

## **COLLEGE OF ENGINEERING ANNUAL ACADEMIC REPORT FOR 2013-14**

The College of Engineering underwent several changes during the 2014 fiscal year. Scott Ashford was named Dean in mid-February succeeding Sandy Woods. Interim School Heads were named in CBEE, CCE and EECS. Searches for new heads were initiated in CBEE and CCE. The search for the Interim Head of EECS will be initiated over the summer. The college successfully hired new faculty, awarded a record number of degrees, and admitted a record number of students to professional programs.

The College remains committed to delivering outstanding engineering talent and ideas that lead to prosperity for Oregon and the nation. The college initiated a strategic planning process that will be complete in early 2015. Our goals will be closely aligned with and complementary to the University's goals as outlined in the Strategic Plan 3.0 and are consistent with our land grant mission.

The number of 2014 degrees awarded is 1123 indicating an overall increase of 22 percent, with increases of 24, 10, and 43 percent for baccalaureate, masters, and doctoral degrees, respectively over 2012 values (see appended IR tables). Research expenditures data will be finalized later, but preliminary estimates suggest a decrease of about 10 percent over 2012. New grants and contracts decreased over the last two years; in part reflecting the decrease in federal funding of research. The number of faculty has grown over the last two years and several successful searches will bring fourteen additional faculty to the college in FY 2015; five replacement hires and 9 new faculty lines. Six of the new hires will be support using INTO and Ecampus funds.

The college experienced continued success in private fundraising; exceeding our "Campaign for OSU" goal more than a year ahead of schedule. The development team, including college leadership and foundation staff, raised more than \$19.2M in FY 14.

### **2013-14 PROGRAMMATIC ACHIEVEMENTS**

1. Examples of key initiatives undertaken and noteworthy outcomes achieved by the college in several areas of focus: student engagement and success, research and its impact, outreach and engagement, and community and diversity initiatives.

#### **a. Student Engagement and Success**

Engagement and success activities were directed towards both undergraduate and graduate students. Broadly our activities have focused on recruitment, retention and degree completion through increasing student engagement. Whenever possible, we have worked to partner with appropriate units on campus for broader impact and leverage of other OSU assets. A significant focus of our 2014 activities has been on the University's First Year Experience (FYE) goals though we continue to assist students by engaging them with our five themes 1) integration (i.e., social and academic), 2) exposure (e.g., majors within engineering, 3) services, (how OSU works), 4) involvement (e.g., clubs, internships), and 5) support (e.g., academic, coaching).

- The college is completing a three-year process to centralize and improve academic advising for first-year students as part of our alignment with the University's FYE objectives. Seven of fifteen majors were absorbed into the centralized process in fall 2013 and the remaining eight will be included by fall 2015. Assessment data from AY 14

confirms that centrally advised first-year students had higher levels of satisfaction with their academic advising experience than those advised under our traditional approach. Notably, this outcome was particularly evident in first-generation and non-white students.

- As part of our efforts to improve the FYE for COE students, we worked with UHDS to identify Hawley-Buxton as the Engineering Living-Learning Residence Hall beginning fall 2014. We have designed and will deliver a variety of activities to engage students with the college and facilitate their success; including structured study tables for key courses, activities with students clubs, field trips, and drop-in advising hours during registration and other critical times.
- COE modified ENGR 199, “Foundations for Engineering Success” to targeted first-year students who entered with math proficiency levels below College Algebra. These students are at risk for both retention and persistence within the College. This revised ENGR 199 will be delivered and assessed in fall 2014.
- The college focuses considerable resources on experiential learning opportunities. These take a variety of forms including; student groups’ service projects (i.e., AIChE conferences, Engineers Without Borders), developing apps that track the OSU transit buses (Transport), Hardware Weekend hosted by EECS that brings together students, faculty and industry to create new devices and the Engineering Expo, a showcase of seniors’ capstone projects. An excellent example of experiential learning is the Global Formula Racing team that has won the national title four of the last five years and won the second consecutive international title in Germany this summer.

