UNIVERSITY OF FLORIDA

OFFICE OF INTERNAL AUDIT

Audit of: University of Florida

University of Florida Performance Based Funding – Data Integrity

Period of Audit: As of September 30, 2014

Report Issue Date: February 9, 2015

Report Number: UF-15-663-17

UNIVERSITY OF FLORIDA

PERFORMANCE BASED FUNDING – DATA INTEGRITY

As of September 30, 2014

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February 9, 2015

MEMORANDUM

TO:

UF Board of Trustees Audit Committee

FROM:

Brian D. Mikell, CPA

Chief Audit Executive

SUBJECT:

Performance Based Funding – Data Integrity

We audited the University of Florida's Performance Based Funding – Data Integrity as of September 30, 2014. The attached report defines the scope of our audit and contains analysis and comments.

Brian D. Mibell

Please call me if you have any questions regarding the contents of the audit report.

BDM: dh

CC:

President Fuchs

Sr. Vice President and Provost Sr. Vice President and COO

Assistant Provost and Director, Institutional Planning and Research

Auditor General

PERFORMANCE BASED FUNDING - DATA INTEGRITY

EXECUTIVE SUMMARY

The Florida Legislature has called upon the State University System (SUS) of Florida to reach new levels of efficiency, academic quality and accountability. The Board of Governors (BOG) responded by implementing a performance based funding (PBF) model, which is intended to build upon the BOG's strategic plans and goals and annual accountability reports. This model seeks to further elevate the SUS while acknowledging each university's distinct mission.

The integrity of the data provided to the BOG by the universities is critical to the PBF decision-making process. Therefore, the BOG developed a Performance Based Funding Data Integrity Certification to provide assurances that the data submitted is reliable, accurate, and complete. This certification form is to be executed by the University President, affirmatively certifying each representation and/or providing an explanation as to why the representation cannot be made as written. The certification form is also to be approved by the university Board of Trustees (BOT) and certified by the BOT Chair.

On June 27, 2014, the Chairman of the BOG instructed each university BOT to "direct its Chief Audit Executive to perform, or cause to have performed by an independent audit firm, an audit of the university's processes which ensure the completeness, accuracy and timeliness of data submissions to the Board of Governors." This audit will provide an objective basis of support for the President and BOT Chair to certify the required representations.

The Office of Internal Audit conducted an audit of the University of Florida's data submission process related to data metrics used for the BOG's PBF initiative as of September 30, 2014. The primary objective of this audit was to determine the adequacy of university controls in place to promote the completeness, accuracy, and timeliness of these data submissions to the BOG.

Based on the results of our audit procedures, we concluded that controls over the university's data submission process were adequate to promote the completeness, accuracy, and timeliness of submitted data relative to the BOG's PBF initiative. University management and the audit team agreed on the following action plans to enhance controls related to the data submission process:

- The Office of Institutional Planning and Research and source data owners will enhance documentation of their due diligence review procedures for PBF submissions
- Enhancements were implemented relative to access control policies and procedures for the State University Data System Master File Submission Subsystem

PERFORMANCE BASED FUNDING - DATA INTEGRITY

- AUDIT REPORT

Scope and Objectives

On June 27, 2014, the Chairman of the Board of Governors (BOG), citing BOG Regulation 1.001(6)(g), instructed each university board of trustees to "direct its Chief Audit Executive to perform, or cause to have performed by an independent audit firm, an audit of the university's processes which ensure the completeness, accuracy and timeliness of data submissions to the Board of Governors."

We have completed an audit, as of September 30, 2014, of the university's data submission process related to data metrics used for the BOG's performance based funding initiative. The primary objective of this audit was to determine the adequacy of university controls in place to promote the completeness, accuracy, and timeliness of these data submissions to the BOG.

Because of the inherent limitation in the application of such controls, errors or irregularities may, nevertheless, occur and not be detected. Also, assurances regarding the adequacy of internal controls cannot be projected to future periods due to the risk that procedures may become inadequate because of changes in conditions or compliance with procedures may deteriorate.

We conducted the audit in accordance with the International Standards for the Professional Practice of Internal Auditing as promulgated by the Institute of Internal Auditors. The audit fieldwork was conducted from July 16, 2014 through January 14, 2015 in accordance with the 2014-2015 audit work plan, amended pursuant to the BOG directive to the University of Florida Board of Trustees (BOT).

Background

The Florida Legislature has called upon the State University System (SUS) of Florida to reach new levels of efficiency, academic quality and accountability. The BOG has implemented a performance based funding (PBF) model, which is intended to build upon the BOG's strategic plans and goals and annual accountability reports. This model seeks to further elevate the SUS while acknowledging each university's distinct mission.

The integrity of the data provided to the BOG by the universities is critical to the performance based funding decision-making process. Therefore, the BOG developed a Performance Based Funding Data Integrity Certification to provide assurances that the data submitted to the BOG for PBF decision-making is reliable, accurate, and complete. This certification form is to be executed by the University President, affirmatively certifying each representation and/or providing an explanation as to why the representation cannot be made as written. The certification form is also to be approved by the university BOT and certified by the BOT Chair. This audit will provide an objective basis of support for the President and BOT Chair to certify the required representations (See Attachment A).

The PBF model has four stated guiding principles:

- Use metrics that align with SUS Strategic Plan goals
- Reward excellence or improvement
- Use a few clear, simple metrics
- Acknowledge the unique mission of the different institutions

The PBF Model includes ten metrics that evaluate the institutions on a range of issues.

- Eight of the ten metrics are common to all institutions. These include metrics on employment after graduation, cost of degree, graduation rates, academic progress, programs of strategic emphasis, and access to the university.
- One metric focuses on areas of improvement and distinct missions of each university. For the University of Florida, this metric is the number of awards that faculty have earned.
- The final metric is chosen by each university board of trustees from the remaining metrics in the University Work Plans that are applicable to their mission. The University of Florida BOT selected total research expenditures.

Attachment B identifies the BOG Performance Based Funding Metric Definitions (as reported in the 2012-2013 System Accountability Report)

Attachment C identifies the University of Florida's final score from 2012-2013 used for the 2014-2015 allocation

The BOG Regulation 3.007, State University System (SUS) Management Information System, states the SUS universities shall provide accurate data to a management information system established and maintained by the BOG Office. The BOG has created a web-based State University Data System (SUDS) Master File Submission Subsystem for the SUS to report their data.

