Annual Report - 2021-22

Office of Institutional Research

Binghamton University

BINGHAMTON UNIVERSITY
STATE UNIVERSITY OF NEW YORK | Office of Institutional Research

Mission / Purpose

The mission of the Office of Institutional Research 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 accreditation, planning, policy analyses, and decision-making.

Major Functions

As summarized below, our major functions center around mandated reporting, participation in ranking and benchmarking surveys, enrollment reporting and analysis, maintaining the OIR data warehouse and producing data reports and analyses to promote university wide policy and decision making.

|	
Mandated External Reporting	51 submissions
Ranking and Benchmarking Surveys	24 surveys
Enrollment reports	228 reports
Maintenance of IR data warehouse	9 'mega' files, containing over 4 million records of reported data (not including dozens of intermediary snapshot data files)
Other Internal Reports/Dashboards & Ad Hoc Requests	500+

Mandated External Reporting

OIR 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 2021-22, OIR completed 51 mandated reports. Among them, 19 were SUNY SIRIS reporting, 9 were NYSED reporting, 11 IPEDS reporting, 3 NCAA reporting, and 8 MSCHE and other regional accreditation agency reporting.

Ranking and Benchmarking Surveys

In addition to providing mandated data and reports, OIR 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, Kiplinger's, Barron's College Profile, Times Higher Education, 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, OIR annually facilitates the collection and reporting of faculty compensation data to American Association of University Professions (AAUP) and the Oklahoma Salary Survey. During 2021-22, OIR provided data and reporting to complete 24 external surveys.

Enrollment Reports

Another important task of OIR 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 the date when 20% of instruction has been provided, usually the end of the third week of classes for the primary term) starting from Day -5 and ending just before the November 1 reporting deadline. 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. A secondary report, a Student Data Submission (SDS) report is run at the same time as the Enrollment report. The SDS report mimic's the SUNY census date reporting rules to help OIR determine discrepancies between our live Student Information System (SIS) data and what will be reported as official data. OIR generated and disseminated 228 unique enrollment reports during the Fall and Spring semesters of 2021-22.
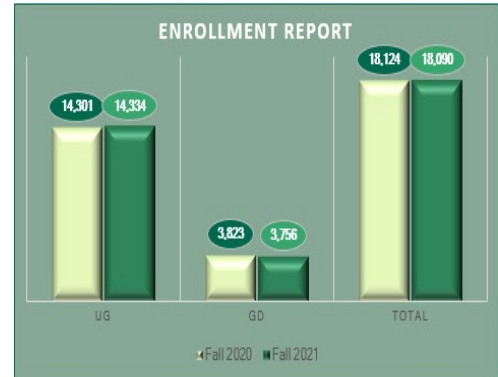
Headcount Report

OIR produces and publishes the Student Headcount Report each Fall semester. Once Fall enrollment data is submitted, locked, and approved by SUNY, the University Headcount Report is created. This Headcount Report shows a detailed summary of enrollment for the most recent 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.
https://www.binghamton.edu/offices/oir/data-analysis
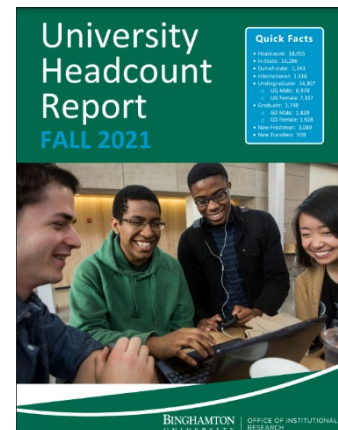
OIR Website and University Statistics

OIR annually produces an enormous amount of Binghamton University data and publishes it on the OIR 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. 13 webpages of data are refreshed, along with 57 files of detail data available for download. OIR webpages received 23,503 pageviews during the 21-22 AY.
https://www.binghamton.edu/offices/oir/institutional-data/index.html

