Annual Report - 2019-20

Office of Institutional Research and Assessment

Binghamton University

BINGHAMTON
U N I V E R S I T Y
STATE UNIVERSITY OF NEW YORK

Office of Institutional
Research & Assessment

Letter from the Associate Provost for Institutional Research, Effectiveness, and Planning

2019-20 has been an unusual year, to say it mildly. We started off Fall 2019 with the highest enrollment in Binghamton's history (18,124), wining our first Nobel Prize (Stan Whittingham), and receiving our largest gift in Binghamton's history ($60M). Then came COVID-19 in Spring 2020 and everything changed. We have been forced to adapt quickly, teach and serve our students remotely that we could not have anticipated a semester before, forced to work from home which we couldn't even imagine a few months before, and deal with pandemic-related stressors in our personal lives.

However, despite the unprecedented challenges we completed the academic year successfully and the Binghamton University community prevailed. Our faculty, staff and administrators responded quickly and effectively to circumstances that were unprecedented and for which there was, and is, no playbook. Once again, we have demonstrated our resilience and ability to rise with tenacity to face and overcome challenges.

The Office of Institutional Research and Assessment (OIRA) was no exception. We have been working diligently and efficiently remotely as well and completing our tasks as best as we could as we continue to meet ever-increasing demands from within and beyond the university community. During the course of the year, the OIRA staff submitted hundreds of Federal, State, and System mandated data and reporting requirements, completed hundreds of short- and long-term projects, supported dozens of Road Map and University related initiatives activities, and managed a variety of MSCHE (Middle States Commission of Higher Education) accreditation activities. The COVID-19 pandemic added a substantial number of extra projects to our project list. Binghamton University, SUNY, and all State and Federal agencies required additional data and reporting due to the COVID-19 situation. I'm happy to say that all of these were done in a timely and efficient manner.

In addition, OIRA staff spent significant time on university-wide data reporting and improvement efforts, including working with SAS Visual Analytics and Business Intelligence to develop and improve data warehouse reporting options. We also partnered with SSD and ITS to validate and add correct Disability data in operating systems of record (Banner) for the first time and to submit these data to SUNY via SIRIS data submission. In addition, OIRA staff worked hard to make a smooth transition from WEAVEONLINE to a newer, more user-friendly updated platform called Weave Education. In addition, we made several notable improvements during 2019-20 FY based on last year's findings and self-recommendations.

Within OIRA itself, we looked closely into our Annual Unit Level Operational Assessment Plan and examined whether we have met our annual objectives and targets. I'm happy to report that 100% of our objectives and targets were met during 2019-20 FY. For this, I'm appreciative and thankful to my OIRA Team for their hard work and dedication to achieve these outcomes. Kudos to them!

Nasrin Fatima, Ph.D.

Nasrin Fatima

Associate Provost for Institutional Research, Effectiveness, and Planning

Mission / Purpose

The mission of the Office of Institutional Research and Assessment is to support the University's mission through the collection, analysis, interpretation, and dissemination of institutional data. We provide contextually relevant information to both internal and external constituents in support of institutional effectiveness including assessment, accreditation, planning, policy analyses, and decision-making.

Goals

Overall, OIRA's core activities fall under the following overarching goals:

- To provide accurate data to internal and external constituents in a timely manner
- To facilitate, monitor, and provide support for University assessment/accreditation activities
- To collect and generate reports/analysis regarding key planning/roadmap/divisional initiatives for senior administrators' decision-making
- To support University Road Map planning processes to achieve institutional goals, objectives, and initiatives.
- To provide quality customer service to university and external constituents
- To keep skills and knowledge up-to-date within the fields of Institutional Research, Assessment, and Planning

Objectives and Targets

Under the above-mentioned six goals, OIRA articulated the following objectives and targets to achieve during 2019-20 FY:

- Ensure 100% internal (ad-hoc and recurring) data requests are met in a timely manner
- Ensure 100% external (mandated federal and state reporting as well as ad-hoc and recurring) data requests are met in a timely manner
- Provide 100% updated institutional data to university community in a timely and user-friendly manner.
- Ensure 100% OIRA "owned" Banner/ODS tables are accurate and up-to-date to meet the system needs of functional offices
- Provide 100% required University and School level trends data on key indicators in a timely manner.
- Compile and submit 100% data related to annual NCAA Compliance in a timely manner.
- Maintain Weave Education assessment management software.
- Provide support regarding all academic/non-academic unit level assessment and accreditation activities.
- Provide 100% required data for program accreditation bodies such as AACSB, ABET, ACPE, CAEP, CCNE, CSWE, NASPA, and TEAC
- Provide 100% relevant data to academic departments undergoing program reviews
- 100% of all Road Map website metrics data are provided in a timely manner.
- 100% of Deep Dive related data requested by the Road Map Steering Committee members are provided by the set deadlines.