The number of files the university uploads is dependent on the submission type. Once all required files and any desired optional files for the submission are uploaded, the user checks the submission based on edit and standard reports provided by SUDS. The SUDS system will identify errors which cause the file to be rejected and should be corrected on the source file and re-uploaded to the system to be checked again. This process is iterated until the submission is free of all significant errors and/or the errors are explained. Once that is accomplished, the university is ready to 'officially' submit the data to the BOG for approval.

Once submitted, BOG staff reviews the results, error explanations, and standard reports. The submission will either be accepted or rejected. If rejected, then the reason will be posted to the user and a resubmission requested. If accepted, the submitted data will be promoted to the production database.

Organizational Responsibilities

The Office of Institutional Planning and Research (OIPR) is responsible for providing university management with information that supports institutional planning, policy formation and decision making; coordinating responses to inquiries for university-related information; serving as a comprehensive source

for information about the institution; and for administering the BOG data collection/reporting system on campus.

The OIPR consists of a Data Administrator (DA), appointed to certify and manage the submission of data and eleven other staff responsible for overseeing the BOG requests as well as requests from other external institutions. The OIPR received approximately 740 data requests each year of which the BOG requests were approximately 190 and 10 percent were relevant to the PBF metrics.

The data owners at the university consist of core offices responsible for the extraction and compilation of the information that support the PBF metrics and other data requests. Core offices capture and generate the data and are responsible for reviewing and correcting information in the data systems prior to the upload into SUDS. The following units were responsible for compiling the PBF metrics and were included within the scope of this audit:

- Office of University Registrar (OUR): Responsible for student information data used to create the student information files (SIF, SIFP, and SIFD). This data was used in multiple metrics involving graduation, retention, academic progress, and strategic emphasis.
- Office of Admissions (Admissions): Responsible for the personal demographics data in the ADM file.
- Student Financial Affairs (SFA): Responsible for the financial aid award data used to create the SFA file. This data was used in Metric 7 University Access Rate.
- Chief Financial Officer (CFO): Responsible for the operating budget data which was used to create the Operating Budget (OB) file. The information in the OB file and the Instructional and Research Data (IRD) file was used by BOG to create the Expenditure Analysis (EA). This information was used in Metric 3 Average Cost per Bachelor's Degree.
- OIPR: Responsible for compiling information into the IRD file for the BOG to create the EA file.
 Extensive IT support was used to extract information from the Effort Reporting System for faculty workload and Classification of Instruction (CIP) code. This information was used in Metrics 3, 6, and 8a.
- Cost Analysis: This office was responsible for compiling the cost of research expenditures reported in the National Science Foundation Higher Education Research and Development Survey (HERD). This information is used by the BOG for Metric 10f Total Research Expenditures.
- Enterprise Systems (ES): This unit provided information technology (IT) support to the various
 other units and was directly responsible for maintaining certain systems as well as generating
 reports from those systems.

After the upload by the data owners, the SUDS edit check summaries require further review for exceptions and necessary comments. This was an iterative process between the data owners, IT and the OIPR to address any significant exceptions in the summaries and formalize comments for the noted exceptions. The OIPR then performed a final review to determine the data accuracy prior to submission to the BOG for their approval. If the BOG accepted the file, then no further procedures were necessary for /that submission. If the BOG rejected the file, then the data needed to be researched and corrected for reload and resubmission into SUDs until it received BOG approval.

Attachment D is a flowchart summarizing the data and process flows from extraction through the BOG approval.

Overall Conclusion

To identify and evaluate the controls in place relative to the university's data submissions in support of the PBF metrics, we conducted employee interviews, performed analytical reviews, reviewed program codes, performed process walkthroughs, and tested transactions to source data.

Based on the results of our audit procedures, we concluded that controls over the university's data submission process were adequate to promote the completeness, accuracy, and timeliness of submitted data relative to the BOG's PBF initiative.

A management letter was issued in concurrence with the audit report to communicate other comments and observations that did not warrant inclusion in the report due to lack of significance or relation to the scope of the audit.

DATA ADMINISTRATOR (DA)

BOG Regulation 3.007(2) states that each university president shall appoint an Institutional DA to certify and manage the submission of data to the SUS management information system. The Director of the OIPR has been officially charged with being the DA for the university. We observed a letter of formal appointment by the president which identified her role as data administrator for the university since 2006. The director's job description clearly defined her role as the DA. The DA and her staff are charged with ensuring that the university will provide accurate data to a management information system established and maintained by the BOG Office. Responsibilities include:

- Ensuring the data is in the correct format, contains the required elements, and is in accordance with specifications and criteria established by the BOG Data Committee.
- Prior to submitting the file, the university shall ensure the file is consistent with criteria established by performing tests on the file using application/processes provided by the BOG Information Resource Management (IRM) Office. Written explanation of critical errors must be included in the submission.
- Submitting the file to the Director of IRM or designee pursuant to the schedule set forth in the submission section for each file.
- Certifying that the file/data represents the position of the university for the term being reported.
- When a data file is rejected, the DA prepares and submits a revised data file within the time period specified by the SUS Data Administrator.

OIPR Review and Edit Procedures

BOG Regulation 3.007(5)(a) requires that the DA shall prepare and submit the data file to the Director of IRM, or the Director's designee, pursuant to the schedule set forth in the submissions section of the specification for each file. The BOG develops a calendar of due dates for each submission and provides

this information in the annual Higher Education Summit/SUS Data Workshops and on the SUDS submission screens.

Extensive procedures need to be performed by the data owners for extraction and review of the data, as well as by the OIPR for their review and submission. Consistent communication and coordination of these procedures is critical in order to meet the required deadlines. The OIPR developed an in-house Data Request System (DRS) used to coordinate and monitor the data requests. This system was used as a communication and documentation tool for data requests and helped to monitor what needed to be completed, who was involved, and when it was due.

Once the data owners have performed their extraction and review procedures, the DA and the OIPR staff perform their review. We noted comprehensive written procedures were in place to identify the submission process including work initiation, work in progress, quality checking and data release procedures conducted by the OIPR.

