



Office of Internal Audit

**Audit of the Performance Based
Funding Metrics Data Integrity**

Report No. 16/17-08

February 8, 2017



FLORIDA
INTERNATIONAL
UNIVERSITY

OFFICE OF INTERNAL AUDIT

Date: February 8, 2017

To: Kenneth G. Furton, Provost and Executive Vice President
Hiselgis Perez, Director of Institutional Research

From: Allen Vann, Chief Audit Executive

A handwritten signature in blue ink that reads 'Allen Vann'.

**Subject: Audit of the Performance Based Funding Metrics Data Integrity
Report No. 16/17-08**

Pursuant to a request by the State University System of Florida - Board of Governors (BOG), we have completed an audit relating to the University's performance based funding metrics. The primary objectives of our audit were to:

- 1) Determine whether the processes established by the University ensures the reliability, accuracy, and timeliness of data submissions to the BOG, which support the Performance Based Funding Metrics; and
- 2) Provide an objective basis of support for the University Board of Trustees Chair and President to sign the representations made in the *Performance Based Funding - Data Integrity Certification* which will be submitted to the Board of Trustees and filed with the BOG by March 1, 2017.

Overall, our audit disclosed that the University has good process controls for maintaining and reporting performance metrics data. In our opinion, the system in all material respects is functioning in a reliable manner. We made three recommendations to further reduce risk that management agreed to implement.

I would like to take this opportunity to express our appreciation for the cooperation and courtesies extended to us during this audit.

Attachment

C: FIU Board of Trustees

Mark B. Rosenberg, University President

Kenneth A. Jessell, Chief Financial Officer and Senior Vice President

Javier I. Marques, Chief of Staff – Office of the President

Carlos Castillo, General Counsel

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OBJECTIVES, SCOPE, AND METHODOLOGY

Pursuant to a request by the State University System of Florida - Board of Governors (BOG), we have completed an audit of the Data Integrity over the University's Performance Based Funding Metrics. The primary objectives of our audit were to:

- (a) Determine whether the processes established by the University ensure the reliability, accuracy, and timeliness of data submissions to the BOG, which support the Performance Based Funding Metrics; and
- (b) Provide an objective basis of support for the University Board of Trustees Chair and President to sign the representations made in the *Performance Based Funding - Data Integrity Certification*, which will be submitted to the Board of Trustees and filed with the BOG by March 1, 2017.

Our audit was conducted in accordance with *the International Standards for the Professional Practice of Internal Auditing*, and included tests of the supporting records and such other auditing procedures, as we considered necessary under the circumstances.

During the audit we:

1. Updated our understanding of the process flow of data for all of the relevant data files from the transactional level to their submission to the BOG;
2. Reviewed BOG data definitions, SUS Data workshop documentation, and meeting notes;
3. Interviewed key personnel including the University's Data Administrator, functional unit leads, and those responsible for developing and maintaining the information systems;
4. Observed current practices and processing techniques;
5. Followed-up on prior audit recommendations;
6. Tested the system access controls and user privileges within the State University Database System (SUDS) application, upload folders and production data; and
7. Tested the latest data files for four of the ten performance based funding metrics submitted to the BOG as of September 30, 2016. Sample sizes and transactions selected for testing were determined on a judgmental basis.

Audit fieldwork was conducted from October to December 2016. In 2015 we issued the Audit of Performance Based Funding Metrics Data Integrity (Report No. 15/16-03), dated October 27, 2015. During the current audit, we observed that some recommendations previously reported as implemented by management were not fully implemented. These instances are highlighted in applicable sections of this report.

BACKGROUND

The Florida Board of Governors (BOG) has broad governance responsibilities affecting administrative and budgetary matters for Florida's 12 public universities. Beginning in fiscal year 2013-2014, the BOG instituted a performance funding program, which is based on 10 performance metrics used to evaluate the institutions on a range of issues including graduation and retention rates, job placement, and cost per degree, among other things. Two of the 10 metrics are Choice metrics; one picked by the BOG and one by each University's Boards of Trustees. These metrics were chosen after reviewing over 40 metrics identified in the Universities' Work Plans.

The BOG model has four guiding principles:

- 1) Use metrics that align with SUS Strategic Plan goals;
- 2) Reward Excellence or Improvement;
- 3) Have a few clear, simple metrics; and
- 4) Acknowledge the unique mission of the different institutions.

The Performance Funding Program also has four key components:

- 1) Institutions are evaluated and receive a numeric score for either Excellence or Improvement relating to each metric;
- 2) Data is based on one-year data;
- 3) The benchmarks for Excellence were based on the Board of Governors 2025 System Strategic Plan goals and analysis of relevant data trends, whereas the benchmarks for Improvement were decided after reviewing data trends for each metric; and
- 4) The Florida Legislature and Governor determine the amount of new state funding and a proportional amount of institutional funding that would come from each university's recurring state base appropriation.

In 2016, the Florida Legislature passed and the Governor signed into law the Board of Governors' Performance-Based Funding Model, now codified into the Florida Statutes under Section 1001.66, *Florida College System Performance-Based Incentive*.

FIU's Performance Based Funding Metrics:

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Percent of Bachelor's Graduates Employed and/or Continuing their Education Further One Year after Graduation; 2. Median Average Wages of Undergraduates Employed in Florida One Year after Graduation; 3. Average Cost per Undergraduate Degree; 4. Six Year Graduation Rate (Full-time and Part-time FTIC); 5. Academic Progress Rate (2nd Year Retention with GPA above 2.0); | <ol style="list-style-type: none"> 6. Bachelor's Degrees Awarded in Areas of Strategic Emphasis (includes STEM); 7. University Access Rate (Percent of Undergraduates with a Pell-grant); 8. Graduate Degrees Awarded in Areas of Strategic Emphasis (includes STEM); 9. Board of Governor's Choice - Percentage of Bachelor Degrees Without Excess Hours; and 10. Board of Trustee's Choice - Bachelor's Degrees Awarded to Minorities. |
|--|---|

The following table summarizes the performance funds allocated for the fiscal year 2016-2017 using the performance metrics results from 2014-2015, wherein FIU earned 76 points.