Dashboard Reports
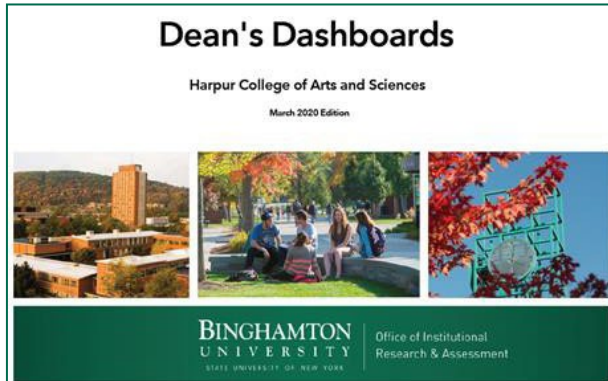
OIR annually collects, organizes, monitors and maintains university- wide, school-level, and department level strategic indicators that align with Road Map metrics/indicators/initiatives. Some examples of this work include the Dean's Dashboard reports and Departmental Profile Dashboard reports. The primary purpose of these reports 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 2021-22, OIR generated and published six Dean's Dashboards and 39 Departmental Profiles.

Enrollment and Tuition Revenue Projections

One of the responsibilities of the Office of Institutional Research (OIR) 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 OIR has an accurate, independent tuition revenue forecasting model. OIR 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.
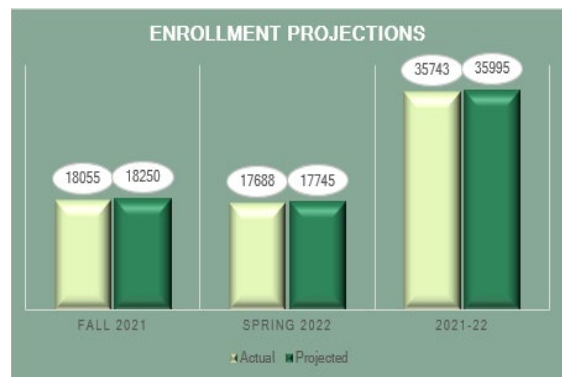
Additionally, OIR uses a 'projections and explorations' model to estimate the tuition revenue forecast based on several relevant enrollment numbers: anticipated enrollment for new and continuing undergraduate and graduate students, and anticipated undergraduate and graduate tuition and fees. The graduate 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 is to provide the projected enrollment numbers by the SUNY deadline with less than a 2% error rate. The error rate for Fall 2021 enrollment projection was 1.08% (over projected) and the error rate for Spring 2022 enrollment projection was 0.32% (over projected). For 2021-22 FY, the total projected enrollment number was 35,995 and 35,743 students were actually enrolled, an accuracy rate of 99.30%.

Revenue and Expense Analyses

In concert with the Business Office, OIR examines revenues and instructional spending by academic program for decision support and planning purposes. This also includes scholarship trend and tenured/tenure track faculty position analysis.

