Standard 4.B. Scholarship, Research, and Artistic Creation

Research: Boise State’s Story .................................................................33

The Diversity of Research at Boise State (4.B.1, 4.B.6) .......................34
  —Diversity in Focus ...........................................................................34
  —Diversity of Funding .......................................................................34

Success of our Research Efforts (4.B.1) ...............................................35
  —University-wide Measures ..............................................................35
  —College and Departmental Measures ................................................36
  —Development of Benchmarks ...........................................................37

Foundational Infrastructure: Financial Resources (4.B.4) ...............38
  —Funding of New Programs & Faculty Lines .......................................38
  —Seed Grants and Ad-hoc Funds from the Division of Research .........39

Foundational Infrastructure: Administrative Support (4.B.4) .........40
  —Huron Assessment of our Status, Recommendations, and Actions ....40
  —Other Actions to Increase Effectiveness of Research Administration ..42

Foundational Infrastructure: Policy and Procedure (4.B.2, 4.B.3, 4.B.5).43
  —Academic Freedom and the Responsible Conduct of Research ........44
  —Policies of Workload, Promotion & Tenure, and Merit Pay .............45
  —Research Faculty ...........................................................................45
  —Centers and Institutes ....................................................................45
  —Conflict of Interest and Intellectual Property ..................................45
  —Animal Care, Human Subjects, and Biological Safety ....................46
  —Involvement of Faculty Members ..................................................47

Foundational Infrastructure: Facilities, Equipment, and Informational Resources (4.B.4) .........................................................48

Commendations, Recommendations, Action Plan ..........................49
“Exceptional Research” is one of the four destinations of our strategic plan, and is defined as “progressive scholarship and creative activity, and graduate programs that have groundbreaking applications locally, regionally, and globally.” But what do we consider to be “research” at Boise State?

The premier issue of “Explore,” Boise State’s new research magazine includes articles on computer chip design, groundwater contamination, circumpolar cultures, Serbian history, the Emperor Constantine, and bird migration. It also includes articles that describe activities in areas outside the realm typically called “research”: art metals, health policy, virtual instructional design, legacy tourism, and creative writing.

The most recent Undergraduate Research Conference showcased work on subjects from heat shock proteins to Hmong agriculture, and from wind turbine design to Native American medicine. But there were also Basque poetry readings, modern dance presentations, posters on public policy implementation, and a multitude of other activities.

That broad diversity of disciplines represented in our research magazine and in our Undergraduate Research Conference demonstrates our recognition of the diversity of what we categorize as “research” when we speak of our vision statement, metropolitan research university of distinction.

If we want to become a metropolitan research university of distinction, we must have in place the infrastructure to support the wide variety of research described above. To grow our research activity and graduate education while maintaining and even increasing our quality of teaching requires a carefully planned and strategic allocation of resources.

Facilitating the increase in research at the University is the primary responsibility of the Vice President for Research and the Division of Research. That division, in partnership with the other divisions, has undertaken a number of actions to facilitate the research aspect of our strategic plan, including substantial funds invested in the remodeling of research labs, startup packages for new faculty members, new faculty lines, and new graduate assistantships. We are also investing in the infrastructure that supports those researchers, with new staffers that support research operations. In addition, we have created a new Office of Technology Transfer, which is responsible for the management and commercialization of intellectual property developed by our faculty/staff and students. We are being careful that our growth occurs within ethical and legal bounds and have increased staffing that oversees research compliance. Finally, we are making sure that our research efforts are linked to our academic programs and student experiences.
The Diversity of Research at Boise State

4.B.1 Consistent with institutional mission and goals, faculty are engaged in scholarship, research, and artistic creation.

4.B.6 Sponsored research and programs funded by grants, contracts, and gifts are consistent with the institution’s mission and goals.

—DIVERSITY IN FOCUS

As was described above, the research that occurs at Boise State takes many forms, and is conducted in every academic department and in a wide variety of centers. Several sources are available to demonstrate the wide diversity of research that occurs at Boise State.

