



Oregon  
University  
System

## **Engineering & Technology Industry Council – Status Report for 2001-2003**

*Prepared for the 2003 Oregon Legislative Assembly*

**Office of Industry Affairs  
P.O. Box 3175  
Eugene, OR 97403**

**March 2003**

# ***Engineering & Technology Industry Council — Status Report***

## **Background**

The Engineering and Technology Industry Council (ETIC) was established in 1997 by the Oregon Legislature through Senate Bill 504 to advise the Oregon University System on investments made from the Oregon Engineering Education Investment Fund. A roster of the ETIC membership is given in Exhibit A.

The Oregon University System budget approved by the Oregon Legislature in 2001 included a budget note regarding engineering education funds. Highlights of this budget note include:

- \$20 million from General Fund was approved to expand programs in engineering and computer science
- \$15 million was to be used to expand enrollments and the number of degrees awarded under the proposal of the Engineering and Technology Industry Council (ETIC), including \$500,000 to be used to support computer science programs at Southern Oregon University
- A total of \$5 million to be used to finance the State Board of Higher Education's Tier 1 Engineering initiative
- A total of \$13.4 million in private cash and in-kind donations was anticipated in support of these efforts.

## **Executive Summary**

The \$15 million approved for expanding enrollments and the number of degrees awarded under the proposal of ETIC was combined with \$5 million from the OUS base budget. This \$20 million was allocated based on a plan developed by ETIC, which included \$500,000 in support of the computer science programs of Southern Oregon University, \$100,000 in support of computer science programs at Western Oregon University and \$100,000 in support of computer science programs at Eastern Oregon University.

The \$5 million approved for the State Board of Higher Education's Tier 1 Engineering initiative, was allocated to four OUS institutions based on plans submitted to and reviewed by ETIC.

The allocations described above were reduced after the 5th Special Session in 2002 to a total of \$22,237,500. The original allocations and the reduced allocations are summarized in the Table 1.

## **Briefing**

A summary of expenditures and transfers through 12/31/02 is given in Table 2. A summary of private support associated with these expenditures is given in Table 3. You will note that private support exceeded forecast during FY 2002 and has already exceeded forecast for FY 2003.

**Table 1 – Summary of budget allocations by institution**

**ETIC 2X & TOP TIER  
2001-2003 BIENNIUM RESOURCE ALLOCATION  
Revised 9/30/02**

	Initial Allocation	As of Fifth Special Session
<b>EOU</b>		
ETIC	100,000	88,569
ETIC - IT COLLABORATION - OIT	0	42,070
<b>SUBTOTAL</b>	<b>100,000</b>	<b>130,639</b>
<b>OIT</b>		
ETIC	1,154,229	1,022,290
ETIC - IT COLLABORATION - EOU	47,500	0
ETIC - IT COLLABORATION - WOU	68,900	0
ETIC - EXTENDING TECH COLLABORTION - OSU	225,371	0
ETIC - COLLABORATION ADMN COSTS - SOU	0	56,153
TOP TIER	649,000	587,175
<b>SUBTOTAL</b>	<b>2,145,000</b>	<b>1,665,617</b>
<b>OSU</b>		
ETIC	6,900,000	6,111,265
ETIC - EXTENDING TECH COLLABORATION - OIT	0	199,609
TOP TIER	2,926,000	2,647,262
<b>SUBTOTAL</b>	<b>9,826,000</b>	<b>8,958,136</b>
<b>PSU</b>		
ETIC	4,300,000	3,808,469
TOP TIER	978,000	884,833
<b>SUBTOTAL</b>	<b>5,278,000</b>	<b>4,693,303</b>
<b>SOU</b>		
ETIC	436,600	386,693
ETIC-COLLABORATION ADMN COSTS - OIT	63,400	0
<b>SUBTOTAL</b>	<b>500,000</b>	<b>386,693</b>
<b>UO</b>		
ETIC	2,150,000	1,904,235
TOP TIER	447,000	404,418
<b>SUBTOTAL</b>	<b>2,597,000</b>	<b>2,308,652</b>
<b>WOU</b>		
ETIC	100,000	88,569
ETIC - IT COLLABORATION - OIT	0	61,024
<b>SUBTOTAL</b>	<b>100,000</b>	<b>149,593</b>
<b>OCECS</b>		
ETIC-OMSE	190,000	121,414
ETIC-OMSE-EEIF INTEREST ACCRUAL ( reduction does not apply)	410,000	410,000
ETIC - OGI	2,430,000	2,152,228
ETIC - RFP RESEARCH	1,024,000	906,947
ETIC - RFP PRECOLLEGIATE PROGRAMS RESEARCH	400,000	354,276
<b>SUBTOTAL</b>	<b>4,454,000</b>	<b>3,944,865</b>
<b>ETIC E&amp;G TOTAL EXCLUDING EEIF INTEREST ACCRUAL</b>	<b>\$19,590,000</b>	<b>\$17,303,811</b>
<b>ETIC - EEIF INTEREST ACCRUAL TOTAL</b>	<b>\$410,000</b>	<b>\$410,000</b>
<b>TOP TIER TOTAL</b>	<b>\$5,000,000</b>	<b>\$4,523,688</b>
<b>ETIC &amp; TOP TIER TOTAL</b>	<b>\$25,000,000</b>	<b>\$22,237,500</b>

