

**IOWA STATE UNIVERSITY**  
OF SCIENCE AND TECHNOLOGY

**OFFICE OF INSTITUTIONAL RESEARCH  
SELF-STUDY REPORT**

**Prepared in Support of Program Review**

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**Office of Institutional Research**

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## **EXECUTIVE SUMMARY**

The current program review of the Office of Institutional Research (IR) and institutional research functions, including this self-study, is being conducted following the policy guidelines established for reviewing academic programs by the university. This self-study is prepared to fulfill the first phase requirement in the program review process. The second phase will be met through a site visit by a review team of experts scheduled for March 3-4, 2016. The final phase will be the preparation of a response to the review team recommendations following its site visit.

This review is informed by the Association for Institutional Research's (AIR) initiative, Improving and Transforming IR in Postsecondary Education. Results of a survey conducted by AIR in conjunction with its initiative are used in this study albeit at an aggregate level. The preparation of this self-study, and indeed the whole review process, has led to clearer understanding of the vision, mission, priorities and goals of IR in the context of the university's Strategic Plan. The process has indicated the strengths of the office, but also has suggested a number of challenges the office needs to address in the future.

### **Strengths**

- Well-qualified, dedicated and hardworking staff with a commitment to quality, customer service, continuous improvement, and support to the university mission.
- Preparation and dissemination of a wide range of information through appropriate venues.
- Ability to respond to requests for information in a thoughtful, accurate and timely manner.
- Ability to adapt to expanding and emerging university data/information needs in the face of limited staff and budgetary resources.
- Ability to work cooperatively with Information Technology and a variety of other university offices.
- Ability to access data/information from peer groups, national governmental and private data sources.
- Ability to provide benchmark comparisons on many aspects of university activities.
- Commitment to taking full advantage of emerging technologies and analytic tools.
- IR staff contributions through service to university, profession, and higher education at large.

### **Challenges**

- Increased demand for new and expanded information in response to accountability initiatives.
- Limited staff and budgetary resources in the face of increasing roles and service demands.
- Need to expand opportunities for closer cooperation and integration with units having complementary functions to better serve the university.

- Need to consult colleges and other academic units to enhance awareness of IR services, and to learn about specific information needs.
- Need to move steadily from data and compliance reporting to higher levels of analytic work.
- Need to continually explore better venues for efficiency and ease of access to information.
- Need to provide IR staff with opportunities for research and contributions to the body of knowledge in higher education.
- Need to enhance staff ability to access various external data sources.

The on-going acquisition of a new Enterprise Resource Planning (ERP) software system for the university and the development of a new Strategic Plan focusing on student success, research profile, and economic development, are expected to impact the mission, priorities and goals of the Office of IR in the future.

The IR staff and others engaged in IR-type activities appreciate the many insights gained in preparing this self-study. It is anticipated that the site visit by the external team of experts, and its subsequent report, will provide additional insights from which all will benefit. When the review process comes to a conclusion, the Office of Institutional Research will position itself to more effectively support Iowa State University to accomplish its mission.

## **SECTION 1: PROGRAM REVIEW PURPOSE AND PROCESS**

### **1.1. Purpose**

The Board of Regents, State of Iowa, Iowa State University's governing board, has a policy requiring a program review for academic programs at least every seven years. Although this mandate specifically addresses academic programs, Iowa State has extended it to academic administrative offices and support units. This review of the institutional research office and function is prompted by this on-going practice and a leadership transition that will occur in the Office of Institutional Research at the end of this academic year (2015-16).

The university does not have a formal policy guideline specifically addressing program review of non-academic departments. Support units, such as Institutional Research, have to rely on the policy guidelines established for reviewing academic programs. According to the university's Academic Program Review Policies and Procedures, "program review is a process that evaluates the status, effectiveness, needs, and progress of academic programs and helps identify the future direction, and priorities of those programs." The goal of a program review, according to the same document is "the articulation of agreed-upon action plans for further development of the academic program." As such it is closely connected to strategic planning, resource allocation, and other decision-making at the program, department, college, and university levels.

The program review process involves three phases: (1) preparation of this self-study document, supplemented by reports of the e-Data Warehouse Team and the Enrollment Research Team (ERT), (2) a site visit by a review team of experts resulting in a team report with recommendations, and (3) preparation of a response to the review team recommendations.

### **1.2. The Self-Study of Institutional Research**

Preparation of this self-study has provided an opportunity to reflect on our current structure, staffing, institutional research activities and products, and to elicit a plan of action for providing better information and analytical services for academic planning and decision making.

The formal self-study process was initiated in September 2015, upon notification by Ms. Ellen Rasmussen, Associate Vice President for Academic Planning and Resources, to whom the Office of Institutional Research currently reports, that the office should undergo a program review in view of the scheduled retirement of its director at the end of the 2015-16 academic year. A review of available resources aided in the design of the self-study. The resources include: Iowa State's Academic Program Review: Purpose and Process (<http://www.provost.iastate.edu/academic-programs/accreditation/program-review--process>), reports and related documents prepared for the latest institutional accreditation by Higher Learning Commission (HLC) (2015-16), review of the literature, especially publications focusing on

reviews of institutional research functions, annual performance evaluations of the Director of Institutional Research, and examples of self-study reports prepared by other non-academic units at Iowa State University.

### **1.2.1. Association for Institutional Research (AIR) Initiative for Context**

The Association for Institutional Research (AIR) has embarked on an initiative, funded by the Bill and Melinda Gates Foundation, Improving and Transforming IR in Postsecondary Education. A brief statement of aspirational practice for institutional research provides a new vision of the role of IR offices working in collaboration with departments and units across the institution. It emphasizes that the “paradigm shift to data-informed decisions has opened the door to re-think, re-prioritize, and renew the function of data management and institutional studies.” It calls for initiatives and reports grounded in student-focused perspective, and development of a broad culture of data-informed decision environment.

<http://www.airweb.org/Resources/ImprovingAndTransformingPostsecondaryEducation/Pages/default.aspx>

This review utilizes direction from the AIR initiative. The scope of the review is broad, exploring collaborations and integrations to best serve the university community. In addition to the activities and responsibilities of the Office of Institutional Research, the review will include analytic work performed by the Enrollment Research Team (ERT) in the Division of Student Affairs, the data analytics and support provided by the e-Data Development Team in Information Technology Services, and relevant activities within the Office of the Senior Vice President and Provost.

### **1.2.2. Benchmarking Iowa State against Selected Public Universities**

As part of its Improving and Transforming IR in Postsecondary Education initiative, AIR conducted a National Survey of Institutional Research Offices in Fall 2015. From the list of participants, we selected and submitted to AIR 20 major research universities for benchmark information from the survey results. Those universities are similar to Iowa State University in stature using the criteria of: (a) Carnegie Classification of RU/VH (Research Universities with Very High research activity), (b) membership in AAU, and/or (c) designated land-grant institution.

The AIR provided benchmark data, though at a more aggregated level than we would have liked, comparing Iowa State with the group on IR location and reporting line, staffing, and structure. The results provided by AIR are attached to this report in Appendix B.

## **1.3. External Review**

The external review team is comprised of the following three institutional research professionals:

Ms. Julie Carpenter-Huben – will serve as Team Chair  
Assistant President of Institutional Research and Planning  
The Ohio State University, Columbus, Ohio



Mr. Hank Childers  
Executive Director, University Analytics & Institutional Research  
University of Arizona, Tucson, Arizona

Ms. Cathy Anderson  
Associate Vice President for Budget & Planning  
University of Utah, Salt Lake City, Utah.

Members of the team were selected on the basis of their qualification, experience and expertise in institutional research and related areas. They are all heads of units that conduct institutional research functions or offices to whom IR offices report. The review team is scheduled to visit the Iowa State campus on March 3 to 4, 2016.

A formal letter of appointment and invitation for the on-site visit was sent to the members of the team on January 21, 2016, indicating the date of the visit. Background materials, including this self-study report, a schedule for the two-day campus visit, and a set of questions for the team's consideration, was sent to the team on February 3, 2016.

## **SECTION 2: OVERVIEW OF INSTITUTIONAL RESEARCH**

### **2.1. Context – Iowa State University**

The Iowa State University of Science and Technology (ISU), founded in 1858 as the nation's first land-grant institution, is one of three state-supported universities governed by the Board of Regents, State of Iowa. Iowa State's academic programs are organized under the following eight major units: the Colleges of Agriculture and Life Sciences, Business, Design, Engineering, Human Sciences, Liberal Arts and Sciences (LAS), Veterinary Medicine, and the Graduate College.

Iowa State University is fully accredited by The Higher Learning Commission (HLC), and a reaccreditation review by HLC has just been successfully completed. HLC's final recommendation on the institution's status is expected this spring. The university Assurance Argument (Self-Study) report prepared for that reaccreditation process provides a current overview and evaluation of university function and activities (<http://www.provost.iastate.edu/academic-programs/accreditation/2016-accreditation-and-planning--self-study->).

The university Strategic Plans 2005-2010 and 2010-2015, state the university-wide mission as *Create, share, and apply knowledge to make Iowa and the world a better place*. As stated in its Vision Statement, Iowa State aspires to be “the best at advancing the land-grant ideals and putting science and technology to work.” The mission and the goals stated in the Strategic Plan provide the appropriate context for the mission and goals of the Office of Institutional Research. A summary version of the Strategic Plan 2010-2015 is found in Appendix A.

Iowa State has just launched the planning and development of a new strategic plan that will place Iowa State University in a position of excellence. President Leath has announced four priority areas for the plan: (1) Enhance a successful experience for students, (2) Enhance the university's research profile, (3) Support state and regional economic development with service to Iowans, and (4) Enhance a welcoming, safe, and inclusive campus environment. The final strategic plan will be in place by June, 2016. That plan can be expected to have impact on the mission, priorities and goals of the Office of IR.

In the area of information technology, a process is underway to acquire a new Enterprise Resource Planning (ERP) software system to replace the existing main-frame based system. The university is in the market for a unified ERP solution that incorporates the Student Information System (SIS), Finance, and Human Capital Management. One of the stated goals of the new system is improvement in timeliness, accuracy, and availability of information.

Another initiative that will impact IR function is the on-going implementation of recommendations resulting from our governing board's study, Transparent Inclusive Efficiency Review (TIER), which places emphasis on accountability and efficiency of Iowa State University and its two sister universities.

## **2.2. Institutional Research Mission, Priorities and Goals**

The university's Strategic Plans, elaborations on the Strategic Plan goals by the Office of the Senior Vice President and Provost, and annual performance evaluations of the Director of Institutional Research, provided the proper context for developing the mission, vision, and priorities and goals of the Office of IR. It is anticipated that a review of the goals will take place following this review process, including consideration of the report and recommendations of the external visiting team.

### **2.2.1. Mission**

Collect, analyze, interpret, and disseminate accurate and timely information on all aspects of the university's activities in support of institutional planning, decision-making and reporting requirements.

The Office carries out its responsibility through three interrelated functions:

1. Develop and maintain, or have access to, institutional databases on students, courses, finances, human resources, and facilities, as well as national and peer-institutional data sources.
2. Provide timely and accurate information for planning, internal decision-making and external accountability.
3. Support the development, analysis and evaluation of policies and plans for Iowa State University through service to the President, Senior Vice President and Provost, other senior university administrators, faculty governance, and planning committees.

### **2.2.2. Vision**

Institutional Research will be the best at providing information and analysis in support of Iowa State's mission of creating, sharing and applying knowledge to make Iowa and the world a better place.

### **2.2.3. Priorities and Goals**

Following are Institutional Research goals organized around six priorities.

#### **Priority: General Information**

*Disseminate information about the university to all stakeholders using appropriate venues.*

#### **Goals**

- Publish the university Fact Book and other IR publications in an efficient and timely manner.
- Enhance data access capabilities by playing a key role in the development of the enterprise-wide data warehouse.

**Priority: Reporting Obligations**

*Meet all governance, accountability, membership and data-exchange reporting obligations.*

**Goals**

- Meet all regular governance and accountability reporting requirements in an efficient and timely manner.
- Implement and maintain accountability reporting requirements such as the Voluntary System of Accountability (VSA) and Student Achievement Measure (SAM).
- Meet all membership and data exchange obligations such as HLC Institutional Update and AAU Data Exchange.
- Respond to private data collectors and publishers, and understand their reporting and ranking methods.
- Enhance IR staff ability to access AAUDE data exchange and national data sources.

**Priority: Support of University Policies and Plans**

*Provide accurate and timely information and perform analyses in support of university policies and goals of the Iowa State Strategic Plan.*

**Goals**

- Prepare faculty instruction and workload reports to support instructional policies.
- Compile data on Strategic Plan performance indicators needed for preparing the annual progress report.
- Prepare faculty scholarly productivity analyses and reports using internal and external data sources.
- Perform comparative salary analyses to gauge market competitiveness of faculty and staff salaries.
- Prepare information needed for monitoring progress in university diversity.
- Administer student engagement surveys, and perform related analyses to assess student learning.

**Priority: Information Technology**

*Take full advantage of emerging information technology for efficiency and flexibility in data collection, reporting and analyses.*

**Goals**

- Acquire state-of-the-art hardware, software and network access, and update skills through training.
- Continue to play an active role in the development of the enterprise-wide data warehouse.

**Priority: Service to Senior University Administrators**

*Provide the President, the Provost and other university administrators with information needed for planning and decision-making.*

**Goals**

- Compile information and prepare PowerPoint slides, and explanatory notes for periodic meetings.
- Support academic administrators and department chairs in program review and accreditation processes.
- Respond to ad hoc information requests originating from senior administrators, deans, department chairs, etc., in a thoughtful, accurate and timely manner.
- Support university marketing and public relations efforts.
- Support the ADVANCE grant-related and faculty development projects in the Provost's Office.
- Support the University Alliance grant-related reporting on student service.

**Priority: Service to Higher Education**

*Provide university and professional services and contribute to the body of knowledge in higher education.*

**Goals**

- Provide service to the university community.
- Enhance cooperation with appropriate university units.
- Provide professional service to higher educational associations and groups.
- Contribute to the body of knowledge through presentation and publication of research results.

**2.3. History of the Office of Institutional Research**

The Office of Institutional Research was established in 1968 and has existed under different names. The original name of the office was Administrative Data Systems, later changed to Management Systems. The office was renamed Office of Institutional Research in 1979, and has retained that name since then.

The Office has reported to several administrative units over the years. Initially it reported to the Vice President for Business and Finance, then to an Executive Vice President for External Affairs, followed by an Executive Vice President and Provost. Subsequently the office reported to an Associate Provost for Planning, which moved to the Office of the President in 1991. The Office of IR remained within the President's office, reporting to an Assistant to the President for Budget Planning and Analysis. In 2007, when that position was eliminated, the Office was moved to the Office of Senior Vice President and Provost (SVPP), and reported to the Associate Provost for Academic Programs and Dean of the Graduate College

within the Provost's office. Starting in 2013, the Office of IR has been reporting to the Associate Vice President for Academic Planning and Resources, also within the Provost's office.

The Office of IR had three Professional and Scientific (P&S) positions during the early years following its establishment. As its functions evolved and its role increased, two positions have been added over the years to reach its current staff size of five including the director. Computing support has been provided by Information Technology Services (ITS) by assigning a systems analyst to the Office of IR. Office support is provided by a secretary.

The role of Institutional Research has significantly changed over the years in response to changing university administrative structures and personnel; the growing emphasis on governance and governmental accountability, causing the university to become an increasingly data-oriented environment; and rapid advances in technology. The federal government's mandatory data collection through the IPEDS system (Integrated Postsecondary Education Data System) has increased, now comprising 14 surveys collected in three waves (Fall, Winter and Spring). The number of private data collectors, and the extent of the information they collect, has expanded over the years. The current national climate of accountability has meant more reporting on various aspects of the university's activities to its constituents. State budgetary limits have also resulted in the need for more extensive data and analytic work for better planning, decision making, and increasing efficiency.

## **2.4. Other University Units that Conduct Data Analytic Work**

In addition to the Office of Institutional Research, there are two units that perform data analytic work that serves campus decision makers: (1) the ITS e-Data Development Team, and (2) the Enrollment Research Team. This review of the Office of IR and institutional research functions extends to the activities of these two units. The units were asked to prepare their own brief reports to be appended to this self-study.

### **2.4.1. ITS e-Data Development Team**

The ITS e-Data Development Team, housed in the Office of the Chief Information Officer (CIO), is the team that spearheads the development of the e-Data warehouse and portal, Iowa State's enterprise-wide data warehouse. Developed with cooperation and input from the offices of Institutional Research, Registrar, Human Resources, Treasurer, Sponsored Program Administration and other units within the university, e-Data has become a primary source of information in the areas of student enrollment, courses and credit hours, human resources, finance, sponsored programs, and budget. The e-Data warehouse, considered the official source of data, has reporting portals corresponding to the mentioned areas.

The Team is composed of six ITS professionals including the team leader. A systems analyst who was previously assigned to support the Office of IR is currently a member of that team, and provides a

critical link with existing IR data systems which became building blocks for the enterprise-wide data warehouse.

The report prepared by the Team for the purpose of this review, covering its background, structure, staffing, services, and usage of its data, is attached to this self-study in Appendix C.

#### **2.4.2. *The Enrollment Research Team***

The Enrollment Research Team (ERT), housed in the Division of Student Affairs, is a group of research analysts who conduct research and perform analysis on issues related to enrollment such as the impact of financial aid on recruitment, the impact of admission standards on retention, and enrollment projections. The team consists of staff members from the offices of Admissions, Registrar, and Student Financial Aid, all within the Division of Student Affairs.

The report prepared by ERT for the purpose of this review details the projects and types of activities in which the Team is engaged. The report is attached to this self-study in Appendix D.

