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**SUBSTITUTE SENATE BILL 5755**

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**State of Washington**

**63rd Legislature**

**2013 Regular Session**

**By** Senate Early Learning & K-12 Education (originally sponsored by Senators Litzow, McAuliffe, Kohl-Welles, Conway, and Kline; by request of Governor Inslee)

READ FIRST TIME 02/22/13.

1       AN ACT Relating to establishing a comprehensive initiative to  
2 increase learning opportunities and improve educational outcomes in  
3 science, technology, engineering, and mathematics through multiple  
4 strategies and statewide partnerships; amending RCW 28B.77.020 and  
5 28A.290.010; adding a new chapter to Title 28A RCW; and recodifying RCW  
6 28A.300.515, 28A.630.065, 28A.630.066, 28A.700.120, 28A.625.200,  
7 28A.625.210, 28A.625.220, 28A.625.230, and 28A.625.240.

8 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

9       NEW SECTION. **Sec. 1.** STEM LITERACY. (1) As used throughout this  
10 chapter, "STEM" means science, technology, engineering, and  
11 mathematics.

12       (2) To provide focus and clarity to efforts to increase learning  
13 opportunities and improve educational outcomes in STEM, the following  
14 definition of STEM literacy is adopted: STEM literacy means the  
15 ability to identify, apply, and integrate concepts from science,  
16 technology, engineering, and mathematics to understand complex problems  
17 and to innovate to solve them. STEM literacy is achieved when a  
18 student is able to apply his or her understanding of how the world

1 works within and across the four interrelated STEM disciplines to  
2 improve the social, economic, and environmental conditions of the local  
3 and global community.

4 (3) The component parts of STEM literacy are:

5 (a) Scientific literacy, which is the ability to use scientific  
6 knowledge and processes in physics, chemistry, biology, and earth and  
7 space science to understand the natural world and to participate in  
8 decisions that affect it;

9 (b) Technological literacy, which is the ability to use new  
10 technologies, understand how technologies are developed, and have  
11 skills to analyze how new technologies affect individuals, the nation,  
12 and the world. Technology is the innovation, change, or modification  
13 of the natural environment to satisfy perceived human needs and wants;

14 (c) Engineering literacy, which is the understanding of how  
15 technologies are developed through the engineering design process.  
16 Engineering design is the systematic and creative application of  
17 scientific and mathematical principles to practical ends, such as the  
18 design, manufacture, and operation of efficient and economic  
19 structures, machines, processes, and systems; and

20 (d) Mathematical literacy, which is the ability to analyze, reason,  
21 and communicate ideas effectively through posing, formulating, solving,  
22 and interpreting solutions to mathematical problems in a variety of  
23 situations.

24 NEW SECTION. **Sec. 2.** STEM EDUCATION INNOVATION ALLIANCE. (1) The  
25 STEM education innovation alliance is established to advise the  
26 governor and to provide vision, guidance, assistance, and advice to  
27 support the initiatives under this chapter, as well as other current or  
28 proposed programs and initiatives across the spectrum of early learning  
29 through postsecondary education, that are intended to increase learning  
30 opportunities and improve educational outcomes in STEM.

31 (2) The governor's office, in consultation with the superintendent  
32 of public instruction, shall invite representatives of STEM businesses,  
33 business and labor organizations with expertise in STEM fields, one or  
34 more nonprofit organizations with a mission to enhance STEM education  
35 from early learning through postsecondary education, school districts  
36 and institutions of higher education that have demonstrated leadership  
37 and innovation in STEM education, and one elementary school grade level

1 STEM educator, one middle school grade level STEM educator, and one  
2 high school grade level STEM educator to participate in the alliance.  
3 Representatives from the governor's office, the office of the  
4 superintendent of public instruction, and other state education  
5 agencies shall also participate as members of the alliance.

6 (3) The STEM education innovation alliance shall initiate its work  
7 by aligning and combining previous STEM education strategic plans into  
8 a single, cohesive, and comprehensive STEM framework for action and  
9 accountability. The framework must concentrate on a limited number of  
10 selected and specific measures that are meaningful indicators of  
11 progress in increasing STEM learning opportunities and in achieving the  
12 intended longer-term outcomes of such efforts. The framework must use  
13 measures that are quantifiable and based on data that are regularly and  
14 reliably collected statewide.

15 (4) Staff support for the STEM education innovation alliance shall  
16 be provided by the governor's office and the office of financial  
17 management, with support from the office of the superintendent of  
18 public instruction and other state education agencies as necessary.

