

**Engineering & Technology
Industry Council
Performance Scorecard**

Biennium 2003-2005

**College of Engineering
Oregon State University**

July 2005

Successes and Challenges

Successes:

- Research and Education Wins –
 - OSU-PSU Collaboration led by Gregg Rorrer rated No. 1 Nano-bio proposal by NSF
 - Winning mini Baja car with Tekbot controller made semi-finals at DARPA Grand Challenge Autonomous Vehicle
- Successful Recruiting of Top Faculty
- We beat the numbers
 - Private Investment: \$11.2M vs planned \$8.2M
 - Research Expenditures: \$24.2 M vs planned \$20.5M

Successes and Challenges

(cont.)

Challenges:

- Reputation change is very slow
- Our high student-to-faculty ratio, at 60% greater than 25th ranked school, is limiting our growth of research, PhD graduates, and our impact on Oregon's innovation economy.

Fiscal Summary

FY05¹ as of 06/30/05

OSU

	Total Available²	YTD Actual³	Year-End Projection⁴	Projected Variance⁵
OSU COE ETIC⁶	\$7,672,400	\$6,485,402	\$6,485,402	\$1,186,998
EXT ETIC⁶	\$ 211,028	\$140,534	\$ 140,534	\$ 70,494

Comment: The projected variance is primarily funds already committed to faculty start up.

(1) Fiscal year ending June of indicated year.

(2) Prior year carry-forward plus current fiscal year budget

(3) Year to Date as of date shown in title.

(4) Sum of encumbered and other forecasted expenses expected to clear during fiscal year.

(5) Year-End Projection vs. Total Available.

(6) Total for all ETIC funded programs at institution

(2)-(5) Attach ETIC Financial Info spreadsheet with matching values

Private Support¹

FY05² as of 06/30/05

	Value
Student Scholarships & fellowships	\$ 821,435
Other cash donations	6,364,503
Other cash grants and contracts	2,747,026
Equipment donations and discounts	578,763
Real estate	703,716
Other property	
Internship salaries (See note below)	
Other salaries and equivalent	
Other	<u>3741</u>
Total	\$ 11,219,183
Annual Goal³	8,505,891
Variance	2,713,292

Note: The figure above for scholarships and fellowships represents new donations to the College of Engineering. The total scholarships and fellowships given to COE students through the College and University (not including need based financial aid or graduate assistantships) is over \$2.6M. Private investment for internships for just MECOP/CECOP is about \$3.8M, but the funds do not flow through the university so we have no precise record and therefore a value is not included here. Total internship investment is estimated at ~ three times this.

- (1) Provide details using current version of ETICFinancialInfoTemplate. Report based on Policy on Private Support Reporting <http://www.oregonetic.org/mission/eticprivatematch5.pdf>
- (2) Fiscal year ending June of indicated year.
- (3) From ETIC Plan for 2003-2005 Biennium. For first year of biennium, Annual Goal is goal given in plan. For second year of biennium, Annual Goal is total goal for Biennium less private support received in first year.

