

# AY 2018 – 2019 Assessment

## Institutional Research

Office of Institutional Effectiveness and Human Resources

Prepared by: Dawn Dietrich

Date: May 8, 2019

Approved by: Veronica M. Biscoe

Date: June 20, 2019

**Northwestern Mission.** Northwestern State University is a responsive, student-oriented institution that is committed to the creation, dissemination, and acquisition of knowledge through teaching, research, and service. The University maintains as its highest priority excellence in teaching in graduate and undergraduate programs. Northwestern State University prepares its students to become productive members of society and promotes economic development and improvements in the quality of life of the citizens in its region.

The **Office of Institutional Effectiveness and Human Resources** is a responsive administrative service and support unit that provides University leaders with information to be used in strategic planning and evidence-based decision-making and human resource programs and services. The Office assesses, collects, analyzes, reports, and disseminates data on behalf of the University and supports all University units in assessment-based improvement efforts. Reporting of information is in accordance with Southern Association of Colleges and Schools (SACS) and federal and state regulations. The Office develops and delivers innovative human resource programs and services designed to support the mission of the University, including its core services and competencies such as staffing, employee relations, organizational and employee development, risk management, compensation and benefits, human resource information management, and regulatory compliance.

Within the **Office of Institutional Effectiveness and Human Resources**, the **Office of Institutional Research (OIR)** focuses on the analysis and provision of data to both internal and external constituents for the purposes of decision-making, accreditation, academic research, strategic planning, grant proposal and post-award reporting, as well as mandated governmental reporting. Strong ties with NSU's Office of Information Technology ensure that OIR continues to exploit the latest tools, data structures and methods to provide leadership and customer service in NSU's data analysis function. Strong ties with NSU's Internal Auditor allow OIR to:

- process data that is properly processed through University-approved methods
- work with the auditor and functional departments to address deficiencies in those methods to promote data integrity
- assist in designing enhanced methods to allow the most accurate and effective data sources for analysis and decision-making.

## AY 2018 – 2019 Assessment

**Methodology:** The assessment process includes:

- (1) Data from assessment tools (direct & indirect and quantitative & qualitative) are collected and returned to the executive director;
- (2) The executive director will analyze the data to determine whether the applicable outcomes are met:
- (3) Results from the assessment will be discussed with the appropriate staff;
- (4) Individual meetings will be held with staff as required (show cause);
- (5) The executive director, in consultation with the staff and senior leadership, will determine propose changes to measurable outcomes, assessment tools for the next assessment period and, where needed, service changes.

### **Institutional Research (OIR)**

#### **Service Outcomes:**

**SO 1.** Provide expertise and support for strategic planning, assessment, program design, and continuous improvement.

**Measure 1.1.** One hundred percent (100%) (a) data validation and (b) dissemination of census data comparison and summary reports at each census date. The OIR regularly interprets, validates, and manages student and program assessment data at predetermined intervals to facilitate organizational planning and program design. Data validation ensures compliance with federal and state reports such as Integrated Post-secondary Educational Data System (IPEDS), accreditation report requirements, and various Board of Regents reports to facilitate organizational planning and development.

**Finding.** 100% of Target Met.

- 100% - All data validation cycles completed involving Registrar, Admissions, Graduate School, Nursing and Dual Enrollment offices.
- 100% - All data file extracts (census and final) completed
- 100% - All census comparison and summary reports compiled and disseminated for University overall, four colleges and all academic departments.

**Analysis.** In 2017-2018, the target was met. Based on the analysis of the 2017-2018 results, OIR began design of a data structure to replace the file extract process, which forms the basis of these reports. Sample data structures for student

## AY 2018 – 2019 Assessment

enrollment data that cross academic terms have been created and submitted to IT. While other priorities within IT have prevented the implementation of the data structure as a database, OIR has developed consolidated cross-term file structures to mimic the ultimate structure.

As a result, in 2018-19 the census-driven data validation and extract process continued using original methods, as planned. Once the data mart begins to take shape, OIR will drive initiatives for departmental-level reporting to be accomplished by the users themselves.

