

Provost's Council
ACADEMIC REPORT FOR 2007–2008
College of Forestry
August 1, 2008

2007-2008 Highlights

1. Programmatic achievements—List initiatives undertaken and outcomes achieved in the following areas.

a. Student engagement and success

Curriculum enhancement and development

- The CoF monitors teaching effectiveness in every class taught, using the university's SET process. Overall, 84% of undergraduates and 94% of graduate students rated their courses as Good to Excellent, and 87% of undergraduates and 96% of graduate students rated their instructors' efforts in that range.
- The Forest Operations Management degree program was accredited by the Society of American Foresters in 2007. This program will be reviewed, along with all other college programs, during the General Review conducted by the Society of American Foresters in 2011.
- FERM preparation for the next ABET accreditation cycle is underway; the next site visit to OSU is scheduled for October 19–21, 2008. The Self Study report is complete and includes a description of the CoF reorganization. There is some concern that the uncertainty associated with the CoF budget situation and the undefined leadership of the evolving FERM Department could jeopardize a full 6-year accreditation for the FE degree program. FE continues to refine the "continuous improvement process." FERM will showcase FE student portfolios to the ABET evaluator as primary evidence of achievement of the program outcomes.
- FE successfully taught the full undergraduate and graduate curriculum in AY2008. This was especially challenging because of a sabbatical leave and increasing student enrollment. Fortunately, two capable temporary instructors added teaching support.
- The FE partnership with Triad Equipment and Link Belt Manufacturing entered its second year. The original log loader was swapped for a new one and successfully sold. This gift helps promote application of classroom principles into work practice via the latest technology.
- Ongoing partnerships of FE with Traverse PC, Tripod Data Systems (TDS) and PPI Group provided access to state of art technology and software for student education in geomatics. The partnerships also provide access to corporate technical staffs for assistance in student training and classroom instruction. FE recently purchased a new high resolution GPS system for classroom and research use under a 90% educational discount through TOPCON that will be serviced by the PPI Group.

- Forest Resources (FR) implemented the restructured Forest Management curriculum, including new courses and several options designed to stimulate student interest and enhance career relevancy. Advisors report that students are enthusiastic about the new options and associated flexibility.
- FR further strengthened administration and delivery of the Natural Resources degree program, absorbed Natural Resources students from all other colleges into CoF, and began a strategic process of curriculum review and revision.
- The FS Department taught 16 regular courses this year. Three are primarily undergraduate offerings. Four courses (FS 561, FS 520, FS 646, and FS/BI 430) were substantially revised. One new course (FS 599, Wildlife Landscape Ecology) and one special course (FS 599, Tree Ring Methods and Applications in Ecology) were offered. One (FS 600X, Global Change Ecology) had its third offering and will become a permanent course next year.
- FS 599 (Ecological and Economic Impact of Invasive Forest Pests and Pathogens) was shared with other universities on invitation by the National Center for Ecological Analysis and Synthesis, Santa Barbara.
- Transition to a 180 credit hour degree requirement for the BS in Wood Science and Technology degree was completed. New graduate-level courses (WSE 530, 535) to serve our strengthened connection to Materials Science were taught in AY2008. WSE 565 (Wood Quality), developed to strengthen our program in this area and to support the Center for Intensive Planted-forest Silviculture initiative, was taught for the first time.

Financial support

- The CoF scholarship and fellowship programs are an essential component of our students' success. Scholarship funding for 2007-2008 totaled \$469,300: \$414,650 from college funds and \$54,650 from departments. Fellowship funding totaled \$388,363: \$122,465 from college funds and \$265,898 from departments. Students also received aid through assistantships and work-study programs.
 - The Richardson Fellows in FE included a woman from Chile and a male from Korea, in keeping with our intent to use the funds to diversify the student body.
 - FE continued a system for awarding "named" annual scholarships from donors who are unable or unwilling to establish the minimum of \$25,000 endowment set by the OSU Foundation. Two scholarships were awarded from gifts made to the FE Department discretionary account in the OSUF, one called the Fred and Carolyn Green Scholarship, and the second called the William Penney Scholarship.
 - Ed and Susan Hanscom provided a \$5,000 gift to send two FE Department undergrad students to the Pacific Logging Conference in Hawaii.
 - Twenty-five students majoring in Wood Science and Technology (WS&T) received a Richardson Scholarship in AY2008. In addition, 21 WS&T majors received other College and University scholarships. Seven Wood Science graduate students were awarded CoF fellowships in AY2008, and one was awarded the Oregon Lottery Scholarship by the University.

- Two WS&T students won prestigious national scholarships for AY2008. OSU is the only institution to have two undergraduate winners of the \$5,000 Robert Dougherty Scholarship given by the Composite Panel Association, and one Wood Science and Technology undergraduate will receive this award in AY2009. OSU students have won this prestigious national prize in each of the past five years.

Enrollment trends

- Total undergraduate and graduate enrollments both increased in 2007–2008. Undergraduate enrollment totaled 618, a 25% increase over the previous year, mostly due to transitioning Natural Resources students from other colleges to CoF. Graduate enrollment was 146, a 2% increase.
 - FE Department undergraduate enrollment increased 29%, from 84 students in spring 2007 to 108 students in spring 2008. The cohort of women and minority students is growing. The Department also supports 5 Honors College students, a large increase that reflects the increasing number of high-achieving students in the department's programs. It is reasonable to project 135 or more undergraduate majors in what were FE Department programs in fall 2008, approaching the FE Department long-term enrollment goal of 140 students in the FE, FE/CE, and FOM degree programs, of which 25% will be women and 5% will be minorities.
 - FE generated a total of 3498 SCHs, about a 12% increase over AY2007. Undergraduate SCHs increased almost 22% as larger classes from recent years began to take upper division classes. Graduate level SCHs declined about 9%, reflecting the loss of major professor capacity. SCH/teaching FTE increased by 11% with current FTE allocations.
 - FE graduate enrollment declined by 15% in AY2008 to 22 students. Eight graduate students completed programs in AY2008, including four with a PhD. Students who actively sought jobs have been employed by university research programs, consulting firms, state/federal agencies, and for PhDs, in academia. Two masters graduates continued on for PhD programs.
 - FR generated 7,232 SCH. Transfer of Natural Resources advising from other Colleges and ECampus to COF in 2007 produced a major surge (>100 students) in the Natural Resources student count. Enrollment in the flagship Forest Management program remained roughly stable, somewhat above the average of the last decade, and Recreation Resources Management enrollment continued to decline slowly along a 10-year trend.
 - The number of FS graduate students has declined about 15% per year the last two years. This decline mirrors the reduction in number of faculty during this period. Nevertheless, SCH exclusive of thesis hours increased slightly in AY2007–2008.
 - WSE student credit hour (SCH) generation and SCH/teaching FTE increased in AY2008, largely because of increased senior and graduate student numbers and a few new graduate courses.
 - The number of BS graduates in WSE increased to the highest level of the decade, continuing a five-year trend of increasing numbers. Fall 2007