Other Leverage – Federal & Other Grants FY05; \$23.6 M

As of 6/30/05

Oregon Dept of Transportation	Road User Fee Task Force: Technology Development and Maintenance	\$889,454
National Science Foundation	Global Transcriptional Responses in Nitrogen Cycling and Nutrient Removal Processes and Development of Suppl	\$802,358
US Ed Grants	US-ED OR Rehabilitatn Engr Res Cntr	\$665,852
Advanced Research Projects Agency	DARPA Know ledge-Intensive Lrng Mthd	\$511,000
Airforce	Fuel Cell - Task 6 and Subaw ards	\$506,834
Airforce	USAF Nanocommunicator: Hi Perf Comm	\$500,000
Oregon Dept of Transportation	Capacity of Cracked Reinforced Bent Caps	\$500,000
Netw ork for Earthquake Engineering Simulation	Operation and Maintenance of NEES (Netw ork for Earthquake Engineering Simulation) Tsunami Wave Research F	\$495,214
Dept of Energy	DOE In Situ Uranium Reduction Kinetics	\$440,505
National Science Foundation-Geoscience	Collaborative Research: CROSSTEX (Cross Shore Sediment Transport Experiments) - Wave Breaking and Bound	\$382,228
Department of Energy	Stability of U(VI) and Tc(VII) Reducing Microbial Communities to Environmental Perturbation: Development and Tes	\$372,275
Netw ork for Earthquake Engineering Simulation	Operation and Maintenance of NEES (Netw ork for Earthquake Engineering Simulation) Tsunami Wave Research F	\$345,886
University of California / San Diego	NEES (Netw ork for Earthquake Engineering Simulation) IT (Information Technology) Service Center (NITSC)	\$345,435
Oregon Dept of Transportation	Repair Methods for Reinforced Concrete Bridges with Diagonal Cracks	\$325,000
Propane Education and Research Council	Environmentally Safe Orchard Heating for Frost and Freeze Protection	\$305,201
Oregon Dept of Transportation	Repair Methods for Reinforced Concrete Bridges with Diagonal Cracks	\$280,000
Department of Energy	Plutonium Chemistry in the Urex+ Extraction Separation System	\$271,618
National Science Foundation	Global Transcriptional Responses in Nitrogen Cycling and Nutrient Removal Processes and Development of Suppl	\$257,483
National Science Foundation-Engr	NEES (Netw ork for Earthquake Engineering Simulation): Instrumentation Acquisition for the Tsunami Wave Basin	\$250,000
Airforce	Advanced Three Dimensional Stereoscopic Time Resolved Flow Measurements	\$243,123
Environmental Protection Agency-Envir	EPA WRHSRC	\$243,077
Georgia Institute of Technology	GIT Luminescence for Com,Display,ID	\$239,999
Army	Tactical Energy Systems Development: Task 5.5	\$237,166
Airforce	USAF Nanocommunicator: Hi Perf Comm	\$229,000
Environmental Protection Agency-Envir	EPA WRHSRC	\$225,000
Airforce	USAF Fuel Cell - Task 5	\$219,688
National Science Foundation-Computer	NSF Pattern Recognition for Eco Sci	\$207,312
Northrop Grumman	Northrop Grumann Sigma Delta ADC (Analog-Digital Converter) Development	\$200,000
Airforce	USAF Fuel Cell	\$188,640
Oregon Dept of Transportation	Acoustic Emission Testing and Modeling for Applications to Concrete	\$185,000
National Science Foundation-Computer	NSF Dependable End-User Softw are	\$184,037
Airforce	USAF Fuel Cell	\$183,788
National Science Foundation	Clay Undergoing Large Strains	\$180,977
National Science Foundation-Engr	NSF Tsunamis in 3-D Bathymetry	\$180,863
	Total Show n	\$13,814,638
	All Other Projects	\$9,760,977
	All Projects as of 6/30/05	\$26,322,641
	Estimate of Private Grants and Contracts	\$2,747,026
	Estimate of New Federal and Other Grants	\$23,575,615
	\$26.3M total is \$7M over FY04's \$19.3M -- 36%Growth!!	

Faculty Supported

As of 06/30/05

	Goal ¹	Actual ²
Hired in previous biennia ³ :	20	17
Hired in this biennium ³ :	6	9
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Total	26	26

(1) From ETIC Plan for '03-'05 Biennium.

(2) Those currently employed, not including those to be hired later in biennium. Stated as FTE. Includes any adjuncts supported by ETIC funds.

(3) Being supported by ETIC funds during '03-'05 Biennium.

Faculty Supported

As of 06/30/05

OSU Extension: ETIC Pre-College Project

	Goal ¹	Actual ²
Hired in previous biennium ³ :	2	2
Hired in this biennium ³ :	0	0
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Total	2	2

(1) From ETIC Plan for '03-'05 Biennium.

(2) Those currently employed, not including those to be hired later in biennium. Stated as FTE. Includes any adjuncts supported by ETIC funds.

(3) Being supported by ETIC funds during '03-'05 Biennium.

Undergraduate Category

As of 06/30/05

	AY99	AY03	AY04	AY05	AY06	AY09 ¹
Student Credit Hours						
Goal ²	52,690	55,290	66,500	68,900	69,000	69,000
Projected/Actual ³	52,690	62,511	63,050	63,248	64,000	64,000
Variance ⁴	na	7,221	(3,450)	(5652)	(5000)	(5000)
Graduates						
Goal ²	389	493	519	545	545	545
Projected/Actual ³	389	496	546	520	545	545
Variance ⁴	na	10	25	(25)	0	0

Comments: Graduates are the driving goal, not SCH; Our graduate numbers have slipped slightly below goal. However, enrollment in the Professional Program indicates we should average about at the goal of 545 for this year and next several.

1. Academic Years ending in June of indicated years.
2. From ETIC Plan for '03-'05 Biennium.
3. Actual numbers for prior years. Projections for years not yet complete, including future years. Projections may be different from goal. Values in the current year or prior years that are not final are indicated with an "E", e.g. 78E.
4. Projected/Actual less Goal for all years where Goal established, including years with projected values.

Graduate Category

As of 06/30/05

	AY99	AY03	AY04	AY05	AY06	AY09 ¹
Student Credit Hours						
Goal ²	12,870	14,112	21,600	22,300	22,800	23,600
Projected/Actual ³	12,870	18,435	19,453	16,669	18,000	19,000
Variance ⁴	na	4323	(2147)	(5631)	(4800)	(4600)
Graduates						
Goal ²	154	193	210	215	218	240
Projected/Actual ³	154	160	208	208	190	210
Variance ⁴	na	(33)	1	(7)	(28)	(30)

1. Academic Years ending in June of indicated years.
2. From ETIC Plan for '03-'05 Biennium.
3. Actuals for prior years. Projections for years not yet complete, including future years. Projections may be different from goal. Values in the current year or prior years that are not final are indicated with an "E", e.g. 78E.
4. Projected/Actual less Goal for all years where Goal established, including years with projected values.

