Washington State
House of Representatives
Office of Program Research

BILL ANALYSIS

Higher Education & Workforce Education Committee

HB 2817

Brief Description: Establishing technology priorities for institutions of higher education.

Sponsors: Representatives Sells, McCoy, Strow, Dunshee, Lovick, Jarrett, Morris, Ormsby, Morrell, Haler, O'Brien, Fromhold, Ericks, Kilmer and B. Sullivan.

Brief Summary of Bill

- Places a state priority 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.

Hearing Date: 1/24/06

Staff: Nina Oman (786-7152).

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 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 Bill:

A priority 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 a priority 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 in their operations and could increase enrollment and degrees through establishing new institutes of technology, new polytechnic-based institutions, and new divisions of existing institutions. The institutions could also use an array of delivery models including face-to-face learning, interactive courses, internet-based offering, as well as instruction on main campuses, branch campuses, and other educational centers. Given the relationship between technology institutes and institutions of higher education, the colleges and universities are encouraged to consider program growth in areas of the state with an aerospace, biotechnology, and technology industrial presence.

Appropriation: None.

Fiscal Note: Requested on January 19, 2006.

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