

# **TWD: Technology Workforce Development Grants 2005**

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## **Program Announcement**

**Texas Higher Education Coordinating Board**

*P. O. Box 12788*

*Austin, Texas 78711-2788*

<http://www.thecb.state.tx.us/TechWorkforce/>



**January 27, 2005**

**Program Announcement** – The Higher Education Coordinating Board authorizes the Commissioner to publish a Program Announcement for the 2005 grant program. The Program Announcement is posted on the agency's website <http://www.thecb.state.tx.us/techworkforce/>

**March 17, 2005**

**Proposals** – Postmark deadline for all TWD proposals. Hand-delivery deadline: 3 p.m.

**April 21, 2005**

**Awards** – The Higher Education Coordinating Board announces the 2005 grants. Results of the competition are posted on the agency's website.

**May 1, 2005**

**Grants** – Start of new grant period.

## Texas Higher Education Coordinating Board

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### Coordinating Board Mission

The mission of the Texas Higher Education Coordinating Board is to provide the Legislature advice and comprehensive planning capability for higher education, to coordinate the effective delivery of higher education, to administer efficiently assigned statewide programs, and to advance higher education for the people of Texas.

### Coordinating Board Philosophy

The Texas Higher Education Coordinating Board will promote access to quality higher education across the state with the conviction that access without quality is mediocrity and that quality without access is unacceptable. The Board will be open, ethical, responsive, and committed to public service. The Board will approach its work with a sense of purpose and responsibility to the people of Texas and is committed to the best use of public monies.

The Texas Higher Education Coordinating Board does not discriminate on the basis of race, color, national origin, gender, religion, age or disability in employment or the provision of services.

***Building a 21<sup>st</sup> century workforce for a 21<sup>st</sup> century Texas***

## ***Technology Workforce Development Grants Program - 2005***

The Technology Workforce Development (TWD) Grants program supports *Closing the Gaps by 2015*, the state's higher education plan, (<http://www.thecb.state.tx.us/reports/pdf/0379.pdf>) by providing institutions with grants to increase enrollments and the number of baccalaureate degrees awarded in computer science and electrical engineering. Special efforts are being made to attract and retain underrepresented minorities and female students.

### **Background and Purpose**

The 77th Texas Legislature and the Governor adopted the Technology Workforce Development Act (Texas Education Code, Chapter 51, Subchapter X, §§ 51.851-51.860) in May 2001. The purpose of the Act is to increase both the quantity and quality of baccalaureate-level engineers and computer scientists produced in Texas universities.

The Act authorized the creation of the Texas Engineering and Technical Consortium (TETC), a non-profit consortium of Texas public and independent universities that offers engineering and computer science programs and technology companies that employ graduates of those programs. The consortium's purpose is to foster cooperative relationships and activities involving technology companies and universities that offer engineering and computer science degrees.

The Act also created the Technology Workforce Development Grants Program which is administered by the Texas Higher Education Coordinating Board. Grants are funded by monies raised by TETC members and matched equally by legislative appropriation.

*The grant program provides seed money that will enable institutions to expand enrollments in engineering and computer science programs.* Larger enrollments will result in increased legislative formula funding which will enable institutions to support the larger number of students. The grant program currently targets electrical engineering, including related disciplines such as computer engineering and telecommunications engineering, and computer science. *Primary emphases in this competition are either "best practices" projects or "innovative" strategies. Underlying areas of emphases are strategies targeting minorities and female students as well as collaborations with community colleges.*

The enabling legislation authorizes a broad range of activities:

- (1) increase the number of graduates with baccalaureate degrees in engineering and computer science;
- (2) increase the size of engineering and computer science programs;
- (3) recruit students to enter engineering and computer science programs, including:
  - (A) students from groups or backgrounds that are traditionally underrepresented in the fields of engineering and computer science, including female students; and
  - (B) students from public community colleges, private junior colleges, public technical colleges, and private institutes;
- (4) provide scholarships for students in engineering and computer science programs;

- (5) provide retention and mentoring programs for students in engineering and computer science programs;
- (6) provide supplemental compensation for faculty and support personnel in engineering and computer science departments;
- (7) provide research and laboratory equipment to engineering and computer science departments;
- (8) provide for distance learning programs in engineering and computer science; and
- (9) fund other related activities.

The Act that created the grant program also mandated the creation of an advisory committee comprised of six industry members and five academic members to provide oversight to the grant program. (See the back cover of this document for members of this committee.) It also specified that proposals would be selected for funding by a competitive, peer review process.

The 2005 competition will provide the third cycle of grants under the Technology Workforce Development grant program. Proposals for both new and current TWD projects are invited. Proposals for this competition must stand on their own merits and will not be awarded for mere continuation of previous work. Departments applying for continuation of funding should include an evaluation of previously funded TWD strategies as appendix to the proposal.

### **Measuring Progress**

The goal of the grant program is to increase the number of graduates. While some increase in graduates can be obtained in the near term through increased retention, four to six years are required generally to produce a graduate.