**Table 2 – Summary of Expenditures through December 31, 2002**

ETIC FINANCIAL SUMMARY As of 12/31/02  STATEMENT DATE: 3/20/03	Fiscal Year 2002				Fiscal Year 2003		
	Revised Biennium Budget	FY02 Budget	Actual Expend. / Transfers	FY02 Balance Forward	Actual Expend. / Transfers		
					Available in FY03	thru 12/31/02	Balance as of 12/31/02
<u>EASTERN OREGON UNIVERSITY</u>	\$ 130,639	\$ 68,588	\$ 52,209	\$ 16,379	\$ 78,430	\$ 37,774	\$ 40,656
<u>OREGON INSTITUTE OF TECHNOLOGY:</u>							
ETIC	\$ 1,078,443	\$ 566,198	\$ 237,377	\$ 328,821	\$ 841,066	\$ 298,951	\$ 542,115
TOP TIER	\$ 587,175	\$ 154,138	\$ 8,447	\$ 145,691	\$ 578,728	\$ 160,886	\$ 417,842
TOTAL	\$ 1,665,618	\$ 720,336	\$ 245,824	\$ 474,512	\$ 1,419,794	\$ 459,837	\$ 959,957
<u>OREGON STATE UNIVERSITY:</u>							
ETIC	\$ 6,310,874	\$ 3,313,298	\$ 2,534,055	\$ 779,243	\$ 3,776,819	\$ 1,164,281	\$ 2,612,538
TOP TIER	\$ 2,647,262	\$ 694,924	\$ 341,801	\$ 353,123	\$ 2,305,461	\$ 165,915	\$ 2,139,546
TOTAL	\$ 8,958,136	\$ 4,008,222	\$ 2,875,856	\$ 1,132,366	\$ 6,082,280	\$ 1,330,196	\$ 4,752,084
<u>PORTLAND STATE UNIVERSITY:</u>							
ETIC	\$ 3,808,469	\$ 2,150,000	\$ 1,280,846	\$ 869,154	\$ 2,527,623	\$ 1,611,018	\$ 916,605
TOP TIER	\$ 884,833	\$ 489,000	\$ -	\$ 489,000	\$ 884,833	\$ -	\$ 884,833
TOTAL	\$ 4,693,302	\$ 2,639,000	\$ 1,280,846	\$ 1,358,154	\$ 3,412,456	\$ 1,611,018	\$ 1,801,438
<u>SOUTHERN OREGON UNIVERSITY</u>	\$ 386,693	\$ 232,500	\$ 161,099	\$ 71,401	\$ 225,594	\$ 125,038	\$ 100,556
<u>UNIVERSITY OF OREGON:</u>							
ETIC	\$ 1,904,235	\$ 1,053,500	\$ 661,205	\$ 392,295	\$ 1,243,030	\$ 297,509	\$ 945,521
TOP TIER	\$ 404,418	\$ 106,163	\$ 106,163	\$ -	\$ 298,255	\$ 106,277	\$ 191,978
TOTAL	\$ 2,308,653	\$ 1,159,663	\$ 767,368	\$ 392,295	\$ 1,541,285	\$ 403,786	\$ 1,137,499
<u>WESTERN OREGON UNIVERSITY</u>	\$ 149,593	\$ 78,539	\$ 78,539	\$ -	\$ 71,054	\$ 71,054	\$ -
<u>OREGON COLLEGE OF ENGINEERING &amp; COMPUTER SCIENCE:</u>							
ETIC - OREGON MASTERS OF SOFTWARE ENGINEERING	\$ 121,414	\$ 74,000					
ETIC - OMSE - INTEREST ACCRUAL	\$ 410,000	\$ 205,000					
TOTAL OMSE	\$ 531,414	\$ 279,000	\$ 240,667	\$ 38,333	\$ 290,747	\$ 274,885	\$ 15,862
<u>OREGON GRADUATE INSTITUTE</u>	\$ 2,152,228	\$ 1,129,950	\$ 944,732	\$ 185,218	\$ 1,207,496	\$ 435,362	\$ 772,134
REQUEST FOR PROPOSALS - RESEARCH	\$ 906,947	\$ 476,160	\$ 570,378	\$ (94,218)	\$ 336,569	\$ 272,151	\$ 64,418
REQUEST FOR PROPOSALS - PRECOLLEGIATE PROGRAMS	\$ 354,276	\$ 186,000	\$ 277,000	\$ (91,000)	\$ 77,276	\$ 95,000	\$ (17,724)
TOTAL RFP	\$ 1,261,223	\$ 662,160	\$ 847,378	\$ (185,218)	\$ 413,845	\$ 367,151	\$ 46,694
TOTAL OCECS	\$ 3,944,865	\$ 2,071,110	\$ 2,032,777	\$ 38,333	\$ 1,912,088	\$ 1,077,398	\$ 834,690
ETIC TOTAL	\$ 17,713,811	\$ 9,533,733	\$ 7,038,107	\$ 2,495,626	\$ 10,675,704	\$ 4,683,023	\$ 5,992,681
TOP TIER TOTAL	\$ 4,523,688	\$ 1,444,225	\$ 456,411	\$ 987,814	\$ 4,067,277	\$ 433,078	\$ 3,634,199
<b>ETIC &amp; TOP TIER TOTAL</b>	<b>\$ 22,237,499</b>	<b>\$ 10,977,958</b>	<b>\$ 7,494,518</b>	<b>\$ 3,483,440</b>	<b>\$ 14,742,981</b>	<b>\$ 5,116,101</b>	<b>\$ 9,626,880</b>

