Institutional Research Offices:
Responsibilities, Administrative Organization, and Staffing Structures across Six Public Research Institutions

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RESEARCH ASSOCIATE
Aashna Kircher

RESEARCH DIRECTOR
Christine Enyeart

THE ADVISORY BOARD COMPANY
WASHINGTON, D.C.

I. RESEARCH METHODOLOGY & PARAMETERS

Project Challenge:

A mid-size master's university located in the Northwest approached the Council with the following questions for directors of institutional research (IR) offices at other comprehensive institutions:

> ***Overall IR Office Activities and Functions:***
> - *What is a reasonable array of activities and functions for an IR office to perform?*
>
> ***Supplying Information for Decision-Making:***
> - *What are the characteristics of IR offices that are particularly effective at supplying information for decision-making in a timely and easy-to-use fashion?*
>
> ***Administrative Structure:***
> - *To whom does the IR office report at various universities, and where is the office located administratively?*
> - *What are the advantages and disadvantages of different structures?*
>
> ***Staff Responsibilities, Skills, and Reporting Structures:***
> - *What are the job functions and responsibilities of personnel in IR offices across institutions?*
> - *What are recommendations for the number of personnel?*
> - *What skill sets are important for IR staff members to have?*
> - *What are the standard pay rates for the various job classifications in an IR office?*
> - *How are reporting structures organized?*
> - *What sorts of professional development opportunities should be afforded to the personnel in an IR office?*

Sources:

During the course of the research, the Council searched the following resources to deepen its understanding of IR office structures:

- Education Advisory Board's internal research library http://www.educationadvisoryboard.com

- Education Resources Information Center (ERIC) http://www.eric.ed.gov

- The Chronicle of Higher Education http://chronicle.com

- Institutional research office Web sites at contact universities

- Volkwein, James F., "The Foundations and Evolution of Institutional Research." *New Directions for Higher Education*, no. 141 (Spring 2008): 5-20.

Research Parameters:

- The Council reached out to directors of IR offices at medium-sized aspirant comprehensive institutions.

II. EXECUTIVE OVERVIEW

Introduction

Institutional research (IR) offices are responsible for managing data and reporting within a university. According to experts in the field, the responsibilities of IR offices are evolving to encompass more analysis and evaluation, rather than just reporting descriptive statistical facts.[1] Although the roles and functions of IR offices vary across institutions, IR offices are increasingly playing more of a decision-support role for high-level administrators. The following brief relies on original research and secondary research on IR offices to explore various IR office functions, the advantages and disadvantages of various administrative locations for an IR office, and IR office staffing structures.

Key Observations:

❖ **Although the responsibilities of IR offices vary across institutions, certain roles are consistent across the board. According to contacts, the most important IR office function is decision support for administrators.** Other common functions include standard internal and external reporting, surveys and assessment, and ad-hoc requests from administrative leaders.

❖ **Contacts observe that, in order to be particularly effective in its role of providing decision support, an IR office must be able to understand and interpret data (not just present it); IR office staff must also have a deep understanding of the university and what is needed on campus.** Additionally, an IR office must be tied in to the administration's strategic goals, and be able to use data to preemptively identify issues of which university leaders may not be aware.

❖ **Reporting to the president increases an IR office's ability to work across divisions; reporting under an individual division (e.g. enrollment management, budget/finance) can limit an IR office's access to data and thus the office's ability to serve the entire institution.** However, some contact institutions assert that reporting directly to the president is too close to the "eye of the storm" and thus reporting to the provost allows the IR office to best advance the academic mission of an institution.

❖ **Important skill sets for IR staff include: communication skills; a deep understanding of higher education issues; good relationships with the campus community; and some technical and data management skills, depending on the position.**

❖ **Reporting structures and the degree of specialization among IR office staff depends on the office's size: smaller offices feature limited reporting hierarchy and minimal job specialization, while larger offices feature several levels of management and clearer cut divisions of labor.**

❖ **Contacts stress the importance of professional development for their staff, highlighting national and regional association conferences, smaller university or office-wide trainings, and hands-on experiences with university committees.**