SAS Visual Analytics Dashboards

OIR has developed several new interactive dashboards, including a Watson's Dean's comprehensive dashboard, summer and winter enrollment daily tracking, CLT summer and winter fund disposition allocation, employee diversity and inclusion, and revenue scholarship enrollment modelling (RSM). In addition, OIR manages and maintains several interactive dashboards for other functional offices (i.e., Athletics, Business Office, School of Management, and Decker College of Nursing and Health Sciences).
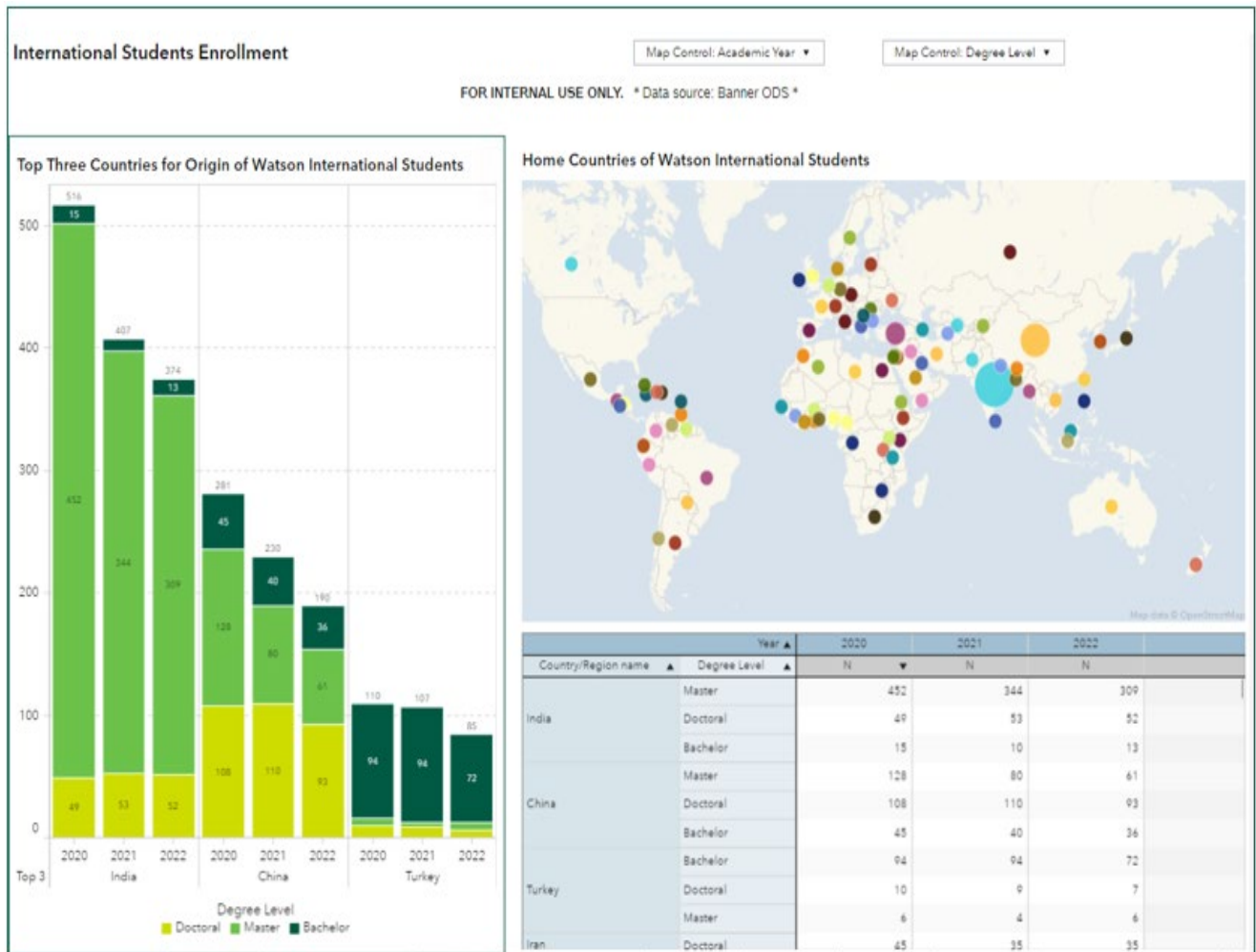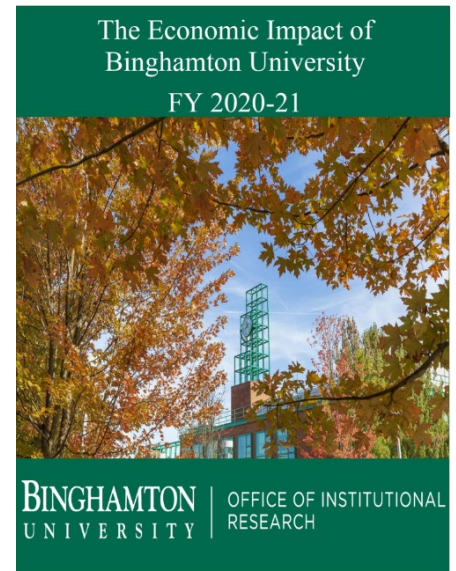
Binghamton University Road Map
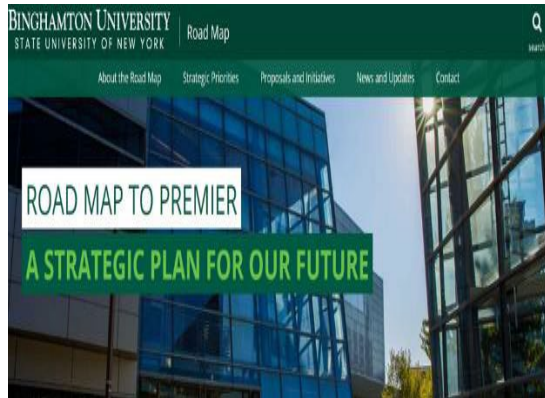
One of the overarching OIR goals is to support University Road Map planning processes to achieve institutional goals, objectives, and initiatives. In this endeavor, OIR makes sure that requested data needs and supports are provided in a timely and efficient manner. These include providing Deep Dive presentation 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.