Florida Board of Governors Performance Funding Allocation, 2016-2017				
	Points *	Allocation of State Investment	Allocation of Institutional Investment	Total Performance Funding Allocation
UCF	84	\$ 39,301,181	\$ 38,697,580	\$ 77,998,761
FAU	84	\$ 25,346,748	\$ 21,642,163	\$ 46,988,911
UF	82	\$ 47,695,822	\$ 49,180,011	\$ 96,875,833
USF	79	\$ 32,308,363	\$ 39,488,000	\$ 71,796,363
FIU	76	\$ 25,253,750	\$ 30,865,695	\$ 56,119,445
FSU	68	\$ 35,574,608	\$ 43,480,076	\$ 79,054,684
FGCU	67	\$ 8,010,396	\$ 9,790,484	\$ 17,800,880
FAMU	65	\$ 11,509,132	\$ 14,066,717	\$ 25,575,849
NCF	59	-	\$ 2,740,857	\$ 2,740,857
UWF	57	-	\$ 12,133,627	\$ 12,133,627
UNF	26	-	\$ 12,914,790	\$ 12,914,790
Total		\$225,000,000	\$275,000,000	\$500,000,000

* Institutions scoring 50 points or less or the three lowest scoring universities will not receive any State Investment. Any ties in scores are broken using the tiebreaker policy approved by the BOG.

It should be noted that on June 30, 2016 the Board of Governors reallocated the 2015-2016 allocation, which was presented in last year's audit, as a result of a programmatic error that impacted four universities, including FIU. The programmatic error led to the overstatement of the Academic Progress Rate used in Metric 5 for the four universities. As a result, FIU which had been tied for third place in the final point rankings dropped to fourth, which resulted in FIU losing \$2.5 million in funding allocation.

Also, at the November 3, 2016 Board of Governors Board Meeting, changes to the Performance Based Funding Model were approved, among them changing Metric 3, Average Cost per Undergraduate Degree. The new metric to be used in future years will be the Cost to the Student.

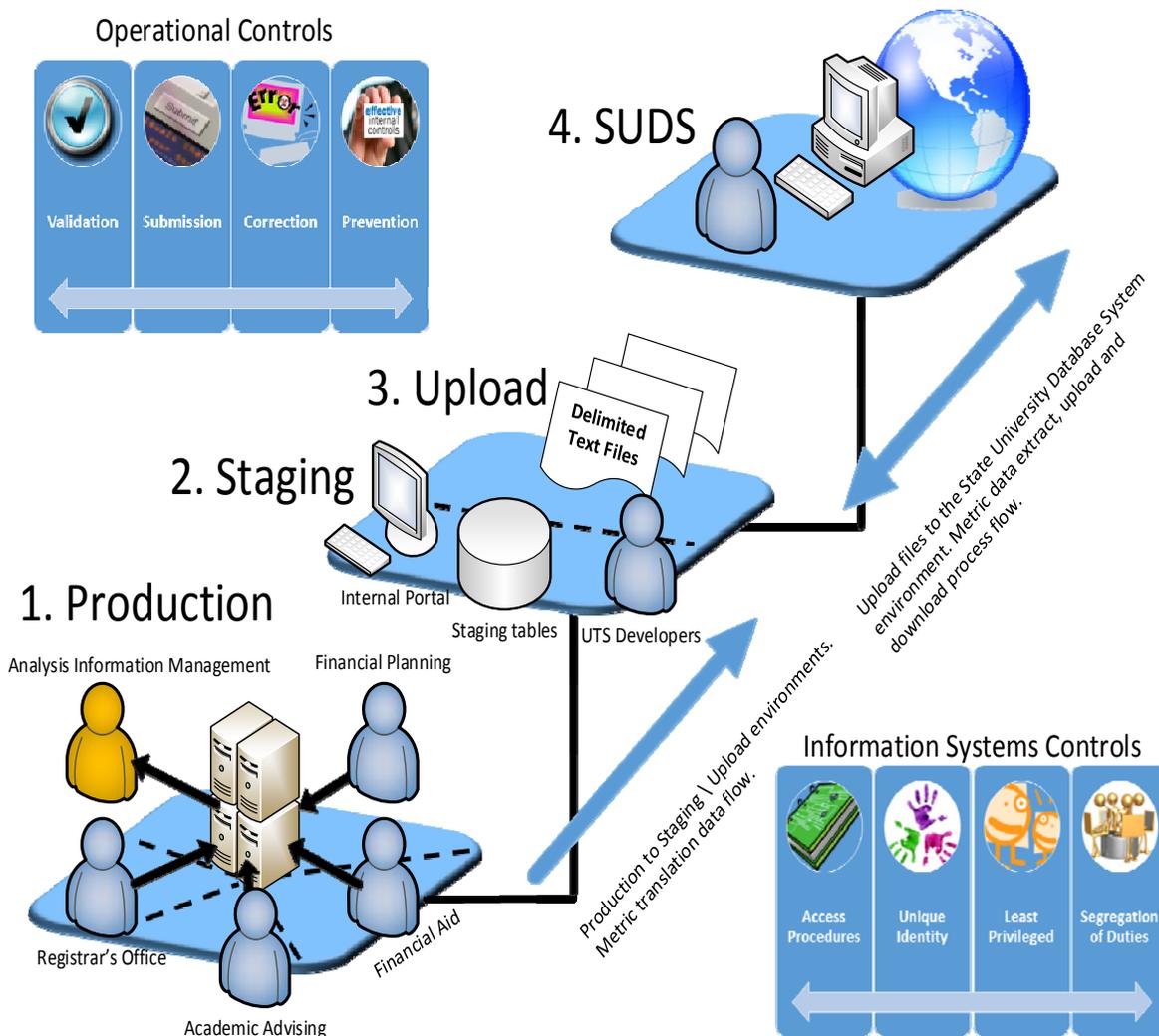
Organization

The Office of Analysis and Information Management (AIM) consists of Institutional Research (IR), and the Office of Retention & Graduation Success. One of the goals of AIM is to provide the University community with convenient and timely access to information needed for planning and data driven decision-making and to respond to data requests from external parties. IR is currently responsible for: Processing of Faculty Credentials; Assessment Support; Academic Programs; Faculty Assessment of Administrator System; Maintaining the FAIR system which is the online system used to credential faculty; Academic Program Inventory; and Assignment of CIP codes to courses. The Office of Retention & Graduation Success identifies barriers to student success and works to eliminate those barriers. This Office helps to carry out the Graduation Success Initiative (GSI), primarily by providing Major Maps and alerts for students and academic advisors, and information and analyses to departments and decision-makers.

