USF Board of Trustees

Conference Call

Monday, March 30, 2020

A G E N D A

I.   **Call to Order and Comments**   Chair Jordan Zimmerman

II. **New Business – Action Items**

   a. **Action Item (FL 101)**   Virginia Kalil

   FL 101 – Approval of Acceptance of Preeminence Funding Data
         Integrity Audit & Approval of Data Integrity Certification

III. **Adjournment**   Chair Zimmerman

Agenda Item: FL 101

USF Board of Trustees
March 30, 2020

Issue: Board of Governors Preeminence Data Integrity Audit and Certification
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Proposed action: Acceptance of Preeminence Data Integrity Audit and Approval of Preeminence Data Integrity Certification
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Executive Summary: Pursuant to Florida Statute 1001.706(5)(e) and former Board of Govenors Chair Lautenbach's letter to University Presidents and Univeristy Board of Trustees Chairs dated June 18, 2019, USF System Audit (Audit) conducted an internal audit of Preeminence Data Integrity. Our primary audit objectives 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 Govenors.

The scope and objectives of the audit 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:

Audit's overall conclusion was that there was an adequate system of internal controls in place over nine of 12 preeminence measures assuming corrective actions are taken timely to address the two medium-priority risks reported. 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 two high-priority risks. These high-priority risks related to affiliate research and development expenditures and the control structure to ensure accurate and consistent reporting of research and development expenditures. Although the issues 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). The university met preeminence measures despite the issues identified.

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

Financial Impact: While a total of $19.8 million in Preeminence and Emerging Preeminence funding had been received by the USF System over the prior three fiscal years, the USF System did not receive any Preeminence funding for fiscal year 2019-2020.
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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: None
Supporting Documentation Online (*please circle*):   Yes   No

Preeminence Data Integrity Certification
Preeminance Metrics Presentation
19-020_032020_Institutional Data_FR+MR
20-020_032020_Preeminence Metrics_FR+MR

USF System or Institution specific: USF System
Prepared by: Virginia Kalil, Executive Director/Chief Internal Auditor

Data Integrity Certification
March 2020

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 or material** 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.	☐	☐	
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.	☐	☐	
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.	☐	☐	
4. In accordance with Board of Governors Regulation 3.007, my university shall provide accurate data to the Board of Governors Office.	☐	☐	
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.	☐	☐	

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.	☐	☐	
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.	☐	☐	
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.	☐	☐	
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 **Submit for Approval** represents electronic certification of this data per Board of Governors Regulation 3.007."	☐	☐	
10. I am responsible for taking timely and appropriate preventive/ corrective actions for deficiencies noted through reviews, audits, and investigations.	☐	☐	
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.	☐	☐	

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.	☐	☐	
13. In accordance with section 1001.706, Florida Statutes, I certify that the audit conducted verified that the data submitted pursuant to section~~s~~ 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.	☐	☐	

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. Certification: _____ Date_____ 　　　　　President
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. Certification: _____ Date_____ 　　　　　Board of Trustees Chair

Preeminence
Data Integrity Audit

Virginia L. Kalil

Executive Director/Chief Internal Auditor

Board of Trustees | March 30, 2020

UNIVERSITY of
SOUTH FLORIDA

Overall Objectives

- Determine whether the processes and internal controls established by the university ensure the completeness, accuracy, and timeliness of data submissions which support 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

UNIVERSITY of
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Consulting Review

- 19-020 Institutional Data Reporting

- 2018-2019 Audit Work Plan included a consulting project to review the internal controls ensuring the completeness, accuracy, and timeliness of data submissions supporting the preeminence metrics

- Presidential request to review research preeminence metrics

- Fieldwork performed during the period of April - July 2019

- Effective July 1, 2019, legislative changes added preeminence data integrity audit requirement

Consulting Review Scope

- Gaining an understanding of data elements, data sources, data owners, and methodologies used to compute metrics

- Identifying and evaluating key processes and controls used by data owners to ensure the completeness, accuracy, and timeliness of data submissions

- Validating all populations utilized and recalculating metrics

- Verifying data accuracy through sample testing

- Reviewing processes used by data administrators to ensure completeness, accuracy, and timely submission of data supporting metrics

- Determining overall risk of a data submission being inaccurate or incomplete

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Data Integrity Audit Scope

- Verifying consistency with BOG definitions of data components and methodologies

- Verifying accuracy and completeness of survey data supporting preeminence metrics

- Following up on control deficiencies identified in the consulting review

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SOUTH FLORIDA

Conclusion

- 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 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)

- Two medium risks identified with no impact to performance metrics

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High Risk Issues

- Research and development (R&D) expenditures of affiliates were included in the HERD survey resulting in over-reporting the survey expenditures by $123.1 million

- Data governance structure over the HERD survey was not adequate to ensure accurate and consistent reporting of R&D expenditures resulting in over-reporting the survey expenditures by up to an estimated $78 million

MEMORANDUM

TO: Dr. Ralph Wilcox, Provost & Executive Vice President of Academic Affairs
         Dr. Paul R. Sanberg, Senior Vice President for Research & Innovation

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

DATE: March 20, 2020

SUBJECT: 19-020 Institutional Data Reporting Review

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At the request of management, USF System Audit (Audit) performed a review of the internal controls, as of April 1, 2019, that ensure the completeness, accuracy, and timeliness of data submissions that support the calculation of the 12 preeminence metrics as reported in the 2019Accountability Plan. This review was included on the 2018-2019 Audit Work Plan. Fieldwork was performed during the period of April 10, 2019 to July 31, 2019.

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 Board of Governors (BOG) via routine and ad hoc requests, which is managed by Resource Management & Analysis' 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 an independent external entity 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 has no ability to impact the data.

For additional information on metrics and data sources included in this review see Appendix A.

During the performance of fieldwork, Senate Bill 190, effective July 1, 2019, was approved by the Legislature and Governor. SB 190 requires the BOG to define the data components and methodology used to implement Florida Statute 1001.7065 (Preeminent state research universities program) and requires each university to conduct an annual audit to verify that the data submitted pursuant to Florida Statue 1001.7065 complies with the data definitions established by the board. The BOG data definitions and/or methodology was not received until October 7, 2019 following

fieldwork. Although not originally planned to meet the audit requirements established by Senate Bill 190, the work performed was relied upon during the performance of the required audit in Fall 2019, as appropriate.

Audit'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) assuming corrective actions are taken timely to address the two medium-priority risks communicated in Appendix C. These medium-priority risks, which require timely action within 90 days, are related to enhancing oversight of surveys and maintenance of historical data supporting data submitted to the BOG. As of the date of this report, the risk associated with the oversight of surveys is partially resolved, and the risk to maintenance of historical data is fully resolved.