**Table 3 – Summary of Private Support through December 31, 2002**

**ETIC PRIVATE SUPPORT SUMMARY**

As of 12/31/02  STATEMENT DATE: 3/20/03	Academic Year 2002			Academic Year 2003		
	Forecast from Plan	Actual Private Support	Variance	Forecast from Plan	Actual Private Support thru 12/31/02	Variance as of 12/31/02
<b>EASTERN OREGON UNIVERSITY</b>		\$15,000	\$15,000	\$0	\$0	0
OREGON INSTITUTE OF TECHNOLOGY - TOP TIER	\$200,000			\$200,000		
OREGON INSTITUTE OF TECHNOLOGY -2x	\$172,500			\$172,500		
<b>OREGON INSTITUTE OF TECHNOLOGY - total</b>	<b>\$372,500</b>	<b>\$325,519</b>	<b>(\$46,981)</b>	<b>\$372,500</b>	<b>\$328,094</b>	<b>(44,406)</b>
OREGON STATE UNIVERSITY - TOP TIER	\$4,000,000			\$4,000,000		
OREGON STATE UNIVERSITY- 2x	\$1,600,000			\$1,600,000		
<b>OREGON STATE UNIVERSITY</b>	<b>\$5,600,000</b>	<b>\$6,454,864</b>	<b>\$854,864</b>	<b>\$5,600,000</b>	<b>\$3,311,619</b>	<b>(2,288,381)</b>
PORTLAND STATE UNIVERSITY - TOP TIER	\$489,000			\$489,000		
PORTLAND STATE UNIVERSITY - 2x	\$1,950,000			\$1,950,000		
<b>PORTLAND STATE UNIVERSITY</b>	<b>\$2,439,000</b>	<b>\$8,043,669</b>	<b>\$5,604,669</b>	<b>\$2,439,000</b>	<b>\$6,561,436</b>	<b>4,122,436</b>
<b>SOUTHERN OREGON UNIVERSITY</b>	<b>\$25,000</b>	<b>\$13,256</b>	<b>(\$11,744)</b>	<b>\$25,000</b>	<b>\$1,603,529</b>	<b>1,578,529</b>
UNIVERSITY OF OREGON -TOP TIER	\$100,000			\$100,000		
UNIVERSITY OF OREGON -2x	\$1,525,000			\$1,525,000		
<b>UNIVERSITY OF OREGON</b>	<b>\$1,625,000</b>	<b>\$765,715</b>	<b>(\$859,285)</b>	<b>\$1,625,000</b>	<b>\$433,875</b>	<b>(1,191,125)</b>
<b>WESTERN OREGON UNIVERSITY</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<u>OREGON COLLEGE OF ENGINEERING &amp; COMPUTER SCIENCE:</u>						
<b>OREGON GRADUATE INSTITUTE</b>	<b>\$305,000</b>	<b>\$5,522,776</b>	<b>\$5,217,776</b>	<b>\$305,000</b>	<b>\$3,795,769</b>	<b>3,490,769</b>
REQUEST FOR PROPOSALS - RESEARCH (1)	\$510,000			\$510,000		
OTHER	\$200,000	\$147,842	(\$52,158)	\$200,000	\$156,366	(43,634)
<b>TOTAL OCECS</b>	<b>\$1,015,000</b>	<b>\$5,670,618</b>	<b>\$5,165,618</b>	<b>\$1,015,000</b>	<b>\$3,952,135</b>	<b>2,937,135</b>
<b>ETIC &amp; TOP TIER TOTAL</b>	<b>\$11,076,500</b>	<b>\$21,288,641</b>	<b>\$10,722,141</b>	<b>\$11,076,500</b>	<b>\$16,190,688</b>	<b>5,114,188</b>