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[1] Volkwein, James F. "The Foundations and Evolution of Institutional Research." *New Directions for Higher Education*, no. 141 (Spring 2008): 8.
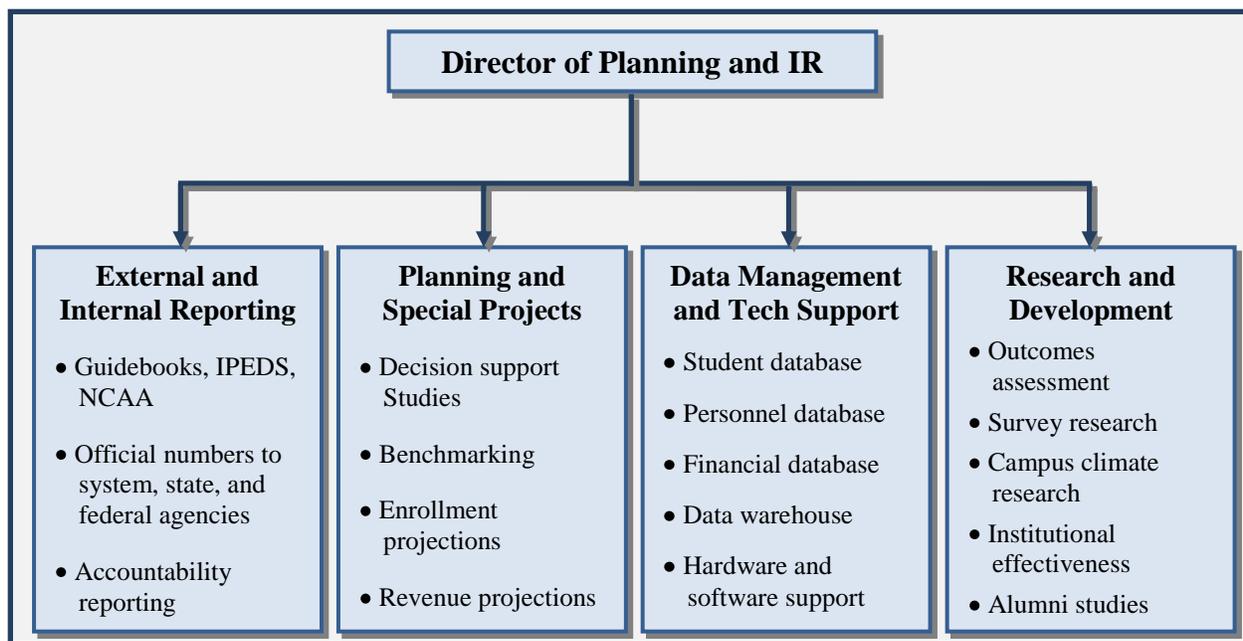
II. EXECUTIVE OVERVIEW (CONT.)

A Guide to the Universities Profiled in this Brief			
Institution	**Location**	**Classification**	**Enrollment** (Total / Undergraduate), Fall 2007
University A	South	Doctoral/Research University	16,800 / 14,900
University B	Midwest	Research University (high research activity)	29,900 / 21,200
University C	Midwest	Doctoral/Research University	18,100 / 14,100
University D	Northwest	Doctoral/Research University	25,000 / 18,900
University E	Midwest	Master's College and University	12,700 / 11,100
University F	Northwest	Research University (high research activity)	20,300 / 16,700

Source: National Center for Education Statistics

III. INSTITUTIONAL RESEARCH OFFICE FUNCTIONS

Although the responsibilities of an IR office varies from institution to institution, the following figure outlines the most common functions of the university IR office, grouped into four categories.

Figure 1: IR Organized by Function (Most Common Arrangement)

Director of Planning and IR			
External and Internal Reporting	**Planning and Special Projects**	**Data Management and Tech Support**	**Research and Development**
• Guidebooks, IPEDS, NCAA • Official numbers to system, state, and federal agencies • Accountability reporting	• Decision support Studies • Benchmarking • Enrollment projections • Revenue projections	• Student database • Personnel database • Financial database • Data warehouse • Hardware and software support	• Outcomes assessment • Survey research • Campus climate research • Institutional effectiveness • Alumni studies

Source: Volkwein, James F. "The Foundations and Evolution of Institutional Research." *New Directions for Higher Education*, no. 141 (Spring 2008): 15.

Several primary IR office responsibilities emerged across contact institutions: decision support, standard external and internal reporting, surveys/assessment, and ad-hoc reports.