enrollment in Wood Science and Technology and Wood Science increased slightly over 2006 and remains at or near 10-year highs. The number of MS graduates about average for the year. Anomalously, no PhD students graduated in AY2008; several finished their programs but did not technically graduate in AY2008. Next year's census will be much higher as a result.

Preparing graduates for career success

- The FE faculty and staff continue to place a premium on high quality advising. All core faculty except the Extension Specialist with undergraduate teaching assignments have undergraduate advising responsibilities. Results of a survey conducted during spring 2008 to provide supporting data for the ABET accreditation effort showed continued satisfaction with the current process.
- FR hired a new professional staff advisor for the Forest Management and Recreation Resource Management programs to increase efficiency and foster student progress. Thus far, the change in advising scheme appears to be a resounding success.
- Student exit interviews in WSE consistently point to effective advising, the caring nature of the faculty, and career/internship counseling as major factors in their success and a strength of WSE. This is a competitive advantage of WSE relative to engineering and business.
- FE maintains an active working relationship with the State Board of Engineering Examiners (OSBEELS), including providing service for development and grading of the professional forest engineering licensing examination. This relationship reinforces for students the value provided by professional credentialing and life long learning in their professional development. Graduates are encouraged to take the Fundamentals of Engineering (FE) and Land Surveying (FLS) exams as they leave school.
- The WSE Senior Project continues to be a key element in preparing undergraduate students for career success. This 3-term series of writing intensive courses emphasizes skills in critical thinking, analysis and problem solving, and making oral presentations. Students typically pick a project in conjunction with a faculty advisor and, frequently, with an industrial sponsor.
- FS graduate students organized and accomplished the 2nd Annual Forest Science Graduate Student Symposium, and FE graduate students, with faculty support from Kevin Boston, organized and hosted the 2nd Annual Forest Engineering Graduate Student Research Symposium on Forest Operations, Soils, and Hydrology. The latter event included preparation of proceedings of the 15 presentations by FE graduate students.
- To support the goal of more effectively engaging undergraduate students with the department research program, FE used Gibbett Hill Foundation/Rick Strachan Foundation gift funds for Undergraduate Research Awards to promote engagement of undergraduate students in the FE research programs. Four FE faculty received

awards and have engaged undergraduate students in their research activities to investigate:

- the impact of season on the amount of Douglas-fir bark removed by mechanized processors (Glen Murphy)
- the reliability of LiDAR data for collecting resource measurements in support of forest operations (Michael Wing)
- the effect of contemporary forest practices on the generation and fate of sediment in forested watersheds and streams (Arne Skaugset & Amy Simmons)
- the effects of mechanical damage on residual coastal Douglas-fir following commercial thinning. Phase 1—Understanding the impacts of damage to young-growth Douglas-fir and other commercial timber species in the Pacific Northwest (Jim Kiser)

b. Research and its impacts

- CoF faculty obtained a total of \$12,759,613 in extramural funding in FY 2008: \$10,830,135 in grants, agreements, and contracts and \$1,929,478 through the formal research cooperatives.
- OSU was ranked as number 1 in the US for research productivity in the field of conservation biology in 2007. The basis for this ranking was the number of literature citations (some 1100 in total) to OSU research work over a recent 5-year period. Bill Ripple's (FR) trophic cascades papers contributed approximately 10% of this total, more than any other author from OSU.
- CoF and OSU initiatives involving *Fish & Wildlife Habitat in Managed Forests*, *Climate Change*, *Forest Ecosystem Health*, and *Sustaining Rural Communities* continue to move forward.
- CoF faculty and students published numerous scholarly works:
 - FE faculty and their students published 28 refereed journal publications and 14 other peer reviewed publications, books, and book chapters.
 - FR faculty and students published 113 scholarly works, continuing the steady trend growth in total number of publications and in output per research FTE. These works included two books and 50 refereed journal articles and reviews.
 - FS professorial faculty produced 77 refereed journal articles and 17 other publications, including 4 textbooks.
 - WSE faculty published 42 refereed journal articles and numerous other scholarly articles. These included a significant increase in the number of joint publications by groups of WSE faculty.

In addition, they gave many research presentations to audiences ranging from highly specialized conferences to members of the public.

- FS had another very successful year both in raising dollars to support research and in scholarship. Contracts exceeded \$8.3 million, making Forest Science the lead department in the University (through May). Department records show a total of \$9.3 million in research funding through May, including cooperative support. Nine

of the 14 research/teaching faculty attracted grants/contracts exceeding \$400K each, and 8 each published 5 or more refereed journal articles; quite significant achievements.

