

Final
Internal Audit Report 2017.03
Performance Based Funding
Data Integrity
February 14, 2017



Distributed to:

Board of Trustees, Audit and Compliance Committee
Office of the President
Office of Academic Affairs
Office of Institutional Research

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Table of Contents

The Swoop	3
Executive Summary	3
Summary of Recommendations.....	3
Background, Objectives, and Scope	4
Observations and Recommendations	6
Osprey Opportunity #1: Departmental Procedures.....	6
Osprey Opportunity #2: Data Governance Standards	7
Osprey Opportunity #3: Functional Level Reviews.....	8
Appendix I.....	9
Figure A: Data File Submissions to BOG.....	9
Figure B: Metric Sources	10
Appendix II.....	11
Reportable Item Ranking Scale	11

The Swoop

Executive Summary

The University of North Florida (UNF), established in 1972, has gained national recognition for its quality, service and signature emphasis on *Transformational Learning Experiences* for students. The student population has grown to over 16,000, and the University has six colleges: Education and Human Services, Business, Health, Arts & Sciences, Honors, and Computing, Engineering, and Construction. The Office of Internal Auditing's (OIA) mission is to provide an independent objective assurance and consulting activity that adds value and helps improve operations.

The Office of Institutional Research (IR) reports to the Division of Academic Affairs. They have key internal controls in place to adequately protect the data integrity of files submitted to the State University System of Florida Board of Governors (BOG). The BOG monitors Florida State University System (SUS) schools' activity, and awards funding using the results of the 10 performance based funding (PBF) metrics. The PBF metrics' calculations are derived by the BOG, partially from data submitted by the universities and partially from other sources. The BOG requests that each university perform an audit of the processes to ensure the completeness, accuracy, and timeliness of data submissions.

Internal audit would like to note that the staff who took part in this audit were knowledgeable of their area, responded quickly to questions, and showed patience throughout the review. Their cooperation was greatly appreciated.

Summary of Recommendations

This audit offers **three** (3) recommendations to further enhance the control structure and the integrity of data used in PBF calculations. The following is a summary of the recommendations resulting from the audit engagement. All observations are rated as "*Osprey Opportunities*" to address **minor** risks within the area and process. These "*Osprey Opportunities*" will add best practices to further strengthen the control structure. OIA defines a *minor* risk rating as a nominal violation to policies and/or procedures that may warrant additional controls to decrease risks. The rating scale is described in more detail in [Appendix II](#). These items are discussed in detail in the "**Observations and Recommendations**" section of the report.

1. **Departmental Policies and Procedures [Minor]**. We recommend that IR develop written departmental procedures. Within those procedures, consider a code peer review process to ensure major changes have a secondary review.
2. **Formalize Data Governance and Data Stewards [Minor]**. We recommend that IR partner with others on campus to formalize the data governance structure with written roles and responsibilities for data stewards, specifically for data stewards who manage data for performance based funding.
3. **Reviews by Data Stewards [Minor]**. We recommend that IR add a secondary review by data stewards of files prior to submission.

Background, Objectives, and Scope

The audit for the Performance Based Funding Data Integrity was part of the fiscal year 2017-2018 risk-based audit plan approved by the University president and the UNF Board of Trustees, and was requested by the BOG. The purpose of the audit was to assess the effectiveness of processes designed to ensure the completeness, accuracy, and timeliness of data submissions to the BOG. The data submissions support the University's PBF metrics. The BOG uses data from files the University's IR provides and performs additional calculations. The University is not involved in the additional calculations made by the BOG. Therefore, those additional calculations are not included in the scope of this audit.

The scope of this audit included interviews with Institutional Research, Academic Affairs, Information Technology Services, and Enrollment Services. The audit period emphasis was for fiscal year 2016. In addition, detailed information from a select sample of file submissions were reviewed to gain assurances on data submission procedures. The principal audit objectives were to:

- ✓ Determine whether the University has adequate controls in place to ensure the completeness, accuracy and timeliness of data submissions to the BOG, which support the Performance Based Funding Metrics.
- ✓ Provide an objective basis of support for the president and Board of Trustees chair to sign the required representations in the Performance Based Funding - Data Integrity Certification which will be filed with the BOG on or before March 15, 2017.
- ✓ Follow-up on implementation of corrective action plans reported in the prior audit.

