



Office of Internal Audit

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

Report No. 17/18-07

January 29, 2018



Date: January 29, 2018

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

From: Allen Vann, Chief Audit Executive

**Subject: Audit of the Performance Based Funding Metrics Data Integrity
Report No. 17/18-07**

Beginning in fiscal year 2013-14, the State University System of Florida Board of Governors (BOG) instituted a performance-funding program based on 10 performance metrics used to evaluate Florida's public universities. Of the \$520 million dollars in performance-based awards made by the BOG for fiscal year 2017-2018 FIU received \$58.3 million.

Pursuant to a request by the (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, 2018.

Our annual audit confirmed the results of past audits that FIU continues to have good process controls for maintaining and reporting performance metrics data. In our opinion, the system in all material respects continues to function in a reliable manner.

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 (SUS) - 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, 2018.

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 two of the ten performance based funding metrics submitted to the BOG as of September 30, 2017. Sample sizes and transactions selected for testing were determined on a judgmental basis.

Audit fieldwork was conducted from September to December 2017. In 2017 we issued the *Audit of Performance Based Funding Metrics Data Integrity* (Report No. 16/17-08), dated February 8, 2017. During the current audit, we observed that all recommendations previously reported were implemented by management. 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 access rate, 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 but are subject to change yearly.

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	
1. Percent of Bachelor's Graduates Employed and/or Continuing their Education Further, One Year after Graduation	6. Bachelor's Degrees Awarded in Areas of Strategic Emphasis (includes STEM)
2. Median Average Wages of Undergraduates Employed One Year after Graduation	7. University Access Rate (Percent of Undergraduates with a Pell-grant)
3. Average Cost to the Student (Net Tuition & Fees per 120 Credit Hours)	8. Graduate Degrees Awarded in Areas of Strategic Emphasis (includes STEM)
4. Six Year Graduation Rate (Full-time and Part-time FTIC)	9. Board of Governor's Choice - Percentage of Bachelor's Degrees Without Excess Hours
5. Academic Progress Rate (2nd Year Retention with GPA above 2.0)	10. Board of Trustee's Choice - Bachelor's Degrees Awarded to Minorities

The following table summarizes the performance funds allocated for the fiscal year 2017-2018 using the performance metrics results from 2016-2017, wherein FIU earned 68 points.

Florida Board of Governors Performance Funding Allocation, 2017-2018				
	Points*	Allocation of State Investment	Allocation of Institutional Investment	Total Performance Funding Allocation
UF	95	\$ 55,061,011	\$ 48,516,241	\$103,577,252
USF	84	45,396,585	39,206,903	84,603,488
UWF	82	20,969,853	12,068,867	33,038,720
FSU	81	38,547,492	43,267,593	81,815,085
UCF	78	35,692,230	40,062,707	75,754,937
NCF	75	2,469,535	2,771,928	5,241,463
FAU	72	19,395,004	21,769,903	41,164,907
FIU	68	27,468,290	30,831,754	58,300,044
FGCU	66	-	9,704,854	9,704,854
FAMU	65	-	13,905,021	13,905,021
UNF	58	-	12,894,229	12,894,229
Totals		\$245,000,000	\$275,000,000	\$520,000,000

* 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.

At the November 3, 2016 Board of Governors Board (BOG) Meeting, changes to the Performance Based Funding Model were approved, among them changing Metric 3, from Average Cost per Undergraduate Degree to Net Tuition & Fees per 120 Credit Hours. The new metric was used in calculating the performance metrics results above. Also, agreed to at this BOG meeting, were changes to Metric 1 increasing the wage threshold from minimum wage to \$25,000, with the change going into effect with the 2017 performance model. Metric 2 was also changed to include wages from bachelor's recipients from data currently available from 42 states, the District of Columbia, and Puerto Rico, rather than just from Florida.