- 100% of all requested data and analyses to advance the Road Map University Initiatives and Divisional Initiatives are provided in timely manner.
- Produce Annual Economic Impact study in a timely manner
- Maintain and update Enrollment Planning Model (EPM) and Revenue Projection Model in a timely manner with high accuracy (less than 2%)
- Produce ad-hoc and standardized reports including various BU Peer Groups and/or selected Institutions in a timely manner
- Respond to data and project requests in a courteous and professional manner
- Work to understand the data needs of customers by engaging them
- OIRA Staff will perform their tasks competently and effectively
- Provide services to Binghamton University Community
- Participate in webinars that focus on a particular skill or area such as Assessment, Statistics, IPEDS Data, SIRIS data submission, etc.
- Attend and present at professional conferences such as AIR, AIRPO, ANNY, NEAIR, MSCHE, SCUP, etc.

I'm happy to announce that 100% of our set targets were met during 2019-20 FY.

Major Functions

Mandated Reporting

OIRA manages numerous university-wide federal/state/system data reporting requirements, including the Integrated Postsecondary Education Data System (IPEDS) Surveys, Middle States Commission of Higher Education (MSCHE), National Collegiate Athletic Association (NCAA), New York State Education Department (NYSED), SUNY Institutional Research Information System (SIRIS) data submissions, etc. During 2019-20 OIRA completed 89 mandated reports. Among them, 49 were SUNY SIRIS reporting, 12 were NYSED reporting, 11 IPEDS reporting, nine NCAA reporting, and eight MSCHE and other regional accreditation agency reporting.

Ranking and Benchmarking Surveys

In addition to providing mandated data and reports, OIRA provides data for various external agencies for national and international ranking or benchmarking purposes that include but are not limited to: U.S. News & World Report, College Board, ACT, Kiplinger's, Barron's College Profile, Times Higher Education, Wintergreen, Princeton, Peterson's, Thomson Reuters, Business Journal Survey and Times Higher Education. These questions range from simple enrollment inquiries to more complex analyses on particular topics. In addition, OIRA annually facilitates the collection and reporting of faculty compensation data to the American Association of University Professors (AAUP), the CUPA Salary survey, and the Oklahoma Salary Survey. During 2019-20 FY, OIRA provided data and reporting to complete 49 external surveys.

Preliminary Enrollment Reports
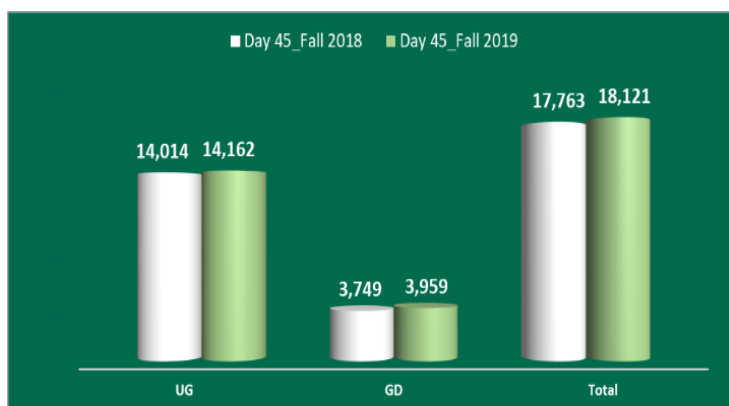
Another important task of OIRA is to generate and disseminate preliminary enrollment reports in both fall and spring semesters. These reports show the term's headcount data as of the census dates (defined as "as of the end of the fifth day of instruction") starting from Day -5 and ending at Day 45. These reports include student headcount by school/college, admission type, enrollment type, enrollment level, residency, program/major, and confirmation of enrollment. They also show the differences in enrollment in certain categories from the previous year. OIRA generated and distributed 164 unique preliminary enrollment reports during the fall and spring semesters of 2019-20.