The Coordinating Board defines three pre-graduation and one post-graduation enrollment measures that will be used to evaluate progress (the "TWD roster"). Participating institutions will track all four measures:

**ENTERING** – a student with a declared major in the eligible engineering or computer science programs who has a GPA of at least 2.0 or is in good standing during the first semester of enrollment and who has not yet completed both the semester credit and course requirements for "Progressing" students.

**PROGRESSING** – a student with a declared in the eligible engineering or computer science programs who has a GPA of at least 2.0 and who has completed between 30 and 89 semester credits that count toward his or her degree, including two semesters of calculus and two semesters of a required science course.

**ADVANCED** – a student who has been admitted to an eligible engineering or computer science degree program and who has accumulated at least 90 semester credits that count toward his or her degree with a GPA of at least 2.0.

**GRAD** – a student who was awarded a baccalaureate degree from an eligible engineering or computer science program during the previous 12-month period from the beginning of the present semester.

Institutions will use the Coordinating Board's Technology Workforce Tracking System at <http://www.thecb.state.tx.us/techworkforce/> to report progress in increasing the numbers of

students at each level. The System is password protected. Contact Reinold Cornelius at [Reinold.Cornelius@theccb.state.tx.us](mailto:Reinold.Cornelius@theccb.state.tx.us) or 512-427-6150 to obtain access to the system.

**Proposals must include TWD roster summary data for fall 2004, with explicit enrollment goals in each category for fall 2005 and fall 2006 and strategies for achieving those goals.** All applicants must have submitted full rosters via the website starting with the fall 2004 roster.

## Eligible Institutions

Institutions that are members of the TETC and agree to participate in the Texas Higher Education Coordinating Board's Technology Workforce Tracking System ("TWD Roster") are eligible to submit proposals and participate in the grant program.

The following baccalaureate degree programs are eligible to compete in the grant program:

- Texas public universities:
  - computer science programs
  - engineering programs accredited by the Accreditation Board for Engineering and Technology (The 2005 grant program is restricted to electrical engineering and related programs, such as computer engineering and telecommunications.)
- Texas independent universities:
  - electrical engineering programs accredited by the Accreditation Board for Engineering and Technology

Independent institutions must match grant funds provided by the state for the proposed activity (§ 51.857(d) of Texas Education Code, Chapter 51, Subchapter X).

## Number of Submissions

Each institution may submit (participate on) three proposals in two program areas for each eligible program (i.e., electrical engineering or computer science department). The two program areas are

1. *'best practices'* program area, and
2. *'innovative strategies'* program area.

Any proposal may either be a

- a) *'sole'* proposal, or a
- b) *'joint'* proposal.

There are three further restrictions,

- i. Any one eligible program (department) may submit not more than two proposals in either of the two program areas.
- ii. Any one eligible program (department) may submit only one *'sole'* proposal to each of the two program areas.

- iii. *'Joint'* proposals require a “lead institution,” whose responsibility includes managing the joint effort. Any one eligible program (department) may be the lead on only one *'joint'* proposal.

For example, an institution with an eligible electrical engineering program and an eligible computer science program could submit (participate on) six proposals, three from each eligible program. These proposals could be all joint proposals, but only two for each department can fall into one program area. On the other hand, an institution with only an eligible computer science program could submit only three proposals; it could have, for example, two *'sole'* proposals and one *'joint'* proposal. One of the *'sole'* proposals would have to be in the program area *'best practices,'* the other in the program area *'innovative strategies.'*

*'Innovative'* proposals should put forward creative, even “off the wall” ideas requiring relatively small budgets. Innovation can be a positive aspect of a *'best practices'* proposal, but such a proposal requires strategies proven successful based on nationwide experiences and/or TWD experiences.

Joint proposals should include institutions that plan to implement common strategies together and must consist of two or more eligible programs at one or more institutions with eligible programs. The lead institution of a joint proposal commits to oversight responsibility for the project and may have a separate managerial budget.

*Both sole and joint proposals may include one or more cooperating community colleges as subcontractors to their project.* A proposal budget may list line-items for contractor-based costs for cooperating community colleges.

## **Resources Available**

Resources for this grant program will depend upon funds from the Texas Engineering and Technical Consortium and matching funds released by the Governor. The Texas Comptroller of Public Accounts is responsible for determining grant funds. At the time of the issuance of this program announcement, \$2.0 million is available. It is anticipated that this amount will increase during the current fiscal year, but will not exceed \$3.5 million because of limitations in state funds. The Coordinating Board may (1) award additional grants, if the available funds exceed \$2.0 million at the time of awards announcement, and (2) authorize the Commissioner to fund additional projects if more funds become available after the date of the awards announcement.

Available funds will be divided between the two program areas: 60 percent will be awarded to electrical engineering programs and 40 percent to computer sciences programs. Within each discipline, three-fourths of the funds will support *'best practices'* proposals and one-fourth will support *'innovative strategies'* proposals.