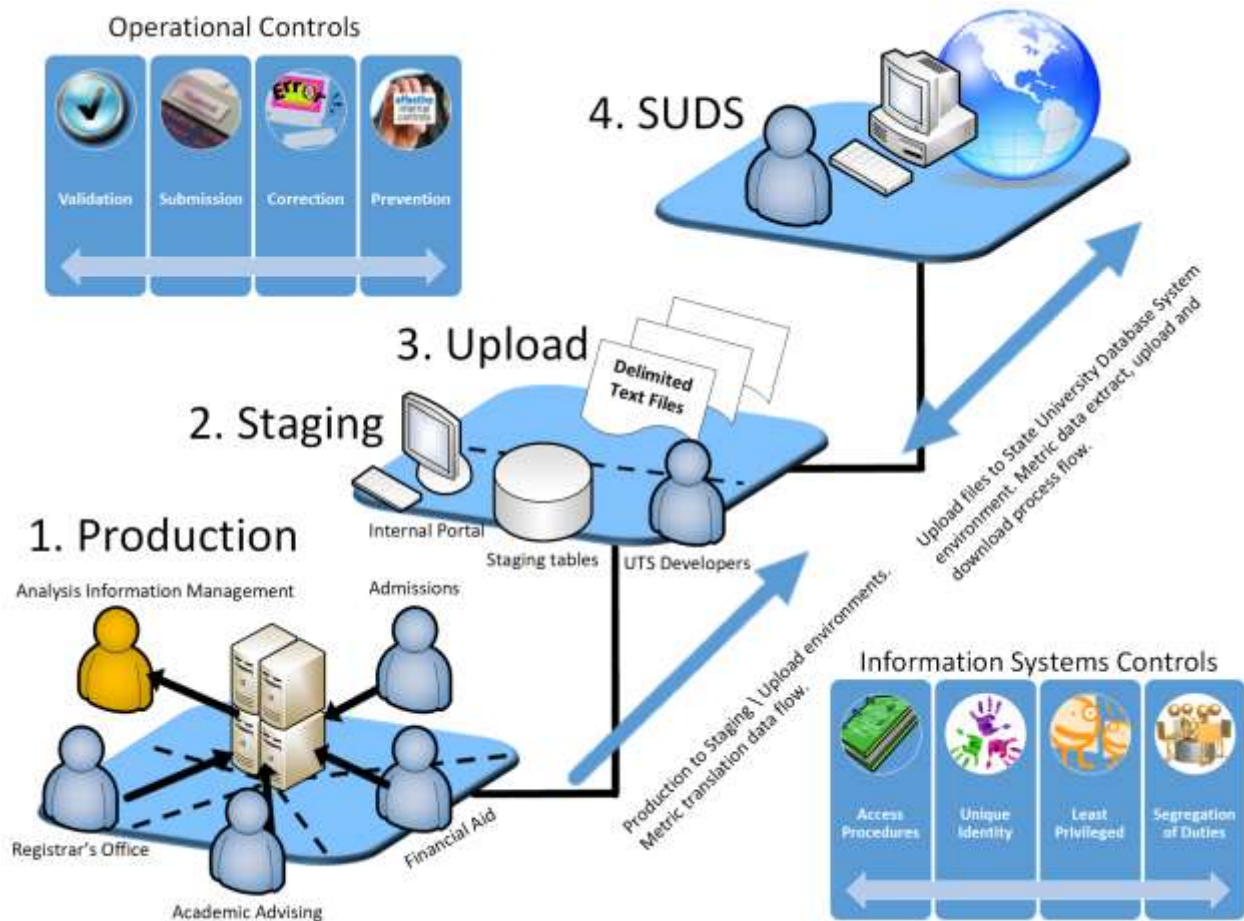
Organization

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 (Classification of Instructional Program) 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 Acting Vice Provost for AIM who is also the University' Data Administrator 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 Admissions Office, Registrar's Office, Academic Advising, and Financial Aid departments (extracted from the PantherSoft Campus Solutions databases) 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. 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, 2018. 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.

