

HB0139S04 compared with HB0139S03

~~deleted text~~ shows text that was in HB0139S03 but was deleted in HB0139S04.

inserted text shows text that was not in HB0139S03 but was inserted into HB0139S04.

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Senator Stephen H. Urquhart proposes the following substitute bill:

SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS ACTION CENTER

2013 GENERAL SESSION

STATE OF UTAH

Chief Sponsor: Val L. Peterson

Senate Sponsor: Stephen H. Urquhart

Cosponsors:	Janice M. Fisher	Dana L. Layton
Jacob L. Anderegg	Gage Froerer	David E. Lifferth
Jerry B. Anderson	Francis D. Gibson	Mike K. McKell
Stewart Barlow	Richard A. Greenwood	Carol Spackman Moss
Roger E. Barrus	Craig Hall	Jim Nielson
Derek E. Brown	Stephen G. Handy	Michael E. Noel
Kay J. Christofferson	Lynn N. Hemingway	Curtis Oda
Spencer J. Cox	Don L. Ipson	Lee B. Perry
Rich Cunningham	Ken Ivory	Jeremy A. Peterson
Brad L. Dee	Brian S. King	Marie H. Poulson
Susan Duckworth	John Knotwell	Kraig Powell
Rebecca P. Edwards	Bradley G. Last	Paul Ray

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Edward H. Redd

Keven J. Stratton

Mark A. Wheatley

Angela Romero

Earl D. Tanner

Larry B. Wiley

Douglas V. Sagers

R. Curt Webb

Brad R. Wilson

V. Lowry Snow

John R. Westwood

Jon E. Stanard

LONG TITLE

General Description:

This bill creates educational programs for science, technology, engineering, and mathematics (STEM).

Highlighted Provisions:

This bill:

- ▶ creates a Science, Technology, Engineering, and Mathematics (STEM) Action Center Board;
- ▶ requires the STEM Action Center Board to:
 - establish a STEM Action Center; and
 - appoint an executive director to oversee administration of the STEM Action Center;
- ▶ requires the Governor's Office of Economic Development to staff the STEM Action Center Board and the STEM Action Center;
- ▶ requires the STEM Action Center Board to select providers, through a request for proposals process, to provide education related instructional technology;
- ▶ requires the STEM Action Center Board to work with private industry to obtain private funding and support for the STEM Action Center;
- ▶ as funding allows, requires the STEM Action Center Board to perform certain duties related to the STEM Action Center;
- ▶ requires the executive director to track student achievement and progress in STEM areas;
- ▶ requires the STEM Action Center Board to report to the Education Interim Committee, the Public Education Appropriations Subcommittee, and the State

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Board of Education once each year;

- ▶ creates the STEM education related technology program;
- ▶ allows the State Board of Education staff and STEM Action Center staff to award STEM education related instructional technology ~~{and related professional development }~~to school districts and charter schools for instructional technology for STEM related education if certain conditions are met;
- ▶ specifies criteria to consider in selecting STEM education related instructional technology:
- ▶ provides that the acquisition of certain education related instructional technology may be acquired through a direct award or sole source procurement process for purposes of conducting a pilot; and
- ▶ eliminates certain duties of the State Advisory Council on Science and Technology related to science and technology fairs and camps.

Money Appropriated in this Bill:

This bill appropriates in fiscal year 2014:

- ▶ to Governor's Office of Economic Development - STEM Action Center, as an ongoing appropriation:
 - from the General Fund, \$1,500,000; and
- ▶ to Governor's Office of Economic Development - STEM Action Center, as a one-time appropriation:
 - from the General Fund, \$8,500,000.

Other Special Clauses:

This bill provides an effective date.

Utah Code Sections Affected:

AMENDS:

63M-1-608, as renumbered and amended by Laws of Utah 2008, Chapter 382

ENACTS:

63M-1-3201, Utah Code Annotated 1953

63M-1-3202, Utah Code Annotated 1953

63M-1-3203, Utah Code Annotated 1953

63M-1-3204, Utah Code Annotated 1953

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63M-1-3205, Utah Code Annotated 1953

63M-1-3206, Utah Code Annotated 1953

63M-1-3207, Utah Code Annotated 1953

Be it enacted by the Legislature of the state of Utah:

Section 1. Section **63M-1-608** is amended to read:

63M-1-608. Science education program.