- The programs from the Undergraduate Research Conferences provide abstracts of the research activities of our students, and those activities closely parallel those of our faculty members.¹ ²

- The Office of Communications and Marketing provides extensive coverage of the research activities of our faculty members and students in Focus magazine, in Explore magazine, in Update, and in local newspapers.³

- The Division of Research typically has, on its website, a highlighted faculty member and a graduate student.⁴

- The Albertsons Library provides access to 74,624 unique journal titles, many of which support the research of faculty and students.⁵

—DIVERSITY OF FUNDING

During the fiscal years of 2007-2009, external research funds (as opposed to funds for instruction or public service) were received by the following 30 departments (out of a total of 44). As can be seen, the diversity of departments again speaks to the broad definition of “research” at Boise State.

<table>
<thead>
<tr>
<th>TABLE 4.6. DEPARTMENTS RECEIVING EXTERNAL FUNDING FOR RESEARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountancy</td>
</tr>
<tr>
<td>Mechanical &amp; Biomedical Engineering</td>
</tr>
<tr>
<td>Theater Arts</td>
</tr>
</tbody>
</table>


³ http://www.boisestate.edu/research/magazine/Folder: Research Articles

⁴ http://www.boisestate.edu/research/spotlight/highlight-scheepers.shtml

⁵ http://journals.boisestate.edu
The sources of that funding were diverse, as can be seen in the accompanying listing of sponsored project funding. Funding sources include federal agencies such as the National Institutes of Health, the National Science Foundation, and the Bureau of Reclamation; state and local entities such as the Association of Idaho Cities, the Idaho Department of Education, and the city of Nampa; non-profits such as the Idaho Alliance of Leaders in Nursing, The American Federation for Aging Research, and the Idaho Dairyman’s Association, and private enterprises such as Boeing Company, Blue Cross of Idaho, and Pfizer, Inc.

The structure of our sponsored research funding can be seen in Figure 4.6, which shows that in FY2008, 55% of research funding was from federal sources, 26% was from state and local sources, and 19% was from private sources.

Success of our Research Efforts

4.B.1 Consistent with institutional mission and goals, faculty are [successfully] engaged in scholarship, research, and artistic creation.

For the research of faculty members to be “consistent with institutional mission and goals,” faculty members must be successful at that research.

—UNIVERSITY-WIDE MEASURES

Boise State tracks a number of measures of research productivity at a university level. As can be seen by the accompanying graphs, all measures of our research productivity have been increasing substantially over time.

- Externally-funded research expenditures, depicted in Figure 4.6, is the gold standard for measuring research activity, giving an indication of funded research activity no matter what the source of those funds. As can be seen, externally-funded research expenditures have risen substantially, from $6.4 million in FY2002 to over $10 million in FY2008.

- Grant activity, as quantified by the number of grant applications submitted and award dollars, gives an indication of the level of activity of faculty members in seeking out funding for their
research and the level of their success. Both measures have increased substantially (Figure 4.7). In FY2009, proposals totaling more than $107 million were submitted, and grants totaling more than $37 million were awarded, the highest in Boise State history.

- The number of publications by Boise State authors, as extracted from Web of Science, has grown by 67% between 1999-03 and 2004-08 (Figure 4.8). That increase has occurred because of greater productivity per faculty member and because of an increase in the number of research-active faculty members at the University. The impact of articles authored by Boise State faculty members, as measured by the number of times those articles have been cited during a five year span, has nearly tripled during the same time period.

- The numbers of research protocols filed with our Institutional Research Board and our Institutional Animal Care and Use Committee indicate increased research activity as well (Figure 4.9).

- The number of patents and disclosures of intellectual property gives another measure of research. As can be seen, the number of disclosures has increased dramatically (Figure 4.10).

- Finally, the number of doctoral graduates is an indicator of our success in enhancing graduate programs, which are key to our research efforts (Figure 4.11). Our EdD program was initiated in 1993. Our first PhD program was initiated in 2000, two more were initiated in 2006, and a fourth is due to begin in fall of 2009.