#### **2.4.3. *Explore Opportunities for Closer Coordination and Integration***

The activities of the Office of IR and the e-Data Development Team can be described as a supportive relationship and complementary. Those of the Office of IR and the ERT also can be viewed as complementary, but overlapping in some aspects. As noted in each unit's report, some levels of cooperation do exist among the three units. However, there is a need to explore opportunities for closer cooperation and possible integration to serve the university efficiently and effectively.

Nationally, the IR function is evolving from data collection and accountability reporting to analytics work in support of planning and strategic decision-making. Commonly heard is the question: How can IR and IT best complement each other? The answer can vary by institution, depending on the history, institutional culture and organizational structure. At Iowa State, the new ERP software system under consideration can be expected to facilitate an answer. The experiences of some universities, such as the University of Arizona, that have dealt with the issue of integration of Institutional Research and Business Intelligence (BI) functions can provide useful lessons.

In exploring opportunities for close coordination and integration for better analytic service, an important consideration is the existing reporting structure of the units. At Iowa State, the Office of IR and the Office of the CIO, where the e-Data Development Team is housed, are both located within the Division of Academic Affairs. The Enrollment Research Team is located within the Division of Student Affairs.

The timing for exploring opportunities for closer coordination and integration is ripe for the following reasons: (1) as already mentioned, the up-coming acquisition of a new ERP software system spearheaded by the Office of the CIO; (2) the university is in the process of developing a new strategic plan, which will place emphasis on data-driven decision making and planning. One of the priorities for the new plan, "Enhance a successful experience for students," implies emphasis on student-focused perspective; and

(3) the pending leadership transitions in the Division of Student Affairs, the Office of IR, and the e-Data Development Team.

The exploration of opportunities for close cooperation and integration is perhaps one of the areas on which the review team is expected to weigh in, given the team members' experiences in their own institutions.



## SECTION 3: STRUCTURE, STAFF, FUNCTIONS AND RESOURCES

### 3.1. Structure

The Office of IR is supportive in assisting Iowa State University's move towards realizing its vision of becoming "the best at advancing the land-grant ideas and putting science and technology to work." The position of the office within the organizational structure, previously within the Office of the President and currently within the Office of the Senior Vice President and Provost, facilitates this supportive role. The director reports to the Associate Vice President for Academic Planning and Resources in the Division of Academic Affairs.

Results of the AIR survey, benchmarking Iowa State against 20 selected participating universities, regarding IR reporting lines are shown in Table 1.

Table 1. Location of Office of Institutional Research

<b>In which division is the Office of IR primarily located?</b>	<b>Iowa State</b>	<b># Resp</b>	<b>% Total</b>
President/Chief Executive Officer		1	5%
Provost/Chief Academic Officer	X	12	57%
Business Affairs		0	0%
Student Affairs/Student Services		0	0%
Technology/IT		2	10%
Other		6	29%
<b>TOTAL</b>		<b>21</b>	<b>100%</b>

<b>Within that division, who does the Office of IR director/senior manager report to?</b>	<b>Iowa State</b>	<b># Resp</b>	<b>% Total</b>
Chief-level		11	52%
Associate/Assistant-level	X	7	33%
Other		3	14%
<b>TOTAL</b>		<b>21</b>	<b>100%</b>

One of the survey questions was: *In which division is the Office of IR primarily located?* Of the 21 institutions, 12 (57%), including Iowa State, reported the office of Provost/Chief Academic Officer. Thus, the current location of IR at Iowa State, within the Office of Senior Vice President and Provost, can be describes as typical. However, on the question of who within that division the Office of IR reports to, the majority, 11 or 52%, indicated the Chief-level, while a minority, 7 or 33%, including Iowa State, indicated Associate/Assistant level.

Reporting to the "Chief-level" accords the advantage of having a more direct access to institutional policy deliberations and decisions than reporting to an Associate/Assistant.

A national survey of institutional research offices in 2008 indicated that 41% were located in the Office of Academic Affairs/Provost, and another 22% in the Office of the President/Chancellor (Volkwein and Woodell, 2008). Such reporting relationships indicate the breadth of activities and the role of institutional research offices in integrating information to all areas of the university.

### **3.2. Staff**

The staff of IR includes five professional staff members and one support staff person. The IR staff members, their titles and the starting year with the Office are:

Gebre H. Tesfagiorgis, Director (2001)

Sandra Gahn, Associate Director (Program Manager I) (2004)

Amanda DeGraff, Senior Research Analyst (2013)

Nadine Dobbe, Research Analyst (2004 as Research Analyst; 1995 as Admin. Secretary III)

Julia LaBianca, Research Analyst (2014)

Vacant Professional Staff Position

Janet Johnson, Secretary II (2008)

The positions of Director, Associate Director, Senior Research Analyst, and Research Analyst are part of the university's Professional and Scientific (P&S) staff system. The Secretary II position is part of the Supervisory and Confidential group within the university's Merit employment system.

Staff resumes are attached to this report in Appendix E for reference. As the resumes show, the IR professional staff members are well qualified, combining rich academic background and extensive professional experience. The Director, scheduled to retire at the end of the 2015-16 academic year, has a Ph.D. and a J.D. and over 30 years of IR experience at major research universities both at campus and system-level offices. The Associate Director has a Ph.D. and over 20 years of experience in IR and related positions in higher education. The Senior Research Analyst also has a Ph.D. and over 10 years of experience in IR and evaluation positions in higher education. One of the Research Analyst expects a Ph.D. in spring 2016 and is in her second year at IR. The other Research Analyst, with a bachelor's degree, has worked at Iowa State for 30 years, 20 of them at IR. The Secretary II, a community college graduate, has been at the Office of IR for eight years.

The Director of Institutional Research directs the design, preparation and dissemination of information in support of institutional planning, decision-making and reporting requirements. He supervises and coordinates the activities of the IR professional and support staff. The Director represents the office in data exchange and peer university groups, the federal government and private data collection groups. He is the Data Update Coordinator for the annual HLC Institutional Data Update. He serves on various university committees. The director conducts studies and performs analyses for the President,

Provost, and other university officials and committees. He writes governance reports, sometimes in cooperation with other university units.

The Associate Director leads the effort in developing the data warehouse for the IR Office including the creation of meta-data for the warehouse; coordinates and reports human resources data for state and federal reporting; develops and analyzes statistical reports on faculty peer salary comparisons and diversity issues. She also administers and analyzes faculty satisfaction surveys and disseminates results to the university community; and collaborates with faculty on grants and research projects.

The Senior Research Analyst is responsible for developing data sources and providing information in the student area including enrollment, retention and graduation rates; provides technical and analytic support for student surveys including the National Survey of Student Engagement (NSSE); supports academic administrative units and faculty in the use of Academic Analytics scholarly productivity data; is ISU Data Lead for participation in the Department of Education's *First in the World* grant linked to the University Innovation Alliance initiative; and coordinates the preparation of the annual Fact Book report.

One of the Research Analysts is responsible for the development and maintenance of information in the curricular area including course data systems, student credit hour reports, and course-section analyses; compiles information and reports on comparative tuition and fees; develops and maintains the VSA *College Portrait* and the Student Achievement Measure (SAM).

The other Research Analyst is responsible for responding to external mandatory government, and private surveys; provides support to Academic Programs within the Provost Office in the areas of program review and student outcomes assessment; assists in faculty productivity analyses; and compiles data and performs analyses on topics as assigned.

A vacant staff position currently exists as a result of shifting the duties of a staff who recently left the Provost's Office. The duties involve primarily support in the area of program review and student learning outcome assessment.

Although the IR professional staff members have areas of emphasis in their assignments, as described above, all participate in generating university-wide reports and analyses in support of university decision-making, planning and reporting. All of the positions share the responsibility of providing or coordinating responses to data requests from senior administrators, department chairs, faculty, committees, staff, students, governmental and nongovernmental agencies, peer institutions and the general public.

Historically, computer support was provided to IR by Information Technology Services (ITS) by assigning a systems analyst. The Systems Analyst II designed, implemented and maintained enterprise-level administrative information applications using a variety of software development tools. In 2006, with the establishment of the e-Data Development Team, the incumbent was moved to the team, and provided a critical link with existing IR data systems which became building blocks for the enterprise-wide data warehouse.

The Secretary II provides general clerical and professional assistance to the Director and the four other professional staff members. Responsibilities include: assistance in the preparation of the annual Fact Book and other regular IR reports for publication; maintenance of the IR Website; management of office accounts; and maintenance of vacation/sick leave records and filing systems.

Communication among staff members and coordination of work occur in both formal and informal ways. A bi-weekly staff meeting provides the forum for reporting on current activities, follow-up on on-going projects, planning and scheduling of future projects. University personnel policy requires that each staff member prepare a self-evaluation before the end of the academic year for discussion with the supervisor. That annual evaluation, conducted in a one-on-one meeting between each staff member and the director, provides the opportunity for assessing annual performance and reviewing plans and aspirations for the coming academic year. The director goes through the same annual evaluation procedure with his supervisor, the Associate Vice President for Academic Planning and Resources.

### **3.2.1. Staffing Comparisons with Other Universities**

The previously mentioned AIR survey asked questions related to staffing level and staff qualifications as shown in Table 2. Again, benchmarking Iowa State against the select group of 20 universities, the staff size of Iowa State (counting the director and professional staff), at five, is about 3 FTE below the mean of 7.7 FTE. The majority (65%), including Iowa State, are in the staff size category of 5 FTE to less than 10 FTE.

Regarding staff qualifications, Iowa State is among ten of the 20 institutions that reported at least 50% of their IR staff members are holders of doctoral degrees. This confirms the claim of highly qualified staff at Iowa State's Office of IR.

Table 2. Staffing Level and Staff Qualifications

	<b>Iowa State</b>	<b>N</b>	<b>Mean</b>	<b>StdDev</b>
Average FTE of Director and Professional IR Staff	5.00	20	7.70	3.05
<b>Breakdown of FTE into categories</b>	<b>Iowa State</b>	<b># Resp</b>	<b>% Total</b>	<b>Run Total</b>
Less than 1 FTE		0	0%	0%
1 FTE to less than 2 FTE		0	0%	0%
2 FTE to less than 3 FTE		1	5%	5%
3 FTE to less than 5 FTE		1	5%	10%
5 FTE to less than 10 FTE	X	13	65%	75%
More than 10 FTE		5	25%	100%
<b>TOTAL</b>		<b>20</b>	<b>100%</b>	<b>NA</b>

*NOTE: FTE = Director/IR staff full-time equivalent.*

Table 2. Staffing Level and Staff Qualifications (*continued*)

<b>Please indicate the highest degree by Office of IR staff type. Director/Senior Manager</b>	<b>Iowa State</b>	<b># Resp</b>	<b>% Total</b>	<b>Run Total</b>
Less than a Baccalaureate degree		0	0%	0%
Baccalaureate degree		3	15%	15%
Master's degree/Specialist (M.A., M.S., Ed.S.)		7	35%	50%
Doctoral degree, including professional practice doctorates (e.g., Ph.D., Ed.D., M.D., J.D.)	X	10	50%	100%
<b>TOTAL</b>		<b>20</b>	<b>100%</b>	

### 3.3. Range of IR Functions and Degree of Responsibility

The functions of the Office of IR are organized to anticipate and effectively respond to university-wide information needs. The functions can be grouped into five major headings: (a) general university-wide information, (b) information to meet accountability, governance and data exchange obligations, (c) support of university policies and the goals of the university strategic plan, (d) service to the President, Provost and other academic administrators, and (e) service to the higher education community.

The core function is the provision of information to university administrators, faculty, staff and student committees, the Board of Regents, and external constituencies for planning and decision-making. The information may be in the form of analyses and reports, however, data are increasingly provided in electronic form. The office also responds to numerous ad hoc requests on almost every aspect of the university. The functions of the office have evolved over time and can be expected to continue to expand in the future. The demand for university information with a quick turn-around and ease of access continues to be a challenge.

Again, the AIR national survey has an item related to IR range of activities, asking respondents to, *Please indicate the Office of IR involvement in the following tasks* (a list of 30) and the degree of engagement. Unfortunately, AIR could not provide any summary information on that question at this time. However, in 2008, we had surveyed our peers asking each to indicate the degree of responsibility for 49 functions gleaned from the literature. The functions were organized into 10 functional categories for convenience. Respondents were asked to indicate one of four possible degrees of responsibility for the IR office: *primary*, *shared*, *support* and *none*. The results are summarized in Table 3.

Table 3. IR Functions and Degree of Responsibility at Iowa State and Its Peer Land-Grant Universities.

	Iowa State	Primary	Shared	Support	None
<b>Comprehensive Reports</b>					
Fact Book	Primary	7	2	0	1
Department Profiles	Primary	5	1	2	2
Student Profiles	Primary	4	3	2	1
<b>External Reporting</b>					
Governance reports	Shared	3	4	3	0
State accountability reports	Shared	4	6	0	0
Federal reports, IPEDS, etc	Primary	6	3	1	0
Private data collectors	Primary	3	6	0	0
Institutional data exchanges	Primary	9	1	0	0
Coordinating national data collection	Primary	6	2	0	1
<b>Data Management</b>					
Database development	Shared	1	7	1	1
Data administration	Shared	2	2	3	2
Data warehouse development	Shared	2	4	2	2
Main University website	Support	0	0	2	8
Institutional Research website	Primary	10	0	0	0
<b>Strategic Planning</b>					
Planning process	Support	1	0	8	1
Performance indicators	Shared	6	3	1	0
Peer institution benchmarking	Primary	8	2	0	0
Plan progress reporting	Shared	4	2	4	0
Economic impact studies	Shared	2	5	1	2
<b>Human Resources</b>					
Staff statistical reporting	Primary	1	7	0	2
Internal compensation analysis, including equity studies	Primary	3	4	2	1
Comparative salary analysis	Primary	3	3	3	1
Reports on diversity	Shared	3	5	2	0
Comparative staffing patterns	Shared	0	3	3	4
<b>Academic Planning and Review</b>					
Academic program reviews	Support	0	3	6	1
Accreditation self-study	Support	0	4	5	1
Workload analysis and benchmarking	Primary	4	2	3	1
Statistical support of academic policies	Primary	4	4	2	0
<b>Students</b>					
Enrollment statistics	Shared	5	3	1	1
Enrollment management	Support	1	6	1	2
Degree award statistics	Shared	4	4	0	2
Retention and graduation rates	Primary	6	2	1	1
Administration of student opinion surveys	Primary	3	2	2	3
Survey analysis	Shared	3	4	2	1
Student outcomes assessment	Support	1	4	3	2
Alumni studies	Support	3	2	3	2
<b>Curricular Areas</b>					
Course/Section analysis	Primary	1	4	1	4
Faculty workload and productivity	Primary	5	2	1	2
Student credit hour reports	Primary	5	2	0	3
Student evaluation of instruction	None	2	0	0	8
Grading patterns and policies	Support	1	4	2	3
<b>Budgetary and Financial Analysis</b>					
Instructional cost studies	Shared	2	3	3	2
Comparative funding analysis	Shared	0	5	3	2
Salary studies	Primary	5	4	1	0
Revenue projections	Support	0	3	3	4
<b>Facilities Management</b>					
Facilities planning	None	0	2	3	5
Space management and analysis	None	0	2	1	7
<b>Other (Please specify below)</b>					
Academic Planning/Program Array		1	0	0	0
President's Council Data/Slides	Primary	0	0	0	0
Rankings management	Shared	1	0	0	0
System-wide coordination of enterprise data reporting		1	0	0	0

Table 3 compares the degrees of responsibilities of the Office of IR at Iowa State with those of institutional research offices at peer land-grant universities. The degree of responsibility in each function for Iowa State and the number of peer universities under each degree of responsibility are noted for comparison. The mode for peer universities is shown in bold.

The results of the peer survey show that the responsibility for various institutional research functions at Iowa State is generally similar to that of the peer universities. In 36 of the 49 functions, (or 73.5%), the level of responsibility in IR at Iowa State was equal to or higher than the mode level of responsibility at peer universities. In six of the functions it was above the mode (private data collectors, staff statistical reporting, internal compensation analysis, course/section analysis, revenue projections). The Office of IR had a lower level of responsibility than was typical at peer universities for eight functions (or 1.7%). The office had some level of responsibility for these functions though. There is no function for which a majority of peer universities have primary or shared responsibility that the Office of IR at ISU does not have any responsibility.

### **3.4. Resources**

Staff resources have already been covered in Section 3.2. This section covers finance/budget, computing and other resources.

#### **3.4.1. Financial Resources**

A budget data trend for the office of IR, FY 2006 through FY 2016, is displayed in Appendix F. The Operating Budget of the office for FY 2016 is \$750,217, of which 627,344 (or 83.6%) is for salaries/wages and employee benefits. The remaining Supplies and Services category (16.4%) includes partial funding to cover subscription to Academic Analytics, office supplies, printing, survey administration, travel, telecommunications, professional association and data exchange membership fees, and other miscellaneous costs.

The trend data show that salaries and benefits budgets have increased in accordance with general university compensation policies. However, the budget for supplies and services has generally experienced little increases, and at times even decreases. When state appropriations are stringent, adversely impacted are typically the non-compensation expense categories.

There is no long-term provision in the office's general operating budget for equipment upgrading and replacement. However, computer upgrades for staff occur as part of future upgrade of computer equipment and related software in the Office of Senior Vice President & Provost.

#### **3.4.2. Computing Resources**

Attaining and maintaining a position of advanced technological competence is critical to effectively carrying out the IR mission. Various elements, including state-of-the-art hardware, software, network

access, and continuous education/training to keep up with technological changes, are essential to achieve the Office goals and provide the level of support expected by the University community.