- Glenn Howe (FS) became the OSU site director for a new "Center for Advanced Forestry Systems" (CAFS), a multi-university center recently funded through the National Science Foundation (NSF) Industry University Research Center program. A key focus of this center will be studies linking knowledge of genes, genomes, and physiological processes to silvicultural performance and value in forest stands. This grant will bring \$100K to OSU annually. Co-PIs are Steve Strauss and Keith Jayawickrama.
- Howe is also directing research on Douglas-fir genomics as part of a large, multi-university project entitled the "Conifer Translational Genomics Network." The goal of this project, recently funded by the USDA, is to understand how genetic markers can be used to identify trees with superior growth, adaptability, disease resistance, and wood properties. This work will complement the efforts in poplar genomics conducted by Strauss' lab.
- In addition to nearly \$1 million for AmeriFlux, Bev Law (FS) has received \$457K from the Department of Energy (DOE) to further work on understanding the effects of disturbance and climate on carbon storage and gas exchange of conifer forests in the Pacific Northwest (PNW). Law also received an award from the National Center for Atmosphere Research Advanced Studied Program to fund a student as a visiting scientist
- Dave Turner (FS) has received 2 grants (one from DOE with Bev Law, and one from the USFS) totaling \$900K to model carbon dynamics in the west coast of the US.
- Recently published research by Matt Betts (FS) suggests that songbirds have more complex communication abilities than previously thought and that "social cues" can be at least as important as physical environment in attracting birds to nesting sites. Betts has made a good start in funding his wildlife research, including 3 grants this year, one of \$276K from Oregon Department of Forestry (ODF) to study the long-term response of birds to thinning young Douglas-fir forests.
- Mark Harmon (FS) and graduate student Steve Mitchell (FS) have used simulation modeling to study the impact of thinning to reduce fire severity on carbon stores in forests. Their analysis shows that thinning can reduce fire severity but in the long run leads to lower stores of carbon on the landscape than allowing fires to burn. The reason for this surprising result is that such thinning must be intensive, removing more carbon from sites than wildfire would release.
- One goal of Barbara Bond's research at the HJ Andrews Experimental Forest, supported by the NSF, is to determine how much information carbon isotopes in CO₂ in nocturnal cold air drainage can provide on the physiological status of vegetation in an entire basin. These isotopes in air provide a surprisingly good prediction of daily and seasonal changes of the water balance (drought stress) of stands throughout a small watershed.

- Despite a weak economy, the eight FS research cooperatives seem to be doing well, with dues totaling nearly \$1 million in 2007–2008.
 - The Center for Intensive Planted-forest Silviculture completed its Strategic Plan and Strategic Framework and is participating in a proposal to the Oregon Innovation Council.
 - This was the 25th anniversary of the Nursery Technology Cooperative, the oldest co-op in the FS Department.
 - The Hardwood Silviculture Cooperative, led by Dave Hibbs (FS), has developed bole taper and volume equations for red alder. These equations make it possible to forecast lumber yields in red alder stands at various ages and thus will be a very useful management tool for forest managers and woodland owners growing this valuable species.
 - Work by Doug Maguire (FS) for the Swiss Needle Cast Cooperative has produced diameter and height growth modifiers for the growth model ORGANON that allow better prediction of bole volume productivity of stands infected by Swiss needle cast.

- Extramural funds obtained by WSE faculty in CY2007 exceeded \$1.3 million, including research cooperative funding and excluding Wood Utilization Research Special Research Grant funds. This is consistent with the success of previous years, despite an effective reduction in faculty numbers. Early indications are that the level of extramural funding in CY2008 will exceed this mark by a considerable margin.

- The USDA National Research Initiative Competitive Grants Program for Bio-based Materials and Products evaluated 88 proposals and is making 8 awards for FY2008. Three of the eight, totaling over \$1.2 million, will come to WSE faculty. This is unprecedented success in a highly competitive national program and reflects on the quality of the science proposed by WSE faculty John Simonsen, John Nairn, Kaichang Li, and Lech Muszynski.

- Two US patents were granted to Kaichang Li (WSE) and two foreign patent applications were submitted by Joe Karchesy (WSE) and colleagues. Li's patent on formaldehyde-free adhesives continues to generate significant royalties for OSU. He is expanding this work to other composite materials.

- The WSE Wood Pole Research Cooperative welcomed three new members in 2007, bringing membership to 19 members, the highest in 20 years. Accomplishments included a submission to the American National Standard Committee for inclusion of through-boring of Douglas-fir poles in the national standards for utility poles and developing a guide to the impacts of woodpeckers on pole properties. The Co-op is also working with the Western Wood Preserver's Institute to develop information on pole service life to counter claims that wood is less durable than alternative pole materials. They are examining the potential for preservative to migrate from stored poles and have developed some simple methods for capturing this chemical. The Co-op will shortly release a new website that will have all previous reports available on line, as well as copies of other papers related to wood in utility systems.

- The FE department's research program has evolved from a year ago, but is basically focused on the same main themes. Research within the department can be summarized as follows:
 - improving the value recovery from logs during harvesting (Murphy)
 - incorporating wood quality and value characteristics into stand inventory procedures to refine wood supply chain efficiency (Boston)
 - developing innovative spatially explicit land management and harvest scheduling models (Sessions)
 - improving knowledge of harvesting and transportation costs associated with the utilization of forest biomass for bio-energy applications (Kellogg)
 - improving knowledge of impacts from contemporary harvesting and transportation practices and processes on forest soils, hydrology and aquatic habitat (Adams, Boston, Pyles, Schoenholtz, Skaugset, and Sessions)
 - improving knowledge of fundamental hydrological processes that serve as the basis for models (McDonnell)
 - investigating basic pathology, biometrics, and associated economic impacts of damage to residual second growth trees after thinning (Kiser)
 - developing spatial analysis techniques that assist land managers in analyzing site specific data base information at a landscape level (Wing)
 - support for the department's Watersheds Research Cooperative.

- The FE Watershed Research Cooperative continues to gain national visibility and credibility as results from the Hinkle Creek study are presented at scientific meetings and graduate students complete theses. The Alsea Watershed "revisited" study is also gaining visibility as awareness grows of this second entry into the original Alsea watersheds. The Oregon Watershed Enhancement Board provided a major infusion of cash that is enabling completion of the hydrology monitoring infrastructure in the Trask study watershed. We continue to seek federal appropriations in FY2009 and will seek funds once again from the Oregon Legislature in the next session. Cooperators have been resilient in continuing to provide about \$375,000 in local support during tough times. This is in addition to more than \$135,000 in support from the FRL Fish and Wildlife Habitat in Managed Forests program.

- The FE log value recovery initiative continued to develop slowly with existing funding from the Center for Wood Utilization Research and departmental fellowships to support graduate students. External funding has been hard to obtain, but OSU, Weyerhaeuser, Roseburg Forest Products, John Deere, and Waratah are working together to develop a prototype harvesting head that contains acoustic technology for sampling wood strength. Pape Machinery is also active in the effort. Estimates suggest that appropriate bucking and sorting of high strength trees can yield 50-100% increases in end product value.