Controls over the remaining three metrics (F-H) relied on data from the same source, the National Science Foundation's (NSF) Higher Education Research & Development (HERD) survey. Our overall conclusion for this data source was that there was not an adequate system of internal controls in place due to the presence of two high-priority risks communicated in Appendix B. These high-priority risks related to affiliate research and development expenditures and the control structure to ensure accurate and consistent reporting of research and development expenditures. **Although, the issues 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.** Management's action plan to resolve the high-priority risk recommendations is attached to this report. Urgent action is needed to resolve these issues since the next HERD survey submission must be completed in March 2020. As of the date of this report, the risk associated with affiliate expenditures is fully resolved, and the risk of accurate and consistent reporting of expenditures is partially resolved.

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
    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
    Keith Anderson, Assistant Vice President, Research & Innovation
    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 Board of Trustees (BOT). The 2019Accountability Plan was approved by the USF BOT, via consent agenda, on April 8, 2019. The BOG Strategic Planning Committee reviewed and approved the Accountability Plan on June 11, 2019.

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 outlines 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.

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 RMA-ODA.
- Financial data submitted by the USFF regarding endowments to the NACUBO.
- Data that is created and reported by an independent external entity 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 has no ability to impact the data.

On June 18, 2019, Senate Bill 190 was approved by the Legislature and Governor which required 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 provided the data definitions and/or methodology on October 7, 2019, after our fieldwork was completed.

USF Roles and Responsibilities 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 the USF System, 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 the USF System and provides guidelines for processing data requests by external entities. External Data Requests not exempted from this policy, "must go

through the USF System'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 System 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 four surveys used as data sources for the preeminence metrics: the IPEDS Survey, NSF HERD Survey, the NSF/National Institutes of Health (NIH) Graduate Students and Postdoctorates in Science and Engineering (GSS) Survey, and the NACUBO Endowment Survey. Only the IPEDS survey is prepared and validated by ODS.

Prior to 2017-2018, the IPEDS survey, was prepared and submitted by the BOG using data submitted by the University. These data files are subject to the BOG submission validation process below. Beginning in 2017-2018, ODS began preparing and submitting the IPEDS survey for each campus separately using USF copies of the BOG file submissions. The IPEDS survey data is compiled using an AppWorx job written and maintained by Information Technology (IT). Once submitted to the BOG and IPEDS, a copy of the submission is placed on the [ODS website](#).

Each year, the BOG-ODA utilizes the BOG submissions to recalculate Metrics C and D and provides the source data and results to each university. ODS validates the results provided by the BOG-ODA and works with the BOG-ODA to reconcile any differences. Since ODS prepares the data for IPEDs, the quality standards mandated by USF Policy 11-007 are complied with, but the standard process for requesting ODS approval is not necessary.

Regarding Metric D, [Florida Statute Chapter 1001.7065(2) Academic and Research Excellence Standard](#) requires "a 4-year graduation rate of 60 percent or higher for full-time, first-time-in-college students, <u>as reported annually to the IPEDS</u>". (Emphasis added)

The [USF Accountability Plan](#) includes data for the 2014 cohort at the instruction of the BOG. The BOG calculated the 4-year graduation rate from BOG files submitted by USF. Since the Integrated Postsecondary Education Data System (IPEDS) focuses on a 6-year cohort, the 2014 Cohort will not be reported by IPEDS until 2019-2020. In order to meet the statutory requirement that the rate be reported to IPEDS, the BOG-ODA instructed ODS to send an email with the current 4-year graduation rate to IPEDS. IPEDS does not review the data until it is included in a formal submission.

To alleviate the timing problems [House Bill 7071](#) section 35 was passed ([Rule_2019-119 (35)](#)), which states, "The Board of Governors shall use its 2019 Accountability Plan in determining a state university's preeminence designation and in distributing awards for the 2019-2020 fiscal year appropriation." This one-year exemption does not address the problem in the long term.

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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 the USF System pursuant to BOG Regulation 3.007. RMA-ODA serves as a liaison between the BOG-ODA and the USF System 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 serves 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 USF System Audit (Audit). For more information on the control process, see USF Audit 19-010 Performance Based Funding (PBF) Data Integrity.

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 the metrics.
- Degrees Awarded file used to compute Number of Doctoral Degrees Awarded Annually (Metric J) and Metric D.

The BOG also makes numerous requests for ad hoc data including data submitted to the NSF via the HERD survey and the NSF/NIH via the GSS Survey. The ad hoc data requests 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). The number of post-doctoral appointees was also used in the institution-selected PBF metric until 2019-2020. As a result, the NSF GSS survey was included in the annual PBF audit and follows a formal executive review process used for BOG SUDS submissions.

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 submitted to the BOG.

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USFF Process

The USFF is responsible for calculating and reporting the data for the NACUBO – TIAA Study of Endowments (NTSE) which is used for Metric L (Endowments >= $500 Million). 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). Once the survey is submitted the endowment number 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, ODS submits their list to the BOG 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 whom are members of a National Academy by reviewing public data without the assistance of USF and obtains the number of patents directly from uspto.gov. ODS (metric E) and the Office of Research & Innovation (ORI) (Metric I) validate the BOG data.

SCOPE AND OBJECTIVES

Our review focused on the internal controls established by the USF System as of April 1, 2019 to ensure the completeness, accuracy, and timeliness of data submissions, which support the preeminence measures.

The primary objectives of our review were to:

- Gain an understanding of data elements, data sources, and methodologies used to compute the metric.
- Identify and evaluate key processes and controls used by the data owners to ensure the completeness, accuracy, and timeliness of data submissions.
- Validate all populations utilized and recalculate metrics using internal and external data sets, when available.
- Verify data accuracy through sample testing of key files and data elements.
- 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.
- Determine overall risk of a data submission being inaccurate or incomplete.
- Recommend corrective actions where weaknesses were identified.

Our audit scope excluded controls in place to produce the data files supporting the Performance Based Funding metrics, which were reviewed in a separate audit (Audit 19-010 dated February 4, 2019).

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.

CONCLUSION

Audit'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) assuming corrective actions are taken timely to address the two medium-priority risks communicated in Appendix C. These medium-priority risks related to enhancing oversight of surveys and maintenance of historical data to support data submitted to the BOG.

