#### Institutional Research

Office of Institutional Effectiveness and Human Resources

Prepared by: Dawn Dietrich

Approved by: Roni Biscoe

Date: June 4, 2021

Date: June 7, 2021

**Northwestern Mission.** Northwestern State University is a responsive, student-oriented institution committed to acquiring, creating, and disseminating knowledge through innovative teaching, research, and service. With its certificate, undergraduate, and graduate programs, Northwestern State University prepares its increasingly diverse student population to contribute to an inclusive global community with a steadfast dedication to improving our region, state, and nation.

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.

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 proposed 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.

<u>Measure 1.1.</u> 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 Institutional Postsecondary Educational Data System (IPEDS), accreditation report requirements, and various Board of Regents reports to facilitate organizational planning and development.

Finding. Target Met.

Analysis. In 2019-2020, the target was met.

Based on the analysis of the 2019-2020 results, OIR determined that student census data validations did not need to be initiated by OIR, but rather in the responsible department. OIR further determined that census comparison and summary reports were, in large part, duplication of new projections dashboard functionality. Finally, OIR and IT discussed a phased approach to populating a census data mart.

As a result, in 2020-2021, OIR worked with Admissions and Registrar to provide tools that allow those staff members to conduct validation checking at any time. OIR also suspended creation and distribution of census data comparison reports in favor of the interactive Projections reporting. Finally, OIR created several consolidated Tableau

hyperextracts from many existing census extract files as part of the initial phase of the data mart creation. These hyperextracts mimic the cross-term design desired in the data mart, thereby making the single-term extract files obsolete.

Also, based on the analysis of the 2019-2020 results, OIR determined that essential definitions and methods for collecting and reporting data is highly inconsistent across University functions. Some examples include:

- military students
- first-generation students
- on-campus students
- International students.

As a result, in 2020-21 OIR drafted a proposed Data Governance framework for the university. As a subcommittee of the existing Data Entry Standards Committee (DESC), several members (OIR, IT, Student Accounting) are working to refine the proposal for consideration by the DESC in Summer 2021. Enterprise-wide knowledge of NSU's systems and their interplay is one of the keys to setting the scope and plan for data governance.

**Decision.** Based on the analysis of the 2020-21 results, OIR and IT will formally propose a plan (including resources and technology) to house, maintain, and enforce data standards under the Data Governance framework.

Also based on the analysis of the 2020-21 results, OIR recognizes that while the newly-created hyperextracts are a significant enhancement to flexibility and speed of reporting, they do not address the breadth of data relationships or the enterprise-level oversight needed to support the desired analytics. OIR and IT will use these constructs to design the next phase of data mart content and relationships to support NSU's Analytics Strategy.

Also, acknowledging that pre-census data validation now falls on the responsible departments and census data is now available in Tableau dashboards, OIR has decided to modify Measure 1.1 to reflect these changes. The new text for Measure 1.1 is:

<u>Measure 1.1</u> - Complete 100% of data requests for unit and program assessments. The OIR regularly interprets, validates, and manages student and program assessment data at predetermined intervals to facilitate organizational planning and program design. (Revised June 2021)

<u>Measure 1.2.</u> – 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 Space Utilization Report, Louisiana Performance Accountability reports, and the Board of Regents Strategic and Operational Plans.

Finding. Target met.

Analysis. In 2019-2020, the target was met.

Based on the analysis of the 2019-2020 results, OIR determined that improving accuracy and completeness of faculty data within Banner would allow more comprehensive responses to internal and external requests. Target areas for faculty data improvement include:

- disaggregation by department,
- credentials and terminal degree designations,
- areas of discipline by CIPcode.

These data elements are useful for grant writing/reporting, national surveys, and internal decision-making. OIR anticipates that requests for reporting at the state and federal level may arise in the future.

As a result, in 2020-2021, OIR met with HR regarding the mechanics of recording faculty credentials in Banner (SIAFDEG). Together with Provost and other departments as needed, HR must design and implement a process for gathering and maintaining the data. HR has primary responsibility for valid, up-to-date credentials data in Banner. Hand-in-hand with this is the need to keep faculty departments current in Banner (SIAINST). The Provost's office will be an integral part of the process to ensure that updated data is available to be entered.

While HR and Provost are willing to undertake this effort, the unique priorities of 2020-2021 stalled their efforts for this year.

