

Date: February 2, 2008

Committee: Senate Economic Development  
and Taxation/Education

Department: Education

Person Testifying: Patricia Hamamoto, Superintendent

Title: S.B. No. 2689, Making an Appropriation for Science and  
Technology in Public Education

Purpose: Appropriates funds to support science and technology resource needs  
within the department of education.

Department's Position: The Department of Education (DOE) supports this Bill to appropriate \$500,000 for the creation of permanent part-time science and technology coordinators at the district level and the additional funding of \$140,000 to support the positions and \$10,000 for state administrative costs. The DOE believes that the positions should be administered under the direction of the state science specialist to assure that all training and materials utilized will be cohesive and aligned to statewide initiatives. This administrative arrangement will enable the DOE to have professional development at the district level that is consistent statewide, yet allows for a more personal and customized approach to meeting the needs of the districts' administrators, teachers and students. The need for Highly Qualified teachers in science is apparent and these positions would also address training and professional development needs at the district level. The DOE appreciates the legislature's approach to a more comprehensive system

of integrated curriculum and the use of technology as a learning tool in science instruction. Should the legislature consider funding this Bill, it should not replace the current Board of Education's budget priorities.

**Testimony By Jim Shon, Executive Director - HiTech Quest  
Before the Senate Committees on Education, Economic Development and  
Taxation**

**EDU/EDT 02-02-08 at 9:00 am in conference room 224.**

**RE SB 2689 MAKING AND APPROPRIATION FOR SCIENCE AND  
TECHNOLOGY IN PUBLIC EDUCATION**

**HiTech Quest STRONGLY Supports this bill.**

For a number of years HiTech Quest has been involved in facilitating project-based learning in Hawaii's schools. (Please see attached sheet for a summary of our activities.) We have observed that the time and *financial* constraints on schools inhibits efforts to bring innovative programs to students that are often best delivered outside of the traditional school scheduled day.

Recently, the State of Hawaii embarked on an ambitious effort to promote Science, Technology, Engineering and Math (STEM) in our public schools and college campuses. In order for this to bear real fruit in the near term, there is the need for an agency to facilitate, coordinate, and broker the partnerships between schools, colleges, client organizations, and the business community.

HiTech Quest is currently exploring opportunities to incorporate project based learning into the Senior Project, as well as to assist in the State's efforts to promote STEM learning. Any additional resources that can enable our schools to add these innovative educational strategies to the school curriculum and to engage a larger percentage of students is to be commended.

We would suggest that one important strategy for limited funding is to focus on those schools that already have thematic academies to encourage their further development and enhancement.

A recent report by the Hawaii Educational Policy Center on the teacher shortage includes a comprehensive list of hard to staff schools. These should also be considered in targeting your resources.

One concern that HTQ has with this and other bills is the reported need to CUT several hundreds of millions of dollars from last year's budget. We note that in the field of education and teacher workforce development the following issues and initiatives are competing for limited funds:

**List of Educational Initiatives in 2008**

- 1. Coping with NCLB, especially high turnover, hard to staff schools in poor areas and for lower economic income students.**
- 2. The Early Education Initiative**
- 3. The 2007 STEM Initiatives**
- 4. Teacher workforce development: College Capacity**
- 5. Teacher workforce retention: mentoring and other support**
- 6. Infrastructure, repair and maintenance of higher education, esp. College of Education**
- 7. New infrastructure and facilities K-12 DOE.**
- 8. New ways to assist charter schools in leveraging public and private funds for facilities.**
- 9. Tracking students through the P-20 pipeline and providing transition programs.**

**Most of these are compartmentalized. Funding and implementation are often not connected, and prioritization is often at the subsystem level. Legislative treatment does not appear to attempt linkages, even during a year with fiscal challenges.**

HTQ would also note that the contents of SB 2689 excludes all public charter school children, in spite of the fact that some charter schools are moving towards technology based programs. We suggest you also make a pro-rata allocation to charters, perhaps in a lump sum to the CSAO for appropriate support of science and technology education. We have attached a brief proposed amendment for this.

Thank you for the opportunity to testify.  
Jim Shon

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## About HiTech Quest

Over the past five years HTQ has sponsored more than 250 projects involving 649 students from 33 schools (public, private and home school). More than \$100,000.00 in scholarship money and software prizes has been awarded in recognition of the student's accomplishments.

### The 2007 HiTech Quest Strategic Plan calls for:

- Recruiting Teacher Coordinators with Project Learning Teams
- Coordination and execution of HTQ Project Showcase Technology-focused enrichment programs to enable youth to develop additional skills that will enable them to be successful in the technology industry.
- The technology-focused enrichment programs will challenge students to develop additional technical skills. Because the programs are project-based in a real-world context, the participants develop an understanding of what will take to be successful in a career in this highly competitive, ever changing industry.