The Office of Institutional Research was the primary point of contact for this audit. IR has the responsibility for meeting data file submission deadlines to the BOG. IR is staffed with six employees including the recently hired director. The director for IR started on December 5, 2016. Further the office has an assistant director, three coordinators, and an office manager. The assistant director served as interim director during the audit period and was appointed as the data administrator contact by the University president.

Over the last year, IR's primary emphasis was to meet the demands of BOG file submission deadlines while limited on staff. **Figure A**, in Appendix I, shows approximately 30 files which IR must submit to the BOG in the course of a fiscal year. **Figure A** also displays the month which the file was due and the file description. The BOG uses these data files' submissions to perform further calculations and determinations for the 10 metrics. Not all data files submitted will be used by the BOG for PBF calculations. Therefore, Internal Audit's emphasis was to test data files used in the metrics' calculations. We randomly selected three of these data files (SIF, SIFD, Retention File) and traced to UNF's system of record, Banner.

Within the scope of this audit, we also reviewed the University's process for data governance and the responsibilities that functional users, also referred to as data stewards, share with IR to ensure the completeness, accuracy, and timeliness of data inputted into Banner. Noted in **Figure B**, we identified the 10 PBF metrics and the corresponding file that contains the data used for the metric calculation. Enrollment Services has a critical role to ensure that data is inputted accurately and completely. During our testing procedures, we worked with Enrollment Services to learn more of their role as data stewards to certify the



integrity of such data. We found that they have job descriptions that reflect operational roles for inputting data and ad hoc procedures to review user access to data.

The following section of this report, titled "***Observations and Recommendations,***" discusses in greater detail the recommendations resulting from this audit engagement.

Observations and Recommendations

Osprey Opportunity #1: Departmental Procedures

Minor Risk

Observation:

Internal Audit noted that IR had limited written departmental procedures. The department maintains SQL code for file submissions, however, written operational steps were not available. Written procedures are important due to the complexities of data submissions, small staff size, and tight deadlines the office maintains for file submissions to the BOG. As written procedures are prioritized, we encourage the office to also develop within its practice a code peer review process. It is important to note, it is often one person developing code to run a file submission. Therefore, by developing a secondary review process, it will help ensure consistency and cross training. This is a repeat issue from the prior year's audit.

Criteria:

Sound business practices suggest the establishment of written procedures to ensure consistent communication and practices so that decisions taken will be in accordance to University policies, state, and other applicable guidelines.

Cause:

The director stated that detailed written procedures were delayed while there was significant turnover in senior level positions and limited staff, but a process had begun to cross train.

Risk/Effect:

Failure to ensure written procedures could lead to miscommunication and uncertainty for departmental expectations. Further, without written procedures, the institution may be susceptible to increased risks of untimely decisions and follow-up.

Recommendation:

We recommend that IR develop written departmental procedures. Within those procedures, consider a code peer review process to ensure major changes have a secondary review.

Management Response:

We concur. Due to significant turnover in senior level positions procedures were delayed. The new director has implemented a cross-training calendar to ensure that for all scheduled submissions to the Board of Governors there are a minimum of two IR staff who are able to extract the required data, run the local processes to align the data with the BOG standards, and then submit the data files. The cross-training process began in December 2016 and will take a full year for to cycle through all required submissions. Institutional Research will continue to document the processes for running the code within the SQL as instructional text preceding the relevant sections. Additionally, any changes made to the code whether those changes are directed by the BOG or those changes are necessary due to changes in local data processes will also be documented in the SQL as text with documentation.

Osprey Opportunity #2: Data Governance Standards

Minor Risk

Observation:

The University has identified persons to oversee access and integrity of data in the critical areas, such as financial aid, student records, and personnel. These persons are referred to as the data stewards, or keepers of the data. Roles and responsibilities for the data stewards have not been formally identified. Planning is underway for a data governance structure which is to include a committee that identifies the strategic priorities and policies for data stewards. The data governance committee had not been implemented due to the turnover in the IR director position. While the current practices provide an unwritten standard for data stewards to ensure completeness and integrity of data which is in their purview, it would be beneficial for the University to formalize its data governance structure with an emphasis to the data stewards' roles and responsibilities. For example, currently, there are no guidelines set for the frequency of data stewards to review and retain an audit trail of user access reviews. During this audit, we noted access reviews are performed ad hoc by the data stewards.

