
A BILL FOR AN ACT

RELATING TO TECHNOLOGY WORKFORCE AND DEVELOPMENT.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. In early 2007, the National Governors
2 Association made improving the nation's economic competitiveness
3 through innovation its primary focus. In a report titled, "A
4 Benchmarking of the Hawaii Educational System," Monitor Group
5 and the National Governors Association Center for Best Practices
6 profiled how Hawaii's educational system was performing relative
7 to national averages. Although Hawaii's high school graduation
8 rate is close to the national average (about 70 per cent
9 compared with 75 per cent), its postsecondary completion rate is
10 six points below the national average (47 per cent compared
11 against 53 per cent), and 20 points below the highest-performing
12 states. The report states, ". . . [t]his statistic measures
13 state universities' success in helping as many students through
14 the system as possible. As the importance of a college
15 education grows . . . so does the relevance of this metric in
16 assessing a state's educational performance." Similar
17 differences were found in eighth grade National Assessment of



1 Educational Progress test scores for 2004-2005, SAT scores, and
2 Advanced Placement course participation rates.

3 The 2007 legislature strongly endorsed initiatives related
4 to science, technology, engineering, and math (STEM) fields, and
5 creative media education as the most practical, hands-on means
6 of increasing students' interest in pursuing math/science and
7 technology careers. All STEM proposals were evaluated against
8 the backdrop of existing, successful math/science and related
9 initiatives. Emphasizing the need to build upon solid
10 performance outcomes, the legislature enacted Act 111, Session
11 Laws of Hawaii 2007 (Act 111), and Act 271, Session Laws of
12 Hawaii 2007 (Act 271). Act 111 expanded existing STEM programs
13 like robotics (including FIRST Lego League, Junior FIRST Lego
14 League, botball, underwater ROV, VEX, Micro-Robot and robotics
15 camps) and Research Experiences for Teachers - Middle School.
16 Act 271 expanded Project EAST, the Project Environmental and
17 Spatial Technology program.

18 At the same time, Act 111 funded new programs (like the Hi-
19 EST Academy, applied learning high school academies,
20 business/education internships, and related STEM teacher
21 development) in a pilot environment to provide the department of
22 education, University of Hawaii, individual schools, and their



1 tech partners with an opportunity to work through initial set-up
2 requirements and to produce a well-tested model for future
3 expansion.

4 The initial legislative targets for 2007-2008 were to
5 double the existing 48 STEM, Research Experiences for Teachers -
6 Middle School, Project Environmental and Spatial Technology, and
7 robotics programs within public schools to achieve a level of 84
8 school initiatives. Based on strong demand from individual
9 schools, and stellar tournament results, the number of schools
10 desiring to participate in STEM initiatives funded by Act 111
11 and Act 271 far exceed the 2008 target.

12 At the highest level of robotics team competition, the
13 number of For Inspiration and Recognition of Science and
14 Technology (FIRST) robotics teams has grown from four
15 participating high schools in 2007 to 25 Hawaii high school
16 teams (including public and private schools) in 2008. This
17 year's March 2008 FIRST robotics regional tournament in
18 Honolulu, Hawaii includes 38 schools competing for the national
19 FIRST championships (being held in April 2008 in Georgia).

20 The legislature therefore reaffirms its initial commitment
21 to expand outstanding and new STEM-related programs in Hawaii's
22 public schools and public charter schools by providing



1 additional funds to ensure that all schools desiring to join in
2 providing STEM programs for their students will be able to
3 participate between 2008-2012. The legislature also proposes to
4 add funding support to K-12 after-school creative media
5 education initiatives to allow for a broader range of student
6 participation in these programs.

7 SECTION 2. Chapter 304A, Hawaii Revised Statutes, is
8 amended by adding a new section to part V to be appropriately
9 designated and to read as follows:

10 "§304A- Science technology and education special fund.

11 (a) There is established the science technology and education
12 special fund, for the purposes of providing additional resources
13 and expertise to stimulate the interest and achievement of
14 students in science, technology, engineering, and mathematics
15 skills pursuant to sections 304A-1861, 304A-1862, and 304A-1863.

16 (b) The following may be deposited into the special fund:
17 appropriations made by the legislature, private contributions,
18 and moneys from other sources; provided that:

19 (1) Moneys on balance in the special fund at the close of
20 each fiscal year shall remain in the fund and shall
21 not lapse to the credit of the general fund;

1 (2) Any amount to be deposited into the special fund from
2 the revenues collected under this chapter that causes
3 the special fund to exceed \$ _____ shall be
4 deposited into the general fund. No further deposits
5 from the revenues collected under this chapter shall
6 be made into the special fund until the balance of the
7 special fund drops below \$ _____, in which event
8 two and one-half per cent of the revenues collected
9 under this chapter shall be deposited into the special
10 fund until the balance equals \$ _____; and

11 (3) An amount from the special fund not exceeding five per
12 cent of the total amount of outstanding loans may be
13 set by the university to be used for administrative
14 expenses incurred in administering the special fund."