In this context HiTech Quest serves as a “case manager” to facilitate partnerships between businesses, sponsors and foundations willing to invest in education, client organizations needing a service, a teacher with a student project learning team, and a business mentor for the learning team. Specifically, HTQ provides:

- Administration support and technical assistance for Project Learning Teams in High Schools
- Recruiting & coordination for Volunteer Business Mentors
- Funding for Teacher Coordinators
- Recruiting client organizations and sponsor organizations
- Recruiting Teacher Coordinators with Project Learning Teams
- Coordination and execution of HTQ Project Showcase
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### For High School Teachers and Learning Teams, HiTech Quest Provides

- Project-based, real-world, hands-on educational experiences
- Ties to local business community – the viability of a career in Hawai'i
- Leadership skills in technology
- Teacher Training in project-based learning strategies and techniques
- Additional income
- Investment in technologies and capabilities for the classroom
- Opportunities for after school and vacation engagement

**A non-profit organization whose mission is to use contextual and project-based learning experiences in conjunction with the secondary education and business communities to help build a strong technology workforce in Hawaii.** 3

THE SENATE  
TWENTY-FOURTH LEGISLATURE,  
2008  
STATE OF HAWAII

S.B. NO. 2689

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A BILL FOR AN ACT

*MAKING AN APPROPRIATION FOR SCIENCE AND TECHNOLOGY IN PUBLIC EDUCATION.*

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

SECTION 1. The legislature finds that subject-matter knowledge and competency in the areas of science and mathematics in our public schools are critical to student achievement; the viability of pursuing and obtaining employment in fields such as science, technology, engineering, and mathematics; and our nation's competitiveness as a global leader in scientific and technological innovation.

The legislature further finds that greater training and resources provided through the districts for science and technology programs in schools will support student learning in these areas. Furthermore, district support for science and technology programs will foster greater student participation and achievement in statewide and national science and technology competitions and events, such as the science fair.

The purpose of this Act is to appropriate funds to support science and technology resource needs within the department of education.

SECTION 2. There is appropriated out of the general revenues of the State of Hawaii the sum of \$500,000 or so much thereof as may be necessary for fiscal year 2008-2009 to support science and technology resource needs within the department of education; provided that:

- (1) \$350,000 shall be for a permanent, part-time science and technology coordinator in each of the seven school districts to provide support for schools in these areas;
- (2) \$10,000 for state administrative costs to support science and technology in the department of education; and
- (3) \$140,000 shall be to support science and technology resource needs in each of the seven school districts to provide support for schools in these areas.

(4) \$ \_\_\_\_\_ to be allocated to the charter school administrative office for science and technology programs in the charter schools.

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

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

**A non-profit organization whose mission is to use contextual and project-based learning experiences in conjunction with the secondary education and business communities to help build a strong technology workforce in Hawaii. 4**



**DEPARTMENT OF BUSINESS,  
ECONOMIC DEVELOPMENT & TOURISM**

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Statement of

**THEODORE E. LIU**  
**Director**

Department of Business, Economic Development, and Tourism

before the  
**SENATE COMMITTEE ON EDUCATION**  
**SENATE COMMITTEE ON ECONOMIC DEVELOPMENT & TAXATION,**

Saturday, February 2, 2008  
9:00 a.m.  
State Capitol, Conference Room 229

in consideration of  
**SB 2689**  
**MAKING AN APPROPRIATION FOR SCIENCE AND TECHNOLOGY**  
**IN PUBLIC EDUCATION**

Chair Sakamoto, Vice Chair Tokuda and Members of the Senate Committee on Education, and Chair Fukunaga, Vice Chair Espero, and Members of the Senate Committee on Economic Development & Taxation.

The Department of Business, Economic Development & Tourism supports the concept of SB 2689, which would make an appropriation for science and technology education in the public schools. Many good ideas have been introduced this legislative session that encourages, facilitates and supports science, technology, engineering and math (STEM) education in Hawaii's public education system. However, the appropriation made by this measure was not included in the Executive supplemental budget and we would respectfully request that it not displace priorities contained therein.

The Administration continues to place a high priority on empowering our public school system with increased opportunities to improve STEM education and believes that a good start has been made. It is important that working together, DBEDT, the Department of Education, the University of Hawaii, and all the STEM education stakeholders develop a system of programs

that engages and challenges our students in ways that lead to STEM careers and build a workforce that incorporates STEM skills in every occupation. We hope that a long-term funding strategy can be developed that does not rely on yearly appropriation bills, but rather on expanded core budgets to create STEM programs as part of our schools regular curriculum and extra-curricular activities.

Thank you for the opportunity to offer these comments.