Criteria:

Sound business practices suggest that a data governance structure be established with data stewards and responsibilities identified. EDUCAUSE, a nonprofit association for the purpose of advancing IT in Higher Education, states that "data stewards' responsibilities can be grouped into four main areas: operational oversight; data quality; privacy, security, and risk management; and policies and procedures."

Cause:

Due to the turnover in the IR director position, the University's planning for a data governance committee which would help lead the policies and guidelines for data stewards, was delayed.

Risk/Effect:

Failure to formalize the roles and responsibilities of data stewards may increase risks of poor data quality and security. Formalizing minimum guidelines for data stewards will improve controls for integrity and security of data submitted to the BOG and used in the PBF metrics.

Recommendation:

We recommend that IR partner with others on campus to formalize the data governance structure with written roles and responsibilities for data stewards, specifically for data stewards who manage data for performance based funding.

Management Response:

We agree with this observation. The director of Institutional Research will work with the associate provost for academic affairs, the chief information officer, and the associate vice president for Enrollment Services to continue the work that was started under the direction of the former director to formalize the data governance structure and standards for the University. As part of this process, the data trustees, stewards, custodians, and users will be

identified. The initial plan had an anticipated timeline of three years. With interruptions to the work caused by the vacancy in the director of Institutional Research position, the timeline will need to be revisited by the collective group.

Osprey Opportunity #3: Functional Level Reviews

Minor Risk

Observation:

We noted that IR did not include functional level reviews by the data stewards prior to the BOG submission. Specifically, data stewards, such as the registrar, financial aid director, or chief budget officer, did not acknowledge their certification and integrity of the data, prior to the BOG submission. We randomly selected three data files (SIF, SIFD, Retention File) and traced selected fields to UNF's system of record, Banner. The data fields selected from the submission files agreed to the data contained in Banner except for one scenario. In the SIFD file, while doctoral degrees conferred were submitted to the BOG accurately, three instances left a secondary classification for doctoral degrees blank. Corrective action was immediately taken by IR to update the code. This did not require a resubmission.

Criteria:

Sound business practices and proper separation of duties recommend secondary reviews to enhance the control structure. This will allow data stewards the opportunity to certify, acknowledge, and/or test the integrity of the data prior to BOG submissions.

Cause:

The assistant director stated that a data steward review was not incorporated in the past due to the tight timelines but was something they could implement moving forward.

Risk/Effect:

Failure to provide data stewards the opportunity to review files prior to submission may increase risks that data errors go unnoticed.

Recommendation:

We recommend that IR add a secondary file review by data stewards prior to their BOG submission.

Management Response:

We concur. Following the implementation of cross-training for the Board of Governors submissions, responsibility for submissions will be spread out more widely among the staff. At that point, those staff members with primary responsibility for an individual submission will have more time to start the submission process earlier with the ultimate goal of allowing data stewards a minimum of two business days for review prior to submission. As the cross-training process began in December 2016 and will take a full year for to cycle through all required submissions, we anticipate accomplishing this goal by January 2018.

Appendix I

Figure A: Data File Submissions to BOG

	Month/Year	File	Submission
1	July 2016	LAP	Limited Access Programs
2	August 2016	SCD	Salary Category Detail
3		OB	Operating Budget
4	September 2016	ADM	Admissions
5		SPA	Physical Facilities Space
6		ADM	Admissions
7	October 2016	SIF	Student Instruction
8		TEI	Teacher Education Information
9		SIFD	Degrees Awarded
10		SFA	Student Financial Aid
11		IRD	Instruction & Research
12		CPC	College Prep Completions
13		EA	Expenditure Analysis
14		HTD	Hours to Degree
15		SIFP	Student Instruction Preliminary
16	November 2016	EMPL	University Employee/OPS
17	January 2017	SCD	Salary Category Detail
18		SPA	Physical Facilities Space
19		SIF	Student Instruction
20		CPC	College Prep Completions
21		RET	Retention
22	February 2017	SIFD	Degrees Awarded
23		ADM	Admissions
24	March 2017	SIFP	Student Instruction Preliminary
25	April 2017	EMPL	University Employee/OPS
26	June 2017	SPA	Physical Facilities Space
27		CPC	College Prep Completions
28		SIF	Student Instruction
29		SIFD	Degrees Awarded
30		SCD	Salary Category Detail

