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# 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 (NGA) made improving the nation's economic  
3 competitiveness through innovation its primary focus. In a  
4 report titled, "A Benchmarking of the Hawaii Educational  
5 System", Monitor Group and the NGA 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 seventy per cent  
9 compared with seventy-five per cent), its postsecondary  
10 completion rate was six points below the national average  
11 (forty-seven per cent compared against fifty-three per cent),  
12 and twenty points below the highest-performing states. The  
13 report states, ". . . [t]his statistic measures state  
14 universities' success in helping as many students through the  
15 system as possible. As the importance of a college education  
16 grows . . . so does the relevance of this metric in assessing a  
17 state's educational performance." Similar differences were



1 found in eighth grade National Assessment of Educational  
2 Progress (NAEP) test scores for 2004-2005, SAT scores and  
3 Advanced Placement (AP) course participation rates.

4 The 2007 legislature strongly endorsed Science-Technology-  
5 Engineering-Math (STEM)-related initiatives and creative media  
6 education as the most practical, hands-on means of increasing  
7 students' interest in pursuing math/science and technology  
8 careers. All "STEM" proposals were evaluated against the  
9 backdrop of existing, successful math/science and related  
10 initiatives. Emphasizing the need to build upon solid  
11 performance outcomes, the legislature adopted Act 111, Session  
12 Laws of Hawaii 2007, to expand existing STEM programs like  
13 robotics (including FIRST Lego League, Junior FIRST Lego League,  
14 botball, underwater ROV, VEX, Micro-Robot and robotics camps)  
15 and Research Experiences for Teachers - Middle School (RET); and  
16 Act 271, Session Laws of Hawaii 2007, to expand Project EAST.  
17 At the same time, Act 111 funded new programs (like the Hi-EST  
18 Academy, applied learning high school academies,  
19 business/education internships, and related STEM teacher  
20 development) in a pilot environment to provide the department of  
21 education, University of Hawaii, individual schools, and their  
22 tech partners with an opportunity to work through initial set-up



1 requirements and to produce a well-tested model for future  
2 expansion.

3       The initial legislative targets for 2007-2008 were to  
4 double the existing forty-eight STEM, RET, Project EAST, and  
5 robotics programs within public schools to achieve a level of  
6 eighty-four school initiatives. Based on strong demand from  
7 individual schools, and stellar tournament results, the number  
8 of schools desiring to participate in STEM initiatives funded by  
9 Act 111, Session Laws of Hawaii 2007, and Act 271, Session Laws  
10 of Hawaii 2007, far exceed the 2008 target. At the highest  
11 level of robotics team competition, the number of For  
12 Inspiration and Recognition of Science and Technology (FIRST)  
13 robotics teams has grown from four participating high schools in  
14 2007 to twenty-five Hawaii high school teams (including public  
15 and private schools) in 2008. This year's March 2008 FIRST  
16 robotics regional tournament in Honolulu, Hawaii includes  
17 thirty-eight schools competing for the national FIRST  
18 championships (being held in April 2008 in Georgia).

19       The legislature therefore reaffirms its initial commitment  
20 to expand outstanding and new STEM-related programs in Hawaii's  
21 public schools and public charter schools by providing  
22 additional funds to ensure that all schools desiring to join in



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

6 SECTION 2. Act 111, Session Laws of Hawaii 2007, is  
7 amended by amending part V, section 12 to read as follows:

8 "SECTION 12. There is appropriated out of the general  
9 revenues of the State of Hawaii the sum of \$1,402,230 or so much  
10 thereof as may be necessary for fiscal year 2007-2008 and [~~the~~  
11 ~~same-sum~~] \$ \_\_\_\_\_ or so much thereof as may be necessary for  
12 fiscal year 2008-2009 to establish the fostering inspiration and  
13 relevance through science and technology pre-academy program,  
14 including nine full-time equivalent (9.00 FTE) positions in the  
15 University of Hawaii college of engineering; provided that the  
16 sums appropriated shall be allocated as follows:

17 (1) \$314,925 for fiscal year 2007-2008 and the [~~same~~] sum  
18 of \$ \_\_\_\_\_ for fiscal year 2008-2009 for the  
19 robotics and problem-based, applied learning program;  
20 and



1 (2) \$734,805 for fiscal year 2007-2008 and the [~~same~~] sum  
2 of \$ \_\_\_\_\_ for fiscal year 2008-2009 for the  
3 research experiences for teachers program.

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

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

8 "SECTION 2. There is appropriated out of the general  
9 revenues of the State of Hawaii the sum of \$1,100,000 or so much  
10 thereof as may be necessary for fiscal year 2007-2008, and the  
11 sum of \$ \_\_\_\_\_, or so much thereof as may be necessary for  
12 fiscal year 2008-2009 to be deposited into the Hawaii 3Ts school  
13 technology laboratories fund established pursuant to section  
14 302A-1314, Hawaii Revised Statutes.

15 SECTION 3. There is appropriated out of the Hawaii 3Ts  
16 school technology laboratories fund the sum of \$1,100,000 or so  
17 much thereof as may be necessary for fiscal year 2007-2008, and  
18 the sum of \$ \_\_\_\_\_, or so much thereof as may be necessary  
19 for fiscal year 2008-2009 to maintain the project EAST program  
20 in existing schools and to expand the program to schools  
21 statewide; provided that no funds shall be expended unless



1 matching funds are provided pursuant to section 302A-1314(p),  
2 Hawaii Revised Statutes.

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

8 SECTION 4. There is appropriated or authorized from the  
9 federal temporary assistance for needy families program funds  
10 the sum of \$ or so much thereof as may be necessary  
11 for fiscal year 2008-2009, for the department of human services,  
12 to augment, not replace, funding for STEM programs and K-12  
13 creative media education programs funded by this Act.

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

16 SECTION 5. There is appropriated out of the general  
17 revenues of the State of Hawaii the sum of \$ or so  
18 much thereof as may be necessary for fiscal year 2008-2009 for  
19 K-12 creative media programs.

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



1 SECTION 6. Statutory material to be repealed is bracketed  
2 and stricken. New statutory material is underscored.

3 SECTION 7. This Act shall take effect on July 1, 2008.



**Report Title:**

Robotics; RET; Project EAST; TANF Funds; Appropriations

**Description:**

Amends Acts 111 and 271, Session Laws of Hawaii 2007, to appropriate additional funds in fiscal year 2008-2009 for the support and expansion of existing STEM-related programs such as robotics, research experiences for teachers, and project EAST programs; appropriates moneys from the federal temporary assistance for needy families program funds and from general funds in fiscal year 2008-2009 for STEM programs and K-12 creative media education programs. (SD1)

