

SENATE BILL REPORT

SB 5814

As Reported By Senate Committee On:
Early Learning & K-12 Education, February 26, 2007

Title: An act relating to educational opportunities in mathematics, science, and technology.

Brief Description: Creating educational opportunities in mathematics, science, and technology.

Sponsors: Senators McAuliffe, Hobbs, Rasmussen, Kauffman, Eide, Kohl-Welles, Murray, Marr, Spanel, Shin, Oemig, Kilmer and Delvin.

Brief History:

Committee Activity: Early Learning & K-12 Education: 2/12/07, 2/26/07 [DPS-WM, DNP, w/oRec].

Ways & Means: 3/01/07.

SENATE COMMITTEE ON EARLY LEARNING & K-12 EDUCATION

Majority Report: That Substitute Senate Bill No. 5814 be substituted therefor, and the substitute bill do pass and be referred to Committee on Ways and Means.

Signed by Senators McAuliffe, Chair; Tom, Vice Chair; Brandland, Clements, Eide, Hobbs, Kauffman, Oemig, Rasmussen and Weinstein.

Minority Report: Do not pass.

Signed by Senator Holmquist, Ranking Minority Member.

Minority Report: That it be referred without recommendation.

Signed by Senators Hewitt and Zarelli.

Staff: Susan Mielke (786-7422)

SENATE COMMITTEE ON WAYS & MEANS

Staff: Bryon Moore (786-7726)

Background: The consultant to the Washington Learns Higher Education advisory committee found that the supply of graduates from the state four-year institutions is inadequate for the demand in the fields of engineering, computer science, and other technical fields. Washington's Global Competitiveness Council found that in the United States, only 15 percent of undergraduates receive their degrees in natural sciences or engineering and that in other countries, the percentage is much higher: Singapore (67 percent), China (50 percent), South Korea (38 percent), and France (47 percent).

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not a part of the legislation nor does it constitute a statement of legislative intent.

Currently, the Legislature funds career and technical education programs only at high schools. Those programs must be approved by the office of the Superintendent of Public Instruction (OSPI). The funding is at an enhanced basic education rate.

The consultant to the Washington Learns K-12 advisory committee recommended providing \$250 per student to meet all technology needs of schools and specified certain purposes for the use of the funds.

There are currently no Essential Academic Learning Requirements (EALRs) for educational technology but OSPI has created a document showing educational technology relationship with the EALRs and Grade Level Expectations (GLEs). Some states and professional organizations have created student standards for technology.

Washington students are required to take a classroom-based assessment (CBA) in civics in specified grades. School districts must annually verify the use of the CBAs.

The Higher Education Coordinating Board is required to conduct a comprehensive and ongoing analysis of the need for additional degree programs in Washington State.

Summary of Bill: Mathematics, science, and technology at the student, teacher, school, district, and state superintendent levels are addressed.

Middle schools that receive approval by OSPI to provide career and technical education directly to students will receive funding at the same rate as a high school operating a similar program.

The Center for the Improvement of Student Learning (CISL) within OSPI must work with the Workforce Training and Education Coordinating Board, the four-year universities and community and technical colleges to conduct outreach efforts to attract middle and high school students to careers in math, science, or technology and to educate students about the course work that is necessary to be adequately prepared to succeed in these fields.

Subject to funding, OSPI must obtain a license or otherwise obtain and disseminate an interactive, project-based high school and middle school technology curriculum that includes a comprehensive professional development component for teachers and counselors and a systematic program evaluation. The curriculum must be distributed to all school districts, or as many as feasible, by the 2007-08 school year. Subject to funding, OSPI must award grants to 100 school teams to participate in the professional development training during the summer of 2007 and 100 teams to participate during the summer of 2008. School teams must include at least a teacher and a counselor. By December 1, 2009, OSPI must report to the Legislature on the programs' impact on student performance. Additionally, OSPI must employ a math/science/technology statewide director to complete specified duties.

Subject to funding, a mathematics and science instructional coaches' demonstration project is created. Grants are provided to schools and districts for salaries, benefits, and professional development activities for instructional coaches in middle and high schools. Each instructional coach will receive five days of training at a coaching institute prior to being assigned to serve two schools each. The coaches will attend meetings during the year to further their training and assist with coordinating statewide training on mathematics and

science. Subject to available funding, the Washington State Institute of Public Policy must evaluate the effectiveness of the demonstration projects.