- Jeff McDonnell (FE) continues his work with Kennecott Greens Creek Mine in Alaska to help with reclamation efforts focused on developing hydrologically

functional hill slopes for forest restoration. He is also expanding work in “cloud forest” ecosystems in Mexico, continues work at the Savannah River on tritium phytoremediation, and is assisting with design of a new artificial hill slope at Biosphere II in Arizona.

c. Outreach and engagement

- Numerous faculty in every department serve their professions as editors of scientific journals, members of professional working committees, and officers of professional scientific societies. They also serve on a host of University committees and as advisors to student groups.
- Several FR faculty advised policy makers at state and national levels concerning natural resource issues, including involvement in current legislation (e.g., Norm Johnson has worked closely with Senator Wyden’s office).
- Ed Jensen (Student Services, Associate Dean) led the planning and chaired the 7th Biennial Conference on University Education in Natural Resources.
- FR featured novel and significant research findings and educational programs in local, regional, and international media (e.g., Ripple’s trophic cascades on BBC, Cascades Tourism and Outdoor Leadership and NR programs in local newspapers)
- John Bailey (FR) organized modules on “Inventory/Modeling and Decision Support Training for Silviculturists in the Forest Service” as part of a new USFS national silviculture certification program, the National Advanced Silviculture Program. Course content was provided by several faculty in FR, FE, and other departments.
- FR offered the 51st year of the Variable Probability Sampling short course.
- The FS faculty led 50 workshops, gave 95 outreach presentations, and produced 11 outreach publications. The great majority of these efforts were by the 6 Extension faculty, but 8 workshops and 30 outreach presentations were delivered by campus research/teaching faculty.
- The Nursery Technology Cooperative (FS) conducted its 4th Pacific Northwest Native Plants Conference with ~200 in attendance. Propagation of Pacific Northwest Native Plants: A Manual", by Rose (FS), Chachulski (FS) and Haase (FS) is in its 5th printing and is on OSU Press' best sellers list.
- Dave Shaw (FS) and Paul Oester (FS) have created a new program, "Pest Scene Investigators (PSI)". The program trains Master Woodland Managers and other woodland owners to help local forestry agents in sick tree calls. A major source for this training will be the Forest Pest Pocket Management Guide, currently being completed by Shaw, Oester and Greg Filip (FS) and funded by Oregon Forest Resources Institute.
- Clackamas Country Tree School was again a big success in 2007 (605 attendees). Mike Bondi (FS), the creator of the Tree School concept, was recognized for this effort by a "2007 Outstanding Achievement in Strategic Support," by the Vice Provost and Director of Outreach and Engagement.

- The WSE Oregon Wood Magic Program had a stellar year of delivering educational programs about wood and related resource issues to 3rd and 4th grade students in Oregon. Wood Magic was offered through site-based programs in Corvallis and Portland conducted by OSU faculty and staff and through a traveling show conducted by Dr. Leslie McDaniel.
 - The campus program served 42 classes from 21 schools and educated 1260 students plus teachers and parents—over 1400 in all. In May 2008, 11 schools brought 31 classes to our program at the World Forestry Center in Portland for a total of 930 students plus teachers and parents.
 - The WSE Wood Magic Traveling Show made 466 presentations to about 14,000 students, teachers, and parents at 178 schools in AY2008. About two-thirds of the schools were new contacts. Dr. McDaniel traveled over 30,500 miles and spent about six weeks in locations east of the Cascades. In addition, she made presentations to youth camps during the summer.
 - Teacher evaluations of the Wood Magic programs are glowing and speak to a key success with our outreach mission. Pre-and post-test evaluations indicate a high degree of learning and knowledge retention. This program is supported by the WSE department, the World Forestry Center and the Oregon Forest Resources Institute (OFRI).

- Oregon Wood Innovation Center (OWIC) completed its second year and continues to build momentum. Some highlights of Center accomplishments include
 - completion of a major study and compilation of current uses, research needs, major barriers to, and opportunities for increased use of wood biomass in Oregon
 - expansion of the web-based Forest Industry Directory, which puts buyers in touch with suppliers in the state. Most of those are small-to medium-sized businesses
 - completion of an educational needs assessment that will be used to guide development of new publications, workshops, and web-based tools
 - a workshop for architects to encourage intelligent use of wood products, a forest biomass workshop for Extension educators, and a standing-room only conference on new formaldehyde emission regulations
 - other short courses, including Lumber Quality Control, Lumber Quality Leadership, Selling Forest Products, How to Dry Lumber for Quality and Profit, and OSB Fundamentals. The FP Management Development Workshop was not held in 2008 because of the industry downturn. It will likely return in 2009 if the industry elects to support it.
 - a monthly electronic newsletter delivered to almost 1000 subscribers
 - completion of several technical assistance and market assessment projects for small Oregon businesses

Plans for the future include new programming in quality control and the development of a responsible material selection guide for architects and engineers.

- A Memorandum of Understanding was signed with e-Campus to develop an online course for place-bound industrial composite industry workers. Fred Kamke (WSE) is leading this effort to develop 19 online modules over 36 months. Target implementation is to offer the first modules by December 2008. Students who successfully complete 120 hours of instruction will receive a Certificate of Mastery of Wood-based Composite Science.
- FE faculty provided leadership for at least eight major events in development and delivery of workshops, conferences, symposia, and short courses, as well more than 125 field tours and presentations. Campus-based faculty, with and without Extension appointments, provided support for county-focused Extension programming and contributed to other stakeholders such as the OR-OSHA safety committee, the Associated Oregon Loggers, and OFRI.
- The FE Department hosted the 13th PNW Skyline and International Union of Forest Research Organizations Mountain Logging Symposium in April 2007 in Corvallis.
- FE staffed a booth and hosted a lunch for nearly 85 alums at the Oregon Logging Conference in Eugene in February 2008.
- Jeff Wimer (FE) led a one-day symposium co-sponsored by the FE Department, Associated Oregon Loggers, and Western Region Council on Forests Engineering on timber harvesting for more than 150 participants in January 2008. FE faculty presented the majority of the presentations for a second WR-COFE conference in Chehalis, Washington. Kellogg led a similar event in 2007.
- The Forest Service collaborated with the FE Department in offering another continuing education short course on Timber Sale Area Planning in May 2008.
- Mike Wing (FE) offered a broadened slate of short courses on GIS/GPS themes to diverse audiences.