Figure B: Metric Sources

Metric	Description	Submitted File	Data Used/Created by BOG	Functional Data User
1	Percent of Bachelor's Graduates Employed Full-Time in Florida or Continuing Education in U.S. one year after Graduation	SIFP, SIF, SIFD	National Student Clearinghouse (NSC), Florida Education and Training Placement Information Program (FETPIP), Federal Employment Data Exchange (FEDES), Accountability Report	Registrar
2	Median Wages of Bachelor's Graduates Employed Full-Time in Florida one year after Graduation	SIFP, SIF, SIFD	Unemployment Insurance Wage data, Accountability Report, NSC, FETPIP	Registrar
3	Average Cost Per Bachelor's Degree (*Note: change to net tuition and fees per 120 credit hrs.)	OB, IRD, EA	Expenditure Analysis Report IV	Budget
4	Six Year FTIC (first time in college) Graduation Rate	SIF, SIFP, SIFD, RET	BOG Created Retention file, Accountability Report	Registrar
5	Academic Progress Rate	SIF, RET	Accountability Report	Registrar
6	Bachelor's Degrees Awarded within Programs of Strategic Emphasis (includes STEM)	SIFD	Accountability Report	Registrar
7	University Access Rate	SFA, SIF	Accountability Report	Financial Aid, Registrar
8	Graduate Degrees Awarded within Programs of Strategic Emphasis (includes Stem)	SIFD	Accountability Report	Registrar
9	Percent of Bachelor's Degrees Without Excess Hours	HTD	Accountability Report	Registrar
10	Percent of Course Sections Offered via Distance and Blended Learning	SIF	Accountability Report	Registrar

Appendix II

Reportable Item Ranking Scale

- **Minor Risk [*Osprey Opportunity*]**
 - Observation reportable to address a nominal risk.
 - Recommendations provide opportunities for improvement.
 - Minor violations of procedures, rules, or regulations.
 - Routine administration attention requested.
 - Corrective action strongly recommended to improve quality or processes of area being audited.

- **Notable Risk**
 - Significant observation reportable to address an increased risk.
 - Multiple violations of policies and procedures, and/or weak internal controls.
 - Important opportunity to improve effectiveness and efficiency.
 - Corrective action required.

- **Critical Risk**
 - Major observation reportable due to a critical risk to the university.
 - Material violation of policies/procedures/laws, and/or unacceptable internal controls, and/or high risk for fraud/waste/abuse, and/or major opportunity to improve effectiveness and efficiency.
 - Material risk identified.
 - Immediate corrective action required.



Performance Based Funding

March 2017 Data Integrity Certification

Name of University: University of North Florida



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 audit findings.

Performance Based Funding 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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. These internal controls and monitoring activities include, but are not limited to, reliable processes, controls, and procedures designed to ensure that data required in reports filed with my Board of Trustees and the Board of Governors are recorded, processed, summarized, and reported in a manner which ensures its accuracy and completeness.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. In accordance with Board of Governors Regulation 3.007, my university shall provide accurate data to the Board of Governors Office.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. In accordance with Board of Governors Regulation 3.007, I have appointed a Data Administrator to certify and manage the submission of data to the Board of Governors Office.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Performance Based Funding Data Integrity Certification

Performance Based Funding 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 provided by the Board of Governors Information Resource Management (IRM) office.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. When critical errors have been identified, through the processes identified in item #6, a written explanation of the critical errors was included with the file submission.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. In accordance with Board of Governors Regulation 3.007, my Data Administrator has submitted data files to the Board of Governors Office in accordance with the specified schedule.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Some data files were submitted late. With significant turnover in senior positions, the department wanted to ensure accuracy before submissions. Positions are filled and cross training was implemented.
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."	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. I am responsible for taking timely and appropriate preventive / corrective actions for deficiencies noted through reviews, audits, and investigations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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 University System Strategic Plan goals and have not been made for the purposes of artificially inflating performance metrics.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Performance Based Funding Data Integrity Certification

Performance Based Funding Data Integrity Certification Representations		
	Yes	No
Representations	Comment / Reference	
<p>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.</p> <p style="text-align: center;">  _____ Date <u>3/13/17</u> President </p>		
<p>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.</p> <p style="text-align: center;">  _____ Date <u>3/14/17</u> Board of Trustees Chair </p>		