AIM developed a tool within PantherSoft 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 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 AIM, they plan to continue to extend the use of the tool to all appropriate users. Furthermore, for certain files, there may be additional 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 allow 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, 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 PantherSoft (PS) team extracts data from the PantherSoft database. Data are formatted according to the BOG data elements definitions and table layouts.
2.	The PantherSoft team 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 PantherSoft 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 PantherSoft 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 includes Production, Staging, Upload and the SUDS application. The Production Data element is extracted from the PantherSoft Campus Solutions databases, as applicable. AIM, in collaboration with the BOG team from the Division of IT translates the production data into separate staging database tables where the data elements are then programmatically calculated. Data is then extracted from the Staging tables, formatted into specific file formats, and uploaded to the SUDS online application. The University's Division of IT assists AIM and the functional users in consolidating the data for the various files and loading data into SUDS for review and validation.

Conclusion

Based on the review performed, the data submitted to the BOG is properly validated prior to submission and approval and no material weaknesses were found in the University's current processes flow of data.

2. System Access Controls and User Privileges Follow-up

Access controls 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 (AIM) work with the functional units and the PantherSoft Security Team to:

- a) Review user accounts to ensure on-boarded and off-boarded users have an associated PAWS ticket and the existing users' access match their current job description;
- b) Review and reduce access privileges to production and stage environments to appropriately mitigate least privileged and segregation of duties risks; and
- c) Continue to create a log reporting mechanism for all metric data files, where appropriate, that is user friendly to ensure the integrity of the data sent to the BOG.

Management agreed with the recommendations and responded that they developed a process to ensure that access privileges accurately portray each user's job responsibilities, and any changes in access are accurate and consistently logged with PAWS tickets. In addition, they would work with IT to review access privileges of users in the PantherSoft 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. Finally, they would work with IT to create a user-friendly report that would enable AIM to monitor access privileges for these fields continually.

The following were the results of our follow-up into these areas:

a. Review and Deactivate State University Database System User Accounts

In addition to management's actions stated above, AIM now employs a Data Analyst III whose job duties include the maintenance of user accounts' access. In our prior audits, we noted that they relied on expired passwords as a mitigating access control. However, a BOG Database Administrator stated that this is not a good control, as the system will prompt the user to create a new password. She also said that user accounts would need to be deactivated in order to revoke their access. With their new understanding of SUDS user accounts, AIM identified three user accounts that had not signed-in since 2014. They found that two had transferred job duties and one had retired from FIU. Additionally, AIM found one terminated account and identified an additional 21 users that were questionable. After communicating with the functional units, they deactivated 13 of the 21 user accounts. All of the deactivated user accounts had corresponding PAWS tickets.

Job duties may change as the user account sits dormant and can increase the risk of inappropriate access should they reactivate their account. AIM has adequately identified and deactivated user accounts from the SUDS.

b. Limit Access to Production Data

Figure 1 – *Production Data Elements Process Flow* illustrates the four departments: Admissions Office, Registrar’s Office’s, Academic Advising, and Financial Aid’s data that feed into the production system available to the Office of Analysis and Information Management (AIM).

1. Production

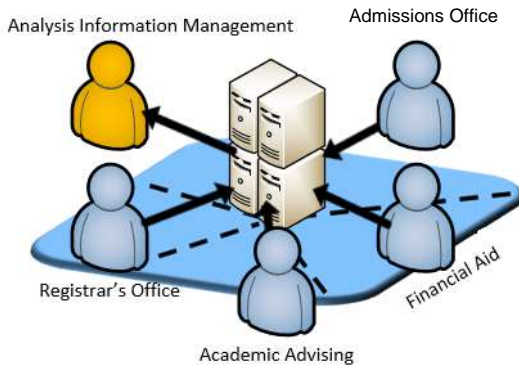


Figure 1 - Production Data Elements Process Flow

Our prior audit recommendation stated that AIM should work with the functional units, and the PantherSoft Security Team to review and reduce access privileges to production and stage environments and appropriately mitigate least privileged, and segregation of duties risks. Management agreed and stated that they would 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.