(1) (a) There is established an informal science and technology education program within the Governor's Office of Economic Development.

(b) The state science advisor shall act as the executive director of the program.

(c) The State Advisory Council on Science and Technology shall advise the program, including:

(i) approving all money expended by the science and technology education program;

(ii) approving all operations of the program; and

(iii) making policies and procedures to govern the program.

(2) The program may:

(a) provide informal science and technology-based education to elementary and secondary students;

(b) expose public education students to college level science and technology disciplines; and

~~[(c) administer a science and technology camp program; and]~~

~~[(d)] (c) provide other informal promotion of science and technology education in [this] the state[, including the direct sponsorship of science fairs and science olympiads].~~

~~[(3) The science and technology camp program described under Subsection (2)(c) shall be:]~~

~~[(a) provided exclusively for elementary and secondary students and their teachers;]~~

~~[(b) established as a grant program for camp providers; and]~~

~~[(c) administered based upon annual requests for proposals, a documented review process, and grant awards.]~~

Section 2. Section **63M-1-3201** is enacted to read:

Part 32. Science, Technology, Engineering, and Mathematics Action Center

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63M-1-3201. Definitions.

As used in this part:

(1) "Board" means the STEM Action Center Board created in Section 63M-1-3202.

(2) "Educator" has the meaning defined in Section 53A-6-103.

(3) "Office" means the Governor's Office of Economic Development.

(4) "Provider" means a provider, selected by staff of the board and staff of the Utah

State Board of Education, on behalf of the board:

(a) through a request for proposals process; or

(b) through a direct award or sole source procurement process for a pilot described in

Section 63M-1-3205.

(5) "STEM" means science, technology, engineering, and mathematics.

(6) "STEM Action Center" means the center described in Section 63M-1-3204.

Section 3. Section **63M-1-3202** is enacted to read:

63M-1-3202. STEM Action Center Board creation -- Membership.

(1) There is created the STEM Action Center Board within the office, composed of the following members:

(a) ~~four~~five private sector members who represent business, appointed by the governor;

(b) the state superintendent of public instruction or the state superintendent of public instruction's designee;

(c) the commissioner of higher education or the commissioner of higher education's designee;

(d) one member appointed by the governor;

(e) a member of the State Board of Education, chosen by the chair of the State Board of Education; ~~and~~

(f) the executive director of the Governor's Office of Economic Development or the executive director of the Governor's Office of Economic Development's designee;

~~(2) (a); and~~

(g) the president of the Utah College of Applied Technology or the president of the Utah College of Applied Technology's designee.

(2) (a) The private sector members appointed by the governor in Subsection (1)(a) shall

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represent a business whose primary focus is science, technology, or engineering.

(b) Except as required by Subsection (2)(~~fb~~c), members appointed by the governor shall be appointed to four-year terms.

(~~fb~~c) The length of terms of the members shall be staggered so that approximately half of the committee is appointed every two years.

(~~fe~~d) The members may not serve more than two full consecutive terms except where the governor determines that an additional term is in the best interest of the state.

(~~fd~~e) When a vacancy occurs in the membership for any reason, the replacement shall be appointed for the unexpired term.

(3) Attendance of a simple majority of the members constitutes a quorum for the transaction of official committee business.

(4) Formal action by the committee requires a majority vote of a quorum.

(5) A member may not receive compensation or benefits for the member's service, but may receive per diem and travel expenses in accordance with:

(a) Section 63A-3-106;

(b) Section 63A-3-107; and

(c) rules made by the Division of Finance pursuant to Sections 63A-3-106 and 63A-3-107.

(6) The governor shall select the chair of the board to serve a one-year term.