The measures above do not effectively quantify creative activity such as performances and exhibitions. To do so is inherently difficult given the diverse nature of creative activity; measures tend to be department specific. As an indication of the level of creative activity in one department, the accompanying list7 gives a by-year listing of the productions to which faculty members from the Department of Theatre Arts have contributed; those contributions included the following roles: playwright, actor, director, set designer, choreographer, costume designer, voice/movement coach, dialect coach, and co-artistic director. It should be noted the list does not reflect creative work undertaken for University productions.

---

7 List of Theater Arts productions
—COLLEGE AND DEPARTMENTAL MEASURES

Colleges and departments receive, during the Annual Planning and Budget Process, information on their sponsored project funding. Up until 2008, departments and colleges were required to provide a count of various types of research activity. However, the collection of that data was not well regulated with the effect that the quality of the information was highly variable. The University has recently embarked on a 5 year contract with Digital Measures, which is a commonly used web-based software used to compile faculty research activity. We are presently piloting the system with several departments and will have it up and running across the campus in time to compile CY2009 information.

The newly revised Periodic Review process (see detailed description in Standard 2) contains an entire section devoted to research. The first task of a department going through Periodic Review is to define research, thereby ensuring that there is an understanding of how to evaluate it amongst the faculty members. Then departments are tasked with developing and reporting on the measures that are most appropriate to their disciplines.

—DEVELOPMENT OF BENCHMARKS

At present, we lack meaningful benchmarks against which to compare ourselves, but instead can only compare present performance with our own recent past performance. We are presently going through several processes to develop better benchmarks that will give a more global context for our work.

- We are revising, under the direction of the State Board of Education, our lists of peer institutions and aspirational peer institutions. From those lists, we will develop, as feasible, peer benchmarks for each of the University-wide measures listed above.

- We plan to participate for the first time in Fall of 2009 in the University of Delaware’s Faculty out-of-classroom activity study. Participating institutions receive information about their peers on per-faculty member rates of publication, performance, and grant funding. To facilitate our participation in the Delaware Study we have developed a Digital Measures report that directly compiles the necessary data for each of our departments.

---

8 Folder: College and Dept level data sets
9 Periodic Review guidelines
Foundational Infrastructure: Financial Resources

4.B.4 Consistent with its mission and goals, the institution provides appropriate financial, physical, administrative, and information resources for scholarship, research, and artistic creation.

The University has invested financial resources in its research enterprise in a number of ways. Investments in physical facilities and in administrative support will be discussed in the following sections.

—FUNDING OF NEW PROGRAMS & FACULTY LINES

The University has invested substantially in research via the creation of new academic programs and the funding of new faculty lines.

Since the beginning of FY05-06, 42 new tenured/tenure-track faculty lines have been created,\(^ \text{10} \) resulting in an increase in the number of faculty members who are engaged in research. In addition, as faculty members retire, we often attempt to replace them with faculty members who have substantial research credentials.

The creation of new faculty lines is associated with the creation of new graduate programs and with undergraduate programs that have seen significant growth. Over the last five years, we have created three new PhD programs (in Electrical and Computer Engineering, Geosciences, and Public Policy and Administration). Each involved the addition of faculty lines to the sponsoring department.

Not only do new programs benefit research productivity through increased faculty lines, but the addition of a graduate program will facilitate research because (i) each graduate student represents an additional research project, (ii) each graduate student given a teaching assistantship will be able to carry part of the teaching load of the department, thereby freeing up faculty time for research, and (iii) the presence of graduate students adds to the culture of research.

New faculty lines have also been added as a result of University commitments associated with grants or gifts. For example, the University received funding from the Micron Technology Foundation to initially fund 2 faculty lines needed to create the PhD in Electrical and Computer Engineering; the University committed to the permanent funding of those lines once gift funding runs out. The University funded an additional two lines for that program.\(^ \text{11} \) As another example, the University has committed to the funding of five new faculty lines since 2003, in part of our commitments made for our involvement in the NIH INBRE grant.\(^ \text{12} \)
When faculty members in the sciences and engineering are recruited, they require competitive startup packages. The manner of funding of those startup packages varies among the colleges. Startup packages typically are funded by a combination of funds from the department, the dean of the college, and the Provost.