#### *3.4.2.1. Computer Equipment, Software, and ITS Support*

A significant strength of IR has been the availability of up-to-date computer hardware and software. Institutional support for upgrading computer equipment on an approximately four-year rolling cycle has allowed us to remain current and take advantage of emerging technological opportunities. Our computer equipment currently includes:

##### *Desktop Systems:*

- 1 – Dell Optiplex 9020 MT 3.6 GHz, 8G RAM; 500GB Hard Drive; DVDRW, Windows 7 (2014)
- 1 – Dell Optiplex 9020 MT 3.4 GHz, 8G RAM; 500GB Hard Drive; DVDRW, Windows 7 (2014)
- 1 – Dell Optiplex 9020 MT 3.4 GHz, 16G RAM; 500GB Hard Drive; DVDRW, Windows 7 (2014)
- 3 – Dell Optiplex 9010 MT 3.4 GHz, 8G RAM, 250GB Hard Drive, DVDRW, Windows 7 (2013)

##### *Portable devices:*

- 1 – Dell Latitude E7440 2.1 GHz; 16G RAM; 128GB Hard Drive; Windows 7 (shared by staff for mobile needs) (2014)
- 1 – Apple iPad w/Retina Display, 64G (assigned to Director) (2013)
- 1 – Dell Latitude E6420 2.5GHz, 4G RAM, 320GB Hard Drive, DVDRW, Windows 7, (assigned to Assoc. Director) (2011)
- 1 – Dell Latitude E6320 2.6GHz, 4G RAM, 128GB Hard Drive (assigned to Director)

Our primary network printer is a Ricoh MP3053SP multifunction unit, with print, copy, fax, and scan capabilities. The office also has a secondary color printer (HP Color LaserJet Pro M451DN).

Core software applications used by the IR office include Microsoft Office (Word, Excel, PowerPoint, Access), Adobe Acrobat, Adobe Creative Cloud (InDesign, Photoshop, Illustrator, and Dreamweaver), Tableau Desktop Professional, and SPSS. Other software in use include Stat/Transfer, Stata, and the new Data Cookbook (data dictionary and support tool for the e-Data warehouse).

It is recommended that the office continue to plan for the acquisition of new microcomputer technology on a three to four year cycle. Software additions and upgrades should be planned to stay current with the latest versions of university supported software.

Hardware, software and network support is provided by Information Technology Services (ITS). IR files and documents are stored on a cloud-based file server with ITS providing all security, backup, support and maintenance.

The office of IR works in close cooperation with ITS to develop reports based on the e-Data warehouse. IR Analysts are also able to create ad-hoc queries and reports from the warehouse using Cognos



reporting tools. Relevant training is provided by ITS; most recently for new/updated Cognos reporting tools and for the Data Cookbook.

The Office of IR receives computing support from Information Technology Services (ITS). ITS functions as an integral administrative information system partner in conducting the business affairs of the university, serving as the main repository of administrative data. Most IR data related to faculty and staff, students, course sections, faculty activity, and departmental organization have been transitioned to the e-Data warehouse. In addition, IR staff can access, query, and join non warehouse-based tables via ODBC connections, using Microsoft Excel/Query, Microsoft Access or Tableau Desktop Professional. Some IR staff members have authorization for query access to additional data tables owned by the offices of the Registrar, Admissions, Human Resources, and other administrative areas. A member of the ITS e-Data warehouse team provides analyst support for IR tables which are maintained separately from the warehouse.

#### *3.4.2.2. The IR Web Site*

The IR web site is a comprehensive electronic resource that includes the ISU Fact Book, Common Data Set, ISU Department codes, and various other reports (NSSE survey, Faculty Peer Salary Comparison reports, etc). The IR website has become increasingly important because of the discontinuation of the printed version of the ISU Fact Book. The Fact Book pages are the most viewed pages on the IR website. It was visited 43,938 times in 2015.

#### *3.4.2.3. Institutional Research Data Sets and the Data Warehouse*

The Office of Institutional Research began developing a comprehensive Institutional Research Information System (IRIS) in the 1990s, to enable administrative offices to access stored data. The goal was to develop a single source of data, extracted at points in time, to provide consistent historical information in support of planning, program review and evaluation. The system was to ultimately include data on staff, students, courses, finances, and facilities.

The IRIS data “marts,” utilized IBM DB 2, which is supported by Information Technology (IT). The application area, table name, and earliest year for which data are available are noted in Table 4. The Office of IR has generated reports from the data maintained in this system for the past 25 years. It will continue to be an important source of historical data as the university moves forward with implementation of a new cloud-based enterprise resource planning (ERP) system.

Table 4. Institutional Research Information System DB2 Tables

Application Area	Table Name	Earliest Data
Staff FTE, Headcounts, and Salary	EMPL_SNPSHT	July 1990
	EMPL_FUND_SRC	July 1990
	EMPL_SMRY_FTE	July 1990
	EMPL_HEAD_CNT	October 1990
	FCLTY_SLRY_SRVY	October 2006
Student Longitudinal Database	ADMSN_SNPSHT	Summer 1999
	RGSTN_SNPSHT	Summer 1999
	GRDTN_SNPSHT	Summer 1999
	ENRLT_SNPSHT	Summer 1999
	RTNTN_DMGRG	Summer 1999
	STDNT_CURR	Summer 1999
Faculty Activity System	CRSE_SMRY	Spring 1993
	DEPT_CRSE_LOAD	Spring 2006
	SPNSR_FUND	1996
	FCLTY_ADVSR	Fall 1996
	DTL_SPNSR_FUND	1996
	FCLTY_SPLMNT	1998 - 2010
Departmental Organization	ORG_GRP	July 1991
	DEPT_ORG	July 1991
	DEPT_NUM	Current Year

Data in the human resource area include headcount and FTE staff by fund source, employee classification, approximately 30 other demographic variables, and salary information. This area is by far the most developed portion of the IRIS system.

The student longitudinal database has been used for retention and graduation reporting. It includes admission and enrollment snapshots, test scores, graduation information, student demographics, and student major information.

The faculty activity system includes student credit hour data, faculty workload and productivity data (ending in 2010 when non course-related data were no longer collected) and sponsored funding information.

Finally, the department tables help the Office of IR keep track of every department in the university and the appropriate organizational structure of the departments within the university. These tables were originally created by the Office for reporting purposes but the use has grown across campus. It is now a source table for many other functions at ISU including parking systems, purchasing, and budgeting.

Iowa State University developed an enterprise-wide data warehouse (called e-Data) along with business intelligence tools for reporting and analysis to aid planning and decision-making. The project was spearheaded by Information Technology. Institutional Research was involved from the beginning and continues to play a critical role in the development of the warehouse. A senior staff person was a member of the Data Warehouse Development and Implementation Team and the Director serves as a member of the

Data Warehouse Leadership Group, which is responsible for governance and oversight of the warehouse. All IR staff members have provided input and feedback into the development of the various data portals (student, employees, etc.). IR staff also write reports from the data warehouse using Cognos. In addition, the IR staff have taken on the responsibility for creating the data dictionary to assist users of the warehouse. IR staff, along with staff of other data stewards, have created definitions for data elements and report specifications using the “Data Cookbook” product from the iData company. IR staff have also served as liaisons to other departments and units to encourage the use of the data warehouse, sometimes providing training to other campus groups on how to use this information.

The Office of IR will continue to play a leading role in the development of the data warehouse, and will also be a critical partner in the development of a new ERP system. IR will be the primary bridge in reporting student and employee longitudinal data as we move forward with a new enterprise system.

### **3.4.3. Facilities**

The Office of IR is located in Beardshear Hall, the central administrative building. The address is 3410 Beardshear Hall, and has a total net assigned space of 1,164 square feet. Within room 3410, there are five individual offices for the professional staff members, a work station for one support staff member, with space for storing office-produced reports, other publications and reference materials.

Four of the offices have windows and are equipped with office furniture, individual telephones and lines, heating and cooling units and storage units. The support staff work station has similar office equipment. A laser printer and a multipurpose copier/printer/fax machine, used by all staff, are located within the space around this workstation.

The Office of Institutional Research will move to a new location, the Kingland Office Building, where the university has leased space for locating several administrative units. The space assigned to the Office of IR will have a total net assigned space of about 1,500 square feet. There will be six staff work stations, one support-staff work station, and a storage area. Unlike the current Beardshear Hall location, the staff work stations in the new location are designed to be in an open-space environment.

### **3.4.4. Other Resources**

Other resources available to IR include services obtained from other units within the university and information sources from outside of the university.

Information Technology Services (ITS) will continue to be a critical resource for IR, as already discussed above. The offices of Registrar, Student Financial Aid and Controller have provided support by completing mandatory surveys specific to their respective areas. University Marketing annually provides services related to the university’s theme to be incorporated in IR publications such as the Fact Book. The University Statistical Lab provides its services when we need to survey faculty for purposes of governance mandated reporting.

By far the most important source of peer comparative data is the Association of American Universities Data Exchange (AAUDE). It has the distinct advantage of making available data that are most relevant to research universities. The AAUDE data warehouse, under development since 2002, is a rich source of information. Comparative data are available in several areas including faculty and administrative staff compensation, student enrollments, tuition and fees, student retention and graduation, faculty workloads, and graduate student stipends. The Data Exchange will even be richer when its strategic plan, AAUDE 3.0, is fully implemented.

Following our license agreement in 2010, Academic Analytics has been a good source of information on faculty scholarly productivity at central, college and department levels, as well as for monitoring Iowa State's stature as a major research university.

The Federal government, through its IPEDS data system, has also become an increasingly important source of comparative information in higher education. The development of IPEDS data tools such as the Peer Analysis System (PAS), Executive Peer Tool (ExPT), College Navigator, Data Analysis System (DAS) and other NCES data sources and publications, has made it easier to access national data sources. Other specialized national data sources such as the National Science Foundation (NSF), Association of University Technology Managers (AUTM), and private data collectors have also become valuable sources of information.

## **SECTION 4: RANGE OF INSTITUTIONAL RESEARCH ACTIVITIES AND OUTCOMES**

The Office of IR has the dual role of (a) collecting and disseminating accurate and timely information about the university, and (b) providing analytical support for planning and decision-making. The office does this by developing and maintaining internal data base information, and/or accessing external data-exchange and national data sources.

This section provides details of the range of activities of the Office of IR and their outcomes.

### **4.1. General Information**

#### **4.1.1. Fact Book**

The Office of IR has published an annual Fact Book since 1993-94. The content of the Fact Book is comprehensive, covering all activities of the university. Having been available both in print and on the IR Website for many years, it went on-line only starting in 2014-15, saving IR and the university over \$10,000 annually. The ISU Fact Book is exemplary, both in content and design, and has been adapted by such universities as the University of Wisconsin-Madison, Purdue University, and the University of Northern Iowa.

A major user of the Fact Book is the university community. The off-campus audience includes university Extension offices throughout the state, the Board of Regents office, legislators, libraries, and the local media. An electronic version of the Fact Book has been available on the IR web site since 1996-97. The actual pages from the Fact Book, plus some additional longitudinal and supporting data are available online. All Fact Book pages are downloadable in one or more formats.

A consumer satisfaction survey in 2008 indicated that the Fact Book was the most frequently used IR report and was mentioned the most in the responses to the open-ended questions in the survey, *What services or reports provided by IR stand out as most helpful to you?*

The Fact Book is updated and published every year in December. Revisions are regularly made based on feedback and comments received from users, and to meet emerging information needs. All staff members contribute to the compilation of the Fact Book. The Senior Research Analyst coordinates staff effort in compiling the content. Feedback concerning the Fact Book indicates that this document answers basic information needs and may have reduced the number of ad hoc data requests to the Office. It has also become a useful reference document within the university.

#### **4.1.2. e-Data, the Data Warehouse**

The e-Data is our web-based central reporting portal warehouse developed by the ITS e-Data Team with cooperation and input from Institutional Research, Registrar, Human Resource, Treasurer, Sponsored Program Administration and other units within the university. The e-Data has become a primary source of

information in the areas of student enrollment, courses and credit hours, human resources, finance, sponsored programs, and budget. The e-Data, considered the official source of data, has reporting portals corresponding to these areas.

Details on e-Data can be found in the separate report prepared by the ITS e-Data Development Team appended to this study, Appendix C

#### **4.1.3. Department Profiles**

The Department Profile Report in e-Data contains data from eight different subject areas including: student enrollment, student credit hours, human resources data, budget data, finance data, research and sponsored programs, space, and utilities. It was the result of a joint effort by the Office of IR, ITS, and the Provost's Office to provide academic departments with data essential for the University Program Review and other purposes.

In previous years, Departments had to contact offices across campus for various pieces of information. This was inefficient and also led to Departments reporting on some items while leaving others out simply because they could not find the appropriate data source. The Department Profile portal eliminates the inefficiency and allows for more structured reporting.

The Profile is structured so that a Department can see trends in each area over a given time (semester, academic year, calendar year). The data can also be easily downloaded and printed with tables and graphs. The collection of these data in one place is a huge step forward in both the use of available data and the ease of reporting for units within the University. It also allows for more consistent reporting across units, which was not typically the case. By working with ITS and the Provost's Office, IR was able to suggest which data would be most useful to departments, based on previous data requests, and which trends and graphs would be useful not only for program review but also to inform conversations around continual program improvement.

#### **4.2. Information to Meet Accountability, Governance and Data Exchange Obligations**

The Office of IR is responsible for either completing or coordinating the completion of external surveys. The office serves as a clearinghouse for data surveys received from outside the university to ensure the accuracy and consistency of university-wide data. The role of IR in this area has steadily increased in recent years. All mandatory governance and accountability reports and surveys originating from private data collectors were prepared and submitted in a timely fashion. A chart, "Office of IR Schedule of Projects," is prepared annually to plan and monitor survey completions and other IR projects (See Appendix G).

#### **4.2.1. Government Surveys and Reports**

The federal government's Department of Education requires mandatory reports through its Integrated Postsecondary Education Data System (IPEDS). The Director of IR serves as the institutional representative and IPEDS "key holder" for Iowa State University. The IPEDS data collection system, which comes in three waves (fall, winter and spring), includes the following surveys: Institutional Characteristics, Completions, 12-Month Enrollment, Human Resources, Fall Enrollment, Finance, Graduation Rates, Student Financial Aid, Admissions, Outcome Measures, and Academic Libraries. The Office of Registrar, Student Financial Aid, Controller, and the Library assist in completing the IPEDS survey most specific to their respective area.

All IPEDS surveys have been completed and submitted in a timely fashion. Given the current national climate for more accountability, the federal IPEDS data collection system has expanded over the years and is likely to expand in the future.

The Office of IR is also responsible for coordinating and responding to data requests from the State of Iowa. The main surveys are collected annually by the Iowa College Student Aid Commission. They include: Student Body Profile, Student and Faculty Ethnic Diversity, Geographic Location of Alumni, and Student Financial Aid. Similarly, these reports are completed in cooperation with the university's relevant units.

#### **4.2.2. Board of Regents, State of Iowa**

Iowa State University regularly submits to the Board of Regents (BoR), State of Iowa, reports to meet governance reporting requirements. The reports for which the Office of IR is wholly or partially responsible include: Salary and Benefits Report, Comparative Tuition & Fee Rates, Graduation and Retention Rates (prepared in cooperation with the Office of the Registrar), Unit Cost Study (prepared in cooperation with the Division of Business and Finance), Strategic Plan Progress Report including its Performance Indicators, Faculty Tenure Report, and Faculty Activities Report (now a biennial report).

In 2005, the Board of Regents, State of Iowa, reviewed and scaled down some of its data requests, especially in areas related to faculty workload, that resulted in reduced institutional burden. In addition to the regular reports, the Board of Regents' office routinely makes ad hoc requests for peer comparative data related to several aspects of university activities including faculty and administrative staff compensation, tuition and fees, and admission policies.

#### **4.2.3. Membership and Data Exchange Obligations**

Each year the Higher Learning Commission (HLC) requires member institutions to provide an update on organization health. The director of IR is designated Data Update Coordinator. The Office of IR completes the main HLC annual Institutional Data Update survey. The Division of Business and Finance completes the finance portion of the survey.

To meet Iowa State's data exchange obligations, IR maintains liaison with AAUDE (Association of American Universities Data Exchange), the data arm of AAU, an association of 60 major public and private research universities in the U.S. and Canada. Institutional Research meets all of the data exchange and service obligations to that association. Iowa State currently participates in 15 of the total of 18 AAUDE exchange items.

In addition to the formal data submission and sharing, IR staff members respond to e-mail and phone inquiries that originate from AAUDE members. The staff also sends Iowa State inquiries, the responses of which are shared with the university administrators most pertinent to the subject of inquiry.

Iowa State University is one of those universities that have committed themselves to participate in the Voluntary System of Accountability (VSA), a collaborative effort among the American Association of State Colleges and Universities (AASCU), the National Association of State Colleges and Land-Grant colleges (NASULGC), and the public higher education community.

The outcome of the VSA project is the *College Portrait*, which provides consistent, comparable and transparent information on the characteristics of institutions and students, cost of attendance, student success rates, degree offerings, student engagement with learning process, and core educational outcomes. The information is intended for students, families, policy-makers, campus and staff, the general public, and other higher education stakeholders.

Iowa State also participates in the Student Achievement Measure (SAM), an alternative measure of student achievement which allows institutions to utilize National Student Clearinghouse Student Tracker data to provide a more complete and meaningful picture of student success. The SAM model uses the same methodology and data as the VSA *College Portrait*, however the information is presented differently in the two systems.