SDS Enrollment Reports

SDS (Student Data Submission) Enrollment Reports are another type of report that OIRA generates using the term's headcount data as of the census dates (defined as "as of the end of the fifth day of instruction") starting from Day 5 and ending at Day 45. These reports apply all the SUNY rules and regulations used when submitting the student data to SUNY as official enrollment. They include data on student headcount by school/college, admission type, enrollment type, enrollment level, residency, program/major, and confirmation of enrollment. These reports are used to determine the discrepancies between ODS frozen data and the official data. OIRA generated 18 unique SDS enrollment reports during fall and spring semesters of 2019-20.

Headcount Report

In addition to creating preliminary enrollment reports, OIRA produces and publishes the Student Headcount Report each fall semester. The census date for this report is Day 45 of instruction. Enrollments are in terms of the net number of students actively enrolled on the census date. At this date, enrollment data is submitted, locked, and approved by SUNY. This Headcount Report shows a detailed summary of enrollment for ten fall semesters, along with key demographic characteristics, including but not limited to: student level, gender, in-state/out-of-state status, race/ethnicity, and school. Due to the spring headcount data demand, we have generated a Spring Headcount Report for the first time.
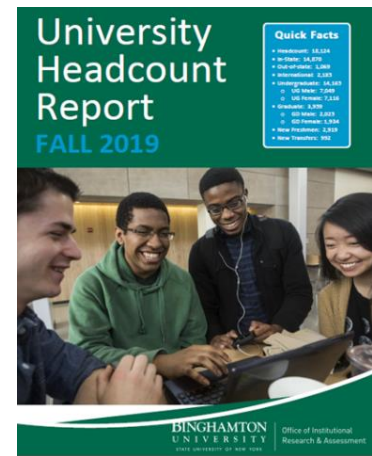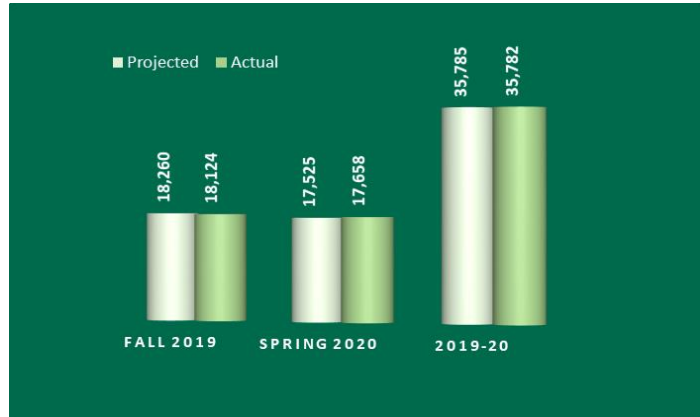
Dashboards
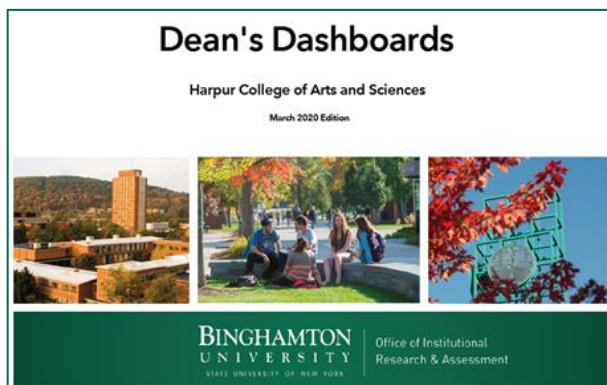
OIRA annually collects, organizes, monitors and maintains university- wide, school-level, and department level strategic indicators that align with Road Map metrics/indicators/initiatives. Some examples of this work include the Dean's Dashboards and Departmental Profile Dashboards. The primary purpose of these dashboards is to provide Binghamton administrators, faculty, and staff with a flexible report of recent activities and trends of the institution in order to assist in annual goals and outcomes, program review, accreditation, etc. Dashboard indicators consist of a comprehensive set of measures that are aligned with the mission of Binghamton University as well as with University Road Map Strategic Priorities (SP). Both Dean's Dashboards and Departmental Profiles represent multi-year data on 100+ variables. During 2019-20, OIRA generated and published six Dean's Dashboards and 36 Departmental Profiles.