Also, based on the analysis of the 2019-2020 results, OIR, IT, Controller, and HR determined that recording Faculty assignments by CRN and term in Banner is required as a basis for Financial Analytics of academic programs.

As a result, in 2020-2021, when Christi Sarpy from Business Affairs brought together a small group to discuss reviewing Banner coding for faculty and employees, OIR saw the potential to springboard Faculty assignments from this initiative. Business Affairs is

seeking to organize and streamline Position Control functions. Creating a more efficient set of tables and better documenting the processes for employee data maintenance will pave the way to weave in the Faculty CRN assignment entries. Lisa Harris, HR Director, is involved in this process and is aware of the requirement to move toward up-to-date data for decision-making, reporting, and analytics.

**Decision:** Based on the analysis of the 2020-21 results, OIR, together with DESC, will present data governance plans to NSU leadership, requesting authorization to review policies and procedures at the departmental level for the purpose of incorporating data governance checkpoints. In support of this initiative OIR, in conjunction with IT, will implement data dictionary and governance technology to record and drive data standards within enterprise computing environments.

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

<u>Measure 2.1.</u> – 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. Target met.

Analysis. In 2019-2020 the target was met.

Based on the analysis of the 2019-2020 results OIR documented the data issues (timeliness, availability) encountered with the Board of Regents Student Transcript System (STS) and presented to system-level Data Governance team for discussion.

As a result, in 2020-2021, STS data availability and its impact on SSPS report preparation was discussed by ULS IR directors at regular Data Governance meeting. With unanimous agreement among the directors, our representative to the BoR Data Governance committee has escalated the item within the State committee.

On a related note, in April 2021, ULS notified institutions that a document prepared by LSU was being reviewed at the BoR level. This document proposes modifying placement criteria to allow use of a student's grade in the fourth high school English course. This data is stored in the STS system. Without regard to the merit of the proposal itself, the availability and timeliness of the high school data which would be

used in such placement decisions is a potential concern for NSU operations.

**Decision.** Based on the analysis of the 2020-2021 results, in 2021-2022 OIR will begin a regular extract and consolidation of STS course-level student data for each cohort. Having the data on-hand organized by beginning cohort will be a foundation for NSU to research various placement methods, develop norms and correlations with standardized tests, and explore new admissions and placement policies in conjunction with and as directed by ULS.

<u>Measure 2.2.</u> – 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. Target met.

Analysis. In 2019-2020 the target was met.

Based on the analysis of the 2019-2020 results, OIR planned to strengthen naming conventions and implement work order cross-reference to source doc locations.

As a result, in 2020-2021 OIR staff reworked many folder structures, archived files to an external drive and implemented "Archive" folders within the existing shared drive for older files that are not yet ready to be moved offline. OIR has not yet fleshed out naming conventions. Adhoc work orders may be cross-referenced by requestor name and date to source docs, which are stored according to requestor name and term on the shared drive. For example:

N:\Departments\InstitutionalResearch\== OUTPUTS\AY2021 Ad Hocs\Roni Biscoe

**Decision.** Based on the analysis of the 2020-2021 results, in 2021-2022 OIR will conduct a full review of all folder structures and naming conventions. OIR will establish a schedule for archival of Recurring requests. This schedule can ultimately be incorporated into data governance standards/policies.

SO 3. Conduct project-based research and analyses.

<u>Measure 3.1</u> – 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 planning initiatives as appropriate.

Finding. Target met.

	Accred	Dept/Ops & Rsch	GovRpt	Planning	StudRsch	Survey	Grant	Other
2020-21	23	54	96	22	8	20	15	21
2019-20	39	33	49	77	14	20	7	8
2018-19	19	30	27	54	8	14	2	10

Analysis. In 2019-2020 the target was met.

Based on the analysis of the 2019-2020 results, OIR planned to ensure required funnel reporting functionality in CRM Recruit, assuming it would be licensed. CRM Recruit would eliminate the manual reporting of Applicant and Inquiry data and allow the departments immediate access to the most up-to-date data.

As a result, in 2020-2021, OIR participated in requirements and scoping meetings for CRM Recruit. NSU licensed this software, and OIR will be part of the core implementation team, with kickoff scheduled for June 7, 2021. Target rollout is before the end of 2021.