The Office of IR updates and maintains both the VSA *College Portrait* and SAM in a timely and accurate manner. The *College Portrait* is hosted and maintained by the Office of IR. It is available at <http://www.ir.iastate.edu/CollegePortrait.html>. The SAM graphs and data tables are located at: <http://studentachievementmeasure.org/participants/153603>.

#### **4.2.4. Private Data Collectors**

Institutional Research is also responsible for responding and/or coordinating responses to surveys originating from the many private data collectors and publishers such as the Association of American University Professors (AAUP) (for faculty compensation), the US News & World Report, The Princeton Review, the College Board, Peterson's, Wintergreen/Orchard House, etc.

The national effort to establish a Common Data Set (CDS), resulting from discussions and agreements between data providers and data collectors, has been successful. The content of the CDS was intended to facilitate the preparations of institutional responses to data collectors/publishers' requests. We prepare the Common Data Set starting in the fall and use it as a basis for our responses to major external



surveys. However, it is recognized that most private data collectors and publishers continue to request specific and unique information that go beyond the CDS. The number of requests for information from private data publishers continues to grow.

Some of these private data collectors, such as the US News & World Report and The Princeton Review, engage in ranking exercises and publish their results. Thus, in addition to submitting the required information to such publishers, the Office of IR strives to learn about and monitor their methodologies to make sure that the information we provide places Iowa State University and its programs in the best light possible.

### **4.3. Support University Policies and Goals of the Strategic Plan**

#### **4.3.1. Performance Indicators on Goals of the Strategic Plan**

The Strategic Plan 2010-2015 of Iowa State University initially established 24 *Performance Indicators* for monitoring progress towards achieving the goals established by the plan. The number of indicators was eventually reduced to 12. Eight of those indicators, termed *Common Academic Indicators*, are common to the three sister universities governed by the Board of Regents, State of Iowa.

The Director of IR, as a member of the Strategic Plan Committee, was closely involved in the formulation of the initial performance indicators. Responsibility for implementing the indicators and compiling the data needed was assigned to the Office of IR. The Office annually compiles the data/information needed for all of the performance indicators from internal and external data sources.

Starting in 2013, Senior Vice President & Provost Jonathan Wickert extended the strategic plan goals to the college level. Thus, data and analyses on the indicators has been performed both at the institution and college levels. Institutional Research cooperates with the Director of Communications in the Office of Senior Vice President & Provost in preparing a formal progress report that is annually submitted to the Board of Regents

#### **4.3.2. Employment of Non Tenure Eligible Faculty**

Iowa State has guidelines on instruction by non-tenure eligible faculty. A key provision of those guidelines stipulates that “part-time and non tenure eligible faculty appointments be limited to no more than 15 percent of the total instruction within the university, and no more than 25 percent of the total instruction within any given department.”

The Office of IR prepares an annual report, *Employment of Non Tenure Eligible Faculty*, to meet the reporting requirements of those guidelines. The report utilizes three alternative “measures” of instruction, based on the fall term, for checking whether or not the stipulated thresholds are met. The measures are (1) student credit hours (SCH), which take into account the credit value and the number of students enrolled in a course section; (2) section credits (alternatively referred to as faculty credit hours (FCH)), which reflect only the credit value of course sections; and (3) course sections, which are simply

counts of course sections regardless of the credit value. The report provides university-wide and college summaries, and in the details, lists departments alphabetically within a college.

In each case, the report displays the number of instructional faculty FTE by tenure status, and the amount of instruction generated by each faculty category at the undergraduate, graduate and professional levels. The percent of instruction contributed by each faculty category is also displayed and used to monitor compliance with the guidelines. Results can vary depending on which measure is used.

The report is submitted to the Office of Senior Vice President & Provost along with a brief analysis, identifying those departments that have not met the established threshold. The Office of Senior Vice President & Provost shares the results with the Faculty Senate and the academic deans. The distribution of the information generates conversation at the department, college and university levels about the best ways to manage instructional resources

#### **4.3.3. Academic Analytics Faculty Scholarly Productivity Data**

Academic Analytics (AA) is the source of comprehensive data on faculty scholarly productivity covering six areas of research activity: (1) book publications, (2) journal article publications, (3) citations of journal articles, (4) conference proceedings (limited to certain fields), (5) federal research grants, and (6) honor and awards.

AA data are structured to enable comparisons by institution, discipline, department, PhD Program and individual faculty, depending on the type of subscription purchased by an institution. AA data is being used by universities for benchmarking faculty productivity (at various organizational levels), program review, resource allocation, planning, faculty recruitment and/or retention, tenure and promotion decisions, and nominations for national awards of achievement.

Iowa State started with a subscription at the *aggregate* level in 2009 and has expanded to the *faculty details* level in 2014. The Details level subscription gives us access to all of our faculty data going back to the beginning of the database, which would allow us to conduct some internal analyses. We have provided access to the database to deans and their designees, and department chairs and their designees. This is in addition to administrators and staff in the Division of Academic Affairs.

At Iowa State, we have used AA data centrally, for strategic plan measures and academic program reviews. Deans and department chairs are using the data to support hiring decisions, to set goals for department improvement, and to better understand how their faculty compare to their peers. Since our adoption of the Details level, access to and usage of AA data have steadily increased. We continue to see the majority of the usage done by Chairs and their designees as well as Deans in diverse Colleges.

AA is currently perhaps the most comprehensive data on faculty scholarly productivity and the only data that allows for comparisons across peers as well as across different disciplines, in spite of some limitations such as, data on research grant limited to federal agency. Academic Analytics, as a source of data

on faculty productivity is likely to be even more significant in the future, given the priority of “Enhance the university’s research profile,” in our up-coming strategic plan.

#### **4.3.4. Simulation of AAU Membership Indicators**

Maintaining its stature as a major research intensive institution and its membership in the Association of American Universities (AAU) is very important for Iowa State University. President Leath’s announcement of “Enhance the university’s research profile” as one of the Priorities for the up-coming strategic plan confirms this.

The Office of IR has in the last two years engaged in simulating AAU calculations on its membership indicators using the data sources that AAU uses. The simulation assesses Iowa State’s position on each membership indicator in the context of all AAU member institutions. The result of such simulations has been helpful in two ways: (1) It indicated areas of strengths and weaknesses, enabling the President and the Provost to initiate and direct efforts towards strengthening the areas of weakness; (2) It has enabled us to carefully review our data submissions to the data sources, such as NSF and IPEDS, to make sure they are accurate and put Iowa State in the best light possible. This project is a good example of the use of data to document and improve performance.

#### **4.3.5. Faculty & Staff Salary Analysis**

Two statements noted as goals in the Strategic Plan 2010-2015 are: *Recruit, support and retain a diverse group of faculty and staff; Foster a culture and work environment that rewards faculty and staff for their contributions.* Implied in these goal statements is the need to maintain market competitive faculty and staff compensations.

The Office of IR prepares annual reports and performs various compensation analyses that help monitor Iowa State’s competitiveness in salary levels and to make annual salary decisions. The two main reports IR prepares, and to which the President and the Provost refer in their annual compensation policy and procedures memos as useful resources are: the Peer Land-Grant Universities Faculty Salary Comparisons, and the internal Salary Comparisons by Gender and Race/Ethnicity.

The Peer Land-Grant Universities Faculty Salary Comparisons, an annual report prepared by IR, compares Iowa State’s faculty salaries to those of its peer land-grant universities. Data for this report come from the Association of American Universities Data Exchange (AAUDE) and the Oklahoma State University *Faculty Salary Survey by Discipline*. The method of analysis in this report controls for differences in the faculty rank mix as well as for differences in disciplines among the peer universities. Using the federal codes of instructional programs (CIP), peer universities’ disciplines are configured into collegiate structures similar to those at Iowa State University. “Faculty”, for the purpose of this study, is defined as those persons holding any of the traditional three professorial ranks – professor, associate professor and assistant professor. Twelve-month salaries are converted to 9-month equivalent using a 9/11 conversion factor.

The Iowa State average salary and the peer average salary, displayed for each faculty rank at the department level, provide a basis for gauging the competitiveness of salary levels at the department. The comparative figure for all ranks combined (three ranks) of the peer average reflects Iowa State's rank mix. The comparative figures are summarized at the college and university levels to give an indication of salary competitiveness at the college and university levels. An index, relating Iowa State to the peer average, is calculated for ease of comparison. The 2014-2015 report indicates an overall index of 0.94 for Iowa State University, which is below the market.

The Salary Comparisons by Gender and Race/Ethnicity, an internal report periodically prepared by IR, compares salaries, number of years since highest degree, number of years at Iowa State, and number of years in current faculty rank for women and men faculty and minority and majority faculty at the department level. Such a comparative analysis by department of men and women, and minority and non-minority salaries is helpful to address issues of salary equity.

In addition to the two reports described, a report on Selected Senior Administrator Salaries from AAUDE data sources is prepared for the President and the Provost to help them monitor the competitiveness of Iowa State's salary levels in those administrative positions. Institutional Research also prepares analyses based on AAUP data sources, as the latter is the most commonly available and popular source for faculty compensation. The Board of Regents' office sends inquiries about this data source.

#### **4.3.6. *Student, Faculty and Staff Diversity Reports***

Linking to the university's concise mission statement, the Iowa State Strategic Plan 2010-2015 states: "It is imperative that the creation, sharing, and application of knowledge be a global effort characterized by a profound respect for diversity of people and ideas." Thus, an important goal is the expansion of the diversity of people, ideas, and cultures.

To monitor progress towards achieving the stated goal, the Office of Senior Vice President and Provost requires all colleges and other major university divisions to prepare and submit periodic diversity report. Institutional Research supports colleges in preparing their reports by providing data on diversity of student enrollment and faculty and staff. Our annual Fact Book contains data on aspects of diversity such as gender and race/ethnicity.

In addition to the regular reporting, issues of diversity that require peer comparative data do come up every once in a while. Institutional Research obtains the requested information from AAUDE and other national sources such as the federal government's IPEDS system.

Given the priority of "Enhance a welcoming, safe, and inclusive environment," in the up-coming strategic plan, and the recent appointment of a new Vice President for Diversity and Inclusion, we can anticipate the need for establishing base information in diversity immediately, and a need for data and analysis for monitoring progress in the future.

#### **4.3.7. Tools to Assess Student Learning**

The Strategic Plan states, “The University must maintain a strong focus on student success and provide exceptional undergraduate, graduate, professional, and outreach programs that prepare students and citizens for leadership and success.” The Plan also states as a goal: *Provide a high quality student life that engages and challenges students to collaboratively learn, grow, and succeed.*

Iowa State participates in the National Survey of Student Engagement (NSSE), conducted by Indiana University’s Center for Postsecondary Research. The NSSE survey assesses the extent to which students engage in educational practices that promote learning, and is administered in the spring to samples of freshmen and senior students. Iowa State participates in NSSE every three years. The Office of IR is the primary contact for NSSE and facilitates the administration of the survey by providing information needed for the sampling of students.

Student responses to the surveys provide valuable information that is helpful to improve student learning. The survey results also provide opportunities for assessing the effectiveness of Iowa State’s teaching/learning through comparisons with national norms and peer-university benchmarks.

Iowa State has participated in the NSSE since 2000. The results of the NSSE survey are used in several ways. First, a summary of results is prepared by the Office of IR, in cooperation with the Provost’s office, for presentation at meetings; second, the Center for Excellence in Learning and Teaching (CELT) shares NSSE results at faculty forums it sponsors which provide opportunities to discuss ways to enhance learning; and third, summary results are posted on the IR website for access by faculty and other interested members the university community.

The NSSE survey has recently acquired an added significance in the current environment of heightened calls for accountability; it has been identified by the VSA program as one of the four national survey options for providing measures of student involvement on campus for posting in the Student Experience and Perceptions section of the *College Portrait*.

### **4.4. Service to President, Provost and other Administrators**

#### **4.4.1. Data for Program Review and Accreditation**

One of the stated priorities of Iowa State’s Strategic Plan is to “strengthen undergraduate, graduate, and professional education to enhance student success at Iowa State and beyond.” And one of the plan’s goals under that priority is, *Improve the rigor, challenge, and international reputation of academic programs.* The Board of Regents policy that requires academic programs to undergo a program review at least every seven years is intended to address this goal. So is the process of earning accreditation from relevant accreditation agencies.

The university's Academic Program Review Policies encourage academic programs to work with the Office of IR to obtain relevant information for their self-study in the program review process. On average, about seven academic programs undergo program review in the university annually. The chairs of those academic departments that undergo program review, or the faculty committees established for that purpose, contact the Office of IR for data. The Office provides data pertinent to the programs being reviewed. The development of the Department Profiles, located in our warehouse (discussed in Section 4.1.3.) was developed primarily with program review in mind.

Requests for data, which are similar to those needed for program review, come from academic departments seeking or renewing accreditation. The Office of IR does its best to meet those requests. Typically, they include comparative inter-university data in addition to internal data.

#### **4.4.2. *Ad Hoc Information Requests***

The Office of IR receives substantial numbers of ad hoc requests for information. The requests come from both internal and external sources and cover a wide variety of topics. The Office does its best to respond to such requests promptly. Internal request can originate from the offices of the President and the Provost, other senior administrators, deans and department chairs, faculty and staff committees, and student organizations. The requests may come to the director or to a specific IR staff member via e-mail or over the telephone. In some instances, the requests may come to the IR e-mail address, in which case the IR secretary directs the request to the IR staff member best positioned to respond. An example of significant ad hoc requests is the most recent one from Provost Wickert requesting comparative data and analysis to help the Strategic Planning Committee to review our existing ten peer land-grant universities, which was promptly carried out.

Information requests from external sources are mainly from peer universities, especially members of the AAUDE, private data collectors and publishers, and the press. The AAUDE encourages its members to use an established standard e-mail inquiry when they make ad hoc requests. It also requires the inquiring institution to share the summary of its findings with the responding institutions. We respond to such requests as much as we can, either by directly providing the information or by seeking help from the university unit that is most pertinent to the subject of the inquiry. We routinely share summary results of informal inquiries sent by peer institutions with the university units that we think would benefit from the results.

Responses to internal ad hoc information requests can vary depending on the type of question and degree of urgency. Responses can range from immediate response to sending an informal e-mail inquiry to peer universities, in which case the response can take up to two weeks.

Ad hoc requests, be they from internal or external sources, are unpredictable and many tend to be urgent. It is therefore difficult to plan for them in setting office priorities and establishing staff workload.

However, it is important that the office respond to ad hoc information requests in a thoughtful, accurate and timely manner.

#### **4.4.3. *Support of the ADVANCE Program, Faculty Development, and Faculty Flexible Career Policies***

The Office of IR also supports the Associate Provost for Faculty, through the Associate Director, on three specific projects: (1) the ADVANCE program; (2) the Faculty Development Team; and (3) the monitoring of faculty flexible career policies.

The ADVANCE program was originally funded by an NSF grant and is now self-supporting. It began as a program to recruit, retain and enhance the careers of women and faculty of color in STEM areas. The IR Associate Director was a co-principle investigator on this grant. The ADVANCE program has now expanded to include “Equity Advisors” in every college along with continued support from IR for any data needs.

In addition to the creation of the equity advisor positions, each department that undertakes a program review now participates in a process called “collaborative transformation” to improve the work environment for all faculty by identifying cultures, practices, and structures that enhance or hinder the careers of ISU faculty.

The Faculty Development Team is a small group consisting of members of the Provost’s Office Faculty Fellows program, the Center for Excellence in Learning and Teaching, the Vice President for Research Office and the IR Office. The team sets the agenda for faculty development opportunities on campus including department chair training, mentoring programs and support of non-tenure eligible faculty. The Office of IR has made presentations to department chairs and deans on survey results of faculty satisfaction and the use of Academic Analytics. IR staff continue to play a vital role in supporting faculty development on campus.

The monitoring of flexible career policy use began almost 10 years ago when ISU was awarded a small grant from the Alfred P. Sloan Foundation to develop a database to assess the effectiveness of flexible faculty career policies. A report was presented to the Sloan Foundation and to an ADVANCE-funded conference in summer 2008. It was subsequently reported by the American Council on Education as a best practice for flexible career policies (see “Making the Business Case: The Imperative for Supporting and Promoting Workplace Flexibility in Higher Education” (<https://www.acenet.edu/news-room/Pages/Making-the-Business-Case-for-Workplace-Flexibility.aspx>)). Through these efforts, the Office of IR was able to add information about the use of the tenure-clock extension policy to its administrative data systems in order to continue to monitor usage and outcomes on a yearly basis.

## **4.5. Service to the Higher Education Community**

Institutional Research support to the university would not be complete without mentioning contribution to the higher education community. IR staff members provide service to the higher education community mainly through membership and leadership roles in committees, professional services and civic duties. Their services can be grouped into two categories: Service to the Iowa State and the immediate community and service to the national and global higher education communities. Staff resumes are attached to this report in Appendix E to give a sense of the types of services IR staff members provide.

### **4.5.1. Service to the University Community**

The Director of IR is currently a member of several committees within Iowa State, including the President's Committee on Enhancing Institutional Excellence (PCEIE), co-chairing one its sub-committees, the HLC Reaccreditation Steering Committee, President's Advisory Committee on National Rankings, the e-Data Warehouse Leadership Committee, Caucus of Black Faculty and Staff, and the African & Afro-American Studies Forum. The director is also an Adjunct faculty in the School of Education, a member of the graduate faculty, and has served on dissertation committees.

The Associate Director also serves on several committees: Chairs the University Committee on Women, and is a member of Women's Consortium Leadership, University Committee on Diversity, and the Human Capital Subcommittee of the Technology Enterprise Advisory Committee (TEAK). She is also a Co-PI for two externally-funded studies, and serves on student thesis and dissertation committees. The Senior Research Analyst serves on the Academic Standards & Admissions Committee, and University Committee on Women. She also assists in the data reporting for the University Initiative Alliance (UIA).