Controls over the remaining three metrics (F-H) relied on data from the same source, the NSF HERD survey. Our overall conclusion for this data source was that there was not an adequate system of internal controls in place due to the presence of two high-priority risks communicated in Appendix B related to affiliate research and development expenditures and the control structure to ensure accurate and consistent reporting of research and development expenditures. **Although, the issues 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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APPENDIX A

PREEMINENCE DATA SOURCES

Metric	Description	Responsible Unit	Source	Data Used/Created by the BOG	Testing Methodology
A	Average GPA and SAT score for incoming freshman in Fall semester	BOG-ODA	Admission File (ADM)	BOG-ODA performs concordance of SAT scores and calculates averages based on the ADM tables provided by USF.	Recomputed average GPA and SAT using ADM files. Selected a sample and traced to system of record.
B	Top 50 in national public university rankings	ODS	External rankings	List of acceptable organizations maintained by BOG-ODA. USF's performance for listed organizations is prepared by ODS. BOG validates using external websites.	Validated ODS listing to external sites.
C	Freshman retention rate (Full-time, FTIC)	ODS	IPEDS survey	Data based on BOG files (SIF, SIFP) used to calculate the FTIC Cohort and the retention rate. IPEDS Survey is prepared by ODS and validated by BOG.	Recomputed retention rate using retention files produced by BOG from SIF and SIFP. Selected a sample and traced to system of record.
D	Four year FTIC graduation rate	ODS	IPEDS survey & BOG submission files	Data based on BOG files (SIF, SIFP) used to calculate the FTIC cohort and SIFD. IPEDS survey is prepared by ODS and validated by BOG. BOG also computes graduation rates based on BOG files (SIF, SIFP, and SIFD).	Recomputed graduation rate using SIF, SIFD, and FTIC cohort. Sample tested during PBF Audit.
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.	Validated BOG-ODA listing to external sites.
F	Total annual research expenditures: science & engineering only	ORI	NSF HERD survey	Survey utilizes FAST, FAIR, and BANNER financial data, and R&D activities reported by external affiliates and DSOs via manual survey tools.	Recalculated metric using FAST data and data obtained from ODS (FAIR), USFF, USFRF, and affiliates.

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Metric	Description	Responsible Unit	Source	Data Used/Created by the BOG	Testing Methodology
G	Total annual research expenditures in diversified non-medical sciences	ORI	NSF HERD survey	Same as Metric F	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.	Recalculated rank using HERD survey published data.
I	Patents awarded over three year period.	BOG-ODA	USPTO	As reported by USPTO for the most recent three years.	Verified using USPTO website.
J	Doctoral degrees awarded annually	BOG-ODA	Degrees Awarded File (SIFD)	BOG computes and ODS validates based on SIFD.	Recalculated using the SIFD file. Sample tested during PBF Audit.
K	Number of post-doctoral appointees	OPA	NSF GSS survey	USF OPA	No testing performed since testing was done during the PBF Audit.
L	Endowment size	USFF	NACUBO survey	USFF financial records in BANNER and external investment statements.	Reviewed calculation and traced to supporting documents.

KEY TERMS

Term	Description
BANNER	Financial accounting system used by USF Foundation and USF Research Foundation.
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
IPEDS	Integrated Postsecondary Education Data System at the National Center for Education Statistics
NACUBO	National Association of College and University Business Officers
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 organizations of USF.

USFRF	USF Research Foundation, direct support organization of USF
USPTO	United States Patent & Trademark Office
R&D	Research & Development expenditures as defined by the HERD survey.

FILES REVIEWED

Submission	System of Record	Table(s)	Submission Reviewed
Admission File (ADM)	OASIS[1]	Applicants Admits Tests Reqs	Fall 2018
Retention File (RET), based on Student Instruction File (SIF) and Student Instructional File - Degree (SIFD)	BOG	Retention File Retention Cohort Change	2017-2018 (cohort 2014)
Student Instructional File - Degree (SIFD)	OASIS	Degrees Awarded	Summer 2017 Fall 2017 Spring 2018

[1] OASIS is the student information system used by the USF System.

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APPENDIX B

HIGH PRIORITY RISKS	STATUS
1. **Research and development (R&D) expenditures of affiliates were included in the Higher Education R&D (HERD) survey.** The HERD survey states that R&D "conducted by university faculty or staff at outside institutions that is **not accounted for in your financial records cannot be included**." (Emphasis added) The HERD survey also defines allowable reporting units. Responding institutions are advised not to include "Other organizations or institutions, such as teaching hospitals or research institutes, with which your institution has an affiliation or relationship, but which are not components of your institution." Each year the Office of Research & Innovation (ORI) sends affiliates a paper HERD survey to complete with the instructions to include "research activity of those employees who hold dual appointments both with USF and the USF affiliate partners that is not reflected in FAST", the university's Financial Accounting SysTem. These affiliates are not accounted for in the USF financial statements as direct support organizations or component units. According to the ORI, affiliates have been included in the HERD survey since at least 2003-2004. The organizations included as affiliates in the 2017-2018 survey included: Moffitt, Veteran's Administration (VA)-Bay Pines, VA- Haley, All Children's Hospital, Jaeb Center for Health Research, Florida Institute of Orthopedics, and Research Park tenants. The 2017-2018 surveys completed by the affiliates reported $**123.1** million in science and engineering R&D expenditures, which was included in the HERD survey. Inclusion of the affiliates overstated the amount of research expenditures on the HERD survey incurred directly by the USF System, as reported in their financial records. Reporting affiliate R&D expenditures, inconsistent with the HERD survey definitions and instructions, could result in significant reputational risk. **Recommendation:** **The ORI should discontinue the process of including affiliates in the HERD survey.**	Resolved

Management Attention Required: ☒ Immediate   ☐ Urgent   ☐ Timely

Resources/Effort Required: ☐ Significant   ☐ Moderate   ☒ Minimal

AUDIT 19-020

HIGH PRIORITY RISKS	STATUS
2. **The data governance structure over the HERD survey is not adequate to ensure accurate and consistent reporting of R&D expenditures.** In order to ensure that the R&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 submission. This includes ensuring an independent data quality assurance process is in place. The HERD survey was not following USF Policy 11-007 Data Submission to External Entities standard for external data submissions because the survey was provided an exemption as a Board of Governors (BOG) ad hoc report. Responsibility for maintaining an adequate data management structure for the HERD survey is assigned to the data stewards, sub-certifiers, and primary executive reviewers in the ORI. There were no work instructions, flowcharts, or other comprehensive documentation of the process used to gather, validate, and compile data from the multiple sources. A Senior Enterprise Resource Planning (ERP) Analyst, in the ORI who serves as the data steward relied on guidance provided by the ORI leadership and the prior data steward to determine what R&D expenditure to report. Audit's review of the methodology utilized to complete the survey identified the following issues: • The HERD survey allowed "expenditures from funds designated for research". USF establishes convenience account funds within FAST to record payroll costs and other expenditures to be reimbursed by Direct Support Organizations (DSOs) and external affiliates. The activity reflected in these funds may be directly related to research, unrelated to research, or a combination of both research and non-research activities. The ORI's data steward was excluding those account funds unrelated to research, but had no methodology in place to allocate dual-purpose account funds which contained research and non-research activities. Expenditures, totaling $70.9 million were included in the HERD survey. USF Health House staff account funds represent 82% of these costs (**$57.8 million**) and are a multi-purpose account fund. • The HERD R&D survey covers three activities: basic research, applied research and experimental development." HERD excludes "public service grants or outreach programs" and "non-research training grants". USF establishes a FAST project for each sponsored research activity managed by the ORI. USF includes all research activity associated with a FAST project in the HERD survey. While each ORI FAST project is associated with a purpose (research, instructional, or other), there is no	In Progress

