Boise State University, like the city of Boise itself, is growing, rising to the challenge of providing a comprehensive learning experience to an everchanging community.

So it's no surprise that BSU is expanding its role in regard to research, competing for state and federal grants, hiring faculty and establishing centers in various research areas.

In this issue of FOCUS,
you'll read about some of
these exciting research
projects and hear what
BSU faculty have to say
about the old adage
"publish or perish."

BSU's goal is to maintain its healthy reputation as a teaching university, but sailing into the uncharted waters of research is invigorating and exciting — and urges us to continue our exploration and expansion.

## Regarding Research

By Bob Evancho

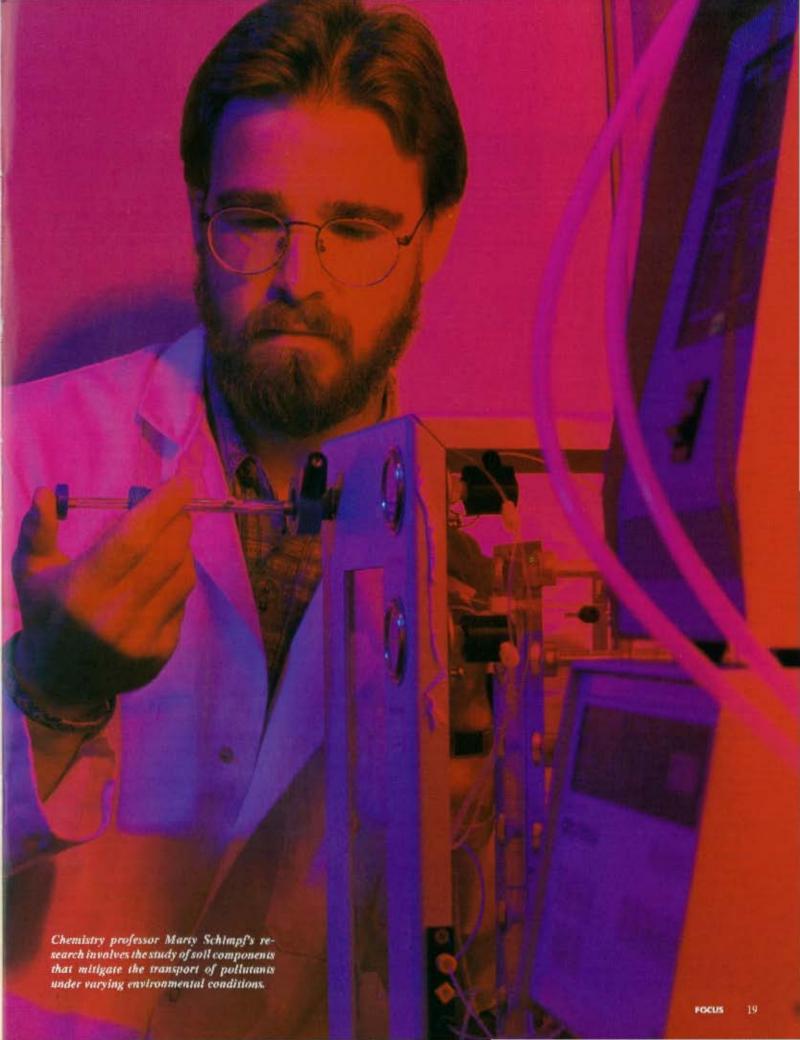
espite their lofty perches in higher
education's pecking order, the Stanfords,
MITs and Johns Hopkinses of the research
world have not cornered the market on
discovery. The intrinsic nature of a university makes studious inquiry an essential
function of the educational process—
regardless of the institution. But when it comes to research policy, each school has a different set of circum-

Which brings us to Boise State, Idaho's largest university in terms of enrollment (14,930) with a faculty of more than 400 full-time professors.

stances, limitations and priorities.

