
ENGROSSED HOUSE BILL 2159

State of Washington 62nd Legislature 2011 2nd Special Session

By Representatives Maxwell, Pettigrew, Sells, Seaquist, Orwall, Hansen, Probst, Carlyle, Jinkins, Billig, Lytton, and Dahlquist; by request of Governor Gregoire

Read first time 12/08/11. Referred to Committee on Education.

1 AN ACT Relating to grant opportunities for high school aerospace
2 assembler, skill center manufacturing, and high school project lead the
3 way STEM career courses; adding new sections to chapter 28A.700 RCW;
4 and creating a new section.

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

6 NEW SECTION. **Sec. 1.** The legislature finds that careers in
7 science, technology, engineering, and mathematics (STEM) are critically
8 important to the state's economy and will grow in importance in the
9 future. The vitality of STEM product and process development,
10 manufacturing, international trade, and research are dependent on a
11 well-educated, trained, creative workforce. The legislature also finds
12 that there are current employment opportunities and projected high
13 employer demands in STEM careers. The legislature further finds that
14 the interdisciplinary connections of science, technology, engineering,
15 and mathematics taught in integrated, applied, and hands-on courses not
16 only deepens content understanding but also extends and expands that
17 learning to thoughtful and creative problem solving practices on the
18 assembly line, in the laboratory, and at the drawing board.

1 It is the intent of the legislature to support STEM education
2 programs to help increase the number of Washingtonians prepared to
3 enter STEM career fields. It is also the intent of the legislature to
4 support courses and programs that begin in high school and build upon
5 one another so that technical certifications and degrees are connected
6 from high schools and skill centers to community and technical colleges
7 and four-year universities.

8 NEW SECTION. **Sec. 2.** A new section is added to chapter 28A.700
9 RCW to read as follows:

10 (1)(a) Subject to funds appropriated for this purpose, the office
11 of the superintendent of public instruction shall allocate grants to
12 high schools to implement a training program to prepare students for
13 employment as entry-level aerospace assemblers. Grant funds must be
14 allocated on a one-time basis and may be used to purchase or improve
15 course curriculum, purchase course equipment, and support professional
16 development for course teachers. The office of the superintendent of
17 public instruction shall consult and team with the community and
18 technical colleges' center of excellence for aerospace and advanced
19 materials manufacturing regarding the developing aerospace program of
20 study and industry career needs. This information must assist the
21 office of the superintendent of public instruction in refining specific
22 aspects to the criteria in (b) of this subsection and leveraging
23 advantages and opportunities for students in selected high schools.

24 (b) The superintendent of public instruction must select grant
25 recipients based on the criteria in this subsection (1)(b). This is a
26 competitive grant process. Successful high school applicants must:

27 (i) Demonstrate engaged and committed high school and district
28 leadership and faculty in support of the aerospace assembler program;

29 (ii) Demonstrate capacity to offer the program and maximize the use
30 of grant resources addressing: Availability of appropriate physical
31 space, meeting program technology requirements, providing projected
32 enrollment from the high school as well as from other area high schools
33 as appropriate, planned hours and days each week the program is to be
34 offered, and other specific program requirements set forth by the
35 office of the superintendent of public instruction;

36 (iii) Demonstrate linkages to programs at local community and

1 technical colleges and private technical schools to provide a seamless
2 pathway for students to continue their education and career preparation
3 beyond high school;

4 (iv) Demonstrate a history of successful partnerships within the
5 community and partner support for implementing an entry-level aerospace
6 assembler program that includes one or more of the following:
7 Apprenticeships, supplying materials, instruction support, internships,
8 mentorships, and other program components;

9 (v) Provide the plan for program implementation that includes a
10 beginning date for first classes as well as plans for recruiting and
11 retaining students in the course; and

12 (vi) Demonstrate capacity to continue the program in years
13 succeeding the initial grant year.

14 (2) The education data center in the office of financial management
15 must collect aerospace assembler program student participation and
16 completion data for grant recipient high schools. The center must
17 follow students to employment or further training and education in the
18 two years following the students' completion of the program. Findings
19 must be reported beginning in January 2014 and each January thereafter
20 through January 2018 to the governor, the office of the superintendent
21 of public instruction, other appropriate state agencies, and the
22 appropriate education and fiscal committees of the legislature.

23 NEW SECTION. **Sec. 3.** A new section is added to chapter 28A.700
24 RCW to read as follows:

25 (1) Subject to funds appropriated for this purpose, the office of
26 the superintendent of public instruction shall allocate grants to skill
27 centers to implement enhanced manufacturing skills programs. Grant
28 funds must be allocated on a one-time basis and may be used to purchase
29 or improve program curriculum, purchase course equipment, and support
30 professional development for program teachers. The office of the
31 superintendent of public instruction shall consult and team with the
32 community and technical colleges' center of excellence for aerospace
33 and advanced materials manufacturing regarding the developing aerospace
34 program of study and industry career needs as well as other community
35 and technical college manufacturing programs. This information must
36 assist the office of the superintendent of public instruction in

1 refining specific aspects to the criteria in subsection (2) of this
2 section and leveraging advantages and opportunities for students in
3 selected skill centers.