—SEED GRANTS AND AD-HOC FUNDS FROM THE DIVISION OF RESEARCH

Upon the arrival of the present Vice President for Research (VPR) in January 2007, the allocation of indirect cost recovery was 40% to the central administration, 20% to the academic college, and 40% to the department from which the grant arose. That left the Division of Research with scant resources to invest in research initiatives. Previously, the only funded programs were $45,000 into a mini-grants program ($5,000 per investigator) and $45,000 to a teaching buyout program. To increase the resources that could be centrally available for investment in research projects, the VPR, with support of the Deans’ Council and the Faculty Senate, successfully changed the funding formula so as to receive 10% of the central administration’s share and 10% of the departmental share, for a total of 20% of the indirect cost recovery.

Those funds are distributed in two ways:

- The VPR distributes block grants of $20,000 to each of five colleges to use as they see fit to enhance research efforts. Two administrative groups were explicitly excluded from those block grants because they typically have much better opportunities for receiving funds from other sources: the sciences and engineering. Academic year 2008-09 is the first year of this new program and reports of the use of the funds have not yet been submitted.

- The VPR has committed approximately $530,000 of discretionary funds in a wide variety of small initiatives to help research on campus. Examples include partial salary for a technician, travel to a meeting to receive a research award, graduate assistantships, and a research conference. Typically the VPR asks the deans and department chairs to comment on the strategic importance of the proposed initiative to their respective college, and to contribute to its funding.

Additionally, the VPR receives $125,000 for research infrastructure from the Higher Education Research Council (HERC; under the State Board of Education) to facilitate research. Those funds are distributed by the VPR and have been used for graduate assistantships, renovations to research labs, and research equipment.
Foundational Infrastructure: Administrative Support

4.B.4 Consistent with its mission and goals, the institution provides appropriate financial, physical, administrative, and information resources for scholarship, research, and artistic creation.

—HURON ASSESSMENT OF OUR STATUS, RECOMMENDATIONS, AND ACTIONS

In FY2009, Boise State contracted with the Huron Consulting Group to assess our administrative infrastructure. In a report\(^\text{14}\) dated February 26, 2009, the Huron Group describes the results of its study conducted in Fall of 2008. The purpose of the study was to “identify opportunities to improve the performance of the administrative infrastructure at Boise State in order to provide support to the research community that values exceptional quality, efficiency, compliance and customer service, and to provide Boise State with recommendations that, if implemented successfully, will enable the University to more effectively manage its growing research operations.”

At the time of the Huron study, pre-award support was housed in the Office of Sponsored Projects (OSP), located in the Division of Research, and post-award support was housed in Sponsored Projects Accounting (SPA), located in the Division of Finance and Administration. Among the list of ten challenges faced by Boise State in appropriately supporting research are the following five:

- A number of business offices that support research activities on campus have often been perceived as focusing more on compliance instead of on service; departments/faculty often are perceived as not understanding the potential consequences of non-compliance.
- Technology has not been adequately integrated into research administration processes.
- There are insufficient reporting mechanisms to provide faculty with timely sponsored program and financial information critical to the effective management of research.
- Roles and responsibilities among the departmental and central administrative units involved in research administration are not clearly defined and communicated.
- There is no formal performance measurement system for research administration offices and academic units.

The Division of Research website lists the eleven recommendations of the Huron Report, and tracks progress on accomplishing those recommendations.\(^\text{15}\) The recommendations can be paraphrased as follows (see the full report for full explanation of each):

\(^{14}\) Full Huron Report

\(^{15}\) [http://www.boisestate.edu/research/huron-rec.shtml](http://www.boisestate.edu/research/huron-rec.shtml)
• Move SPA into the Division of Research while at the same time retaining a strong “dotted line” to the Division of Finance and Administration for compliance and audit purposes.

• Develop a research administration roles and responsibilities matrix to better define roles and responsibilities across central and departmental units.