The beginning stages of this have been rolled out with consolidated Nursing cohort files. By creating program-level spreadsheets (BSN, ASN, etc.) with pivot tables, Nursing is now able to analyze enrollment, graduation and retention across terms more easily.

**Decision.** Based on the analysis of these results from the 2018-19 results, in 2019-2020, OIR will extract snapshot files as a backup for each term but will append all new term data to the newly designed consolidated file structures. OIR will work with IT to map these consolidated structures to a database repository. This repository will be maintained by an automated update process, whereby on a term-by-term basis the new data is appended to the file, uniquely identified by term (e.g., 201920 for Spring 2019) and appropriate keys based on data type. The simplified structure and automation for updating will form the basis of the “data mart”.

Development of the automated update process and the supporting OIR procedures may extend beyond the coming plan year. Although files have been consolidated by term they have not yet been consolidated by entity. For instance, we have a Normal Enrolled file, Expanded Enrolled file, and Basic Enrolled file as well as versions for both Census and final. The vertical structures of these files need be reworked before a final automated process can be implemented.

Measure 1.2. – One hundred percent (100%) completion of federal and state reports. The University consistently utilizes historical enrollment, retention, and completion data to analyze performance trends and develop forecasts to assist leadership with strategic and operational planning decisions. The OIR contributes data for the University Strategic Plan and University Operating Plan on an annual basis utilizing enrollment, retention, and graduation rate data. The University submits enrollment, finance, facilities, human resource, financial aid, library, graduate and completer data reports each semester and annually to the Louisiana Board of Regents and the Integrated Post-Secondary Education Data System. The information submitted is reviewed at the system level to ensure data accuracy and to monitor compliance with and the attainment of state and system level goals and objectives. Additional reports of significance include the Statewide Student Profile System, the Facilities and Utilization Report, Louisiana Performance Accountability reports, and the Operational Plan.

**Finding.** 100% of Target met.

## AY 2018 – 2019 Assessment

**Analysis.** In 2017-2018, the target was met. Based on the analysis of the 2017-2018 results, OIR had intended to run mock IPEDS HR reporting in late summer/early fall to identify any potential issues and allow time for correction before the April 2019 submission. However, other priorities in HR took precedence, and this mock report was not processed at that time. In January 2019, the report was run providing a substantial baseline of data.

Also based on the analysis of the 2017-2018 results, Human Resources updated its processes so that personnel data would be maintained in Banner in such a way to facilitate IPEDS HR reporting with minimal intervention.

As a result, in 2018-2019, OIR will worked with HR to resolve errors and inconsistencies from the January baseline report during February and March 2019. OIR submitted 2019 IPEDS HR report based 100% on the data generated through Banner functionality.

OIR received notification in April 2019 from the Board (via ULS) that the EMPSAL report submitted to the BoR and the IPEDS HR report did not match. After investigation, it was determined that this was due to procedural differences in recording SOC (Standard Occupational Codes), where there were two separate fields used to identify an employee's primary job activity. Procedural changes were put in place to avoid this mismatch moving forward.

Also based on the analysis of the 2017-2018 results, OIR worked with Admissions and BoR to clarify SSPS reporting as it relates to BoR Admissions and Placement policy. Admissions feels that some areas, especially regarding Accuplacer as an Admissions test, are still unclear. However, in the few instances where this is an issue, when necessary Admissions will code students as "exception" in Banner to align with the BoR interpretation of allowable Admissions tests.

As a result, in 2018-2019, areas that were still unclear were further addressed during discussions with Admissions, Internal Auditor and OIR in Spring 2019. These units prepared for the upcoming Admissions Audit by the BoR by assembling and submitting the requested sample of Fall 2018 enrollment data for First time Freshmen along with the Admissions criteria used.

**Decision:** Based on the analysis of the 2018-19 results, in 2019-2020 OIR will work more closely with HR, Position Control, Controller, and related units to:

- Cleanup and streamline data in Banner table for Position Classes
- Assist in reviewing corrections/updates to various employee codes for IPEDS purposes
- Investigate processes for maintaining Faculty Department and Terminal degree data in Banner, as it is needed for numerous reporting tasks.

