Texas Higher Education Coordinating Board

Technology Workforce Development Grants Program – 2005

Project Selection Process

The selection process included the following steps:

STEP 1: The Chairman of the Texas Higher Education Coordinating Board (CB) appointed the Technology Workforce Development (TWD) Grants Program Advisory Committee. This panel consisted of 10 distinguished representatives of industry and academic members of the Texas Engineering and Technical Consortium (TETC).

STEP 2: The TWD Advisory Committee oversaw creation of the guidelines for the Program Announcement. The Committee recommended that funding for projects reflect industry donor participation with 60 percent of program funds allocated for electrical engineering projects and 40 percent for computer science projects. The Committee further recommended a 3-to-1 funding split between "Best Practices" and "Innovative Strategies," respectively.

STEP 3: The CB approved these guidelines after public discussion at its January 27, 2005 meeting.

STEP 4: The CB solicited proposals from eligible Texas computer science and electrical engineering departments and received 37 proposals from 19 institutions by the March 17 deadline.

STEP 5: Two review panels comprised of out-of-state experts from academia and in-state industry technology leaders involved with workforce development discussed the proposals in a full-day review meeting. The panels ranked all proposals within their program areas and recommended strategy changes and budget adjustments.

STEP 6: At the time of the April 21, 2005 CB meeting, the program held $2.8 million in private donations and state funds to match private and federal contributions. TETC, through its host institution, received a congressionally directed grant to benefit TWD, making it possible for the CB to award $3.6 million in new grants. Staff assigned funding to all proposals in rank order until the recommended funding allocations were reached.

STEP 7: At its April 21, 2005 meeting, the CB approved funding of 25 proposals in rank order for a program value of $3,578,282. The CB allowed the Commissioner to make additional grants in rank order if additional funds become available.

Technology Workforce Development Grants Advisory Committee

(Membership list as of April 21, 2005)

Mr. Tom H. Dickey (Chair) – retired, Intel Corporation, Austin, TX

Dr. Moonis Ali – Chairman and Professor of Computer Science, Texas State University - San Marcos

Mr. Ray Almgren – Vice President, National Instruments, Austin, TX

Dr. Elaine M. Charlson – Professor and Chair, Associate Vice Chancellor for Academic Affairs, University of Houston System

Dr. Hesham El-Rewini, PE – Professor and Chair, Department of Computer Science and Engineering, Southern Methodist University

Ms. Cheryl R. Hewett – Manager, Higher Education Marketing, Hewlett Packard Company

Ms. Nan McRaven M.P.A. – Vice President & Director, Communications and Public Affairs, Freescale

Dr. Ben Streetman – Dean, College of Engineering, The University of Texas at Austin

Dr. Valerie E. Taylor – Department Head and Stewart & Stevenson Professor, Department of Computer Science, Texas A&M University

Ms. Pamela Y. Sherman – Program Manager, Human Resources, Applied Materials

2005 Review Panel Members

Dr. Betsy Ancker-Johnson – Vice President, retired, Environmental Affairs and Safety, School of Engineering, General Motors, Austin, TX

Dr. Nino A. Masnari – Dean, College of Engineering, North Carolina State University, Raleigh, NC

Ms. Danna L. Rother – Software Development Manager***,*** Linux Technology Center, IBM, Austin, TX

Dr. William E. Sayle – Professor Emeritus, Department of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA

Dr. Deborah Trytten – Professor, Computer Science Department, Oklahoma University, Norman, OK

Mr. Brian Walters – Member of Technical Staff, Product Development Engineering, AMD, Austin, TX

Mr. Jay W. Wester – Product Manager, Technical Computing, ChevronTexaco Energy Technology, Houston, TX

Dr. Chi-Min Yuan – Distinguished Member of Technical Staff, Freescale Semiconductor, Freescale, Austin, TX

Technology Workforce Development Grants Proposals: 2005

List of Awards

Computer Sciences, Best Practices	Award
1. **The University of Texas at Arlington** *Expansion of CSE @ UTA Robot Programming Contest to Increase Computer Science and Engineering Recruitment*	$161,415
2. **The University of Texas at San Antonio** *Developing Computer Science Career Paths*	$280,187
3. **Texas State University-San Marcos** *Enhance Computing Workforce and Provide Higher Education in Computer Science to Working Professionals*	$247,240
4. **University of Houston-Clear Lake** *Minority Oriented Recruiting Effort in Computer Science (MORE-CS)*	$65,612
5. **The University of North Texas** *Recruiting and Retention Strategies for Computer Science at UNT*	$125,322
6. **Texas A&M University-Texarkana** *Operation Bootstrap*	$200,224
Total Award Program Area	**$1,080,000**

Computer Sciences, Innovative Strategies	Award
1. **University of Houston** *Online/Classroom Hybrid Computer Science Program: A Pilot Project*	$99,914
2. **The University of North Texas** *Improving Student Recruiting and Retention through an Interdisciplinary Computer Science Curriculum*	$49,656
3. **Texas Engineering Experiment Station** *Innovative Programs to Increase the Enrollment in Computer Science*	$55,760
4. **The University of Texas at Austin** *The Science of Computing Recruiting Road Shows*	$90,840
5. **The University of Texas at Arlington** *Webtronics Competition and Proactive Student Retention: Increasing Undergraduates in Software Engineering*	$58,500
Total Award Program Area	**$354,670**
Total Award Computer Science Program	**$1,434,670**

Electrical Engineering, Best Practices

Award

1. **The University of Texas at Austin** $277,120
   Use of Freshman Interest Groups to Improve Student Graduation at UT-Austin
2. **The University of Texas at San Antonio** $160,053
   A Repeatable and Reproducible Approach for Improving Retention and Graduation Rates of Minorities and Women in EE
3. **The University of Houston** $372,561
   Undergraduate Retention and Recruiting of ECE Students at the University of Houston: Best Practices
4. **Prairie View A&M University** $188,063
   Increasing Graduating Rates of Electrical and Computer Engineering Students: Integrated Recruitment and Retention Approaches
5. **Texas A&M University-Kingsville** $106,028
   Expansion of EE Program at TAMUK with Curriculum Reformation, Scholarships, and Tutoring
6. **The University of Texas at Tyler** $125,000
   Back to Basics: A Student-Tutor Matching Program
7. **Texas Tech University** $235,168
   Recruiting and Retention Efforts to Increase Electrical and Computer Engineering Graduates
8. **The University of Texas at Dallas** $156,007
   UTD School of Engineering and Computer Science - TETC Undergraduate Expansion Program

Total Award Program Area $1,620,000

Electrical Engineering, Innovative Strategies

Award

1. **Baylor University** $62,857
   Attracting Engineering Majors from Community and Small Private Colleges
2. **Texas Tech University** $82,075
   WE CAN: Women in Engineering: Curriculum, Applications, and Networking
3. **The University of Texas at Austin** $106,000
   Development of Course Modules to Enhance Retention and Graduation Rates
4. **The University of Texas at Arlington** $96,905
   Innovative Strategies to Establish a Pipeline with Local School Districts
5. **The University of Texas at Tyler** $96,599
   Introducing the Design and Development Lab "The Hobby Shop" to Increase Retention of Electrical Engineering Students
6. **The University of Houston** $79,176
   Retention of Female Undergraduate ECE Students at the University of Houston

Total Award Program Area $523,612

Total Award Electrical Engineering Program $2,143,612

Total Award 2005 Technology Workforce Development Grants Program $3,578,282