19 NEW SECTION. **Sec. 3.** STEM EDUCATION REPORT CARD. (1) The STEM  
20 education innovation alliance shall develop a STEM education report  
21 card, based on the STEM framework for action and accountability, to  
22 monitor progress in increasing learning opportunities and improving  
23 educational outcomes in STEM.

24 (2) The report card must:

25 (a) Illustrate the most recent data for the indicators and measures  
26 of the STEM framework for action and accountability;

27 (b) Provide information from state education agencies that  
28 indicates the extent that activities and resources are aligned with and  
29 support the STEM framework for action and accountability;

30 (c) Provide data regarding current and projected STEM job openings  
31 in the state; and

32 (d) Be prominently displayed on a web site designed for this  
33 purpose.

34 (3) The education data center under RCW 43.41.400 must coordinate  
35 data collection and analysis to support the report card.

36 (4) The state education agencies must annually report on how their  
37 policies, activities, and expenditures of public resources align with

1 and support the STEM framework for action and accountability. The  
2 focus of the reporting under this subsection is on programs and  
3 initiatives specifically identified in law or budget proviso as related  
4 to STEM education. The agencies must use a common metric for the  
5 reporting, designed by the education data center in consultation with  
6 the STEM education innovation alliance. For the purposes of this  
7 section, "state education agencies" includes the office of the  
8 superintendent of public instruction, the student achievement council,  
9 the state board for community and technical colleges, the workforce  
10 training and education coordinating board, the professional educator  
11 standards board, the state board of education, and the department of  
12 early learning.

13 (5) The employment security department must create an annual report  
14 on current and projected job openings in STEM fields and submit the  
15 report to the education data center for inclusion in the STEM education  
16 report card.

17 (6) The STEM education innovation alliance must publish the first  
18 STEM education report card with baseline data on the identified  
19 measures by January 10, 2014, and must update the report card by each  
20 January 10th thereafter.

21 NEW SECTION. **Sec. 4.** STATEWIDE STEM ORGANIZATION. (1) To the  
22 extent funds are appropriated specifically for this purpose, the office  
23 of financial management shall contract with a statewide nonprofit  
24 organization with expertise in promoting and supporting STEM education  
25 from early learning through postsecondary education. The purpose of  
26 the contract is to identify, test, and develop scalable, cost-  
27 effective, and evidence-based approaches for increasing learning  
28 opportunities and improving educational outcomes in STEM that are  
29 aligned with the STEM framework for action and accountability. The  
30 activities to be conducted under the contract shall be as provided in  
31 this section, with specific performance expectations negotiated between  
32 the office of the governor, the office of financial management, and the  
33 selected organization.

34 (2) Under the terms of the contract, the organization selected  
35 under this section shall:

36 (a) Conduct a statewide communications campaign to expand awareness  
37 of the importance of STEM literacy and the opportunities presented by

1 STEM education and careers, particularly as a strategy to close the  
2 educational opportunity gap for disadvantaged students and promote  
3 economic development in disadvantaged communities;

4 (b) Expand regional networks of schools, institutions of higher  
5 education, educational service districts, STEM businesses, and  
6 community-based organizations to align STEM learning opportunities with  
7 best practices and local economic development;

8 (c) Establish an innovation fund and offer competitive grants to  
9 support innovative practices in STEM education, from early learning  
10 through postsecondary education, including developing models of  
11 interdisciplinary instruction and project-based learning;

12 (d) Expand STEM professional development opportunities for  
13 educators, faculty, and principals, including developing technology-  
14 enabled learning systems to support implementation of state learning  
15 standards; and

16 (e) Create opportunities to extend STEM learning into early  
17 learning programs.

18 NEW SECTION. **Sec. 5.** INTERDISCIPLINARY INSTRUCTION AND PROJECT-  
19 BASED LEARNING. (1) The office of the superintendent of public  
20 instruction, in consultation with the STEM education innovation  
21 alliance, must identify and disseminate resources and materials to  
22 elementary, middle, and high schools that are intended to encourage and  
23 increase interdisciplinary instruction and project-based learning in  
24 STEM.

25 (2) In collaboration with work groups of STEM educators and using  
26 the work of regional STEM networks and innovation grant recipients  
27 under section 4 of this act, the office of the superintendent of public  
28 instruction must:

29 (a) Identify interdisciplinary STEM instructional modules  
30 appropriate for different grade levels;

31 (b) Identify project-based learning models, projects, lessons, and  
32 guides appropriate for different grade levels; and

33 (c) Make the information collected in this section, including  
34 online resource guides, available for teachers to incorporate into  
35 their classroom instruction.

36 (3) The office of the superintendent of public instruction must

1 also disseminate information and research on best practices in  
2 interdisciplinary instruction and project-based learning in STEM.