#### **b. Research and its impact**

As noted in the appended tables, FY 14 research expenditures will not be available until February 2015 but awards have grown by more than 23 percent over 2012. The number of Masters and PhD awarded degrees has also grown significantly since 2012. The college has focused three college-wide initiatives on:

##### ***Faculty mentoring and support to increase research productivity by;***

- Organizing research-focused workshops to help with new faculty development,
- Providing support for proposal development,
- Identifying additional cost share options,
- Providing release and funds for large proposal development, and
- Improving our interface with the Research Office.

##### ***Transformative centers and large initiatives to increase research expenditures by;***

- Improving faculty understanding of the national agenda/grand challenges for forming centers,
- Teaming up with other partners (universities, academia, and industry) to gain first experience and increase reputation,
- Encouraging collaboration,
- Coordinating time and resources required,
- Increasing the “letter of intent” selection rate and improving the review process for restricted solicitations/limited submissions

**Research advocacy to increase reputation and visibility by;**

- Developing stronger, deeper collaborations with national labs,
- Working with the Research Office to improve industry relations, and
- Increasing the college's internal and external visibility to agencies.

Collaboration remains an important theme to our vision of successful research and scholarship; collaboration across units, the college, the university and beyond. While by no means an exhaustive list, some examples are shown below.

- Associate Professor Abi Farsoni was awarded \$1 M as part of a multi-university consortium grant from the National Nuclear Security Administration (NNSA). He is developing advanced radiation detectors for measuring ultra-low concentration of radioactive noble gases (xenon radioisotopes) in the atmosphere from nuclear weapon tests.
- Inpria, a startup company based on the research of ECE professor John Wager and chemistry professor Doug Keszler is developing high-performance, thin-film technology that can be used by chip makers in the semiconductor industry. The company has raised nearly \$10 million from investors that include Intel, Samsung and Applied Ventures.
- A partnership between OSU and eight partners from government and private industry (Cascadia Lifelines Program (CLIP)) aims to improve the performance of critical infrastructure during an anticipated large earthquake generated by the Cascadia Subduction Zone off the Oregon coast.
- CBEE researchers secured new funding through the NSF "Partnerships for Innovation" program to demonstrate the feasibility of a microfluidic platform for the treatment of sepsis, a blood disease that kills more people in the US each year than AIDS, prostate cancer and breast cancer combined.

**c. Outreach and engagement, including international-level activities**

The college works to reach out and engage at multiple levels within the university across the range of stakeholders and, increasingly, with international groups. Some representative examples include;

- Collaboration with Admissions and the Colleges of Science, Agriculture, and Forestry to re-structure recruiting events for high achieving students. "Destination Orange", held in the Portland Convention Center, attracted over 300 students and their family members
- The College participated in outreach events in Portland, Salem, and the Southern Oregon Coast during National Engineers Month.
- A College of Engineering Advisor from the Women and Minorities Program held weekly office hours at Linn Benton Community College to assist community college students prepare to successfully transition to OSU.
- The college participated in a STEM recruiting program organized by INTO OSU, reaching high school students in Indonesia and introducing them to engineering at OSU.
- The college began collaborations with Özyeğin University (OzU) in Turkey by sending three engineering students as part of a new summer research internship program at OzU working directly with faculty in their facilities.