We performed walk-throughs of the quality checking processes identified in the written procedures for the SIF, SIFD, IRD and EA files by reviewing supporting documentation contained within the internal data request system and emails between the OIPR, data owners and the BOG. In addition, we tested the timeliness of submission by reviewing the eight most recent submissions and noted that all eight were submitted in a timely manner pursuant to the BOG's schedule. Two submissions were rejected by the BOG and resubmitted in a reasonable time frame.

While we observed that quality control review procedures were performed by OIPR to ensure the completeness, accuracy and timeliness of submissions, Comment 1 describes an opportunity to improve quality control documentation and to better demonstrate the university has followed specific quality control procedures before submitting information to the BOG.

DATA OWNERS

To understand the requirements for complete and accurate submissions, we reviewed the SUDS Data Dictionary, documentation from SUS data workshops, and BOG Methodology and Procedures applicable to the PBF submissions. The BOG issues annual notices communicating updates on how they want institutions to report certain data based on the SUS data workshops. Depending on the changes, the university had to modify program code as deemed necessary. An example of a BOG change might be a requirement that budget carryforward be included in the calculations where it was not included in previous years.

After gaining an understanding of the submission requirements, we interviewed management for each data owner and reviewed their key procedures for the extraction, compilation, and review of their data to ensure completeness and accuracy of the submission. We performed walk-throughs of key processes, including review of data validation processes, program code, change controls, analytics, and tests of transactions to source data. The following is a summary of our review and conclusions for each data owner.

Office of University Registrar (OUR)

The Student Records System is the authoritative system of record (master data) for the SIF, SIFP, and SIFD. These submissions involve multiple metrics involving graduation, retention, academic progress, and information regarding the programs of strategic emphasis (STEM programs).

The OUR had developed automated quality control checks that determined whether the data was within the BOG-expected parameters and allowed them to review the student data on a daily basis and make corrections as necessary prior to the SUDS submission. The student records were provided to OIPR every night. OIPR used this data to develop a daily enrollment tracking system used by administrators across campus. These procedures provided a daily basis of review and communication of student information so that corrections could be identified and made in a timely manner.

The controls for program change management were in place for both Production scheduled jobs and the Ad Hoc generated reports. Access controls over production libraries were limited to those who were authorized to make changes. A submissions log was used that identified the initiator for an upload. These compensating controls also helped to limit to an acceptable level the risk of an improper submission and maintained accountability for changes and submissions.

We tested student records by randomly selecting 100 records from the SIF and SIFD Fall 2014 submissions and tracing them to the system of record to verify the accuracy of key elements identified in the BOG Methodology and Procedures. We found no exceptions for the sampled data elements.

We found that the IT controls identified for the procedures used to create the OUR's SUDS upload files were generally adequate. Controls were in place to verify the accuracy of data and process repeatability and consistency. Collectively, those controls helped to ensure data accuracy and completeness, as well as timely operation for creating the load files.

The core office also had good automated and continuous monitoring procedures as well as separate layering of reviews to help assure the student data was accurate. We observed written policies and procedures, conscientious staff, and adequate quality control procedures prior to the final review by the DA.

Office of Admissions (Admissions)

Admissions was responsible for application servicing for all levels of student entry into the university including beginning freshmen, transfers, graduate students, students applying to professional school programs, and international recruitment strategies.

We performed a walk-through of controls at Admissions including edit processes, error correction, and data extraction and upload processes. Written procedures did not exist for the review process and key steps in the process were not always documented.

The IT controls identified for the procedures used to create the Admissions SUDS upload file were generally adequate. Control procedures were in place to verify the accuracy of data and process repeatability and

consistency. Collectively, those controls helped to ensure data accuracy and completeness, as well as timely operation for creating the load files.

Program change management controls were limited to an Ad Hoc nature, where a copy of program code and files were kept from year to year. Although review and approval of program code changes prior to running the program would be in line with industry standards, the Ad Hoc nature of the program code development did not require a formal production change management process. The use of access controls over production libraries limited those who can make changes. A submissions log was used to identify the initiator for an upload. These compensating controls helped limit to an acceptable level the risk of an improper upload and maintained accountability for changes and submissions.

The BOG Overview of Methodology and Procedures for Metrics identified that personal demographics from the Admissions file were used for graduation data needed for Metrics 1 and 2. Upon further review and discussion with the BOG, it was determined that this information was incorrect and that the graduation data originated from the SIFD file that was evaluated in our review of the Office of the Registrar submissions. As a result we did not perform any detailed testing of the Admissions data.

Student Financial Affairs (SFA)

The primary role of SFA is to provide financial resources to students who would otherwise be unable to receive post-secondary education. PBF Metric 7, University Access Rate, was defined as the percentage of undergraduates with Pell grants. SFA was responsible for compiling this information used in the SFA file submission.

Our audit procedures included a review of the extraction process and the program code. We re-performed the data extraction for Fall 2013 and found that the test data was consistent with the original submission.

We tested awards by judgmentally selecting 30 students receiving Pell grants from the source file. The awards were traced to the system of record to verify the accuracy of key elements identified in the BOG Methodology and Procedures. Our test results indicated that the award payment, term and award identifier in the submission was in agreement with the student's award screens.

Audit results indicate that procedures in place to create the SFA upload file were generally adequate. Functional controls were in place for the data owner to verify the accuracy of data. Collectively, those controls helped to ensure data accuracy, completeness, as well as timely operation for creating the load files.

Chief Financial Officer (CFO)

The PBF Metric 3, Average cost Per Bachelor's Degree, was based on direct and indirect instructional expenditures. The BOG calculated the average cost from the data included in the IRD, EA and OB files.

The Assistant Vice President of University Budgets (AVP) reports to the CFO and has been charged with compiling the OB file. The CFO, with the assistance of Enterprise Systems (ES), creates the OB file by

running programs that combine files and information from the general ledger. Prior to the build of the submission file, the AVP runs queries from *myUFL* to better categorize benefit plan expenditures, risk management insurance, and financial aid to meet the BOG's requirements.

We performed a walk-through of controls at the IT and data owner level including edit processes, error correction, and data extraction and upload processes. We observed that control procedures were in place to verify the data accuracy, program change management, and reporting consistency. Collectively, those controls helped to ensure data accuracy and completeness, as well as timely operation for creating the load files.