Membership in such committees and groups provides the IR staff appropriate forums to serve the university community as well as to become the main resource for information needed by the committee or group.

IR staff members also routinely provide advice to individual faculty, staff and students on appropriate data sources, data qualities and limitations. Students frequently request staff advice and consultation in relation to research studies involving institutional data.

In conjunction with the overall management of the office and its functions, it is the goal of the Office of IR to establish new and strengthen existing collaborative relationships with other units within the university. The IR staff currently works closely with several offices, such as the Office of the Registrar, the Admissions Office, University Relations and the Provost's office. Collaborative relationships have to be strengthened with the Graduate College, to address emerging data exchange initiatives resulting from AAUDE efforts; Human Resource Services, on consistency and reporting of staff data; and the Offices of Research Administration, and Extension and Outreach on the paucity of central information in those university areas.



#### **4.5.2.     *Service to the Higher Education Community at Large***

Contributions to higher education, and indeed to society at large, can be made through research and publications, presentations of research results and practical demonstrations, and services and leadership roles in professional associations and groups. Sample publications and presentations contributed by IR staff members can be seen in the attached staff resumes in Appendix E.

The AAU Data Exchange (AAUDE), as previously mentioned, has become an excellent source of peer comparative information. It relies on voluntary service of its members in the development and maintenance of the data exchange items. Iowa State's Office of IR has done its share of providing the expected services. Institutional Research is the caretaker of the IPEDS Fall Enrollment, one of the exchange items. Caretaking of the item involves carefully reviewing and cleaning up of the data to ensure accuracy and consistency before commitment to the AAUDE data warehouse.

The Director of IR is currently a member of the AAUDE Review Committee, and chaired a committee that substantially revised the bylaws, and policies and procedures of AAUDE in 2006. He also served a three-year term as a member of the AAUDE Governing Council (2005-2007). A Research Analyst was first a member of the AAUDE Web Front-End development working group and is currently a member of the Analytics Reporting Team (ART) and the ART Steering Committee.

One of the frustrations often noted among the IR staff members is the lack of time to engage in creative and research-oriented activities to the extent they would have liked. Staff members would benefit from increased opportunities to investigate areas of academic interest in greater depth. Given the current workload, it is a continuing challenge to find ways to provide such opportunities.

## **SECTION 5: SUMMARY AND CONCLUSION**

The program review process, especially the preparation of this self-study, supplemented by those of the e-Data Development Team and the Enrollment Research Team (ERT), led to clearer understanding of the vision, mission, priorities and goals of IR in the context of the university's Strategic Plan. The process has indicated the strengths of the Office and the challenges it faces, and has pointed to opportunities for IR's future directions. The strengths, challenges, and future opportunities have been implied in the text of the self-study report. They are explicitly stated in this section as a summary of the report.

### **5.1. Strengths**

The strengths of the Office of Institutional Research are evident in its ability to provide accurate and timely information needed for institutional planning and decision-making, and meeting institutional reporting obligations. The following listing summarizes specific strengths of the office:

- Well-qualified, experienced, dedicated and hardworking staff with a commitment to quality, customer service, continuous improvement, and support to university mission.
- Preparation and dissemination of a wide range of information through comprehensive regular reports, and special-purpose reports to address differing needs.
- Ability to respond to requests for information in a thoughtful, accurate and timely manner.
- Ability to document university's stature through comparative information to improve performance.
- Ability to work cooperatively with a variety of other university offices, such as the Provost's Office, the Registrar's Office, Admissions, Student Financial Aid, University Relations, and University Marketing, to address various university policy issues requiring information and analysis.
- Ability to access data/information from peer groups, national governmental and private data sources.
- Ability to provide benchmark comparisons on students, programs, faculty workloads, faculty and staff salaries, completions, tuition and fees, and other areas through data exchange groups and through contacts with a strong network of peer universities
- Commitment to taking full advantage of emerging technologies; availability of up-to-date micro-computer capability, efficient internet connection, and supportive IT services.
- Contributions of IR staff to the university community, professional organizations, and the higher education community at large.

## **5.2. Challenges**

The majority of the challenges faced by the Office of Institutional Research are related to its evolving role in the current environment of heightened emphasis on accountability at the state and national levels in the face of limited resources. It is important to provide easy access to information and provide effective analytic support for decision-making and planning in the emerging environment that places emphasis on student-focused perspective. The following listing summarizes specific challenges faced by the office:

- Increased demand for new and expanded information in response to accountability initiatives.
- Limited staff and budgetary resources in the face of expanding responsibilities.
- Need to expand opportunities for closer cooperation and integration with units having complementary functions to better serve the university.
- Need for direct access to major policy deliberations, essential to anticipate and plan for information and analytic needs.
- Need for higher visibility with the university community to enhance awareness of the services of the office, and to learn about specific information needs of university units.
- Review and expand existing IR databases for easy adaptation to the emerging enterprise-wide data warehouse and related tools of reporting and analysis.
- Need to continually explore better and more efficient ways of disseminating information for ease of access, with special emphasis on electronic means.
- Need to steadily move from data collection and compliance reporting to higher levels of analytic work.
- Provide IR staff members with opportunities for research and creative analyses and to contribute to the body of knowledge in higher education.
- Enhance staff ability to access external data sources by taking full advantage of emerging developments in information technology.

## **5.3. Opportunities for Future Directions**

Several factors and new developments point to opportunities for charting new directions for the Office of Institutional Research and institutional functions in general to effectively deal with the challenges stated above, and to better serve the university's information and analytic support in the future. They include:

- The new ERP software system under consideration, a strategic redesign of the University's technology landscape, which when fully implemented, will provide a unified solution that incorporates existing university data bases.
- The new Strategic Plan under development around four priorities: enhancing a successful experience for students; enhancing the university's research profile; support state and regional economic development; and ensure a welcoming, safe, and inclusive campus environment.
- The continuing implementation of the results of our Board of Regents' study, Transparent Inclusive Efficiency Review (TIER), which places emphasis on accountability and efficiency of Iowa State University and its two sister universities.
- The trend in higher education that calls for IR functions to enable data-informed decisions in an increasingly student-centered environment.
- The need for closer collaboration and/or possible integration of units currently performing data analytic work for the university.
- The pending leadership transition at the Office of IR, coupled with the move to a new office location, presents to university administration an opportune time to assess and chart new directions for the Office and the new leadership.

The Institutional Research staff appreciates the many insights gained during the general process of the program review and the preparation of this self-study. It is anticipated that the campus visit by the external team of experts, and the report of the team that follows, will provide insights from which additional lessons will be learned. The lessons will help the Office of IR position itself to more effectively support Iowa State to realize its mission of "creating, sharing and applying knowledge to make Iowa and the world a better place."

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## **APPENDICES**

<b>Appendix A</b>	<b>Iowa State University Strategic Plan 2010-2015</b>
<b>Appendix B</b>	<b>AIR Survey of Institutional Research Offices</b>
<b>Appendix C</b>	<b>e-Data Development Team Report</b>
<b>Appendix D</b>	<b>Enrollment Research Team (ERT) Report</b>
<b>Appendix E</b>	<b>Staff Resumes</b>
<b>Appendix F</b>	<b>Institutional Research Budget 2006-2016</b>
<b>Appendix G</b>	<b>Institutional Research Projects 2015-2016</b>





### Meeting the Challenges of the 21<sup>st</sup> Century

#### ***Integrating Basic Research, the Design of New Technologies, and Entrepreneurial Applications***

*The challenges of the 21<sup>st</sup> century demand that we focus on what we do best. To ensure that Iowa State University is a leading research university in 2050, we must recruit, support, and retain students, faculty, and staff who are committed to excellence, integrity, the free exchange of ideas, and collaboration. It is imperative that the creation, sharing, and application of knowledge be a global effort characterized by a profound respect for the diversity of people and ideas. These are the values that enrich our work and guide Iowa State's Strategic Plan.*



**Mission:** Create, share, and apply knowledge to make Iowa and the world a better place.

We must prepare the leaders of our nation and the world. To make the world a better place, Iowa State will call upon its great strengths in student-centered education, global collaboration, and transformational basic and applied research. Iowa State will lead in developing more sustainable ways to produce and deliver safe and nutritious food, water, materials, and energy; integrate the protection of plant, animal, and human health; and care for our environment. We will design tools and infrastructure that will create entrepreneurial opportunities. The major changes sweeping the

world are creating extraordinary opportunities for Iowa State to capitalize on its land-grant mission and be at the forefront in addressing our common, global challenges.

- **To create knowledge**, Iowa State must be a magnet for attracting outstanding students, faculty, and staff who will learn, work, and conduct world-class research and scholarship that address the challenges of the 21st century.
- **To share knowledge**, Iowa State's faculty, staff, and students must be able to communicate with and learn from diverse populations. The University must maintain a strong focus on student success and provide exceptional undergraduate, graduate, professional, and outreach programs that prepare students and citizens for leadership and success.
- **To apply knowledge**, Iowa State's faculty, staff, and students must be able to develop global partnerships to convert what they know into products, services, and information that will improve the quality of life for the citizens of Iowa, the nation, and the world.

**Vision:** Iowa State University will lead the world in advancing the land-grant ideals of putting science, technology, and human creativity to work.

Under the provisions of the Morrill Act of 1862, the State of Iowa designated Iowa State as the nation's first land-grant institution. The Act established the land-grant ideals that higher education should be accessible to all, regardless of race, gender, or economic circumstance, and that the university should teach liberal arts and practical subjects to provide an outstanding quality of life for future citizens. Iowa State pioneered the nation's first extension service and remains a leader in realizing the promise of the land-grant vision. The university enjoys a number of internationally known and prestigious assets that provide a unique foundation for continued growth and productivity. Iowa State and the city of Ames are home to a U.S. Department of Energy national laboratory; five U.S. Department of Agriculture research laboratories; the nation's finest genomic-based agricultural breeding, health, and biotechnology programs; world-renowned virtual reality, plant science, and bioeconomy institutes; and one of the nation's most successful technology transfer programs. Major recent investments in new research and educational facilities and an outstanding tradition of cross-disciplinary research bring all of Iowa State's colleges and departments together with global partners. The student experience emphasizes outstanding practical, international, and leadership opportunities, as well as a focus on student success. Iowa State alumni and friends are deeply engaged and invested in improving Iowa State. Over the next five years, Iowa State will continue to enhance its campus, capitalize on and leverage its strengths, and engage with partners to realize the goals of this Strategic Plan and create a better future for all.



# IOWA STATE UNIVERSITY

## Strategic Plan 2010-2015

### Priorities:

**Iowa State will be a magnet for attracting outstanding students who seek an education that prepares them to make a difference in the world.**

#### Goals:

- Recruit, support, retain, and graduate a diverse group of outstanding undergraduate, graduate, and professional students dedicated to making a difference in the world.
- Provide accessible residential and distance educational programs that build on Iowa State's strengths and excellence in science and technology integrated with design, business, education, arts, humanities, and social sciences.
- Provide a high quality student life that engages and challenges students to collaboratively learn, grow, and succeed as resilient global citizens and involved alumni.

**Iowa State will be a magnet for attracting outstanding faculty and staff who create, share, and apply knowledge to improve the quality of life.**

#### Goals:

- Recruit, support, and retain a diverse group of outstanding faculty and staff.
- Foster a university culture and work environment that rewards faculty and staff for their contributions, supports a balance between work and life, and inspires individuals to work together to achieve at the highest level of their abilities.
- Collaborate with Ames and surrounding communities to provide a premier living environment.

**Iowa State will be internationally known for faculty, staff, and students who address the challenges of the 21<sup>st</sup> century.**

#### Goals:

- Produce and disseminate transformational basic and applied research and creativity to improve the quality of life. Focus the resources of Iowa State on developing the basic knowledge and designing new technologies to create entrepreneurial solutions to the challenges of 2050 and beyond.
- Build and enhance outreach and global partnerships to promote scientific advances, economic growth, creative thinking, and improvement of the human condition.

**Iowa State will be a treasured resource for Iowa, the nation, and the world.**

#### Goals:

- Incorporate research and engagement in the student experience to produce civic-minded graduates who are well prepared to address complex societal problems.
- Build partnerships with communities of place and interest to solve problems and create opportunities.
- Involve citizens of Iowa and the world in collaborative interactions through extension, outreach, and engagement.



# AIR National Survey of Institutional Research Offices: Results for Benchmarking Iowa State University

## Characteristics of the Office of IR

How many institutions does the IR Office serve?	Iowa State	# Resp	% Total	Run Total
1 institution	X	17	81%	81%
2 institutions		1	5%	86%
3 to 5 institutions		0	0%	86%
6 to 10 institutions		2	10%	95%
11 to 20 institutions		1	5%	100%
More than 20 institutions		0	0%	100%
<b>TOTAL</b>		<b>21</b>	<b>100%</b>	<b>NA</b>

In which division is the Office of IR primarily located?	Iowa State	# Resp	% Total
President/Chief Executive Officer		1	5%
Provost/Chief Academic Officer	X	12	57%
Business Affairs		0	0%
Student Affairs/Student Services		0	0%
Technology/IT		2	10%
Other		6	29%
<b>TOTAL</b>		<b>21</b>	<b>100%</b>

Within that division, who does the Office of IR director/senior manager report to?	Iowa State	# Resp	% Total
Chief-level		11	52%
Associate/Assistant-level	X	7	33%
Other		3	14%
<b>TOTAL</b>		<b>21</b>	<b>100%</b>

# AIR National Survey of Institutional Research Offices: Results for Benchmarking Iowa State University

## What is the staffing level of the IR Office?

Average FTE of Director and Professional IR Staff		Iowa State	N	Mean	StdDev
		5.00	20	7.70	3.05
<b>Breakdown of FTE into categories</b>		Iowa State	# Resp	% Total	Run Total
Less than 1 FTE			0	0%	0%
1 FTE to less than 2 FTE			0	0%	0%
2 FTE to less than 3 FTE			1	5%	5%
3 FTE to less than 5 FTE			1	5%	10%
5 FTE to less than 10 FTE		X	13	65%	75%
More than 10 FTE			5	25%	100%
<b>TOTAL</b>			<b>20</b>	<b>100%</b>	<b>NA</b>

NOTE: FTE = Director/Professional IR staff full-time headcount + 1/2 Director/Professional IR staff part-time headcount

## How did the 2014-2015 professional IR Staff headcount compare to three years ago?

More staff now than 3 years ago	Iowa State	# Resp	% Total
No change	X	10	50%
Fewer staff now than 3 years ago		6	30%
Not applicable		3	15%
Don't know		0	0%
<b>TOTAL</b>		1	5%
		<b>20</b>	<b>100%</b>

# AIR National Survey of Institutional Research Offices: Results for Benchmarking Iowa State University

## Characteristics of the senior IR officer

Please indicate the highest degree by Office of IR staff type. Director/Senior Manager

Less than a Baccalaureate degree	Iowa State	# Resp	% Total	Run Total
Baccalaureate degree		0	0%	0%
Master's degree/Specialist (M.A., M.S., Ed.S.)		3	15%	15%
Doctoral degree, including professional practice doctorates (e.g., Ph.D., Ed.D., M.D., J.D.)	X	7	35%	50%
<b>TOTAL</b>		10	50%	100%
		20	100%	

Which best describes the director/senior manager's time commitment to the Office of IR?

100% (Full-time)	Iowa State	# Resp	% Total	Run Total
75%	X	17	85%	85%
50%		1	5%	90%
25%		1	5%	95%
0%		1	5%	100%
<b>TOTAL</b>		0	0%	100%
		20	100%	

How many years has the director/senior manager been in the following roles?

Employed at this institution?	Iowa State	N	Mean	StdDev
Employed in an IR capacity, regardless of employer?	15	20	16.25	10.89
Leading the Office of IR at this institution?	35	20	17.55	11.35
Ratio of leading the IR Office to employment in IR	15	20	8.50	8.07
	43%		48%	

# AIR National Survey of Institutional Research Offices: Results for Benchmarking Iowa State University

## Organizational Structure of IR and IT

Which best describes the organizational structure of Institutional Research (IR) and Information Technology (IT)?	Iowa State	# Resp	% Total	Run Total
IR and IT are in the same department		2	11%	11%
IR and IT are not in the same department, but report to the same administrative unit	X	5	26%	37%
IR and IT report to different administrative units		11	58%	95%
The institution does not have an IT department		0	0%	95%
Other		1	5%	100%
<b>TOTAL</b>		<b>19</b>	<b>100%</b>	

## AIR National Survey of Institutional Research Offices: Results for Benchmarking Iowa State University

### ***Twenty Institutions Selected from Survey Respondents for Benchmarking with Iowa State University***

University of Arizona  
University of California-Irvine  
University of Florida  
Georgia Institute of Technology  
Indiana University-Bloomington  
Iowa State University  
University of Kansas - Main Campus  
University of Massachusetts-Amherst  
University of Michigan-Ann Arbor  
Michigan State University  
University of Missouri-Columbia  
University of Nebraska -Lincoln  
University at Buffalo (SUNY- Buffalo)  
Ohio State University  
Oregon State University  
Penn State University-Main Campus  
University of Tennessee-Knoxville  
Texas A&M-College Station  
University of Texas-Austin  
University of Washington-Seattle  
Purdue University-Main Campus





## **e-Data and the Data Warehouse**

### **Overview of Information Technology Services and Enterprise Reporting**

Information Technology Services (ITS) is the centralized technology service provider on the Iowa State University (ISU) campus. It is responsible for providing all core computing and network services. ITS reports to the Office of the CIO. The office of the CIO, like the Office of Institutional Research, reports to the Senior Vice President and Provost.