• Improve the consistency of departmental staffing for research administration support.

• Conduct a more thorough review of the post-award functionality currently provided by the PeopleSoft financials system and develop a plan to measurably improve the effectiveness of sponsored programs administration.

• Develop an information technology strategic plan for research administration in order to more effectively integrate technology into research administration processes.

• Consider working with the State of Idaho to achieve an exception to the State’s purchasing regulations so that research purchases can be allowed to bypass the State’s purchasing office.

• Increase the amount of cost sharing oversight provided by OSP and SPA at the time of award.

• Identify people with research specific experience, education and skills. Make sure they are placed in strategic locations around campus. Ensure that they are supporting and facilitating the areas of greatest research activity and potential growth.

• Encourage and facilitate research specific training at all levels. Make use of existing expertise and identify areas in need of further development.

• Better define and strengthen the SPA customer service model for providing research administration support.

• Develop and implement key performance measures for research administration offices and academic units.

The Division of Research initiated actions in response to these recommendations as follows:

• SPA has been moved to the Division of Research, but maintains a strong tie to the Division of Finance and Administration.

• A matrix of roles and responsibilities is under development; a draft will be vetted with the OSP Advisory Board.

• An ad hoc advisory committee has been set up to provide feedback and support to OSP as it revises and improves busi-
ness practices. Committee participants include faculty and staff members active in the research enterprise at the University.

- Grant accounting business practices have been revised to reflect stronger customer-service orientation and a culture of transparency and communication.
- The OSP executive director has met with key financial system administrators to discuss what types of information and reports research administrators need access to in order to perform their duties effectively.
- OSP leadership, in conjunction with Division of Finance and Administration management, is evaluating current post-award, fiscal data gathering systems in order to improve consistency both within the systems themselves and across pre-and-post award systems as a first step towards integrating pre- and post-award data into a single database.

—OTHER ACTIONS TO INCREASE EFFECTIVENESS OF RESEARCH ADMINISTRATION

Prior to the Huron Report, a number of actions had already been undertaken to enhance research administration. They include the following:

- A support model was developed that embeds OSP staff members in academic colleges.
  - The College of Engineering was the first to receive such a research administrator, and college personnel are very satisfied with the arrangement.
  - A second senior research administrator has transitioned to the College of Arts and Sciences. During that transition, substantial emphasis has been placed on enhancing activity in the arts and humanities, and in pursuing funding opportunities such as with the Idaho Council for the Humanities.
  - A third senior research administrator was hired to focus on the Colleges of Education, Business and Economics, Health Sciences, Social Sciences and Public Affairs, and all other units outside of the Colleges of Engineering and Arts and Sciences.
- A cross-training program for OSP and SPA staff was developed to facilitate understanding of the roles and responsibilities of each office, data collection and documentation processes, and interrelated administrative functions.
An attorney was hired in the University Counsel’s Office to support research-related activities at the University, including reviews of sponsored project/licensing agreements, and developing policy.

The Office of Research Compliance was developed to oversee a wide range of compliance issues including those having to do with animal care, human subjects, and biohazards.

The Office of Technology Transfer was developed to encourage invention disclosure, manage the protection of intellectual property, and facilitate the commercialization of intellectual property. The office coordinates its activities with the University Counsel’s Office.

Additional research administrative personnel were hired.

An award acceptance form was created and will help to educate principal investigators about their awards and to confirm the principal investigator’s acceptance of the sponsor’s terms and conditions.

The Office of Sponsored Programs reassessed its business practices and processes with the goal of providing the highest level of customer service while ensuring compliance within the highly-regulated area of research administration. Examples include: developing a standard form to document cost sharing commitments; creating award review checklists; developing templates for subrecipient agreements, and establishing protocols for data collection from the proposal submission process through award receipt and file set up.

The Office of Sponsored Programs provided software tools to faculty to assist them in finding funding for their research interests and a “fundingopps” listserv was set up to send out targeted information regarding limited proposal submissions and upcoming funding opportunities.

