**Further enhancement of the control environment governing the HERD Survey needed to ensure completeness, accuracy, and timeliness of the expenditures included.** The data supporting the HERD Survey comes from a variety of sources including other USF campuses, departments, and direct support organizations (DSOs). Since 2019, IA has been auditing the controls related to the Office of Research and Innovation's (ORI's) HERD Survey preparation process. IA has identified room for improvement in the compiling of the HERD Survey data during the past four out of five audits. Recommendations have focused on improvements needed related to data governance and oversight for the HERD Survey preparation process. This was remarked again during this year's audit as noted in medium priority risk #1 above. In responding to these recommendations, IA commends ORI for the improvements made in the control environment including the recent transition from the Microsoft (MS) Access database tool to a research portal using an SQL database that compiles data used to generate the HERD survey. This transition should improve the process of compiling the HERD Survey and facilitate the maintenance of supporting documentation used for the HERD Survey. While improvements have been made and steps have been taken to resolve individual exceptions noted in prior audit reports, there is still an opportunity for ORI to exhibit greater ownership and accountability over the HERD	**In Progress**

	MEDIUM PRIORITY RISKS	STATUS
	Survey through more thorough oversight, validation, and monitoring of the data provided by the other USF units and DSOs. Accountability, adequate oversight, and training of employees involved in the HERD Survey preparation process including those outside ORI are essential to ensuring HERD data is being reported completely, accurately, and timely. **Recommendation:** **ORI should improve the overall HERD Survey control environment by identifying the most suitable methods and dedicating adequate resources to improve oversight, continuous monitoring, accountability, and ownership over the HERD Survey data that ORI, as the data steward, has the obligation of overseeing.** **Management Attention Required:** ☐ Immediate ☒ Urgent ☐ Timely **Resources/Effort Required:** ☐ Significant ☒ Moderate ☐ Minimal	

Data Integrity Certification
March 2024

In accordance with Board of Governors Regulation 5.001(8), university presidents and boards of trustees are to review, accept, and use the annual data integrity audit to verify the data submitted for implementing the Performance-based Funding model complies with the data definitions established by the Board of Governors.

Given the importance of submitting accurate and reliable data, boards of trustees for those universities designated as preeminent or emerging preeminent are also asked to review, accept, and use the annual data integrity audit of those metrics to verify the data submitted complies with the data definitions established by the Board of Governors.

Applicable Board of Governors Regulations and Florida Statutes: Regulations 1.001(3)(f), 3.007, and 5.001; Sections 1.001.706, 1001.7065, and 1001.92, Florida Statutes.

Instructions: To complete this certification, university presidents and boards of trustees are to review each representation in the section below and confirm compliance by signing in the appropriate spaces provided at the bottom of the form. Should there be an exception to any of the representations, please describe the exception in the space provided.

Once completed and signed, convert the document to a PDF and ensure it is ADA compliant. Then submit it via the Chief Audit Executives Reports System (CAERS) by the **close of business on March 1, 2024**.

University Name: University of South Florida

Data Integrity Certification Representations:

1. I am responsible for establishing and maintaining, and have established and maintained, effective internal controls and monitoring over my university's collection and reporting of data submitted to the Board of Governors Office which will be used by the Board of Governors in Performance-based Funding decision-making and Preeminence or Emerging-preeminence Status.

2. In accordance with Board of Governors Regulation 1.001(3)(f), my Board of Trustees has required that I maintain an effective information system to provide accurate, timely, and cost-effective information about the university, and shall require that all data and reporting requirements of the Board of Governors are met.

3. In accordance with Board of Governors Regulation 3.007, my university provided accurate data to the Board of Governors Office.

Data Integrity Certification, March 2024

4. In accordance with Board of Governors Regulation 3.007, I have tasked my Data Administrator to ensure the data file (prior to submission) is consistent with the criteria established by the Board of Governors. The due diligence includes performing tests on the file using applications, processes, and data definitions provided by the Board Office. A written explanation of any identified critical errors was included with the file submission.

5. In accordance with Board of Governors Regulation 3.007, my Data Administrator has submitted data files to the Board of Governors Office in accordance with the specified schedule.

6. I am responsible for taking timely and appropriate preventive/ corrective actions for deficiencies noted through reviews, audits, and investigations.

7. I recognize that Board of Governors' and statutory requirements for the use of data related to the Performance-based Funding initiative and Preeminence or Emerging-preeminence status consideration will drive university policy on a wide range of university operations – from admissions through graduation. I certify that university policy changes and decisions impacting data used for these purposes have been made to bring the university's operations and practices in line with State University System Strategic Plan goals and have not been made for the purposes of artificially inflating the related metrics.

8. I certify that I agreed to the scope of work for the Performance-based Funding Data Integrity Audit and the Preeminence or Emerging-preeminence Data Integrity Audit (if applicable) conducted by my chief audit executive.

9. In accordance with section 1001.706, Florida Statutes, I certify that the audit conducted verified that the data submitted pursuant to sections 1001.7065 and 1001.92, Florida Statutes [regarding Preeminence and Performance-based Funding, respectively], complies with the data definitions established by the Board of Governors.

Exceptions to Note: Click or tap here to enter text.

Data Integrity Certification, March 2024

Data Integrity Certification Representations, Signatures:

I certify that all information provided as part of the Board of Governors Data Integrity Certification for Performance-based Funding and Preeminence or Emerging-preeminence status (if applicable) is true and correct to the best of my knowledge; and I understand that any unsubstantiated, false, misleading, or withheld information relating to these statements render this certification void. My signature below acknowledges that I have read and understand these statements. I certify that this information will be reported to the board of trustees and the Board of Governors.

DocuSigned by:

Certification: *Rhea F. Law*
—D70CAC2969704A4...
University President

Date: 2/28/2024 | 15:43 EST

I certify that this Board of Governors Data Integrity Certification for Performance-based Funding and Preeminence or Emerging-preeminence status (if applicable) has been approved by the university board of trustees and is true and correct to the best of my knowledge.

DocuSigned by:

Certification: [signature]
—ADA1D8E0BCB941A...
University Board of Trustees Chair

Date: 2/28/2024 | 12:46 PST