Enterprise reporting is among the many and varied services ITS provides through its University Information Systems (UIS) department. Many of the operational reports are by-products of the core Human Resources and Student Information systems. The vast majority of Financial and Sponsored Programs operational reports are provided by our web-based central reporting portal known as e-Data. e-Data is also a primary source of management reports covering areas such as student enrollment, course & instruction information, employee/faculty/staff headcounts and FTE, departmental profiles, the Resource Management Model (RMM) and others.

### **History of e-Data and the Data Warehouse**

A joint proof of concept (POC) project involving the Treasurer, Registrar, Institutional Research and ITS was initiated in 2006. The goal of the POC was to define the need for and feasibility of developing a data warehouse at ISU. After several months of analysis and the development of working models to demonstrate warehouse concepts it was determined that ISU would commit resources and staff to build a formal data warehouse. Developing and maintaining the data warehouse and the reporting capabilities would be the responsibility of a new team in ITS to be formed for this specific purpose.

In 2007, ITS worked with ISU's Purchasing Department to develop an RFP soliciting quotes from vendors for a Business Intelligence (BI) software solution that would meet the university's reporting needs. Approximately 25 vendors responded. After a thorough analysis and several vendor demonstrations, the decision was made to acquire Cognos as the BI reporting tool of choice. Several months after ISU purchased Cognos, IBM acquired Cognos and has continued to enhance the software's functionality.

During the next 18 months, the ITS team worked with the vendor and consultants to install and implement the data warehouse in a production environment. The initial implementation included providing reports for the RMM. Over the course of the next two years staff from ITS, Institutional Research, Registrar and Human Resources worked together with another consultant to expand e-Data to include employee and student data/reports. In July 2013, the Kuali Financial System (KFS) and Kuali Coeus (KC), the Sponsored Programs Administration System, went live and e-Data was expanded to include data and reports for those systems as well.

## Structure, Staff and Resources.

The structure of ISU's data warehouse environment is made up of several components.

- 1) Source data - data from various operational systems and applications. These are complex DB2 relational data bases, the platform for our Human Capital and Student Information system, and Oracle databases, the platform for our Financial Management, Sponsored Programs, Space and Utility systems from which the data in the data warehouse is obtained.
- 2) Extract Transform & Load (ETL) – the process of obtaining data from our source operational systems and bringing it into the data warehouse. Specialized software, Data Manager soon to be replaced by Data Stage, is used to Extract, or select, specific data items from the source systems. The data goes through a Transformation process to change coded data into meaningful descriptions, to derive new data fields based on a defined criteria and to put the data into a reportable format. In the final step of the process, the data is Loaded into the data warehouse.
- 3) The data in the data warehouse itself is stored in MS SQL Server star schema databases. The star schema design utilizes linked fact and dimension tables to optimize space and reporting efficiency.
- 4) IBM Cognos is both the data modeling as well as report development software used to create the reporting portals and custom reports in e-Data.

Staffing – the current data warehouse team is made up of six Professional & Scientific ITS staff including a team lead, a system administrator, 2 report developers (1 is also the data modeler) and 2 ETL specialists. While the individuals have specific roles and fields of expertise, they routinely work together and their duties often overlap. One of the ETL specialists also has assigned responsibilities for supporting the software, processes, reports, and databases the Office of Institutional Research relies on that are outside the scope of the data warehouse.

Resources – the data warehouse team works closely with and relies heavily on the support provided by various staff in other areas of IT Services as well as staff in the operation and functional offices. Additional IT technical support is provided by the data base administrators (DBAs) who maintain all our databases and the systems infrastructure team who provision and support the VM servers. We strive to work closely with various staff in the Registrar's Office, the Controller's Department, and University Human Resources. The Office of Institutional Research plays a significant role in identifying and defining needed data elements, defining reporting needs and requirements, and assisting campus users on how to use the e-Data reporting environment.

**Reporting Subject Areas.**

The data in the data warehouse and the *e*-Data reporting portals can be broadly grouped into six broad subject areas.

- 1) **Student Enrollment** – This area is primarily focused on headcounts of enrolled students. Numerous personal (gender, residency, race/ethnicity, etc.) and academic (level, classification, full-time/part-time, major, etc.) attributes about each student are reported. Also included are data related to majors, degrees, retention, etc. Data snapshots are taken three times each term; census day, mid-term and final.
- 2) **Course & Credit Hour Information** – This area is focused on academic courses and various metrics related them such as enrollments, student credit hours, section counts and sizes, etc. The level of detail can be reported at the section, instruction type and instructor level. As with Student Enrollment, this data is snapshot on census day, mid-term and final each term.
- 3) **Employee/Faculty/Staff** – This area is focused on measuring headcounts and full time equivalents (FTE), both appointment and fund FTEs. Numerous personal (gender, age-range, race/ethnicity, etc.) and job (pay base, classification, full-time/part-time, faculty rank/tenure, etc.) attributes about each employee are reported. Data snapshots are taken at the end of each month.
- 4) **Financial** – This area provides the most extensive and up-to-date information of any of the areas. It is the primary go-to place for all operational financial reporting on campus. The data is updated daily from KFS, our general ledger and transaction processing system. Information includes balances and totals from the sub-account level all the way to the College and Unit level, object/level/consolidation totals, transaction detail, etc. The area is also integrated with KFS and our content management system to provide viewing access to supporting electronic and scanned documentation.
- 5) **Sponsored Programs** – This area provides up-to-date information on all sponsored research proposals and awards. As with the financial data, this data is updated daily. Reporting is integrated with the financial reporting area so one can seamlessly move from an award into the account(s) associated with it.
- 6) **Resource Management Model (RMM)** – This area was the first one to be developed in the data warehouse. Implemented in 2009, the RMM is a responsibility-centered and incentive-driven approach to financial planning and management. This area provides the campus with specific metrics and reports to help manage RMM budgets and accounts. Data includes student enrollment, SCH, gross assessed tuition, faculty/staff FTE, space (net assignable square feet), budgeted expenses and monthly utility costs.

## Customers and Usage

The data warehouse and e-Data are available to all faculty and staff who need access to any of the information or reports in order to fulfil the responsibilities of their position. Access is not granted to students, the general public, or anyone else who is not an ISU employee or a departmentally sponsored individual. Requests for access must be initiated through an automated request/approval process at the department or unit level. One must be logged onto the campus network in order to access e-Data and must be using a VPN connection if accessing from off-campus.

There are approximately 2850 faculty and staff with access to e-Data. Every unit and department on campus has faculty or staff with access privileges. On average, there are 6000-8000 reports run and 600-700 individual logins daily.

The Office of Institutional Research staff and the academic fiscal officers from the colleges and units such as IT Services, VP for Research and Cooperative Extension play a critical role when new reports and enhancements are introduced to e-Data. They review, test and provide valuable feedback prior to introducing changes to our production environment.

Several staff members in the Office of Institutional Research and the Registrar's Office have developed the necessary Cognos software skills to develop reports for their own internal use. This has served to lighten the load on the central IT Services staff, to expand the knowledge and skills necessary to work directly with the data stored in the data warehouse and to make those areas more self-sufficient.

**Enrollment Research Team**  
**Student Affairs, Iowa State University**

**Background**

The Enrollment Research Team (ERT) is a group of research analysts that gather data, conduct research and provide policy analysis on issues related to enrollment at Iowa State University. It consists of research analysts from Admissions, Registrar, and Student Financial Aid and is housed within Student Affairs. ERT works in the intersections of the three units it represents. Some questions that ERT conducts research on include, the impact of financial aid on recruitment (intersection of Financial Aid and Admission), the impact of changing admissions standards on retention (intersection of Admissions and Registrar), the impact of need-based aid on retention (Financial aid and Registrar), and enrollment projections (intersection of all three units), to name a few.

ERT reports to the Associate Vice President for Student Affairs, Dr. Martino Harmon. At Iowa State University, the Enrollment Management units (Admissions, Registrar and Student Financial Aid) are also housed within Student Affairs. Each analyst reports to the director of the respective area and has the majority (at least more than 50%) of her or his time allocated to within unit work. ERT members spend a portion of their time working on ERT projects that lie in the intersections of the various units. Each ERT analyst is an expert within their own area, and gathers data from their area on a regular and systematic schedule. However, by working together on projects, there is intentional cross training. Data is kept on an ITS central server and is available to all members of ERT. ERT has regular meetings to review data needs and the status of projects, and to communicate priorities.

**Projects & Partnerships**

The Enrollment Research Team receives direction from and conducts much of their work for the Enrollment Leaders (Assoc. VP for Student Affairs, Director of Admissions, Director of Student Financial Aid, & University Registrar). Work completed for Enrollment Leaders may be one-time requests or be recurring. An example of a recurring project is the development of enrollment projections three times each year by college (AGLS, DSGN, ENGR, US, HSCI, LAS), classification (Fr, So, Jr, Sr), and residency (Res/Nonres, Intl). This starts with an environmental scan that ERT conducts and presents to the Enrollment Leaders. ERT also presents “the math” (forecasts based on history and current data). Enrollment Leaders and ERT use this information to make a final decision on a reasonable enrollment projection for the next year.

Analysis of the recruitment effectiveness of strategic recruitment initiatives, more commonly known as merit scholarships, is another example of recurring projects completed by ERT. Based on their research, ERT develops new strategic recruitment initiative ideas that are presented to the Enrollment Leaders, who may suggest further refinements and analysis. The strategic recruitment initiative proposals that are presented to and iteratively reviewed by Enrollment Leaders are then submitted to the Senior Vice President for Student Affairs. Finally, these proposal are submitted to the University Administration for funding.

Additionally, ERT develops, revises, runs, and distributes the “Less than 2.0” predictive model of all domestic incoming freshmen. This model identifies new freshmen who are predicted to earn below a 2.0 GPA for their first term at Iowa State. ERT then provides the colleges with the list of students prior

to summer orientation for possible advising interventions that will improve the students' chances of academic success at Iowa State.

ERT also partners with other campus units on enrollment related research projects. An example is an ERT collaboration with faculty in the College of Engineering to develop an alternative at-risk model (ARM) using classification and regression tree models, which could improve the identification of students who are academically at-risk considering factors that may be specific to new College of Engineering students.

ERT partnered with the College of Design administration to conduct research for a new college funded scholarship for incoming freshman. ERT members worked with the college administration to develop scholarship parameters that will help make progress toward the college's enrollment and revenue goals and stay within the desired budget for the project.

In addition to the partnerships listed above, ERT has partnered with or provided data support to other units on campus including the Department of Residence, Student Support Services, College of Human Sciences, College of Liberal Arts and Sciences, College of Business, Graduate College, and individual faculty for grant applications and research.

Members of the Enrollment Research Team and Institutional Research worked with Information Technology Services to design the student data that is distributed to campus via e-Data – the university data warehouse. Designs were created for the enrollment data, course data, and retention and graduation. Plans were discussed for financial aid and admissions data, but the resources shifted to work with the KUALI financial data. Discussions are beginning again in Spring 2016 regarding the inclusion of these additional data.

### **Reporting Structure of ERT**

The Enrollment Research Team is somewhat unique in its structure and reporting line. ERT often receives questions following conference presentation about our structure and if we report to an IR office. At some institutions, ERT functions are housed in a larger Institutional Research Office, an IT/BI unit, or within Enrollment Management. It is clear that there is no "right answer" and that it is more important that the data and analytical resources are available when required. The need to have dedicated staff working on enrollment management related questions first came about when Iowa State began aggressively using principles of Strategic Enrollment Management. Under the direction of a newly created Assistant Vice President for Enrollment, Iowa State invested heavily in predictive modeling, strategic recruitment initiatives (tuition discounting), and geo-demographic analysis. The Enrollment Management plan included a line to hire a research analyst dedicated to support these initiatives. When Iowa State was developing the Resource Management Model of responsibility-centered budgeting, additional analytical capacity was needed and resources were hired to meet the expected demand for questions that would arise when enrollment and course taking behavior were directly linked to distribution of institutional revenue. To be responsive to long-term planning needs and day-to-day operational needs, research analysts have been hired in each of the units in the Enrollment Management areas (Admissions, Student Financial Aid, and Registrar). The close working relationship allows the analytical resources to respond to these needs without having to balance other institution wide responsibilities and expectations.

### **ERT & IR Partnerships**

The Enrollment Research Team and Office of Institutional Research have partnered on a number of projects. As mentioned above, the development of the student data records in e-data stands as one example. Another example is the Office of the Registrar managing the institutional cohort retention files, which were transitioned from IR after the retirement of an IR analyst. More recently, both ERT and IR staff have supported campus wide research projects where their unique expertise and data were necessary.

### **Summary**

ERT is an enrollment centered research group that is responsive and collaborative. The research and analysis conducted by ERT benefits students, faculty, college and university administration through projects and partnerships that focus on new student enrollment, student retention, financial aid and student debt, and faculty research. While unique from Institutional Research, ERT complements the work of IR and expands the analytical capacity of Iowa State.

ERT provides Iowa State University with a distinct competitive advantage of having a highly skilled collaborative group can focus on providing enrollment research needed for planning and decision-making.





**GEBRE H. TESFAGIORGIS**

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**EDUCATION****University of Wisconsin-Madison, Madison, Wisconsin:****J.D.**, 1988, Law School (Pursued part-time)**Ph.D.**, 1978; Major: Educational Administration

(Emphasis on the finance and planning of higher education); Minor: Economics

**M.S.**, 1975; Major: Educational Administration**Haile Selassie I University, Addis Ababa, Ethiopia:****B.B.A.**, with Distinction, 1971; Major: Management**PROFESSIONAL EMPLOYMENT AND EXPERIENCE****Director of Institutional Research****2000 to present****Iowa State University, Ames, Iowa**

- Responsible for data and analytic work in support of institutional mission, planning and strategic decision making.
- Support senior university leadership and its policies with data and analytics.
- Direct and supervise IR professional and support staff.

**Director of Institutional Research and Planning****1992 to 2000****University of Nebraska, Central Administration, Lincoln, Nebraska**

- Support the development, analysis and evaluation of policies and plans of the University of Nebraska system
- Develop academic planning, budgetary and cost models; draft academic policies.
- Direct and supervise staff of an institutional research and planning office.

**Senior Policy and Planning Analyst****1986 - 1992****University of Wisconsin System Administration, Madison, Wisconsin**

- Manage the planning, management and information systems of the University of Wisconsin System Administration.
- Manage and coordinate external reporting of UW System activities.
- Conduct studies and provide analyses for planning and evaluation.

**Policy and Planning Analyst****1984 - 1986****University of Wisconsin System Administration, Madison, Wisconsin**

- Design and develop policy studies and conduct analyses using internal and external data sources; coordinate UW System external reporting.
- Participate in the development, review and evaluation of System-wide policies

**Specialist: Academic Services****1979 - 1984****University of Wisconsin-Madison, Madison, Wisconsin**

- Prepare activity and program statistics; perform comparative analyses related to faculty and staff workload, enrollment, instructional budget and expenditure.

**Teaching Assistant/Project Assistant****1975 - 1977****University of Wisconsin-Madison, Madison, Wisconsin**

- Taught classes; graded student papers and exams; assisted in research projects.

**Personnel Officer****1971 - 1973****Haile Selassie I University, Addis Ababa, Ethiopia**

- Administer personnel policies and procedures of the national university.
- Supervise recruitment, promotion and pay administration procedure.

## PROFESSIONAL MEMBERSHIPS AND RESPONSIBILITIES

- Association of American Universities Data Exchange (AAUDE); Review Committee (2016); member of Governing Council (2004-2007); Chair, Committee to Revise its By-laws and Governing Procedures (2009); Data Policy Task Group (2008).
- Adjunct faculty with the Department of Educational Leadership and Policy Studies, ISU; member of Graduate Faculty; member of a dissertation committee, reviewed proposals for NSF.
- Association of Institutional Research (AIR); Forum Proposal Reviewer (2015 and 2016); member of its Membership Committee (1999-2003), Table Topic Committee (2004-05); Policy Analysis interest group.
- National Association of College and University Business Officers (NACUBO).
- Executive Editor of the Eritrean Studies Review, semi-annual journal of Eritrean Studies Association.
- Eritrean Studies Association, member of its Executive Committee.
- Member of: African Studies Association; American Bar Association.

## UNIVERSITY AND COMMUNITY SERVICES

- Iowa State University Committees: President's Committee on Enhancing Institutional excellence, e-Data Leadership Team, HLC Accreditation Steering Committee (2015-2016), President's Advisory Committee on National Rankings, Strategic Planning (2004-2005), African & Afro-American Studies Forum, Caucus of Black Faculty & Staff.
- Membership: Ames Rotary Club; NAACP of Ames, IA.
- Governing Board of Eritrean Development Foundation, NGO humanitarian organization in the US.
- Program Committee, E.N. Thompson Forum on World Issues, U. of Nebraska-Lincoln, 1994 to 2000.
- Member of Constitutional Commission of Eritrea (1995-1997); pro bono advisor to Ministries of Justice and Education of Eritrea.