IR has been the official source of FIU's statistics, providing statistical information to support decision-making processes within all academic and administrative units at FIU, preparing reports and files for submission to the BOG and other agencies. It is also responsible for data administration, enrollment planning, and strategic planning. The Director of Institutional Research/Data Administrator reported to the former Interim Vice Provost for AIM until her retirement on October 31, 2016. The Data Administrator now reports directly to the Provost and is responsible for gathering data from all applicable units, preparing the data to meet BOG data definitions and requirements, and submitting the data.

At FIU, the Performance Funding Metrics reporting process flow consists of four layers that range from the University Production environment to the State University Database System application, as follows: (1) The Production data originated at the functional units: the Registrar's Office, Academic Advising, Financial Aid, and Financial Planning departments is sent to (2) Staging tables (or directly to Upload folders). In the Staging environment, dedicated developers perform data element calculations that are based on BOG guidelines and are used to develop the Internal Portal. Once the calculations are completed, the data is formatted into text files and moved to an (3) Upload folder. Users then log into the (4) State University Database System (SUDS) and depending on their roles, they upload, validate, or submit the data.

The diagram below illustrates the operational controls and the information system access controls currently implemented in the overall data element process flow.



FINDINGS

Based on our audit, we concluded that there are no material weaknesses or significant deficiencies in the processes established by the University to report required data to the Board of Governors in support of their Performance Based Funding Metrics. While there is always room for improvement as outlined in the detailed findings and recommendations that follow, the system is functioning in a manner that can be relied upon to provide complete, accurate and relatively timely data.

Accordingly, in our opinion, this report provides an objective basis of support for the Board of Trustees Chair and the University President to sign the representations made in the BOG Performance Based Funding – Data Integrity Certification, which the BOG requested be filed with them by March 1, 2017. Our evaluation of FIU’s operational and system access controls that fall within the scope of our audit is summarized in the following table:

INTERNAL CONTROLS RATING			
CRITERIA	SATISFACTORY	FAIR	INADEQUATE
Process Controls	x		
Policy & Procedures Compliance	x		
Effect	x		
Information Risk	x		
External Risk	x		
INTERNAL CONTROLS LEGEND			
CRITERIA	SATISFACTORY	FAIR	INADEQUATE
Process Controls	Effective	Opportunities exist to improve effectiveness	Do not exist or are not reliable
Policy & Procedures Compliance	Non-compliance issues are minor	Non-compliance Issues may be systemic	Non-compliance issues are pervasive, significant, or have severe consequences
Effect	Not likely to impact operations or program outcomes	Impact on outcomes contained	Negative impact on outcomes
Information Risk	Information systems are reliable	Data systems are mostly accurate but can be improved	Systems produce incomplete or inaccurate data which may cause inappropriate financial and operational decisions
External Risk	None or low	Potential for damage	Severe risk of damage

The result of the review of our objectives follows:

1. Review of Processes Flow of Data

During prior years' audits, the Data Administrator provided us with an understanding of how the University ensured the completeness, accuracy, and timely submission of data to the BOG. Based on updates provided to us by the Data Administrator and other key personnel, we determined that no significant changes have occurred to the process flow of data.

The AIM developed a tool within PeopleSoft that generates edit reports similar to the ones found in the State University Database System (SUDS). This tool allows functional unit users more time to work on their file(s) since the BOG edits are released closer to the submission deadline. The purpose of the review is for functional unit users to correct any problems concerning transactional errors before submitting the files. During the prior audit, we found the Registrar's Office, responsible for 5 of the 10 performance-based metrics, along with the Office of Financial Aid and the Graduation Office are using the tool. The Data Administrator's team routinely reviews the error reports and summary reports to identify and correct any data inconsistencies. According to the AIM, they plan to continue to extend the use of the tool to all appropriate users. Furthermore, for Metric 3 there are certain PantherSoft queries in place that users run to identify errors or bad data combinations.

In addition to the internal FIU reports, the BOG has built into the SUDS a data validation process through many diagnostic edits that flag errors by critical level. SUDS also provides summary reports and frequency counts that allows for trend analysis. The AIM team reviews the SUDS reports and spot checks records to verify the accuracy of the data. Once satisfied as to the validity of the data, the file is approved for submission.

As a result of a prior audit recommendation, the AIM developed the *OPIR-BOG Business Process Manual*. The Manual addresses BOG SUDS Portal Security, BOG SUDS File Submission Process, and details of the process for each file submitted to the BOG. It is also evident that the Manual has been continually updated since its implementation.

We also met with the Data Administrator to update our understanding of the processes in place to gather, test, and ensure that only valid data, as defined by the BOG, is timely submitted to the BOG. As explained, the Data Administrator's team is responsible for the day-to-day reporting and understands the functional process flow, while the functional units are responsible for their data and understand the technical process flow.

Steps**BOG Files Submission Cycle**

1.	The PeopleSoft team and the Office of Financial Planning (Metric 3) extracts data from the PeopleSoft database. Data are formatted according to BOG data elements definitions and table layouts.
2.	The PeopleSoft team and the Office of Financial Planning (Metric 3) uploads data to SUDS and runs edits.
3.	SUDS edits the data for possible errors and generates dynamic reports.
4.	Functional unit users are notified that edits are ready to be reviewed.
5.	Functional unit users review the edits and make any required transactional corrections in the PeopleSoft database.
6.	AIM Lead/PS Team/Functional unit users communicate by email, phone or in person about any questions/issues related to the file.
7.	Steps 1-6 are repeated until the freeze date.
8.	On the freeze date, a final snapshot of the production data is taken.
9.	The file is finalized, making sure all Level-9 (critical) errors were corrected or can be explained.
10.	AIM Lead reviews SUDS reports, spots-checks data and contacts functional unit users if there are any pending questions.