Table 4 summarizes growth in undergraduate student credit hours. Figures shown for Academic Year 2002 are actuals and those shown for 2003 are projected through June 30, 2003. Compared to the 1999 baseline of 128,288 student credit hours, the totals shown represent a 17% increase for 2002 and a 21% increase for 2003.

**Table 4 – Growth in Undergraduate Engineering & Computer Science Student Credit Hours**

	<b>Undergraduate Student Credit Hours</b>					
	<b>Academic Year ending June 2002</b>			<b>Academic Year ending June 2003</b>		
	<b>Forecast from \$20M 2X Plan</b>	<b>Actual Student Credit Hours</b>	<b>Variance</b>	<b>Forecast from \$20M 2X Plan</b>	<b>Projected Student Credit Hours</b>	<b>Projected Variance</b>
OIT/EOU/WOU	50475	38600	-11875	57528	47574	-9954
OSU	54190	63741	9551	54940	64625	9685
PSU	24469	27590	3121	25374	27542	2168
UO	20768	13117	-7651	25016	10439	-14577
SOU	6400	6689	289	6900	5585	-1315
<b>TOTAL</b>	<b>156,302</b>	<b>149,737</b>	<b>-6,565</b>	<b>169,758</b>	<b>155,765</b>	<b>-13993</b>

Table 5 summarizes growth in graduate student credit hours. Figures shown for Academic Year 2002 are actuals and those shown for 2003 are projected through June 30, 2003. Compared to the 1999 baseline of 34,690 student credit hours, the totals shown represent a 23% increase for 2002 and a 30% increase for 2003.

**Table 5 – Growth in Graduate Engineering & Computer Science Student Credit Hours**

	<b>Graduate Student Credit Hours</b>					
	<b>Academic Year ending June 2002</b>			<b>Academic Year ending June 2003</b>		
	<b>Forecast from \$20M 2X Plan</b>	<b>Actual Student Credit Hours</b>	<b>Variance</b>	<b>Forecast from \$20M 2X Plan</b>	<b>Projected Student Credit Hours</b>	<b>Projected Variance</b>
OHSU/OGI	4718	13011	8293	4808	11957	7149
OSU	13410	18435	5025	13680	19037	5357
PSU	10536	13531	2995	10926	14964	4038
UO	3344	3303	-41	3984	3093	-891
OCECS/OMSE	1400	504	-896	2000	645	-1355
SOU	120	104	-16	250	112	-138
<b>TOTAL</b>	<b>33,528</b>	<b>48,888</b>	<b>15,360</b>	<b>35,648</b>	<b>49,808</b>	<b>14,160</b>

Table 6 summarizes growth in undergraduate degrees. Figures shown for Academic Year 2002 are actuals and those shown for 2003 are projected through June 30, 2003. Compared to the 1999 baseline of 819 degrees, the totals shown represent a 23% increase for 2002 and a 34% increase for 2003.

