



**USF Board of Trustees**

Tuesday, February 23, 2021  
Microsoft Teams @ 1:20 p.m.

**A G E N D A**

- I. Call to Order and Comments** Chair Jordan Zimmerman
  
- II. New Business – Action Items**
  - FL 101** – *Approval of Acceptance of Performance-Based Funding Data  
Integrity Audit & Approval of Preeminence Data Integrity Certification  
Audit & Compliance Committee Approved Item*
  
  - FL 102-** *Election of Vice Chair* Chair Zimmerman
  
- III. Adjournment** Chair Zimmerman

**Agenda Item: FL 101**

**USF Board of Trustees**

February 23, 2021

**Issue:** Board of Governors Performance-Based Funding and Preeminence Data Integrity Audits and Certification

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**Proposed action:** Acceptance of Performance-Based Funding (PBF) and Preeminence Data Integrity Audits and Approval of Data Integrity Certification

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**Executive Summary:** Pursuant to Florida Statute 1001.706(5)(e) and Board of Governors Chair Kitson's letter to University Presidents and University Board of Trustees Chairs dated June 25, 2020, the USF Office of Internal Audit (IA) conducted internal audits of PBF and Preeminence Data Integrity. The primary audit objectives for both audits 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 performance measures.
- Provide an objective basis of support for the President and Board of Trustees Chair to sign the representations included in the Data Integrity Certification.

The Board of Governors requires the acceptance of the audit results and the approval of the Data Integrity Certification by the Board of Trustees, with submittal to the Board of Governors by March 1, 2021.

The scope and objectives of both audits were set jointly and agreed to by the University's President, Board of Trustees Chair, Board of Trustees Audit and Compliance Committee Chair, and chief audit executive. Audit followed its standard risk assessment, audit program, and reporting protocols.

**Conclusion:**

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

Regarding the Preeminence audit, IA's overall conclusion was that there was an adequate system of internal controls in place over nine of the 12 preeminence

measures. Audit concluded controls over the remaining three preeminence measures, related to the National Science Foundation (NSF) Higher Education Research & Development (HERD) survey submission, was not adequate due to the presence of one high-priority risk. This high-priority risk related to the data governance control structure to ensure accurate and consistent reporting of research and development expenditures. While progress has been made in this area since IA's prior audit, control improvements are still needed. Although the issue identified was considered high risk due to the potential reputational risk, there was no impact to the overall status of each metric (pass or fail). The University met Preeminence measures despite the issue identified.

In response to the issue identified, management developed implementation plans for their corrective actions which are underway and included within the relevant reports issued by IA.

**Financial Impact:** The University received \$75.9 million in PBF allocations for fiscal year 2020-2021, including a return of the institutional investment of \$40.0 million.

Regarding Preeminence, while a total of \$19.9 million in Preeminence and Emerging Preeminence funding had been received by the University over fiscal years 2016-2017, 2017-2018, and 2018-2019, the University has not received Preeminence funding for fiscal years 2019-2020 or 2020-2021.

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**Strategic Goal(s) Item Supports:** Goal 4: Sound financial management to establish a strong and sustainable economic base in support of USF's continued academic advancement.

**BOT Committee Review Date:** Audit & Compliance Committee, 02/23/2021

**Supporting Documentation Online (please circle):**  Yes  No

[Data Integrity Certification](#)

Data Integrity Internal Audit Presentation  
21-010\_021521\_Performance Based Measures\_FR  
21-020\_021521\_Preeminence Metrics\_FR+MR

**Prepared by:** Virginia Kalil, Executive Director/Chief Internal Auditor



# Data Integrity Certification

## March 2021

University Name: \_\_\_\_\_

**INSTRUCTIONS:** Please respond “Yes” or “No” for each representation below. Explain any “No” responses to ensure clarity of the representation you are making to the Board of Governors. Modify representations to reflect any noted **significant** audit findings.

Data Integrity Certification Representations			
Representations	Yes	No	Comment / Reference
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.	<input type="checkbox"/>	<input type="checkbox"/>	
2. These internal controls and monitoring activities include, but are not limited to, reliable processes, controls, and procedures designed to ensure that data required in reports filed with my Board of Trustees and the Board of Governors are recorded, processed, summarized, and reported in a manner which ensures its accuracy and completeness.	<input type="checkbox"/>	<input type="checkbox"/>	
3. 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.	<input type="checkbox"/>	<input type="checkbox"/>	
4. In accordance with Board of Governors Regulation 3.007, my university provided accurate data to the Board of Governors Office.	<input type="checkbox"/>	<input type="checkbox"/>	
5. In accordance with Board of Governors Regulation 3.007, I have appointed a Data Administrator to certify and manage the submission of data to the Board of Governors Office.	<input type="checkbox"/>	<input type="checkbox"/>	