4 (2) The superintendent of public instruction must select grant
5 recipients based on the criteria in this subsection (2). This is a
6 competitive grant process. Successful skill center applicants must:

7 (a) Demonstrate that enhanced manufacturing skills programs meet
8 industry certification standards;

9 (b) Demonstrate engaged and committed skill center and school
10 district leadership and faculty in support of the program;

11 (c) Demonstrate capacity to offer the enhanced manufacturing skills
12 programs and maximize the use of grant resources addressing:
13 Availability of appropriate physical space, meeting program technology
14 requirements, providing projected enrollment from area high schools and
15 students from area community and technical colleges if space is
16 available, planned hours and days each week the program is to be
17 offered, and other specific program requirements set forth by the
18 office of the superintendent of public instruction;

19 (d) Demonstrate linkages to programs at local community and
20 technical colleges and private technical schools to provide a seamless
21 pathway for students to continue their education and career preparation
22 beyond high school;

23 (e) Demonstrate a history of successful partnerships within the
24 community and partner support for implementing an enhanced
25 manufacturing skills program that includes one or more of the
26 following: Apprenticeships, supplying materials, instruction support,
27 internships, mentorships, and other program components;

28 (f) Provide the plan for program implementation that includes a
29 beginning date for first classes as well as plans for recruiting and
30 retaining students in the program; and

31 (g) Demonstrate capacity to continue the program in years
32 succeeding the initial grant year.

33 (3) The education research center in the office of financial
34 management must collect enhanced manufacturing skills programs student
35 participation and completion data for grant recipient skill centers.
36 The center must follow students to employment or further training and
37 education in the two years following the students' completion of the
38 program. Findings must be reported beginning in January 2014 and each

1 January thereafter through January 2018 to the governor, the office of
2 the superintendent of public instruction, other appropriate state
3 agencies, and the appropriate education and fiscal committees of the
4 legislature.

5 NEW SECTION. **Sec. 4.** A new section is added to chapter 28A.700
6 RCW to read as follows:

7 (1) Subject to funds appropriated for this purpose, the office of
8 the superintendent of public instruction shall allocate grants to high
9 schools to implement specialized courses in science, technology,
10 engineering, and mathematics (STEM) careers as provided by a national
11 multidisciplinary science, technology, engineering, and mathematics
12 program. Grant funds must be allocated on a one-time basis and may be
13 used to purchase course curriculum and equipment, initial course
14 student materials, and support professional development for course
15 teachers.

16 (2) The superintendent of public instruction must select grant
17 recipients based on the criteria in this subsection (2). This is a
18 competitive grant process. Successful high school applicants must:

19 (a) Demonstrate engaged and committed high school and district
20 leadership and faculty in support of expanding specialized STEM
21 courses;

22 (b) Demonstrate that faculty are appropriately trained to offer
23 specialized STEM courses or a plan for faculty to obtain the
24 appropriate training;

25 (c) Demonstrate capacity to offer the specialized STEM courses and
26 maximize the use of grant resources by addressing: Availability of
27 appropriate physical space, meeting program technology requirements,
28 providing projected enrollment at the high school and from area high
29 schools as appropriate, planned hours and days each week the program is
30 to be offered, and other specific program requirements set forth by the
31 superintendent of public instruction;

32 (d) Provide the plan for course implementation that includes a
33 beginning date for first classes as well as plans for recruiting and
34 retaining students in the course;

35 (e) Provide a plan to promote opportunities for students to acquire
36 college credit;

1 (f) Demonstrate a history of successful partnerships within the
2 community and partner support for implementing specialized STEM
3 courses. Partner support may include one or more of the following:
4 Supplying materials, instruction support, internships, mentorships,
5 apprenticeships, and other program components;

6 (g) Demonstrate connections to community and technical college
7 programs as well as links to four-year higher education institution
8 STEM programs; and

9 (h) Demonstrate capacity to continue the course in years succeeding
10 the initial grant year.

11 (3)(a) The education data center in the office of financial
12 management must, with the office of the superintendent of public
13 instruction, collect student course enrollment and course completion
14 information.

15 (b) The education data center must: (i) Study mathematics and
16 science course-taking patterns of students completing specialized STEM
17 courses; and (ii) follow the students to employment or further training
18 and education in the two years following high school. This study must
19 be designed to inform policymakers about the extent to which
20 specialized science, technology, engineering, and mathematics classes
21 taken by students reduce mathematics remediation of students entering
22 the workplace, apprenticeships, community and technical colleges, and
23 four-year institutions of higher education. Study findings must be
24 reported annually beginning January 2014 and each January thereafter
25 through January 2018 to the governor, appropriate state agencies, and
26 the appropriate education and fiscal committees of the legislature.

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