According to management, they implemented access reviews in April 2017.

According to documentation provided by AIM, in February 2017 they started reviewing write-access for all metrics except for the recently revised Metric 3. In their write-access reviews, they identified 25 questionable user accounts. User access was changed to view-only or disabled for 12 users after obtaining approval from the functional units.

In our prior audit, we found two members of the Academic Advising Department that had 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. AIM sent an inquiry to the PantherSoft Security Team and confirmed that they removed the user’s access from the staging tables on December 13, 2016. By continually reviewing user access, AIM reduces the integrity risk to the data uploaded to the BOG.

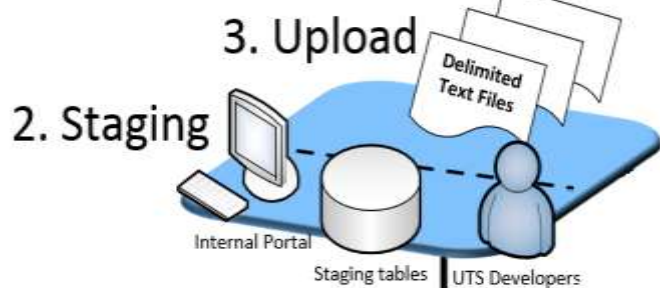


Figure 2 - Upload Process Flow

c. Review Log Reports

As expressed in prior audit reports we recommended that audit logging capabilities should be added to 20 identified in-scope production data fields, where appropriate, to mitigate the risk of an unauthorized data change. In addition, we recommended that AIM should continue to create a log reporting mechanism for all metric data files, where appropriate, that was user-friendly to help ensure the integrity of the data sent to the BOG.

Management agreed and stated that they implemented log reviews in April 2017. Documentation provided by AIM showed that they reviewed log files and identified 26 users that made changes to the BOG data as questionable. After communicating with the functional units, the PantherSoft Security Team removed write-access or reduced access to read-only on 10 user accounts.

Ultimately, the University Data Administrator 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. Overall, in a combined effort between the functional units and AIM, 22 of the 51 identified user accounts (43%) had their write-access removed. The continued review of log reports reduces the integrity¹ risks to the data uploaded to the BOG.

Conclusion

The combination of system access controls that are now implemented reduce the likelihood that an unauthorized data change can be made and go undetected. AIM and the PantherSoft Security Team have satisfactorily corrected the access control deficiencies we noted in the prior year audit.

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

3. Grade Change Process Follow-up

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 degree awarded. During our prior audit, we identified that 71 percent of all grade changes made during the audit period used a generic-user identification (ID). Our concern was the usage of a generic ID during the grade change would remove the accountability for their actions, thereby increasing the risk that inappropriate grade changes could go undetected.

The PantherSoft Security Team provided us with evidence that showed their ability to track an individual's use of the generic-named user account when posting grades. Since our prior audit, the PantherSoft Security Team implemented an additional tracking mechanism through the combination of the SIEM² and firewall logs. We selected a student grade change from the Fall 2017 semester to observe the tracking process. From the documentation provided, we were able to identify the instructor and approver of the student's grade at the date and time the change took place.

Conclusion

By concurrently using the SIEM and firewalls, the PantherSoft Security Team has implemented adequate mitigating controls that provide non-repudiated evidence for all grade changes and approvals made by the instructor and approver when using the generic ID user account.