We selected the risk management/student financial aid and fringe benefit expenses for review because these expenses had an impact on the average cost of a bachelor's degree. We traced key elements, identified in the BOG Overview of Methodology and Procedures for Metrics, from the supporting worksheets to the 2013-2014 OB file submission and the general ledger. We also reviewed calculations to determine their appropriateness and agreement with internal written procedures and BOG guidelines including the SUDS Data Dictionary. The worksheet formulas we reviewed were logical and error free. Our testing of OB file elements resulted in no errors.

Overall, the procedures were detailed enough to allow us to re-perform the data owner's calculations. The AVP's procedures and IT controls in place to compile the OB file data were generally adequate.

Office of Institutional Planning and Research (OIPR)

The OIPR was also directly involved with PBF Metric 3, Average cost Per Bachelor's Degree and Metrics 6 and 8a involving programs of strategic emphasis. Metric 3 included information derived from the Effort Reporting System. Metrics 6 and 8a included information from Classification and Instruction tables (CIP Codes). OIPR had a role in assigning CIP codes in collaboration with other academic administrators through the Academic Approval Process, and acted as a data owner because they were responsible for compiling and adding this information to the IRD or the EA file submissions.

The IRD files were created by programs developed by ES. The OIPR's role was to ensure that the Effort Reporting System data was complete prior to the IRD file creation. For example, the Effort Reporting System has edits to ensure that faculty time percentages sum to 100%. If this requirement was not met, then there was an error message that had to be cleared.

We observed that the review by OIPR for completeness of the effort reporting was in place. The university also required certification by individuals of the reported amounts for time spent on course instruction, which helped to validate the accuracy of reported instructional effort.

To test the accuracy of the reported workload, we randomly selected 20 instructors from the IRD workload activities file and traced their reported effort into their certified effort report. Overall, the IRD file elements matched the effort reports.

The SUDS system generates an EA file from the OB and IRD data. The EA file is downloaded and additional programming was used to add the CIP codes to the records on the file. We analyzed the distribution of CIP codes by College and Department using the EA file from OIPR that was submitted for 2012. Generally, the program code reasonably selected the correct CIP code based on the college and department code. Distribution of the CIP code over academic and nonacademic departments was reasonable.

The IT controls observed and identified for the procedures used to create the EA file were generally adequate. Control procedures were in place to verify the accuracy of data, program change management, and data extraction repeatability and consistency. Collectively, those controls helped to ensure data accuracy, completeness, as well as timely operation for creating the load files. The OIPR was in the process of recoding and modernizing their data conversion programs.

Overall the processes for the extraction and compilation of the data in the IRD and EA files were generally adequate. While we observed that the OIPR had quality control review procedures in place, improvement opportunities to enhance the documentation of these reviews and procedures is discussed in Comment 1.

Cost Analysis

The PBF Metric 10f, Total Research Expenditures, was an institutional specific metric selected by the University of Florida BOT. The BOG obtains this information directly from the National Science Foundation's annual Higher Education Research and Development Survey (HERD).

Cost Analysis was responsible for responding to the NSF HERD survey and had developed queries using general ledger data to identify all university research-related expenses. Tables between general ledger and the research award system were combined to identify funds, program codes, expense accounts and award codes. Award codes were assigned by the Office of Research when recording the award. Cost Analysis ran a query that pulled the award codes from the award system and matched the award data to general ledger queries through Access programs to identify research expenditures for the year reported. Prior to running the queries, Cost Analysis staff reviewed the HERD instructions for any changes as well as the university's system for new data sources, funds, or program codes. They also met with the Office of Research to discuss the current year reporting.

We reviewed the queries and Access programs. We noted all the program codes were used in the specific funds for research-related expenditures (funds 201 and 209) and only program codes 2xxx (research-related expenses) for all other funds. Based on our audit results, we concluded that the programs and queries were reasonable and properly written to extract the correct information for direct and indirect research related expenses.

We judgmentally selected the 2013 HERD survey and traced amounts reported for funds 201 and 103 to the source queries and Access programs. Based on our review of written procedures and testing, we concluded that the procedures used to report amounts in the HERD survey used by the BOG were generally adequate.

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GENERAL COMMENTS

SUDS Submission Certification

BOG Regulation 3.007(5)(b) requires the DA to submit a signed certification including the statement "I certify that this file/data represents the position of this University for the term being reported." The regulation further indicates that an electronic certification via a secure method approved by the IRM office can be substituted for the signed certification.

At the time of our audit there was no written certification that accompanied the electronic submission process in SUDS. The old form had not been used since the electronic SUDS system was implemented, and there was no alternate method of certification approved by the IRM office. We observed the SUDS user guidelines did not mention any certification requirements, written or electronic. The BOG was notified and, in January 2015, implemented an electronic certification statement on the submission screen.

Resubmissions

BOG Regulation 3.007(5)(c) requires that the DA shall prepare and submit a revised data file within the time period specified by the SUS DA, in the event of a rejection of a data file. Resubmissions are typically an iterative process between the BOG, the DA and the data owners to correct data errors found in the SUDS edit process. Resubmissions may also be necessary in the event the university finds errors in its reporting system or the BOG does not agree with the comments on errors identified in the SUDS review process. Reloading the file cannot occur until the BOG approves the resubmission.

We reviewed the DA's data resubmissions to the BOG to ensure these resubmissions were both necessary, authorized, and were not indicative of any inherent problems in the submission process. The DA provided all resubmissions for the past three years because this information was not available directly from the BOG.

Based on the results of our review, resubmissions initiated by the DA were limited and did not appear to indicate any inherent problems with the data submission process. Development of the university's new effort system caused some issues with the IRD and EA submissions. Other resubmissions of SIF files were due to limited errors. The need for the resubmissions at the university did not appear to be a systematic problem and most consisted of individual data changes that would have little impact on the PBF metrics.

SUDS System Access Control

Data upload and submissions to the BOG were performed through a secure website. The DA was assigned the role by the BOG System Administrator. The DA role was the highest level assignable at the institution and was assigned to only one individual at each SUS institution.

The DA and five other OIPR staff were the only individuals authorized to process submissions. In addition, the DA and two OIPR staff were the only individuals with the ability to create end-user roles and grant access to those that will process their data. Users were also restricted to the submissions they have been

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authorized by the DA to act upon. Any user could also be designated as a Security Manager, which allowed the user to change passwords and add other users.