**Table 6 – Growth in Undergraduate Engineering & Computer Science Degrees Granted**

	<b>Undergraduate Degrees Granted</b>						
	<b>Academic Year ending 2002</b>				<b>Academic Year ending 2003</b>		
	<b>Forecast from \$20M 2X Plan</b>	<b>Actual Number of Degrees Granted</b>	<b>Variance</b>		<b>Forecast from \$20M 2X Plan</b>	<b>Projected Number of Degrees Granted</b>	<b>Projected Variance</b>
OIT/EOU/WOU	240	267	27		406	257	-149
OSU	449	461	12		479	539	60
PSU	184	142	-42		190	163	-27
UO	88	80	-8		106	90	-16
SOU	60	56	-4		75	45	-30
<b>TOTAL</b>	<b>1,021</b>	<b>1,006</b>	<b>-15</b>		<b>1,256</b>	<b>1,094</b>	<b>-162</b>

Table 7 summarizes growth in graduate degrees. Figures shown for Academic Year 2002 are actuals and those shown for 2003 are projected through June 30, 2003. Compared to the 1999 baseline of 430 degrees, the totals shown represent a 0% increase for 2002 and a 22% increase for 2003.

**Table 7 – Growth in Graduate Engineering & Computer Science Degrees Granted**

	Graduate Degrees Granted						
	Academic Year ending 2002				Academic Year ending 2003		
	Forecast from \$20M 2X Plan	Actual Number of Degrees Granted	Variance		Forecast from \$20M 2X Plan	Projected Number of Degrees Granted	Projected Variance
OHSU/OGI	95	147	52		101	173	72
OSU	170	121	-49		177	176	-1
PSU	118	125	7		122	132	10
UO	15	35	20		35	39	4
OCECS/OMSE	0	2	2		0	2	2
SOU	3	2	-1		8	3	-5
<b>TOTAL</b>	<b>401</b>	<b>432</b>	<b>31</b>		<b>443</b>	<b>525</b>	<b>82</b>

Tables 8a and 8b lists faculty hired using ETIC-related funds from July 1, 2001 through December 31, 2003. A total of 31 FTE were hired compared to a goal of 23.

**Table 8a – Faculty hired using ETIC related funds from July 1, 2001 to December 31, 2002**

**FACULTY HIRED DURING THE '01-03 BIENNIUM**

	<b>FTE Hired</b>	<b>FTE Goal</b>	<b>Name</b>	<b>Last Degree from</b>	<b>Department/Campus</b>	<b>Hired</b>
					Civil, Construction, & Environmental	
OSU	1.00		Dolan, Mark	Ph.D., Stanford University	Eng./OSU	1-Sep-01
OSU	1.00		Metoyer, Ron	Ph.D., Georgia Institute of Technology	Computer Science/OSU	1-Sep-01
OSU	1.00		Mortensen, Eric	Ph.D., Brigham Young University	Computer Science/OSU	1-Aug-01
OSU	1.00		Sethia, Saurabh	Ph.D., SUNY at Stony Brook	Computer Science/OSU	1-Sep-01
					Electrical & Computer	
OSU	1.00		Liu, Huaping	Ph.D., New Jersey Institute of Technology	Engineering/OSU	16-Aug-01
					Electrical & Computer	
OSU	1.00		Shiue, Wen-Tsong	Ph.D., Arizona State University	Engineering/OSU	1-Sep-01
					Industrial & Manufacturing	
OSU	1.00		Doolen, Toni	Ph.D., Oregon State University	Engineering/OSU	1-Sep-01
OSU	1.00		Narayanan, Vinod	Ph.D., Texas A&M University	Mechanical Engineering/OSU	1-Sep-01
OSU	1.00		Ge, Christine	Ph.D., University of Southern California	Mechanical Engineering/OSU	1-Sep-01
					Electrical engineering & Computer	
OSU	1.00		Jones, Erin	Phd., University of California at Berkeley	Science/OSU	1-Dec-02
OSU	0.25		Brian Woods	Phd., University of Maryland	Nuclear Engineering Dept.	3-Mar-03
<b>OSU</b>	<b>10.25</b>	<b>7.69</b>				
				Ph.D., Computer Science and Engineering, 1999, University of Michigan	OGI	01-03
OGI	1.00		Wu-chang Feng	Ph.D., Materials Science and Engineering, University of Toronto	Electrical and Computer Engineering	01-03
OGI	1.00		John Carruthers	Ph.D., Computer Science, 1997, State University of New York - Stony Brook	OGI	01-03
OGI	1.00		Juliana Freire	Ph.D., Computer Science and Engineering, 2000, OGI	OGI	01-03
OGI	1.00		John Matthews	BS EE, Univ of Utah, 1979	School of Science and Engineering, B	15-Oct-02
OGI	1.00		John Lynch			
<b>OGI</b>	<b>5.00</b>	<b>4.00</b>				

