

# Iowa State University

## A Case Study on the Institutional Dynamics and Climate for Student Assessment and Academic Innovation



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## I. Institutional Context

Iowa State University has a rich context in which to study the evolution of student assessment and undergraduate teaching and learning. ISU exists in a complex, but not uncommon, web of state mandates, institutional desires to be perceived as a national leader in many fields, and public demands for the institution to meet a wide variety of educational and service needs.

### A. *Brief institutional description*

Iowa State University is a Research I institution, and serves as the land grant institution in Iowa. As with all land-grant institutions, ISU's early foundations were in the agricultural mission. This agricultural heritage remains strong.

A unique feature of ISU is that individual colleges are chartered with the state legislature, rather than through the ISU central administration itself. This individual relationship of each college and school with the state legislature adds to what is a very decentralized character of governance on the campus.

ISU is situated in Ames, a city of approximately 46,000. It is one of the ten largest cities in Iowa. Iowa has three state universities (the other two being the University of Iowa and the University of Northern Iowa), 62 public and private colleges and 15 community colleges. According to U.S. Census 1999 estimates, 2,869,000 people live in Iowa, with 44% of the population living in metropolitan areas.

ISU is comprised of the following colleges: Agriculture, Business, Design, Education, Engineering, Family and Consumer Sciences, Liberal Arts and Sciences, Veterinary Medicine, and Graduate. This fits well with the culture of the state of Iowa generally – agriculture is the largest industry in the state. In fact, the formal name of the university is still the Iowa State University of Science and Technology. ISU offers degrees through the Ph.D.. Most Ph.D.s are in the Colleges of Agriculture and Liberal Arts and Sciences (with most LAS Ph.D.s being in scientific areas).

In Fall 1999, ISU enrolled 26,110 students. Of these, 21,503 are undergraduates, and 4,209 are graduate students. The full time equivalency of 19,620 undergraduates and 3,662 graduates speaks to the largely full time, residential nature of the student population; only 1.9% of freshmen attend part time, growing to 14.9% of seniors attending part time. (Of graduate students, 45.1% attend part time.)

In terms of demographics, the undergraduates are approximately 45% female and 55% male. The proportion of female undergraduates has risen slightly in the past decade. There is a slightly smaller proportion of women in the graduate student population.

Racially, ISU's demographics suggest a slightly higher proportion of minority students than in the state of Iowa population, which is demonstrated in the following table. Racial distribution is marked as percentages of the total population. (State demographics derived from U.S. Census reports, ISU undergraduate demographics derived from the Office of Institutional Research Fact Book.)

Population	White	Black	Asian/Pacific Islander	Latino/a	Native American
ISU	88%	2.7%	2.5%	1.4%	0.4%
State of Iowa	97%	1.7%	0.9%	1.1%	0.3%

Iowa State University is governed by a Board of Regents, which also governs the University of Iowa, the University of Northern Iowa, the Iowa Braille and Sight Saving School and the Iowa School for the Deaf. Eight members are selected from the state at large, and the ninth is a full time student enrolled at one of these Regental universities. Members are appointed by the Governor subject to confirmation by the Senate and serve six-year terms.

At ISU, the academic governance structure starts with a President (reporting to the Board of Regents). The Provost reports to the President, and three Vice Provosts and three Associate Provosts report to this Provost. One of the Vice Provosts, Howard Shapiro, is charged with undergraduate programs (including student assessment efforts). One Associate Vice Provost, Mary Huba (in a newly expanded role), is charged specifically with student assessment efforts. The deans of the eight colleges also report to the Provost, as do Libraries, Academic Information Technologies, the Plant Sciences Institute, and the Center for Teaching Excellence.

In addition to the Provost, three Vice Presidents report to the President: Budget and Finance (including accounting and payroll, business affairs, facilities planning, institutional research, and public safety); External Affairs (including alumni matters, athletics, the ISU Foundation, conference services, museums, and WOI radio); and Student Affairs (including Dean of Students, admissions, financial aid, minority student affairs, housing, and health services).

ISU received its last accreditation from the North Central Association of Colleges and Schools in November 1996. ISU's assessment initiatives have been stimulated by the requirements of the North Central Association and the Iowa Board of Regents, as well as those of many professional groups who accredit a variety of programs within the colleges. In 1991, the Faculty Senate developed Policies and Procedures for Student Outcomes Assessment that focused on using assessment data to improve curricula and instruction on campus.