We reviewed the processes over role request, assignment and monitoring for the SUDS system access. We also performed a test of system access controls and/or user privileges to determine if only appropriate employees had access or needed the user privileges. In addition, we reviewed university roles assigned to the OIPR staff specifically associated with the general ledger and student data system. Our review noted no conflicting roles for those areas.

Of the 49 people who had SUDS user roles, five employees had terminated employment with the university and their access was not removed in a timely manner. Comment 2 describes enhancements implemented over the request and monitoring of SUDS security access.

Actions Planned

Action plans identified and agreed to by management and the audit team are included within the Comments section of this report together with action due dates that will be subject to follow-up reviews.

General Comment

We wish to express our appreciation to the management and staff of the Office of Institutional Planning and Research, the Office of the Vice President and Chief Financial Officer, Enterprise Systems, the Office of the University Registrar, the Office of Admissions, the Office for Student Financial Affairs, and Cost Analysis for the courtesy and cooperation extended to us during this review.

Audit Supervised by: Joe Cannella

Audit Conducted by: Craig Reed

Jeff Capehart Lily Reinhart Emmy Kahn

Brandon Esposito

Comment 1 - Documentation for Review Processes

BOG Regulation 3.007 states the SUS universities shall provide accurate data to a management information system established and maintained by the BOG Office. Each university president shall appoint an Institutional Data Administrator (DA) to certify and manage the submission of data to the SUS management information system (SUDS). The regulation further states that the DA shall certify that the file/data represents the position of the university for the term being reported.

The integrity of the data provided to the BOG by the universities is critical to the performance based funding (PBF) decision-making process. Therefore, the BOG developed a Performance Based Funding Data Integrity Certification to be signed by the President and the Board of Trustee Chair. The purpose of this Certification is to provide assurances that the data submitted to the BOG for PBF decision-making is reliable, accurate, and complete.

Criteria

The university should establish processes to promote the completeness, accuracy and timeliness of data submissions to the BOG in support of the PBF metrics. The performance of these processes should be documented to reasonably demonstrate due diligence to ascertain the accuracy of the data submitted.

Condition

Data owners prepare/extract required information and review the data for accuracy and format correctness. The information is uploaded into SUDS and any significant exceptions are resolved. The data owners then communicate to the DA that the file is ready for review and submission to the BOG.

The DA is the director of the Office of Institutional Planning and Research (OIPR), and is responsible for the submission of data to the BOG. The OIPR had developed written procedures for each submission report. The written procedures defined the name of the collection/file, requestor, OIPR staff assignments, data owners, reporting cycles, and person responsible to approve the submission. Segments of the written procedures also might include information on the following:

- Work initiation: Scheduling requests, changes in files, system access, entry in the data request system (DRS), file storage protocols, and contacts.
- Work in progress: Key dates, lead review, clarification of issues with BOG, and monitoring procedures.
- Quality checking:
 - The OIPR staff and institutional data owners check the data for transformations, program logic, formula format, comparison of historic data, methods to measure key variables, running of programs (SAS, SQL) to compare data from the systems to the data owner's load in SUDS, SUDS edit checks, variance analysis, and comparison to outside data sources.

- The OIPR staff and DA perform a final review by comparing historical and independent data sources, determining that the product fully completes the data request, confirming ready for release, obtains institutional signoff, and signs off and locks the file.
- Data release: The DA or designee formally submits the file through SUDS, updates the DRS and communicates to data owners.

Each of the procedural segments had clear instructions on scheduling, review, and submission processes.

We performed a walk-through of the operational procedures for the student information files (SIFD and SIF), the institutional and research data file (IRD), and the expenditure analysis file (EA) submissions with the responsible OIPR staff. We also reviewed the written procedures, SUDS submission summaries, information contained in the DRS, and emails between the BOG, data owner, and other OIPR staff.

We made the following observations:

- The OIPR staff has been delegated specific submission files based on their prior experience and knowledge of the data.
- The OIPR written procedures indicated that at least two individuals would review the submission files.
- Calendars and email were used to document communication between the OIPR, the BOG and the data owners.
- The DRS system identified information on the request including key dates, notes on issues with data exceptions, and other significant communications.
- Error correction and comments in the SUDS submission summaries, based on the BOG edit programs, were properly monitored and supported.
- Staff had reviewed both the submission summaries and the automatically generated reports that were archived on the SUDS system.
- OIPR maintained some basic documentation for all work done on file submissions; however, detailed documentation was created and maintained only when the reviews identified items that needed resolution.

While quality control review procedures were performed by the OIPR and the data owners, it was not clear which specific steps or if all steps identified in the written procedures were completed by the OIPR staff, the DA, or the data owners. Documentation to support some key steps to verify data accuracy i.e. control totals, running of programs, and review of program logic, was not always retained.

Cause

The DA relied on the OIPR staff and institutional knowledge of the review process to complete the necessary procedures. The DA stated that she or senior staff also performed a secondary review prior to submission.

Written procedures were well documented but they were used more as guidelines instead of specific steps to clearly identify minimum review requirements. The OIPR management felt it would be difficult to specify which steps must be completed because this varied based on the condition of the data and the individual reviewer's investigation and troubleshooting findings. The DA encouraged OIPR staff to be creative in identifying error patterns and issues in data.

When no problems were detected with a data submission, only basic documentation of the review was maintained. The focus was on the data review efficiency rather than documenting procedures performed because of the significant volume of submissions (approximately 740 per year).

Effect

Without full documentation for every case (including submissions with no errors) to demonstrate that specific due diligence review procedures were performed, the DA, Board of Trustees Chair, and the President may have limited basis to rely on the accuracy of the PBF submissions. In the event of inquiries from the President, the BOG or other external entities as to the extent of due diligence procedures performed, the university would have limited ability to provide documented evidence.

Action Plan Due Date: May 1, 2015 The OIPR and data owners will enhance documentation of their due diligence review for PBF submissions through the following:

- The OIPR will require and the data owner will include a certification statement with each data submission presented to OIPR for final review and submission. This certification statement will attest to the accuracy of the data submitted and will include positive assurance that OIPR's expected due diligence data review procedures were performed.
- The OIPR and each data owner will maintain documentation of their due diligence review procedures performed in accordance with OIPR's expectations.
- The OIPR DA will submit an annual report to the President summarizing the due diligence procedures performed to promote assurance that the submissions were timely, accurate and complete.