Decision Support

Contacts unaminously identified decision support as the most critical function that an IR office executes. In addition, contacts note several important characteristics that make an IR office particularly effective at supplying information for decision-making:

- **Interpreting Data, Not Just Reporting It**: As opposed to the traditional role of simply reporting numbers, IR offices now have to be able to truly understand and interpret a wide variety of information, both qualitative and quantitative. This synthesizing function provides the most value to high-level administrators who need to not only be familiar with the data, but more importantly need to know what the data suggests.
- **Building Strong Relationships:** Creating strong ties across an institution allow an IR office to partner with other groups to not only obtain but also manage data (i.e., clean and edit data for accuracy). Offices not only have to establish relationships with different divisions that own various data systems, they also have to build strong relationships with IT groups, particularly data administration staff.
- **Understanding the University**: the IR office has to be aware of how a university functions and what is needed on a campus. The office has to be closely tied to the administration, know which issues are most important, and be familiar with the institution's strategic goals.
- **Predicting Key Issues**: An IR office must be able to identify issues that other leaders on campus have not yet identified. Thorough data analysis allows IR staff members to unearth trends in data that others on campus may not be aware of and bring these to attention.
- **Cultivating Staff with Technology Skills**: Technology skills are becoming more and more critical to an IR office function, and hiring staff with such skills—particularly database functions—is critical to providing decision support.

III. INSTITUTIONAL RESEARCH OFFICE FUNCTIONS (CONT.)

Standard Internal and External Reporting

Standard External Reports:

- Government surveys
  - Integrated Postsecondary Education Data Sharing System (IPEDS)
- Publication surveys
  - Peterson's Guide to Colleges
  - US News and World Report
  - College Board
  - Common Data Set
- Organization Surveys
  - Council of Graduate Schools
  - Institute for International Education
  - National Science Foundation
  - American Association of University
  - Professors

Standard Internal Reports (usually published annually):

- Data/Fact book
- Facts and Figures
- Benchmarking/Peer Analysis
- Enrollment Projections
- Board Requirements
- Accreditation Documents

Breakdown of Percentage of Reports Generated for Internal vs. External Purposes Across Contact Institutions

Institution	% Internal	% External
University A	50%	50%
University B*	90%	10%
University C	85%	15%
University D	70%	30%
University E	50%	50%
University F	34%	66%

* Note that University B is part of a larger university system and is thus not responsible for basic external reporting. The university system completes external reports on behalf of its eight campuses.

Surveys/Assessment

Standard annual surveys often include:

- First-year Survey
- Alumni Survey
- Parent Survey
- Senior Survey
- Faculty Survey
- Community Survey

Assessment often refers to program evaluation and student learning outcomes, and is usually executed using a survey or a carefully designed measurement tool like a Likert scale.

Ad-Hoc Requests

Ad-hoc projects are usually requested by upper-level administrators, and range from seeking a single piece of data to complex statistical projects. The degree to which an IR office is utilized for ad-hoc reporting can significantly impact an office's workload. To the right, the percentage breakdown of reports generated in response to requests versus those that are self-generated from within the IR office is summarized across contact institutions.

Breakdown of Percentage of Reports Generated for Internal vs. External Purposes Across Contact Institutions

Institution	% in Response to Requests	% Self-Generated
University A	30%	70%
University B	80%	20%
University C	20%	80%
University D	60%	40%
University E	50%	50%
University F	65%	35%

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IV. ADMINISTRATIVE ORGANIZATION

An IR office's location within the university organizational structure can be a key variable in determining that office's functions and responsibilities. The table below summarizes the location of the IR office at all contact institutions and the benefits and drawbacks of reporting under each particular unit.

