
Education Committee

HB 2809

Brief Description: Regarding mathematics and science teachers.

Sponsors: Representatives Sullivan, Haler, Kelley and Ormsby.

Brief Summary of Bill

- Requires the Professional Educator Standards Board (PESB) to report data and recommendations for strengthening the corps of K-12 mathematics and science teachers.
- Requires the PESB to examine and report upon other states' differential pay programs for teachers in high-demand subject areas such as mathematics and science.

Hearing Date: 1/22/08

Staff: Cece Clynch (786-7195).

Background:

Professional Educator Standards Board (PESB).

Created in 2000, the PESB was initially created as an advisory board to the Governor, Legislature, the State Board of Education (SBE) and the Office of the Superintendent of Public Instruction (OSPI) on policy issues related to certified education professionals, including teachers, principals, superintendents and educational staff associates. The PESB was also directed to create alternative routes to teacher certification and administer new basic skills and subject knowledge assessments for teacher certification. Subsequently, the PESB was given responsibility and authority for policy and oversight of Washington's system of educator preparation, certification, continuing education and assignment.

Math and Science Requirements.

In 2006, the Legislature directed the Washington State Institute for Public Policy (WSIPP) to conduct a review and statistical analysis of the Washington Assessment of Student Learning (WASL) data. The WSIPP's final report, issued in December of 2007, notes that as of spring

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.

2007, only 56.6 percent of all students in the class of 2009 who had completed the WASL had met standard on the math WASL.

Pursuant to 2007 legislation, adjustments were made to high school assessment provisions related to state high school graduation requirements, including specific changes related to mathematics and science, as well as the addition of several alternative assessments and modification of two other alternative assessments. In order to graduate, students in the class of 2008 must: meet standard on the reading and writing portions of the WASL (or approved alternative assessments); complete a high school and beyond plan; complete a culminating project; and, for students who did not pass the math WASL or approved alternative, earn an additional math credit. Students in the 2009 through 2012 classes who do not pass the math WASL must earn two additional math credits and retake the math WASL annually. Beginning in 2013, students will be required to meet standard on the math WASL. The science WASL will also become a graduation requirement in 2013.

Also in 2007, the Legislature passed a requirement that high school graduates take and pass three credits of math rather than the current two credits. A credit typically takes one academic year to complete. Washington is one of only a few states that requires less than three years of high school math to graduate. Washington's public four-year institutions of higher education, meanwhile, require that students have completed three math credits in high school.

The Charles A. Dana Center for Mathematics and Science Education at The University of Texas at Austin is currently assisting the OSPI with respect to the legislatively mandated mathematics standards revision process. The result will be a set of state mathematics standards defined by revised Essential Academic Learning Requirements (EALRs) and accompanying Grade-Level Expectations (GLEs) that embody the mathematics required for success in the 21st-century economy.

Teacher Shortage in Math and Science.

Both mathematics and science are on the PESB's list of state-identified teaching shortage areas. Washington has various programs to recruit teachers:

- The Future Teachers Conditional Scholarship and Loan Repayment Program is designed to encourage outstanding students and paraprofessionals to become teachers. Priority is given to individuals seeking certification or an additional endorsement in math, science, technology, or special education. Selected participants benefit from a conditional scholarship or through repayments against student loans. Upon completion of their educational program, these participants are obligated to teach for a specific length of time in a Washington public K-12 school in exchange for the benefit.
- The Alternative Routes to Teacher Certification Program prepares non-teaching professionals such as engineers or computer scientists for classroom teaching. School districts, or districts in cooperation with Educational Service Districts, operate partnerships with higher education teacher preparation programs to provide this alternative recruitment route.
- The Pipeline for Paraeducators program is for individuals with at least three years of classroom experience but without a college degree. A conditional scholarship is provided for candidates to enroll in a community or technical college. Upon completion of a two-year

degree, the candidate is eligible to enroll in a Route One alternative route program to obtain a mathematics, special education, or English as a Second Language (ESL) certificate.

- Retooling to Teach Mathematics and Science program is for current teachers and individuals who are not employed as teachers but who have an elementary teaching certificate. A conditional scholarship is awarded to these individuals to pursue middle level or secondary mathematics or science endorsement through one of the PESB's pathways to endorsement.

Summary of Bill:

PESB Report: Strengthening the Corps of K-12 Mathematics and Science Teachers.

By September 15 2008, the PESB is to report to the Governor, the OSPI, and the education committees of the Legislature regarding recommendations for strengthening the corps of K-12 mathematics and science teachers. The report is to include the following:

- An analysis of demand, including the number of teachers, by district, assigned to teach mathematics and science (both with and without appropriate certifications in those subjects) and the number of vacancies;
- Specifics with respect to how demand will be met by the 2010-11 school year, including the impact of the various Washington programs for teacher recruitment and an analysis of best practices in other states with respect to alternative route recruitment, financial incentives, and certification programs; and,
- Specific strategies for improving retention of mathematics and science teachers, increasing their effectiveness, improving the rigor and productivity of mathematics and science teacher preparation programs, and substantially reducing the mathematics remediation rates among recent high school graduates.

In preparation of the report, the PESB is to take into account the recently increased graduation requirements as well as the opportunities provided by the revised mathematics and science standards and recommended curricula. The PESB is directed to seek assistance with the report and recommendations from the Center for Strengthening the Teaching Profession (CSTP), an independent, nonprofit organization that supports student achievement with a focus upon improving the quality of teaching, and to consider the possible role of a public-private partnership in helping to meet demand and improving quality of instruction in the areas of mathematics and science.

PESB Report: Differential Pay Programs.

The PESB is also to examine and report upon other states' differential pay programs for teachers in high-demand subject areas such as mathematics and science. In conducting this study, the PESB may collaborate with the WSIPP. The due date for this second study is September 1 2008, by which time the PESB is to report its findings and recommendations to the Governor, the OSPI, the education committees of the Legislature, and the basic education finance task force.

Appropriation: None.

Fiscal Note: Requested on January 16, 2008.

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