3 **Sec. 6.** RCW 28B.77.020 and 2012 c 229 s 104 are each amended to  
4 read as follows:

5 (1) Aligned with the state's biennial budget and policy cycles, the  
6 council shall propose educational attainment goals and priorities to  
7 meet the state's evolving needs. The council shall identify strategies  
8 for meeting the goals and priorities by means of a short-term strategic  
9 action plan and a ten-year plan that serves as a roadmap.

10 (a) The goals must address the needs of Washington residents to  
11 reach higher levels of educational attainment and Washington's  
12 workforce needs for certificates and degrees in particular fields of  
13 study.

14 (b) The council shall identify the resources it deems appropriate  
15 to meet statewide goals and also recognize current state economic  
16 conditions and state resources.

17 (c) In proposing goals, the council shall collaborate with the  
18 superintendent of public instruction, the professional educator  
19 standards board, the state board of education, the state board for  
20 community and technical colleges, the four-year institutions of higher  
21 education, independent colleges and degree-granting institutions,  
22 certificate-granting institutions, and the workforce training and  
23 education coordinating board.

24 (2) The council shall update the strategic action plan every two  
25 years with the first strategic action plan to be submitted to the  
26 governor and the legislature by December 1, 2012. The ten-year roadmap  
27 must be updated every two years with the first roadmap to be submitted  
28 to the governor and the legislature by December 1, 2013. The council  
29 must provide regular updates to the joint higher education committee  
30 created in RCW 44.04.360 as needed.

31 (3) In order to develop the ten-year roadmap, the council shall  
32 conduct strategic planning in collaboration with agencies and  
33 stakeholders and include input from the legislature. The council must  
34 also consult with the STEM education innovation alliance established  
35 under section 2 of this act in order to align strategies under the  
36 roadmap with the STEM framework for education and accountability

1 developed by the alliance. The roadmap must encompass all sectors of  
2 higher education, including secondary to postsecondary transitions.  
3 The roadmap must outline strategies that address:

4 (a) Strategic planning, which includes setting benchmarks and goals  
5 for long-term degree production generally and in particular fields of  
6 study;

7 (b) Expanding access, affordability, quality, efficiency, and  
8 accountability among the various institutions of higher education;

9 (c) Higher education finance planning and strategic investments  
10 including budget recommendations necessary to meet statewide goals;

11 (d) System design and coordination;

12 (e) Improving student transitions;

13 (f) Higher education data and analysis, in collaboration with the  
14 education data center, which includes outcomes for recruitment,  
15 retention, and success of students;

16 (g) College and career access preparedness, in collaboration with  
17 the office of the superintendent of public instruction and the state  
18 board of education;

19 (h) Expanding participation and success for racial and ethnic  
20 minorities in higher education;

21 (i) Development and expansion of innovations in higher education  
22 including innovations to increase attainment of postsecondary  
23 certificates, and associate, baccalaureate, graduate, and professional  
24 degrees; and innovations to improve precollege education in terms of  
25 cost-effectiveness and transitions to college-level education; ((and))

26 (j) Strengthening the education pipeline and degree production in  
27 science, technology, engineering, and mathematics fields, and aligning  
28 strategies under the roadmap with the STEM framework for action and  
29 accountability developed under section 2 of this act; and

30 (k) Relevant policy research.

31 (4) As needed, the council must conduct system reviews consistent  
32 with RCW 28B.77.080.

33 (5) The council shall facilitate the development and expansion of  
34 innovative practices within, between, and among the sectors to increase  
35 educational attainment and assess the effectiveness of the innovations.

36 (6) The council shall use the data and analysis produced by, and in  
37 consultation with, the education data center created in RCW 43.41.400

1 in developing policy recommendations and proposing goals. In  
2 conducting research and analysis the council at a minimum must:

3 (a) Identify barriers to increasing educational attainment,  
4 evaluate effectiveness of various educational models, identify best  
5 practices, and recommend methods to overcome barriers;

6 (b) Analyze data from multiple sources including data from academic  
7 research and from areas and agencies outside of education including but  
8 not limited to data from the department of health, the department of  
9 corrections, and the department of social and health services to  
10 determine best practices to remove barriers and to improve educational  
11 attainment;

12 (c) Assess educational achievement disaggregated by income level,  
13 age, gender, race and ethnicity, country of origin, and other relevant  
14 demographic groups working with data from the education data center;

15 (d) Track progress toward meeting the state's goals;

16 (e) Communicate results and provide access to data analysis to  
17 policymakers, the superintendent of public instruction, institutions of  
18 higher education, students, and the public; and

19 (f) Use data from the education data center wherever appropriate to  
20 conduct duties in (a) through (e) of this subsection.

