

HOUSE BILL REPORT

SHB 2817

As Amended by the Senate

Title: An act relating to establishing a state priority and state objectives for access, enrollment, delivery, and degree achievements in the fields of engineering, technology, biotechnology, science, computer science, and mathematics in higher education.

Brief Description: Establishing a technology emphasis for institutions of higher education.

Sponsors: By House Committee on Higher Education & Workforce Education (originally sponsored by Representatives Sells, McCoy, Strow, Dunshee, Lovick, Jarrett, Morris, Ormsby, Morrell, Haler, O'Brien, Fromhold, Ericks, Kilmer and B. Sullivan).

Brief History:

Committee Activity:

Higher Education & Workforce Education: 1/24/06, 2/2/06 [DPS].

Floor Activity:

Passed House: 2/9/06, 98-0.

Senate Amended.

Passed Senate: 3/3/06, 48-0.

Brief Summary of Substitute Bill

- Places a state emphasis on enrollments and degrees in the fields of engineering, technology, biotechnology, science, computer science and mathematics.
- The institutions of higher education are given a period of three years to establish demand in these fields.
- The Higher Education Coordinating Board is required to track and report progress in these fields.

HOUSE COMMITTEE ON HIGHER EDUCATION & WORKFORCE EDUCATION

Majority Report: The substitute bill be substituted therefor and the substitute bill do pass. Signed by 13 members: Representatives Kenney, Chair; Sells, Vice Chair; Cox, Ranking Minority Member; Rodne, Assistant Ranking Minority Member; Buri, Dunn, Fromhold, Hasegawa, Jarrett, Ormsby, Priest, Roberts and Sommers.

Staff: Jennifer Thornton (786-7111).

Background:

State Trends in Undergraduate Enrollment and Degree Production

The Office of Financial Management (OFM) collects data on undergraduate enrollments and degrees produced in specific fields.

The most recent data published from the OFM show that, at the public four-year institutions in 2002-03, a total of 90,074 full-time equivalents (FTEs) were enrolled at the undergraduate level at public four-year institutions:

- engineering enrollments declined by 12 percent since 1992-93;
- close to 4 percent of total enrollment was in the field of engineering and related technologies;
- about 17 percent of total enrollment was in the sciences; and
- approximately 3 percent of total enrollment was in the field of computer science.

A total of 20,456 bachelor degrees were awarded in all fields:

- the number of engineering degrees awarded declined by 8.6 percent since 1992-93;
- of all undergraduate degrees awarded, 4.2 percent were in engineering and related fields;
- of all undergraduate degrees awarded, 1.5 percent were in physical science;
- of all undergraduate degrees awarded, 4.6 percent were in life sciences; and
- of all undergraduate degrees awarded, 2.6 percent were in computer science.

Relationship Between Specific Fields of Study and Employer Demand

A recent joint study conducted by the Higher Education Coordinating Board (HECB), the Workforce Training and Education Coordinating Board, and the State Board for Community and Technical Colleges states that:

"...demand for workers trained at the baccalaureate level and higher in certain occupations is not met by current supply. Matching with the ultimate demand measure, current degree production meets only 67 percent of the need in engineering and 56 percent of the need in computer science....Demands in engineering, software engineering and architecture would best be met through increased enrollments in engineering. Demand in computer science would best be met through increased enrollments in computer and information systems." (*A Skilled and Educated Workforce: An assessment of the number and type of higher education and training credentials required to meet employer demand, December 13, 2005*).

Summary of Substitute Bill:

An emphasis on enrollments and degrees in the fields of engineering, technology, biotechnology, science, computer science and mathematics is important to the state's economic future.

Therefore, the Legislature intends to promote and place an emphasis on increased access, delivery models, enrollment slots, and degree opportunities in these fields.

A three year period is provided to allow time for the public institutions to establish student demand. The HECB will track and report progress, including but not limited to:

- the number of students enrolled on an annual basis;
- the number of associate's, bachelor's, and master's degrees conferred on an annual basis;
- the amount of expenditures for enrollment and degree programs; and
- the number and type of public-private partnerships established.

The institutions are provided flexibility and are strongly urged to consider program growth in areas of the state with an aerospace, biotechnology, and technology industrial presence.

EFFECT OF SENATE AMENDMENT(S):

The Senate amendment changes a state emphasis in higher education in the fields of engineering, technology, biotechnology, science, computer science, and mathematics to a state priority . The amendment removes the three-year time period for institutions of higher education to determine student demand in these fields, and instead requires that institutions determine student demand and submit findings and proposed alternatives to meet demand to the Higher Education Coordinating Board and Legislature by Nov 1, 2008.

The amendment changes the Higher Education Coordinating Board requirement of tracking and reporting enrollments and degrees in these fields from an annual to biennial basis. Both versions allow institutional discretion and flexibility to meet the objectives of this bill, but the amendment provides specific examples, such as the establishment of institutes of technology, new polytechnic-based institutions, and new divisions of existing institutions. Examples of delivery models provided in the amendment include face-to-face learning, interactive courses, internet-based offerings, and instruction on main campuses, branch campuses, and other educational centers.

Appropriation: None.

Fiscal Note: Available.

Effective Date: The bill takes effect 90 days after adjournment of session in which bill is passed.

Testimony For: This is the time and place to focus our energies on computer science, math, technology, engineering, and science. Major Washington companies have to hire out of state in these fields. We need to focus more energy on underserved areas and look at a variety of delivery models. This will take a commitment of FTE funding. The bill does not aim to diminish other important areas. It is a navigational bill spotlighting specific fields.

Testimony Against: None.

Persons Testifying: Representative Sells, prime sponsor; Aaron Reardon, Snohomish County; Ray Stephanson, City of Everett; and Louise Stanton-Masten, Everett Chamber of Commerce.

Persons Signed In To Testify But Not Testifying: (In support) Christine Kerlin, Everett Community College; Randy Spaulding, Higher Education Coordinating Board; V. Lane Rawlins, Washington State University; Jeff McCauley, Green River Community College; and Loretta Seppanen, State Board for Community and Technical Colleges.

(Neutral) David Lovell, University of Washington and Council of Faculty Representatives.