HIGH PRIORITY RISKS	STATUS
way to identify externally funded non-research training grants or public service grants since the purpose of these projects are coded as either instructional, training, or other. There was $25.5 million in expenditures coded in FAST as instructional and $4.3 million coded as training which could be research or non-research training. In addition, public service grants would be coded as "other". • USF Foundation (USFF) funded R&D activities were recorded based on revenues received not expenditures incurred, which resulted in an under reporting of $738,256. • Capital project costs were miscoded in FAST resulting in an overstatement of R&D Expenditures of $815,889. Additionally, Audit identified the following deficiencies with the data compilation process: • The HERD survey utilizes a FAST query written by the data steward. As a result, the query is not subject to the established IT change management controls. • Departmentally funded research is not tracked in FAST; as a result, the Office of Decision Support (ODS) must provide a report of Education and General (E&G) funds used for research from the Faculty Academic Information Reporting (FAIR) system. The report provides a summary of the E&G dollars by department with no detail by employee. As a result, there is no ability for the ORI to validate the accuracy of the data. • The FAST and FAIR data is downloaded into an Access database where the data is combined and a manually maintained crosswalk is used to assign the R&D discipline based on department ID number. No one besides the data steward validates the crosswalk. • Data is then transferred to an Excel spreadsheet where data from the USFF, USF Research Foundation (USFRF), and external affiliates is manually added. USFRF and affiliates provide no detail of activities and report activities via a manually completed HERD survey. As a result, there is no ability for the ORI to validate the accuracy of the data. No one besides the data steward validates the consolidation is accurate. Once the data compilation process is complete, the data steward prepares the HERD survey for each campus along with a data quality report. The data quality report includes summary reports, which compare total R&D expenditures by entity for the current reporting period to the last two previously reported periods, and the preeminence metric results for the current period to the last five reporting periods. These reports are presented to the ORI Associate Vice President (sub-certifier) and to the Senior Vice President for approval. Once approved, the data is submitted to the NSF. Subsequent to this submission, an executive review process is performed which is overseen by the Resource Management & Analysis' Office of Data Administration & State	

HIGH PRIORITY RISKS	STATUS

Reporting. The primary executive reviewer is the Vice President, Business and Finance and Chief Financial Officer which is inconsistent with the roles and responsibility document on the RMA-ODA website.
 	
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.
 	
Recommendation:
 	
1. **The ORI should review all convenience account funds included in the HERD survey for allowability. A justification for including these expenditures should be maintained for each convenience account fund included in the HERD Survey. Only those costs directly related to an R&D effort, as defined by HERD, should be included.**
2. **The ORI should ensure all contract and grants, recorded in a FAST project, can be identified based on the grant's purpose (research, research instruction, non-research instruction, or public service) so that accurate reporting can occur.**
3. **The ORI should ensure USFF R&D expenditures are properly reported.**
4. **The ORI should establish adequate controls over the HERD survey data production to ensure complete, accurate, and timely submission of the HERD data in accordance with the survey data definitions. At a minimum:**
   i) **Develop work instructions, flowcharts, or other comprehensive documentation of the process used to gather, validate, and compile data for the HERD survey. This should include data definitions and how ORI is assuring data produced is consistent with the definitions.**
   ii) **Request that the HERD survey be brought into the AppWorx process used to produce the IPEDS survey data and other BOG data submissions.**
   iii) **Develop anomaly reports to identify research activity inconsistent with the HERD data definitions.**
 	
Management Attention Required: ☒ Immediate   ☐ Urgent   ☐ Timely
 	
Resources/Effort Required: ☒ Significant ☐ Moderate ☐ Minimal	

AUDIT 19-020

APPENDIX C

MEDIUM PRIORITY RISKS	STATUS
1. **Oversight over surveys used to support preeminence metrics needs to be enhanced.** USF Policy 11-007 Data Submission to External Entities communicates "to the USF System, the roles and responsibilities for responding to requests from External Entities that involve provision of institutional data." USF Policy 11-007 states "Institutional data requested by external entities will be considered and furnished pursuant to University policies and protocols to ensure legitimacy of the request and accuracy of any data submitted. Upon approval by the Accountable Officer, the Unit Data Coordinator will engage with the USF System Office of Decision Support for review and processing of the request adhering to the highest standards of data integrity. Prior to external submission and in compliance with the relevant University Policies, ODS will approve data sources and definitions and ensure rigorous documentation and verification standards are upheld." External data requests include publications to external entities including ranking publications, surveys administered by or on behalf of external entities, and mandated reports such as IPEDS. External data requests are exempt from USF Policy 11-007 if they are requested from the BOG since these requests are managed by RMA-ODA or if they are financial information managed by USF Business and Finance. Three survey results are used in the preeminence metrics and all three were considered exempt from ODS-ODA review for the following reasons: • Higher Education Research & Development (HERD) survey (metrics F, G, H) and National Science Foundation (NSF)/National Institutes of Health (NIH) Graduate Students and Postdoctorates in Science and Engineering (GSS) (metric K) were considered a BOG ad hoc report even though the data was submitted directly to survey administrator. • National Association of College and University Business Officers (NACUBO) – TIAA Study of Endowments (NTSE) (metric L) was considered financial information. While the HERD and GSS surveys had an executive review process which included leadership outside the vice presidential area responsible for data collection and reporting, the NTSE survey did not. Only USFF leadership was involved in reviewing the survey prior to submission. In addition, the robust control process used with the BOG State University Database System (SUDS) file submissions, designed to ensure data was complete and accurate, were not in place for ad hoc reporting. Since both the	In Progress

MEDIUM PRIORITY RISKS	STATUS
HERD and NSF-GSS surveys are submitted directly to the external survey administrator on behalf of NSF, these surveys did not appear to meet the exemptions for BOG ad hoc reporting. 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 create a significant reputational risk. **Recommendation:** 1) **The ORI should submit the HERD survey to the ODS for review rather than follow the BOG ad hoc process.** 2) **The Office of Post-Doctoral Affairs should submit the NSF GSS survey to ODS for review rather than follow the BOG ad hoc process.** 3) **The USF Foundation should implement an executive review process over the NTSE survey to ensure independent oversight over the survey's completion.**	
Management Attention Required: ☐ Immediate ☒ Urgent ☐ Timely **Resources/Effort Required:** ☐ Significant ☒ Moderate ☐ Minimal	
Management's Response: 1) By January 31, 2021, USF Research & Innovation commits to working with financial management and technology resources to foster more efficient and consistent reporting as the current system is labor intensive. HERD survey data results will be provided to the USF System Office of Decision Support for review and processing to ensure data integrity prior to submission to NSF. 2) Implemented as of February 27, 2020 3) Implemented as of October 3, 2019.	
2. **The integrity of historical records related to the submission of degrees awarded was not being maintained.** The Student Instructional File-Degree (SIFD) preparation is the responsibility of the Office of the Registrar, a Division of Student Affairs and Student Success. A copy of the degrees awarded (SIFD) table submitted to the BOG each semester is maintained in the data warehouse HubMart. This table is	Resolved