## SELECTED PUBLICATIONS AND PRESENTATIONS

- Tesfagiorgis, G. Book Review, Customer-Driven Operations: Aligning Quality Tools and Business Processes for Customer Excellence by C. Ahoy, Amazon.com, 2013.
- Co-presenter, "Self-Study and Program Review of an Office of IR at ..." with S. Gahn. Presented at the AIR Forum, Atlanta, Georgia, June 2009.
- Tesfagiorgis, G., Gebremedhin, T. editors, Traditions of Eritrea: Linking the Past to the Future, 2007, Africa World/Red Sea Press, Trenton, N. J.; contributed a chapter, "Customary Laws of Eritrea"
- Tesfagiorgis, G., "Are Customary Laws Passe in Africa," presented upon invitation as an expert, in March 2007 at a conference organized by the University of North Carolina, NC.
- Tesfagiorgis, G. "Delimitation Decision on the Border between the State of Eritrea and the Federal Democratic Republic of Ethiopia, paper presented at the Association of African Studies (ASA) Annual Meeting, Washington, D.C. November 4-8, 2002.
- Tesfagiorgis, G., Yohannes, G. and Wing, A., International Human Rights Treaties for Eritrea, project sponsored by the United Nations Office for Special Project Services, August 2000.
- Tesfagiorgis, G., "When the Drafting of a Constitution is Not Limited to Men of Stature and Legal Experts: The Eritrean Experience," in ERITREAN STUDIES REVIEW, Vol.2, No. 2, pp.143-161, 1998
- Tesfagiorgis, G. and Zeglen M., "Cost of living and Taxation Adjustments in Salary Comparisons," published as AIR PROFESSIONAL FILE, NUMBER 57, Spring 1995.
- Tesfagiorgis, G., editor, Emergent Eritrea: Challenge of Economic Development, 1993, proceedings of an international conference, published by Red Sea Press, Trenton, New Jersey.
- Tesfagiorgis, G. Self-Determination: Its Evolution and Practice by the United Nations and Its Application to the Case of Eritrea, in WISCONSIN INTERNATIONAL LAW JOURNAL, Vol. 6, No. 1, pp. 75-128, Fall 1987.
- The Legitimacy of Statistical Evidence in Discrimination Lawsuits in the Context of Employment in Higher Education, presented at 31st Annual Forum of AIR, San Francisco, CA, May, 1991.
- Tesfagiorgis, G., Comparative Income Distribution and the Impact of Taxation, in BULLETIN FOR INTERNATIONAL DOCUMENTATION, Journal of the International Fiscal Association, Vol. 42, PP. 274-284, June 1988.
- Tesfagiorgis, G., Educational Development and Socioeconomic Development in Africa, Doctoral Dissertation, University of Wisconsin-Madison, 1978 (Unpublished).

## HONORS AND AWARDS

- Recipient of the 1990 Gene Craven Award, an annual presidential award in recognition of distinguished performance and service to The University of Wisconsin System Administration.
- "Outstanding Written Contribution," Wi. International Law Journal, for best written contribution in 1987.
- Ford Foundation Grant for doctoral dissertation, 1977.
- Ford Foundation Study Fellowship to pursue graduate studies at U.of Wisconsin-Madison, 1973.
- Chancellor's Gold Medal for academic excellence and leadership qualities upon graduation from College of Business, Haile Sellassie University, Addis Ababa, Ethiopia, in 1971.

## Sandra Gahn, Ph.D.

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- **Ph.D. Educational Policy & Leadership, May 1995**  
Emphasis: Higher Education Administration and Research Methods, Univ. of Kansas
- **M.S. Educational Leadership & Policy Studies, December 1988**  
Emphasis: Student Services, Iowa State University
- **B.S. Psychology, December 1982**  
Emphasis: Counseling and Social Psychology, Iowa State University

### Work Experience

#### **Associate Director, Office of Institutional Research Iowa State University, Ames, Iowa**

June 2004 – present

- Lead the effort in developing the university's data warehouse for the Institutional Research Office including the creation of meta-data for the warehouse.
- Hire and train new staff and graduate students.
- Prepare reports for the Iowa Board of Regents including strategic planning indicators, tenure rates, and salary studies.
- Coordinate and report human resources data for state and federal reporting.
- Appointed as lecturer in the School of Education. Graduate College standing to serve on dissertation committees (5 candidates) and taught Research and Evaluation 570: Survey Research Methodology in 2014.
- Maintain a web-based departmental coding taxonomy for reporting purposes.
- Develop and analyze statistical reports such as peer salary comparisons, diversity reports, and Association of American University Data Exchange information.
- Develop, administer, and analyze faculty satisfaction surveys and present results to faculty and administrators.
- Collaborate with faculty on grants and research projects.

#### **Previous Positions**

- **Research Analyst**, Bureau of Planning Research & Evaluation, Iowa Department of Education, Des Moines, Iowa, Jan. 2003 – May 2004
- **Manager**, National Center for Information Technology in Education (NCITE), Univ. of Nebraska, Lincoln, Nebraska, April 2002 - Jan. 2003
- **Senior Research Associate**, Vice Chancellor for Student Affairs & Enrollment Management, University of Missouri - Kansas City, Missouri, Sept 1996-April 2002
- **Research Analyst**, Johnson County Community College, Overland Park, Kansas, Institutional Research Office -- 20 hours/week, Aug 1995-Sept 1996
- **Research Analyst**, University of Kansas, Lawrence, Kansas, Office of Institutional Research & Planning -- 20 hours/week, July 1995-Sept 1996
- **Academic Advisor**, College of Engineering, University of Maryland, College Park, Maryland, November 1987 - August 1990
- **Academic Advisor**, College of Sciences and Humanities, Iowa State University, Ames, Iowa -- 20 hours/week, January 1986 - June 1987
- **Benefits Specialist**, Personnel Office, Iowa State Univ., Ames, Iowa, February 1985 - January 1986

### Publications

- Dorneich, M., Bickelhaupt, S., Dorius, C., Artz, G., Bender, H., Bestler, L., Caissie, B., **Gahn**, S., Jacobs, K., Lamm, M., Orgler, L., Rongerude, J., Smiley-Oyen, A., Stone, R. (2015). Measuring the Effectiveness of Team-Based Learning Outcomes in a Human Factors Course". *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* September 2015 59: 337-341. <http://pro.sagepub.com/content/59/1/337.short>.
- O'Connor, A. J., **Gahn**, S.W., & Bowen, B.S. (2012). Becoming a Professor: An Analysis of Gender on the Promotion of Faculty from Associate to Full Professor. *International Journal of Gender, Science and Technology*, 4(1). <http://genderandset.open.ac.uk/index.php/genderandset/article/viewFile/183/397>.
- Gahn**, S. W. & Twombly, S. B. (2001). Dimensions of the community college faculty labor market. *Review of Higher Education*, 24(3), 259-282.
- Wlodkowski, R., Mauldin, J., & **Gahn**, S. (2001). Learning in the fast lane: Adult learners' persistence and success in accelerated college programs. Lumina Foundation for Education. Indianapolis.
- Hall, K. M., & **Gahn**, S. W. (1994). Predictors of success for academically dismissed students following readmission. *NACADA Journal*, 14(1), 8-12.

### Leadership, Grants and Service

- Co-principle investigator for NSF-funded \$300,000 project entitled, "Understanding and Strengthening STEM Faculty Engagement, the Institutional Environment and Transformative Research", 2014-2016.
- Consultant, ISU Miller Faculty Fellowship Award for Team-Based Learning Outcomes: Developing a Survey Instrument to Evaluate Student Motivation and Beliefs about Learning, 2014-2015.
- Chair, University Committee on Women, Iowa State University -2010-present. Chair 2015-16, Vice-chair 2014-15, co-chair of Ten-Year Status of Women report, 2012-2014.
- Selected for the Iowa State University Emerging Leaders Academy, 2012 Cohort

- Co-principle investigator for ISU ADVANCE grant, NSF-funded \$3.3 million project to increase the participation and advancement of women in academic science and engineering careers, 2006-2012.
- University Committee on Disability, Iowa State University, 2009-2011.
- Institutional Advisory Committee for the NSF STEP project, STEM Student Enrollment and Engagement through Connections (SEEC) at Iowa State University, 2008-2012.
- Co-principle investigator for ISU Alfred P. Sloan Foundation Grant to create a database to capture the cost/benefits of flexible faculty career policies. 2006-2008.
- Iowa State University Data Warehouse Design and Implementation Committee, 2005-2010.
- ISU Budget Model Review & Implementation Committee, 2006-2008.
- Elected to Executive Board of the Mid-America Association of Institutional Research, 2000-2003.
- Webmaster for the Mid-American Association of Institutional Research, 2000-2003.
- Student Affairs Enrollment Management Committee, Univ. of Missouri-Kansas City, 2001-2002.
- Chancellor's Advisory Board of the Univ. of Missouri-Kansas City Women's Center. 1999-2001.
- Chair, Information Technology Advisory Council, Univ. of Missouri-Kansas City, 2000-2001.
- North Central Accreditation Self-Study on Assessment Team, Univ. of Missouri-Kansas City, 1998.
- President's Strategic Planning Advisory Group on Performance Indicators, Univ. of Missouri System, 1998.

## Presentations

- Invited Presenter, "The Business Case for Flexible Career Policies," Michigan State University, April 1, 2016.
- Co-presenter, "The Art and Science of Writing Effective Survey Questions" with J. Pontius & L. Hagedorn. Research presented at the Iowa Educational Research and Evaluation Association conference, Iowa City, Iowa, December 4, 2015.
- Co-presenter, "Self Determination Theory, COACHE, and Faculty Outcomes in Higher Education: Institutions and Individuals" with L. Larson, M. Shelley, K. Mathews. Research presented at Building an Institutional Framework for Faculty Success Workshop, Evanston, Illinois, October 14-15, 2015.
- Co-author, "The Promotion to Full Professor: Does Sex and Discipline Matter?" with C. Chatriand. Paper presented at the Association for the Study of Higher Education National Conference, Indianapolis, Indiana, November 2010.
- Co-presenter, "Changing, Creating and/or Implementing Policy" with Carla Fehr and Mo-Yin Tam (Univ. of Illinois-Chicago). Paper presented at the Midwest Regional ADVANCE Meeting, West Lafayette, Indiana, June 2010.
- Co-presenter, "Obtaining and Tracking Data" with Carla Fehr, Estelle McGroaty (Michigan State Univ.). Paper presented at the Midwest Regional ADVANCE Meeting, West Lafayette, Indiana, June 4, 2010.
- Co-presenter, "New Norms, New Strategies: Balancing Work and Life in the Academy" with S. Carlson, E. Hoffman and M. Harris. Paper presented at the Way Up Leadership Conference, Des Moines, Iowa, November 2009.
- Co-presenter, "Self-Study and Program Review of an Office of Institutional Research at a Research Land-Grant University in the Midwest" with G. Tesfagiorgis. Paper presented at the Association for Institutional Research Conference, Atlanta, Georgia, June 2009.
- Co-presenter, "Faculty Attitudes toward Alternative Tenure Policies: Assessing Department Cultures" with F. Hamrick. Paper presented at the Association for Institutional Research Conference, Atlanta, Georgia, June 2009.
- Co-presenter, "The Role of Institutional Research in Policy Analysis and Grant-Funded Research on Faculty" with F. Hamrick and J. Pontius. Paper presented at the Mid-American Association for Institutional Research Conference, Kansas City, Missouri, November 2008.
- Co-presenter, "Faculty Perceptions of Mentoring and Mentoring for STEM Women Faculty of Color" with F. Hamrick. Paper presented at the 33<sup>rd</sup> Annual Women in Educational Leadership Conference, Lincoln, Nebraska, October 2008.
- Co-presenter, "Breaking the Norms: Measuring the Impact of New Policies" with S. Carlson. Paper presented at the New Norm of Faculty Flexibility: Transforming the Culture in Science & Engineering Conference, Ames, Iowa, October 11, 2008.
- Co-presenter, "Graduate Data: What Should You Keep And Where Should You Go For What You Don't Have?" with K. Jones. Panel discussion presented at the Graduate Admissions Workshop, Ames, Iowa, Sept. 16, 2008.
- Presenter, "Enrollment Management Research in the Community College and Beyond." Mid-America Association for Institutional Research, Excelsior Springs, Missouri, October, 1996.
- Co-author, "A study of pre-college and post-matriculation student attributes and their effect on retention rates" with N. Tonjes. Paper presented at the American Association of Collegiate Registrars and Admissions Officers National Conference, Reno, Nevada, April 1996.
- Presenter, "A National Study of Associate Professors at Research Universities." Paper presented at the Association for the Study of Higher Education National Conference, Orlando, Florida, November 1995.
- Presenter, "Using Secondary Data for Research: A Study of Job Satisfaction and Research Productivity Among Mid-level Faculty." Mid-America Association for Institutional Research, Des Moines, Iowa, October, 1995.

***Amanda J. DeGraff, Ph.D.***

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**EDUCATION:**

- Ph.D. **Florida State University, Tallahassee, Florida.**  
Cognitive Psychology. January 17, 2005.  
Dissertation: *Monitoring Growth in Early Reading Skills: Validation of a Computer Adaptive Test*
- Program Evaluation Certificate **Florida State University, Tallahassee, Florida.**  
December, 2002.
- M.S. **Florida State University, Tallahassee, Florida.**  
Cognitive Psychology. October, 2001.  
Thesis: *Invented Spelling: A Measure of Alphabetic Reading Skills in First Grade Students.*
- B.S. **Michigan State University, East Lansing, Michigan.**  
Psychology with Honor. May, 1999.

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**PROFESSIONAL EXPERIENCE:**

*August, 2013 to Present:* **Iowa State University (ISU)**  
Office of Institutional Research  
*Senior Analyst*

- ◆ Conduct research and perform analyses in support of planning, program review and general decision-making related to student graduation, retention, enrollment, and degrees. Design and develop data systems and standardized operational procedures for data collection and dissemination.
- ◆ Provide technical and analytic support for student surveys including the National Survey of Student Engagement.
- ◆ Support the ISU Administration in the use of Academic Analytics for departments, Colleges, and the University.

*September, 2012 to June, 2013:* **University of Texas at El Paso (UTEP)**  
Office of the Provost/Vice President for Academic Affairs  
*Senior Evaluator*

- ◆ Assist the UTEP Administration with evaluation and analyses related to student success and academic affairs focusing on graduation rates, persistence and retention.
- ◆ Support the UTEP Administration in development and redesign of existing interventions related to student success.

*August, 2010 to June, 2012:* **U. S. Department of Education**  
**Institute of Education Sciences**  
**National Center for Education Evaluation and Regional Assistance**  
*Research Scientist*

**Project Officer:**

- ◆ Provide technical guidance related to research design, methods, data collection, and analyses for two contracts: the National Longitudinal Transitions Study 2012 and Design and IDEA-related Analyses for the National Assessment, and one cooperative agreement: Learning from Emerging Teacher Evaluation Practices to Advance Teacher Quality.
- ◆ Conduct reviews of proposals for the National Center for Education Research Small Business Innovation Research grants program and the Regional Education Lab program.

*July, 2009 to July 2010:*

**University of Texas at El Paso (UTEP)**  
Center for Arts and Science Education (CASE)  
*Director*

Organizational Design:

- ◆ Developed the original concept and subsequent design / organizational structure for the new Center for Arts and Science Education (CASE) which supports all secondary teachers at UTEP in program planning, advising, and test preparation related to UTEP's Teacher Preparation program and through to Certification. This Center was an enhancement to the standard support currently provided by the College of Education for elementary and secondary education students.

*August, 2005 to July, 2009:*

**University of Texas at El Paso (UTEP)**  
Teachers for a New Era (TNE) Initiative funded by the  
Carnegie Corporation of New York  
*Research Associate*

Data Preparation and Analysis:

- ◆ Assisted the Co-PIs of the Noyce and PETE grants with data analysis regarding a summer program led by Noyce scholars and attended by public school students.
- ◆ Responsible for developing surveys, and analyzing related data. COE entry and exit surveys measured pre-service and in-service teacher satisfaction and interest.
- ◆ Compiled and analyzed teacher certification exam data by domains in math and science to inform instruction and curricular changes.

Database Management:

- ◆ TNE is developing a longitudinal database which will include relevant data on all UTEP teacher candidates, public school students, and their teachers in Region 19. These data will allow UTEP to conduct studies regarding the impact of UTEP teacher graduates on pupil learning.
- ◆ Liaison between UTEP, El Paso Community College (EPCC), and TNE in the development of a database to track teacher graduates.

Education Research:

- ◆ Directing the TNE study on Pupil Learning Growth which will examine the impact of UTEP teacher graduates on their pupils' academic gains using value-added modeling. This project also required working with local school districts to access teacher and student data.
- ◆ Conducted a preliminary study of the predictive validity of ACT/SAT scores on TExES Certification exam performance.
- ◆ Conducted a preliminary study of the pre-service teachers Internship Evaluations to determine validity of instrument.

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**SERVICE:**

*ISU University Committee  
On Women*

Served as a member of the UCW and assisted with the review of the College of Liberal Arts and Sciences.

*UTEP Institutional Review  
Board*

Served as a member of the Institutional Review Board responsible for protecting human subjects.

*Committee on College Access  
and Student Success: K-20  
Data and Research*

Addresses the critical issues related to sharing PK-12 and college data on students for the purposes of insuring student success in the districts and at EPCC and UTEP.

*El Paso Regional Induction  
Training Committee*

Addresses issues related to pre-service and novice teacher and induction. Comprised of regional Induction Coordinators, UTEP faculty and staff, and Regional Service Center staff.

*Teachers for a New Era  
UTEP Executive Committee*

Oversees all work done via the TNE award. Comprised of the UTEP Provost, Associate Provost, and the Deans of Education, Liberal Arts, and Science.