## AY 2018 – 2019 Assessment

**SO 2.** Develop, provide, and maintain timely and accurate institutional data to internal and external audiences.

Measure 2.1. – One hundred percent (100%) of data source files will be documented for federal and state reports to enable responsiveness to all inquiries, requests and audits. Complete any audits with no substantial findings. The OIR ensures accuracy, consistency, and timeliness among federal, state, and internal reports (IPEDS, Louisiana Board of Regents, Louisiana Performance and Accountability System, and internal assessment reports) through data validation protocols and audit and balancing of state and federal standardized reports. The Louisiana Legislative Auditors, (the independent audit body for the state of Louisiana), has the authority to audit as they deem appropriate to verify data accuracy.

**Finding.** 100% of Target met.

**Analysis.** In 2017-2018 the target was met. Based on the analysis of the 2017-2018 results OIR determined that file structures and naming conventions of files would be the primary means for documenting source files for report data. In addition, for complicated and recurring requests OIR will use OneNote as a repository for active links to files.

As a result, in 2018-2019, OIR redesigned the file and folder structure to better accommodate searching. In addition, we have continued creation of dynamic procedures through OneNote. These procedures have links to files of all kinds so that they may be accessed by clicking on the file or folder name(s) within the instruction set. These instruction sets will be expanded to encompass all Board reports and, ultimately, IPEDS reporting. Due to IR/IT's initiative to move away from local extract files, OIR will take care to cater for a future need to point to database files instead.

During review of our SSPS/Admission sample data this Spring, the Board auditor found several records where the High School GPA submitted did not match the HS GPA in the Board's STS (Student Transcript System). OIR documented and explained that this is primarily due to timing, since we pull STS data in December to begin report preparation for January. These minor differences in HS GPAs did not factor into the Admissions decisions. This would not be considered a finding and was not within the scope of the audit, but rather an observation.

**Decision.** Based on the analysis of the 2018-2019 results, in 2019-2020 OIR will adjust SSPS processes to extract HS GPAs from STS at a time closer to the actual report submission time in order to reduce the likelihood of this mismatch happening again.

## AY 2018 – 2019 Assessment

Measure 2.2. – One hundred percent (100%) compliance with Board of Regents' modifications to report specifications. The OIR consistently reviews data collection and reporting processes to identify relationships among reports and across departments to synchronize data reporting and to validate accuracy employing different data extraction and reporting methods in compliance with reporting standards as established by the Louisiana Board of Regents. Report procedures exist for all major state reports that are compiled by the OIR, however, the Board of Regents often issues modifications to specifications for the required reports. The Office of Institutional Research will implement continuous improvement processes to continuously revise reporting methods to comply with Board of Regents reporting specification revisions.

**Findings.** 100% of Target met.

**Analysis.** In 2017-2018 the target was met. Based on the analysis of the 2017-2018 results, OIR planned to incorporate modifications to reporting instructions and syntaxes when necessitated by Board reporting changes.

In 2017-2018 the BoR made changes to some reporting:

- SCH – eliminated this report. All elements were already in SSPS reporting.
- Space Utilization – no changes to specifications
- Completers – no changes to specifications
- FADS – no changes to specifications
- SSPS – Two new fields were added to report (birth day and online only flag)

SSPS changes have been incorporated into the instruction set as hand-written changes. Logic has been incorporated into the syntaxes. Instructions for Space Utilization report have been created in OneNote and will be extended to include additional detail.

As a result, in 2018-2019 OIR staff updated written instructions for report completion and continued creation of OneNote procedures.

**Decision.** Based on the analysis of the 2018-2019 results, in 2019-2020 OIR will set aside at least one day each month to be spend solely on electronically updating the backlog of changes to instruction sets, and archive superceded syntaxes.