## Data Integrity Certification

Data Integrity Certification Representations			
Representations	Yes	No	Comment / Reference
6. 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 Data Committee. The due diligence includes performing tests on the file using applications, processes, and data definitions provided by the Board Office.	<input type="checkbox"/>	<input type="checkbox"/>	
7. When critical errors have been identified, through the processes identified in item #6, a written explanation of the critical errors was included with the file submission.	<input type="checkbox"/>	<input type="checkbox"/>	
8. 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.	<input type="checkbox"/>	<input type="checkbox"/>	
9. In accordance with Board of Governors Regulation 3.007, my Data Administrator electronically certifies data submissions in the State University Data System by acknowledging the following statement, "Ready to submit: Pressing <b>Submit for Approval</b> represents electronic certification of this data per Board of Governors Regulation 3.007."	<input type="checkbox"/>	<input type="checkbox"/>	
10. I am responsible for taking timely and appropriate preventive/ corrective actions for deficiencies noted through reviews, audits, and investigations.	<input type="checkbox"/>	<input type="checkbox"/>	
11. 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.	<input type="checkbox"/>	<input type="checkbox"/>	

## Data Integrity Certification

Data Integrity Certification Representations			
Representations	Yes	No	Comment / Reference
12. 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.	<input type="checkbox"/>	<input type="checkbox"/>	
13. 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.	<input type="checkbox"/>	<input type="checkbox"/>	

Data Integrity Certification Representations, Signatures
<p>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.</p> <p>Certification: _____ Date _____  <div style="margin-left: 40px;">President</div></p>
<p>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.</p> <p>Certification: _____ Date _____  <div style="margin-left: 40px;">Board of Trustees Chair</div></p>

# Performance Metrics Data Integrity Audits

**Virginia L. Kalil**  
**Executive Director/Chief Internal Auditor**

Audit & Compliance Committee | February 23, 2021



## Overall Objectives

- Determine whether the processes and internal controls established by the university ensure the completeness, accuracy, and timeliness of data submissions which support performance-based funding (PBF) and preeminence measures
- Provide an objective basis of support for the President and BOT Chair to sign the representations included in the BOG Data Integrity Certification

## Scope

- Identifying and evaluating any material changes to the controls and processes, including:
  - *Prior year recommendations*
  - *BOG data definition changes*
  - *Data element, key personnel, and/or file submission changes*
- Reviewing data resubmissions
- Updating risk assessments, including fraud risks
- Verifying accuracy, completeness, and consistency with BOG expectations of data components, data metric methodologies, and data submitted through detailed testing

# Performance-Based Funding

## Conclusion

- Adequate system of internal controls in place
- No reportable risks identified

# Preeminence

## Prior Year's Results

- Inadequate system of internal controls in place over the remaining three metrics which relied on data from the National Science Foundation (NSF) Higher Education Research & Development (HERD) survey
- Two high risks identified impacting reported performance; however, not impacting the affected performance metrics' status (pass/fail)
  - *Inclusion of affiliates expenditures in the HERD survey*
  - *Inadequate data governance structure over the HERD survey*

## Current Year's Results

- Adequate system of internal controls in place over nine of the 12 metrics
- Inadequate system of internal controls in place over the remaining three metrics which relied on data from the NSF HERD Survey
- One high risk identified; however, not impacting the overall status of the performance metrics (pass/fail)
  - *Additional improvements to the data governance structure over the HERD Survey are needed to ensure accurate and consistent reporting of research and development expenditures.*



**MEMORANDUM**

TO: Dr. Ralph Wilcox, Provost & Executive Vice President of Academic Affairs  
 Dr. Terry Chisolm, Vice Provost for Strategic Planning, Performance & Accountability

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

DATE: February 15, 2021

SUBJECT: 21-010 Performance-Based Funding Data Integrity Audit

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, 2021. This project is part of the approved 2020-2021 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 our audit objectives.

OVERALL CONCLUSION		
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	Adequate System of Internal Control – with reservations	Medium-priority risks are present requiring urgent management attention within 60 days.
<input type="checkbox"/>	Inadequate System of Internal Control	High-priority risks are present requiring immediate management attention within 30 days.

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

cc: David Lechner, Senior Vice President, Business and Financial Strategy  
 Dr. Charles Lockwood, Senior Vice President, USF Health

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Dr. Karen Holbrook, Regional Chancellor, USF Sarasota-Manatee Campus  
Dr. Martin Tadlock, Regional Chancellor, USF St. Petersburg Campus  
Dr. Paul Dosal, Vice President, Student Success  
Nick Trivunovich, Vice President, Business and Finance and Chief Financial Officer  
Sidney Fernandes, Vice President and Chief Information Officer, Information Technology  
Dr. Allison Crume, Dean of Undergraduate Studies and Associate Vice President, Student Success  
Billie Jo Hamilton, Associate Vice President, Enrollment Planning & Management  
Masha Galchenko Director of Resource Management and Analysis  
Dr. Glen Besterfield, Dean of Admissions and Associate Vice President, Student Success

## **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). Eight of the metrics are common to all institutions, while the remaining two vary by institution and focus 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 submission. (See Hours to Degree 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 Resource Management & Analysis (RMA). 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 RMA 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 Hours to Degree file submission has two primary tables: 1) Hours to Degree (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 RMA 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 [RMA 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 RMA 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 RMA and IT server administrators have access to the transfer server.
- ✓ Only RMA 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

Our audit focused on the internal controls established by USF as of September 30, 2020 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, 2021.