Electrical Engineering Program (Including related programs such as computer engineering, and telecommunications engineering)

- Funding for Best Practices Projects: \$900,000
- Funding for Innovative Strategies Projects: \$300,000

Computer Sciences Program

- Funding for Best Practices Projects: \$600,000
- Funding for Innovative Strategies Projects: \$200,000

## Proposal Format

Proposals must be completed in 11-point minimum font size and must be single-sided only. Only proposals that conform to all formatting requirements and space limitations will be reviewed.

Each proposal should consist of the following elements, in the order shown.

- Cover page – Use form provided on page Proposal-1
- Proposal summary – Use form provided on page Proposal-2. The “Strategies” section must fit into the boxes on the two-page form; no additional pages may be added.
- Proposal budget – Use form provided on page Proposal-3. Independent institutions must list mandated match of state contributions. Joint proposals must include one combined budget showing the total proposal figures, as well as separate budgets for each participating department. The lead institution may include a separate, managerial budget as breakout of the total budget.
- Proposal body

Margins must be 1” on all four sides. Maximum length for sole proposals: 8 double-spaced pages. Maximum length for joint proposals: 12 double-spaced pages, written by the lead institution. Collaborating departments do not submit separate proposal bodies, but the project leader may add one-half page per collaborating department to the 12 pages for a specific description of that particular institution’s contribution.

  - *Description of undergraduate program* (electrical engineering or computer science) should include:
    - overview of historical and fall 2004 enrollments (ENTERING, PROGRESSING, ADVANCED, and GRAD) – provide numbers, quality indicators, and gender/ethnic breakdown,
    - data showing baccalaureate graduates over the last four years and placement experience during the present fiscal year,
    - expansion goals for fall 2005 and fall 2006 (ENTERING, PROGRESSING, ADVANCED, and GRAD),
    - description of program’s current academic year teaching faculty.
  - *Strategies for reaching expansion goals* - proposals should be structured in such a way that individual strategies could be funded, if necessary by review constraints. This section should include:
    - justification for proposal category of either “best practices” or “innovative” type,
    - quantitative “best practices” quality indicators, based on nationwide experiences and/or TWD experiences,
    - impediments to reaching expansion goals,
    - responsibilities of key personnel.
  - *For Joint Proposals: Description of Management Responsibilities and Procedures*
  - *Plans for achieving self-sustainability of expanded program, including:*
    - quantitative goals for self-sustainability,
    - optional letter of support by your dean.
  - *Description of project assessment process showing:*
    - mechanisms for self-assessment.
  - *Budget justification, including:*
    - description of any additional support to be provided by the institution, industry, federal grants, etc.,
    - anticipated cost associated with each strategy.

- Attachment – provide:
  - one-page resumes of key personnel (may be single-spaced),
  - succinct (one-page) report on success or failure of previously implemented strategies
- Other attachments (Reading these is optional for reviewers)

## **How to Submit Proposals**

One copy of the proposal must be signed by the investigator(s) and an official authorized to sign for the institution(s). Submit one original proposal with original signatures and six copies of the full proposal. Each proposal should be stapled in the upper left-hand corner.

The deadline for receipt of hand-delivered proposals is 3 p.m. on March 17, 2005. Proposals mailed or sent by overnight delivery service must be postmarked by March 17, 2005.

No changes may be made to the proposals after they are delivered to the Coordinating Board. Proposals will be accepted from Sponsored Programs Officers or other designated officials only. Mail one signed original and six copies of each proposal to:

Technology Workforce Development Grant Program  
 Finance, Campus Planning, and Research Division  
 Texas Higher Education Coordinating Board  
 P. O. Box 12788  
 Austin, TX 78711-2788

For overnight delivery service or hand-delivery, the address is Texas Higher Education Coordinating Board, Room 3.230, 1200 East Anderson Lane, Austin, TX 78752, telephone (512) 427-6150.

## **Proposal Review**

Teams of external peer reviewers, (one each for computer science and for electrical engineering), will evaluate all proposals and shall consider the quality of the academic program, placement record for recent graduates, the feasibility of the institution's plans for increasing enrollments and graduates, and the cost-effectiveness of those plans. The review panel shall deliver a ranked list of competitively selected proposals to the Commissioner. The Coordinating Board's Technology Workforce Grants Advisory Committee will review the selections of the reviewers and the recommendations of the staff and make recommendations to the Board (Board Rules Chapter 13, Subchapter K, Section 13.194). The review teams may strike or adjust budgets up or down for selected strategies. The Coordinating Board will make the final decision regarding funding of proposals.

Proposals will be selected based on assessments of: (a) program quality; (b) justification for project emphasis, i.e., "best practices" or "innovative" quality, (c) feasibility of expansion plans, and (d) cost effectiveness of proposed plan (Appendix D). Cost effectiveness is determined by "weighing" the number of expected additional graduates versus cost. Reviewers shall also give special consideration to strategies targeting minorities and female students, as well as collaboration with community colleges. See Appendix B for additional information on selection criteria.