In summary, the data is extracted from the PeopleSoft system and moved to a staging table where data calculation is performed for the elements required by the BOG. There are four layers within the data process flow that included Production, Staging, Upload and the SUDS application. The Production Data element is extracted from Financial Aid, Academic Advising, and the Registrar's Office. The AIM office in collaboration with the BOG team from the Division of IT translated the production data into separate staging database tables where the data elements were then programmatically calculated. Data was then extracted from the Staging tables, formatted into specific file formats, and then uploaded to the SUDS online application. Separately, the Office of Financial Planning extracts, translates and uploads the Operating Budget File data for Metric 3. The University's Division of IT assists the Office of Financial Planning in consolidating the data for the Expenditure Analysis File and loading it into SUDS for their review and validation.

2. Prior System Access Controls and User Privileges Follow-up

Access control testing included follow-up on prior audit recommendations and examination of user privileges within the State University Database System (SUDS) application, examination of audit log files and production data. In our prior audit, we recommended that the Office of Analysis and Information Management should work with the functional units and PeopleSoft Security Team to: a) review and deactivate the SUDS user accounts with expired passwords from 2014; b) limit access to production data as appropriate; and c) add audit logging capability to production fields, where appropriate, to reduce the data integrity risk to the SUDS. Management agreed with the recommendations and responded that they have developed an electronic request form using the PAWS system that will allow them to keep track of the requests, continue to communicate with all Vice Presidents and Director on an annual basis to review who should have access to production data, and implement an audit trail report to indicate whenever a change is made to any of the high-risk fields that were identified in the prior year's audit. The following were the results of our follow-up into these areas:

a. Review and Deactivate the State University Database System User Accounts

In our prior audit, we recommended that the user accounts with expired passwords from 2014 should be deactivated from SUDS. Management responded that they will conduct an annual review and will reach out to the supervisors of the users who have not accessed the system in an entire year. A current review revealed that most of the accounts from 2014 are still in an active status. We also found two user accounts' passwords that expired in 2015, averaging 429 days expired, that were still active. According to PantherSoft IT, the two users' roles should be changed from uploader to researcher. Over time, job duties may change as the user account sits dormant and can increase the risk of inappropriate access should they become reactivated.

The *BOG SUDS Security Access – Functional User Guide* requires that the functional unit lead create a PAWS ticket when requesting new user access or making changes to existing SUDS accounts. We found that 2 of the 3 on-boarded users tested had a corresponding PAWS ticket. Additionally, there was no documentation for the one user deactivated during the audit period. Furthermore, because AIM was not notified by PantherSoft IT, there was one terminated user still listed as active nine months after their termination date. Completed PAWS tickets should be used as a baseline for user access that AIM can review to further reduce the risk of inappropriate access. User on-boarding and off-boarding without corresponding PAWS tickets reduce the effectiveness of existing user access controls.

b. Limit Access to Production Data

Figure 1 – *Production Data Elements Process Flow* illustrates the four departments of Financial Planning, Financial Aid, Academic Advising and the Registrar’s Office’s data that feed into the production system available to the Office of Analysis and Information Management. Prior audit testing identified 17 individuals that had the ability to edit one or more of 20 performance based funding data fields in production. This year’s testing was increased by an additional 58 users that were involved in the BOG data process, which included the Office of Admissions, Enrollment Operations, Office of Graduate and International Admissions, and the One Stop Shop Departments. This year’s audit of write access in the production and stage environments included an additional 59 fields specific to Metrics 1, 2, 4, and 5. While there were some reduction in write access from prior audit findings, we did note areas that need improvement.

1. Production

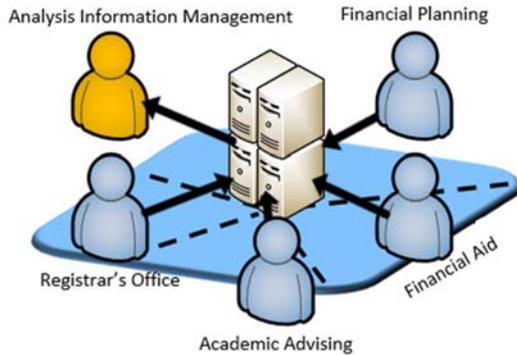
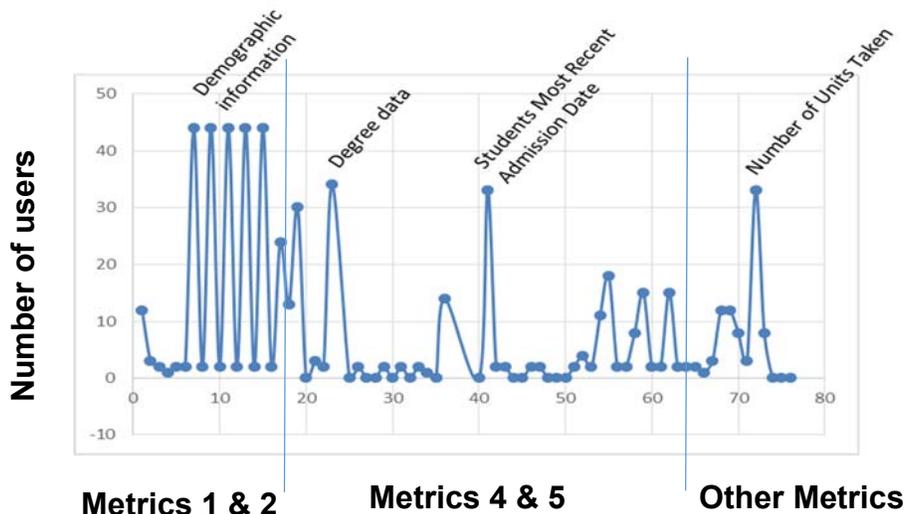


Figure 1 - *Production Data Elements Process Flow*

Management. Prior audit testing identified 17 individuals that had the ability to edit one or more of 20 performance based funding data fields in production. This year’s testing was increased by an additional 58 users that were involved in the BOG data process, which included the Office of Admissions, Enrollment Operations, Office of Graduate and International Admissions, and the One Stop Shop Departments. This year’s audit of write access in the production and stage environments included an additional 59 fields specific to Metrics 1, 2, 4, and 5. While there were some reduction in write access from prior audit findings, we did note areas that need improvement.