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 2019 through Spring 2020. For files submitted annually, the current year file was selected for testing if available by November 9, 2020. 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 (Audit 15-010) 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, was included as part of the risk assessment.

This year's audit included:

1. Identifying and 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 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. Reviewing 2020-21 SUDS Plan which replaced the historical BOG SUDS Data Workshop proceedings, metric definitions, benchmarks, and other key documents to identify any changes to the BOG PBF metrics and data definitions used for the BOG PBF metrics.
3. 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.
4. Reviewing the Data Administrator's data resubmissions to the BOG from January 1, 2020 to December 31, 2020 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.
5. Updating the prior year risk assessment and fraud risk assessment to reflect changes identified.
6. Tracing samples from the Retention (RET), Student Instructional File (SIF), SIF – Degrees Awarded (SIFD), and Student Financial Aid (SFA) BOG files to OASIS (Online Access Student Information System), the system of record. The integrity of these files collectively impact metrics one through ten.
7. Verifying accuracy, completeness, and consistency with BOG expectations of the data submitted to the BOG for Measure Nine - Percent of Bachelor's Degrees without Excess Hours, via the Hours to Degree (HTD) file.

## **PRIOR AUDIT PROJECTS**

In FY 2019-2020, 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 20-010, issued February 13, 2020) was performed. As of February 13, 2020, the one medium-priority risk recommendation was reported as in progress. As of the date of this report, all recommendations have been reported by management as implemented.

Audit verified the new controls in place were effectively mitigating the risks identified.

### **CONCLUSION**

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

**APPENDIX A**  
**PERFORMANCE MEASURES DATA SOURCES**

Measure	Description	BOG File	Data Used/Created by the BOG
One	Percent of bachelor's graduates employed full-time in or continuing their education in the U.S. one year after graduation	SIFD	National Student Clearing house, Florida Education and Training Placement Information Program
Two	Median wages of bachelor's graduates employed full-time one year after graduation	SIFD	Unemployment Insurance wage data
Three	Net Cost to Student	SIF, SFA, HTD	College Board national average book cost
Four	Four year FTIC graduation rate	SIFP, SIF, SIFD, Retention Cohort Change File	BOG created Cohort and Retention File
Five	Academic progress rate	SIF	BOG created Cohort
Six	Bachelor's degrees awarded within programs of strategic emphasis	SIFD	
Seven	University access rate	SFA, SIF	
Eight	Graduate degrees awarded within programs of strategic emphasis	SIFD	
Nine <sup>1</sup>	Percent of bachelor's degrees without excess hours	HTD	
Ten <sup>2</sup>	Six-year FTIC graduation rate	SIFP, SIF, SIFD, Retention Cohort Change File	BOG created Cohort and Retention File

<sup>1</sup> Metric will be replaced by two new metrics for 2021 cycle: Two-year Graduation Rates for Florida College System AA Transfers, and Six-Year Graduation Rate for First-Time-In-College Students with a Pell Grant.

<sup>2</sup> Metric replaced number of post-doctoral appointees for 2020 cycle.

**BOG FILES REVIEWED**

Submission	System of Record	Table	Submission Reviewed
Hours to Degree (HTD)	OASIS, DegreeWorks	Hours to Degree Courses to Degree	2019-2020
Student Financial Aid (SFA)	OASIS	Financial Aid Awards	2019-2020
Student Instructional File - Degree (SIFD)	OASIS	Degrees Awarded	Summer 2019, Fall 2019, Spring 2020
Student Instructional File (SIF)	OASIS, GEMS	Person Demographics Enrollments	Summer 2019, Fall 2019, Spring 2020
Retention File (RET)	BOG	Retention Cohort Change	2018-2019



## MEMORANDUM

TO: Dr. Ralph Wilcox, Provost & Executive Vice President of Academic Affairs  
Keith Anderson, Interim Vice President, Research, Innovation & Knowledge Enterprise

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

DATE: February 15, 2021

SUBJECT: 21-020 Preeminence Data Integrity Audit

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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 and the 12 preeminence metrics. These data submissions are relied upon by the 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 2020-2021 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 nine of the 12 metrics (Metrics A-E and I-L). Controls over the remaining three metrics (F-H) relied on data from the same source, the 2019 National Science Foundation (NSF) Higher Education Research & Development (HERD) Survey. While progress has been made and control improvements were noted by IA, deficiencies remain which impact the overall control environment. Therefore, IA determined there was not an adequate system of internal controls in place over the 2019 HERD Survey.