Foundational Infrastructure:
Policy and Procedure

4.B.2 Institutional policies and procedures, including ethical considerations, concerning scholarship, research, and artistic creation, are clearly communicated.

4.B.3 Consistent with institutional mission and goals, faculty have a substantive role in the development and administration of research policies and practices.

4.B.5 The nature of the institution’s research mission and goals and its commitment to faculty scholarship, research, and artistic creation are reflected in the assignment of faculty responsibilities, the expectation and reward of faculty performance, and opportunities for faculty renewal through sabbatical leaves or other similar programs.
—ACADEMIC FREEDOM AND THE RESPONSIBLE CONDUCT OF RESEARCH

As described in Standard 9, Boise State relies on the State Board of Education policy regarding academic freedom,16 which states that “academic freedom should not be abridged or abused” and describes the rights that pertain to research and also describe the responsibilities that go along with those rights.

Also as described in Standard 9, all employees and students of Boise State are expected to adhere to the Standards of Conduct, which highlights Idaho statutes, the Board’s rules, policies and procedures, and the University’s policies and procedures that are applicable to employees in the University environment. All employees and students also are expected to act in accordance with the Shared Value Statement of the University.

Research misconduct is covered by Boise State Policy 5060,17 which describes procedures that are in place to investigate and resolve promptly and fairly all instances of alleged or apparent misconduct. A recent incident successfully employed our present policy, but pointed up the need to strengthen the policy specifically with regards to proper procedure and the identity of those who should oversee deliberations.

So as to remain eligible for federal Public Health Service (PHS) funding, we have placed on file with the Office of Research Integrity of the Department of Health and Human Services (DHHS) an assurance that we have developed and will comply with an administrative process for responding to allegations of research misconduct.

As part of our efforts to promote integrity in research, the Division of Research, in cooperation with the Graduate College, is developing a one-credit course on the responsible conduct of research (RCR), to be offered for the first time to graduate students in the fall of 2009. The course will enhance understanding and education regarding RCR and will provide a comprehensive overview of basic rules of the road for responsible research. The course will cover the nine core areas that researchers need to be aware of, whether they be seasoned researchers or undergraduates who may be introduced to research for the first time. The impetus for creating the RCR training course was the increased number of research misconduct cases that have been investigated by the DHHS’s Office of Research Integrity. By offering RCR training, Boise State will be able to apply for PHS grants in which mentoring plays a major role in the grant objectives such as training grants and career development grants.

16 SBOE Policy on Academic Freedom
17 Policy 5060 Research Misconduct
—POLICIES OF WORKLOAD, PROMOTION & TENURE, MERIT PAY, SABBATICAL, ETC.

Standard 4A (above) discusses in detail the workload policy for faculty members. That policy states that a faculty member may devote as little as 8% or as much as 73% of workload to research. The need to meet departmental teaching obligations may impose constraints on that percentage, although it is possible for a researcher to “buy out” teaching if funds are available. Therefore, there exists plenty of flexibility in workload to accommodate the research of faculty members. In the Periodic Review of Academic Departments process, departments are asked to describe in their self studies how their workload policy facilitates faculty success in research, e.g., by enabling the use of lighter teaching loads.

Our response to Standard 4A also discusses policies having to do with promotion and tenure and with merit pay. In both realms, the research of a faculty member is an important component of evaluation.

Standard 4A also discusses sabbatical policy and the way in which our revised sabbatical policy will increase the ability of our faculty members to enhance their research through the use of sabbaticals.

—RESEARCH FACULTY

Research faculty members are playing an increasingly important role in the research conducted at Boise State. The policy on research faculty members was revised in 2004 so as to clarify the rights and responsibilities of research faculty members, and to describe the policies and procedures governing their appointments, evaluation, and promotion.

—CENTERS AND INSTITUTES

Policy 5000 describes policies and procedures for Centers and Institutes. The policy is presently being revised substantially to more clearly describe the acceptable administrative structures of centers and institutes and to describe procedures for the evaluation of centers and institutes. During the 2008-09 academic year, a newly formed Council for Centers and Institutes evaluated all of the entities on campus and created a report that went to each of the deans. The net result was that several centers were discontinued and several had their administrative reporting structure revisited.