With so many students seeking knowledge and so many professors needing to stay current in their disciplines, this situation leads to a number of questions:

Where does research fit in Boise State's grand scheme? Has the emphasis on research in some departments come at the expense of teaching — or vice versa? Is there ambiguity among the faculty as to the importance of research? Does BSU have the infrastructure to support research? Has the university's hiring criteria changed to bring in more research-oriented faculty?



Such questions, sa E Daryl Jones, BSU's Such questions, says provost and vice president for academic affairs, are "a natural reflection of the maturation of the institution." Indeed, in its two decades as a university, Boise State has undergone a metamorphosis: What was once a teachingoriented school that held fast to its junior college roots has grown in stature and sophistication, emerging as a prototype of what is sometimes categorized as a "comprehensive" university. Namely, an institution that offers a range of educational opportunities.

In BSU's case, the range is very broad. And while the university can rightfully boast of a dedicated faculty that teaches a vast array of courses, such diversity can

create a lack of institutional cohesion in regard to research.

"To my knowledge, only a handful of institutions in the nation have the breadth of programming that runs from certificate programs in vocational education all the way up to a doctoral program," comments Jones. "Because of that, it's very difficult to find a uniform standard for research productivity."

In other words, when it comes to fostering a "culture" of research on campus, Boise State finds itself in somewhat of a gray area. Fundamentally, BSU is not a research university, but according to prevailing notions, academic status is based largely on research and publication. If that's the case, will professors whose forte is teaching have a tougher time earning tenure and promotion?

Portions of the university do indeed struggle with these competing goals, allows Jones, and sorting out priorities is easier said than done. Part of the reason is because different academic departments have different agendas. As mandated by the State Board of Education, BSU's "role and mission" includes placing "primary emphasis" on business and economics, the social sciences, public affairs, the performing arts, interdisciplinary studies and



HPER's Linda Petlichkoff is one professor who doesn't bat an eye when it comes to balancing research and teaching.

teacher preparation.

"I think we have the expectation that all faculty are involved in teaching, research and service," says Jones when asked how promotion and tenure are determined. "But [the amount] of emphasis placed on any one of those areas over the others to some extent is determined by the role and mission of the given department. Clearly, a department that has a graduate program is going to have a stronger research profile than one that does not."

Sport psychologist Linda Petlichkoff, who has completed several research projects in her eight years at Boise State, says part of the problem is the possible "friction between those who publish and conduct research and those who teach a greater variety/number of classes." Many faculty members were hired at BSU before there was an expectation to publish, she notes. But most professors arriving on the scene these days come from doctoral programs where publishing is an expectation, and "the division and perception of 'publish or perish' [has become] more of a reality."

When considering the role that research plays at Boise State, Jones advocates "an appropriate balance" with teaching and service. "We recognize that we don't aspire to be a research institution per se and that we also have a history of strong service to the community," he says. "We don't want to lose sight of our role as a teaching institution, so we are interested in enhancing the role that research plays with teaching as well as for the inherent benefits of research itself.

"In my own view, good teaching and good research are mutually beneficial. Many of the best researchers are among the best teachers. Good, current research enhances teaching. It ensures that the subject matter is current. Active and involved researchers generally communicate their enthusiasm for the discipline they are teaching. In other words, they remain involved, they remain intellectually vital; hence that vitality and enthusiasm

percolates into the classroom."

Like Jones, Jane Ollenburger, social sciences and public affairs dean, acknowledges that Boise State is not a research-oriented university. "But that doesn't bother me," she adds. "I would point out instead that we are a high-quality undergraduate institution with quality master's programs in a metropolitan area, which gives us all sorts of opportunities that provide quality education. The question that comes to mind is, How does research fit into providing that quality education?"

How indeed. Questions posed to a handful of BSU researchers elicited varying perspectives.

"It is not a question of the perceived or real role of research compared to teaching, rather that of the impact of research on teaching," asserts geologist Walt Snyder. "Both can be and should be integrated into the university education system. BSU is evolving into a major university. This is the best time to address the impact of research on teaching. We need to establish an agenda that recognizes the importance of research within the overall educational process and that fosters an environment where this integration can flourish."