d. Community and diversity

- College-wide efforts to build community have included payday coffees, ice cream socials, and working together on the Linn-Benton County Food Share Drive
- As reorganization of the College proceeds, a major effort will be made to build community and common sense of purpose among the faculty, staff, and students within and among departments via communication, openness, and special events.
- FE staffed a booth and hosted a lunch for nearly 85 alums at the Oregon Logging Conference in Eugene in February 2008.
- FR filled vacant faculty, staff, and student positions from underrepresented populations (e.g., Faculty Research Associate, professional undergraduate advisor) and provided financial support (e.g., departmental Richardson Fellowships) for the students.
- Research Support Faculty (RSF) in FS make up 70% of the paid employees (not including students). This year, the RSF group was encouraged to become more

proactive in department governance and community building, especially where it impacts their own welfare. The group developed a charter, a mentoring policy (volunteer mentoring of new RSF employees), and input to the department head on professional development. In addition, the last two spring terms, the RSF group has organized the Department seminar, featuring RSF speakers.

- With no new FS faculty positions, there has been no opportunity to address gender/ethnic diversity in the professorial ranks. Of the four professorial positions vacated in 2007-08, one was a female (Kimberly Wallin) and one a Hispanic male (Efren Cazares). Gender diversity has remained fairly stable the last several years, with about 20% of the professorial faculty and 40% of the research support faculty (RA, FRA, professional) female.
- FE is reaching goals for diversity enrollment overall and making solid progress towards goals for women in our degree programs. Our graduate program typically has provided a strong component of diversity in the department, though the representation was less than 20% in AY2008 on a smaller group of students. Several women completed the PhD and entered the professional ranks. FE continues to invest in educating future candidates for the diversity pool that other institutions are benefiting from, but numbers of women and underrepresented minorities remain low in graduate programs related to FE.
- At the beginning of fall term AY2007, FE undergraduate enrollment was 8% women, for spring term 2008 it was 10%, and for fall term 2008 we project the percentage to grow to about 13% on a larger base. We are working towards a long-term goal of 25% females in undergraduate programs. In AY2008, FE met their goal of 5% enrollment for undergraduate underrepresented students with 11% of our undergraduate student body documented in that category. FE is actively working to grow the department population of underrepresented minority students, primarily via strong support for the Latinos in Forestry Program. FE continues to seek connections with the College of Engineering Women and Minorities in Engineering (WME) program.
- It has been a challenge to add diversity to the FE faculty without funds to fill vacant positions. FE continues to be more successful in recruiting women for faculty research assistant and post doc positions, but mostly in the hydrology and soils areas. Currently, three of four such positions in the department are held by women.

e. International-level activities and accomplishments

- The College hosted nearly 30 international visiting scientists and enrolled 39 international students in 2007-2008. Some 30 faculty were involved in international collaborations and presentations.
- The FE Department initiative over the past several years to secure a new home for the International Journal of Forest Engineering with the Forest Products Society is complete. The financial condition of the journal continues to improve and a new editor has been selected. Marv Pyles' efforts have reached a successful conclusion and he was able to step away from a major support role. This success will maintain

a key outlet for international scholarship in the forest engineering and operations area.

- FR delivered several E-Campus courses nation- and world-wide (e.g., FOR 111, FOR 365, FOR 445, FOR/ FW/RNG 446). Several training guides and manuals received wide-spread acclaim from users (e.g., public involvement DVD, stream flows & recreation guide, Extension circulars).
- A Mexico TIES (WSE) program is currently supporting five Mexican graduate students.
- Eric Hansen (WSE) and Chris Knowles (WSE) are actively developing a study-abroad course that will expose students to the entire natural resources value stream in northern European countries.
- CoF faculty fill leadership roles in IUFRO and affiliated organizations, SAF, COFE, and American Geophysical Union (AGU).

f. Other appropriate initiatives

- Tom McLain (WSE) and Steve Tesch (FE) have devoted substantial time and energy over the past year, as members of a national team, to seek more stable approaches to funding of the Wood Utilization Research Center Grant, including an ongoing effort to scope out the potential move for the program under the President's budget rather than depending on a Congressional earmark.
- John Sessions has taken the lead in two efforts aimed at developing a forest transportation center in the CoF. The first is to explore the potential to develop a research cooperative. With Center Grant funds, Sessions, Marv Pyles, and Kevin Boston will host a series of focus group meetings by June 2009 to determine interests, primary research needs, and potential for long term funding. Sessions also has the lead on a complementary effort focusing on development of the forest transportation center as an element of a major CoF proposal to the Oregon Innovation Council. If funded by the Oregon Legislature, this could provide an infusion of \$1.2 million to launch the Center.
- Oregon Wood Innovation Center has developed a proposal for a new economic development strategy for the forest cluster in Oregon. This proposal was submitted to the Oregon Innovation Council for consideration and recommendation to the Oregon Legislature for funding in FY2010.
- The wood-based composites initiative is progressing well and continues to attract considerable industry interest as judged by participation in advisory committee activities. OSU remains a senior partner in the national Wood-Based Composite Center based at Virginia Tech. The industry funded a \$28,000 student project at OSU and will duplicate that in AY2009. They plan to increase funding to \$47,000 in AY2010. Despite the downturn in the overall industry this segment sees value in investing for their future at OSU.