Specifically, the Data Administrator, who has the ability to submit data to the State University Database System, also has write access to certain production data fields that affect Metrics 4 and 5. It is a segregation of duties risk for users to have the ability to change production data and also submit that data to the SUDS. Also, of the 75 users tested we found areas with a high number of users with write access, including:

- a) 44 that had the ability to modify Demographics information;
- b) 34 that had the ability to modify Degree data;
- c) 33 with the ability to modify Students Most Recent Admission Date; and
- d) 33 that had the ability to modify the Number of Units Taken.



Additionally, two members of the Academic Advising Department have write access to the fields in the staging environment (see Figure 2 – Upload Process Flow). The stage environment, used for programming field calculations, is a high risk area as it is the final step before the data is uploaded to the State University Database System. Users with write access in staging can manipulate values that are not consistent with production data. An unauthorized data override increases the data integrity risk and may also impact the University’s metrics. We also noted repeat concerns of department management that have write access to production fields, which is discussed further in the next section.

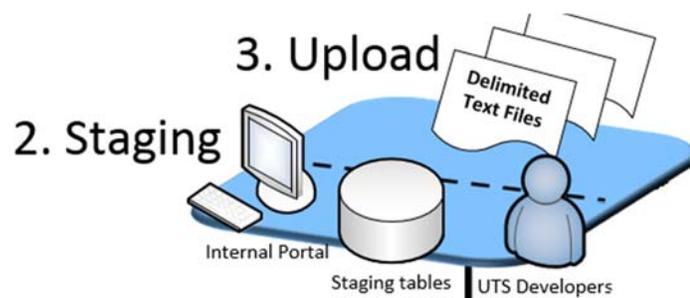


Figure 2 - Upload Process Flow

c. Add Audit Logging Capabilities to Production Fields

As expressed in prior audit reports we continue to have concerns on specific users’ access. We recommended that audit logging capabilities should be added to the 20 in-scope production data fields, where appropriate, to mitigate the risk of an unauthorized data change. Management agreed and stated that the logs were implemented in April 2016. Upon examination, we found that only 3 of the 20 fields were active during the audit period. In September 2016, audit logs were created for an additional 10 production fields. Additionally, the Data Administrator had difficulty discerning data from the current reporting mechanism. On examination of the logs that were available, we were able to determine that 9 of 14 users involved in the BOG data submission process had write access but did not make any changes to the data. With a user-friendly, intuitive reporting mechanism in place, the Data Administrator could determine whether write access is appropriate.

Ultimately, it is the State University Database System Data Administrator that is accountable for the data provided to the BOG. Log reporting mechanisms are an effective detection control to help the Data Administrator mitigate least privileged and segregation of duties risks. The lack of log reports increase the integrity¹ risks to the data sent to the BOG.

Conclusion

The combination of system access control deficiencies noted above, while less severe than a material weakness in internal control, should nevertheless be promptly corrected or mitigated to reduce the likelihood that an unauthorized data change can be made and go undetected. Some of the access control deficiencies were noted in the prior year audit.

¹ COBIT 5.0 correlates Integrity to the information quality goals completeness and accuracy.

3. Review of Grade Change Process

Many of the performance-based funding metrics rely on student course grades. For example, the graduation and retention data files use student course grades to determine term and cumulative GPA, the earning of credit hours towards graduation, and ultimately the degrees awarded. Thus, this year we included a test of the grade change process as part of the audit.

During the spring 2016 semester we noted 2,408 students with 2,905 grade changes. To test the propriety of the grade change process, we selected a sample of students in their 4th, 5th and 6th years of study (as we determined these would be more pertinent and of a higher risk to the metrics) and whose grade was changed from a “D” or “F” to a higher grade during the spring 2016 semester.

We identified 69 - 4th, 5th, and 6th year students whose grades were changed from a “D” or “F” to a higher grade. We selected 26 of the 69 students and reviewed the effect of the grade change on their term and cumulative GPA. We determined that 9 of the 26 students reviewed would have dropped below the 2.0 cumulative GPA required if not for the grade change. Thus, we requested documentation for the grade change from the student’s College. Review of the reasons for the change of grade provided by the Colleges for all 9 students showed the changes were appropriate.

Notwithstanding, during our review of grade changes, we observed that 71% of all grade changes were made using a generic user identification (ID). The user account was used to batch process student grade changes at the end of the semester. In addition, individual users were able to log onto the user account and perform grade changes. In the production database, the data/time stamp was stored in a log table when users log into the account.

We focused in on: (a) who can log into the generic user account; and (b) what controls were in place to identify individual user actions. Upon examination, we determined that 23 users could switch into the account. The users come from varied departments including: Administrator Systems and Data Support, the Registrar’s Office, PantherSoft IT, Academic Advising Center, and Institutional Research. The users’ job titles are varied and include IT support, Application Developer, Assistant Registrar, Academic Records Manager, Enrollment Processor, and Business Analyst.

Combining IT support and non-IT user accounts into a group user account increases segregation of duties risks. When grades are changed in this manner, only the generic user ID is stored in the audit log file. Current internal controls were not granular enough to adequately identify the user that logged into the generic account to make a modification. Assigning a unique ID to each individual that makes a grade change would ensure that each individual is uniquely accountable for their actions.

Conclusion

Although we did not find any inappropriate grade changes, the inability to track individual user actions increases the risk that an inappropriate grade change could go undetected.

4. Data Accuracy Testing and Follow-up

We identified the main data files and tables related to the calculations of the four performance based funding metrics under review, as follows:

- Degrees Awarded File;
- Person Demographic Table;
- Enrollments Table;
- Student Instruction File; and
- Retention File.