Comment 2 - SUDS System Access Control

Data uploads and submissions to the BOG were performed through a secure website. The review, upload, and submission processes were controlled through granting of roles in the SUDS system.

University data submission files include highly sensitive personal identifiers to establish the referential integrity of records across tables. When authorizing a user to process or have access to individual data submissions, the Security Manager shall take into consideration the legitimate educational or business need of the designated user to that information. The granting of authority on a particular submission is a function of the DA and serves as a constructive written authorization to access and transfer data.

Criteria

The DA should take reasonable measures to protect against any unauthorized access, transfer, disclosure or use of information contained in data submission files. SUDS roles should be properly assigned and periodically reviewed to ensure only those authorized users have access to the system.

Condition

The Director of OIPR, officially appointed as the DA for the University, was assigned the DA role through the BOG System Administrator.

- The Data Administrator role was the highest level assignable at the institution level and was assigned to only one individual at each SUS institution. A user with this role had the authority to create users for their institution. The DA was authorized to process all submissions and the role included the functionality of the Submitter, Uploader, Validator and Researcher roles.
- Submitter role was allowed to "officially" submit university files to the BOG. The Submitter role included the functionality of the Uploader, Validator, and Researcher roles. All five of the users assigned the Submitter role were OIPR staff.
- Uploader role was allowed to upload files for editing/review. The Uploader role
 included the functionality of the Validator and Researcher roles. There were 30
 users with the Uploader role in various units across campus.
- Validator role was allowed to review the edit reports for submissions that had already been uploaded and edited. The user was able to enter explanations and comments as well. The Validator role included the functionality of the Researcher role. There were 14 users in various units assigned the Validator role.
- Researcher role was designed to be given to university researchers who want to
 do studies with system data and needed access to the reporting view. A user with
 the Researcher role would not be able to log in to the Master File Submission
 System. There was only one researcher role assigned.

Security Manager was not a role, but instead was an attribute that could be assigned to any user. Security Managers were the only users that would have access to the ADMIN tab on the home page. The DA or the Security Manager designation would allow that

person the ability to create and modify users as well as reset passwords. The DA limited the use of the Security Manager attribute to two individuals: the Assistant Director and the Policies and Planning Analyst, both at OIPR.

We reviewed the processes over role request, assignment and monitoring for the SUDS system access by interviewing management, reviewing procedures, and performing tests of access.

When access is needed by a department, the established procedure was to contact the DA. Roles were granted based on the submissions at the data owners' level and IT staff responsible for the extraction process. Users could be given access to all submissions or a select number of submissions based on the staff member's responsibilities.

We observed the following:

- Role approval was controlled through the DA.
- The Submitter role was granted only to OIPR staff, appropriately limiting the authority to submit on behalf of the university.
- The Security Manager attribute was granted only to two OIPR staff, appropriately limiting the ability to create other users.
- Validator and Uploader roles were granted to multiple data owners which allowed for continuity of operations.
- The SUDS system captured the history of changes to the uploaded files (user, date, and time), and this limited the ability to change data without being noticed throughout the review process.

We also noted:

- There were no written policies or procedures over the role approval and monitoring process.
- There was a lack of documentation for the request and approval of roles, including
 the date access was added or deleted. Requests were typically through email by
 the supervising data owner or by phone.
- The OIPR relied on communication from the supervisor at the core offices for requesting removal of roles.

We performed a test of system access controls and/or user privileges to determine if only appropriate employees had access or needed the privilege. Of the forty-nine people who had SUDS user roles, six employees with uploader and validator roles had terminated employment with the university. The SUDS roles were not removed for five of them in a timely manner.

Cause

OIPR relied on communication from core offices to remove access. Other processes were not in place to adequately monitor access.

Effect

Improper access to the SUDS system may allow inappropriate access to sensitive information and/or affect the accuracy of data in SUDS.

Action Taken: August 4, 2014

Written policies were developed to better define the SUDS role request and approval process as well as monthly monitoring procedures for SUDS roles.

A standard request form has been implemented to support request and approval. The DA reviews and approves the request before access is granted.

A monthly monitoring process has been implemented by comparing the SUDS user list to a program that provides a snapshot of employee job assignments. Any changes in job assignments that might impact SUDS access will be questioned by OIPR staff.



Performance Based Funding

Data Integrity Certification

Name of University:	
Period Ending:	
INSTRUCTIONS: Please respond "Yes," "No" or "N/A" in the blocks below for each representation. "N/A" responses to ensure clarity of the representation and include copies of supporting documentation.	1 3

Performance Based Funding Data Integrity Certification Representations						
Representations	Yes	No	N/A	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.						
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), 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.						

Performance Based Funding Data Integrity Certification

	Performance Based Funding Data Integrity Certification Representations							
	Representations	Yes	No	N/A	Comment / Reference			
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.							
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 provided by the Board of Governors							
	Information Resource Management (IRM) 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, for each data							
	file submission, my Data Administrator provided a certification							
	indicating, "I certify that this file/data represents the position of this							
	University for the term being reported."							
10	. I am responsible for taking timely and appropriate preventive /							
	corrective actions for deficiencies noted through reviews, audits, and							
	investigations.							
11	. I recognize that the Board's Performance Based Funding initiative will							
drive university policy on a wide range of university operations - from								
	admissions through graduation. I certify that university policy							
	changes and decisions impacting this initiative have been made to							
	bring the university's operations and practices in line with State							

Performance Based Funding Data Integrity Certification

Performance Based Funding Data Integrity Certification Representations						
Representations	Yes	No	N/A	Comment/Reference		
University System Strategic Plan goals and have not been made for the						
purposes of artificially inflating performance metrics.						
I certify that all information provided as part of the Board of Governors Performance Based Funding Data Integrity Certification 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 Performance Based Funding Data Integrity Certification 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						