- The Department of Nuclear Engineering and Radiation Health Physics made significant progress on its effort to develop a dual PhD program with the Warsaw University of Technology, opening the doors for future collaborations on research and student exchange.
- The Minor in International Engineering was formally approved and implemented in the College with student enrollment expected in 2014-2015.
- The 15<sup>th</sup> annual COE Engineering EXPO showcased the senior design projects of 580 engineering students across all disciplines. This year more than 200 projects were on display for the more than 1900 visitors which included industry leaders, legislators, high school classes, the general public and the OSU campus.
- The College continues sponsoring a yearly drive-in conference and workshop for our community college faculty and advising partners to strengthen relationships and to better communicated changes in College policy to these important groups. Participating institutions for the 2012-2013 year represented over 80% of the students that transfer to the COE.
- COE Ambassadors led daily tours of the College, led WAVE lab tours, and visited K12 schools throughout the state, reaching over 10,000 K12 students.
- The O. H. Hinsdale Wave Research Laboratory is probably the most popular destination on campus for international and domestic visitors. More than 2,000 visitors pass through the lab each year. The annual spring tsunami challenge and open house on hosted 2,000 K-8 students in the structure challenge.
- CCE and MIME jointly hosted the inaugural Graduate Expo in Portland in which graduate students showcased their research to Portland-area industry partners.
- Several schools have hired Industry/Corporate Relations staff and/or Public Information staff to assist in developing better relations with industry and provide better and more effective communication with our stakeholders.
- All units engage with industry and practicing professionals both inside and outside the classroom. A few examples include; the Mentors360 program connects students to professionals and, in turn, these students connect with high school students, Createlt Collaboratory (funded by the Tektronix Foundation) brings industry products and students together to create new applications,

### **Community and diversity enhancement initiatives**

Through the Women and Minorities in Engineering (WME) Program, the College supports a number of activities to recruit and retain women and underrepresented minorities (URM), including administration of the OSU Louis Stokes Alliance for Minority Participation in STEM (LSAMP).

During the 2013-14 year, WME has initiated several new collaborations with the Oregon K-12 community, including:

- Hosting the 2014 Annual Conference for the Oregon Association of Latino Administrators which was attended by 250 K-12 superintendents, and principals.

- Closing the Achievement Gap for African American Students (Oregon Department of Education Grant): a mentor program of African American OSU STEM students working with professional African American men, partnered with middle and high school students.
- Programs for the First Year Experience have been expanded. Incoming students have opportunities before fall term to meet each other, learn about campus resources, and connect with peer leaders and faculty through the LSAMP Summer Bridge (47 URM students) and the Women Engineers Orientation Program (80 female students). To reach a greater number of students, a pre-fall term 2-day Leadership Academy will be offered in 2014 for up to 200 URM STEM students.
- The College plays a significant role in INTO OSU program with roughly one-third of the total population of INTO students in the college. As noted above we have initiated several programs to help these students successfully transition to OSU. In addition, the college has welcomed several Iraqi students, particularly in CCE.
- Faculty member, Michelle Bothwell, represented the college in the successful submission of a university-wide NSF ADVANCE grant that seeks to leverage the existing difference, power and discrimination (DPD) program to STEM faculty and administrators.
- The college hosts a number of events that draw community members to campus including; EECS teamed with WME to host a ChickTech workshop designed to increase the number of women in STEM careers, the Oregon State Robotics Club hosted the first of a what is planned to be an annual *FIRST* Robotics Competition, District Competition, which brought 3,000 Oregon and Washington STEM students to Gill Coliseum for 3 days, and the O.H. Hinsdale Wave Lab continues to be a source of active community engagement, providing tours and demonstrations to a wide range of audiences, including hosting 10 leading women engineers from around the world as part of the International Visitors Program.

**d. Other Initiatives**

- Architects are in the final stages of completing construction documents for Johnson Hall the \$40M facility that will house CBEE faculty, staff and students as well as the college first-year advisors and student success programs. The building will open in fall 2016.
- Renovation of a portion of Graf Hall began with the goals; 1) to create a hub for MIME robotics, 2) be approved for graduate studies in robotics, and, 3) promote industry investment into robotics research.
- Engineering education is the research and scholarship focus of two recent faculty hires. These hires complement existing faculty expertise and provide critical mass as we pursue this developing national funding opportunity.
- Over the last year we have developed and are implementing a new capacity-informed pro-school admission process. The process will provide students a set GPA for pro-school admission one year in advance of applying.
- A Category I proposal for delivery of a graduate program in bioengineering was initiated by CBEE faculty.