21 (7) The council shall collaborate with the appropriate state  
22 agencies and stakeholders, including the state board of education, the  
23 office of the superintendent of public instruction, the state board for  
24 community and technical colleges, the workforce training and education  
25 coordinating board, and the four-year institutions of higher education  
26 to improve student transitions and success including but not limited  
27 to:

28 (a) Setting minimum college admission standards for four-year  
29 institutions of higher education, including a requirement that  
30 coursework in American sign language or an American Indian language  
31 satisfies any requirement for instruction in a language other than  
32 English that the council or the institutions may establish as a general  
33 undergraduate admissions requirement;

34 (b) Proposing comprehensive policies and programs to encourage  
35 students to prepare for, understand how to access, and pursue  
36 postsecondary college and career programs, including specific policies  
37 and programs for students with disabilities;



1 (c) Recommending policies that require coordination between or  
2 among sectors such as dual high school-college programs, awarding  
3 college credit for advanced high school work, and transfer between two  
4 and four-year institutions of higher education or between different  
5 four-year institutions of higher education; and

6 (d) Identifying transitions issues and solutions for students, from  
7 high school to postsecondary education including community and  
8 technical colleges, four-year institutions of higher education,  
9 apprenticeships, training, or workplace education; between two-year and  
10 four-year institutions of higher education; and from postsecondary  
11 education to career. In addressing these issues the council must  
12 recognize that these transitions may occur multiple times as students  
13 continue their education.

14 (8) The council directs the work of the office, which includes  
15 administration of student financial aid programs under RCW 28B.76.090,  
16 including the state need grant and other scholarships, the Washington  
17 advanced college tuition payment program, and work-study programs.

18 (9) The council may administer state and federal grants and  
19 programs including but not limited to those programs that provide  
20 incentives for improvements related to increased access and success in  
21 postsecondary education.

22 (10) The council shall protect higher education consumers  
23 including:

24 (a) Approving degree-granting postsecondary institutions consistent  
25 with existing statutory criteria;

26 (b) Establishing minimum criteria to assess whether students who  
27 attend proprietary institutions of higher education shall be eligible  
28 for the state need grant and other forms of state financial aid.

29 (i) The criteria shall include retention rates, completion rates,  
30 loan default rates, and annual tuition increases, among other criteria  
31 for students who receive state need grant as in chapter 28B.92 RCW and  
32 any other state financial aid.

33 (ii) The council may remove proprietary institutions of higher  
34 education from eligibility for the state need grant or other form of  
35 state financial aid if it finds that the institution or college does  
36 not meet minimum criteria.

37 (iii) The council shall report by December 1, 2014, to the joint  
38 higher education committee in RCW 44.04.360 on the outcomes of students

1 receiving state need grants, impacts on meeting the state's higher  
2 education goals for educational attainment, and options for  
3 prioritization of the state need grant and possible consequences of  
4 implementing each option. When examining options for prioritizing the  
5 state need grant the council shall consider awarding grants based on  
6 need rather than date of application and making awards based on other  
7 criteria selected by the council.

8 (11) The council shall adopt residency requirements by rule.

9 (12) The council shall arbitrate disputes between and among four-  
10 year institutions of higher education and the state board for community  
11 and technical colleges at the request of one or more of the  
12 institutions involved, or at the request of the governor, or from a  
13 resolution adopted by the legislature. The decision of the council  
14 shall be binding on the participants in the dispute.

15 (13) The council may solicit, accept, receive, and administer  
16 federal funds or private funds, in trust, or otherwise, and contract  
17 with foundations or with for-profit or nonprofit organizations to  
18 support the purposes and functions of the council.

19 (14) The council shall represent the broad public interest above  
20 the interests of the individual institutions of higher education.

21 **Sec. 7.** RCW 28A.290.010 and 2011 1st sp.s. c 21 s 54 are each  
22 amended to read as follows:

23 (1) The quality education council is created to recommend and  
24 inform the ongoing implementation by the legislature of an evolving  
25 program of basic education and the financing necessary to support such  
26 program. The council shall develop strategic recommendations on the  
27 program of basic education for the common schools. The council shall  
28 take into consideration the capacity report produced under RCW  
29 28A.300.172 and the availability of data and progress of implementing  
30 the data systems required under RCW 28A.655.210. Any recommendations  
31 for modifications to the program of basic education shall be based on  
32 evidence that the programs effectively support student learning. The  
33 council shall update the statewide strategic recommendations every four  
34 years. The recommendations of the council are intended to:

35 (a) Inform future educational policy and funding decisions of the  
36 legislature and governor;

1 (b) Identify measurable goals and priorities for the educational  
2 system in Washington state for a ten-year time period, including the  
3 goals of basic education (~~and~~), ongoing strategies for coordinating  
4 statewide efforts to eliminate the achievement gap and reduce student  
5 dropout rates, and strategies to increase learning opportunities in  
6 science, technology, engineering, and mathematics that are aligned with  
7 the STEM framework for action and accountability developed under  
8 section 2 of this act; and

9 (c) Enable the state of Washington to continue to implement an  
10 evolving program of basic education.