## **Awards**

Awards will go to the top-ranked proposals, at budgets established by the review team, until the available award money is exhausted. Coordinating Board staff will ask the Coordinating Board to allow the Commissioner to make further awards, in order of rank, if (1) more funds are raised between May 1, 2005 and the end of the fiscal year (August 31, 2005), and (2) up to the maximum award amount possible.

Awards shall be for the period May 1, 2005 through August 31, 2007.

For public universities, the Texas Comptroller of Public Accounts will set up accounts against which monetary expenditures may be made. For independent universities warrants will be issued. The Act requires that independent institutions match any state contributions.

See Appendix A for additional grant conditions.

## **Need More Information?**

For further information on the Texas Engineering and Technical Consortium, contact Mark McClure at [Mark.McClure@engr.smu.edu](mailto:Mark.McClure@engr.smu.edu) or 214-768-1717. For further information on the Technology Workforce Tracking System or the Grants Program, contact Reinold Cornelius at [Reinold.Cornelius@thecb.state.tx.us](mailto:Reinold.Cornelius@thecb.state.tx.us) or 512-427-6150.

# Appendix A

## Technology Workforce Development Grants Program – 2005

### GRANT CONDITIONS

1. **Organizational accountability system**

Each grantee institution shall have a system established in writing to ensure that appropriate officials provide necessary organizational reviews and approvals for the expenditure of funds and for monitoring project performance and adherence to grant terms and conditions. The grantee institution agrees to audit a project with its internal audit staff and to furnish a copy of audit conducted to the Coordinating Board.

2. **Audit and records**

Financial records, supporting documents, statistical records and other material pertinent to this grant shall be retained by the grantee for three years following submission of the final project report and shall be made available to the Coordinating Board upon request. This material, the organizational prior-approval system, and the internal project audits are subject to review by the State Auditor and by Coordinating Board staff.

3. **Allowable costs**

All reasonable costs are allowable with the following specifications:

- o No overhead (indirect cost recovery) may be charged to these funds.
- o Independent and public institutions may include fringe benefits in project costs. (Program funds were not appropriated from general revenue.)
- o Capital equipment will be defined by the grantee institution.
- o Capital equipment included in project costs must be specifically listed and justified.
- o Only capital equipment specifically listed in the approved equipment list may be purchased with grant funds.
- o No equipment may be purchased after June 1, 2006 without prior Coordinating Board approval.
- o Over the life of the grant, no more than a cumulative total of \$10,000 may be moved across budget categories (personnel/permanent equipment/travel/ direct other costs) without prior Coordinating Board approval.
- o Foreign travel is an allowable charge against the grant only if it appears on the approved project budget.

Additional budget changes will require completion of a Budget Change Request form and submission through the institution's Office of Sponsored Projects (or its equivalent) to the Coordinating Board for approval.

4. **Standards for financial management systems**

Institutions shall account for the receipt and disbursement of all monies by generally accepted accounting practices and the State of Texas Uniform Grant Management Standards (UGMS), to the extent applicable. Grantee institution shall open to inspection all books and records reflecting transactions hereunder to Coordinating Board, its staff, or anyone authorized by the Coordinating Board to inspect such books and records.

5. **Payments**

The grantee institution shall receive payments under this grant through the Office of the State Comptroller.

6. **Title to equipment**

Title to equipment purchased or fabricated with these funds shall vest in the grantee institution.

7. **Site visits**

The Coordinating Board and/or its representatives shall have the right to make site visits to review project accomplishments.

8. **Notification of absence**

The Coordinating Board shall be notified prior to a project leader's absence from campus for a period of more than six weeks.

9. **Changes in project leader**

If a project leader leaves the grantee institution or otherwise relinquishes active direction of the project, the institution must notify the Coordinating Board before the project leader leaves.

**10. Progress reports**

One copy of a progress report (annual report) shall be submitted to the Division of Finance, Campus Planning, and Research of the Coordinating Board by July 1 of each year during which the grant is active. The progress report format is specified by the Board.

**11. Final report**

Within 30 days of the expiration of the grant, the grantee must file a final project report with the Coordinating Board in a format specified by the Board. Within 90 days of the expiration of the grant, the grantee institution must file a final financial report with the Coordinating Board that contains information on the final disbursement of funds. At the end of the grant period, unexpended funds shall be returned to the Coordinating Board.

**12. Suspension or termination**

This grant may be suspended or terminated if the grantee fails to comply with the terms and conditions of the grant.

**13. Conflict of Interest**

The grantee institution must notify the Coordinating Board of any potential conflicts of interest that arise prior to or during the grant period due to relationships between the project leaders or other members of the project team and any industrial collaborator(s).

**14. Nondiscrimination**

No person shall be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination under this grant on grounds of race, color, national origin, religious affiliation, handicap or gender.

**15. Compliance with regulations**

The project leader must abide by all state and federal regulations related to conduct of this grant.

**16. Dissemination of project results**

The grantee is expected to publish or otherwise make publicly available the results of the work conducted under the grant. Publication in popular media as well as scholarly journals is encouraged. One reprint of any publication should be made available to the Division of Finance, Campus Planning,

and Research of the Coordinating Board on request.