**SO 3.** Conduct project-based research and analyses.

Measure 3.1 – Eighty percent (80%) overall completion of requests for ad hoc data reports and surveys. One hundred percent (100%) completion of all requests for ad hoc and recurring data requests related to **accreditation, planning and compliance**. The OIR compiles, analyzes and reports student and program data in a timely and accurate manner to assist departments with new program initiatives, grant applications, compliance/accreditation, recruiting, and other strategic and

## AY 2018 – 2019 Assessment

planning initiatives as appropriate.

**Finding.** 100% Target met.

**Analysis.** In 2017-2018 the target was met. Based on the analysis of the 2017-2018 results, OIR decided to categorize requests to more easily monitor completion of work orders related to accreditation, planning and compliance.

As a result, in 2018-2019, a change has been implemented within OIR’s Excel-based tracking system to assign a category for each request: **Accreditation, Government reporting, Planning, Department research, Survey, or Student research.** The category **Grant** was added this Spring as an enhancement.

Accred	DeptRsc	GovRpt	Plannin	StudRsc	Surve	Gran	Othe
19	30	27	54	8	14	2	10

Also based on the analysis of the 2017-2018 results, OIR planned to create departmental dashboards using Tableau.

As a result, in 2018-19, OIR staff created functionality for Recruiting using the new consolidated file structures. This functionality has been presented to the Recruiting Director and is being reviewed by IT for rollout to recruiters. Security, mobile data access and software licensing are key issues that IT is addressing before rollout.

OIR staff also developed an electronic Factbook which will be ready for publication in Summer 2019. This will require IT assistance to allow publication and access. The interactive nature of this Factbook may reduce the need for many custom departmental reports throughout the year.

**Decision.** Based on the analysis of the 2018-19 results, in 2019-2020 OIR will work with IT on the implementation of the data mart, Tableau dashboards, and access to these dashboards.

### Comprehensive summary of key evidence of improvement based on analysis of results.

SO	Measure	Key Evidence
1	1.1	OIR provided sample data structures to IT to begin development of data mart.
1	1.1	OIR developed consolidated cross-term file structures to mimic the target data mart structure.

## AY 2018 – 2019 Assessment

1	1.1	OIR developed consolidated cross-term Nursing cohort file structures to allow CONSAH more flexible means of trending and analysis.
1	1.2	OIR generated the 2019 IPEDS HR survey response data directly from Banner.
1	1.2	OIR, Controller, and Position Control modified procedures to promote consistency between BoR EMPSAL data and IPEDS.
1	1.2	OIR modified procedures to delay timing for STS data extract for the preparation of SSPS files.
2	2.1	OIR developed eight (13) active-link instruction sets in OneNote. (IR Drive Structure, Nursing (4), Validations, Census Date files, BoR Space Utilization report, IPEDS (5)).
2	2.1	OIR redesigned and implemented new folder structures to improve reporting documentation.
2	2.2	OIR incorporated BoR reporting updates into existing processes.
3	3.1	OIR used data visualization software (Tableau) to create pilot functionality for Recruiting
3	3.1	OIR used Tableau to create interactive Factbook.
3	3.1	OIR added a category field to work order tracking to help identify types of requests. Requests from 2018-19 have all been assigned a category and are reported monthly to Executive Director.

### Plan of Action Moving Forward.

SO	Measure	Plan
1	1.1	Work with IT to complete the initial population of census data mart and begin to adjust existing to procedures to access the new file structures.
1	1.2	Work with HR, Position Control and Controller as they review employee-related table data within Banner. This streamlining will facilitate more accurate and reliable reporting for IPEDS and other key surveys.
1	1.2	Work with IT, Facilities, and Registrar to move functionality of the old Facilities Records system (PLUS) to a more modern system in order to optimize time spent in preparing BoR Space Utilization report.
2	2.1	Extract STS data for SSPS reporting closer to the actual report submission.
2	2.2	Set aside one day per month to focus on process documentation.
3	3.1	Finalize the plan of action with IT for rolling out the Recruiting tool and electronic Factbook based on Tableau. Assess the success of the rollout and resolve any issues before proceeding with other implementations.