—CONFLICT OF INTEREST AND INTELLECTUAL PROPERTY

Boise State's policy on conflict of interest is described in Standard 9. It is expected that faculty members have their primary commit-
ment of time and effort to the University, and are given guidelines as to the amount of outside employment that may be undertaken and the reporting requirements associated with such employment. However, there are several areas in the present policy that need to be strengthened: (i) central management of conflict disclosures, (ii) careful identification of conflicts across the campus, not just in the sponsored projects area, and (iii) development of a process to effectively manage identified conflicts. It is our intent to update the conflict of interest policy so that the rights and interests of both faculty and the University are protected in all conflict of interest situations.

Our draft intellectual property policy was sent out for comments to various groups across campus during the Spring semester 2009. The policy has the following key provisions: (i) enhanced definitions of ownership, (ii) elaborated disclosure and administration guidelines, and (iii) additional specifics related to the calculation and allocation of licensing royalties generated from commercialization. The new IP policy is key to our ability to enhance entrepreneurship amongst our faculty members.

—ANIMAL CARE, HUMAN SUBJECTS, AND BIOLOGICAL SAFETY

Our policy on animal care and use describes the key role of the Institutional Animal Care and Use Committee (IACUC) in overseeing animal research at the University. Specific procedures are contained in the IACUC Program Guide Manual. The IACUC reviews protocols for animals used in research and in teaching. The University wants to eventually achieve accreditation of our facilities through the Association for Assessment of Laboratory Animal Care (AALAC). As a first step to achieving that goal, we are bringing in a consultant during Summer of 2009 to review our facilities and protocols, thereby identifying areas in need of work. Starting in Fall 2009, all researchers conducting animal research must complete an online training program and become certified before submitting a protocol.

The University’s Institutional Review Boards (IRB) are responsible for protecting the rights and welfare of human subjects who participate in research activities at the University. The IRBs perform critical oversight functions for research conducted on human subjects that are scientific, ethical, and regulatory. All researchers conducting human subjects research must complete an online training program and be certified before submitting a protocol. Our campus provides two IRBs: one for biomedical research and the other for social and behavioral research.
The Institutional Biosafety Committee oversees research activities that involve or use recombinant DNA, agents that are infectious to humans, animals and plants, other potentially infectious materials, select agents and biological toxins, human materials including blood, cells, unfixed human tissues and other body fluids, and xenotransplant and gene transfer clinical studies. We provide a web based training program which is available to researchers and their students who work in research laboratories. This committee has also provided review and approval to community hospitals conducting research.

The Vice President for Research has the responsibility for the above three areas and appoints the membership for the review committees in each.

—INVolVEMENT OF FACULTY MEMBErs

Faculty members are involved in the development and administration of research-related policies and procedures in a number of ways, including the following:

- The Faculty Research Committee has recently been created as a Faculty Senate committee, to serve as an advisory group for the Vice President for Research, specifically to assist in the review of policies and procedures, to help disseminate information, and to represent faculty interests to the Vice President.25

- Several faculty members are members of the Council on Centers and Institutes, which has a primary role in the creation of policy and the evaluation of centers and institutes.

- Policies are vetted with various faculty groups that have a vested interest in the policy. For example, the intellectual property policy was vetted with the Patent Committee, changes in human subjects policy were vetted with the Institutional Review Boards, and changes to animal research policy were vetted with the Institutional Animal Care and Use Committee.

- A Senior Research Advisory Group, consisting of faculty members from each of the academic colleges, was established by the VPR in part to develop policies and procedures necessary for the Division of Research to more effectively offer timely and contemporary services to the research community.

- Faculty members serve on the Office of Sponsored Programs Advisory Group, which was created to increase efficiencies in pre- and post-award activities.

- Faculty members, particularly from the humanities, are called on to serve on ad hoc committees to develop procedures for soliciting and reviewing proposals in this area.