**17. Acknowledgment of support**

An acknowledgment of Coordinating Board support must appear in any publication of any material based on this project in terms such as the following:

“This material is based in part upon work supported by the Texas Technology Workforce Development Program under Grant No. \_\_\_\_\_.”

**18. Technology Workforce Tracking**

Grantee institution agrees to maintain accurate data on the Board’s Technology Workforce Tracking System for the duration of the grant and four additional years.

**19. Retention of Formula Funding**

Grantee institution agrees to pass on to the appropriate college or department any increased formula funding that results from increased undergraduate enrollment in engineering or computer science programs.

**20. Copyright or patent rights**

The project leader shall abide by the intellectual property policy of his/her institution.

**21. Liability**

The Texas Higher Education Coordinating Board shall not be held liable for damages to people or property that may occur in the course of activities conducted as a result of this grant.

**22. Dispute resolution process**

The dispute resolution process provided for in Chapter 2260 of the Texas Government Code must be used by the Coordinating Board and the grantee institution to attempt to resolve all disputes arising under these grants.

## **Appendix B**

### **Texas Technology Workforce Development Grants Selection Criteria**

**Program Quality (20 percent)** – an assessment of the quality of the instructional program provided to students in the undergraduate program as the basis for the planned expansion in enrollment and quality.

*Evidence that institutions could provide:*

- Qualifications of faculty teaching in the undergraduate program, historic student to faculty ratio, and accreditation status
- Information regarding adequacy of laboratories and other facilities
- Placement record
- Other information

**Project Emphasis (30 percent)** – targeted emphasis areas of the proposal strategies should be supported by nation-wide and/or previous TWD experience citations.

*Questions the proposal should address:*

- Have the proposed strategies been justified as “best practices” or as promising “innovative strategies?”
- Do the project’s strategies target minorities and/or female students?
- Does the project involve collaboration with community colleges?
- Other quality indicators.

**Feasibility of Proposed Strategies (30 percent)** – an assessment of the likelihood that the proposed strategies will successfully achieve the proposed enrollment and graduation increases. The feasibility argument should include comparisons with historic implementations of equivalent strategies as well as nationwide comparisons of feasibility and success.

*Evidence that institutions could provide:*

- Data, including enrollment data, indicating historical demand for the program and feasibility of planned expansion
- Previous experience using the proposed strategy at that institution or at other institutions
- Project assessment process, including self-assessment mechanisms
- For joint proposals: soundness of management plan for lead institution
- Other information

**Cost-Effectiveness of Proposed Strategies (20 percent)** – an assessment of the likely result if the proposal is funded. Cost effectiveness weighs number of expected additional graduates versus cost. The proposal also should spell out the effect of the new proposed project on the existing program quality (curriculum and facilities, etc.). It may be important to include collaborations with other institutions and community colleges, even for sole proposals.

*Evidence that institutions could provide:*

- Costs for increases in students enrollment and graduation
- Mechanisms for achieving self-sustainability
- Commitment to the project by the department and support by the institution
- Other information

## **Appendix C**

### **Texas Technology Workforce Development Grants Instructions to Reviewers**

The Technology Workforce Development grants program constitutes an effort by the State of Texas together with Texas industry (Texas Engineering and Technical Consortium – TETC) to increase both the quantity and quality of baccalaureate-level engineers and computer scientist produced in Texas. Every public computer science program of colleges and universities in the state and every ABET accredited electrical engineering program, including computer engineering and telecommunication, of public and independent institutions are eligible to compete for grants.

The quality of the review process is absolutely critical to the eventual success or failure of this program. Consideration of proposals by panels of reviewers provides the first and most critical step in determining what strategies will be funded.

It is our desire that the best projects be funded with feasibility of the proposed strategy with regards to achieving the goal of increased numbers of electrical engineering and computer science graduates being the prime consideration. Our advisory committee deliberately provides the review panels with maximum flexibility in identifying quality proposals.

#### **GENERAL CONSIDERATIONS**

PLEASE DO NOT COPY, QUOTE, OR OTHERWISE USE MATERIAL FROM A PROPOSAL, AND AVOID DISCUSSING, AFTER THE FACT, CONFIDENTIAL OPINION PRESENTED DURING THE REVIEW PROCEEDINGS.

The names and affiliations of the reviewers will be available to the public following the public announcement of awards.

If a reviewer has an affiliation or financial connection with an institution or a person submitting a proposal that might be construed as creating a conflict of interest, the reviewer should consult Reinold Cornelius at [Reinold.Cornelius@thecb.state.tx.us](mailto:Reinold.Cornelius@thecb.state.tx.us) or 512/427-6156.

We intend that the quality of the proposals funded be comparable to those supported by national funding agencies. The success rate of our first and second competition together was 49 percent.

Independent institutions must match grant funds provided by the state for the proposed activity. Public and independent institutions may include fringe benefit costs in their budgets.