		METRICS COMMON TO ALL UNIVERSITIES					
	METRIC	DEFINITION					
1	Percent of Bachelor's Graduates Employed Full-time in Florida or Continuing their Education in the U.S. One Year After Graduation	This metric is based on the percentage of a graduating class of bachelor's degree recipients who are employed full-time in Florida or continuing their education somewhere in the United States. Students who do not have valid social security numbers are excluded. Note: Board staff have been in discussions with the Department of Economic Opportunity staff about the possibility of adding non-Florida employment data (from Wage Record Interchange System (WRIS2) to this metric for future evaluation. Sources: State University Database System (SUDS), Florida Education & Training Placement Information Program (FETPIP), National Student Clearinghouse.					
2	Median Wages of Bachelor's Graduates Employed Full-time in Florida One Year After Graduation	This metric is based on annualized Unemployment Insurance (UI) wage data from the fourth fiscal quarter after graduation for bachelor's recipients. UI wage data does not include individuals who are self-employed, employed out of state, employed by the military or federal government, those without a valid social security number, or making less than minimum wage. Sources: State University Database System (SUDS), Florida Education & Training Placement Information Program (FETPIP), National Student Clearinghouse.					
3	Average Cost per Bachelor's Degree Instructional costs to the university	For each of the last four years of data, the annual total undergraduate instructional expenditures were divided by the total fundable student credit hours to create a cost per credit hour for each year. This cost per credit hour was then multiplied by 30 credit hours to derive an average annual cost. The average annual cost for each of the four years was summed to provide an average cost per degree for a baccalaureate degree that requires 120 credit hours. Sources: State University Database System (SUDS), Expenditure Analysis: Report IV (2009-10 through 2012-13).					
4	Six Year FTIC Graduation Rate	This metric is based on the percentage of first-time-in-college (FTIC) students who started in the Fall (or summer continuing to Fall) term and had graduated from the same institution within six years. Students of degree programs longer than four years (eg, PharmD) are included in the cohorts. Students who are active duty military are not included in the data. Source: State University Database System (SUDS).					
5	Academic Progress Rate 2nd Year Retention with GPA Above 2.0	This metric is based on the percentage of first-time-in-college (FTIC) students who started in the Fall (or summer continuing to Fall) term and were enrolled full-time in their first semester and were still enrolled in the same institution during the Fall term following their first year with had a grade point average (GPA) of at least 2.0 at the end of their first year (Fall, Spring, Summer). Source: State University Database System (SUDS).					

	METRICS COMMON TO ALL UNIVERSITIES							
	METRIC	DEFINITION						
6	Bachelor's Degrees Awarded within Programs of Strategic Emphasis (includes STEM)	This metric is based on the number of baccalaureate degrees awarded within the programs designated by the Board of Governors as 'Programs of Strategic Emphasis'. A student who has multiple majors in the subset of targeted Classification of Instruction Program codes will be counted twice (i.e., double-majors are included). Source: State University Database System (SUDS).						
7	University Access Rate Percent of Undergraduates with a Pell-grant	This metric is based the number of undergraduates, enrolled during the fall term, who received a Pell-grant during the fall term. Unclassified students, who are not eligible for Pell-grants, were excluded from this metric. Source: State University Database System (SUDS).						
8a	Graduate Degrees Awarded within Programs of Strategic Emphasis (includes STEM) Note: NCF does not award graduate degrees.	This metric is based on the number of graduate degrees awarded within the programs designated by the Board of Governors as 'Programs of Strategic Emphasis'. A student who has multiple majors in the subset of targeted Classification of Instruction Program codes will be counted twice (i.e., double-majors are included). Source: State University Database System (SUDS).						
8b	Freshmen in Top 10% of High School Class Applies to: NCF	Percent of all degree-seeking, first-time, first-year (freshman) students who had high school class rank within the top 10% of their graduating high school class. Source: New College of Florida.						

	INSTITUTION SPECIFIC METRICS SELECTED BY THE BOARD OF GOVERNORS								
	METRIC DEFINITION								
9a	Percent of Bachelor's Degrees Without Excess Hours Applies to: FAMU, FAU, FIU, FGCU, UCF, UNF, USF, UWF	This metric is based on the percentage of baccalaureate degrees awarded within 110% of the credit hours required for a degree based on the Board of Governors Academic Program Inventory. Note: It is important to note that the statutory provisions of the "Excess Hour Surcharge" (1009.286, FS) have been modified several times by the Florida Legislature, resulting in a phased-in approach that has created three different cohorts of students with different requirements. The performance funding metric data is based on the latest statutory requirements that mandates 110% of required hours as the threshold. In accordance with statute, this metric excludes the following types of student credits (ie, accelerated mechanisms, remedial coursework, non-native credit hours that are not used toward the degree, non-native credit hours from failed, incomplete, withdrawn, or repeated courses, credit hours from internship programs, credit hours up to 10 foreign language credit hours for transfer students in Florida, and credit hours earned in military science courses that are part of the Reserve Officers' Training Corps (ROTC) program). Source: State University Database System (SUDS).							
9b	Number of Faculty Awards Applies to: UF, FSU	This metric is based on the number of awards that faculty have earned in the arts, humanities, science, engineering and health fields as reported in the annual 'Top American Research Universities' report. Twenty-three of the most prominent awards are considered, including: Getty Scholars in Residence, Guggenheim Fellows, Howard Hughes Medical Institute Investigators, MacArthur Foundation Fellows, National Endowment for the Humanities (NEH) Fellows, National Medal of Science and National Medal of Technology, Robert Wood Johnson Policy Fellows, Sloan Research Fellows, Woodrow Wilson Fellows, to name a few awards. Source: Center for Measuring University Performance, Annual Report of the Top American Research Universities (TARU).							
9c	National Ranking for Institutional & Program Achievements Applies to: NCF	This metric is based on the number of Top 50 university rankings that NCF earned from the following list of publications: US News and World Report, Forbes, Kiplinger, Washington Monthly, Center for Measuring University Performance, Times Higher Education World University Rankings, QS World University Ranking, and the Academic Ranking of World Universities. Source: Board of Governors staff review.							