**Although the deficiencies identified were considered high risk due to their potential reputational risk, there was no impact to the overall status of each metric (pass or fail). USF Tampa met the preeminence measures despite the issues identified.**

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<b>OVERALL CONCLUSION</b>	
<input type="checkbox"/> 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.
<input type="checkbox"/> Adequate System of Internal Control – with reservations	Medium-priority risks are present requiring urgent management attention within 60 days.
<input checked="" type="checkbox"/> 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 review. Please contact us at (813) 974-2705 if you have any questions.

cc: David Lechner, Senior Vice President, Business and Financial Strategy  
 Dr. Charles J Lockwood, Senior Vice President, USF Health  
 Dr. Dwayne Smith, Senior Vice Provost and Dean, Office of Graduate Studies  
 Nick Trivunovich, Vice President, Business and Finance and Chief Financial Officer  
 Robert Fischman, Vice President and Chief Financial Officer  
 Sidney Fernandes, Vice President, Information Technology and Chief Information Officer  
 Dr. Terry Chisolm, Vice Provost for Strategic Planning, Performance & Accountability  
 Dr. Paul Dosal, Vice President for Student Affairs and Student Success  
 Masha Galchenko, Director, University Budgets, Analytics and Data Administration

## 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 2020 Accountability Plan was approved by the USF BOT, via consent agenda, on April 16, 2020. The BOG Strategic Planning Committee reviewed and approved the Accountability Plan on July 21, 2020.

The 2020 Accountability Plan utilizes metric results for the USF Tampa campus only with the exception of Metric L (Endowments) which uses all campuses. The 2021 Accountability Plan will be based on data for all USF campuses with the exception of Metric C (Freshman Retention Rate) and Metric D (4-year Graduation Rate) which will be reported for the Tampa campus only at the determination of the BOG after careful review of Florida Statute 1004.335.

[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 required 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 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 Resource Management & Analysis' (RMA) Office of Data Administration & State Reporting (RMA-ODA).
- 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-ODA by gathering the data or confirming the data, but 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](#), effective August 24, 2018, 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. The NSF HERD Survey and the GSS Survey were moved to the ODS process during 2019-2020. 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 RMA-ODA. The Institutional Data Administrator manages the RMA process.

RMA-ODA is responsible for certifying and managing the submission of data to the BOG on behalf of USF pursuant to [BOG Regulation 3.007](#). RMA-ODA 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 RMA-ODA 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 RMA-ODA collaborates with ODS, who services as a member of the executive review team, 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 the IA. For more information on the control process, see Audit 21-010 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 (GPA) and Average Scholastic Aptitude Test (SAT) Score (Metric A).
- Student Instruction file used to generate the First Time in College (FTIC) cohort used in Metrics A, C (Retention Rate), and D (4-yr Graduation Rate) and calculate metrics.
- Degrees Awarded file used to compute Number of Doctoral Degrees Awarded Annually (Metric J) and Metric D (4-yr Graduation Rate).

### **BOG Adhoc Report Process**

The USFF is responsible for calculating and reporting the data for the NTSE Survey which is used for Metric L (Endowments  $\geq$  \$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 Vice President for University Advancement. The endowment team includes the Vice President and three additional USFF team members (Assistant Vice President, Director of Investments, and USFF Accounting manager). The NTSE Survey is also subject to the RMA-ODA adhoc 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 is validated by ODS who validates the rank 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](http://uspto.gov)). ODS (metric E) and the Office of Research & Innovation (Metric I) validate the BOG data.

## SCOPE AND OBJECTIVES

Our audit focused on the internal controls established by USF as of September 30, 2020 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 will exclude controls in place to produce the data files supporting the PBF metrics, which were reviewed during the PBF Data Integrity Audit (Audit 21-010).

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 and RMA-ODA 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.

Last year as the initial year for the audit, a comprehensive review of processes and controls was conducted, followed by a risk assessment. Subsequently this 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 2018-2019 Work Plan included a consulting project (19-020 Institutional Data Reporting Review) to assess the completeness, accuracy, and timeliness of data submissions that support the calculation of the 12 preeminence metrics as reported in the 2019 Accountability Plan. Fieldwork for 19-020 was in progress when the legislative bill was passed mandating an audit be conducted. As a result, additional work was performed to meet the audit requirements (20-020 Preeminence Data Integrity Audit). Both reports were issued on March 20, 2020.

These two reports contained a total of three high-risk issues and two medium-risk issues. Recommendations related to two of the three high-risk issues and both medium-risk issues have been implemented. The remaining high-risk issue impacts the HERD Survey and while progress toward implementation has occurred, the deficiencies associated with this risk have not been fully resolved. This risk relates to establishing adequate controls over the survey preparation and validation process to ensure consistent and accurate reporting.