The BOG provided us with the in-scope data elements for each of the metrics under review (see Appendix A – In-scope BOG Data Elements).

Data accuracy for four of the ten metrics was tested by reviewing the corresponding data files, tables and elements, and by tracing them to the source document data in PeopleSoft. A number of reconciliations were also performed. Testing was limited to the PeopleSoft data itself as the objective of our testing was to corroborate that the data submitted was in fact unabridged from/identical to the data contained in the University's PeopleSoft system.

Metrics Testing

The four performance based funding metrics tested were as follows:

Common to All Universities:

- Metric 1 - Percent of Bachelor's Graduates Employed and/or Continuing their Education Further One Year after Graduation;
- Metric 2 - Median Average Wages of Undergraduates Employed in Florida One Year after Graduation;
- Metric 4 - Six Year Graduation Rate (Full-time and Part-time FTIC); and
- Metric 5 - Academic Progress Rate (2nd Year Retention with GPA above 2.0).

Metrics 1 and 2

The Degrees Awarded File is used for 5 of the 10 performance based funding metrics. During the prior year's audit, data accuracy testing was focused on Metric 6-Bachelor's Degree Awarded within Programs of Strategic Emphasis; Metric 8-Master's Degree Awarded within Program of Strategic Emphasis; and Metric 10-Bachelor's Degrees Awarded to Minorities. No exceptions were found in the data submitted. Accordingly, we focused on the remaining two metrics: Metric 1 (Percent of Bachelor's Graduates Employed and/or Continuing their Education Further One Year after Graduation); and Metric 2 (Median Average Wages of Undergraduates Employed in Florida One Year after Graduation). The BOG utilizes the Degrees Awarded File, Person Demographic Table from Admission File and other external data related to employment to calculate these two metrics. We excluded a review of the external data from the scope of this audit.

The most current submission file contiguous with our audit fieldwork was obtained. (The File is uploaded after every semester, thus, the spring 2016 file uploaded in June 2016 was the most current file as of September 30, 2016).

The Degrees Awarded File submitted in spring 2016 contained 4,724 students earning 4,788 degrees (4,450 students earned single degrees, 210 students earned 420 double-major degrees, 2 students earned a degree and a double major, and 62 students earned 124 dual degrees). The BOG rule allows for the multiple degrees, not double-majors, to be counted individually. Thus, double-majors are counted as half (.5).

Included in the 4,788 degrees were 36 out-of-term degrees. The out-of-term degrees were earned in spring, summer, and fall 2015, and excluded 17 spring 2016 degrees that posted late. Of the 17 degrees, 15 were reported in summer 2016 and 2 will be reported with fall 2016 degrees as they were processed in October and November 2016. The Office of the Registrar informed us that the late reporting was due to either the student submitting the completion form late or an academic department delay.

Our reconciliation of the Degrees Awarded File submitted to the BOG, and the file provided to us by the Office of the Registrar to test against, showed differences in the number of degrees reported due to timing differences in the posting of degrees. The Office of the Registrar file contained 17 students who earned their degrees in spring 2016 and 14 students who earned their certificate in spring 2016 but were processed late, after the Degrees Awarded File had been submitted to the BOG. (Certificates are not required to be reported to the BOG). The Degrees Awarded File reported to the BOG contained 36 out-of-term degrees, earned in spring, summer, and fall 2015 that had been previously processed late. We verified the degrees reported late were actually granted late by reviewing 5 of the 17 spring 2016 degrees and 6 of the 36 out-of-term 2015 degrees that were processed late. There were no exceptions found.

We also verified that the data elements for the two metrics tested were present in the Degrees Awarded File submitted to the BOG and the information contained in the Degrees Awarded File was the same as the information in the students' PantherSoft record.

Finally, 32 students' records were selected for testing. The students' records (as it relates to the applicable data elements for Performance Based Funding) in PeopleSoft were the same as reported to the BOG, and all 32 students graduated in spring 2016 and fulfilled their credit-hour requirements per the respective program of study. There were no exceptions as to the data provided to the BOG for these 32 students.

Conclusion

We determined that the data submitted to the BOG in the Degrees Awarded File and the Admissions File for Metrics 1 and 2 represents the data in the University's PantherSoft Campus Solutions system.

Metrics 4 and 5

The data for Metric 4 (Six Year Graduation Rate - Full-time and Part-time First Time in College (FTIC)) and Metric 5 (Academic Progress Rate - 2nd year retention with GPA above 2.0) are generated by the BOG from the Student Instruction File (SIF) and Degrees Awarded File (SIFD) submitted by the University.

The BOG builds the Retention File annually using the SIF and the SIFD files. The BOG then annually provides the retention data to the University. FIU's Office of Institutional Research (IR) reconciles the data with the files (SIF and SIFD) originally submitted to the BOG and investigates and resolves any differences. They work with BOG IRM (Information Resource Management) staff to make edits, if necessary, before the Data Administrator approves and submits the data to the BOG IRM. We reviewed IR's reconciliation process of retention data for cohort 2013-2014 and concluded that FIU's IR staff adequately performed the reconciliation of data provided by the BOG against FIU's data.

We also reviewed the retention data for cohort year 2013-2014 and determined that the cohort count of 4,524 students matched the data in the fall 2013, spring 2014 and summer 2014 SIF files. This was the first year for cohort 2013-2014. We reviewed the second year for cohort 2013-2014, which included the fall 2014, spring 2015 and summer 2015 SIF and determined that the number of students enrolled (3,799) and degrees earned, as reported in the Retention File and verified by the IR analysts to be accurate.

In addition, we verified without exception that 22 students from the 2013-2014 cohort graduated in 2014-2015, as reported in the SIFD, as follows: fall 2014 (3 students); spring 2015 (12 students); and summer 2015 (7 students).

Finally, to further verify that the SIF data submitted to the BOG was accurate, we selected a sample of 38 students from the summer 2010 SIF and verified that the data provided to the BOG was the same as the data contained in the University's PantherSoft Campus Solutions student records and found no differences. The summer 2010 SIF contained those students whom would have reached their sixth year during the most current submittal for inclusion in Metric 4.