2. Brief assessment of the College's efforts in areas in (1)

- The College of Forestry had a very successful year across the board with continued enrollment growth and strong research and outreach efforts. But asking our faculty and staff to perform at or above historic levels with declining finances is having a noticeable toll through stress. All 4 departmental reviews this summer highlighted stress as a major concern. This may be a university-wide problem. We are finding a need to tell people to just do less with less if doing more comes at expense to program quality, personal health, or families.
 - *On student engagement and success*, restructuring student services and advising has had significant positive results. Major challenges in the coming year will be in merging advising procedures in the newly configured FERM and FES departments. Faculty are actively working to engage undergraduates in the research enterprise, in some cases using funds from our OSUF accounts.
 - *On research*, what worked well was the ability to recruit and/or retain some very productive faculty, up till 3 years ago. The major challenge came with the loss and only partial recovery of a large USDA Center Grant for Wood Utilization Research, ~\$700,000 per year. This caused us to dramatically reduce support for graduate students and to shift funds from cash reserves to cover about \$250,000 in faculty salaries. This “problem” has not been fixed with Congress yet (caught in the earmarks battles). With the addition of new FRL appropriations and its matching harvest rate tax increase, effective in May 2008, we were able to partially stop the hemorrhaging in faculty FTE and accelerate initiatives in forests and climate, wood innovation, watersheds research, forest health, and intensive planted forest silviculture. What didn't work is that we only got about 30% of what was needed to stop the decline in faculty FTE, and \$250,000 of what we got went to the aforementioned research initiatives as part of the agreement with legislative supporters. HJ Andrews LTER has been funded for another 6 years, and our large program in forests and carbon remains strong. We would need to add a person to help faculty with grant writing to get any more productivity and to relieve some of the burden on others. Lack of funding prevents us from doing this.
 - *On outreach and engagement*, what worked was continuity and quality in such events as short courses and workshops, plus the superb program for elementary students on wood magic, reaching over 16,000 students, teachers and chaperones. We used some of the FRL/harvest tax increases to buy out extension FTE and replace it with FRL FTE, thus allowing us to begin the hiring process for an extension forester in Coos-Curry County. We also converted a fixed-term faculty in wood innovation to tenure track, averting his loss to another institution and maintaining our outreach momentum in that area.
 - *On community and diversity*, we had a great year of open community building events, highlighted by the community building associated with

our Linn-Benton Food Share drive. We made no progress on faculty diversity, as we hired no new faculty. We did successfully contribute female PhD graduates to other institutions' diversity. A continuing challenge in this area will be to get beneath the surface of social events and guide carefully the merging of cultures in the two new departments. We anticipate no new faculty hiring in the coming year due to budget insufficiency.

- *On international activities*, we again hosted numerous scientists from other countries and sent our faculty and some students to other countries for research, education or sabbaticals. We have pared our investment in international activities to the bare minimum to keep a presence at the university level. We could not justify continued investments in international work at the expense of resident education. We had much higher level of engagement with World Forest Institute Fellows but have yet to matriculate a master's student under our agreement with World Forestry Center. Our International Forestry Students Association chapter remains the only such in the United States. The OSU group was quite active in sponsoring a seminar series.
- Our biggest success this year was in the Campaign for OSU. We more than doubled our target as our patient work from the previous year paid off. We anticipate another strong year ahead in fundraising. We do not anticipate being able to offset our remaining \$2,000,000 per annum budget gap through the Campaign—perhaps ~\$1,000,000 if we are fully successful with faculty and dean's endowment goals.
- Our biggest challenge remains the College budget. We trimmed a projected \$4,000,000 gap between revenues and expenditures by 2010–2011 to ~\$2,000,000 through new state funds, faculty endowments, reconciliation of historic OSU budget allocation to the College, and administrative efficiencies in 2007–2008. We continue to close the annual gap by drawing down College cash reserves, which increased substantially 2–4 years ago in strong housing markets with high timber prices. The downturn in housing starts reduced demand for timber, which rippled down to lower prices for our timber, the major source of our cash reserves, and smaller revenues from the new higher harvest tax rate applied to a smaller volume harvested. Each year of a weak housing market erodes ~\$1,000,000 of our gains from last year's partial legislative success. At current conditions and burn rates, our cash reserves will disappear in AY2010–2011 and the College would be forced to trim ~\$2,000,000 in annual expenditures. To date we have trimmed all we could while protecting core programs and capacity. The next major trim will have to affect faculty, programs, or both, as there is literally now nothing left to trim beyond what we might accomplish with a business center with CAS.
- We will continue to try for more state appropriation, stronger federal formula and earmark funds, and more endowed faculty by 2010–2011, but it is unrealistic to think those will completely close the gap by 2010–2011. Thus, we are now

beginning internal discussions about academic program priorities in the hopes of identifying which could be reduced or terminated without serious damage to the nation's foremost forestry academic program. We avoided this over the last 2 years by committing to retain existing programs for the time being, to keep the administrative restructuring in focus, and to be as successful as possible with the Governor and legislature. Having been only 30% successful there and seeing the down market for timber, we can no longer avoid the next steps.

3. Major faculty and student awards

Faculty recognition and awards:

- Cheryll Alex (FS) and Kira Hughes (Student Services) received Dean's Awards for Support Staff.
- Doug Bateman (FS) and Rob Pabst (FS) received Dean's Awards for Faculty Research Assistants.
- Mike Bondi (FS), the creator of the Tree School concept, was recognized by a "2007 Outstanding Achievement in Strategic Support" award from the Vice Provost and Director of Outreach and Engagement.
- Steve Bowers (FE) was recognized by the Association of Natural Resource Extension Professionals (ANREP) Silver Award in the Long Publication category for his Extension bulletin entitled *Managing Woodland Roads: A Field Handbook*.
- Steve Fitzgerald (FR) received the Team Award for an OFNP Team from the OSU Extension Association.
- The Forestry Media Center (Jeff Hino, David Zahler, and Steve Cox) received a Gold Award from the Association for Communication Excellence for their "Ties to the Land" curriculum and first place for film and video in the 2007 National Association for Interpretation (NAI) National Workshop Interpretive Media Competition for their video production "Oregon Ecoregions: Preserving Our Natural Diversity".
- Olga Krankina (FS) served as a scientific expert on the Intergovernmental Panel on Climate change, corecipient of the 2007 Nobel Peace Prize. She also received the Dean's Award for international involvement.
- Debbie Bird McCubbin, retired CoF Head Advisor and Director of Student Services, was named OSU Woman of Distinction.
- Leslie McDaniel (WSE) received the Dean's Award in Extended and Continuing Education.
- Jeff McDonnell (FE) received the Dean's Award for Advising, Mentoring, and/or Resident Undergraduate and Graduate Instruction.
- Alison Moldenke (Forestry Communications Group) received the Dean's Award for Service.
- John Nairn (WSE) was invited to be a session chair at the prestigious, invitation-only Gordon Conference on Composite Materials.