## CONCLUSION

IA's overall conclusion was that there was an adequate system of internal controls in place over nine of the 12 metrics (Metrics A-E and I-L). Controls over the remaining three metrics (F-H) relied on data from the same source, the 2019 NSF HERD Survey. While progress has been made and control improvements were noted by IA, deficiencies remain which impact the overall control environment. Therefore, IA determined there was not an adequate system of internal controls in place over the 2019 HERD Survey.

**Although the deficiencies identified were considered high risk due to their potential reputational risk, there was no impact to the overall status of each metric (pass or fail). USF Tampa met the preeminence measures despite the issues identified.**

HIGH PRIORITY RISK	STATUS
<p><b>1. Additional improvements to the data governance structure over the HERD Survey are needed to ensure accurate and consistent reporting of research and development (R&amp;D) expenditures.</b></p> <p>In order to ensure R&amp;D expenditures are reported accurately and consistently, there must be a robust data management framework, which ensures that data custodians adhere to data integrity standards, maintain proper documentation, ensure completeness of the data, and maintain accurate records to support the HERD Survey submission. This includes ensuring an independent data quality assurance process is in place.</p> <p>In the prior audit and consulting projects (19-020 and 20-020 issued on March 20, 2020), IA identified significant control deficiencies related to the data governance structure over R&amp;D expenditures reported in the HERD Survey. Beginning in the Fall of 2019, the Office of Research &amp; Innovation (ORI) began to make improvements to the control structure prior to the submission of the 2019 HERD Survey on March 13, 2020. During the current audit of the 2019 HERD Survey, IA noted while progress has been made and improved controls were observed, continued improvements were still necessary to ensure accurate and consistent reporting of R&amp;D expenditures.</p> <p>As part of the current audit, IA reviewed the ORI's documented procedures and methodology in place to gather, validate, and compile the HERD Survey data. As noted above, the ORI began implementing control improvements in late 2019, therefore, the new processes were still under development during the compilation and submission of the 2019 survey. As a result, full-bodied documentation to guide those performing the procedures was not in place and documentation of the procedures performed was not consistent. This risk should be mitigated for the 2020 survey compilation and submission, since standard forms and guidelines have now been developed.</p> <p>Regarding the methodology in place to gather and compile the survey data, the process was not automated nor subjected to established Information Technology (IT) change management controls. The majority of the R&amp;D expenditures included in the survey were based on a Financial Accounting System (FAST) query developed and maintained by the ORI outside of the IT change management process. Data provided by the FAST query, the USFF, USF Research Foundation (USFRF), and the Faculty Academic and Instructional Reporting (FAIR) system were consolidated via an Access database and/or EXCEL. IA noted manual changes were made directly to the ACCESS database to remove expenditures later determined to be ineligible based on the new review processes. There were not adequate change management controls over these manual adjustments.</p> <p>Also, during the current review, IA performed detailed testing to verify expenditures included in the HERD Survey met the survey's definition of R&amp;D (See <a href="#">Appendix B</a>). Results of this testing are noted below.</p>	In Progress

HIGH PRIORITY RISK	STATUS
<p><b>Research Projects</b></p> <p>Controls in place did not adequately identify and exclude all public service and non-research instruction and training grants from the HERD Survey. IA’s sample testing of 25 sponsored research project accounts included in the 2019 survey determined five (20%) accounts were improperly classified and should not have been included in the survey. Total research expenditures for these exceptions totaled \$.8 million of which \$.4 million impacted Metrics F (science and engineering only) and G (diversified non-medical sciences).</p> <p><b>Convenience Accounts</b></p> <p>Controls in place did not adequately identify and exclude all convenience account expenditures not meeting the HERD definition of R&amp;D. IA’s sample testing of 25 convenience accounts included in the 2019 survey determined two (8%) accounts contained both R&amp;D and non-R&amp;D expenditures, therefore, the accounts should not have been included. Total research expenditures for these exceptions totaled \$.9 million. Both exceptions were classified as health sciences, therefore, only impacting Metric F.</p> <p>IA also tested one convenience account which was partially included in the 2019 survey (Fund 94540). Of the \$2.8 million in expenditures in this fund, the ORI included \$2.5 million. IA’s review of the \$2.5 million in expenditures included in the survey concluded that an additional \$1.3 million was unrelated to R&amp;D. Furthermore, since the HERD Survey requires that expenditures be “separately accounted for” the remaining \$1.2 million should also have been excluded from the survey. This \$2.5 million exception was classified as health sciences, therefore, only impacting Metric F.</p> <p>In addition, controls in place did not provide adequate support for the Graduate Medical Education (GME)/House Staff convenience accounts included in the 2019 survey. The ORI included 50% of all expenditures charged to GME/House Staff convenience accounts which totaled \$21.9 million. The ORI considered this percentage to be a conservative estimate of the percentage of time residents spent on R&amp;D activities. Since residents do not separately account for their R&amp;D efforts or complete effort reporting, there was no documentation of actual efforts incurred. Therefore, this estimate was based on the ORI’s professional judgment after reviewing the GME Resident and fellowship program elements for 57 different programs. Since GME programs vary greatly in the amount of R&amp;D efforts, the ORI applied an estimated 50% inclusion rate across all disciplines rather than applying a specific percentage to each program. IA was unable to determine if this percentage accurately reflected the overall percent of resident and fellow time spent on R&amp;D activities. As a result, the impact, if any, cannot be determined. Any impact would only affect Metric F. In addition, the</p>	