Conclusion

The results of our review of the SIF data found no differences relating to the relevant elements for Metrics 4 and 5. IR performs the reconciliation and verifies that the data submitted by the BOG matches the data in FIU's system, as such, the data used to build the Retention File for Metrics 4 and 5 accurately reflects the data in the University's PeopleSoft system.

Prior Audit Follow-up

During a prior audit, we had found an exception resulting from one student's most recent admission date, which was 1 of the 5 tested elements. We determined that the student was admitted in fall 2011 as an undergraduate student and in spring 2014 as a certificate-seeking student. The student enrollment record in PeopleSoft had both of the admission dates for the student and his most recent admission was reported to the BOG. The AIM staff informed us last year that they were in discussions with the Registrar's Office to adjust for these occurrences. The prior recommendation was to, "Continue to work with the Office of the Registrar to resolve how to properly report those limited instances where there are multiple admission dates for individual students."

In our follow-up of this matter, the AIM staff informed us that they implemented a logic change effective spring 2016. The Data Administrator stated, "...we are not expecting to see this type of problem anymore." She added, "When we review a student we not only look at the student type we look at whole scenario and common elements such as the student type, admit term, degree highest held, transfer credits and any other element that may be slightly related to the issue we are looking at. We compile our questions and send to the functional units to review the case as well, answer the question and recommend how [the] student should be reported." As a result of this mitigating control, the previous control deficiency has been resolved.

5. Data File Submissions and Resubmissions

Timely Data File Submissions

To ensure the timely submission of data, AIM used the due date schedule provided by the BOG as part of the SUS data workshop to keep track of the files due for submittal and their due dates. AIM also maintains a schedule for each of the files to be submitted, which includes meeting dates with the functional unit leads, file freeze date, file due date, and actions (deliverables) for each date on the schedule. We used data received directly from the BOG-IRM Office in addition to data provided by AIM to review the timeliness of actual submittals.

The following table and related notes, where applicable, reflects the due dates and actual submittal dates of all relevant files submitted during our audit period:

<i>File</i>	File Submission	Period	Due Date	Submitted Date
SIFD	Degrees Awarded	Summer 2015	10/6/2015	10/7/2015 ¹
IR	Instruction & Research	Annual 2014	10/6/2015	10/6/2015
SFA	Student Financial Aid	Annual 2014	10/9/2015	10/7/2015
SIFP	Student Instruction Preliminary	Fall 2015	10/9/2015	10/9/2015
EA	Expenditure Analysis	Annual 2014	10/20/2015	10/20/2015
HTD	Hours to Degree	Annual 2014	11/13/2015	11/13/2015
SIF	Student Instruction	Fall 2015	1/15/2016	1/27/2016 ²
RET	Retention	Annual 2014	1/29/2016	2/25/2016 ³
SIFD	Degrees Awarded	Fall 2015	2/5/2016	2/5/2016
ADM	Admissions	Spring 2016	2/26/2016	2/25/2016
SIFP	Student Instruction Preliminary	Spring 2016	3/4/2016	3/4/2016
SIF	Student Instruction	Spring 2016	6/17/2016	6/17/2016
SIFD	Degrees Awarded	Spring 2016	6/30/2016	7/12/2016 ⁴
OB	Operating Budget	Annual 2016	8/15/2016	8/15/2016
ADM	Admissions	Summer 2016	9/9/2016	9/9/2016
ADM	Admissions	Fall 2016	9/23/2016	9/28/2016 ⁵

- ¹ The summer 2015 Degrees Awarded File was submitted one day late due to the delay in accepting the SIF summer 2015. Degrees Awarded File (SIFD) cannot be submitted before SIF is accepted; SIF was accepted on October 7, 2015.
- ² The fall 2015 Student Instruction File (SIF) was submitted late due to a delay by the BOG in accepting the resubmission of the Admission File for fall 2015. SUDS does not allow submittal of the SIF prior to the Admission File being accepted. The resubmitted fall 2015 Admission File was accepted on January 27, 2016 and the SIF was submitted on the same date.
- ³ Submittal of the Annual 2014 Retention File was delayed due to a delay by the BOG in reviewing/correcting the records of four students whose degrees were not counted in the

Retention File. The error was identified by FIU's Institutional Research (IR) team and the BOG staff was notified.

- 4 The Degrees Awarded File for spring 2016 was delayed due to the BOG's delay in accepting the spring 2016 SIF. The BOG had questions on the submitted SIF which were addressed by FIU's IR team but the University had to wait for the SIF to be accepted prior to submitting the Degrees Awarded File for spring 2016.
- 5 According to the Data Administrator, the fall 2016 Admissions File was submitted late due to FIU's IR staff resources being diverted as a result of changes in submittal dates by the BOG for other data files.

Data File Resubmissions

The list of resubmissions since the last audit was obtained from the BOG-IRM staff. The Data Administrator described the nature and frequency of these resubmissions and provided correspondence between the BOG and the University related to data resubmissions and examined them to identify lessons learned and determine if any future actions can be taken by the AIM that would reduce the need for resubmissions.

The Data Administrator has previously noted that "Resubmissions are needed in the case of data inconsistencies detected by us or the BOG staff after the file has been submitted. Of course, our goal is to prevent any resubmissions; however, there are some instances when this happens. A common reason for not detecting the error before submission is that there are some inconsistencies that only arise when the data is cross-validated among multiple files... We used the resubmission process as a learning tool to identify ways to prevent having the same problems in the future. When logic changes are implemented or added it is an additional edit in our internal tool."

In regards to the frequency of the resubmissions, a list was provided by the BOG-IRM of all relevant files submitted. For files with due dates between October 1, 2015 and September 30, 2016, the University submitted 16 files to the BOG. In addition, there were four relevant files resubmitted with original due dates prior to October 1, 2015 and after September 30, 2016.

The following table describes the four files resubmitted and the reasons for resubmission.