(7) The executive director of the Governor's Office of Economic Development or the executive director of the Governor's Office of Economic Development's designee shall serve as the vice chair of the board.

(8) The state science advisor described in Section 63M-1-606 and the office shall provide staff support to the board.

Section 4. Section **63M-1-3203** is enacted to read:

63M-1-3203. STEM Action Center Board -- Duties.

(1) The board shall:

(a) establish a STEM Action Center program to:

(i) coordinate STEM activities in the state among the following stakeholders:

(A) the State Board of Education;

(B) school districts and charter schools;

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- (C) the State Board of Regents;
- (D) institutions of higher education;
- (E) parents of home-schooled students; and
- (F) other state agencies;
- (ii) align public education STEM activities with higher education STEM activities; and
- (iii) create and coordinate best practices among public education and higher education;
- (b) select a physical location for the STEM Action Center;
- (c) strategically engage industry and business entities to cooperate with the board:
 - (i) to support professional development and provide other assistance for educators and students; and
 - (ii) to provide private funding and support for the STEM Action Center;
 - (d) give direction to the STEM Action Center and the providers selected through a request for proposals process pursuant to this part; and
 - (e) work to meet the following expectations:
 - (i) that at least 50 educators are implementing best practice learning tools in classrooms per each product specialist or manager working with the STEM Action Center;
 - (ii) performance change in student achievement in each classroom working with a STEM Action Center product specialist or manager; and
 - (iii) that students from at least 50 high schools participate in the STEM competitions, fairs, and camps described in Subsection 63M-1-3204(2)(d).
- (2) The board may:
 - (a) enter into contracts for the purposes of this part;
 - (b) apply for, receive, and disburse funds, contributions, or grants from any source for the purposes set forth in this part;
 - (c) employ, compensate, and prescribe the duties and powers of individuals necessary to execute the duties and powers of the board;
 - (d) prescribe the duties and powers of the STEM Action Center providers; and
 - (e) in accordance with Title 63G, Chapter 3, Utah Administrative Rulemaking Act, make rules to administer this part.

Section 5. Section **63M-1-3204** is enacted to read:

63M-1-3204. STEM Action Center Program.

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(1) As funding allows, the board shall:

(a) establish a STEM Action Center;

(b) appoint an executive director to oversee the administration of the STEM Action

Center;

(c) ensure that the STEM Action Center:

(i) is accessible by the public; and

(ii) includes the components described in Subsection (2);

(d) work cooperatively with the State Board of Education to acquire technology and select schools as described in Sections 63M-1-3205 and 63M-1-3206; and

(e) engage private entities to provide financial support or employee time for STEM activities in schools in addition to what is currently provided by private entities.

(2) As funding allows, the executive director of the STEM Action Center shall:

(a) support professional development for educators regarding education related instructional technology that supports STEM education;

(b) ensure that the STEM Action Center acts as a research and development center for education related instructional technology acquired through a request for proposals process described in Section 63M-1-3205;

(c) review and acquire education related technology for:

~~{~~ (i) educator professional development;

~~}~~ (~~iii~~i) assessment, data collection, analysis, and reporting; and

(~~iii~~ii) public school instruction;

(d) facilitate participation in interscholastic STEM related competitions, fairs, and camps;

(e) engage private industry in the development and maintenance of the STEM Action

Center;

(f) use resources to bring the latest STEM education learning tools into public education classrooms;

(g) identify at least 10 best practice innovations used in Utah schools that have resulted in at least 80% of students performing at grade level in STEM areas;

(h) identify best practices being used outside the state and implement selected practices through a pilot program;

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(i) identify:

(i) three learning tools for kindergarten through grade 6 identified as best practices; and

(ii) three learning tools per STEM subject for grades 7 through 12 identified as best practices;

(j) provide a Utah best practices database, including best practices from public education, higher education, the Utah Education Network, and other STEM related entities;

(k) keep track of the following items related to the best practices database described in Subsection (2)(j):

(i) how the best practices database is being used; and

(ii) how many individuals are using the database, including the demographics of the users, if available;