The Faculty Senate has been engaged in a number of initiatives. While its formal governance includes matters of general curriculum, it has undertaken teaching conferences and participated in coordination of assessment efforts.

### ***B College of Liberal Arts and Sciences***

The College of Liberal Arts and Sciences (LAS) has grown around the more established scientific colleges. While LAS courses were provided in the early establishment of ISU, LAS did not attain college status until 1959. According to the college's website, in Fall 1999 it was the largest college of ISU, serving 7,533 undergraduates and graduate students in 53 programs contained within 23 departments. Of those, 6,422 are undergraduates (almost 30% of all ISU undergraduates).

The College of Liberal Arts and Sciences offers degrees through the Ph.D. Twenty-nine different Ph.D. degrees are offered, largely focused in the sciences (with a few jointly offered with the College of Agriculture). LAS has 35 different departments offering undergraduate majors.

### ***C Other Colleges***

In addition to the College of Liberal Arts and Sciences (LAS), ISU has eight colleges. All nine colleges, with enrollments, are listed below in order of undergraduate student enrollment:

College	Undergraduate students	Graduate students	Number of majors	Year established
Liberal Arts and Sciences	6,422	1,111	53	1959
Engineering	4,523	701	8	1904
Business	3,660	239	9	1984
Agriculture	2986	631	20	1869*
Education	1,831	486	22	1968
Design	1,757	120	6	1978
Family and Consumer Sciences	1,103	216	15	1871
Veterinary Medicine	398	80	11	1879
Graduate	0	625**	**	1913

\*Agriculture was the first degree program of ISU, starting with the founding of the college-level program in 1869.

\*\*This number only includes interdisciplinary graduate students. Other graduate students are listed with their respective disciplinary colleges.

## **II. Institutional Approaches to Undergraduate Student Assessment**

A state Board of Regents oversees the three public universities in Iowa. Initiatives driven by the Regents that have had a hand in shaping assessment efforts include strategic planning, annual student assessment reports, and academic program review. The Board's role in these efforts will be discussed at greater length later in this document, although this involvement is worth noting as part of the context of institutional activity.

At the institutional level, the April 1990 Strategic Plan for Iowa State University (created at the request of the Board of Regents) committed ISU to implementing during the 1990-91 academic year a comprehensive periodic review of all academic programs, involving both self-study and external peer review, as an essential part of ongoing strategic planning. Since that time, ISU has conducted academic program reviews each year, staggering programs so that they are reviewed roughly every seven years. (Individual programs may elect to have more frequent cycles of review.) Program review, as defined through Provost's Office web site, "is a process for monitoring the status, effectiveness, and progress of academic programs, recognizing and responding to program strengths and weaknesses; identifying important directions in the disciplines or professions that need to be addressed; assessing the relationships among and contributions to other academic programs and the overall mission of the university; selecting

among the opportunities and options available to the programs; and recognizing the implications of the choices made.” The ISU process places emphasis on two dimensions of academic programs: (1) how a particular program at ISU compares with the best programs of its type in the nation; and (2) how the unit fits within and contributes to ISU.

As a part of the strategic planning process, in October 1993 then president Martin Jischke initiated an 18-month process for developing a new strategic plan for Iowa State University for the years 1995-2000. The first step was the appointment of a Strategic Planning Review Committee. The committee's report, completed in January 1994 and widely disseminated on campus, evaluated the progress ISU made in achieving the goals of the April 1990 Strategic Plan and offered recommendations for the content and format of the next plan, as well as for the process of developing the plan. Much of the focus of strategic planning activity has been to react to the changing external environment, both in terms of state requirements and political climate, and in terms of public expectations of the products (both research and graduates) of ISU. Since creating the 1995-2000 strategic plan, annual progress reports have been created and posted on the ISU web site highlighting ways in which ISU is meeting its goals. With relation to student learning (goal 1 is to “Strengthen Undergraduate Teaching, Programs, and Services), the measures of attainment are often how many students are enrolled in various programs, both curricular and co-curricular. Retention rate and number of senior faculty teaching introductory courses are large components of measurement of this goal. When reviewing which programs are highlighted, usually professional schools (such as engineering) or the sciences (such as chemistry) are prominent.