Enrollment and Tuition Revenue Projections

One of the responsibilities of the Office of Institutional Research and Assessment (OIRA) at Binghamton University includes assisting senior administrators with the preliminary budget setting process. One of the key elements of this process is to predict enrollment as well as tuition revenue for the current and future academic years. As this responsibility has manifested itself, it is important that the OIRA has an accurate, independent tuition revenue forecasting model. OIRA uses multiple methods to estimate enrollment for continuing students. More specifically, we have been using two particular methods - Average Return Ratio Model and Logistic Regression Model consistently for the last ten years in order to obtain accurate enrollment projections. Additionally, OIRA uses a 'projections and explorations' model to estimate the tuition revenue forecast based on several relevant enrollment numbers: anticipated enrollment for new and continuing undergraduate and graduate students, and anticipated undergraduate and graduate tuition and fees. The graduate and undergraduate tuition and fees are projected separately by Resident (in-state) and Non-Resident (out-of-state), part-time (PT) and full-time (FT) students and then added together. We have undertaken an initiative to improve the tuition revenue model that will provide estimate college/school level tuition revenue by the variables mentioned above. The EPM target was to provide the projected enrollment numbers by SUNY deadline with less than 2% error rate. The error rate for Fall 2019 enrollment projection was 0.007% (over projected) and the error rate for Spring 2020 enrollment projection was -0.007% (under projected). For 2019-20 FY, total projected enrollment number was 35,785 and 35,782 students were actually enrolled, an accuracy rate of 99.99%.

OIRA Website and University Statistics

OIRA annually produces an enormous amount of Binghamton University data and publishes it on the OIRA website; a compilation of longitudinal (10 years) and most current official data about the University. This covers admissions data, student headcounts, programs, majors, student credit hours, faculty, staff, retention, graduation, and degrees granted. Updating it each year is a major undertaking that involves working with several offices and individuals across the university. The final product is a very comprehensive collection of information about Binghamton University.

Tuition Attribution Model (TAM) Report

In addition to the previously described EPM and revenue projections, OIRA generates revenue reports each year based on a Tuition Attribution Model (TAM). TAM "attributes" a student's tuition dollars to academic units (e.g. schools, divisions, departments) based on the student's course-taking behavior. The

OIRA model attributes 100% of the tuition to the academic unit of the instructor. The TAM visually illustrates the percentage of course credit hours completed by students from each school taken inside and outside of their "home" school (or division). TAM then distributes the tuition money associated with that activity. During 2019-20 year, OIRA produced four TAM report for senior administration to assist with their budget allocation models.

Binghamton University Road Map

One of the overarching OIRA goals is to support University Road Map planning processes to achieve institutional goals, objectives, and initiatives. In this endeavor, OIRA makes sure that all the data needs and supports are provided in a timely and efficient manner. These include but are not limited to delivering all Road Map website metrics data in a timely manner, providing all Deep Dive presentation related data as requested by the Road Map Steering committee, and providing all Road Map University Initiatives and Divisional Initiatives related data requests and analyses to advance the University outcomes. In late spring 2020, all Road Map related activities have been suspended until end of 2020 due to COVID-19 disruptions. However, during pre-COVID -19, OIRA completed eight Road Map related projects and reporting.

Forty Cell Matrix

Forty cell matrix is designed to evaluate student's credit hours load to faculty effort ratio based on SUNY criteria. The Forty Cell Matrix formula also calculates student/faculty ratio based on faculty teaching loads in a particular department. Student FTE is calculated by using the SUNY formula (UG: total student credit hours attempted/15, GD: total student credit hours attempted/12) and is credited to the origin of the instructor of the course. Faculty FTE is based on HR records for the individual faculty in the department. The credit hours are further broken down by undergraduate lower level, undergraduate upper level, graduate one (master's) level, and graduate two (doctoral) level. OIRA generates this report each fall term. The report also includes student faculty ratio for the last five years to illustrate the comparison.
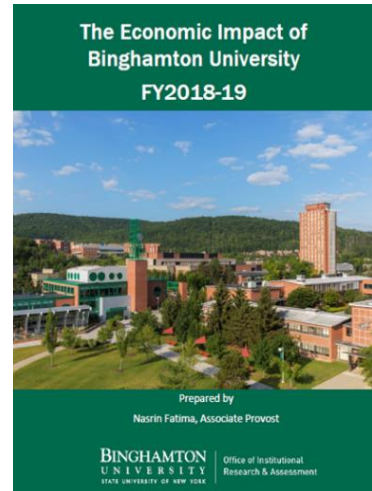
Attrition and Graduation Table

Attrition and Graduation Table is a very complex and comprehensive report that provides information on students' attrition rate at the end of first, second, and third year for ten cohorts and on the 4-year, 5-year, and 6-year graduations rates for the same cohorts. Initial cohorts include new first-time full-time degree seeking students entering in the fall semester. Exclusions are those students who have left the university for a reason allowed by IPEDS reporting. Each cohort is then broken down by numerous demographics, financial aid, and admission criteria. These criteria include gender, ethnicity, residency,

school, special population, adjusted gross income, Pell eligibility, high school average, SAT scores, 1st semester GPA, Gateway courses taken during 1st semester, etc. This is a critical report that demonstrates the overall university student outcomes and that of each sub-group of student population.