² Security Information and Event Management tool

4. Data Accuracy Testing

This is our fourth audit of the performance based funding metrics since its inception in 2014-15. During that first year audit, we conducted data accuracy testing on all 10 metrics as requested by the BOG. Subsequently, our data accuracy testing has focused on specific metrics and following up of any prior year recommendations. In 2015-16, we conducted data accuracy testing on Metrics 6, 7, 8 and 10. Then in 2016-17, our data accuracy testing examined Metrics, 1, 2, 4 and 5. Thus, for this audit period, based on the lack of any prior year finding during data accuracy testing, we determined to examine Metrics 3 and 9, since these were the last two metrics not examined since 2014-15, and coincidentally, this is the first year of the revised Metric 3. We identified the main data files and tables related to the calculations of the two performance based funding metrics under review, as follows:

- Hours to Degree File (HTD), Courses to Degree Table;
- Student Financial Aid File (SFA), Financial Aid Award Table; and
- Student Instruction File (SIF), Enrollment Table.

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), which we used in our testing.

Data accuracy for two 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 PantherSoft. A number of reconciliations were also performed. Testing was limited to the PantherSoft 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 PantherSoft system.

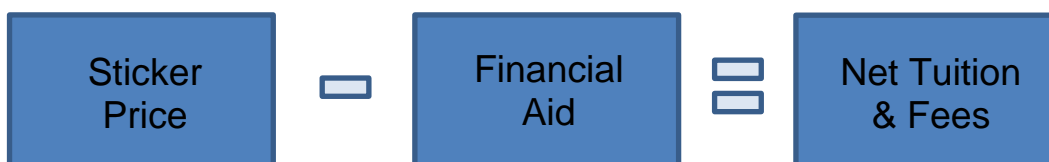
Metrics Testing

The two performance based funding metrics tested were as follows:

- Metric 3 - Common to All Universities - Net Tuition & Fees per 120 Credit Hours.
- Metric 9 - Board of Governor's Choice - Percentage of Bachelor Degrees Without Excess Hours.

Metric 3

The original Cost per Bachelor's Degree focused on the Cost to the Institution and was derived from university Expenditure Analysis reports. In 2016, the Board decided to use a Cost to the Student metric calculated using the Net Tuition and Fees per 120 credit hours. Net tuition and fees is comprised of the following:



The “sticker price” refers to the sum of the published tuition and required fees amount per credit hour and the national average cost for books and supplies. Because this metric represents the cost of a degree, each institution’s sum of tuition, fees, books, and supplies is multiplied by the average number of credit hours attempted by students who started as first-time-in-college students (FTIC) and graduated from a program that requires only 120 hours. This method recognizes that a student who enrolls in more credit hours pays more tuition, fees, and books.

Financial aid is used by universities to offset the published tuition (or sticker) price as a way to recruit students based on merit and/or to change campus diversity. The “Cost to the Student” metric includes all the gift aid (e.g., scholarships, grants and waivers) awarded to resident undergraduates in a given academic year.

The datamarts used for this metric are built from the following SUDS files: Hours to Degree (HTD), Student Financial Aid (SFA), and the Student Instruction (SIF) Files.

We obtained the annual 2015 HTD File (2015-2016 academic year) submitted on October 21, 2016, which was the most current file as of September 30, 2017. The File contained 7,946 students with degrees awarded for Summer 2015, Fall 2015, and Spring 2016. In addition, we obtained the SFA File submitted in Fall 2016 for the 2015-2016 academic year. We reconciled the total amount distributed, \$467 million, to a report obtained from the Office of Financial Aid. The report provided is the result of a query run by the Office of Financial Aid to reconcile the SFA File to the PantherSoft system. The total amount distributed agreed to the SFA File without exception. Finally, we selected the Spring 2017 semester SIF File for testing which included 52,724 students and reconciled it to the number of students enrolled (*Student Headcount and Demographics*) on AIM’s online Accountability Dashboards without exception.

As part of our testing, we selected a sample of 16 students to test against the HTD File. We then verified that the students’ courses and related information matched the data in the PantherSoft system and found no differences in any of the four elements reviewed. We then selected 33 students to test the one related element in the SFA File for accuracy. We agreed the students’ awards disbursed against the PantherSoft system and found no differences between PantherSoft and the SFA File.