15 SECTION 3. Act 111, Session Laws of Hawaii 2007, is
16 amended by amending part V, section 12, to read as follows:

17 "SECTION 12. There is appropriated out of the general
18 revenues of the State of Hawaii the sum of \$1,402,230 or so much
19 thereof as may be necessary for fiscal year 2007-2008 and the
20 [~~same~~] sum of \$ _____ or so much thereof as may be necessary
21 for fiscal year 2008-2009 to establish the fostering inspiration
22 and relevance through science and technology pre-academy



1 program, including nine full-time equivalent (9.00 FTE)
2 positions in the University of Hawaii college of engineering;
3 provided that the appropriation for fiscal year 2008-2009 shall
4 be deposited into the science technology and education special
5 fund established under section 304A- , Hawaii Revised Statutes,
6 pursuant to Act , Session Laws of Hawaii 2008, and the same
7 sum or so much thereof as may be necessary shall be appropriated
8 out of the science technology and education special fund for the
9 purposes of this section; provided further that the sums
10 appropriated shall be allocated as follows:

- 11 (1) \$314,925 for fiscal year 2007-2008 and the [~~same~~] sum
12 of \$ _____ for fiscal year 2008-2009 for the
13 robotics and problem-based, applied learning program;
14 and
15 (2) \$734,805 for fiscal year 2007-2008 and the [~~same~~] sum
16 of \$ _____ for fiscal year 2008-2009 for the
17 research experiences for teachers program.

18 The sums appropriated shall be expended by the University
19 of Hawaii for the purposes of this part."

20 SECTION 4. Act 271, Session Laws of Hawaii 2007, is
21 amended by amending sections 2 and 3 to read as follows:



1 "SECTION 2. There is appropriated out of the general
2 revenues of the State of Hawaii the sum of \$1,100,000 or so much
3 thereof as may be necessary for fiscal year 2007-2008 and the
4 sum of \$ _____ or so much thereof as may be necessary for
5 fiscal year 2008-2009 to be deposited into the Hawaii 3Ts school
6 technology laboratories fund established pursuant to section
7 302A-1314, Hawaii Revised Statutes.

8 SECTION 3. There is appropriated out of the Hawaii 3Ts
9 school technology laboratories fund the sum of \$1,100,000 or so
10 much thereof as may be necessary for fiscal year 2007-2008 and
11 the sum of \$ _____ or so much thereof as may be necessary
12 for fiscal year 2008-2009 to maintain the project EAST program
13 in existing schools and to expand the program to schools
14 statewide; provided that no funds shall be expended unless
15 matching funds are provided pursuant to section 302A-1314(p),
16 Hawaii Revised Statutes.

17 The [~~sum~~] sums appropriated shall be expended by the
18 Economic Development Alliance of Hawaii, Inc., in accordance
19 with section 302A-1314, Hawaii Revised Statutes, and implemented
20 in partnership with county economic development boards, as
21 appropriate, for the purposes of this Act."



1 SECTION 5. There is appropriated out of the general
2 revenues of the State of Hawaii the sum of \$ or so
3 much thereof as may be necessary for fiscal year 2008-2009 for
4 the department of human services, to augment, not replace,
5 funding for STEM programs and K-12 creative media education
6 programs.

7 The sum appropriated shall be expended by the department of
8 business, economic development, and tourism for the purposes of
9 this Act.

10 SECTION 6. There is appropriated out of the general
11 revenues of the State of Hawaii the sum of \$ or so
12 much thereof as may be necessary for fiscal year 2008-2009 for
13 K-12 creative media programs.

14 The sum appropriated shall be expended by the department of
15 education for the purposes of this Act.

16 SECTION 7. The revisor of statutes shall insert the number
17 of this Act in section 3 of this Act.

18 SECTION 8. Statutory material to be repealed is bracketed
19 and stricken. New statutory material is underscored.

20 SECTION 9. This Act shall take effect on July 1, 2034.



Report Title:

Science, Technology, Engineering, and Math; Appropriations

Description:

Establishes the Science Technology and Education Special Fund. Appropriates general funds into the Special Fund for the Robotics and Problem-based, Applied Learning Program, and the Research Experiences for Teachers Program. Provides matching funds for Project EAST. Appropriates funds for science-, technology-, engineering-, and math-related programs and K-12 creative media education programs. (SB2480 HD2)