Binghamton University Economic Impact Study

The Economic impact study is a useful tool for higher educational institutions to examine their effect within their local economies. Binghamton University is located in the Binghamton Metropolitan Statistical Area (MSA), which includes Broome and Tioga counties. The presence of the University in these communities generates a complex set of economic activities. Each year OIRA collects, analyzes, and generates a report of the full impact that Binghamton University has on the local, regional, and statewide economy. This study applies the final-demand multiplier approach of the Regional Input-Output Modeling System (RIMS II) model to estimate the economic impact of Binghamton University. The report indicates that during 2018-19, Binghamton University's direct and associated expenditures resulted in an overall economic impact of $1.64 billion on New York State (up from $1.63 billion in FY2017-18) and about $1.27 billion on Binghamton MSA (up from 1.26 billion in FY 2017-18).

The Economic Impact of
Binghamton University
FY2018-19

Prepared by
Nasrin Fatima, Associate Provost

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University-Wide Assessment and Accreditation

OIRA is responsible for coordinating assessment activities on campus. We facilitate and analyze student learning outcomes data and operational/functional objectives for 231 unique assessment entities. In

addition, the Associate Provost oversees all assessment and accreditation related activities and processes at Binghamton and assists with academic program review. She provides guidance and consults with deans, department heads, and individual faculty about the

kinds of measurements that can be made to meet both regional and specialized accreditation requirements (AACSB, ABET, ACPE, CAEP, CCNE, CSWE, NASPA, and TEAC). She also serves as the Accreditation Liaison officer for MSCHE (Middle States Commission of Higher Education). During 2019-20 year, we have transitioned to a newer, more user-friendly Weave Education platform from the older version of WEAVEONLINE. Weave is an assessment management software, that Binghamton uses to collect, document, and archive all assessment activities at Binghamton University.

Institutional and Benchmarking Survey Research

Survey research is an integral part of the work of OIRA. The office develops and conducts surveys for a wide variety of offices on campus.   These include annually-administered exit surveys, student

experience surveys, faculty and staff surveys, alumni surveys, and ad hoc surveys on specific topics. During 2019-20, OIRA staff administered and/or generated custom reports on the following: 4 exit surveys, three alumni surveys, five program evaluation and curriculum surveys, a commencement feedback survey, a remote learning evaluation survey, a remote teaching evaluation survey, SUNY COVID-19 employee survey, HERI Faculty Satisfaction Survey, National Survey of Student Engagement (NSSE Survey), and HEDS Sexual Assault Campus Climate Survey.

Ad Hoc Data Requests and Recurring Projects

OIRA is regularly called upon to assist university stakeholders and external constituents in answering questions about the university. OIRA also receives external data requests that come through FOIL. These questions range from simple enrollment inquiries to more complex analyses on particular topics for a number of individuals or offices/entities including, but not limited to, the President, Provost, CFO, Vice Presidents, Academic Deans, Department Chairs, and numerous faculty and staff. In addition to these, during 2019-20 FY, OIRA has identified some data projects that need to be done every semester or annually. During 2019-20 FY, OIRA has completed 211 ad hoc data requests and recurring projects, as well as two FOIL requests.

COVID-19 Related Projects

CORONAVIRUS 2019 (COVID-19)

In addition to recurring and ad hoc projects, OIRA completed various new projects and reporting due to COVID-19 disruptions during late Spring 2020. Individuals, teams, SUNY, State and Federal agencies, and other external entities required additional data, analyses, and reports either to assess the impacts of COVID-19 disruption to our normal academic activities or to work on our academic continuity plans. Data and reports were also required by these entities to plan regarding how to reopen Binghamton University safely and efficiently in Fall 2020. These projects and reporting included but were not limited to assessing student remote learning experiences, assessing faculty remote teaching experiences, assessing staff remote working experiences, the impact of remote learning on student grades, creating multiple scenarios for student enrollment projections and tuition revenues, etc. OIRA completed 16 data reporting/project requests related to COVID-19 disruptions.