MEDIUM PRIORITY RISKS	STATUS
used during the validation process of the SIFD table to allow late-awarded degrees to be submitted in future SIFD submissions. Beginning in Summer 2014, when a degree awarded was rescinded, the degree was removed from the historic SIFD table and a request to delete the degree from the BOG-ODA was submitted. A request for the deletion was sent to the data administrator in RMA-ODA who ensured that both the SIFD sub-certifier and primary executive reviewer had approved the deletion. Once approved, a request to delete the record was sent to Information Technology. The ODS was also notified to delete the record in their database which was used to track progress toward the performance and preeminence metrics. The ODS maintained an Excel spreadsheet of the degrees removed. Neither the RMA-ODA nor the Office of the Registrar were maintaining a cumulative record of degrees rescinded, but they were maintaining the email records supporting the deletion. Based on the list provided by the ODS, there were 6 rescinded degrees during the period under review (Summer 2017 to Spring 2018). By deleting rescinded degrees from the SIFD file, rather them identifying them as rescinded, results in a loss of integrity of the file. **Recommendation:** **The Office of Student Affairs & Student Success should discontinue the practice of deleting rescinded degrees from the university's copy of the historical SIFD file in order to maintain an appropriate audit trail.**	

Management Attention Required:	☐	Immediate	☒	Urgent	☐	Timely
Resources/Effort Required:	☐	Significant	☒	Moderate	☐	Minimal

Management's Response:
Implemented as of January 16, 2020.

UNIVERSITY of SOUTH FLORIDA

MEMORANDUM

TO: Virginia L. Kalil, Executive Director/Chief Internal Audit
USF System Audit

FROM: Paul R. Sanberg, Senior Vice President for Research, Innovation &
Knowledge Enterprise

DATE: February 13, 2020

RE: Management Overall Response to High Priority Risk 19-020

_____

Management Overall Response to High Priority Risk #1:

USF Research & Innovation (USFR&I) agrees that the National Science Foundation (NSF) directs Higher Education Research and Development (HERD) survey respondents to exclude data for entities that are not discretely presented component units of the institution.

While the University concedes that the inclusion of data for affiliated entities is contrary to HERD directives, the report was compiled with the goal of capturing all research in which the University plays an integral role. This allows the report to capture activity not included in the University's financial statements, the absence of which would fail to recognize the University's unique relationship with its affiliates and would, therefore not otherwise be captured and reported to the Board of Governors as part of the HERD Survey.

Such expenditures included:
- Faculty holding dual appointments at Moffitt Cancer Center housed in the Department of Oncological Sciences at USF Health. Note that the Moffitt relationship stems from when it was a Direct Support Organization (DSO).
- Faculty holding dual appointments at Veteran's Administration (VA)-Bay Pines, VA- Haley, All Children's Hospital, Jaeb Center for Health Research, Florida Institute of Orthopedics, and Research Park tenants
- Comparative Medicine staff operating the vivarium located in the Moffitt Cancer Center building.
- Faculty operating under inter-agency personnel agreements (IPA).
- Costs associated with conducting regulatory reviews and providing oversight to Moffitt (*e.g.,* IRB, IACUC, biosafety, radiation safety, etc.)

USF Research & Innovation | **Office of the Senior Vice President**
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Action Plan—

Commencing with FY2019, R&D conducted by University faculty or staff at outside institutions that are not accounted for in the University's financial records will no longer be reported in the HERD Survey. Unless otherwise directed by NSF, the University does not intend to restate data submitted previously.

The University believes it is important for the Board of Governors to have a report that captures all research data from the University and affiliates. USF will work with the Chancellor and his staff to determine a reporting methodology (e.g., HERD plus selected entities) that best meets the needs of the Board and the State of Florida in measuring all research activity.

Date of Implementation—

March 13, 2020

Technical Owner/Functional Manager —

Keith Anderson, Assistant Vice President

Management Overall Response to High Priority Risk #2:

Recommendation #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 process used to gather, validate, and compile data from multiple sources must be documented and a methodology for identifying expenditures for funds designated for research must be developed. Finally, dual purpose account funds containing research and non-research activities must be segregated based upon the grants purpose to facilitate accurate reporting.

Action Plan—

Sponsored Research reviewed each convenience account manually to discern if the activity reflected in these funds were related to research and/or scholarly activity directly or indirectly.

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Where the intent for creating the fund was ambiguous, additional documentation was solicited from the administrative unit to determine if an "element of research activity" was being conducted. Further, telephone interviews were conducted with fund recipients or designated unit-level personnel to aid Sponsored Research in its decision-making efforts.

For FY 2019's HERD Survey, Sponsored Research will compare the data reported for FY 2018 with the information generated for FY 2019. Any convenience fund not vetted previously will be reviewed for appropriateness utilizing the method employed above.

Because the University realizes that this method is labor-intensive, commencing with reporting for FY 2020, Sponsored Research will coordinate with Research Technologies to design tools to automate processes and reduce the administrative burden of categorizing convenience accounts.

Date of Implementation—

Completion of an overall framework and plan – March 13, 2020
Completion of all of the remaining steps - January 31, 2021.

Technical Owner/ Functional Manager—

Keith Anderson, Assistant Vice President

Management Overall Response to High Priority Risk #2:

Recommendation #2—

Sponsored Research concurs that the classification assigned to each project must be based on the purpose and the deliverables required. Where the purpose of the project is unclear, additional documentation was requested from the administrative unit—including, the scope of work to be performed as well as progress and/or technical reports.

Action Plan—

Commencing with FY 2020's HERD Survey, the Internal Form will be amended to reflect four categories—research, research instruction, non-research instruction and public service—so as to facilitate accurate reporting. The justification for including expenditures involving a

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new project will be based on R&D effort as indicated based on the definitions provided by NSF in the HERD Survey instructions. Furthermore, formal classification or designation of a project as basic research, applied research and/or experimental development will occur commencing with fiscal year 2020.

Date of Implementation—

Revisions to the Internal Form will commence in February 2020. The timeline for recoding existing projects will be dependent on the feasibility of designing tools to automate processes and reduce the administrative burden, as well as, the availability of Research Technologies' staff.

Completion of an overall framework and plan – March 13, 2020
Completion of all of the remaining steps – January 31, 2021

Technical Owner/ Functional Manager—

Keith Anderson, Assistant Vice President

Management Overall Response to High Priority Risk #2:

Recommendation #3—

The University concurs with this finding. To ensure that R&D expenditures are reported accurately and consistently, the USF Research and Innovation will work in collaboration with financial management and technology resources to develop ancillary tools to create a robust data management framework.

Action Plan—

To facilitate reporting of the USF Foundation's R&D expenditures, the USF Research and Innovation is working in conjunction with the USF Foundation to implement a crosswalk. The crosswalk is under review by the USF Foundation.