Attrition and Graduation Table

The 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 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 OIR 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 input-output model in IMPLAN to estimate the economic impact of Binghamton University. The study calculated that during 2020-21, Binghamton University's direct and associated expenditures resulted in an overall economic impact of $1.2 billion on New York State and about $1.08 billion on the Binghamton MSA. https://www.binghamton.edu/offices/oir/data-analysis

The Economic Impact of Binghamton University FY 2020-21

BINGHAMTON UNIVERSITY | OFFICE OF INSTITUTIONAL RESEARCH

Ad Hoc Data Requests and Recurring Projects

OIR is regularly called upon to assist university stakeholders and external constituents in answering questions about the university. OIR 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, OIR has identified some data projects that need to be done every semester or annually. During the 2021-22 FY, OIR has completed over 250 ad hoc data requests and recurring projects.

Efficiencies Realized

In addition to OIR tasks and projects, the staff strive to make efficiencies in office procedures and programs where possible. This year, a new mega file was created to contain a crosswalk of 'who taught what' for each academic term. In the past, multiple SAS programs would gather this data, requiring the maintenance of similar code in multiple programs. Now that there is one source of data, all programs can simply read it resulting in more consistency of data across programs. The enrollment program has undergone a similar update, reducing 2 very similar programs down to 1 program that handles multiple situations. Documentation is also important. Currently there are 2 master guides under development to document the OIR recurring processes and the SUNY data submission procedures.

Service to the University

In addition to their work responsibilities, all members of OIR staff provide services by serving on different committees and taskforces across the university. During 2021-22, OIR members served on several significant committees including the Exclusively Online Program Implementation Committee, the POGO Banner Performance Work Group, various hiring search committees, the SAS VA Canned Query Work Group, the Virtual Business Intelligence Team, the Virtual Business Intelligence Governance Team and the Professional Staff Senate.

Knowledge Dissemination and Service to the Profession

One of OIR's points of pride is the service that it provides to the institutional research profession and the higher education community at large. OIR staff members hold memberships in the Association for Institutional Research (AIR) and the SUNY Association for Institutional Research and Planning Officers (AIRPO). During 2021-22, 100% of OIR staff attended at least one conference/training for professional development purposes including annual conferences presented by SICAS, SAS SUGA (SAS Users Group for Administrators) and SUNY AIRPO and webinars in Finance Fundamentals and Data Science, among others.

Questions

If you have any questions, please contact John Cordi at jcordi@binghamton.edu.