2. A brief assessment of the efforts in these areas is included below.

<b>Student Engagement and Success</b>
<b>Works Well</b>
<ul style="list-style-type: none"> <li>We have developed a network of Ambassadors and student volunteers that provides very valuable service to the college and helps students engage with our college.</li> <li>The first-year advising implementation is progressing and early assessment indicates students have very high satisfaction with the program.</li> <li>Supplemental instruction and academic coaching programs are helping students become more engaged and, in turn, more successful.</li> <li>Growth in usage of Engineering HUB success resources</li> </ul>
<b>Needs Improvement</b>
<ul style="list-style-type: none"> <li>RHP and EcoE programs continue to have low enrollments</li> <li>Further increases in graduate enrollment will require additional fellowship funding.</li> </ul>
<b>Major Barriers</b>
<ul style="list-style-type: none"> <li>Our UG student/faculty ratio impacts class sizes and program quality.</li> <li>Pro-School demand exceeded available resources and over 120 qualified students were denied admission this fall.</li> <li>Physical space limitations have hindered expansion of student success programming.</li> <li>Space to house faculty, their associated labs and students (graduate offices, project space for all levels and informal meeting space) is a critical issue at this point.</li> </ul>
<b>Research Impacts</b>
<b>Works Well</b>
<ul style="list-style-type: none"> <li>17 CAREER proposals submitted in part as a result of the new faculty workshops</li> <li>We had CoE proposals selected for 7 limited submission opportunities, and had the proposal review feedback improved significantly (A significant number of these proposals were successful, just notified this summer.)</li> <li>Commercialization is increasingly a part of the culture of COE.</li> </ul>
<b>Needs Improvement</b>
<ul style="list-style-type: none"> <li>Significant turnover in the pre-award group has hindered continuous improvement goals.</li> </ul>
<b>Major Barriers</b>
<ul style="list-style-type: none"> <li>Continued growth of the research enterprise will require competitive start up packages and improved quality and amount of facilities.</li> </ul>
<b>Outreach and Engagement</b>
<b>Works Well</b>
<ul style="list-style-type: none"> <li>Improvements to Beaver Open House, Engineering Expo, and our communication plan have significantly increased our community outreach and engagement.</li> <li>Targeted recruitment initiatives are improving the number of high achieving students choosing the COE.</li> <li>Continued successes of student teams in national/international competitions bring notoriety and recruitment opportunities.</li> </ul>
<b>Needs Improvement</b>

<ul style="list-style-type: none"> <li>• Additional, focused conversations with Community College engineering advisors and faculty would be beneficial.</li> </ul>
<b>Major Barriers</b>
<ul style="list-style-type: none"> <li>• The growth in staff has not kept pace with the growth in students and faculty.</li> <li>• Some units have inadequate marketing support to tell their stories.</li> </ul>
<b>Community and Diversity</b>
<b>Works Well</b>
<ul style="list-style-type: none"> <li>• The LSAMP provides an increased opportunity for underrepresented minorities to succeed in STEM fields.</li> </ul>
<b>Needs Improvement</b>
<ul style="list-style-type: none"> <li>• COE must continue to improve efforts to recruit more underrepresented minorities and women to our programs.</li> </ul>
<b>Major Barriers</b>
<ul style="list-style-type: none"> <li>• Attracting underrepresented minorities to Corvallis is sometimes difficult (for both students and faculty). Additionally, our facilities and start-up packages are often not competitive with offers made to URM faculty.</li> </ul>

