

SUBJECT: Creating the Texas Engineering and Technology Consortium

COMMITTEE: Higher Education — favorable, without amendment

VOTE: 8 ayes — Rangel, F. Brown, Farabee, Goolsby, Morrison, E. Reyna, Uher,  
West

0 nays

1 absent — J. Jones.

SENATE VOTE: On final passage, April 2 — voice vote

WITNESSES: None

DIGEST: SB 353 would allow public institutions of higher education with accredited engineering programs and with computer science programs to partner with private businesses in the Texas Engineering and Technical Consortium.

The consortium would be organized by at least one engineering institution or one computer science institution, along with one or more private companies. Membership would be available only to engineering institutions and computer science institutions and to private companies that had contributed \$100,000 or more per year to the consortium. The consortium would:

- ! provide a forum for public universities and private companies to consolidate their research projects and applications for grants;
- ! strengthen engineering and computer science instruction and share instructional resources;
- ! coordinate instruction, research, and public service activities in the engineering and computer science fields; and
- ! start programs to recruit, retain, and assist the professional development of engineering and computer science students.

The consortium would have to appoint an advisory committee consisting of one representative from each member group to advise the consortium regarding its operations and activities. The advisory committee would be

subject to Government Code, chapter 2110, which governs the rules and requirements for state agency advisory committees. The consortium could assign administrative functions to one of its computer science or engineering institution members, and that administrative function could rotate every two years or at the end of some other period determined by the consortium.

The consortium could solicit donations, grants, and other funds to implement the program. The bill would establish the technology workforce development account in the general revenue fund to accept deposits from the consortium. Funds in the account could be appropriated only to pay for grants under the program. The consortium would have to transfer any gifts, grants, or donations that exceeded necessary administrative expenses to the comptroller for deposit into the account. The account would be administered by the Texas Higher Education Coordinating Board (THECB), which would have to adopt rules necessary to administer it.

The Legislature could appropriate money from general revenue as well as from the technology workforce development account for the purpose of awarding program grants. For a fiscal biennium, the Legislature would have to appropriate to the consortium an amount equal to the amount the consortium received in donations from the private sector during the biennium. The Legislature could appropriate state funds in addition to the amounts donated by private businesses. THECB would have to use the funds to award grants to engineering institutions and computer science institutions. Private engineering institutions also would be eligible for grants if the institution matched the grant with equal funds.

Grants would have to be made for the purpose of:

- ! increasing the number of graduates with bachelor's degrees in engineering and/or computer science;
- ! increasing the size of the institution's engineering and/or computer science programs;
- ! recruiting students to the institution's engineering and/or computer science programs, including through scholarships, and especially students from traditionally underrepresented backgrounds or groups (including women) and from public and private junior colleges and technical institutes;
- ! providing retention and mentoring programs for students in engineering

- and computer science programs;
- ! supplementing the compensation of faculty and support personnel in engineering and computer science departments;
- ! supplying research and lab equipment to engineering and computer science departments;
- ! providing distance learning programs in engineering and computer science; and
- ! funding other related activities.

The grants could not be awarded to replace funds already being spent on a program, but would have to be used to expand programs or begin new ones.

THECB would have to award grants on a competitive, peer-reviewed basis, considering the applicant institution's faculty, instructional and research resources, enrollment, curriculum quality, graduate placement record, track record for increasing the number of engineering and computer science graduates, and other appropriate factors. The board would have to appoint an advisory committee with five representatives of higher education and six representatives of private companies who participated in the consortium to advise the board on awarding grants. This grant advisory committee also would be subject to Government Code, chapter 2110.

Institutions awarded grants would have to file annual reports regarding their use of the grant no later than September 1 of each year. By October 31, THECB would have to provide a report to the governor, the Legislature, and the consortium participants consolidating the grantees' reports. Each biennium, THECB would have to appoint an advisory committee to evaluate the effectiveness of the grant program, including assessing the level of participation in the grant program by public and private institutions of higher education. This grant evaluation advisory committee, also subject to Government Code, chapter 2110, would consist of higher education representatives and engineering and computer science experts and would have to report the results of its evaluation to the Coordinating Board not later than September 1 of each even-numbered year. THECB then would have to report the results of the evaluation to the governor, Legislature, and consortium by October 31.

This bill would take effect September 1, 2001.

SUPPORTERS  
SAY:

SB 353 is needed to address the shortage of college graduates with technical degrees. State colleges and universities grant about 2,200 electrical engineering and computer science degrees yearly in Texas. However, the high-tech industry has created about 132,000 jobs in the past five years. In 1999, Texas was estimated to have 34,000 job vacancies in the high-tech industry. SB 353 would address this shortfall by creating a consortium of institutions of higher education and private business to provide grants to schools for programs that encouraged students to pursue degrees in engineering and computer science, with special focus on students who traditionally had been underrepresented in these fields, such as women and minorities.

In addition to recruitment, the bill also would focus on retaining students in these programs. About half of the students who begin as engineering or computer science majors switch to another field or leave school early because they do not feel they need the degree to succeed in these fields. The grants that the bill would authorize also would be focused on mentoring and financial-support programs designed to retain students in the engineering and computer science programs in which they began. For this reason, grant applicants would be evaluated, in part, on the basis of their past success in retaining students in these programs, and grants could be made to fund curriculum modification and development designed to meet students' needs better.

By producing more engineering and computer science graduates, SB 353 would help ensure that Texas can sustain the rapid economic growth it has experienced in recent years. If the state lacks the skilled workforce necessary for a growing high-technology sector, those companies, which typically pay higher than average wages, may move elsewhere.

However, SB 353 would require no funds from the state unless the state could afford it. Instead, the bill anticipates and provides mechanisms for the state to match private donations to the consortium and the grant program that THECB would administer.

OPPONENTS  
SAY:

No apparent opposition.

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NOTES: According to the fiscal note, SB 353 would cost a projected \$10,156,000 during fiscal 2002-03, with the same amount expected in future budget periods.

The Senate-passed version of SB 1 by Ellis, the fiscal 2002-03 general appropriations bill, includes in the Article 11 “wish list” a \$10 million appropriation for the Texas Engineering and Technology Consortium, contingent on enactment of SB 353.