| President/ Chancellor *University E and University B*	Provost *University D and University C*	Vice President for Finance and Administration *University F*	Vice President for Student Affairs and Enrollment Management *University A*
Advantages: Reporting to the president allows IR offices to be directly involved with and aware of all of the critical issues facing a university. Directors of IR offices that report under a president tend to sit on more committees and be very absorbed with the overall planning process of the institution. Moreover, reporting to the president is beneficial in ensuring cooperation across divisions. **Disadvantages:** Occasionally, IR offices under the president can become swamped in broad institution-wide issues, inhibiting their ability to fulfill smaller traditional IR office functions.	**Advantages:** Reporting to the provost gives IR offices a clear perspective on the academic mission of their institution and allows the office to still interact with and support upper level administration, without being as centrally involved as the office might be under the president. One contact observes that the IR office under the provost "is like Switzerland" because it can adopt a neutral stance on all issues. **Disadvantages:** Other divisions on campus can be uncooperative when IR is located under academic affairs, as they perceive the office to be biased towards that division's agenda; however, contacts note that these occurrences are rare.	**Advantages:** IR offices that report under finance and administration divisions are intimately involved in financial aspects of the institution, a field that most other IR offices have trouble accessing. In addition, under finance, IR offices have a seat at the table in many strategic planning and budgeting decisions. **Disadvantages:** IR offices that report under a finance division can tend to be narrower in focus regarding traditional IR responsibilities and fall into more of a number crunching role. In addition, contacts note a lack of communication between the IR office and other offices, which can lead to difficulties obtaining quick and accurate information.	**Advantages:** IR offices work heavily with enrollment data (e.g., admissions, financial aid, registrar, etc.) primarily for reporting purposes. Reporting under the enrollment management division allows IR offices to work closely with these different groups to ensure that data is not only collected but is also edited and cleaned for accuracy. **Disadvantages:** Reporting under student affairs can hinder an IR office's ability to perform its traditional roles in supporting the academic function of an institution. Moreover, similar to reporting under finance, reporting under student affairs can lead to a lack of communication across other offices and divisions.

"Reporting to the president puts you right into the eye of the storm."

- Director of Institutional Research and Planning, University D

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IV. ADMINISTRATIVE ORGANIZATION (CONT.)

Looking nationally, it appears that the majority of IR offices are indeed located either under academic affairs or directly under the president/chancellor. The pie chart below depicts the organizational location of IR offices at institutions across the United States (from a study of 1,209 institutions).

Figure 2: IR Office Location in Organizational Structure
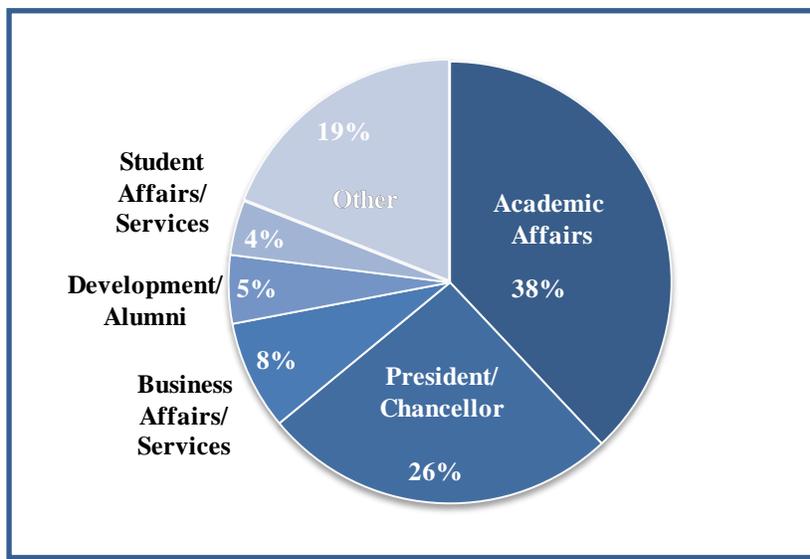
Source: Sara Lindquist, "A Profile of Institutional Researchers from AIR National Membership Surveys" from J.F. Volkwein (ed.), *New Directions for Higher Education*, no. 141 (Spring 2008): 10.

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V. STAFFING

Staffing Across Contact Institutions			
Institution	**# of FTE's**	**Job Titles**	**Pay Rates**
University A	6	Associate Vice President	$114,000
		Associate Director	$60,000
		Assistant Director	$53,000
		Research Analysts (2)	$32,000-$34,000
		Administrative Secretary	$25,000
University B	7 (plus 2 graduate assistants)	Executive Director	$115,000*
		Assistant Directors (2)	$55,000-$60,000
		Management Analysts (2)	$45,000-$50,000
		Technology Development Associate	$45,000-$50,000
		Administrative Secretary	Unavailable
University C	4	Director	$70,000-$107,000
		Research Associate	$46,000-$69,000
		Research Assistant	$41,000-$62,000
		Research Information Clerk	$41,000-$62,000
University D	5	Director	$99,240
		Research Assistant Professor	$60,000
		Analysts (2)	$52,000
		Executive Assistant	Unavailable
University E	3	Director	$140,000*
		Senior Research Analyst	$60,000
		Information Coordinator	$50,000
University F	5	Director	$100,000-$120,000
		Associate Director	$ 80,000-$85,000
		Institutional Research Analyst	$50,000-$60,000
		Management Analyst	$50,000-$60,000
		Office Specialist	Unavailable

* The director of IR is also a tenured faculty member and consequently has a higher salary relative to other directors.