3. Below is a brief summary of major faculty and student awards received during the academic year.

**3a. Faculty Awards:**

- NSF CAREER Awards: Glencora Borradaile, Raviv Raich, Mike Rosulek, Michael J. Olsen
- Tom Dietterich: OSU Distinguished Professor (2013)
- Alex Groce: NASA Software of the Year for Mars Science Laboratory Flight Software, 2013
- Terri Fiez, Justin Wolford, Justin Goins, Joseph Jess, Samina Ehsan, Karti Mayaram, Padma Akkaraju: OSU University Outreach and Engagement, "Innovation in Online Credit-based Teaching" (2014)
- Dr. David Hurwitz – ASCE Excellence in Civil Engineering Education Award
- Dr. Jason Ideker – ACI Young Member Award for Professional Achievement
- Dr. Chris Higgins – AISC Special Achievement Award
- Dr. Tom Miller – ASCE Outstanding Faculty Advisor Award for Region 8
- Dr. Nancy Squires received the 2013 Austin-Paul Engineering Faculty Award as well as the "students choice" Loyd Carter Award for Outstanding and Inspirational Teaching in Science;
- The Society for Health Systems named Dr. Toni Doolen as a member of its SHS Diplomates.
- Dr. R. Logen Logendran received the 2013 Distinguished Alumni Award in the Academic and Research Excellence category from the Asian Institute of Technology (AIT), Thailand
- Professor Todd Palmer has been appointed Editor, Transport Theory and Statistical Physics.
- Professor Andrew Klein has been appointed editor-designate of Nuclear Technology.
- Associate Professor Alena Paulenova has been appointed Distinguished Board Member of the Journal of Radioanalytical and Nuclear Chemistry.
- Greg Herman was elected as a 2014 fellow to the American Vacuum Society (AVS). Election to the prestigious level of Fellow cannot exceed 0.5% of the membership percentage in any calendar year.

- Dorthe Wildenschild was selected as the 2014 Henry Darcy Distinguished Lecturer of Groundwater Science. The lecture series was established in 1986 to foster interest and excellence in groundwater science and technology, and has reached nearly 100,000 faculty and students since that time.

### 3b. Student Awards:

- ECE student Anna Koch received the **Institute of Electrical Engineering (IEEE) scholarship in power and energy engineering** — *the first Oregon State University student to do so.*
  - Kelcey Lajoie, **Hydro Research Foundation Fellowship** (2013) – the Foundation awards 40 or less fellowships.
  - Charles Hill: **Google Lime Scholarship** (2014) – *one of only 13 Google Lime Scholars* in the nation.
  - The OSU Solar Vehicle Team won the **2013 Formula Sun Grand Prix** competition in Austin, Texas.
  - For the second year in a row, Oregon State EECS sent **two** teams of ECE and CS students to the Intel 2014 **Cornell Cup** competition. Of the over 500 teams that applied, only 35 teams made it to the finals. Students Berkeley Fisher, Kit Morton, Emily Raterman and Bennett Rand won honorable mention for their project, “Dr. Wattson: Power Inspector,” which monitors energy consumption of home appliances and enters the information into a database.
  - PCI Big Beam Contest – first place in national competition (advised by Dr. Keith Kaufman)
  - Annika O’Dea – Fulbright U.S. Student Award
  - Olivia Girod, HBS IE 2014, was named to SME Manufacturing's list "30 Under 30: Recognizing the Future Leaders of Manufacturing" for 2014. Girod currently works at Intel.
  - Oregon State Beaver Racing Baja off-road racing team won their national title in Texas. The team finished first overall against 100 other teams in April, their first overall victory since 2009.
  - The student team "Experimental Sounding Rocket (ESRA)," won first place among 20 national and international AAIA teams and also received the Innovative Payload Award.
  - The IIE Student Chapter won the IIE national video competition with “A Story All About Industrial Engineering.”, and earned a Gold University Chapter Recognition for achievements in 2012-2013.
4. Included here is a brief summary of key initiatives to leverage Education & General (E&G) and other base resources and to improve administrative efficiencies.
- The college is moving all units towards a leadership structure that more closely aligns with the college structure; generally two associate heads, one for undergraduate programs and one for graduate and research. This alignment will improve efficiencies and more clearly delineation roles and responsibilities across the college.
  - Many schools are diversifying their course and program offerings to improve their revenue streams.
  - Funding was received from the NWCSM for two faculty hires in 2013-14 (Tucker and Malhotra) and a new position in 2014-15. ETIC funding was received to support the creation of the new graduate program in Robotics and support for a new faculty position in 2014-15.
  - The decision to centralize first-year advising has allowed participating units to streamline advising for sophomore and pro-school students.