**Table 8b – Faculty hired using ETIC related funds from July 1, 2001 to December 31, 2002**

	<b>FTE Hired</b>	<b>FTE Goal</b>	<b>Name</b>	<b>Last Degree from</b>	<b>Department/Campus</b>	<b>Year Hired</b>
OIT	1.00		Sandy Campanario	MS 1990 University of California-Chico	Director Computer Software Engineering Technology, Capital Center	Jul-01
OIT	1.00		William D. Carter	PHD 1991 Oregon State University	Director IT Department – Capital Center	Sep-01
OIT	1.00		Paula Hannan	MS 1989 Oregon State University	Computer Science Engineering Technology	2002
OIT	0.50		Mel Ivey	MBA 1979 Northwestern University	IT Klamath Falls	after July 1,2001
<b>OIT</b>	<b>3.50</b>	<b>1.00</b>				
PSU	1.00		Pavel Sumazin	Ph.D., Computer Science, SUNY at Stony Brook	Computer Science	2002
PSU	1.00		Su-Hui Chiang	Ph.D., Computer Science, Univ of Wisconsin	Computer Science	2002
PSU	1.00		Charles Weber	Ph.D, Management of Technology, MIT	Engineering and Technology Management	2002
PSU	1.00		Sung Yi	Ph.D., Aeronautical and Stronautical Engineering, University of Illinois	Mechanical Engineering	after July1 2001
<b>PSU</b>	<b>4.00</b>	<b>4.00</b>				
SOU	1.00		Tom Bacon	MS Computer Science, Stanford	Computer Science	9/02
SOU	0.67		Chris Zwemke	BS, SOU	Computer Science	12-01thru 6-02
SOU	1.40		several adjunct instrstructors			
<b>SOU</b>	<b>3.07</b>	<b>1.88</b>				
OU-CIS	1.00		Jun Li	PhD in Computer Science, U of C/Los Angeles,	Computer Science Department	Sep-02
OU-CIS	1.00		Reza Rejaie	PhD in Computer Science, USC	Computer Science Department	Sep-02
OU-MSI	1.00		Marina Guenza	PhD, Univ of Genoa, Italy	Dept of Chemistry and Materials Science Institute	2002
OU-MSI	2.00		current recruitment search underway for two faculty members			
<b>OU</b>	<b>5.00</b>	<b>4.00</b>				
WOU	0.67		several adjunct instrstructors			
<b>WOU</b>	<b>0.67</b>	<b>0.67</b>				

Table 9 lists grants made under ETIC’s research grant program. These grants supported the investigation of new technologies that can be used by Oregon companies to create products and services that are internationally competitive; methods for applying recent research results in ways that can be applied by Oregon industry; and improved versions of existing technologies that can enhance the competitiveness of products. This qualification process required that the project secure sponsorship from industry that is equal or greater than the public funds provided. The total grants awarded were \$842,529 and the total industry sponsorship was \$980,150.

**Table 9 – Grants made via ETIC research grant program**

<b>Principal Investigator</b>	<b>Research Project</b>	<b>Institution</b>	<b>Grant Award</b>	<b>Sponsor</b>	<b>Sponsor Match</b>
Feng, Wu-Chang	Efficient Intrusion Detection and Response Systems	OGI/OHSU	\$124,151	Intel Corporation	\$164,000
Jenq, Y.C.	DSP Technology for Mixed Signal Testing	PSU	\$56,653	Credence Systems	\$56,654
Johnson, David C.	Improved Thermoelectric Materials	UO	\$49,084	Asahi Kasei	\$65,000
Jones, Mark P. & Black, Andrew	Putting Perspectives on Software into Practice	OGI/OHSU	\$50,000	Object Technology International	\$50,000
Liu, Huaping	Wireless System Design for RF Hostile Environments and Wideband CDMA System Performance Analysis for Multimedia Traffic	OSU	\$150,000	Sandia National Laboratories	\$150,000
McCarthy, Jack	Sputtered Metals Microstructural Studies Failure Analysis of GaAs	OGI/OHSU	\$78,000	TriQuint	\$78,000
Peterson, Richard B.	Portable Power Systems Development	OSU	\$97,242	Hewlett Packard	\$146,614
Photinos, Panos	Design of Instrumentation Driver with Accuracy-of-Measurement	SOU	\$18,452	Intercal, LLC	\$19,882
Porter, David	Performance Testing of ADC Technology and Heterogeneous Wireless LAN Systems	OSU	\$38,947	PSC, Inc.	\$25,000
				Intel Foundation	\$20,000
				Quest Solutions	\$15,000
				Mark Christensen	\$10,000
Wager, John F. & Keszler, Douglas A.	Accelerated Development for Thin Film Manufacturing	OSU	\$120,000	Hewlett Packard	\$120,000
Yan, Yonghong	Speech Technology for Handheld Devices	OGI/OHSU	\$60,000	ThinkIT International	\$60,000
<b>Total</b>			<b>\$842,529</b>		<b>\$980,150</b>