However, during our IT review we noted that according to the *Performance Funding Metrics Cost to the Student Overview of Methodology and Procedures* document, grants and scholarships are often called “gift aid” because they are free money – financial aid that does not have to be repaid. The Financial Aid Award Program Identifier (Element 01253) contains the scholarship codes for each student. To evaluate the validity of the information, we examined the application code used to calculate and upload the Financial Aid Award Program Identifier data to the SUDS. In our examination, we noted that the code retrieved data from the production environment. The program parses and copies the first three characters to the staging table. We found that the staging table where the data resided and the field mapping did not match. The significance is that the effectiveness of existing integrity controls diminish when performed on the wrong field. The PantherSoft

Department provides the field maps that AIM uses to determine who has write-access and who made the change. Thus, we contacted the PantherSoft Security Team and requested a retest to see if any users had write-access to the field. We observed their testing process and determined that no users had write-access. Thus, we concluded that there was no impact to the data integrity due to the incorrect field map.

Finally, we selected 30 students for testing the two elements related to the SIF File for accuracy. We found no differences between PantherSoft and the SIF File. However, one of the elements tested was Element 01106 - Fee Classification-Residency. On December 11, 2017, our Office issued the *Audit of Residency Classification for Tuition Purposes* (Report No. 17/18-04), wherein we found that the re-classification to in-state student residency status was not always adequately documented or supported, resulting in students being misclassified. In addition, IT controls related to the student residency data needed to be strengthened. Nevertheless, the classification, as reported within the PantherSoft system was properly submitted to the BOG.

Conclusion

We determined that the data submitted to the BOG in the HTD, SFA, and SIF Files for Metric 3 represents the data in the University's PantherSoft Campus Solutions system.

Metric 9

In 2009, the Florida Legislature established an "Excess Credit Hour Surcharge" to encourage students to complete their baccalaureate degrees as quickly as possible. This law created an additional fee for each credit hour that exceeds specific thresholds. In 2014, the importance of the excess hours metric was further elevated by its inclusion as Metric 9 (Percent of Bachelor's Degrees without Excess Hours) in the Performance-Based Funding Mode. The source data for the excess hour's accountability metric are the Courses to Degree (CTD) Table and the Hours to Degree (HTD) File that are submitted to SUDS by each university as part of their HTD File. The HTD File only includes single-major bachelor's degree recipients who were awarded a bachelor's for the first time during the academic year – summer, fall, and spring terms.

We obtained the HTD File submitted on October 21, 2016 for the 2015-2016 academic year, as the file is uploaded every year during Fall and was the most current file as of September 30, 2017. The HTD File submitted in Fall 2016 contained 7,946 students with degrees awarded for Summer 2015, Fall 2015, and Spring 2016.

As part of our testing of the HTD File, we also obtained the Courses to Degree Table for all the students, as this was needed to vouch the seven elements associated to Metric 9 to the PantherSoft system. We sampled data for 16 students and verified that the students' courses and related information in the Courses to Degree Table matched the data in PantherSoft and found no differences in six of the seven elements reviewed against the data submitted to the BOG. However, during testing we noted Element 02065 (Excess Hours Exclusion) was left blank on the file submitted to the BOG. The element is used to identify hours to be excluded from the excess hours calculation for personal

hardship withdrawal and active duty military. The Data Administrator explained that the PantherSoft system currently has no mechanism in place to capture this information, thus it is reported as blank. She added, "The impact on Metric 9 is that it may reduce the amount of credit hours that are counted towards the excess hours' calculation. For instance, if a student withdraws from all their classes for a semester due to a personal hardship or for being called to active military duty, those courses can be deducted from the total hours that count toward their degree, resulting in less excess hours." The inclusion of any excludable excess hours in the University's data submission is a potential detriment to the Metric 9 calculation for the University. Nevertheless, we do not believe this had a significant impact.