During much of the 1990s (until not long before our Spring 2000 visit), the Associate Deans of the Colleges met regularly as a task force to share and develop assessment initiatives. Much of the Regental requirement (at that time) of compiling student assessment reports fell onto their roles. While the Associate Deans no longer meet regularly regarding student assessment reports, many are still leaders in student assessment initiatives across the campus; though the formal arrangement is no longer in place, the informal network has remained intact and active. The networking of Associate Deans has been especially useful due to the decentralized, independent origins of many disciplinary assessment efforts. While many of the Liberal Arts and Sciences programs have not been active in assessment efforts until recently, many professional schools (notably Engineering and Design) have been extremely active. Not only have these schools focused attention toward assessing their own students, but these schools have been generous with financial support of institution-wide initiatives such as Project LEA/RN.

In 1996 ISU underwent the reaccreditation process with the North Central Association. As ISU notes in its strategic planning progress report of 1995-1996:

The team that visited Iowa State last spring in connection with the university's reaccreditation review commended the university for good preparation for the review and for the open and honest participation of people across campus. Iowa State's accrediting agency, the North Central Association, requires reaccreditation every 10 years. To prepare for the team's visit, Iowa State completed a self-study and provided evidence of institutional quality and integrity. Much of Iowa State's self-study was drawn from the

recent strategic planning process that involved virtually all units on campus and campus-wide participation of various constituencies.

A new position, Vice Provost for Undergraduate Programs, was created in August 1998; Shapiro holds this new position. The creation of this position was intended to increase institutional focus on the academic experiences of undergraduate students. As a result, several programs report to this Vice Provost, including Student Outcomes Assessment and the Center for Teaching Excellence. Shapiro has been a faculty member in Mechanical Engineering at Iowa State University since 1975. He served as Assistant Dean in the College of Engineering from January 1997, until he assumed the Vice Provost position. Shapiro was a co-founder of Project LEA/RN, now a campus-wide program for faculty and staff to study teaching and learning in order to enhance student achievement in their courses. As a professor in the Mechanical Engineering, Shapiro received several teaching awards, including the Regent's Award for Faculty Excellence and the ISU Foundation Career Award for teaching. His passion for classroom teaching led him to begin teaching and learning study groups with faculty and staff in order to enhance student learning. In 1994, he and Barbara Licklider of the College of Education, began a program that has grown into Project LEA/RN, which now involves over 200 faculty and staff in on-going professional development activities.

Mary Huba was appointed to another new position in 1998, as Student Outcomes Assessment Coordinator, as a part of the creation of the area of undergraduate programs within the Provost's office. Huba's responsibilities include providing leadership to the university community in the area of student outcomes assessment by chairing a university-wide committee, consulting with faculty and administrators about assessment issues and techniques, making presentations to faculty groups, and reporting to the Board of Regents. The Coordinator position is funded as a half-time appointment. Huba has been a faculty member in the College of Education since 1977, and retains an appointment as Professor of Educational Leadership and Policy Studies. Since the time of our visit, Huba's role has been expanded in scope and time to a 75% appointment, with a new title: Assistant Vice Provost for Undergraduate Programs. This expansion is intended to incorporate assessment and teaching/learning initiatives within a more formal administrative arrangement, which may be a sign of strengthened interdisciplinary efforts to come.

The newly developed Strategic Plan for 2000-2005 gives greater prominence to assessment. One of the predominant characteristics of Goal 1 (Enhance learning through exceptional learner-centered teaching, services, and enrichment opportunities) is "effective use of assessment data to improve teaching and learning based upon clearly formulated intended learning outcomes." Among the strategies for achieving Goal 1 are: "support faculty for innovation in learning/teaching/assessment" and "conduct formal assessment of student outcomes at the University level at least every other year and, more frequently, assess the outcomes and effectiveness of academic programs, courses, and targeted initiatives in the interest of continuous improvement."

#### ***A. Departmental Assessment Efforts***

Post-college assessment exists primarily at a departmental level at this time (although several departments were developing or extending their efforts, trading some ideas during the focus

groups we held). Most post-college assessment is geared toward evaluating the fit of majors and skills needed in future employment or graduate education. Several efforts have been made to interview alumni and employers, and these efforts are gaining popularity across campus. There are few links between departmental data and institutional data. Much of the reason for this ties back to the decentralized nature of the campus. Not only are departments given autonomy in these initiatives, but the feeling of the campus is that a special relationship exists between students/alumni and their departments; university level assessment of these individuals would be seen as violating this special relationship. There is becoming a greater coordination and encouragement of efforts through the institution's assessment coordinator, but there is not a holistic database as a result of the decentralized efforts.

A university-wide goal of ISU is to encourage faculty to use more direct measures of learning, such as evidence presented in actual student work. This goal is articulated in the 1994-1998 ISU assessment plan.