Table 10 lists grants made to educational institutions and community organizations to create pilot programs that increase the interest of young people in pursuing technical careers. Program goals included maintaining the interest of girls, minorities, or economically disadvantaged students in science past middle school; bringing more pre-college youth into elective high school mathematics and advanced placement science courses; and increasing enrollments in undergraduate studies in engineering, technology, and computer sciences. A total of \$372,000 in grants were awarded.

**Table 10 – Grants made via ETIC’s pre-college grant process.**

<b>Program</b>	<b>Institution</b>	<b>Contact</b>	<b>Request</b>	<b>Award</b>
FutureMakers Inventor/Mentor	Portland State University	Joyce Creswell	\$93,600	\$62,000
Girl Scouts Science Fair	Girl Scouts, Columbia River Council	Ruthe Farmer	\$40,155	\$32,000
Hydroville Curriculum Project	Oregon State University	Molly Bloomfield	\$99,684	\$65,000
MESA	Portland State University	Scott Minnix	\$100,000	\$67,000
OMSI Boys and Girls Science Club	OMSI	Paul Carlson	\$28,800	\$20,000
Project STEAM	North Eugene High School	Peter Tromba	\$95,191	\$45,000
Science Educators Summer Institute	Oregon Institute of Technology	Maureen Sevigny	\$65,464	\$57,000
Technology Space Camps	Oregon Institute of Technology	Timothy Brower	\$34,000	\$24,000
<b>Total</b>			<b>\$556,894</b>	<b>\$372,000</b>

## Exhibit A – ETIC Membership Roster

<b>Voting Members</b>	
<b>Norm Armour</b> <i>Vice President, Gresham Operations</i> <a href="mailto:narmour@lsil.com">narmour@lsil.com</a>	<b><i>LSI Logic Corporation</i></b> 23400 N.E. Glisan Street Gresham, OR 97030
<b>Gerhard Beenen</b> <i>Vice President, General Manager</i> <a href="mailto:gbeenen@networkelements.com">gbeenen@networkelements.com</a>	<b><i>Network Elements, Inc.</i></b> 15425 SW Koll Parkway Beaverton, OR 97006
<b>Dave Brown</b> <i>Vice President, Central Engineering</i> <a href="mailto:dave.j.brown@tek.com">dave.j.brown@tek.com</a>	<b><i>Tektronix, Inc.</i></b> P.O. Box 500, MS 39-632 Beaverton, OR 97077
<b>Rich Duncombe</b> <i>Advanced Product &amp; Device Lab Manager</i> <a href="mailto:rich_duncombe@hp.com">rich_duncombe@hp.com</a>	<b><i>Hewlett-Packard Co.</i></b> 1000 NE Circle Blvd Corvallis, OR 97330
<b>Michelle Girts – ETIC Vice Chair</b> <i>Vice President</i> <a href="mailto:mgirts@CH2M.com">mgirts@CH2M.com</a>	<b><i>CH2M Hill</i></b> 825 NE Multnomah Street, Suite 1300 Portland, OR 97232
<b>Ray Guenther</b> <i>General Manager, Americas Region</i> <a href="mailto:ray.guenther@intel.com">ray.guenther@intel.com</a>	<b><i>Intel Corporation</i></b> 5200 NE Elam Young Parkway, RA2-273 Hillsboro, OR 97124
<b>Jim Johnson</b> <i>Consultant</i> <a href="mailto:jbj@easystreet.com">jbj@easystreet.com</a>	11175 NW Salzman Rd. Portland, OR 97229
<b>Gary Kaleta</b> <i>Senior Vice President</i> <a href="mailto:gkaleta@gundersoninc.com">gkaleta@gundersoninc.com</a>	<b><i>Gunderson Inc.</i></b> 4350 NW Front Ave. Portland, OR 97210
<b>Marc Manley</b> <a href="mailto:marcmanley@casco.net">marcmanley@casco.net</a>	946 NW Circle Blvd. #320 Corvallis, OR 97330
<b>Wally Rhines – ETIC Chair</b> <i>Chairman &amp; CEO</i> <a href="mailto:Wally_Rhines@MentorG.com">Wally_Rhines@MentorG.com</a>	<b><i>Mentor Graphics Corp.</i></b> 8005 S.W. Boeckman Rd. Wilsonville, OR 97070
<b>Skip Rung</b> <i>Consultant</i> <a href="mailto:rung@proaxis.com">rung@proaxis.com</a>	<b><i>New Economy Coalition</i></b> 2265 NW Huntington Drive Corvallis, OR 97330-9725
<b>Jim Rise</b> <i>Vice President, Product Development</i> <a href="mailto:james.d.rise@opbu.xerox.com">james.d.rise@opbu.xerox.com</a>	<b><i>Xerox</i></b> 26600 SW Parkway Wilsonville, OR 97070-1000