#### **GUIDELINES FOR REVIEW PANEL CONSULTATIONS**

Project leaders will divide their proposals into strategies. A panel can delete strategies from a proposal and recommend others for funding. If an otherwise meritorious project has what the review panel believes is an unrealistically high budget, the panel may recommend that it be reduced. We would prefer that this not be done routinely, and that each proposal normally be allowed to stand or fall based on the budget proposed. The panel may also decide to increase a particular budget, if it demonstrates significant cause.

There are no upper limits or lower limits on the amounts of the grants. However, the amounts should be correlated with a potential payoff. Feasibility, in terms of number of graduates added, should be measured in terms of project cost.

Investigators who currently are funded by the Coordinating Board should neither be penalized nor given a priority for funding in this round of grants. Innovation can be a positive aspect of the proposal, but continuing to use successful practices is also an appropriate way to meet the goal of increased numbers of graduates. Proposals for both new and current TWD projects were invited. However, proposals for this cycle of competition must stand on their own.

Selection of projects should follow these general guidelines:

- predominant goal of the program is the increase in number of graduates
- ensure continuation of successful current projects
- also allow new projects of merit
- use assessment of student tracking as guideline for project success
- proposals classified as “best practices” proposals should contain argumentation supporting the assertion
- A separate category of “innovative proposals” shall receive awards from a separate and smaller (25 percent) portion of the available funds within the proposal categories of electrical engineering and computer science
- Innovative proposals should typically have small budgets

## **GUIDELINES FOR INDIVIDUAL REVIEWERS**

Each reviewer should review all of the proposals sent prior to coming to Austin for the panel review meeting. The following are some suggestions related to this task:

Before reading the proposals, the reviewers should read over the *Program Announcement* for the 2005 TWD grants program.

The review materials include

- Project summaries of previously funded projects.
- Will have an evaluation form for each proposal received. Each reviewer produces a preliminary score for each proposal before the panel meeting. There are places on each evaluation form for comments. Comments are very desirable and helpful for the project leaders. The reviewers should ensure that each proposal receives three to five comments that will form the basis for presentation of the proposal to the panel.
- Each proposal should receive a preliminary score from at least two reviewers before the meeting
- During the deliberations, each reviewer will be asked to lead a brief discussion of each of the received proposals. At that time, the panel might revise the preliminary scoring of a proposal as well as the comments. The evaluations will be returned to the project leaders.

**Appendix D**  
***Texas Technology Workforce Development Grants***  
**2003 Proposal Evaluation Form**

- |  |  |                |
|--|--|----------------|
| <input type="checkbox"/> Eligible to compete based on program guidelines | <input type="checkbox"/> Rank after review team deliberation | Revised Budget |
| <input type="checkbox"/> Not eligible to compete                         | _____  | \$_____        |
- 

**Lead Institution:**  
**Department:**  
**Project Leader:**  
**Title:**

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**Program Quality (20%)**

*A) Staff and Students*

*Possible considerations:*

- Does the program have a sufficient number of well qualified faculty to support the proposed expansion?
- Are the responsibilities of support personnel well defined and appropriate?
- Will the plan negatively affect the percentage of teaching done by tenured or tenure-track faculty?
- Are entering students well qualified?
- Is the program's graduation rate high or low, compared to others?
- Are a high proportion of graduates placed in technology companies?

Reviewer Comments:

*B) Facilities*

*Possible considerations:*

- Will the institution have sufficient teaching and office space, laboratories, equipment, and other facilities to support the planned expansion?
- Will the plan utilize access to distance education or other appropriate technologies?

Reviewer Comments:

**Projects Emphasis (30%)**

*C) Strategy Support*

*Possible considerations:*

- Has the proposer demonstrated a case for the plan to be either a "best practice" or "innovative"?
- Has the proposer built on proven national and/or previous TWD experiences?
- Is the plan clearly defined?
- Are there quantitative indicators to support the plan?

Reviewer Comments:

*D) Underlying Areas of Emphasis*

*Possible considerations:*

- Are there special considerations targeting minorities or female students?
- How will the plan affect representation by women and minorities?
- Does the plan involve collaboration with community colleges?
- Will the plan encourage transfer students from community, private junior, or technical colleges?
- How will the plan affect the academic qualifications of entering and graduating students?

Reviewer Comments:

## Feasibility of Proposed Strategy (30%)

### E) Appropriateness of Goals

#### *Possible considerations:*

- Will this project increase the number of graduates?
- Are the goals proposed for student and graduation expansion realistic, given historical enrollments and other factors?
- Are the measures proposed drastic and with immediate impact?
- Are the measures proposed aimed at a steady and long term success?
- Will the plan increase retention and graduation rates?
- Will the plan enroll additional students?
- Is the schedule for achieving the goals realistic?
- Are impediments to success identified correctly and completely?
- Can the goals be achieved with the resources proposed?

Reviewer comments:

### F) Management Plan

#### *Possible considerations:*

- Does the plan consider project assessment, including self-assessment mechanisms?
- Is there a sound management plan?
- For joint proposals: can the lead institution provide effective oversight of collaborative plans?
- Is a collaboration with other universities, high schools, community colleges well thought through?