### ***B. Institution-wide Data and Analysis***

There is institution wide data on entering student surveys, a student experiences survey, a graduating seniors survey, CIRP freshman and follow up surveys, and institutional data on student satisfaction, retention, and graduation rates. On these measures, there has been little routine analysis regarding subpopulations. On occasion, there are some break outs by gender, college, and ethnicity – upon objective or quantitative measures. Largely, however, most assessment studies take place at the department level and are focused on specific department goals.

Reports that are created are mostly internal summaries of descriptive profiles for administrators or committees. The Provost likes to summarize reports (especially from CIRP data) and bring these summaries to deans and department heads.

## **III. External Influences**

A variety of external influences have shaped Iowa State University's planning and assessment efforts. The professional colleges have taken a particular lead in this regard, responding to their need to both be a responsive member of the campus community and also a responsive member of their various professional accrediting bodies. There seems to be a strong relationship between a department's pressure from professional accrediting bodies to strengthen assessment efforts and the ISU department's level of sophistication in their assessment activities.

### ***A. State Level***

Assessment at all Regents institutions began at the request of the Board of Regents. There is no real sense of legislative or executive interest or pressure. In recent years, the legislature has become involved in issues related to faculty workload, the percent of faculty teaching undergraduate courses, the communication skills of teaching assistants, and, through the Regents, benchmarking in ISU's Strategic Plan. However, the legislature has not imposed a funding formula based on outcome measures.

The Board of Regents oversees the three universities. Initiatives driven by the Regents that have had a hand in shaping assessment efforts include:

*Strategic planning:* The Regents urge each institution to create strategic plans. Iowa State University has published a 1990-1995 plan, a 1995-2000 plan, and a 2000-2005 plan. ISU's plan includes aspiration, core values, and culture statements; strategic plan goals and strategies; how progress will be measured; and how plan initiatives will be funded.

*Annual student assessment reports:* When beginning student assessment efforts in the mid 1990s, each college was required to compile student assessment reports from each department annually, creating a large institutional report to send to the Regents. These reports would detail the variety of methods of student assessment, ranging from testing to alumni interviews.

*Academic program review:* Academic program reviews were started in the 1990-1991 academic year. These reviews are conducted periodically (approximately once every five years), and include both external reviewers and institutional reviewers. With the annual student assessment report requirement eliminated, these program reviews now include summaries and evaluations of student assessment.

## **B. Regional Accreditation**

Both regional and some professional accreditation require student assessment. Professional accreditation has been important in some colleges, but less so in others.

ISU holds the following accreditations:

<b>Institutional Accreditation</b> North Central Association of Colleges and Schools	<b>Last review</b> November 1996
<b>Specialized Accreditation of Academic Programs (with field and agency listed)</b>	<b>Last review</b>
Architecture: National Architectural Accrediting Board	July 1996
Business Administration: Accreditation Council of the American Assembly of Collegiate Schools of Business	April 1991
Chemistry: American Chemical Society	May 1992
Community and Regional Planning: Planning Accreditation Board	January 1997
Computer Science: Computing Sciences Accreditation Board, Inc.	August 1995
Counseling Psychology (Doctoral Training Program): American Psychological Association	April 1997
Dietetics: American Dietetic Association	July 1988
Engineering: Accreditation Board for Engineering and Technology, Inc.	August 1995
Family and Consumer Sciences: Council for Accreditation of the American Association of Family and Consumer Sciences	April 1999
Food Science and Technology: Institute of Food Technologists	Fall 1997

Forestry: American Society of Foresters	December 1996
Hotel, Restaurant, and Institution Management (Undergraduate Program): Council on Hotel, Restaurant and Institution Management Education	February 1993
Industrial Education and Technology (Undergraduate Program): National Association of Industrial Technology	October 1996
Interior Design: Foundation for Interior Design Education Research	August 1996
Journalism: Accrediting Council on Education in Journalism and Mass Communication	May 1998
Landscape Architecture: American Society of Landscape Architects	August 1997
Marriage and Family Therapy: Commission on Accreditation for Marriage and Family Therapy Education	December 1995
Music: National Association of Schools of Music	November 1994
School Psychology Program: National Association of School Psychologists	January 1994
Teacher Education (Licensure Programs): Iowa State Board of Education	1999
Veterinary Medicine: American Veterinary Medical Association, Council on Education	April 1997

#### **IV. Institution-wide Support Patterns Guiding and Promoting Student Assessment**

The purpose of student assessment—to improve instruction and curricula--was initially established by the Faculty Senate when it developed its Policies and Procedures for Student Outcomes Assessment in 1991 in response to a Regental requirement. ISU administrators are now seeking to create a dialogue around a culture of teaching, learning, and assessment.