HIGH PRIORITY RISK	STATUS
<p>methodology used is not consistent with the HERD Survey expectations that R&amp;D activities be separately accounted for.</p> <p><b>USFRF Expenditures</b></p> <p>Controls in place did not provide adequate assurance the USFRF contract, grant and other research expenditures included in the 2019 survey met the HERD definition of R&amp;D. The USFRF expenditures totaling \$1.2 million were not reviewed by the ORI prior to inclusion in the survey. IA reviewed the USFRF contract and grant project accounts included in the survey to determine the research purpose of these expenditures. Of the 47 USFRF projects reviewed, 7 (15%) projects were not permissible for inclusion in the survey and 15 (32%) projects did not contain sufficient information to determine proper inclusion. These exceptions impacted Metric F by \$.2 million and Metric G by \$.1million.</p> <p><b>Research Initiative Accounts (RIAs)</b></p> <p>Controls in place did not provide adequate assurance RIA expenditures included in the 2019 survey met the HERD definition of R&amp;D. IA reviewed all expenditures included in the 2019 survey which were expended by the ORI (Department 79XXX) using RIA funds. RIA funds are generated from indirect cost recovery on sponsored projects and from surpluses in fixed-price sponsored projects. <a href="#">Florida Statute 1004.22(5)</a> requires these funds be used to either fund the costs of operating the ORI or support other research or sponsored training programs. The HERD Survey does not allow the inclusion of RIA funds used to fund the costs of operating the ORI. IA’s review identified \$4.3 million of expenditures included in the 2019 survey directly related to the operation of the ORI. An additional \$1.5 million in minor renovations to research spaces was identified as containing insufficient information to determine if the costs were R&amp;D related. Of these exceptions \$.3 million impacted Metrics F and G.</p> <p><b>Institutionally-Funded Payroll Expenditures</b></p> <p>For the first time, in the 2019 survey, the ORI included \$12.4 million of institutionally-funded (Education &amp; General funded) payroll expenditures which they believed had not been reported via FAIR. The expenditures were obtained directly from the Global Employment Management (GEMS) system using job codes which were identified by the ORI as research related. IA’s review of these expenditures identified 545 employees whose effort was contained within both the new ORI institutionally-funded R&amp;D payroll expenditures and the FAIR data already included in the survey. IA’s review of effort for these 545 employees identified \$3.8 million in duplicative payroll expenditures included in the survey, as well as an additional \$4.0 million in expenditures which were included by the</p>	

HIGH PRIORITY RISK	STATUS
<p>ORI inconsistent with the employee's effort as reported in FAIR. The ORI has decided to discontinue the use of this data for the 2020 survey. These exceptions impacted Metric F by \$10.5 million and Metric G by \$8.3 million.</p> <p>IA's testing determined the data governance structure was not effective in identifying, validating, and compiling R&amp;D expenditures to adequately support accurate and consistent reporting for the HERD Survey.</p> <p>When a robust data management framework is not in place the probability that data submitted to external entities is inaccurate, incomplete, or inconsistent with the established methodology of the data request is significantly increased. Whether intentional or unintentional, material errors in reporting data used to measure institutional performance creates a significant reputational risk.</p> <p><b>Recommendation: ORI, in coordination with IT and the ODS, should:</b></p> <ol style="list-style-type: none"> <li>1. Complete the ODS review of the HERD Survey prior to the 2020 HERD submission, consistent with <a href="#">USF Policy 11-007 Data Submission to External Entities</a>.</li> <li>2. Continue to improve the new control process that ensure sponsored research projects and convenience accounts included within the HERD survey meet the HERD Definition of R&amp;D.</li> <li>3. Establish a formal process for assessing the percent of R&amp;D within specific GME programs to allow for more accurate reporting.</li> <li>4. Establish a process to review USFRF research and contracts and grant activities to ensure the included accounts are consistent with HERD R&amp;D.</li> <li>5. Ensure that all research initiative funding included in the HERD Survey does not contain operational costs associate with the ORI and costs included are related to research activity consistent with the HERD R&amp;D definition.</li> <li>6. Eliminate the use of E&amp;G-funded research expenditures not reported via FAIR or other effort reporting system.</li> </ol> <p>Management Attention Required:      <input checked="" type="checkbox"/> Immediate      <input type="checkbox"/> Urgent      <input type="checkbox"/> Timely</p> <p>Resources/Effort Required:              <input checked="" type="checkbox"/> Significant      <input type="checkbox"/> Moderate      <input type="checkbox"/> Minimal</p>	

**APPENDIX A****PREEMINENCE DATA SOURCES**

<b>Metric</b>	<b>Description</b>	<b>Responsible Unit</b>	<b>Source</b>	<b>Data Used/Created by the BOG</b>
A	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, FTIC)	ODS	BOG Submission Files	Data based on BOG Student Information 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 Student Information Degrees Awarded file (SIFD). BOG also 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 BANNER 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	USFF financial records in BANNER and external investment statements.