Roles and Responsibilities

Roles and responsibilities of staff members in contact IR offices range from a very limited specialization among employees (particularly in smaller offices) to a more specific and clear cut division of labor among employees, especially in the larger offices. More specialized IR offices tend to include dedicated staff for data management and technical support, survey analysis or assessment (research and development), and external and internal reporting. In addition, planning and decision support projects appear to be assigned on an ad-hoc basis, often spread across several staff members with various responsibilities.

V. STAFFING (CONT.)

Number of Employees

The number of full time staff at contact institutions ranged from three to seven full-time employees. However, looking across universities nationally, the number of FTE's employed in IR offices varies considerably. The figure below depicts the number of FTE's in IR offices at institutions across the United States (from a study of 1,209 institutions).
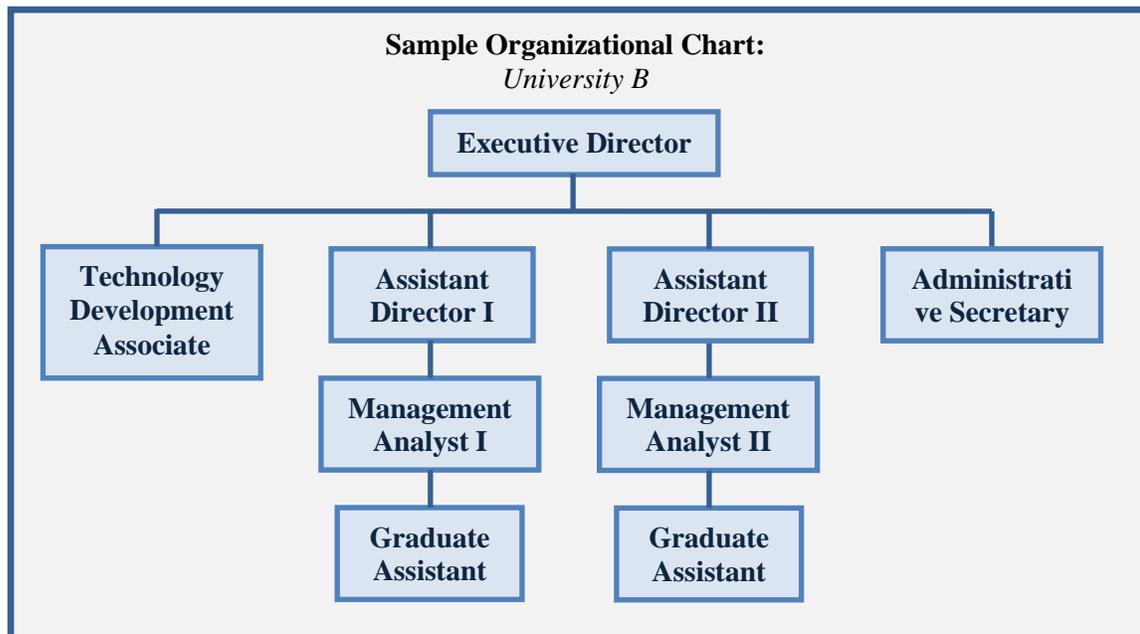
Figure 3: Number of Full-Time IR Office Professionals
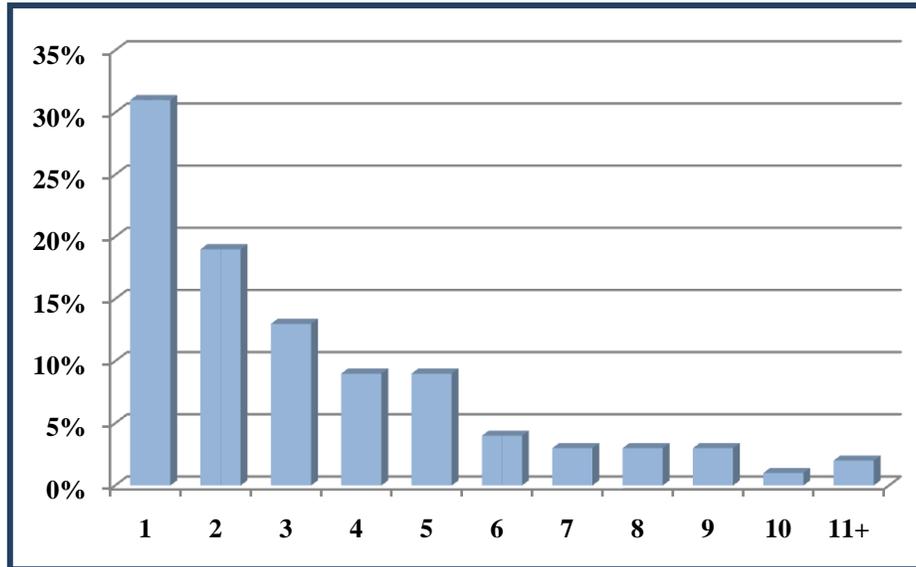
Source: Volkwein, et. al. "Exploring AIR IR Office Survey Results and Ramifications." PowerPoint presentation. Northeast AIR, Providence, RI. 4 Nov 2006.