For registered dietitian Elaine Long, such an environment already exists. "In the College of Health Science, there is an appropriate balance between research and teaching," says the health studies professor. "My research allows me to work with other nutrition professionals; this interaction keeps me involved with both the science and the application of nutrition."

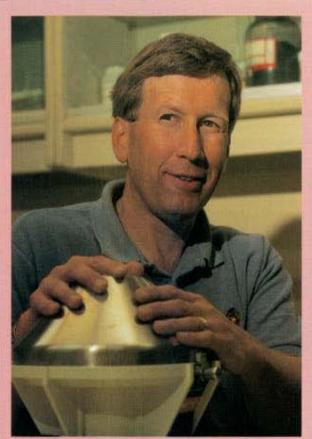
Political science chairman Greg Raymond, long recognized as one of BSU's preeminent researchers, believes the university is heading in the right direction. "For too long, not enough emphasis was given to research at Boise State," he says. "In recent years, however, there has been an appropriate balance of teaching and research. Both are necessary, and each can enrich the other."

Boise State's reputation as a teaching college is well-deserved and should be worn with pride, says biology professor Al Dufty. "And as the university has grown and incorporated an increasing number of graduate programs, its academic focus has likewise broadened," he adds. "A reasonable balance between teaching and research certainly is possible. On the one hand, professors should expect to be active in all levels of undergraduate education. I think that

the additional emphasis on research is healthy and enhances BSU's reputation in the national arena."

Some faculty members, however, believe there is still too much onesidedness. "On a universitywide basis, I think we don't emphasize research enough," comments Nancy Napier, management professor and coordinator of BSU's international business program. "We've now gone so far in the direction of saying that teaching is No. 1 that we forget we are good teachers only when we're filling our own tills with knowledge through research. Yes, Boise State is a teaching institution. That is fine as long as we appreciate, nurture and celebrate research; we do somewhat, but not as much as we should, given some of the outstanding researchers we have on campus."

Says Petlichkoff, a professor of health,



A hands-on researcher and teacher, biology's Al Dufty believes professors should be active in all levels of undergraduate education.

physical education and recreation: "The primary responsibility that we have as faculty members is teaching. But the bottom line is that research and publications are the yardsticks for promotion and/or tenure. Unlike measuring teaching effectiveness, it becomes important because it is countable — i.e., how many articles have you published? There should be support for those individuals who enjoy and want to advance knowledge in their own field of study; it should not be at the expense of teaching."

But is that institutional support in place for BSU researchers? Again, it depends on each department and its "research niche," responds Jones. "I think the expectation level to conduct research has gone up in all areas — some more than others," he says. "But we simply don't have the research infrastructure in place in some areas. Take the physics department, for example. The university simply is not able to provide the lab research infrastructure for advanced work in particle physics. Because we aren't able to develop in that particular area it would be unrealistic to hire people in that [field]. Therefore, we hire accordingly and concentrate on physics education."

Chemistry professor Marty Schimpf agrees: "Based on the infrastructure and budgets established by the Legislature and State Board of Education, it is clear that BSU is not meant to be a major player in the research arena, at least not in the scientific research arena." he says. "Nevertheless, the administration at BSU recognizes that active research is a necessary component to a thriving university; without it, the university will at best be a liberal arts institution with a modest reputation - not necessarily a bad thing. In the worst case, the university will stagnate and eventually deteriorate into a glorified community college. Therefore, the administration is doing what it can to promote research within the limitations set by the current political climate and budget constraints."

Other concerns exist. Outdated equipment and lack of space in the biology department are two cited by Dufty. He points to a refrigerated

centrifuge that is essential to his and other biology professors' research. "Unfortunately, it is so old that no one will provide a service contract for it. If it breaks, our research comes to a screeching halt. I cross my fingers every time 1 turn it on. Similarly, some of our equipment is hand-medown from hospitals or even from high schools. As a result, some of what we use is at least a generation behind what is available. This has obvious implications for the quality of research that can be performed.