**College of Engineering**  
Annual Academic Program Review 2013-14

**PART 1**

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	% Change '12 - '14
<b>Faculty FTE</b>													
Professorial	106.8	102.6	110.3	113.4	115.9	117.9	116.7	122.2	121.7	131.6	143.4	158.1	20.1%
Non-Professorial	61.5	52.1	65.8	75.3	82.3	82.4	79.5	84.4	74.2	88.7	88.4	98	10.5%
<b>Total Faculty FTE</b>	<b>168.3</b>	<b>154.7</b>	<b>176.1</b>	<b>188.7</b>	<b>198.2</b>	<b>200.3</b>	<b>196.2</b>	<b>206.6</b>	<b>195.9</b>	<b>220.3</b>	<b>231.8</b>	<b>256.1</b>	<b>16.3%</b>
E&G Tenured/Tenure Track	88.1	85.7	91.2	95.4	96.8	96.8	100.5	101.1	104.1	110.1	121.6	133.5	21.3%
<b>Faculty Headcount</b>													
Professorial	113	108	118	119	124	127	125	127	126	135	147	165	22.2%
Non-Professorial	69	59	71	83	89	87	87	91	81	97	93	102	5.2%
<b>Total Faculty Headcount</b>	<b>182</b>	<b>167</b>	<b>189</b>	<b>202</b>	<b>213</b>	<b>214</b>	<b>212</b>	<b>218</b>	<b>207</b>	<b>232</b>	<b>240</b>	<b>267</b>	<b>15.1%</b>
E&G Tenured/Tenure Track	91	88	95	97	98	99	105	104	107	113	125	137	21.2%
<b>SCH (Academic Year)</b>													
Undergraduate	62725	63400	63544	61149	59411	59985	64014	69368	74896	79740	87507	94130	18.0%
Lower Division	24366	23528	21330	19876	21371	22197	23626	26833	28503	29203	32819	33771	15.6%
Upper Division	38359	39872	42214	41273	38040	37788	40388	42535	46393	50537	54688	60359	19.4%
Graduate	19372	18496	16642	16535	18256	19074	20042	23054	25304	26117	27276	27452	5.1%
First Professional	0	0	0	0	0	0	0	0	0	0	0	0	-
Other	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>TOTAL SCH</b>	<b>82097</b>	<b>81896</b>	<b>80186</b>	<b>77684</b>	<b>77667</b>	<b>79059</b>	<b>84056</b>	<b>92422</b>	<b>100200</b>	<b>105857</b>	<b>114783</b>	<b>121582</b>	<b>14.9%</b>
<b>Fall Enrollment by Major</b>													
Undergraduate	3161	3155	3087	3064	3142	3221	3449	3764	4217	4463	5114	5836	30.8%
Graduate	601	626	551	525	569	583	657	733	842	900	975	1094	21.6%
First Professional	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>TOTAL Enrollment</b>	<b>3762</b>	<b>3781</b>	<b>3638</b>	<b>3589</b>	<b>3711</b>	<b>3804</b>	<b>4106</b>	<b>4497</b>	<b>5059</b>	<b>5363</b>	<b>6089</b>	<b>6930</b>	<b>29.2%</b>