11 (2) The council may request updates and progress reports from the  
12 office of the superintendent of public instruction, the state board of  
13 education, the professional educator standards board, and the  
14 department of early learning on the work of the agencies as well as  
15 educational working groups established by the legislature.

16 (3) The chair of the council shall be selected from the  
17 councilmembers. The council shall be composed of the following  
18 members:

19 (a) Four members of the house of representatives, with two members  
20 representing each of the major caucuses and appointed by the speaker of  
21 the house of representatives;

22 (b) Four members of the senate, with two members representing each  
23 of the major caucuses and appointed by the president of the senate;

24 (c) One representative each from the office of the governor, office  
25 of the superintendent of public instruction, state board of education,  
26 professional educator standards board, and department of early  
27 learning; and

28 (d) One nonlegislative representative from the educational  
29 opportunity gap oversight and accountability committee established  
30 under RCW 28A.300.136, to be selected by the members of the committee.

31 (4) The council shall meet no more than four days a year.

32 (5)(a) The council shall submit an initial report to the governor  
33 and the legislature by January 1, 2010, detailing its recommendations,  
34 including recommendations for resolving issues or decisions requiring  
35 legislative action during the 2010 legislative session, and  
36 recommendations for any funding necessary to continue development and  
37 implementation of chapter 548, Laws of 2009.

38 (b) The initial report shall, at a minimum, include:

1 (i) Consideration of how to establish a statewide beginning teacher  
2 mentoring and support system;

3 (ii) Recommendations for a program of early learning for at-risk  
4 children;

5 (iii) A recommended schedule for the concurrent phase-in of the  
6 changes to the instructional program of basic education and the  
7 implementation of the funding formulas and allocations to support the  
8 new instructional program of basic education as established under  
9 chapter 548, Laws of 2009. The phase-in schedule shall have full  
10 implementation completed by September 1, 2018; and

11 (iv) A recommended schedule for phased-in implementation of the new  
12 distribution formula for allocating state funds to school districts for  
13 the transportation of students to and from school, with phase-in  
14 beginning no later than September 1, 2013.

15 (6) The council shall submit a report to the legislature by January  
16 1, 2012, detailing its recommendations for a comprehensive plan for a  
17 voluntary program of early learning. Before submitting the report, the  
18 council shall seek input from the early learning advisory council  
19 created in RCW 43.215.090.

20 (7) The council shall submit a report to the governor and the  
21 legislature by December 1, 2010, that includes:

22 (a) Recommendations for specific strategies, programs, and funding,  
23 including funding allocations through the funding distribution formula  
24 in RCW 28A.150.260, that are designed to close the achievement gap and  
25 increase the high school graduation rate in Washington public schools.  
26 The council shall consult with the educational opportunity gap  
27 oversight and accountability committee and the building bridges work  
28 group in developing its recommendations; and

29 (b) Recommendations for assuring adequate levels of state-funded  
30 classified staff to support essential school and district services.

31 (8) The council shall be staffed by the office of the  
32 superintendent of public instruction and the office of financial  
33 management. Additional staff support shall be provided by the state  
34 entities with representatives on the council. Senate committee  
35 services and the house of representatives office of program research  
36 may provide additional staff support.

37 (9) Legislative members of the council shall serve without  
38 additional compensation but may be reimbursed for travel expenses in

1 accordance with RCW 44.04.120 while attending sessions of the council  
2 or on official business authorized by the council. Nonlegislative  
3 members of the council may be reimbursed for travel expenses in  
4 accordance with RCW 43.03.050 and 43.03.060.

5 NEW SECTION. **Sec. 8.** RCW 28A.300.515, 28A.630.065, 28A.630.066,  
6 28A.700.120, 28A.625.200, 28A.625.210, 28A.625.220, 28A.625.230, and  
7 28A.625.240 are each recodified as sections in the new chapter created  
8 in section 9 of this act.

9 NEW SECTION. **Sec. 9.** Sections 1 through 5 of this act constitute  
10 a new chapter in Title 28A RCW.

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