**APPENDIX A****KEY TERMS**

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

## APPENDIX B

### NATIONAL SCIENCE FOUNDATION (NSF) HIGHER EDUCATION RESEARCH & DEVELOPMENT (HERD) SURVEY DEFINITIONS

NSF provides guidance to institutions completing the 2019 HERD Survey via survey instructions, annual webinars, technical notes, and via direct response to institutions.

#### Definition of R&D

The 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](#)".

This document includes the HERD Survey definition of R&D:

"R&D is creative and systematic work undertaken in order to increase the stock of knowledge—including knowledge of humankind, culture, and society—and to devise new applications of available knowledge. R&D covers three activities defined below—basic research, applied research, and experimental development.

- Basic research is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view.
- Applied research is original investigation undertaken in order to acquire new knowledge. It is directed primarily towards a specific, practical aim or objective.
- Experimental development is systematic work, drawing on knowledge gained from research and practical experience and producing additional knowledge, which is directed to producing new products or processes or to improving existing products or processes."

The [2019 Survey instructions](#) provided the following additional guidance:

R&D Expenditures include all expenditures for R&D activities from your institution's current operating funds that are separately accounted for. For purposes of this survey, R&D includes expenditures for organized research as defined by 2 CFR Part 200 Appendix III and expenditures from funds designated for research.

**APPENDIX B**

R&D includes:	R&D does not include:
Sponsored research (federal and nonfederal)	Public service grants or outreach programs
University research (institutional funds that are separately budgeted for individual R&D projects)	Curriculum development (unless included as part of an overall research project)
Startup, bridge, or seed funding provided to researchers within your institution	R&D conducted by university faculty or staff at outside institutions that is not accounted for in your financial records
Other departmental funds designated for research	Estimates of the proportion of time budgeted for instruction that is spent on research
Recovered and unrecovered indirect costs	Capital projects (i.e., construction or renovation of research facilities)
Equipment purchased from R&D project account	Non-research training grants
R&D funds passed through to a sub recipient organization, educational or other	Unrecovered indirect costs that exceed your institution's federally negotiated Facilities and Administrative (F&A) rate
Clinical trials, Phases I, II, or III	
Research training grants funding work on organized research projects	
Tuition remission provided to students working on research	



February 5, 2021

Virginia L. Kalil, CIA, CISA, CFE, CRISC  
Executive Director/Chief Internal Auditor  
University of South Florida  
Office of Internal Audit  
4019 East Fowler Avenue,  
Suite 200  
Tampa, FL 33617

RE: 21-020 Preeminence Data Integrity Audit

Dear Ms. Kalil:

Thank you for identifying continued areas of risk associated with preparing and submitting the Higher Education Research & Development survey (HERD) to the National Science Foundation. Below please find USF Research and Innovation's management response to the issues denoted in the Preeminence Data Integrity Audit (Report No. 21-020).

**Management Overall Response to High Priority Risk #1:**

To ensure that R&D expenditures are reported accurately and consistently, management agrees that a robust data management framework must be in place which adheres to data integrity standards. Additionally, the processes used to gather, validate, and compile data from multiple sources must be formalized and a methodology for identifying expenditures for funds designated for research must be enhanced further to ensure accurate and consistent reporting. Finally, dual purpose account funds containing research and non-research activities must be assigned a designated product code for research-related activities to facilitate accurate reporting.

**Recommendation #1—**

USFR&I is committed to working in conjunction with the USF Office of Decision Support (ODS) to ensure accurate reporting. HERD survey data results will be provided to ODS for review and processing to ensure data integrity prior to submission to NSF.

**Action Plan**

Consistent with USF Policy 11-007 Data Submission to External Entities, USFR&I will submit the completed HERD survey for FY 2020 to ODS at least two weeks prior to the due date. For FY 2021 and beyond, USFR&I will submit the HERD survey to ODS within three weeks of the due date.

**RESEARCH AND INNOVATION**

University of South Florida | 4202 E Fowler Avenue | Tampa, FL 33620-4301  
usf.edu/

**Date of Implementation**

February 2021.

**Technical Owner/ Functional Manager**

Keith Anderson, Interim Vice President

**Recommendation #2—**

Management agrees that expenditures reported on the survey must meet the HERD definition of R&D. USFR&I will augment [existing guidelines](#) to ensure that there is a documented process in place for identifying sponsored projects and convenience account funds eligible for inclusion in the HERD survey.