This dialogue has been echoed by the university president in faculty conferences and other public speeches. (Martin Jischke, president at the time of our visit, has as of 23 May resigned to become the president of Purdue University.) A review of speeches over the past few years reveals what faculty reported as a shift in rhetoric from research to teaching and learning. At this time, teaching and learning is woven into most of his major speeches.

##### ***A. Mission, Role, and Scope Statements***

ISU has extensive mission, role, and scope statements. While most of the statements describe the outreach and research activities linked with its founding as a land grant institution, the mission statement with regard to teaching is as follows:

Iowa State University provides high quality undergraduate programs across a broad range of disciplines, as befits the institution's stature as a university. In its dedication to excellence in teaching, the University strives to instill in its students the discernment, intellectual curiosity, knowledge and skills essential for their individual development and their useful

contribution to society. A common goal of undergraduate education is to assure that all students, regardless of disciplinary major, acquire literacy in science and technology, an understanding of humane and ethical values, an awareness of the intellectual, historical, and artistic foundations of our culture, and a sensitivity to other cultures and to international concerns. Consonant with its role as a teaching and research institution, Iowa State University has a strong commitment to graduate education that, at both the master's and doctoral levels, emphasizes the development of professional, research, and scholarship skills.

Assessment appears as the last part of the “scope statement” as follows:

Future programs will be determined by the continuing assessment of existing programs and of developing needs. Programs will be curtailed or eliminated when the assessment of need and resources dictates that the resources could be better used for other programs. The university approaches the addition of new programs with considerable caution. Generally, new programs are fashioned out of existing programs in response to developing needs. But if the university is to remain vital, it must be prepared and able to develop, at appropriate times, new programs that are within its general mission and that meet the changing needs of the students and society.

With the exception of this discussion of programmatic review (for the purpose of beginning or ending programs), assessment does not appear in the three statements (mission, role, or scope).

Assessment does appear as a component of the 2000-2005 strategic plan, especially in the “measuring progress” section of this document. The following performance indicators are listed: Enrollment, retention, graduation, and career placement rates (including further education), student achievement and satisfaction, advancement in information science and technology, faculty/staff characteristics and competitiveness, state appropriation level, sponsored funding, academic program characteristics, responsive engagement, advancement in institutional support services and infrastructure, private giving, and constituent relations.

### ***B. Regular Institution-wide Events Related to Student Assessment***

There are annual faculty conferences, held almost every spring, at a location off campus to allow faculty to get away from offices, and at times to interact with other campuses or with the public. Themes have included technology, promotion and tenure, research, graduate education, and internationalization. One does notice an added emphasis on teaching and learning in the president’s addresses at these conferences as time passes.

A very interesting recent theme was whether ISU should strive to be an “Education I University.” This theme, in 1997, came at a time that many worried about the impact that the Research University I title (and, presumably the activities that maintain that distinction) had on teaching and learning at ISU.

This does not seem to be a worry that has faded much over time. Recent changes in the Promotion and Tenure Document seem to outline a Boyer “Scholarship of Teaching” model (in which each faculty member has to present evidence of scholarship in teaching, research, and

extension/professional practice, and the relative emphasis among the three is determined by the individual's position responsibility statement). However, the provost is making public statements that a tenure or promotion case built entirely of teaching will not be approved, as noted in press accounts (notably in the Iowa State Daily) and Faculty Senate Meeting Minutes (obtained on the world wide web) of Rollin Richmond's meeting with the Faculty senate on 8 February 2000.

### ***C. Planning and Coordination for Student Assessment***

ISU's institutional assessment plan was developed in response to Board of Regents requirements to establish a student outcomes assessment program. The plan was approved by the North Central Association in 1994. It was implemented between 1994 and 1998 by the Assessment Coordinator and the Student Outcomes Assessment Committee. The associate deans of the colleges, along with representatives of Institutional Research, the Faculty Senate Curriculum Committee, Student Affairs, and the student body, comprised the committee.

The committee no longer exists, and the associate deans now coordinate assessment efforts through regular meetings with and reports to the Vice Provost for Undergraduate Programs. Although the intent is to continue to develop and strengthen assessment efforts on campus, there is no formal plan for achieving this goal.