The Legislature will annually allocate \$250 per full-time equivalent student for specified technology purposes. To receive the funding, school districts must submit a proposal to OSPI regarding the use of the funds. OSPI will develop criteria for approval of the proposals & provide technical assistance to districts, as needed.

Subject to funding, OSPI must create educational technology literacy & fluency EALRs and GLEs. Technology literacy and technology fluency are defined. Subject to funding, OSPI must create CBAs or project-based assessments for the technology EALRs for voluntary use by school districts. The assessments must be able to be administered and scored by school staff using consistent scoring criteria. The assessments must be available for voluntary use by school districts in the 2010-11 school year. If a school district uses a CBA or project-based assessment then they must notify OSPI of the use and OSPI will report to the Legislature on the number of districts that used the assessments.

EFFECT OF CHANGES MADE BY RECOMMENDED SUBSTITUTE AS PASSED COMMITTEE (Early Learning & K-12 Education): The authorization for middle schools to receive funding for career and technical programs at the same rate as similar high school programs and the provisions addressing the educational technology literacy and fluency EALRs, GLEs and CBAs are maintained. Additional language is provided permitting middle school programs to be funded if the program provides hands-on math and science experience, integrated academics and career and technical education, and a career and technical education exploratory component.

The grant program for 200 school teams for professional development training on a specialized project-based curriculum, the math and science instructional coaches demonstration project, and the annual provision of \$250 per student FTE for technology are removed from the bill.

The statewide director for math, science, and technology, which is created in the bill, will collaborate with other entities to conduct outreach to attract middle and high school students to math and science careers, instead of the CISL in OSPI. Additionally, the statewide director will obtain a statewide license for interactive, project-based high school and middle school technology curriculum, if funding is provided..

Appropriation: None.

Fiscal Note: Requested on March 1, 2007.

Committee/Commission/Task Force Created: No.

Effective Date: Ninety days after adjournment of session in which bill is passed.

Staff Summary of Public Testimony (Early Learning & K-12 Education): PRO: We must create a math/science/technology pipeline that will prepare and excite students about these subjects so that they want to pursue them. Some of these things are happening now but we need to scale them up so that we have coverage statewide. Career and technical education programs have already adopted technology literacy and fluency standards but others have

not. We should be very careful with the terminology because technology education addresses curriculum, which we want. We don't need education technology, which is just stuff. This bill addresses the problem of our middle schools being underfunded. When you offer these programs at middle school you get an authentic engagement from students. Science, math, and technology integrated together provides a real-life, problem-solving model that provides our students with an industry experience. Our district has math and reading coaches and they have really made a difference. There is not enough technology within school districts and those that have technology cannot maintain or upgrade the equipment so the funding for school districts will increase quality access for students.

OTHER: We oppose the provisions addressing curriculum and professional development that are very detailed and proscriptive. We prefer flexibility for school districts. We are concerned with the stability of the public-private partnership funding. We are opposed to instructional coaches. There are better ways to spend the money. We have concerns about pre-packaged curriculum because they are expensive and we prefer to have local innovation. Don't mandate a pre-packaged program but make it optional to those districts who want it.

Persons Testifying (Early Learning & K-12 Education): PRO: Senator McAuliffe, prime sponsor; Franklin Wachtel, Washington Industrial Technology Education Association; James Hendricks, Southridge High School; James Sullivan, Brier Terrace Middle School; Kathleen Lopp, Washington Association for Career & Technical Education; Nancy Atwood, AeA; Conn McQuinn, Puget Sound Educational Service District.

OTHER: Lucinda Young, Washington Education Association; Kyra Kester, OSPI.

Staff Summary of Public Testimony (Ways & Means): PRO: This legislation starts at the early grades to establish a pipeline of students interested and skilled in math, science, and technology. It provides hands-on educational experiences for youth. In part, it's about providing opportunities for females in these academic areas where there historically hasn't been as much involvement. The fiscal note costs related to Project Lead the Way are probably too high based on the experiences of schools that have already implemented it.

Persons Testifying (Ways & Means): PRO: Senator McAuliffe, prime sponsor; Dennis Wallace, WAVA, affiliate of the Washington Association for Career and Technical Education; Nancy Atwood, AeA Washington Council.