Also based on the analysis of the 2019-2020 results, OIR planned to:

- develop and deploy internal decision-making dashboards
- develop and deploy public-facing student success dashboard
- publish FactBook on Tableau platform for internal and public-facing access.

As a result, in 2020-2021, OIR has enhanced the Projections dashboard, allowing daily internal analysis of Fall and Spring enrollment as it is underway. Retention dashboards accompany the Projections dash. OIR has developed and deployed dashboards for internal use by Recruiting to assist with High school and Transfer student data throughout the Louisiana parishes and out-of-state. OIR has developed and deployed a public-facing Student Achievement dashboard, displaying metrics with specified filters to allow study of subpopulations. OIR has developed many elements of the FactBook within the Tableau platform and will expand, test, and deploy in Summer 2021. It is possible that this effort will extend beyond this assessment period.

Decision. Based on the analysis of the 2020-21 results, OIR will monitor usage of the

interactive Factbook, directing all appropriate requests to that resource. Requests "resolved by Factbook" and a baseline established in 2021-22. This baseline may be used in coming Assessment years to set goals for increasing self-service rates.

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

SO	Measure	Key Evidence	
		OIR completed the first phase of the census data mart as consolidated	
		cross-term hyperextracts. SPSS syntaxes have been converted to	
1	1.1	Tableau Prep flows to allow the accumulation of the data across terms.	
1	1.1	OIR developed initial Data Governance framework document.	
1	1.1	OIR handed over primary validation duties to Admission and Registrar to promote resolution of data defects earlier in the processing cycle.	
1	1.2	OIR, in conjunction with IE, finalized definition and measurement for SACSCOC Grad Rate, allowing for integrity of Student Achievement 8.1 metrics across departments.	
1	1.2	HR, IR, OIR discussed which screens in Banner house Faculty CRN assignments and HR agreed in principle to entering this data as it is made available. No structure or mechanism is in place to capture and transmit this data to HR.	
2	2.1	OIR discussed STS issue at 2-11-21 ULS IR Directors meeting. As a result the team escalated to BoR Data Governance committee, whose activities are currently frozen.	
		OIR cross-referenced Adhoc work orders by requestor and date into Adhoc folder. Work orders cross-referenced by Topic and date into Recurring folders if completed on a schedule.	
2	2.2		
2	2.2	OIR incorporated 2020-21 BoR reporting updates into existing processes.	
3	3.1	OIR is a core team member on Ellucian schedule of implementation for CRM Recruit which begins June 7, 2021.	
3	3.1	OIR published Fall and Spring Projections and Retention dashboards, Recruiting Territory dashboard, Nursing Summary story dash, Nursing Retention dashboard, Real-Time Enrollment (prepared by R Wright), Faculty Salary Study dashboard. Internal use: Live Completers.	
3	3.1	OIR published and has completed a first round of updates to Student Achievement dashboard on OIR website. https://www.nsula.edu/oir/studentachievement/	
		OIR prepared Factbook on Tableau platform as a multi-tabbed	
3	3.1	workbook and is finalizing publication on the OIR website.	

## Plan of Action Moving Forward.

SO	Measure	Plan
1	1.1	Propose Data Governance framework to DESC. Develop Data Governance plan, integrating current DESC standards.
1	1.1	Work with IT to complete the initial population of census data mart from hyperextract structures. Work with IT to complete the initial population and refreshing of table data into data mart.
1	1.1	Track completion of unit and program assessment data requests.
1	1.2	Implement Data Governance / Data Dictionary tool.
1	1.2	<ul> <li>Present Data Governance Framework and Plan to NSU leadership for authorization to review policies and procedures at departmental level. Anticipated first collaborations are:</li> <li>Work with HR to develop a means for recording faculty credentials in Banner.</li> <li>Work with IT, Controller, HR to develop a means for recording Faculty assignments by CRN and term in Banner to assist with Financial analytics of academic programs.</li> </ul>
2	2.1	Work with IT to store off STS student summary and course-level data on an ongoing basis.
2	2.2	Establish archival rules for electronic folders, starting with "Recurring Requests" (e.g., IPEDS reporting, BoR reporting, etc.)
3	3.1	Work with team to implement CRM Recruit starting June 2021. Publish FactBook on Tableau Public Summer 2021 and monitor usage to establish baseline for self-service requests.