Reporting Structure

As most of the institutions contacted have small IR offices, the Council observed minimal reporting hierarchy, with offices containing one or two levels of management at most. Below is an example of the most complex organizational structure out of all the institutions contacted.

Sample Organizational Chart:
University B

Executive Director

- Technology Development Associate
- Assistant Director I
  - Management Analyst I
    - Graduate Assistant
- Assistant Director II
  - Management Analyst II
    - Graduate Assistant
- Administrative Secretary

V. STAFFING (CONT.)

Skill Sets

Although necessary skill sets for IR staff vary a great deal based on job responsibilities, a number of clear trends emerged regarding certain skills that are valuable for all IR staff members.

Communication Skills
- Ability to interact and work well with others
- Good established relationships with the campus community (i.e., being able to work across groups)
- Coherent writing skills

Analytical Skills
- Background in social science research methods (i.e., experience with gathering and reporting data)
- Ability to understand and communicate data relationships
- Detail-oriented and willing to spend the time to ensure accuracy

Technical Skills
- Statistical software experience (i.e., SAS or SPSS)
- SQL or additional query skills for extracting data from campus systems
- Facility with Microsoft Office
- Data management ability (e.g., familiarity with Oracle databases)

In addition, contacts at **University D** also note the value for IR office staff members of having a comprehensive understanding of higher education in order to appreciate the different roles within the institution, be aware of external pressures that an institution faces, and recognize and predict institutional needs.

Professional Development Opportunities

National and Regional Conferences	Contacts across the board mentioned involvement with national and regional associations for institutional research as a source of professional development. The various associations for institutional research offer a wide range of conferences and workshops both on a national and a regional scale. Contacts at **University B** also recommend Association for Institutional Research (AIR) webinars as a way to avoid heavy travel expenses. Another strategy for managing costs is to elect staff to attend conferences on a rotating basis, as they do at **University D**.
Technology Training	Many IR offices support technology training for their staff members in a number of different fields, including SAS, SPSS, web development, Cold Fusion, and Oracle, among others. Oftentimes, these workshops are university-wide and run by IT services; however, at **University B**, the technology development associate within the IR office holds a number of small computer-related training workshops for his fellow staff members.
Skill Development	The director of IR at **University F** hosts research and data management workshops for his staff members.
Committee Exposure	As a method to develop staff communication skills and understanding of university direction, the director of IR at **University D** selects one of her staff members to serve on each of the following standing committees: budget, enrollment, assessment, the advising council, and the faculty senate.

VI. APPENDICES

Note: the following two appendices are pulled directly from an earlier brief that the Council completed for a different member institution on the topic IR office models. All universities referenced below are private research institutions.

Appendix A: Technology Considerations

Several technology-related factors can influence the amount and the type of the work that any IR office executes. Considered below are factors related to technology that contact institutions reported had a significant influence on the work their IR offices did on a daily basis.

Access to Data Systems

Access: Examples from Contact Institutions	
Access to a Limited Number of Systems	The IR office at **University N** can only directly retrieve data from the student records information system. For data from all other systems, the office has to request the information. The IR office at **University L** established a data warehouse for student, faculty, and staff data, but it cannot access any data related to judicial affairs, health/counseling records, alumni, or housing. However, the office can access financial and enrollment data as needed by request.
Access to Separate Data Systems	Because **University M** does not run on an enterprise system, the IR office has direct access to all 16 separate databases on campus and is responsible for integrating this information.
Access to an Enterprise System	Both **University K** and **University I** have university-wide enterprise systems that allow their IR offices to extract information from all systems through one database.
Access to an IR-Specific Data Warehouse	The IR office at **University H** extracts data from the 14 systems of record on campus into an Oracle data warehouse that was built internally and is structured for reporting. Similarly, the IR office at **University J** extracts and restructures data from all seven separate systems into its Oracle database.