SOOT (Student Opinion of Teaching)

SOOT surveys have been used since at least the late 1980's at Binghamton University. They were first offered online through Blackboard in summer 2005. The Faculty Senate created the SOOT survey instrument and the last update was implemented when the university converted the student files to

Banner in fall 2008. However, many faculty choose to administer the SOOT survey in paper form only. The Office of Institutional Research and Assessment works with the computer center in making the SOOT survey in paper format available to faculty. OIRA staff processes the paper-based SOOT orders and distributes them to the relevant faculty. OIRA staff generates an overall SOOT report at the University level. OIRA also generates customized SOOT reports based on faculty/administrator requests. During Summer 2019, OIRA has process and distributed 114 paper SOOT surveys in 8 course sections. In Fall 2019, OIRA has processed and distributed 12,806 paper SOOT surveys in 418 course sections. During mid-Spring 2019, all course sections were moved to remote teaching and only online SOOT administration was available. As a result, paper SOOT surveys were not distributed. Only 721 paper SOOT surveys were distributed to 22 course section pre-COVID-19.

Service to the University

In addition to their work responsibilities, all members of OIRA staff provide services by serving on different committees and taskforces across the university. During 2019-20 FY, OIRA members served on several significant committees. These include Carnegie Classification for Community Engagement Workgroup, DSN Online Implementation Committee, Enrollment Management Steering Committee, Middle States Self-Study Steering Committee, POGO Banner Performance Work Group, Road Map Strategic Planning Steering Committee, SAS VA Canned Query Work Group, Virtual Business Intelligence Team, and Virtual Business Intelligence Governance Team.

Knowledge Dissemination and Service to the Profession

One of OIRA's points of pride is the service that it provides to the institutional research profession and the higher education community at large. OIRA staff members hold memberships in the American Educational Research Association (AERA), the Association for Institutional Research (AIR), SUNY Association for Institutional Research and Planning Officers (AIRPO), Association for the Society of Higher Education (ASHE), Assessment Network in New York (ANNY), North East Association for Institutional Research (NEAIR), Society for College and University Planning (SCUP). During 2019-20 FY, 100% of OIRA staff attended at least one conference/training for professional development purposes. In addition, the Associate Provost serves as a member of the AIRPO Executive Committee, NEAIR Budget Committee, and SCUP Institutional Direction Planning Academy. She routinely reviews conference proposals for the AIR, NEAIR, and SCUP annual conferences. During 2019-20 FY, the Associate Provost presented at AIR, NA SCUP and NEAIR annual conferences on topical issues in institutional research, assessment, and accreditation.

Question
If you have any question, please contact Nasrin Fatima at nfatima@binghamton.edu.

OIRA 2019-20 by Numbers
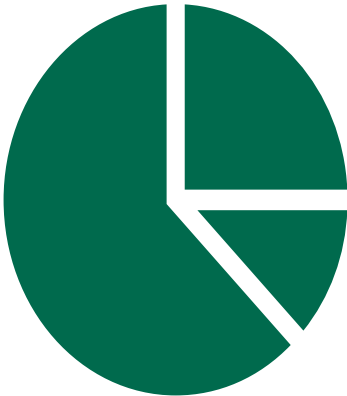
- **100% of the goals, objectives, and targets were achieved**

- **29% - Mandated Reporting**
- **18% - Ranking/Benchmarking Surveys**
- **37% - Internal Data requests**
- **16% - Other projects**

- **3 - Conference presentations**
- **11 - University Committees served**
- **4 – Professional Association Committee served**

- **164 - ODS Enrollment Reports**
- **18 - SDS Enrollment Reports**
- **2 - Headcount Report**
- **4 TAM Reports**
- **36 - Departmental Dashboards**
- **6 - School Dashboards**
- **1 Economic Impact Report**
- **2 Enrollment Projections**
- **6 Tuition Revenue Projections**

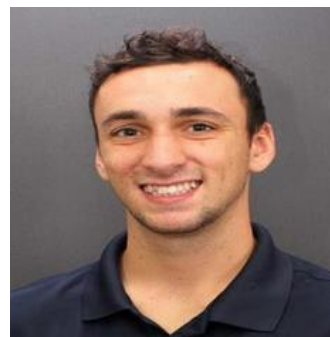# Office of Institutional Research and Assessment (OIRA) Team

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