Date of Implementation—

Completion of an overall framework and plan – March 13, 2020

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Technical Owner/ Functional Manager—

Keith Anderson, Assistant Vice President

Management Overall Response to High Priority Risk #2:

Recommendation #4—

The University acknowledges that additional control measures governing data integrity are warranted as the current method does not yield repeatable outcomes consistently.

Action Plan—

To prevent material errors in data reporting, Sponsored Research will develop work instructions, flowcharts, or other comprehensive documentation of the process used to gather, validate, and compile data for the HERD survey will be developed.

Date of Implementation—

Completion of an overall framework and plan – March 13, 2020
Completion of all of the remaining steps - January 31, 2021.

Technical Owner/ Functional Manager—

Keith Anderson, Assistant Vice President

General Response

The methodology used by USF to capture and report R&D expenditures to the HERD Survey is complex and utilizes multiple financial and information systems. Despite this, opportunities exist that are not measured or estimated via the University's current approach. The University hired Huron Consulting Group to assess the feasibility of capturing additional unreported or under reported research expenditures. In their draft report, they cite a number of items they believe the University should include. These opportunities are being explored at present.

MEMORANDUM

TO: Dr. Ralph Wilcox, Provost & Executive Vice President of Academic Affairs
            Dr. Paul R. Sanberg, Senior Vice President for Research & Innovation

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

DATE: March 20, 2020

SUBJECT: 20-020 Preeminence Data Integrity Audit

USF System Audit (Audit) performed an audit of the internal controls that ensure the completeness, accuracy, and timeliness of data submissions that support the calculation of 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 added to the 2019-2020 Audit Work Plan, as a result of a legislative change to Florida Statute 1001.706(5)(e)Powers and duties of the Board of Governors which now requires all universities to perform an audit of the data used in the preeminence metrics.

The data supporting preeminence metrics comes from a variety of sources including data reported to external entities, data submitted to the BOG via routine and ad hoc requests, financial data submitted by the USF Foundation regarding endowments, and data that is created and reported by an independent, external entity 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. For additional information on metrics and data sources included in this review see Appendix A.

Audit's 2018-2019 Work Plan included a consulting project (19-020 Institutional Data Reporting Review) to assess internal controls that ensure 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. Although not originally planned to meet the audit requirements established by Senate Bill 190, the work performed in 19-020 was relied upon during the performance of the current audit, 20-020 Preeminence Data Integrity Audit. For additional information on the scope, objectives, and results of Audit's consulting project 19-020 see Attachment A.

AUDIT 20-020

As approved by the BOT Chair, the BOT Audit & Compliance Committee Chair, and the President, the scope of the current audit 20-020 focused on the BOG Methodology document provided on October 7, 2019 to ensure USF interpretations were consistent with the BOG's expectations; sample testing for metrics F, G, H and K not performed during the consulting project; and follow-up on control deficiencies identified in consulting project 19-020.

Audit'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) assuming corrective action is taken timely to address the one remaining unresolved medium-priority risk communicated in 19-020. This medium-priority risk related to enhancing oversight of survey data used in the preeminence metrics.

Controls over the remaining three metrics (F-H) relied on data from the same source, the National Science Foundation (NSF) Higher Education Research & Development (HERD) survey. Our overall conclusion for this data source was that there was not an adequate system of internal controls in place. While progress has been made to resolve the high-priority risks reported in 19-020, no significant changes have been implemented to the overall control environment. Also, as a result of testing performed in the current audit, additional recommendations were identified related to the high-priority risk concerning the data governance structure over the HERD survey. These additional recommendations are included within this report.

Although the issues 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. For additional information on the impact to metrics F-H see Appendix B.

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 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
     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
     Keith Anderson, Assistant Vice President, Research & Innovation
     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 2019 Accountability Plan was approved by the USF BOT, via consent agenda, on April 8, 2019. The BOG Strategic Planning Committee reviewed and approved the Accountability Plan on June 11, 2019.

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 outlines 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.

On June 18, 2019 Senate Bill 190 was approved by the Legislature and Governor which required 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 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 an independent external entity 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 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 the USF System, 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 the USF System and provides guidelines for processing data requests by external entities. External data requests not exempted from this policy, "must go

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through the USF System'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 System 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 four surveys used as data sources for the preeminence metrics: the Integrated Postsecondary Education Data System (IPEDS) Survey, the NSF HERD Survey, the NSF/National Institutes of Health (NIH) Graduate Students and Postdoctorates in Science and Engineering (GSS) Survey, and the NACUBO Endowment Survey. Only the IPEDS survey is prepared and validated by ODS.

According to Florida Statute 1001.7065, the IPEDS survey data must be used for Metric C (Retention) and Metric D (4-year Graduation Rate). This is inconsistent with the BOGs intent to calculate the metrics using BOG file submissions. Prior to 2017-2018, the IPEDS survey, was prepared and submitted by the BOG using data submitted by the University. These data files were subject to the BOG submission validation process below. Beginning in 2017-2018, ODS began preparing and submitting the IPEDS survey for each campus separately using USF copies of the BOG file submissions. The IPEDS survey data is compiled using an AppWorx job written and maintained by Information Technology (IT). Once submitted to the BOG and IPEDS, a copy of the submission is placed on the ODS website.

Each year, the BOG-ODA utilizes the BOG submissions to recalculate Metrics C and D and provides the source data and results to each university. ODS validates the results provided by BOG-ODA and works with BOG-ODA to reconcile any differences. Since ODS prepares the data for IPEDs, the quality standards mandated by USF Policy 11-007 are complied with, but the standard process for requesting ODS approval is not necessary.

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 the USF System pursuant to BOG Regulation 3.007. RMA-ODA serves as a liaison between the BOG-ODA and the USF System 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 USF System Audit (Audit). For more information on the control process, see USF Audit 20-010 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.

The BOG also makes numerous requests for ad hoc data including data submitted to the NSF via the HERD survey and the NSF/NIH via the GSS Survey. The ad hoc data requests 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). The number of post-doctoral appointees was also used in the institution-selected PBF metric until 2019-2020. As a result, the NSF GSS survey was included in the annual PBF audit and follows a formal executive review process used for BOG SUDS submissions.

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 submitted to the BOG.

USFF Process

The USFF is responsible for calculating and reporting the data for the NACUBO – TIAA Study of Endowments (NTSE) which is used for Metric L (Endowments >= $500 Million). 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). Once the survey is submitted the endowment number is provided to ODS for inclusion in the Accountability

Plan. On October 3, 2019, the USFF initiated an executive review process for the NTSE survey through RMA-ODA.

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, ODS submits their list to the BOG 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 whom are members of a National Academy by reviewing public data without the assistance of USF and obtains the number of patents directly from 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 the USF System as of September 30, 2019 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.

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. USF System Audit (Audit) 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.