As an institution, ISU continues to attempt to embed assessment into various institutional mechanisms. For example, in 1998, the catalog revision process was modified to include assessment. The intended learning outcomes of each program now appear in the catalog, and faculty must explain how assessment data support their proposed curricular changes. The Academic Standards Committee has initiated a review of all special GPA requirements to enter or complete a major, and in the review, units must present assessment data to justify their requirements.

Until 1998, there was also an annual report to the Board of Regents. Currently, each department is required to report to the Regents about outcomes assessment at the time of its Academic Program Review. For many units, academic program reviews and reaccreditation requirements have provided frameworks for developing assessment efforts.

The office of institutional research (IR) has recognized the need for a plan for regular collection of student data, but such a plan has not been formalized. Data exists in IR (especially survey data) and in various offices. At this time, there is no systematic data on student performance or integrated data bases.

A university wide task force was in place in 1997 to discuss the university's "Commitment to Undergraduate Education." Among its recommendations for "creative approaches to undergraduate education" were the following: Learning communities, communication across the curriculum, technology in the classroom, teaching beyond the boundaries of the classroom, small-class opportunities, development of non-standard length courses, and helping faculty to learn from each other.

The Provost, especially through Vice Provost for Undergraduate Programs and Assessment Coordinator, maintains responsibility for campus-wide student assessment efforts. However, the

implementation and support for student assessment is diffuse, largely housed in the associate deans' offices of the various colleges. The engagement of each college varies. Evaluation of assessment efforts as well has not been systematic, although experts such as Trudy Banta and Peter Ewell have been invited to campus to advise.

## ***V. Academic Management Policies and Practices***

Although a variety of assessment efforts are in progress, there is not much centralization of efforts. Much of the cooperation that has taken place has been the result of good will on the part of colleges and support by most constituencies of the work of Mary Huba, Student Outcomes Assessment Coordinator. While mandates exist for some cooperation, assessment efforts do not all fall neatly into one system.

### ***A. Resource Allocation (for assessment activity or unit performance)***

No separate funds are allocated for assessment activity. Departments are typically instructed that they must do assessment, but they must pay for assessment out of existing resources. The Vice-Provost has indicated that there is the possibility that departments may have some of their budget determined by student outcomes in the future, but that process is not yet in place. Departments can also apply for competitive support. At ISU, most of the funds of the university are in the colleges. ISU administrators report that they are trying to encourage colleges and departments to make assessment an essential part of what they do rather than an ancillary activity supported by central funds when they are available. This will require that the colleges and departments reprioritize how they spend their money. In the long run, ISU administrators believe that this approach will result in a more integrated effort.

The Vice-Provost wants to institute a new approach to tying resources to outcomes assessment. He feels departments view assessment as a burden that cannot help teaching, but he wants them to adopt an assessment-based teaching model. His view is that the improvement of teaching and learning cannot be dependent upon budget allocations. Some funds can be awarded to departments for assessment, but the real impetus has to come from the faculty within those departments. He knows that some faculty view the reports as something to satisfy a mandate and not something that can be productive. Likewise, faculty members feel frustration currently that they are not receiving feedback regarding reports that they submit. There are even reports that some administrators may just use the previous year's report and change a few items to get through it. The Vice-Provost wants to make it clear that some money will be awarded, but that departments should not expect to get funds unless they are doing something well. He wants to move away from a model, which requires reports towards one that rewards progress and taking the work seriously. He has even told them that he doesn't want to evaluate college and department *outcomes*; he only wants to understand their *process*. This puts more responsibility on the units to do something productive.

### ***B. Student Assessment Information Systems***

There is no coordinated effort to construct or maintain a student assessment database. At this point, there are only preliminary efforts at maintaining a student information system. Most information is collected on retention rates. This is the information that is most often shared with the campus community. There is also a great deal of survey data on student attitudes,

experiences, and satisfaction. Much of this data comes from seniors and alumni. The Office of Institutional Research serves as the repository for much of this information and sees part of its role as making this information available to others. The Student Affairs division sees the advantages of having such a system, and the Registrar's Office is currently working to implement it. The university recognizes that there are technological hurdles to overcome if this is to happen, and discussions to address them are underway.

**C. *Accessibility of Individual Student Data to Various groups***

The Office of the Registrar, Office of Admissions and the Office of Institutional Research provide basic student information to departments. Once the data is gathered, it is up to the department/individual requesting the information to interpret the data. Each department has access to any information they gather independently.