Reviewer comments:

## Cost-Effectiveness of Proposed Strategy (20%)

### G) Plan and Budget

#### *Possible considerations:*

- Is the budget justified and well documented, i.e., according to individual strategies?
- Is the plan cost-effective, i.e., is the cost per additional graduated student appropriate?
- Does the requested grant money function as “seed money” that can be sustained through formula funding or other means, after the project’s implementation?
- Are there plans for achieving self-sustainability of the new program?
- Is there evidence that both the department and the institution are committed to the plan?
- Is there third party funding (industry, grants, foundations, etc.) for this project?
- Has the institution made a commitment to the project?

Reviewer Comments:

#### **Additional Comments:**

Reviewer comments are very much appreciated by the submitters. Comments addressing deficiencies or strengths are especially helpful. Please don't write anything you wouldn't say to the submitter, if you had an opportunity to speak with him or her directly. Under additional comments, please include arguments summarizing the panel's opinion of this proposal.

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**Reviewer Notes** (not to be released)

**Comments:**

**Reviewer's Preliminary Points** (reviewer points not for release to Project Leader)

Revise budget to \$ \_\_\_\_\_

*Program Quality* \_\_\_\_\_ points of 20 possible points

*Project Emphasis* \_\_\_\_\_ points of 30 possible points

*Feasibility of the Proposed Strategy* \_\_\_\_\_ points of 30 possible points

*Cost-Effectiveness of Proposed Strategy* \_\_\_\_\_ points of 20 possible points

**Total Points:** \_\_\_\_\_ points of 100 possible points

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Texas Technology Workforce Development Grant Program – 2005

**Proposal Cover Page**

Discipline (check one): <input type="checkbox"/> Electrical Engineering <input type="checkbox"/> Computer Science	Proposal Type (check one): <input type="checkbox"/> Best Practices <input type="checkbox"/> Innovative	Is this a joint proposal with another institution? No _____ Yes _____ If yes, please complete this block and Page Proposal – 1A.			
Name and Address of Submitting Organization to which award should be made (include branch/campus/other components)		Name(s) of collaborating institution(s) and amounts requested for each institution. (NOTE: Collaborating institution(s) must be eligible institution(s) as defined under program guidelines) <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; width: 70%;"><u>Institution</u></td> <td style="text-align: center; width: 30%;"><u>Requested Amount</u></td> </tr> </table>		<u>Institution</u>	<u>Requested Amount</u>
<u>Institution</u>	<u>Requested Amount</u>				
Title of Proposed Project (maximum of 100 characters)		Total Amount Requested for Project			
By signing below, the institution certifies that:  (1) it is committed to enlarging its electrical engineering and/or computer science program and achieving the enrollment and graduation goals included in this proposal;  (2) it will pass on to the appropriate college and department in subsequent biennia any increased formula funding that results from these increased enrollments (Grant Condition Number 19);  (3) the institution has a written Organizational Accountability System in place as described in Grant Condition Number 1; and  (4) this grant would not supplant funds that would otherwise accrue to the program.					
Project Leader's Name: (type or print)  Phone Number: _____ Fax Number: _____ E-mail Address: _____ Mailing Address: _____  Signature: _____		Co-Leader's Name: (from same institution)  Phone Number: _____ Fax Number: _____ E-mail Address: _____ Mailing Address: _____  Signature: _____			
Authorized Institutional Representative's Name: (type or print)  Title: _____ Phone Number: _____ Fax Number: _____ E-Mail Address: _____ Mailing Address: _____  Signature: _____		University President or Dean (type or print)  Title: _____ Phone Number: _____ Fax Number: _____ E-Mail Address: _____ Mailing Address: _____  Signature: _____			



Technology Workforce Development Grant Program – 2005

**Project Summary**

Project Leader(s)		Institution
Discipline (check one): <input type="checkbox"/> Electrical Engineering <input type="checkbox"/> Computer Science	Proposal Type (check one): <input type="checkbox"/> Best Practices <input type="checkbox"/> Innovative	Project Leader's Mailing Address (including department), Phone Number and Internet Address
Title of Proposal		

**NOTE: This summary should be suitable for public release. (11-point minimum font size.)**

**GOALS AND COSTS**

	Entering Students (see definition)	Progressing Students (see definition)	Advanced Students (see definition)	Graduated Students (see definition)
(1) Fall 2004 Headcount according to THECB Tracking System				
(2) Goal: Fall 2004 to fall 2005 headcount increase; i.e., projected fall 2005 headcount less fall 2004 headcount				
(3) Goal: Fall 2004 to fall 2006 headcount increase, e.g., projected fall 2006 headcount less fall 2004 headcount				
(4) Cost of achieving two-year goal at each enrollment measure. (see note 1)				
(5) Dollars per student increase; i.e., (4) divided by (3).				