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PRIOR AUDIT WORK RELIED UPON

Audit'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. Although not originally planned to meet the audit requirements established by Senate Bill 190, the work performed in 19-020 was relied upon during the performance of the current audit, 20-020 Preeminence Data Integrity. For additional information on the scope, objectives, and results of Audit's consulting project 19-020, see Attachment A.

PROCEDURES PERFORMED

In order to meet the BOG's Data Integrity Audit and Certification for Preeminence Metrics requirements, and build on the work performed in our consulting review, Audit performed the following additional procedures:

1. Reviewed the BOG's definition of the data components and methodology used to implement Florida Statute 1001.7065 (Preeminent state research universities program) to ensure USF's interpretations were consistent with the BOG's expectations.
2. Traced samples from the NSF/NIH GSS survey and the NSF HERD survey to the system of record or supporting documentation.
3. Followed up on control deficiencies identified in the consulting review.

CONCLUSION

Audit'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) assuming corrective action is taken timely to address the one remaining unresolved medium-priority risk communicated in 19-020. This medium-priority risk related to enhancing oversight of survey data used in the preeminence metrics.

Controls over the remaining three metrics (F-H) relied on data from the same source, the NSF HERD survey. Our overall conclusion for this data source was that there was not an adequate system of internal controls in place. While progress has been made to resolve the high-priority risks reported in 19-020, no significant changes have been implemented to the overall control environment. Also, as a result of testing performed in the current audit, additional recommendations were identified related to the high-priority risk concerning the data governance structure over the HERD survey. These additional recommendations are included within this report.

Although the issues 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. For additional information on the impact to metrics F-H see Appendix B.

AUDIT 20-020

HIGH PRIORITY RISK	STATUS
1. **As noted in 19-020, the data governance structure over the HERD survey is not adequate to ensure accurate and consistent reporting of research and development (R&D) expenditures.** High-priority risk #2 in Audit's consulting review, 19-020 Institutional Data Reporting, identified deficiencies in the controls over the data compilation, validation, and submission related to the HERD survey. As a result of the review, Audit recommended management review the following R&D expenditures included in the 2018 HERD survey to determine whether inclusion was appropriate. For additional information regarding the HERD survey definitions, see Attachment B. • Research project coded as training or instructional • Convenience accounts As part of the current review, Audit followed up on management's corrective actions taken in response to Audit's 19-020 recommendations, as well as evaluated supporting documentation for expenditures reported in the 2018 HERD survey. **Research Projects** The 2018 HERD survey included $29.8 million in expenditures coded as related to training or instructional grants. The Office of Research & Innovation (ORI) completed a review of the projects associated with these expenditures and identified $12.2 million that should not have been reported in the HERD survey. Subsequently, Audit reviewed a judgmental sample of projects the ORI determined to be allowable and identified an additional $1.2 million for which the research-related purpose was not sufficiently supported. Therefore, Audit concluded this expenditure category to be over-reported in the HERD survey by up to an estimated $13.4 million. In addition, Audit's review determined the associated contract or grant's purpose was not being coded consistently within the Financial Accounting System (FAST's) grant module because there was no guidance provided to those selecting the purpose and no independent oversight. **Convenience Accounts** The 2018 HERD survey also included $70.9 million in expenditures from convenience accounts included by ORI because they believed they contained research related expenditures. Convenience accounts are used to account for expenditures to be reimbursement by a direct support organization or other affiliated organization. The ORI, with support from USF Health (USFH) Graduate Medical Education (GME), completed a review of convenience account activity based on available information regarding the intended purpose of the account and identified $.1 million that should not have been reported in the HERD survey. Subsequently, Audit reviewed a judgmental sample of convenience accounts accounting for 93% of the HERD survey R&D expenditures in this	In Progress

HIGH PRIORITY RISK	STATUS
category. Audit identified an additional $64.5 million which did not have sufficient support to conclude the expenditure related to research activities or activities were commingled within the same fund which did not permit adequate tracking of fund activity. Therefore, Audit concluded this expenditure category to be over-reported in the HERD survey by up to an estimated $64.6 million. In both categories of expenditures, Audit determined the data governance structure was not effective in identifying R&D expenditures in the systems of record to adequately support accurate and consistent reporting for the HERD survey. 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. Based on the results of the additional work performed, Audit recommends the following actions also be taken as management works to improve the control structure over reporting R&D expenditures in the HERD survey. **Recommendation: Office of Research & Innovation, in coordination with Information Technology and the University Controller's Office should:** 1. **Capture additional information within the financial accounting systems to allow for efficient and accurate reporting of a research projects purpose consistent with NSF definitions (research, research related training and instructions, non-research training, public services etc.).** 2. **Obtain and retain adequate documentation of the purpose of convenience accounts which will permit research related activities to be identified and develop and implement a methodology for tracking R&D related expenditures contained within these funds.** **Management Attention Required:** ☒ Immediate ☐ Urgent ☐ Timely **Resources/Effort Required:** ☒ Significant ☐ Moderate ☐ Minimal	

APPENDIX A

PREEMINENCE DATA SOURCES

Metric	Description	Responsible Unit	Source	Data Used/Created by the BOG
A	Average GPA and SAT score for incoming freshman in Fall semester.	BOG-ODA	Admission File (ADM)	BOG-ODA performs concordance of SAT scores and calculates averages based on the ADM tables provided by USF.
B	Top 50 in national public university rankings	ODS	External rankings	List of acceptable organizations maintained by BOG-ODA. USF's performance for listed organizations is prepared by ODS. BOG validates using external websites.
C	Freshman retention rate (Full-time, FTIC)	ODS	IPEDS survey	Data based on BOG Files (SIF, SIFP) used to calculate the FTIC Cohort and the retention rate. IPEDS Survey is prepared by ODS and validated by BOG.
D	Four year FTIC graduation rate	ODS	IPEDS survey & BOG submission files	Data based on BOG files (SIF, SIFP) used to calculate the FTIC cohort and SIFD. IPEDS survey is prepared by ODS and validated by BOG. 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 utilizes FAST, FAIR, and BANNER financial data, and R&D activities reported by and external affiliates and 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	As reported by USPTO for the most recent three years.
J	Doctoral degrees awarded annually	BOG-ODA	Degrees Awarded File (SIFD)	BOG computes and ODS validates based on SIFD.
K	Number of post-doctoral appointees	OPA	NSF GSS survey	USF OPA
L	Endowment size	USFF	NACUBO survey	USFF financial records in BANNER and external investment statements.