"I recognize that the university has limited financial resources that ultimately are controlled by the Legislature. Nonetheless, these problems exist and must be addressed soon if BSU is to fulfill its potential as a research institution."

There is also the issue of compensation, Dufty notes. "If we are looking to hire individuals who are competitive for research grants at the national level, then we must be willing to compensate them at the appropriate scale," he remarks.

Paul Dawson, professor of construction management and engineering, also has concerns, to say the least. "Time resources, faculty wages, technical support resources, administrative support resources, library resources and equipment support resources are limited here," he states. "There are few incentives to pursue research here other than the tenure and promotion concerns among faculty."

The BSU chemistry department has a dual track system for the consideration of promotion and financial rewards, notes Schimpf. "Those in the teaching track are judged on their

"If we are looking to hire individuals who are competitive for research grants at the national level, then we must be willing to compensate them at the appropriate scale."

teaching success: those in research are judged on their research efforts, and are given lighter teaching loads so that they can compete with those in the teaching track," he says. "Tenure and promotion requires some effort in research with publications in peer review journals, but publish or perish is certainly not a truism. Excellent teaching and service are still major factors in the reward system at Boise State. Compared to research institutions with graduate programs, tenure at

BSU requires a smaller research effort."

The university's reward system isn't flawless, but department chairs Raymond and Jerry LaCava believe that any faculty member pulling his or her weight will be evaluated fairly.

LaCava, computer information systems and production management chairman, says, "All faculty should be avid 'learners.' BSU seems to allow 'researchers' and 'teachers' to thrive; this is as it should be. I try to evaluate my faculty on the basis of contribution to the department's goals. Some teach more so others can be more active in research. Both are rewarded."

Adds Raymond: "Teaching and research are given equal weight in evaluations of faculty in the political science department. At a university, all faculty should be involved in some level of research. The level or amount may vary from person to person, but the point remains that an active research agenda contributes to good teaching."

To be sure, these various strains of thought in regard to research at Boise State represent only a portion of the discussion. But one thing is certain: The debate will only become more passionate as the university grows.

## Centers of their Universe

ith each year, research activities grow and become more sophisticated at Boise State University. From birds of prey to geosciences to health-care policy, BSU is diversifying its efforts to study universal issues that affect residents of the world, not just Idaho. Perhaps most important, student gain hands-on experience that would not be accessible to them at larger institutions. Some of the research is focused in centers or collaborative groups that provide resources and structure for faculty and research associates. Here's a look at a few of them.

## Center for the Geophysical Investigation of the Shallow Subsurface

The largest research center at BSU is the Center for the Geophysical Investigation of the Shallow Subsurface (CGISS). It was established in July 1991 to focus graduate geophysical research on the study of the uppermost part of the Earth's crust. The center seeks a better understanding of fundamental geological processes that occur at shallow depths in both terrestrial and marine environments.

Cities around the state have benefitted from expertise at the center. Projects have included a seismic study of sedimentary strata beneath Pocatello; experiments to help evaluate aquifers, faults and alluvial channels in the Boise River valley; and a study of groundwater seepage and landslides in Hagerman.

CGISS assists state agencies with geophysical projects, answers inquiries and provides speakers to the general public on a wide range of issues such as natural hazards and general earth science.

Initial funding was provided by a \$400,000 grant from the State Board of Education. The grant provided seed money that has helped the center compete for other funding from public and private sources. All told, the center has been awarded \$2 million from external contracts and grants.

## Raptor Research Center

The Raptor Research Center is located in the biology department and is part of the Raptor Research and Technical Assistance Center. The Raptor Research Center facilitates BSU's master's program in raptor biology and manages a number of grant accounts and cooperative agreements for field research.

The center is a research partnership of federal and state governments, the academic community and the private sector. It serves as a national and international center for raptor issues on birds of prey habitat management and conservation, such as effects of pesticides on birds of prey and the effects of military training on the Snake River Birds of Prey Area.