**Notes:** 1. Sum of dollars per enrollment measure must equal requested amount (on Proposal Cover Page).

**Strategies for achieving goals:** (Indicate the dollar cost of each strategy)

(continued on next page)

Strategies for achieving goals (continued):

Technology Workforce Development Grant Program – 2005  
**Proposal Budget (May 1, 2005 – August 31, 2007)**

<input type="checkbox"/> Electrical Engineering <input type="checkbox"/> Computer Science	Project Leader(s)	Institution:
<input type="checkbox"/> Sole Proposal <input type="checkbox"/> Joint Proposal – combined budget <input type="checkbox"/> Joint Proposal – collaborator budget <input type="checkbox"/> Joint Proposal – managerial budget Proposal Title (maximum of 100 characters)		Project Leader's Mailing Address (include department)
<b>A. Personnel</b> (show number of people in brackets)		<b>TWD Request</b>
	1. ( ) Project Leader/Co-Project Leader	
	2. ( ) Other tenure-track faculty	
	3. ( ) Other Professionals (technician, programmer, etc.)	
	4. ( ) Non-tenure – track faculty	
	5. ( ) Graduate Students/Post-Doctoral	
	6. ( ) Undergraduate Students	
	7. ( ) Secretarial – Clerical	
	8. ( ) Other	
Sub – Total Salaries and Wages		
Fringe Benefits		
<b>Total – Salaries, Wages and Fringe Benefits</b>		
<b>B. Capital Equipment:</b> All capital equipment included in project costs must be specifically listed and justified on page Proposal-4. No capital equipment may be purchased after June 1, 2007 without prior Coordinating Board approval.		
<b>Total – Capital Equipment</b>		
<b>C. Travel</b>		
	1. Domestic (including Canada, Mexico and U.S. possessions)	
	2. Foreign (see grant conditions)	
<b>Total – Travel</b>		
<b>D. Other Direct Cost</b>		
	1. Materials and Supplies	
	2. Scholarships	
	3. Conference Registration Fees/Publication Costs	
	4. Computer (ADPE) Services	
	5. Subcontracts/Consultant Services	
	6. Subcontracts: Community Colleges (list separately)	
	7. Other (specify):	
<b>Total – Other Direct Costs</b>		
<b>Total Direct Costs:</b>		
<b>Total In-Kind (Specify):</b>		
<b>Total Requested Amount</b> (must agree with amount on Proposal Cover Page)		
Project Leader's Typed Name and Signature (required only prior to funding)		
Signature: _____ Date: _____		
Institutional Representative's Typed Name, Title and Signature (required only prior to funding): I hereby certify that I have read and agree to comply with all grant conditions of this grant and agree to return to the Coordinating Board any funds not expended in compliance with those conditions.		
Signature: _____ Date: _____		

## Capital Equipment List

Capital equipment included in project costs must be specifically listed and justified.  
Only capital equipment specifically listed in the approved equipment list may be purchased with grant funds.

**Capital equipment is defined by the grantee institution.**

Leave Blank	Project Leader(s)	Institution
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Description and Justification	Cost
<b>Total Cost of Requested Capital Equipment</b>	

## NEED MORE INFORMATION?

For more information about the program, contact:

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Texas Higher Education Coordinating Board  
**Technology Workforce Development Grants Program**  
**Advisory Committee**

Mr. H. Thomas Dickey, Chair (2005)* Intel Corporation 2906 Trailview Mesa Terrace Austin, Texas 78746 (512) 692-9671	Ms. Nan McRaven (2006)* Vice President and Director Motorola Austin, TX 78735 (512) 895-8932
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Dr. Moonis Ali (2005)* Chairman and Professor of Computer Science Texas State University-San Marcos San Marcos, TX 78666 (512) 245-3409	Mr. Torrence H. Robinson (2004)* Public Affairs Director Texas Instruments, Inc. Dallas, TX 75243 (214) 480-6823
--	--

Mr. Ray Almgren (2005)* Vice President National Instruments Austin, TX 78759 (512) 683-5401	Ms. Pamela Y. Sherman (2006)* Program Manager Applied Materials Austin, Texas 78758 (512) 272-1371
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Dr. Elaine M. Charlson (2006)* Associate Vice Chancellor for Academic Affairs University of Houston System Houston, TX 77204 (713) 743-9103	Dr. Ben Streetman (2004)* Dean, College of Engineering The University of Texas at Austin Austin, TX 78712 (512) 471-1166
--	--

Dr. Hesham El-Rewini (2007)* Chairman and Professor of Computer Science and Engineering Southern Methodist University Dallas, TX 75275-0122 (214) 768-3278	Dr. Valerie E. Taylor (2005)* Department Head and Stewart & Stevenson Professor Department of Computer Science Texas A&M University College Station, TX 77843 (979) 845-5820
---	--

Ms. Cheryl R. Hewett (2006)\*  
Higher Education Marketing Manager  
Hewlett Packard Company  
Spring, TX 77379  
(281) 927-7564

\*(year) indicates term expires  
in December that year

**Coordinating Board Support Staff:**  
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