KEY TERMS

Term	Description
BANNER	Financial accounting system used by USF Foundation and USF Research Foundation
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
IPEDS	Integrated Postsecondary Education Data System at the National Center for Education Statistics
NACUBO	National Association of College and University Business Officers
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 organizations of USF
USFRF	USF Research 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

IMPACT OF CONTROL DEFICIENCIES ON METRICS

Metrics F&G (in Millions)

	Originally reported to HERD	Affiliates not reported in Financial Statements	Non-research training & instruction	Convenience Account Activities not directly related	Other errors	Total Adjustments	Adjusted Balance
All R&D Expenditures	$581.6	$(123.1)	$(13.4)	$(64.6)	$(.3)[1]	$(201.4)	$380.2
Total R&D expenditures for Science & Engineering (S&E) Disciplines (Metric F Benchmark $200)	$524.7	$(123.1)	$(6.8)	$(60.9)	$(.4)	$(191.2)	$333.5
Total R&D for Non-health S&E Disciplines (Metric G Benchmark $150)	$295.6	$(31.3)	$(6.3)	$(6.3)	$(.3)	$(44.2)	$251.4

[1]Total is less than R&D S&E due to under reporting of Non-S&E USF Foundation expenditures.

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Metric H: By Discipline (S&E Only)

Discipline	Originally Reported	Adjusted	Adjusted Number	Impact on Rank
Computer & Information Sciences	$8.9	$(.4)	$8.5	Remains in top 100
Geosciences, Atmospheric, & Ocean Sciences	$25.3		$25.3	Remains in top 100
Life Sciences	$374.9	$(177.4)	$197.5	Remains in top ten
Mathematics & Statistics	$2.3		$2.3	Remains in top 100
Physical Sciences	$12.5	$(.2)	$12.3	Remains below top 100
Psychology	$12.5	$(6.9)	$5.6	Remains in top 100
Social Sciences	$38.4	$(5.3)	$33.1	Remains in top 100
Engineering	$48.3	$(1.0)	$47.3	Remains in top 100
Other Sciences	$ 1.6		$1.6	Not Applicable
Total S&E	$524.7	$(191.2)	$333.5	

ATTACHMENT A

INSTITUTIONAL DATA REPORTING CONSULTING PROJECT (19-020)

SCOPE & OBJECTIVES

Our review focused on the internal controls established by the USF System as of April 1, 2019 to ensure the completeness, accuracy, and timeliness of data submissions, which support the preeminence measures.

The primary objectives of our review was to:

- Gain an understanding of data elements, data sources, and methodologies used to compute the metric.
- Identify and evaluate key processes and controls used by the data owners to ensure the completeness, accuracy, and timeliness of data submission.
- Validate all populations utilized and recalculate metrics using internal and external data sets, when available.
- Verify data accuracy through sample testing of key files and data elements.
- Review the processes used by the data administrators in the Office of Decision Support (ODS) and Resource Management & Analysis Office of Data Administration & State Reporting (RMA-ODA) to ensure the completeness, accuracy, and timely submission of data supporting the metrics.
- Determine overall risk of a data submission being inaccurate or incomplete.
- Recommend corrective actions where weaknesses were identified.

Our audit scope excluded controls in place to produce the data files supporting the Performance Based Funding metrics, which were reviewed in a separate audit (Audit 19-010 dated February 4, 2019).

Our review was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing.* The COSO (Committee of Sponsoring Organizations of the Treadway Commission) Control Frameworks were used to assess control structure effectiveness.

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BOARD OF GOVERNORS (BOG) FILES REVIEWED

Submission	System of Record	Table(s)	Submission Reviewed
Admission File (ADM)	OASIS[1]	Applicants Admits Tests Reqs	Fall 2018
Retention File (RET), based on Student Instruction File (SIF) and Student Instructional File - Degree (SIFD)	BOG	Retention File Retention Cohort Change	2017-2018 (cohort 2014)
Student Instructional File - Degree (SIFD)	OASIS[1]	Degrees Awarded	Summer 2017 Fall 2017 Spring 2018

[1] OASIS is the student information system used by the USF System.

CONCLUSION (19-020)

Audit'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) assuming corrective actions are taken timely to address the two medium-priority risks related to enhancing oversight of surveys and maintenance of historical data to support data submitted to the Board of Governors.

Controls over the remaining three metrics (F-H) relied on data from the same source, the National Science Foundation Higher Education Research & Development (HERD) survey. Our overall conclusion for this data source was that there was not an adequate system of internal controls in place due to the presence of two high-priority risks related to affiliate research and development expenditures and the control structure to ensure accurate and consistent reporting of research and development expenditures.

Although, the issues 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.

ATTACHMENT B

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

NSF provides guidance to institutions completing the HERD survey via survey instructions, annual webinars, and written question & answer documents, and via direct response to institutions.

Reporting Units

The following guidance was provided in the 2018 survey;

Reporting units include:	Reporting units do not include:
All units of your institution included in or with your financial statements, such as: • Agricultural experiment stations • Branch campuses • Medical schools • Hospitals or clinics • Research centers and facilities • A university 501(c)(3) foundation	Other organizations or institutions, such as teaching hospitals or research institutes, with which your institution has an affiliation or relationship, but which are not components of your institution.
	Federally funded R&D Centers
	Other campuses headed by their own president, chancellor, or equivalent within your university system. Each campus is asked to respond separately

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."

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The 2018 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.

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	

UNIVERSITY of
SOUTH FLORIDA

MEMORANDUM

TO: Virginia L. Kalil, Executive Director/Chief Internal Audit
             USF System Audit

FROM: Paul R. Sanberg, Senior Vice President for Research, Innovation &
             Knowledge Enterprise

DATE: February 13, 2020

RE: Management Overall Response to High Priority Risk 20-020

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Management Overall Response to High Priority Risk 20-020:

Recommendation #1—

The University agrees that a robust data management framework must be in place which adheres to data integrity standards. Additionally, the process used to gather, validate, and compile data from multiple sources must be documented and a methodology for identifying expenditures for funds designated for research must be developed.

Action Plan—

Commencing with FY 2020's HERD Survey, the Internal Form will be amended to reflect four categories—research, research instruction, non-research instruction and public service— so as to facilitate accurate reporting. The justification for including expenditures involving a new project will be based on R&D effort as indicated based on the definitions provided by NSF in the HERD Survey instructions. Furthermore, formal classification or designation of a project as basic research, applied research and/or experimental development will occur commencing with fiscal year 2020.

Date of Implementation—

Completion of an overall framework and plan – March 13, 2020
Completion of all of the remaining steps - January 31, 2021.

USF Research & Innovation | **Office of the Senior Vice President**
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Memo re Management Overall Response to High Priority Risk 20-020
February 13, 2020
Page Two

Technical Owner/ Functional Manager

Keith Anderson, Assistant Vice President

Recommendation #2—

To facilitate tracking R&D expenditures to be reported to the HERD Survey, the University concurs that a methodology must be devised and adequate documentation relating to the purpose of each convenience account must be maintained.

Action Plan—

Commencing with FY 2019's HERD Survey, Sponsored Research will review the account set up documentation establishing new convenience funds to determine the purpose of the account. If the fund is research-related, Sponsored Research will retain adequate supporting documentation on file.

Date of Implementation—

Completion of an overall framework and plan – March 13, 2020
Completion of all of the remaining steps - January 31, 2021.

Technical Owner/ Functional Manager

Keith Anderson, Assistant Vice President