**INSTITUTIONAL RESEARCH AND PLANNING**

 **2018**

**Mission & Vision Statements**

The Institutional Research and Planning Office supports the college in its mission of providing high quality learning, workforce preparation, and opportunity for self-achievement. It strives to provide accurate and timely information to college stakeholders and the community at large. The office provides a foundation for informed decision making and supports an institutional culture of inquiry, civilized discussion, and good governance.

**Summary of Responsibilities/Services Provided**

The IRPO:

* Provides descriptive statistics to external and internal users, such as federal and state authorities, information clearinghouses like ACT and Peterson’s, and FRC’s administrators, faculty and staff;
* Performs data analytic tasks in pursuit of explanations and predictions, as well as for goalsetting;
* Provides support in the interpretation of data;
* Works with the Office of Student Services to provide actionable individualized information on the students’ matriculation status, academic standing, and other specifics of interest;
* Offers feedback on data collection processes to data gatherers;
* Applies for renewals of FRC’s Title 3 and 5 eligibility;
* Conducts surveys, primarily the Year-End Survey;
* Supports institutional planning, such as Integrated Planning;
* Maintains two external webpages (Program Reviews, Research & Planning), and a Sharepoint site that hosts the SLO Assessment Report repository and the interactive data dashboard.

The institutional researcher is by-position member on three committees, and tasked with specific duties on each.

* Student Learning Outcomes Assessment Cycle (SLOAC) Committee: Maintains the new electronic SLO Assessment Reporting system and periodically analyzes the results; conducts the YES surveys and reports on findings pertinent to SLOs annually. Participates in the discussion of departmental Comprehensive Program Reviews.
* Strategic Planning Committee: Contributes to the APR process by collecting APRs and consolidating them, as well as to its bi-annual review; and works on improving the process. Supports the planning activity with the needed data input and statistical insights.
* Strategic Enrollment Management: The committee worked out a model to track and predict overall headcount and FTES changes through disaggregations that allow for fine-tuned planning along the main constituent student groups (on-campus, ISP, and ISA students). The IRPO is supposed to provide the term-by-term updates to the model.

**Staffing Patterns**

The IRPO has traditionally been a one-person office since its inceptions at FRC. The sole institutional researcher is also the director, since district-level researchers may aspire at this title.

Further improvement of the office’s performance hinges on stronger cooperation with the IT department. The previous researcher was gifted with certain programming skills that helped him building an information warehouse to fuel the data dashboards in Sharepoint. While designing data dashboards is a skill frequently expected from institutional researchers, the Banner-to-Warehouse programming task is generally performed by the IT. It’s also the case that the IRPO’s workload has shown an increasing pattern over the last two years, as a result of new CCCCO initiatives (e.g. IEPI, Strong Workforce) and new MIS metrics introduced. Building up a new Warehouse or Operational Data Store should immediately follow our transition to the new version of Banner.

**Variables Affecting Student Learning**

The IRPO offers various types of data to different institutional components, for various purposes.

* Student services often need individual level specifics in order to extend and improve their services to certain students shown as at-risk by data. Their integrated planning needs data disaggregated by groups, such as foster youth, disabled, vulnerable ethnicities, and economically disadvantaged. Some surveys may also give direct feedback about student satisfaction with various student services.
* Instruction needs data for setting, and measuring achievement of, institutional goals; monitoring disparities of outcomes by instructional methods and by program; as well as for strategic program management (investing in/divesting from some programs).

IRPO’s impact on student learning is mediated, but not unsubstantial. The type and quality of data provided influences decision making in domains with direct impact on students, and actually, good data may trigger action in domains where previously it was not seen as necessary.

**Research and Data Tools**

Most of the data provided to internal users comes from our student information system, Ellucian’s Banner.

Banner is known as being comprehensive and stable, but very little user-friendly. Most institutions use it with various interfaces, such as Banner’s own Operational Data Store (ODS), or Argos. FRC has only the barebone Banner, which has to be queried with SQL scripts through its Oracle environment.

FRC’s previous IR coordinator, Brian Murphy, implemented a data warehouse, which pulls data from Banner and stores them in tables that feed the data dashboards in Sharepoint. Murphy did not leave instructions for updating the system, neither his scripts to query Banner, thus FRC’s current staff cannot interfere with the system and cannot adjust it to reflect changes, e.g., the new course-to-program assignments. Indeed, we do not really know the exact meaning of the numbers (e.g. whether the enrollment numbers are census numbers or finished-with-grade numbers), thus the IRPO only uses it for check-ups and comparisons, while ultimately relying on data pulled from Banner directly.

In this constellation, setting up new dashboards, based on a warehouse or ODS of which workings are familiar and updateable, is a must. The problem is that the warehousing softwares are expensive. A good data visualization software could be paid for more than a decade with the CTE grant money earned in 2016 ($50,000), but the Office does not have funds for a warehousing software. Alternately, the IT could work itself on setting up one, at least as functional as Brian Murphy’s (which only pulls the variables most relevant to student condition, and omits, e.g., the financial aid, faculty, student services batteries).

A transparent data warehousing solution would also be beneficial for data integrity issues. Currently our reporting to the Chancellor’s office and the National Student Clearinghouse have some issues. (E.g. the Chancellor’s office does not get all our certificates; and about 15% of our students retrievable in Banner are not showing up in the NSC. The discrepancies are hard to follow in conditions of manual data mining from Banner.)