**D. *Distribution of Studies and Reports to various groups***

ISU has not sent a separate report specifically focused on assessment to the Board of Regents since 1997. In terms of reporting to the Regents, each department's outcomes assessment report is now sent to the Regents only at the time of the department's Academic Program Review, rather than annually. The Vice Provost for Undergraduate Programs requests annual reports from the Associate Deans. The purpose is to understand their leadership approach to assessment in their colleges. He reports that wants to understand their process for using assessment to improve learning, not evaluate their outcomes. Internal reporting takes place within some colleges, and in some colleges reporting is driven by the requirements of specialized accreditation (such as Business, Design, and Engineering).

**E. *Professional Development Opportunities for faculty, academic or student affairs administrators or students.***

The faculty conference held every spring seems to be focusing more on teaching and learning in recent years. Faculty are encouraged to work with Mary Huba, and faculty who have done this seem to enjoy this interaction and try new ideas.

The Center for Teaching Excellence provides a wide array of opportunities for faculty and staff members to improve their skills in many areas, especially teaching and learning. They sponsor faculty forums, workshops, seminars and presentations. In addition to the repertoire of programs, the CTE possesses a library of pedagogical resources, and provides information on fellowship and award opportunities as well as funding sources to facilitate faculty members with project and research monies. The CTE's online resource provides a comprehensive detail of current and future programs, as well as helpful information immediately available through the site.

Every summer the CTE offers a free, two-day university wide training seminar in conjunction with the Graduate College called the College Teaching Seminar. Topics focus on active learning, leading discussions, group process techniques and technology in the classroom. Presenters include staff members from the CTE as well as seasoned faculty members who contribute in specific areas of specialty.

Another resource for faculty is Project LEA/RN (that is an acronym for Learning Enhancement Action/Resource Network). The faculty developed initiative helps enhance student learning by

developing classroom strategies to fit with the latest research. Project LEA/RN started as a collaboration of College of Education faculty with several Engineering faculty. Engineering has provided a good chunk of funding for this program for several years (although their future funding role is in question). The purpose of Project LEA/RN is to provide long-term, structured peer evaluation and support of teaching. This network is comprised of various faculty members who work together as learning partners over a period of time providing feedback and resources for each other. Groups of faculty are convened, providing a network discussing key teaching and learning topics. Several faculty (both newer faculty and more senior faculty) reported that Project LEA/RN had been a helpful component in their teaching development. However, Project LEA/RN does not have long term institutional funding, and must scramble for grants and individual unit sponsorship annually. Although housed in the College of Education, there is little evidence that the College of Education respects this activity.

Meetings, workshops (on and off campus) and other activities are available to the campus community, such as the Association for Institutional Research, ACT workshops, assessment listservs, and the American Association for Higher Education assessment forum, although only a few administrators avail themselves of these venues.

#### ***F. Faculty Evaluation or Rewards for promotion, salary, or other recognition***

The university is in the process of implementing a new Promotion and Tenure document, and a new Provost was hired during the initial year of implementation. According to the document, candidates for promotion and/or tenure must demonstrate scholarship in the areas of teaching, research/creative activities, and extension/professional practice. This approach has created considerable campus dialogue—sometimes contentious—about the role of teaching in promotion and tenure and about the nature of the scholarship of teaching. As an example, many faculty members stated in our interviews that promotion and tenure decisions have actually become more centered on research than ever. The Faculty Senate met with the provost on this topic in February, with the Provost stating that teaching (and teaching scholarship) is not sufficient for a promotion and tenure case (as reported in Faculty Senate minutes and in press accounts of the meeting). It seems that campus rhetoric is heading in one direction while the tenor of decisions is heading in a different direction.

## **VI. Individual Innovative Approaches to Teaching, Learning and Assessment**

Several innovative projects and strategies are currently taking place. Institution-wide examples include:

### **ISUComm**

Repeated feedback from industry leaders noted an inability of recent graduates to effectively communicate with others in teams as well as on a personal level. This feedback prompted the development of a symposium called ISUComm. ISUComm is collaboration between various disciplines to promote exemplary student outcomes in written, oral, and visual communication. The symposium features guest speakers, panels, round table discussions and workshops and is open to members in all disciplines in the ISU community. The ISUComm Assessment Committee conducted two surveys of faculty, focus groups with faculty in each college, and

interviews with employers of ISU graduates in order to gather data to inform ISUComm discussions.