No.	Due Date	Resubmitted Date	File Submission	Term/Year	Reason for Resubmission
1	8/17/2015	10/20/2015	Operating Budget (OB)	Annual 2015	Error in Expenditure Analysis (EA) File which only could be corrected via OB. The error was due to the use of an incorrect code appropriation category, discovered at the time of the EA File submission.
2	10/07/2014	12/15/2015	Instruction & Research	Annual 2013	FIU had some changes in methodology with regard to how instruction and research activities were coded in the Instruction & Research (IRD) File between the 2013-2014 submissions. Per a BOG request, FIU needed to resubmit the IRD File to reflect this new methodology. The change in the IRD affected the EA File, thus, requiring a resubmission of this File as well.
3	10/28/2014	12/15/2015	Expenditure Analysis	Annual 2013	
4	10/03/2016	10/13/2016	Student Instruction	Fall 2016	Resubmittal requested by the BOG due to manual changes made by the BOG to correct student recent admission types.

Resubmission requests originated from both the BOG and FIU. The reasons for resubmissions varied, such as the BOG requesting edits/additional information when a file does not reconcile with other records, FIU discovering some errors after submission, or when a resubmission of a related file triggered correction and resubmission. In regards to the resubmissions being authorized, in all instances observed, the BOG staff authorized the resubmission by reopening the SUDS system for resubmission.

The four resubmissions were necessary and authorized, and as the Data Administrator explained previously, some of the reasons for the resubmission are the subject of discussions between FIU and the BOG on how the process could be improved.

Conclusion

Our review disclosed that the process used by the Data Administrator provides reasonable assurance that complete, accurate and for the most part timely submissions occurred. There were no discernable reasons for the few late filings. No material weaknesses were found. In addition, there were no reportable material weaknesses or significant control deficiencies that surfaced relating to data file resubmissions.

6. Review of University Initiatives

A listing of University initiatives that are meant to bring the University's operations and practices in line with SUS Strategic Plan goals were obtained. Below is a list of such initiatives:

- Implemented the learning assistant program
- Hired a student success manager
- Implemented Adjunct to Instructor conversions in Math and English to improve teaching
- Improved student financial aid support model (i.e., Noel Levitz)
- Implemented faculty incentives for new online and hybrid teaching
- Restructured the advising model
- Graduation Success Initiative
- STEM success, HHMI, HHMI2, STEM Transformation Institute
- Preparing students for the workforce through internships and private partnerships
- Added additional Math instructors to improve the pedagogy and student success in the math gateway courses

Conclusion

None of the initiatives provided appears to have been made for the purposes of artificially inflating performance goals.

RECOMMENDATIONS

The Office of Analysis and Information Management should:

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| 1. | Work with the functional units and PeopleSoft Security Team to: <ul style="list-style-type: none">a) Review user accounts to ensure on-boarded and off-boarded users have an associated PAWS ticket and that existing users' access match their current job function;b) Review and reduce access privileges to production and stage environments to appropriately mitigate least privileged and segregation of duties risks; andc) Continue to create a log reporting mechanism for all metric data files, where appropriate, that is user-friendly to help ensure the integrity of the data sent to the BOG. |
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Management Response/Action Plan:

1. a) The Office of Analysis and Information Management will ensure that access privileges accurately portray each user's job responsibilities, and any changes in access are accurate, and consistently logged with PAWS tickets.

Implementation date: March 2017

- b) The Office of Analysis and Information Management will work with IT to review access privileges of users in the PeopleSoft production and stage environments, and ensure that user security policies are enforced in a manner that portrays the necessities of job duties, including revoking or limiting access when appropriate.

Implementation date: April 2017

- c) The Office of Analysis and Information Management will follow up with IT on a bi-weekly basis to ensure that they are making progress towards auditing all 20 high risk fields. Additionally, AIM will work with IT to create a user-friendly report that will enable AIM to continually monitor access privileges for these fields.

Implementation date: April 2017

APPENDIX A

In-Scope BOG Data Elements			
No.	Metric	Definition	Submission/Table/Element Information
1	Percent of Bachelor's Graduates Employed Full-time in Florida or Continuing their Education in the U.S. One Year After Graduation	<p>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.</p> <p>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.</p> <p>Sources: State University Database System (SUDS), Florida Education & Training Placement Information Program (FETPIP), National Student Clearinghouse.</p>	<p>Submission: SIFD Table: Degrees Awarded Elements: 01081 – Degree – Level Granted 01412 – Term Degree Granted 01045 – Reporting Institution</p>
2	Median Wages of Bachelor's Graduates Employed Full-time in Florida One Year After Graduation	<p>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.</p> <p>Sources: State University Database System (SUDS), Florida Education & Training Placement Information Program (FETPIP), National Student Clearinghouse.</p>	Same as No. 1 above.
4	Six Year FTIC Graduation Rate	<p>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 (e.g., PharmD) are included in the cohorts. Students who are active duty military are not included in the data.</p> <p>Source: State University Database System (SUDS).</p>	<p>Submission: SIFD Table: Degrees Awarded Elements: 02001 – Reporting Time Frame</p> <p>Submission: SIFP Table: Enrollments Elements: 01063 – Current Term Course Load 01067 – Last Institution Code 01068 – Type of Student at Date of Entry 01085 – Institutional Hours for GPA 01086 – Total Institutional Grade Points 01088 – Term Credit Hours for GPA 01089 – Term Credit Hours Earned 01090 – Term Grade Points Earned</p> <p>Submission: SIF Table: Enrollments Elements: 01060 – Student Classification Level 01112 – Degree Highest Held 01107 – Fee Classification Kind 01420 – Date of Most Recent Admission 01413 – Type of Student at Time of Most Recent Admission 01411 - Institution Granting Highest Degree 01801 – University GPA (CUM & TERM)</p> <p>Submission: Retention Table: Retention Cohort Changes Elements: 01429 – Cohort Type 01437 – Student-Right-to-Know (SRK) Flag 01442 – Cohort Adjustment Flag</p>

In-Scope BOG Data Elements

No.	Metric	Definition	Submission/Table/Element Information
5	Academic Progress Rate <i>2nd Year Retention with GPA Above 2.0</i>	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). <i>Source: State University Database System (SUDS).</i>	Same as No. 4 above.

Definition Source: State University Database System (SUDS).