(l) join and participate in a national STEM network;

(m) identify performance changes linked to use of the best practices database described in Subsection (2)(j):

(n) work cooperatively with the State Board of Education to designate schools as STEM schools, where the schools have agreed to adopt a plan of STEM implementation in alignment with criteria set by the State Board of Education and the board;

(o) support best methods of professional development, including methods of professional development that reduce cost and increase effectiveness, to help educators learn how to most effectively implement best practice learning tools in classrooms;

(p) recognize a high school's achievement in the STEM competitions, fairs, and camps described in Subsection (2)(d):

(q) send student results from STEM competitions, fairs, and camps described in Subsection (2)(d) to media and ask the media to report on them;

(r) develop and distribute STEM toolkits to parents of students being served by the STEM Action Center;

(s) support targeted professional development for improved instruction in STEM in grades 6, 7, and 8, including:

(i) improved instructional materials that are dynamic and engaging for students;

(ii) targeted instruction for students who traditionally avoid enrolling in STEM courses;

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(iii) introduction of engaging engineering courses; and

(iv) introduction of other research-based methods that support student achievement in STEM areas; and

(t) ensure that an online college readiness assessment tool developed by the State Board of Regents be accessible by:

(i) public education students; and

(ii) higher education students.

(3) The board may prescribe other duties for the STEM Action Center in addition to the responsibilities described in this section.

(4) (a) The executive director shall track and compare the student performance of students participating in a STEM Action Center program to all other similarly situated students in the state, in the following STEM related activities, at the beginning and end of each year:

(i) public education high school graduation rates;

(ii) the number of students taking a remedial mathematics course at an institution of higher education described in Section 53B-1-102;

(iii) the number of students who graduate from a Utah public school and begin a postsecondary education program; and

(iv) the number of students, as compared to all similarly situated students, who are performing at grade level in STEM classes.

(b) The State Board of Education and the State Board of Regents shall provide information to the board to assist the board in complying with the requirements of Subsection (4)(a) if allowed under federal law.

Section 6. Section **63M-1-3205** is enacted to read:

63M-1-3205. Acquisition of STEM education related instructional technology program -- Research and development of education related instructional technology through a pilot program.

(1) For purposes of this section:

(a) "Pilot" means a pilot of the program.

(b) "Program" means the STEM education related instructional technology program created in Subsection (2).

(2) (a) There is created the STEM education related instructional technology program

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to provide public schools the STEM education related instructional technology described in Subsection (3).

(b) On behalf of the board, the staff of the board and the staff of the State Board of Education shall collaborate and may select one or more providers, through a request for proposals process, to provide STEM education related instructional technology to school districts and charter schools.

(c) On behalf of the board, the staff of the board and the staff of the State Board of Education shall consider and may accept an offer from a provider in response to the request for proposals described in Subsection (2)(b) even if the provider did not participate in a pilot described in Subsection (~~4~~5).

(3) The STEM education related instructional technology shall:

(a) support mathematics instruction for students in grades 5, 6, 7, or 8; or

(b) support mathematics instruction for secondary students to prepare the secondary students for college mathematics courses.

(4) In selecting a provider for STEM education related instructional technology to support mathematics instruction for students in grades 5, 6, 7, or 8 as described in Subsection (3)(a), the board shall consider the following criteria:

(a) the technology contains a strong instructional component focused on problem solving, number sense, and basic skills;

(b) the technology provides explicit instruction with a strong focus on highly effective and evidence-based strategies and comprehensive resources to address learners in need of both strategic and intensive supports, including English language learners;

(c) the technology is self-adapting to respond to the needs and progress of the learner, including allowing for increasingly intense instruction and additional practice opportunities based on individual student needs;

(d) the technology provides opportunities for frequent, quick, and informal assessments and includes an embedded progress monitoring tool and mechanisms for regular feedback to students and teachers; and

(e) the technology is self-paced.