Conclusion

The results of our review of the CTD data found no differences relating to the relevant elements for Metric 9. 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 HTD File for Metric 9 accurately reflects the data in the University's PantherSoft system.

5. Data File Submissions and Resubmissions

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 original due dates and original submittal dates of all relevant Performance Based Funding Metrics files submitted during our audit period:

<i>File</i>	File Submission	Period	Original Due Date	Original Submittal Date
SIF	Student Instruction	Summer 2016	10/03/2016	10/04/2016 ¹
SFA	Student Financial Aid	Annual 2015	10/14/2016	10/05/2016
SIFD	Degrees Awarded	Summer 2016	10/14/2016	10/14/2016
SIFP	Student Instruction Preliminary	Fall 2016	10/21/2016	10/21/2016
HTD	Hours to Degree	Annual 2015	10/21/2016	10/21/2016
SIF	Student Instruction	Fall 2016	01/23/2017	01/20/2017
RET	Retention	Annual 2015	01/25/2017	01/24/2017
SIFD	Degrees Awarded	Fall 2016	02/10/2017	02/10/2017
ADM	Admissions	Spring 2017	02/24/2017	02/24/2017
SIF	Student Instruction	Spring 2017	06/19/2017	06/19/2017
SIFD	Degrees Awarded	Spring 2017	07/06/2017	07/06/2017
ADM	Admissions	Summer 2017	09/22/2017	09/22/2017
SIF	Student Instruction	Summer 2017	09/29/2017	09/29/2017

¹Management informed us that the Summer 2016 Student Instruction File was submitted one day late due to “there being a big change in the space file when they moved the space file to a new reporting environment. The integration of the new environment with the SIF file was not a smooth one and it caused a delay”.

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. The correspondence between the BOG and the University related to the data resubmissions and AIM examined them to identify lessons learned and determine whether any future actions can be taken that would reduce the need for resubmissions.

The Data Administrator has previously noted, “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 staff for all files submitted pertaining to the 10 performance based funding metrics. For files with due dates between October 1, 2016 and September 30, 2017, the University submitted 13 files to the BOG.

The following table describes the two files resubmitted and AIM’s reasons for each resubmission.

No.	File Submission	Period	Original Due Date	Resubmitted Date
1	Student Instruction	Summer 2016	10/3/2016	10/13/16
<p>AIM Reason for Resubmission: We communicated with the BOG about students who submitted transcript credits after submission of admission file. When we asked the BOG for guidance prior to the submission, they instructed us via conference call to submit the file “as is” to explain those cases that caused the errors. After the file was submitted and the BOG began their review, they communicated to us that the students should not be explained but rather we needed to update the student record to reflect the new transcript information. Since the file was already submitted, they asked us to resubmit the file in order to fix the information for 22 students with this issue. Thus, the resubmission was caused by inconsistent directions from the BOG.</p>				
2	Student Instruction	Spring 2017	6/19/2017	7/3/2017
<p>AIM Reason for Resubmission: Originally submitted 6/19/2017. Resubmitted as per the Institutional Research Assistant Vice Chancellor’s recommendation to include excess credit hours (Element 02058).</p>				

Both resubmission requests originated from the BOG. The reasons for resubmissions varied, as noted above. In regards to the resubmissions being authorized, in all instances observed, the BOG staff authorized the resubmission by reopening the SUDS system for resubmission. Furthermore, a continuing improvement has been noted from prior years' where four files were resubmitted in 2016-17 and nine were resubmitted in 2015-16.