- Mark Needham (FR) received the Dean's Award for Research and Scholarship.
- Marv Pyles (FE) received a Certificate of Appreciation from the Oregon Board of Examiners for Engineering and Land Surveying (OSBEELS).
- Robin Rose (FS) received the Aufderheide Award, awarded by students, for excellence in teaching
- Bill Ripple (FR) received the 2008 Earl A. Chiles award from the High Desert Museum.
- John Sessions (FE) remains a Senior Advisor, International Selection Committee for the Wallenberg Prize (considered the "Nobel" equivalent in forestry research).
- Viviane Simon-Brown (FR) received the 2007 Awesome Force Award from the OSU Forestry Extension faculty.
- Steve Strauss (FS) was named a 2008 OSU Distinguished Professor and was appointed to two study panels of the National Academy of Science.
- Temesgen Hailemariam (FR) received the Xi Sigma Pi/Julie Kliewer Mentor Award, given by students for excellence in mentoring as was selected as an outstanding mentor by the OSU Office of University Advancement. He was nominated for the Phi Kappa Phi Emerging Scholar Award (2008).
- Dick Waring (FS) received a Gleden Scholarship from the University of Western Australia.
- Nancy Weber (FS) received an Award for Contributions to Amateur Mycology from the North American Mycological Association.
- Michael Wing (FE) received his fifth OSU L.L Stewart Faculty Development Award.
- Brad Withrow-Robinson (FS), Chal Landgren (FR), and the Ties to the Land team were recognized with the 2008 Gold Award for Mixed Materials and 2008 Silver Award for Outstanding Team Project, Association of Natural Resource Extension Professionals.
- Steve Woodard (retired Extension Forester) was named 2007 Cooperator of the Year (with Brenda Woodard) by the Extension Forestry Program.

Student recognition and awards:

- Holly Barnard [FS and FE (Hydrology)] won a prestigious Horton Research Grant awarded by the American Geophysical Union to support research projects in hydrology and water resources by Ph.D. candidates.
- Jeremy Bittner (RRM) received the Clara H. Waldo and E. A. Cummings Outstanding Student Award, and Kelly Egan (FE) and Anica Mercado (NR) received honorable mention, at the 2008 All University Awards. This award is based on exceptional academic and extracurricular achievements.
- Ashley Blanchard (WST) won the Kelly Axe Award.
- Emily Boling was the Paul and Neva Dunn Outstanding Senior Award winner.
- Laura Dlugolecki (FR) received the 2008 Oregon Society of Soil Scientists Scholarship.

- Dan Donato (FS) and Christina Eisenberg (FS) were awarded the Mason Prize for Integrity and Moral Courage.
- Brenda Fogdall (NR) won the Pack Essay Award.
- Amanda Gladics (NR) and Claire Rogan (FE/CE) received the Drucilla Shepard Smith Scholastic award recognizing students who have maintained a perfect 4.0 GPA at the 2008 All University Awards.
- Tara Hudiburg (FS) was awarded a fellowship to participate in the National Center for Atmospheric Research (NCAR) Graduate Student Visitor Program, summer 2008.
- Kyle Latimer (FE) won the OSU Writing in the Curriculum Culture of Writing Award.
- Rachel Kollen (WST) and Jonathan Kerber (WST) received the Harold Bowerman Leadership Award.
- Ted Kowash, Forest Engineering/Civil Engineering; Zach Peterson, Forest Management; Ryan Jones, Recreation Resource Management; Marlies Luepges and Kirsten Fletcher, Tourism & Outdoor Leadership; Rachel Kollen, Wood Science & Technology; and Emily Boling, Natural Resources were named Outstanding Students for the College.

Results and Outcomes

1. Performance on college-level metrics

College-level metrics are at the end of the report.

2. Initiatives to leverage E&G and other base resources and to improve administrative efficiencies

The major effort this year was to restructure College departmental administration, moving from four to three departments to save an estimated \$250,000 per year in administrative costs and position the two new departments for future work. We have left staff support positions vacant, which has reduced costs but also came with a loss of historic services in media and communications. We moved Penny Wright into the lead business office position, and that will have significant impacts on customer service and work flow. Our three remaining office managers are highly competent.

We used the capital campaign, specifically the Rick Strachan endowed chair, to free up ~\$150,000 E&G and FRL dollars to flow to other programs beginning in 2008–2009. We received a \$3,000,000 gift from Larry Giustina that will do likewise in the coming academic year.

We redesigned our student services staff to better align people with work load, and reports from students are overwhelmingly positive.

Our next move is the anticipated business center with CAS.

Oregon State University
Academic College Metrics
College of Forestry

Metric #		Actuals (AY/FY)					Actuals	College Targets
		2002-03	2003-04	2005-05	2005-06	2006-07		
	Goal 1: Provide Outstanding Academic Programs 2004-05 Themes: Increase research and outreach Increase diversity							
1.1	Expenditures from Grants and Contracts, and Other Sources	\$15,314,662	\$15,071,528	\$16,366,202	\$17,634,191	\$17,445,141	\$16,401,952	\$17,700,000
1.2	Invention Disclosures*	2	5	2	2	4	3	2
1.3	% of Faculty, Staff, and Students Comfortable with Climate for Diversity	N/A		N/A	N/A	N/A	N/A	N/A
1.4	% of U.S. Minority Students of Total College Enrollment	7.1	5.7	5.5	7.3	7.2	7.3	7.9
1.x.1	External Funds Generated per State Dollar Invested in Statewide Public Services (FRL)	6.25	6.80	6.81	6.63	6.02		6.80
	Goal 2: Improve the Teaching and Learning Environment 2004-05 Themes: Improve student success and retention Increase diversity							
2.1	First Year Retention Rate (% Within College / % Within University)	72.4 / 82.8	75.0 / 80.0	69.4 / 86.1	70.5 / 81.8	63.3 / 73.5	66.7 / 82.2	71.0 / 82.0
2.2	6-Year Graduation Rate (% Within College / % Within University)	41.3 / 61.9	37.7 / 59.0	41.2 / 56.9	46.8 / 68.1	52.5 / 62.5	55.2 / 69.0	42.1 / 65.1
2.3	Undergraduate Degrees Awarded	86	82	61	79	106	120	78
2.4	Graduate Degrees Awarded	51	46	47	43	43	41	41
2.5	% of Seniors Participating in Student Engagement Activities / Number of Respondents	N/A	75.0 / 8	93.3 / 15	N/A	80.7 / 62	N/A	N/A
2.6	Student Primary Major to Faculty FTE Ratio / Student Course to Faculty FTE Ratio	14.1 / 10.2	13.0 / 9.0	14.3 / 9.3	21.1 / 12.9	20.5 / 11.7	27.7 / 15.7	20.1 / 12.5
	Goal 3: Increase Revenues							
3.1	Awards from Grants and Contracts (# / \$) * 2	149 / \$8,101,750	168 / \$14,074,018	161 / \$11,566,572	157 / \$12,814,264	138 / \$9,488,854	125 / \$10,830,135	158 / \$12,850,000
3.2	Private Giving Revenue 3	\$2,231,964	\$6,627,011	\$6,594,493	\$4,983,305	\$1,321,125	\$6,803,961	\$5,000,000