25   Policy 5040 Faculty Research Advisory Committee
Foundational Infrastructure: Facilities, Equipment, and Informational Resources

4.B.4 Consistent with its mission and goals, the institution provides appropriate financial, physical, administrative, and information resources for scholarship, research, and artistic creation.

Funding and planning of facilities, equipment, and information technology is described in detail in Standard 8.

The University Master Plan contains a Program Affinities Framework, which identifies three areas of the campus that will each be the focus of a set of disciplines. This structure is guiding the placement of new buildings on campus. Those affinity groupings and their locations are:

- Business, social sciences, and performing arts are to be in the northwest section of campus.
- Education and the humanities are to be in central campus
- Sciences, health sciences, and engineering are to be in the southeast section of campus

New buildings that support faculty research are funded by a combination of state funds, federal funds, gifts, and funds bonded via student fees. The most recently constructed academic buildings constructed on campus were primarily classroom space: the Interactive Learning Center and the Multipurpose Classroom Facility. To be completed this fall will be the Norco Building, which houses the Department of Nursing and the Center for Health, Wellness and Counseling.

In construction is the first building with a preponderance of space dedicated to research: the Center for Environmental Science and Economic Development, which will house the Departments of Geosciences, Civil Engineering, Political Science, and Public Policy & Administration. The concept of the new building is to facilitate interdisciplinary interactions amongst those disciplines.

Presently in planning is the new building for the College of Business and Economics (COBE), which will bring several of the existing COBE research centers under one roof. This action will help facilitate the interactions of these groups to further advance research within the college, and help better coordinate financial, marketing, etc. services to the local and regional business community. The next new academic buildings will be a building in support of the liberal arts and an interdisciplinary science building.

http://www.boisestate.edu/masterplan/
Much of the research space for the sciences and engineering is created by the remodeling of existing classroom space. One way that we help ensure that laboratory space is sufficient for new faculty members is that departments are not allowed to hire a new faculty member unless they certify that sufficient laboratory space exists for that person.

The Ron and Linda Yanke Family Research Park was recently initiated. It is located approximately one mile from campus. The facility will house University research centers and various programs around the theme of public engagement. Phase I of occupancy will include the Office of Sponsored Programs the Center for Orthopedic and Biomechanical Research. Phase II of occupancy will include the research centers of the College of Health Sciences and the College of Social Sciences and Public Affairs. It is envisioned that additional research centers and institutes will populate the facility in future phases of the project.

Faculty have been extremely successful in securing external funding to obtain state-of-the art equipment to support both research and teaching activities, particularly in the National Science Foundation’s Major Research Instrumentation (MRI) Program. The University has received seven of these awards over the past five FYs. The Division of Research continues to work closely with these faculty members to ensure they develop the most competitive MRI proposals, as well as other equipment acquisition proposals, as possible.

The process of Periodic Review of Academic Departments is important in causing departments to assess the sufficiency of facilities and equipment in supporting their research efforts. External reviewers are also tasked with evaluating the same aspects of departmental resources.

Commendations, Recommendations, and Action Plan

—COMMENDATIONS

- The University has created a contemporary and efficient research administrative structure by combining its pre- and post-award activities into a single Office of Sponsored Programs. This reorganization provides seamless cradle-to-grave grant management support to the research community.

- The University has strengthened the infrastructure supporting research compliance, thereby minimizing the University’s liability in this realm.
• We have made substantial progress in increasing the funding of sponsored projects.

—RECOMMENDATIONS

• The University needs to develop the means (including performance measures and benchmarks) by which it can better assess its research productivity and evaluate the effectiveness of the infrastructure supporting research.

• The University needs to formalize the technology transfer process so as to be better able to identify, protect, manage, and commercialize our intellectual property.

• The University needs to update policies, especially regarding intellectual property, conflict of interest, and research misconduct, so as to ensure that they are consistent with accepted practice in higher education.

—ACTION PLAN

• We will develop performance measures and begin benchmarking research-related metrics.

• We will create a Technology Transfer Advisory Board so as to solicit private sector input on managing intellectual property.

• With input from stakeholders, we will revise key policies.