**Action Plan**

The projects in question have been coded in FAST to prevent inclusion in the HERD survey. The convenience funds in question have been coded in FAST to prevent inclusion in the HERD survey. Research expenditures charged to general use convenience account funds must be designated in FAST using a HERD-eligible product code.

**Date of Implementation**

January 2021.

**Technical Owner/ Functional Manager**

Keith Anderson, Interim Vice President

**Recommendation #3—**

Management commits to ensuring that the percentage of R&D assessed within specific graduate medical education (GME) programs is enhanced to allow for more accurate reporting. USFR&I will continue to work with USF Health to develop a more reliable methodology for discerning the true level of research effort being undertaken by residents and fellows in USF's GME program.

**Action Plan**

While strides were made in the past year to identify core elements of each residency and fellowship program and discern where research activity was likely occurring, USFR&I will further refine its method for gauging the level of HERD-eligible research activity being performed in USF's graduate medical education program. A survey instrument will be designed and distributed to GME program coordinators to ascertain the level of research activity being undertaken by residents and fellows—whether as part of the program curriculum or as independent research.

**Date of Implementation**

Completion of an overall framework and plan – July 2021.  
Completion of all of the remaining steps – December 2021.

**Technical Owner/ Functional Manager**

Keith Anderson, Interim Vice President

**Recommendation #4—**

USFR&I will work in conjunction with the USF Research Foundation (USFRF) and the USF Foundation (USFF) to develop adequate processes designed to facilitate accurate and consistent reporting.

**Action Plan**

Effective FY 2020, a new product code was assigned to capture HERD-eligible expenditures for all USFRF projects; all HERD-eligible USFRF projects have been coded in FAST for FY 2020.

USFR&I also worked in conjunction with USFF to review research expenditures and identify HERD-eligible expense codes. USFF will exclude all non-eligible expense codes from reporting commencing with FY 2020.

**Date of Implementation**

January 2021.

**Technical Owner/ Functional Manager**

Keith Anderson, Interim Vice President

**Recommendation #5—**

Management agrees that certain administrative costs associated with the operation of the Office of Research were improperly included in the HERD survey as R&D. These costs, which were disallowed by Internal Audit in FY 2018 and should have been excluded for FY 2019, were reported in error.

**Action Plan**

Effective FY 2020, a new product code was assigned to capture HERD-eligible expenditures for all USFR&I expenses. Further, all expenses in fund 18350 and 18360 and departments 79xxxx have been excluded from the HERD survey unless the expense is specifically identified with the Product Code “RESHRD”.

**Date of Implementation**

December 2020.

**Technical Owner/ Functional Manager**

Keith Anderson, Interim Vice President

**Recommendation #6—**

Because the methodology used by USF to capture and report R&D expenditures to the HERD survey was complex and utilized multiple financial and information systems, the University hired consultants to assess the feasibility of capturing additional unreported or under-reported research expenditures. Amongst the items recommended for inclusion in the NSF HERD survey was salaries and benefits for non-faculty personnel paid through Education & General funds (*e.g.*, graduate assistants, post-doctoral students, lab technicians and undergraduate research assistants/researchers). After verifying whether this information was already captured in the Faculty Academic Information Reporting System (FAIR),

USFR&I included these expenditures in FY 2019's HERD survey.

**Action Plan**

This information will no longer be generated by USFR&I. USFR&I will rely on the data provided by ODS exclusively.

**Date of Implementation**

January 2021.

**Technical Owner/ Functional Manager**

Keith Anderson, Interim Vice President

Permit me to take this opportunity to acknowledge the professionalism exhibited by you and your staff throughout the course of the review. I am deeply appreciative for your efforts.

Sincerely,



Keith Anderson, M.S., CRA  
Interim Vice President for Research, Innovation, and Knowledge Enterprise

**Agenda Item: FL102**

**USF Board of Trustees  
February 23, 2021**

**Issue:** Board Officers

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**Proposed actions:** Elect Vice Chair of the Board

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Background information:

*C. Officers: In the event of a vacancy in the Chair and/or Vice Chair positions, an election will be held as soon as practical after the vacancy occurs to select a member of the Board, by a majority vote, to the applicable vacant position (s). The newly selected officer (s) will serve terms as specified in the above section. This may result in the Board Chair and Vice Chair terms of office not running concurrently.*

- a. The Board of Trustees is granted the legal authority to elect its Vice Chair.** The Vice Chair acts as Chair during the absence or disability of the Chair of the Board, and during any temporary period of vacancy before election of a new Chair of the Board pursuant to Section C, 1 above and, in that event, shall perform those duties of the Chair described in these Operating Procedures.

The Vice Chair shall serve a two-year term.

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Supporting Documentation: None  
Prepared by: Dr. Cindy Visot