(~~4~~5) Before issuing a request for proposals described in Subsection (2), on behalf of the board, the staff of the board and the staff of the State Board of Education shall collaborate

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and may:

- (a) conduct a pilot of the program to test and select providers for the program;
- (b) select at least two providers through a direct award or sole source procurement

process for the purpose of conducting the pilot; and

- (c) select schools to participate in the pilot.

Section 7. Section **63M-1-3206** is enacted to read:

63M-1-3206. Grants to schools for STEM education instructional technology.

(1) Subject to legislative appropriations, on behalf of the board, the staff of the board and the staff of the State Board of Education shall collaborate and shall

~~— (a) distribute STEM education related instructional technology described in Section 63M-1-3205 to school districts and charter schools; and~~

~~— (b) provide related professional development to the school districts and charter schools that receive STEM education related instructional technology as described in Subsection (1)(a).~~

(2) A school district or charter school may apply to the board, through a competitive process, to receive STEM education related instructional technology from the board.

(3) A school district or charter school that receives STEM education related instructional technology ~~and professional development~~ as described in this section shall provide the school district's or charter school's own computer hardware.

Section 8. Section **63M-1-3207** is enacted to read:

63M-1-3207. Report to Legislature and the State Board of Education.

(1) The board shall report the progress of the STEM Action Center, including the information described in Subsection (2), to the following groups once each year:

- (a) the Education Interim Committee;
- (b) the Public Education Appropriations Subcommittee; and
- (c) the State Board of Education.

(2) The report described in Subsection (1) shall include information that demonstrates the effectiveness of the program, including:

- (a) the number of educators receiving professional development;
- (b) the number of students receiving services from the STEM Action Center;
- (c) a list of the providers selected pursuant to this part;

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(d) a report on the STEM Action Center's fulfilment of its duties described in Subsection 63M-1-3204; and

(e) student performance of students participating in a STEM Action Center program as collected in Subsection 63M-1-3204(5).

Section 9. **Appropriation.**

Under the terms and conditions of Title 63J, Chapter 1, Budgetary Procedures Act, for the fiscal year beginning July 1, 2013, and ending June 30, 2014, the following sums of money are appropriated from resources not otherwise appropriated, or reduced from amounts previously appropriated, out of the funds or accounts indicated. These sums of money are in addition to any amounts previously appropriated for fiscal year 2014.

To Governor's Office of Economic Development - STEM Action Center

<u>From General Fund</u>	<u>\$1,500,000</u>
<u>From General Fund, one-time</u>	<u>\$8,500,000</u>
<u>Schedule of Programs:</u>	
<u>STEM Action Center</u>	<u>\$10,000,000</u>

The Legislature intends that:

(1) up to \$1,500,000 of the appropriation for STEM Action Center be used to establish a STEM Action Center as described in Section 63M-1-3204;

(2) at least \$5,000,000 of the appropriation for STEM Action Center be used for education related instructional technology ~~and related professional development~~ to support mathematics instruction for students in grades 5, 6, 7, or 8 as described in Subsection 63M-1-3205(3)(a) and Section 63M-1-3206, and related assessment, data collection, analysis, and reporting;

(3) at least \$3,500,000 of the appropriation for STEM Action Center be used for education related instructional technology ~~and related professional development~~ to support mathematics instruction for secondary students to prepare the secondary students for college mathematics courses as described in Subsection 63M-1-3205(3)(b) and Section 63M-1-3206, and related assessment, data collection, analysis, and reporting;

(4) that the appropriation described in Subsection (1):

(a) be ongoing; and

(b) not lapse at the close of fiscal year 2014; and

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(5) that the appropriations described in Subsections (2) and (3):

(a) be one-time; and

(b) not lapse at the close of fiscal year 2014.

Section 10. **Effective date.**

(1) Except as provided in Subsection (2), if approved by two-thirds of all the members elected to each house, this bill takes effect upon approval by the governor, or the day following the constitutional time limit of Utah Constitution Article VII, Section 8, without the governor's signature, or in the case of a veto, the date of veto override.

(2) Uncodified Section 9, Appropriation, takes effect on July 1, 2013.