IR Office Access to Database Systems, across Contact Institutions									
Institution	Admissions	Alumni Relations	Enrollment	Faculty System	Financial System	Human Resources	Identity Database	Research	Space Inventory	Student System
College G	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓
University H	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
University I	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
University J	✓	✗	✓	✓	✓	✓	✗	✗	✗	✓
University K	✓	✗	✓	✓	✗	✓	✓	✓	✗	✓
University L	✗	✗	✗	✓	✗	✓	✗	✗	✗	✓
University M	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
University N	✓	✗	✓	✓	✗	✗	✗	✗	✗	✓

VI. APPENDICES

Interactive Self-Service Web Tools

Several institutions offer dynamic web tools that certain members can utilize to access data at will and select individual variables by which to cut data sets, allowing users to generate their own data reports. These web tools are always password-protected, and access to different tools often varies based on the user's role or title within the university.

- **University M** offers approximately 20 different interactive web tools, used by an average of 300 users per week.

- **University J** has established a dynamic tool through ColdFusion that operates with Oracle tables through a data warehouse, allowing self-generated reporting at the university, college, and department level.

Advantages of Interactive Web Tools	Disadvantages of Interactive Web Tools
Contacts emphasize that such tools greatly reduce the amount of time that institutional research office staff spend answering small ad-hoc requests for data. Thus web tools free up IR office staff's time for more in-depth analysis in reporting.	Interactive web tools have to be carefully and consistently maintained in order to provide users with accurate data. If data is not updated on a regular basis, users may find themselves with incorrect information.

VI. APPENDICES

Appendix B: Insights from Conversations with Provosts

Low Level of Direct Involvement between Provost and IR Office

High Level of Direct Involvement between Provost and IR Office

Standard Reporting Operation *University K*	Middle Ground Approach *College G*	Administrator Support Model *University N[2]*
Frequency of Contact: The provost approaches the IR office with ad-hoc requests once or twice a term.	**Frequency of Contact:** The provost reaches out to IR with requests approximately once every week or two.	**Frequency of Contact:** The provost approaches the IR office on a daily basis for various requests.
Primary Duties of the IR Office from the Perspective of the Provost: 1) Accreditation 2) Collect/report external data 3) Analyze internal data 4) Assess learning outcomes 5) Build databases and tracking devices 6) Develop reports for the performance planning process	**Primary Duties of the IR Office from the Perspective of the Provost:** 1) Control data on campus and its release to the public 2) Design, implement and regulate campus surveys 3) Collect/report external data 4) Answer requests from the provost's office, the president's office, and the dean of the faculty	**Primary Duties of the IR Office from the Perspective of the Provost:** 1) Respond to requests from the provost, deans, and the president's office 2) Support the university senate's data collection initiative 3) Collect/report external data 4) Maintain a fact book and other internal data reports
Additional Comments: The provost notes that his IR office is not very reactive in nature; rather, the office is a stable-state operation with a set of standard reporting activities. New requests are generally incorporated into the standing project operation and then continued each year. The provost also observes that he works most closely with the IR office during the performance planning process.	**Additional Comments:** The provost perceives most requests to the IR office as being specific ways of looking at particular data, often in comparison with peer institutions. In addition, the president and dean of the faculty often use IR data for emphasis in speeches.	**Additional Comments:** The provost often expects the IR office to create charts and compile statistics that are relevant to strategic issues at the university. Most research requests are related to board meetings, budget planning, admissions, enrollment, or retention/attrition analysis.

> *"I think one of the problems at IR offices is that they often have their own agenda. They come up with their own reports, and a lot of them are great reports, but if nobody looks at them or is using them to make decisions, it doesn't do any good."*
>
> - Provost, University N

[2] Note that when the provost at University N first arrived at the university, she asked the IR office to compile a complete list of all the reports that they were generating, and then proceeded to eliminate reports that did not appear to have a specific purpose. In addition, she limited the number of surveys to a certain number per year. "Decision-support model" is the terminology specifically coined by the provost.

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