**College of Engineering**  
STRATEGIC PLANNING METRICS 2013-14

## PART 1

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	College Targets 2017-18
<b>Goal 1. Provide a Transformative Educational Experience for all Learners.</b>													
<b>1.3 First Year Retention Rate (College/University)</b>	68.8/ 85.4	70.0/ 84.7	63.9/ 82.0	68.6/ 81.5	70.0/ 84.5	68.4/ 80.9	71.5/ 85.4	72.8/ 84.7	70.4/ 84.2	73.2/ 85.5	72.5/ 85.7		
<b>1.4 6-Year Graduation Rate (College/University)</b>	44.0/ 62.2	45.0/ 62.7	44.7/ 66.9	41.5/ 65.1	45.2/ 66.0	45.6/ 66.5	44.2/ 63.8	43.5/ 63.3	43.6/ 63.4	45.1/ 62.3	44.4/ 62.5		
<b>1.5 Junior Transfer 4-Year Graduation Rate (College/University)</b>	67.8/ 71.9	63.4/ 70.5	69.8/ 77.8	58.4/ 65.3	46.6/ 59.1	64.9/ 70.2	61.7/ 69.1	63.6/ 68.8	55.8/ 63.6	53.8/ 61.5	62.5/ 67.0		
<b>1.6 % US Minority Students</b>	13.8%	13.4%	13.0%	13.6%	14.2%	13.3%	14.2%	14.8%	15.2%	16.6%	17.6%	17.9%	
<b>1.7 % International Students</b>	14.0%	11.0%	9.0%	8.0%	8.0%	9.0%	9.0%	10.0%	13.0%	15.0%	18.0%	20.0%	
<b>1.8 % High Achieving Oregon High School Graduates</b>	-	-	-	42.3	38.9	37.4	41.3	42.1	43.5	44.4	43.0	46.7	
<b>Goal 3. Strengthen Oregon State's Impact and Reach throughout the state and beyond.</b>													
<b>3.2 Invention Disclosures</b>	23	17	23	22	24	0	23	18	41	29	33	23	

Oregon State University  
**College of Engineering**  
 Annual Academic Program Review 2013-14

**PART 2**

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	% Change '12 - '14
<b>Resources (Fiscal Year)</b>													
E&G - Initial Budget (\$)	18,325,357	21,674,466	21,459,716	22,448,153	22,891,635	28,564,888	28,772,862	27,427,613	29,194,234	31,204,652	36,716,534	40,824,273	30.8%
Total R&D Expenditures (\$)	16,872,297					19,421,598	23,138,091	24,861,292	27,373,771	29,419,952	32,844,215	Feb_2015	-
Awards from Grants and Contracts* (#)	231	205	226	197	236	270	177	317	275	215	204	206	-4.2%
Awards from Grants and Contracts (\$)	15,910,384	15,150,490	24,403,525	19,450,969	18,264,422	22,869,878	24,575,119	36,673,037	33,905,767	30,963,305	29,656,248	38,193,403	23.4%
Private Giving (\$)						9,357,350	9,357,350	11,521,200	12,665,771	18,492,346	11,168,468	23,948,757	29.5%

Strategic Planning Metrics 2013-14

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	College Targets 2017-18
<b>Goal 2. Demonstrate Leadership in Research, Scholarship and Creativity while enhancing preeminence in the three signature areas of distinction</b>													
2.1 Total R&D Expenditures	see APR data above												
<b>Goal 3. Strengthen Oregon State's Impact and Reach throughout the state and beyond.</b>													
3.5 Annual Private Giving	see APR data above												

\* From 2000-01 to 2007-08, the number of grant/contract awards is based on the accounting transactions from the College's award index, rather than the actual number of awards received by the college.

Oregon State University  
**College of Engineering**  
 Annual Academic Program Review 2013-14

**PART 3**

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	'12 - '14
<b>Degrees (academic year)</b>													
Bachelor	520	560	531	597	588	505	539	576	583	664	690	827	24.5%
Master	142	182	188	135	112	128	140	169	177	208	188	229	10.1%
Doctorate	24	30	25	32	35	27	36	43	40	47	62	67	42.6%
First Professional	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>Total Degrees</b>	<b>686</b>	<b>772</b>	<b>744</b>	<b>764</b>	<b>735</b>	<b>660</b>	<b>715</b>	<b>788</b>	<b>800</b>	<b>919</b>	<b>940</b>	<b>1123</b>	<b>22.2%</b>

Strategic Planning Metrics 2013-14

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	College Targets 2017-18
<b>Goal 1. Provide a Transformative Educational Experience for all Learners.</b>													
1.1 Degrees Awarded-Total	see APR data above												
<b>Goal 2. Demonstrate Leadership in Research, Scholarship and Creativity while enhancing preeminence in the three signature areas of distictior</b>													
2.3 PhD's Awarded	see APR data above												