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. The one late filing was the result of a system issue, not considered systemic, while the two resubmissions were necessary and authorized. 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 E&G revenue reallocation model
- Implemented faculty reallocation model for academic units
- Provided greater access to on-demand analytics relevant to the metrics
- Implemented student level graduation benchmarking
- Implemented student attendance and midterm progress monitoring and outreach
- Integration of career and academic advising
- Strategic enrollment planning and course scheduling optimization via Noel Levitz and Platinum Analytics
- Created an Office of Scholarships and Academic Program Partners to support all colleges in their efforts to apply foundation scholarship funds to student success and enrollment goals
- Implemented centralized coordination and local deployment for student recruitment efforts
- Established centralized retention, graduation, and student success outreach

Conclusion

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

APPENDIX A

In-Scope BOG Data Elements Testing				
Metric No.	Metric	Definition	Submission/Table/Element Information	Relevant Submission
3	<p>Cost to the Student</p> <p>Applies to all institutions</p>	<p>The metric is based on resident undergraduate student tuition and fees, books, and supplies as calculated by the College Board (which serves as a proxy until a university work group makes an alternative recommendation), the average number of credit hours attempted by students who were admitted as FTIC and graduated with a bachelor's degree for programs that requires 120 credit hours, and financial aid (grants, scholarships, and waivers) provided to students. Source: Accountability Report (Table 1D) – which, combines the legislature's annual General Appropriations Act, university required fees and several files (HTD, SFA, SIF) within SUDS.</p>	<p>Submission: HTD Table: Courses to Degree Elements: 01484 – Course System Code 01485 – Course Grouping Code 01489 – Credit Hour Usage Indicator 01459 – Section Credit (Credit Hours)</p>	<p>2015-2016 Academic Year</p> <p>October 21, 2016</p>
			<p>Submission: SFA Table: Financial Aid Award Elements: 01253 – Financial Aid Award Program Identifier</p>	<p>2015-2016 Academic Year</p> <p>October 3, 2016</p>
			<p>Submission: SIF Table: Enrollment Table Elements: 01106 – Fee Classification – Residency 01060 – Student's Classification Level</p>	<p>October 4, 2016</p> <p>January 23, 2017</p> <p>June 19, 2017</p> <p>September 29, 2017</p>
9	<p>Percent of Bachelor's Degree without Excess Hours</p> <p>Applies to: FAMU, FAU, FGCU, FIU, UCF, UNF, USF, UWF</p>	<p>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. Additional 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 (e.g., 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, and credit hours earned in military science courses that are part of the Reserve Officers' Training Corps (ROTC) program). Source: Accountability Report (Table 4J), State University Database Systems (SUDS).</p>	<p>Submission: HTD Table: Courses to Degree Elements: 01104 – Course Section Type 01484 – Course System Code 01485 – Course Grouping Code 01488 – Credit Hour Testing Method 01489 – Credit Hour Usage Indicator 01459 – Section Credit (Credit Hours) 02065 – Excess Hours Exclusion</p>	<p>October 21, 2016</p>

Definition Source: State University Database System (SUDS).



Performance Based Funding

March 2018 Data Integrity Certification

Name of University: Florida International University

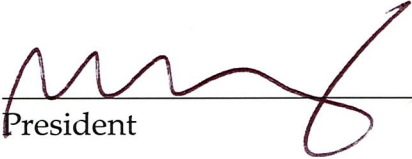

INSTRUCTIONS: Please respond “Yes” or “No” for each representation below. Explain any “No” responses to ensure clarity of the representation you are making to the Board of Governors. Modify representations to reflect any noted audit findings.

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)(f), my Board of Trustees has required that I maintain an effective information system to provide accurate, timely, and cost-effective information about the university, and shall require that all data and reporting requirements of the Board of Governors are met.	<input 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 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 checked="" type="checkbox"/>	<input type="checkbox"/>	
9. In accordance with Board of Governors Regulation 3.007, my Data Administrator electronically certifies data submissions in the State University Data System by acknowledging the following statement, "Ready to submit: Pressing 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			
Representations	Yes	No	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>Certification: <u></u> Date <u>2/28/18</u> President</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<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>Certification: <u></u> Date <u>2/27/18</u> Board of Trustees Chair</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	