<b>Non Voting Members</b>	
<b>Ron Adams</b> Dean, College of Engineering <a href="mailto:ronald.lynn.adams@orst.edu">ronald.lynn.adams@orst.edu</a>	<b><i>Oregon State University</i></b> 101 Covell Hall Corvallis, OR 97331-2409
<b>Jim Chadney</b> Dean, College of Liberal Arts & Sciences <a href="mailto:chadney@wou.edu">chadney@wou.edu</a>	<b><i>Western Oregon University</i></b> 345 North Monmouth Ave Monmouth, OR 97361
<b>Jim Craven</b> Director, Legislative Affairs <a href="mailto:Jim_Craven@aeonet.org">Jim_Craven@aeonet.org</a>	<b><i>American Electronics Association, OR Council</i></b> 5285 SW Meadows Rd., Suite 200 Lake Oswego, OR 97035
<b>Phil Creighton</b> President <a href="mailto:pcreight@eou.edu">pcreight@eou.edu</a>	<b><i>Eastern Oregon University</i></b> One University Blvd La Grande, OR 97850
<b>Martha Anne Dow</b> President <a href="mailto:dowm@oit.edu">dowm@oit.edu</a>	<b><i>Oregon Institute of Technology</i></b> 3201 Campus Drive Klamath Falls, OR 97601-8801
<b>Bob Dryden</b> Dean, College of Engineering & Computer Science <a href="mailto:drydenr@cecs.pdx.edu">drydenr@cecs.pdx.edu</a>	<b><i>Portland State University</i></b> P.O. Box 751 Portland, OR 97207
<b>Richard Jarvis</b> Chancellor <a href="mailto:Richard_Jarvis@ous.edu">Richard_Jarvis@ous.edu</a>	<b><i>Oregon University System</i></b> P.O. Box 3175 Eugene, OR 97403
<b>Charles Lane</b> Interim Provost for Academic Affairs <a href="mailto:lane@sou.edu">lane@sou.edu</a>	<b><i>Southern Oregon University</i></b> 1250 Siskiyou Blvd, CH130 Ashland, OR 97520
<b>Richard Linton</b> Vice President for Research & Graduate Studies <a href="mailto:rlinton@oregon.uoregon.edu">rlinton@oregon.uoregon.edu</a>	<b><i>University of Oregon</i></b> 207 Johnson Hall 1258 University of Oregon Eugene, OR 97403-1258
<b>Jim Lussier</b> Chair, Oregon State Board of Higher Education <a href="mailto:jlussier@scmc.org">jlussier@scmc.org</a>	<b><i>c/o St. Charles Medical Center</i></b> 2500 NE Neff Road Bend, OR 97701
<b>Bruce Schafer – ETIC Executive Director</b> Director, Industry Affairs <a href="mailto:schaferb@capital.ous.edu">schaferb@capital.ous.edu</a>	<b><i>Oregon University System</i></b> CAPITAL Center 18640 NW Walker Rd, Suite 1027 Beaverton, OR 97006-1975
<b>Ed Thompson</b> Vice President and Dean OGI School of Science and Engineering <a href="mailto:thompsed@ohsu.edu">thompsed@ohsu.edu</a>	<b><i>Oregon Health and Science University</i></b> 20000 NW Walker Rd. Beaverton, OR 97006
<b>Larry Wade</b> President <a href="mailto:larry@sao.org">larry@sao.org</a>	<b><i>Software Association of Oregon</i></b> 222 NW Fifth Ave., Suite 304 Portland, OR 97225