* Invention Disclosure data for FY 2005 and 2006 is reported based on fiscal year, while data for 2002-03 and 2003-04 are based on calendar years. This change was made for '05 and '06 so that the numbers correspond to the data period requested by the annual Association of University Technology Managers (AUTM) survey, completed by the OSU Office of Technology Transfer.

¹ For 2004-05, two USDA grants for the Center for Wood Utilization Research were eliminated based on the definition, which states awards include only external competitive awards. The two awards deleted from the Forestry totals were basically provided to a number of universities on a formula basis. Data for other years may contain non-competitive grants/contracts and Federal formula funds.

² The number of awards is equivalent to the number of accounting transactions made under a college's award index, rather than the number of awards received by the college.

³ The source for the FY 2005, 2006, and 2007 private giving revenue data was changed to the OSU Foundation Campaign Report, which includes bequest expectancies for those who will be 70 by the end of the campaign and other pledges. The Campaign Report does not discount planned gifts nor make allowances for uncollectible pledges.

Notes: For FY 2003, 2004, and 2005, all awards affiliated with both a campus department and the OSU Extension Service were reported under the affiliated campus department. Beginning FY 2006, these awards will be reported under the OSU Extension Service and not the campus department or college. College of Forestry award metrics include Forest Research Lab (FRL).

"N/A" – Not Applicable

Numbers in italics are estimates

Oregon State University
Academic Program Review
College of Forestry
1999-00 through 2007-08

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-2008	% Change '06 - '08
Faculty FTE										
Professional	86.7	83.1	86.8	79.5	78.1	80.1	78	63.9	58.5	-25.0%
Non-Professional	106.8	107.1	119.3	109.8	112.3	114.7	122.1	134.4	133.2	9.1%
Total Faculty FTE	193.5	190.2	206.1	189.3	190.4	194.8	200.1	198.3	191.7	-4.2%
E&G Tenured/Tenured-Track Faculty Headcount									5.4	
Professional	93	88	94	86	84	86	81	69	65	-19.8%
Non-Professional	112	113	116	117	120	122	130	144	140	7.7%
Total Faculty Headcount	205	201	210	203	204	208	211	213	205	-2.8%
E&G Tenured/Tenured-Track Resources (Fiscal Year)									7	
E&G - Initial Budget (\$)	2,097,017	2,182,101	2,204,568	2,351,353	2,263,151	2,575,008	2,764,595	2,834,320	3,209,935	16.1%
Private Giving Revenue (\$)	1,587,386	889,973	2,285,346	2,231,964	6,627,011	6,594,493	4,983,305	1,321,125	6,803,961	36.5%
*Awards (Grant, Contract) (#)	152	153	140	149	168	161	157	138	125	-20.4%
*Awards (Grant, Contract) (\$)	10,623,272	11,751,300	10,136,827	8,101,750	14,074,018	11,566,572	12,814,264	9,488,854	10,830,135	-15.5%
Research Expenditures (\$)	-	-	-	15,314,662	15,071,528	16,366,202	17,634,191	17,445,141	16,401,952	-7.0%

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-2008	% Change '06 - '08
SCH by Course Level (Academic Year)										
Undergraduate	9,177	8,438	8,187	8,090	7,406	7,673	8,379	7,977	8,550	2.0%
Lower Division	2,945	2,213	2,278	2,086	2,134	2,294	2,440	2,054	2,270	-7.0%
Upper Division	6,232	6,225	5,909	6,004	5,272	5,379	5,939	5,923	6,280	5.7%
Graduate	4,832	4,970	4,959	4,894	4,961	4,866	5,282	4,911	5,336	1.0%
First Professional	-	-	-	-	-	-	-	-	-	-
Other	60	0	0	0	0	0	0	0	0	-
Total SCH	14,069	13,408	13,146	12,984	12,387	12,539	13,661	12,888	13,886	1.6%
Enrollment by Major (Fall Term)										
Undergraduate	396	382	353	350	362	387	453	458	588	29.4%
Graduate	146	154	140	136	146	157	167	149	153	-8.4%
First Professional	-	-	-	-	-	-	-	-	-	-
Total Enrollment	542	536	493	486	508	544	620	607	739	19.2%
Degrees (Academic Year)										
Bachelor	88	85	77	86	82	61	79	106	120	51.9%
Master	26	28	34	36	29	33	33	28	30	-9.1%
Doctorate	9	14	14	15	17	14	10	15	11	10.0%
First Professional	-	-	-	-	-	-	-	-	-	-
Total Degrees	123	127	125	137	128	108	122	149	161	32.0%

Notes: 1) Numbers in Italics are estimates.

2) The source for the FY 2005, 2006, and 2007 private giving revenue data was changed to the OSU Foundation Campaign Report, which includes bequest expectancies for those who will be 70 by the end of the campaign and other pledges. The Campaign Report does not discount planned gifts nor make allowances for uncollectible pledges.

3) The number of awards is equivalent to the number of accounting transactions made under a college's award index, rather than the number of awards received by the college.

4) Tenured/tenured-track faculty headcount and FTE include faculty funded by E&G funds at 50% and greater.

* For 2004-05, two USDA grants for the Center for Wood Utilization Research were eliminated based on the definition, which states that awards include only external competitive awards. The two awards deleted from the Forestry totals were basically provided to a number of universities on a formula basis. Data for other years may contain non-competitive grants/contracts and Federal formula funds.