# Nadine K. Dobbe

*nkdobbe@iastate.edu*

(515) 294-2369 (office)

## Summary of Experience

- Iowa State University (ISU) data tables; eleven years
- Data warehouse use and report development, including Association of American Universities Data Exchange (AAUDE) data warehouse and ISU e-data; eleven+ years
- Working with national databases, including National Center for Education Statistics (NCES) Integrated Postsecondary Data System (IPEDS); eighteen years
- Working with ISU officials, faculty, staff, and students; twenty-nine years
- Spreadsheets, word processing, data management, and query software; thirty-three years
- Website development and maintenance; twenty-three years

## Education

**Bachelor of Arts in Business, December 2001**, GPA 3.95

William Penn University, Oskaloosa, Iowa

Iowa State University, Ames, Iowa, 1988-1997

Management Information Systems/Business, 25 credit hours, GPA 3.84

Iowa Lakes Community College, Estherville, Iowa, 1978-1979

Journalism and Photography, 32 credit hours, GPA 3.00

## Employment History

### Office of Institutional Research, Iowa State University, Ames, Iowa

#### **Research Analyst**

*February 2006 – present*

#### **Associate Research Analyst**

*June 2004 – February 2006*

Analyst positions have involved increasing responsibility for providing data related to courses, students, staff, and finances in support of university decision-making, planning, and reporting. Specific areas of responsibility and direct participation include:

- Course data, including Student Credit Hours (SCH), section credits, course sections, and section size
- ISU e-Data development/reporting and data dictionary project
- Tuition and Fees/Cost of Attending reporting and surveys (e.g., AAUDE, U. Virginia, etc.)
- Tuition and Fees/Cost of Attending report, Board of Regents
- Percent Instruction by Non Tenure Eligible Faculty
- College Portrait/Voluntary System of Accountability (VSA) and Student Achievement Measure (SAM)
- Courses Not Taught
- Unit Cost Study
- ISU Fact Book; course data, tuition and cost of attendance, distance education, departmental data (courses, instruction, majors, assigned space)
- Common Data Set (CDS); section size, cost of attending
- Key Progress Indicators (strategic planning)
- ISU Consumer Information Disclosure web page
- Provide data for surveys and other reports (internal and external), including IPEDS and ad hoc requests
- Advisor/backup for IR web resources

#### **Administrative Secretary (III)**

*December 1995 – June 2004*

Responsibilities included:

- IR web site (developed and maintained); co-development of the initial Consumer Information Disclosure web page
- Ad hoc requests received through IR e-mail address, responded or referred
- President's Council; prepared handout and slides, maintained President's Council web page
- All accounting, ordering, and other clerical support
- Fact Book and other publications; layout, printing, and distribution
- Student hourly employees: hired, trained, and supervised

**Administrative Secretary (II), Dean of Students Office, Iowa State University,****Ames, Iowa***Feb 1988 – Dec 1995*

- Provided full clerical support for Dean of Students and back-up support for Assistant Dean and Judicial Affairs Coordinator.
- Established DSO (Dean of Students Office) web site and cooperated on implementation of web information resources; provided support for computer systems, software, and network as needed.
- Designed, implemented, and provided training for a wide variety of database applications utilizing FileMaker Pro and dBase III+; constructed spreadsheets for use in tracking budget expenditures.

**Instructor, Des Moines Area Community College, Adult Education, Ames High School,****Ames, Iowa***Sept 1985 – May 1992*

- Developed, organized, and taught approximately 1,500 hours of word processing, database management, spreadsheet development, and computer literacy classes to adult students.

**Secretary I, University Student Apartments, Department of Residence, Iowa State University,****Ames, Iowa***May 1986 – Feb 1988*

- Provided clerical support for Director and Office Coordinator; processed maintenance requests; managed community room reservations and pest control program.
- Provided functional supervision for 3-4 hourly student employees.
- Designed, implemented, and trained staff in the use of database applications for five separate projects and provided continuing in-office support for microcomputer systems.

**Microcomputer Systems Manager and Customer Service Representative, Sigler Printing,****Ames, Iowa***May – October 1985*

- Designed and maintained four database applications for clients on a Mac/Sunol network.

**Instructor, Continuing Education, Arrowhead AEA, Ankeny, Iowa***1984-1985*

- Developed materials and taught two five-session series of adult education classes encompassing microcomputer basics, word processing, database management, spreadsheets, and application integration.

**Instructor, Beacon Computer College, Ames and Des Moines, Iowa***Jan 1984 – April 1985*

- Developed materials, conducted workshops, and taught classes for clients dealing in computer literacy, word processing, database management, and spreadsheet utilization.

**Office Assistant/Clerk, Beacon Microcenter, Ames, Iowa***Sept 1983 – April 1985*

- Provided customer service; served as cashier and prepared daily deposit/cash statements.
- Prepared correspondence, managed mail lists, and performed other general clerical tasks.
- Trained and supervised other customer service/support staff.
- Designed and implemented database application to process and track stock and customer orders.
- Conducted paper-flow analysis in Beacon's three stores and helped develop and implement more efficient sales counter procedures.

**Technical Skills Summary**

- |                 |                         |                          |                            |
|-----------------|-------------------------|--------------------------|----------------------------|
| • MS Access     | • Tableau Desktop Prof. | • Cognos Workspace Adv.  | • HTML scripting           |
| • MS Excel      | • Adobe InDesign        | • Cognos Report Studio   | • ftp and file compression |
| • MS Word       | • Adobe Photoshop       | • Cognos Analysis Studio | • SPSS                     |
| • MS Query      | • Adobe Illustrator     | • Cognos Query Studio    | • Hyperion/Brio            |
| • MS Outlook    | • Adobe Acrobat         | • Data Cookbook          | • Camtasia Studio          |
| • MS PowerPoint | • Adobe Dreamweaver     | • JavaScript             | • Inspiration Software     |

**University and Professional Service**

- **AAUDE Analytics Reporting Team (ART)** The Analytics Reporting Team is responsible for creating and updating a library of reports and ready-to-use Tableau workbooks related to exchange items. *2015 – present*
- **AAUDE ART Steering Committee** The ART Steering Committee is a core group of ART participants charged with facilitating the transition from Tableau Online to the Tableau Server environment and to assist/support the Analytics Reporting Team. *2015 -- present*
- **Tableau Template Subcommittee (AAUDE ART Steering Committee)** This subcommittee created a set of suggested standards and a Tableau Template with instructions for ART members to use. These tools are designed to provide a quick start for developers and to encourage and facilitate consistency and use of identified best practices when developing Tableau workbooks and reports. *2015 – present*
- **AAUDE Web Front End Team** (a working group responsible for developing web-based access to AAUDE data warehouse resources, conducting training, and facilitating general warehouse use). *2005 – 2014*
- **ISU Training and Development**; Co-produced/co-facilitated five "Today's Secretary" workshops. *Prior to 1996*



## Julia LaBianca

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### EDUCATION:

- August 2010 - Present      **University of Texas at El Paso**, El Paso, Texas  
*Ph.D. in General Psychology*  
 Expected graduation date: Spring 2016
- August 2010 - August 2013      **University of Texas at El Paso**, El Paso, Texas  
*M.A. in Experimental Psychology*
- August 2006 - December 2009      **Coastal Carolina University**, Conway, South Carolina  
*B.S. in Psychology/Pre-Law Minor, Summa Cum Laude*

### CURRENT POSITIONS:

- January 2015 – Current      **Research Analyst I**  
 Iowa State University  
***Office of Institutional Research***
- Compiling and analyzing university-related data
  - Collaborating on university-wide publications
  - Providing data to external agencies
  - Assisting in faculty productivity analyses

### PAST POSITIONS

- August 2010 – December 2014      **Research Assistant**  
 University of Texas at El Paso  
***Investigative Interviewing Laboratory***  
*Duties:*
- Developing research stimuli and other materials
  - Collecting in-person and online data
  - Training undergraduate research assistants
  - Entering, coding, and analyzing data using SPSS, Excel, and other statistical tools
  - Interpreting and writing results
  - Attending conferences and communicating findings
- January 2014 – December 2014      **Research Assistant**  
 University of Texas at El Paso  
***Center for Law and Human Behavior***  
*Duties:*
- Creating and coordinating statistical workshops
  - Compiling research reports
  - General administrative duties

### PUBLICATIONS:

- Evans, J. R., Houston, K. A., Meissner, C. A., Ross, A. B., **LaBianca, J. R.**, Woestehoff, S. A., & Kleinman, S. M. (in-press) *An empirical evaluation of intelligence-gathering interrogation techniques from the United States Army Field Manual*. Applied Cognitive Psychology.

**PROGRAM EVALUATION REPORTS:**

## NSF Funded Programs:

- Evaluation of the Partnership for Research and Education in Materials (PREM) 2013 Summer Research Experience
- Evaluation of the “Working With A Scientist” Program: 2013 Recruitment Process
- Progress Evaluation Report of the Student Mentoring to Achieve Retention: Triads in Science Program, 2013-2014

## NIH Funded Programs:

- Summer Mentoring and Research Training: Methods in Neuroscience of Drug-abuse (SMART MIND) 2012-2013 Progress Report

## University of Texas at El Paso (UTEP) Sponsored Events:

- Evaluation of the Interdisciplinary Research (IDR) Fall 2013 Connector Event

**PAST INTERNSHIPS:**

August 2013 -  
June 2014

**Program Evaluation Intern**

Office of Research and Sponsored Projects, University of Texas at El Paso

*Duties:*

- Designing and administering surveys
- Analyzing data
- Writing final evaluation reports
- Consulting with potential clients

**PAST TEACHING EXPERIENCE:**

Fall 2013 and  
Spring 2014

**Instructor**, University of Texas at El Paso

*GRE Preparation Course*

Weekend course taught at Fort Bliss

- Lectured
- Prepared course materials

Fall 2013

**Teaching Assistant**, University of Texas at El Paso

Course instructor: Dr. Kyle Susa

*PSYC 4317: Advanced Statistics*

- Lectured
- Proctored and graded exams
- Managed grades
- Advised students

Fall 2010

**Teaching Assistant**, University of Texas at El Paso

Course instructor: Dr. Jennifer Eno-Louden

*PSYC 1301 - Introduction to Psychology*

- Lectured
- Proctored and graded exams
- Advised students

**ADDITIONAL SKILLS:**

- Quantitative research methods
- Proficiency with statistical software such as SPSS, R, LISREL, and MPlus
- Microsoft Office (Word, Excel, Powerpoint)
- Qualtrics
- Tableau

**JANET M. JOHNSON**

**EDUCATION**

Des Moines Area Community College, 1987-1989; 1992-1993

Who's Who Among Students in American Junior Colleges Award, 1989

Boone Junior-Senior High School, Graduated 1987

Carol Renae Dance Centre of Performing Arts, Certificate of Merit, 1987

**EXPERIENCE**

Iowa State University – Office of Institutional Research Ames, Iowa – Secretary II

September 2008 - Present

- Provides secretarial support for Office of Institutional Research Director and Staff
- Maintains office budget and inform Director on current budget status
- Balances all financial transactions
- Manages travel arrangements for Director and other IR staff
- Assists and prepares PowerPoint presentations for ISU President's Council Meetings as needed
- Maintains and updates Institutional Research website
- Helps produce ISU Fact Book
- Purchases all office supplies
- Serves as Voice/Data, Space Survey, Key and P-Card Coordinator for department

Kohl's Department Store – Part-Time Jewelry Sales Associate

October 2014 - Present

- Greets and assists customers with all jewelry department purchases
- Serves as back-up to front cashiers and other departments as needed

CDS Global Boone, Iowa – Part-Time Data Entry

July 2004 - February 2010

- Typed magazine subscription transactions into computer system
- Processed and balanced all cash, credit orders, and payments
- Consistently met and exceeded performance expectations

Iowa High School Athletic Association (IHSAA) Boone, Iowa – Administrative Secretarial Assistant

May 1994 - September 2008

- Provided secretarial and clerical support for office administrators
- Helped prepare and assist at state tournament events and other various events and banquets
- Managed and maintained point system for the Traveling Challenge Cup Program
- Typed state tournament pairing brackets, programs and statistic books for public distribution
- Compiled and distributed sportsmanship ratings for Iowa schools

## **PREVIOUS EMPLOYMENT**

Wal-Mart Boone, Iowa - Part-Time Jewelry Sales Associate  
June 1998 – December 1998

WOI-TV/Channel 5 News ISU Campus, Ames, Iowa - Newsroom Secretary/Secretary II  
October 1990 – May 1994

McFarland Clinic Ames, Iowa - Part-Time Medical Transcriptionist, August 1992 – May 1993

Boone State Bank & Trust Co. Boone, Iowa - Trust Department Secretary  
August 1989 – September 1990

Spurgeon's Department Store Boone, Iowa – Part-Time Office Assistant/Sales Associate  
March 1988 – August 1989

## **COMPUTER KNOWLEDGE**

Microsoft Office: Word, Excel, PowerPoint, Outlook

Adobe Creative Suites: Dreamweaver, Photoshop; InDesign

ISU Systems: Kuali, e-Data Financial, e-Reports, Employee Reimbursement, Requisitioning,  
P-Card, cyBUY, Administrative Systems

## **PAST VOLUNTEER WORK**

Boy Scout Merit Badge Counselor, 2006-2008

Pufferbilly Days Volunteer for Boy Scout Troop 132, 2006 & 2007

Cub Scout Den Leader for Pack 149

Cub Scout Assistant Den Leader for Pack 149

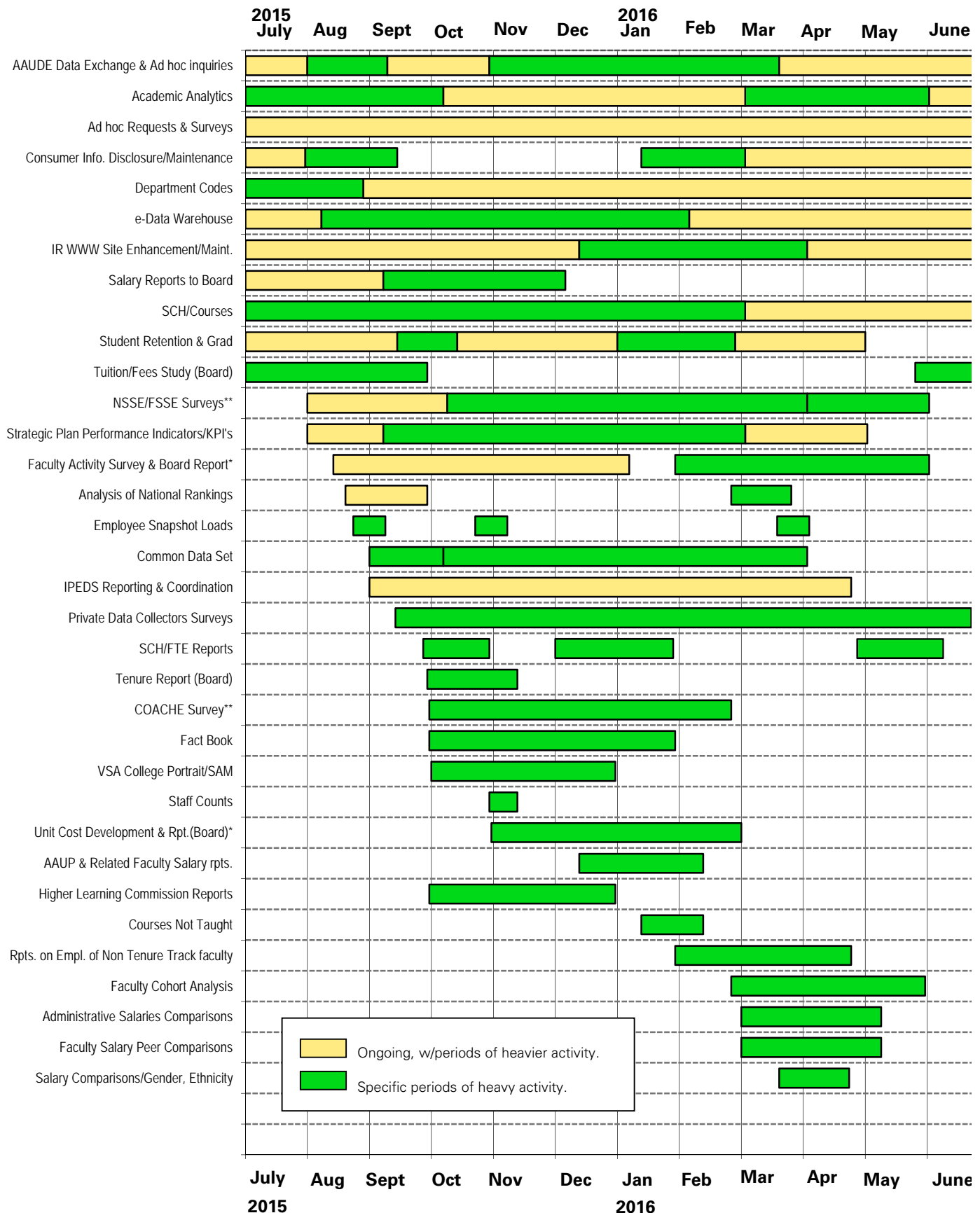
Trinity Lutheran School PTL Publicity Committee

Kindergarten Sunday School Teacher, Trinity Lutheran Church

**OFFICE OF INSTITUTIONAL RESEARCH  
BUDGET  
FY 2006-2016**

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Salary and Wages	\$314,059	\$325,880	\$353,018	\$370,332	\$425,866	\$401,216	\$376,986	\$322,574	\$383,993	\$453,896	\$451,071
Employee Benefits	104,016	108,021	117,926	126,493	150,367	148,868	155,557	138,691	149,913	176,959	176,273
Supplies and Services	154,281	156,093	270,065	123,816	88,260	80,495	90,233	98,153	108,153	113,803	122,873
Retiree Benefits	13,837	12,881	4,656	7,280	0	0	0	0	0	0	0
Total	\$586,193	\$602,875	\$745,665	\$627,921	\$664,493	\$630,579	\$622,776	\$559,418	\$642,059	\$744,658	\$750,217





\* Done every other year.

\*\* Done every three years.