Student Metrics

AY05¹ as of 06/30/05

	Prior Year	Current Year	
	Actual ⁷	Goal ⁶	Actual ⁷
Freshmen SAT/ACT ² :	73%	85%	75%
Incoming grad-student GRE ³ :	78%	82%	76%
Women graduating ⁴ :	124(17%)	(16%)	100(14%)
Minorities graduating ^{4,5} :	89(15%)	(13%)	70(12.2%)

- (1) Academic year ending in June of indicated year
- (2) Percentiles for freshmen that have declared relevant majors. If applicants are required to submit SAT scores, the percentile corresponding to the average composite SAT score of those submitting them. If applicants have choice of SAT and ACT, average composite SAT score and the average composite ACT score, converted to percentiles in each case, and combined as the weighted average of the two.
- (3) Percentiles based on the average quantitative score over those submitting such scores; ignoring verbal and analytic scores.
- (4) From engineering, computer science, and other programs directly benefiting from ETIC funding, stated as number graduating and as a percent of all those graduating.
- (5) Racial and ethnic minorities who are US citizens or permanent residents – stated as number graduating and as a percent of US citizens or permanent residents.
- (6) From ETIC Plan for '03-'05 Plan.
- (7) If actual is not yet available, estimate is marked with “E”. If estimate is not possible, “N/A” is shown.

Research Metrics

FY05¹ as of 06/30/05

	Prior Year	Current Year	
	Actual ⁶	Goal ⁵	Actual ⁶
Research Faculty ²	100		103
Total Research Expenditures ³	\$21M	\$20.5M	\$24.2M
Research Expenditures / Faculty ⁴	\$210K		\$235K

- (1) Fiscal year ending in June of indicated year
- (2) Number of faculty members whose roles include research
- (3) Total dollars spent by ETIC-related departments towards research during academic year
- (4) Total Research Expenditures divided by Research Faculty
- (5) From ETIC Plan for '03-'05 Plan.
- (6) If actual is not yet available, estimate is marked with "E". If estimate is not possible, "N/A" is shown.

Intellectual Property Metrics

AY05¹ as of 06/30/05

	Prior Year	Current Year	
	Actual ⁶	Goal ⁵	Actual ⁶
Spin-offs ²	0		0
Patent Disclosures	23		22
Patents Awarded	2		2
Number of Licenses ³	3	10	1
Revenue ⁴	\$50K		\$5K

(1) Academic year ending June of indicated year.

(2) Number of spin offs as reported to Association of University Technology Managers.

(3) Number of patent licenses or other royalty-generating intellectual property licenses granted to commercial entities

(4) Revenue from patent and other intellectual property licenses granted to commercial entities.

(5) From ETIC Plan for '03-'05 Plan.

(6) If actual is not yet available, estimate is marked with "E". If estimate is not possible, "N/A" is shown.

National Ranking

As of 06/30/05

	AY99	AY03	AY04	AY05	AY06	AY09 ¹
• EECS						
– Goal ³	65-75		60-70	60-65	55-65	50-60
– Actual/Projection: ⁴	65-75	38	45(62,54)	56(61,64)		
• ME						
– Goal ³	45-55		40-50	40-50	40-50	40-50
– Actual/Projection: ⁴	45-55	49	62(82)	80(85)		
• CCEE						
– Goal ³	35-45		30-40	30-40	30-40	30-40
– Actual/Projection: ⁴	35-45	37	31(50)	35(62)		
• College of Engineering						
– Goal ³	83	65-75	65-75	60-70	55-65	50-60
– Actual/Projection: ⁴	83	78 (83)	78 (78)	75(82)		

Comment – College entry for '03 and '04 shows two values: 1. OSU's COE rank in total research funding based on ASEE data and 2. US News and World Report ranking for Graduate Engineering Schools based on metrics and reputation, in (). Department entries are similar, but please note that the published rankings, in (), which were new in AY04 from USN&WR are based only on reputation. Research entry for EECS beginning in AY05 reports ranking based on total for Electrical Engineering and variations plus computer science within engineering schools.

- 1 Academic years ending in June of indicated years
- 2 Name of program, department or college
- 3 From ETIC Plan for '03-'05 Plan – goals of programs, departments, and or college in terms of national ranking through 2009.
- 4 Actuals for prior years. Projections for years not yet complete, including future years. Projections may be different from goal. Values in the current year or prior years that are not final are indicated with an "E", e.g. 78E