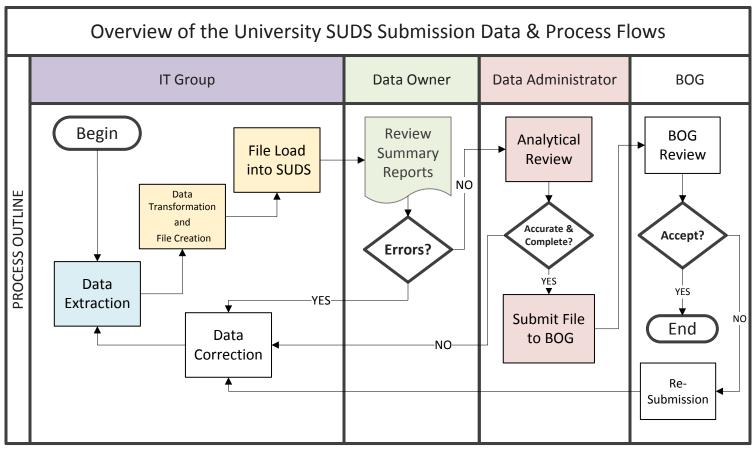
	INSTITUTION SPECIFIC METRICS SELECTED BY EACH UNIVERSITY'S BOARD OF TRUSTEES						
10a	Percent of R&D Expenditures Funded from External Sources Applies to: FAMU	This metric reports the amount of research expenditures that was funded from federal, private industry and other (non-state and non-institutional) sources. Source: National Science Foundation annual survey of Higher Education Research and Development (HERD).					
10b	Bachelor's Degrees Awarded to Minorities Applies to: FAU, FGCU, FIU	This metric is the number, or percentage, of baccalaureate degrees granted in an academic year to Non-Hispanic Black and Hispanic students. This metric does not include students classified as Non-Resident Alien or students with a missing race code. Source: State University Database System (SUDS).					
10c	National Rank Higher than Predicted by the Financial Resources Ranking Based on U.S. and World News Report Applies to: FSU	This metric is based on the difference between the Financial Resources rank and the overall University rank. U.S. News measures financial resources by using a two-year average spending per student on instruction, research, student services and related educational expenditures - spending on sports, dorms and hospitals doesn't count. Source: US News and World Report's annual National University rankings.					
10d	Percent of Undergraduate Seniors Participating in a Research Course Applies to: NCF	This metric is based on the percentage of undergraduate seniors who participate in a research course during their senior year. Source: New College of Florida.					
10e	Number of Bachelor Degrees Awarded Annually Applies to: UCF	This metric is the number of baccalaureate degrees granted in an academic year. Students who earned two distinct degrees in the same academic year were counted twice; students who completed multiple majors or tracks were only counted once. Source: State University Database System (SUDS).					
10f	Total Research Expenditures Applies to: UF	This metric is the total expenditures (includes non-science & engineering fields) for research & development activities within a given fiscal year. Source: National Science Foundation annual survey of Higher Education Research and Development (HERD).					
10g	Percent of Course Sections Offered via Distance and Blended Learning Applies to: UNF	This metric is based on the percentage of course sections classified as having at least 50% of the instruction delivered using some form of technology, when the student and instructor are separated by time or space, or both. Source: State University Database System (SUDS).					
10h	Number of Postdoctoral Appointees Applies to: USF	This metric is based on the number of post-doctoral appointees at the beginning of the academic year. A postdoctoral researcher has recently earned a doctoral (or foreign equivalent) degree and has a temporary paid appointment to focus on specialized research/scholarship under the supervision of a senior scholar. Source: National Science Foundation/National Institutes of Health annual Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS).					
10i	Percentage of Adult	This metric is based on the percentage of undergraduates (enrolled during the					

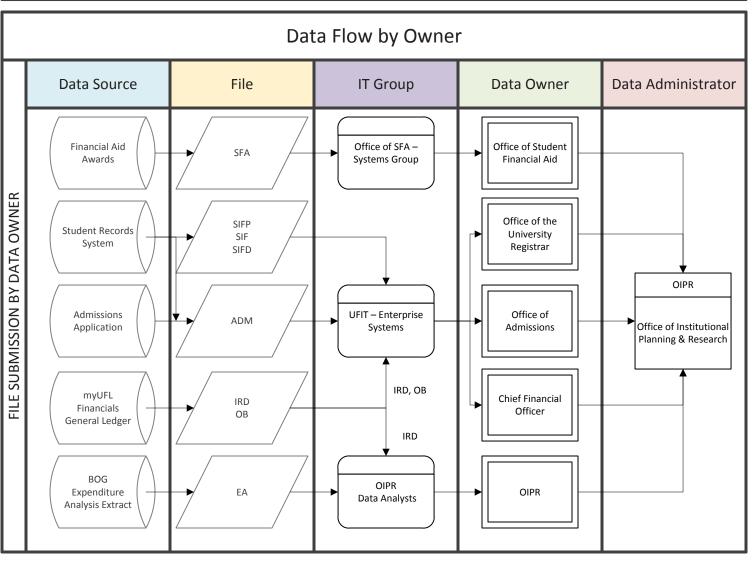
Undergraduates
Enrolled
Applies to: UWF

fall term) who are at least 25 years old at the time of admission. This includes undergraduates who are not degree-seeking, or unclassified. Source: State University Database System (SUDS).



	Excellence		Improve	ment	Final Score
Key Metrics Common to All Universities Plus 2 Institution Specific Metrics	Data	Points	Data	Points	
Percent of Bachelor's Graduates Employed and/or Continuing their Education Further 1 Yr after Graduation	63%	2	0%	0	2
Median Average Full-time Wages of Undergraduates Employed in Florida 1 Yr after Graduation	\$33,100	3	6%	5	5
Average Cost per Undergraduate Degree to the Institution	\$24,940	3	0%	0	3
Six Year Graduation Rate Full-time and Part-time FTIC	86%	5	1%	1	5
Academic Progress Rate 2nd Year Retention with GPA Above 2.0	96%	5	1%	1	5
Bachelor's Degrees Awarded in Areas of Strategic Emphasis (includes STEM)	47%	4	1%	1	4
University Access Rate Percent of Undergraduates with a Pell-grant	32%	5	0%	0	5
Graduate Degrees Awarded in Areas of Strategic Emphasis (includes STEM)	59%	5	2%	2	5
Institution-Specific Metrics					
Faculty Awards	18	3	-4	0	3
Total Research Expenditures	\$697 Million	5	-\$43 Million	0	5
TOTAL					42







Office of the Provost and Senior Vice President

235 Tigert Hall PO Box 113175 Gainesville, FL 32611-3175 352-392-2404 Tel 352-392-8735 Fax

February 9, 2015

Board of Trustees Audit Committee Room 217 903 W University Avenue

Dear Committee Members:

I have reviewed the final draft copy of the Performance Based Funding - Data Integrity audit report dated February 5, 2015. I am in agreement with action plans contained therein.

I'd like to thank Brian Mikell and his team for their diligence and thoroughness in completing this required report.

Sincerely yours,

Joseph Glover Provost