### **CTE**

The Center for Teaching Excellence (CTE) is a division of the Provost Office. It offers many resources to faculty, staff and graduate instructors in the forms of faculty forums, workshops, seminars and presentations. The CTE is “committed to nourishing a campus climate that supports and rewards a scholarly approach to teaching and learning for all members of the campus community.” In addition to the repertoire of programs, the CTE possesses a library of pedagogical resources, and provides information on fellowship and award opportunities as well as funding sources to facilitate faculty members with project and research monies.

The CTE’s online resource provides a comprehensive detail of current and future programs, as well as helpful information immediately available through the site. One such section is labeled “Online tips” and encompasses many classroom details. A few examples include: classroom assessment techniques; learning centered syllabi; writing a teaching philosophy statement; the critical thinking community; and tips from other institutions.

Every summer the CTE offers a free, two-day university wide training seminar in conjunction with the Graduate College called the College Teaching Seminar. Topics focus on active learning, leading discussions, group process techniques and technology in the classroom. Presenters include staff members from the CTE as well as seasoned faculty members who contribute in specific areas of specialty.

### **Project LEA/RN**

As described earlier, Project LEA/RN is an acronym for Learning Enhancement Action/Resource Network. This network is comprised of various faculty members who work together as learning partners over a period of time providing feedback and resources for each other. The faculty developed initiative helps enhance student learning by developing classroom strategies to fit with the latest research.

### **Learning Communities**

Iowa State University has over fifty learning communities established. Learning communities are groups of students sharing a common schedule of introductory classes and/or living assignment. Other characteristics include:

- Contact with students who have similar academic goals
- Common courses
- Common place of residence
- Career exploration
- Introduction to university resources
- Peer, mentoring and/or tutoring
- Faculty mentoring
- Simplified registration process (reduced course conflicts)
- Participation in department club or other organization
- Leadership development

- Exposure to international and/or diversity issues
- Special programs to acquaint students with campus life
- More collaborative learning environment

As a resource to faculty members, a second annual Learning Communities Institute was offered in May of 2000 to focus on exemplary learning communities at Iowa State and the next generation of learning communities. The institute provided consultations on starting learning communities as well as venues for refining existing learning communities. In addition to the institute, a comprehensive web page is available to students, faculty and staff members, which outlines specific learning communities and gives details on how to create a learning community. There is a Learning Communities Assessment Subcommittee, a subcommittee of the Learning Communities Advisory Committee, that gathers data about overall learning community effectiveness, provides guidance for assessment in individual learning communities, and conducts in-service for faculty and staff seeking to enhance their assessment knowledge and skills.

As a part of our study, we looked especially closely at the departments of mathematics, chemistry, psychology, and English. Each of these departments is pursuing a study of teaching and learning activities, in a variety of ways. Many individual faculty members have taken part in Project LEA/RN activities, and/or have served as Center for Teaching Excellence fellows. As well, these departments are at different stages of incorporating graduating senior, alumni or employer studies to determine both the impact of their work as a department and what alumni or employers feel would be useful future foci of efforts. Many of these efforts seem to have resulted from ideas gained from networking with faculty in other programs (such as those in the professional schools). There is also a rising use of faculty peer review of each other's teaching within many of these departments.

### **Funding Sources**

One other area of note is the prevalence of Engineering in sponsorship of teaching and learning initiatives. Agriculture, design, and veterinary medicine have also been considerable players in these initiatives. The College of Liberal Arts and Sciences has not contributed as much financially, although it is unclear whether this situation is because of a lack of commitment to these initiatives, less pressure from disciplinary accreditation agencies with regard to assessment, a lack of discretionary cash to put toward such initiatives, or a combination of these circumstances.

## **VII. Uses and Impacts of Student Assessment**

The primary role of Institutional Research in outcomes assessment is to assist units in their assessment efforts by providing data upon request. Institutional Research reports to the President's Office, and the leadership for assessment rests within the Provost's Office. In order to bridge this gap, the former director of Institutional Research was a member of the Student Outcomes Assessment Committee that existed from 1994 to 1998. When a new IR director is hired, the Vice Provost for Undergraduate Programs hopes to develop greater coordination between the offices.

There is no real push from faculty senate on outcomes assessment. Design faculty used assessment to restructure the curriculum within their department and also to raise awareness of certain issues (such as technology, training, and communication). Used in strategic plan and also to upgrade technology. In engineering, student assessment (student feedback) resulted in more co-op and internship experience for students. Also now there is more use of portfolios.

Many faculty members interviewed for this project feel that the administration is not consistent in their support for assessment. In general, faculty members feel that it takes too much time to complete reporting requirements and implement initiatives. However, student assessment has caused people to think about the skills students leave with and how faculty can make a difference.