Other often used data sources are the Datamart maintained by the Chancellor’s Office, the National Student Clearinghouse, and the National Center for Education Statistics. We do not have good data sources for the employment status of our alumni, though some CCCCO initiatives, the Perkins Accountability, Launchboard, and CTEOS try to address this issue.

The IRPO conducts the yearly YES surveys, and contributes to analyzing findings from the Campus Climate, as well as the Shared Governance surveys.

Analysis of the data is facilitated by a robust statistical software package purchased in 2015, the SPSS.

**Program Effectiveness**

IRPO’s tasks may be grouped in 4 categories:

1. Answer various requests for data, support mandated reporting, and inform the larger public about basic facts on FRC;
2. Collect information through surveys and analyze them;
3. Contribute to the planning process;
4. Contribute to the internal data management and communication infrastructure.
5. Most of IRPO’s data provision tasks are cyclically recurring, though they may undergo changes (such as the introduction of new Student Support Services and Adult Education metrics), and may be more occasional, as well, such as data collection for the accreditation self-report’s introductory chapter. This group makes up most of the Office’s tasks, and the time needed for data provision was also inflated by the long learning curve to come to grip with Banner’s specificities. The recurrence would make possible to speed up the related tasks, but the CCC system is about to revamp its MIS (in addition to other changes such as Integrated Planning and Guided Pathways), thus we cannot really count on saving much time on data management in the near future. The work could become more effective with substantial changes to the internal data management system, that is, making Banner more accessible. In March 2017, an external expert reviewed FRC’s Banner, and made a series of suggestions to improve reporting accuracy. Her review also contributed to extending and streamlining the researcher’s access to Banner. Yet the optimal solution for accelerating data extraction from Banner, while also assuring data quality, is a new warehousing/dashboarding system.
6. The Office inherited the tradition of carrying out a year-end student survey. The questionnaire was revised and updated in spring 2016, and efforts have been made to substantially increase the response rates. The goal was achieved with working out a hardcopy version of it, which results in about 70 additional responses per year. Beginning with spring 2018, we want to administer a version of it to ISP students, as well. Two other surveys carried out in the campus, the Campus Climate and the Shared Governance surveys, are not formulated and administered by the IRPO, but the office contributes to the analysis of the findings.
7. The IRPOoffers administrative support to the Annual Program Review process and contributes to its bi-yearly revision. It also contributes to the formulation of FRC’s institution set goals, as they are reported to ACCJC, and used to be reported to the Chancellor’s IEPI. Sectional and departmental planning (such as putting together the Educational Plan, and the CPRs) often ask for data input from IRPO. An improvement contemplated for the near future is moving the APR collection to Sharepoint, to make it more streamlined and possibly eliminate the discrepancies between the APR narrative and the fund requests.
8. A new Student Learning Outcome (SLO) Assessment reporting system was launched in August 2017, after months of preparation and discussion in the SLOAC Committee. It allows for the export of both individual responses and quantitative findings. A first quantitative analysis of the data may take place in summer 2018. The system has been closely monitored for performance, and it also needs constant stand-by to download new submissions and post them to Sharepoint. Sharepoint is supposed to gradually fulfill its role of main venue for internal communication. The IRPO maintains a site that hosts a data dashboard, the SLO repository, a collaboration site for integrated planning, and it contributes to spreading knowledge of and enthusiasm for the system. There are plans for moving there the APR process, as well.

**Goals and Objectives for the next Three Years**

1. Key to the data provision mission is improving data extraction from Banner. Slight improvements to this occurred when – upon the external expert’s recommendation – the researcher’s access to the system was extended. The Office has worked on setting up a map of the often used metrics and a repository of oft-used SQL scripts, in order to increase efficiency and data quality. Yet the radical solution to the problem is investing in a custom-tailored new data warehouse and dashboard. These would help not only the researcher to answer data requests much faster, but would also allow anybody who needs data to try a fast self-service first.
2. The IRPO plans on revamping the APR process by relying more on Sharepoint. These plans factor in the prospect that Sharepoint becomes available from outside the campus. Indeed, until this feature is not live, it’s much more comfortable for department heads to turn in their APRs in email, then to work on submissions in the campus only. Also, currently our APRs are available on the external website, and the APRs uploaded to Sharepoint should also be.
3. The Strategic Enrollment Management committee worked out a monitoring/predicting model that they hope to capture the metrics useful for enrollment-related decisions. The parameters of the model should be calculated for as long as possible (that is, since the beginnings of Banner at FRC), and then tested over the next couple of years.
4. While the above three goals articulate necessary and planned changes, there is also a willingness to continue what was good (or at least decent) in the Office’s past performance, the diligent data provision, surveying, and monitoring activity, together with its staff’s involvement in the life of the campus, such as service on search committees and the Diversity Committee.

**Recommendations**

We need to improve data extraction from Banner, and the IRPO on its own does not possess the resources to do so.

Improving the APR process is also desirable, yet currently the implementation of changes seem to have a prerequisite: opening up Sharepoint to be accessible from outside the campus.

**Appendix**

Consultant Report:

Trip Report FRC-SOW100-BANNERSVC by Paddy Wong, Senior Student Consultant at Stata Information Group, who visited FRC on March 21-23, 2017.