



**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 WAYS AND MEANS**

Monday February 25, 2008

10:30 a.m.

State Capitol, Conference Room 211

in consideration of

**SB 2480 SD1**

**RELATING TO TECHNOLOGY WORKFORCE AND DEVELOPMENT.**

Chair Baker, Vice Chair Tsutsui, and Members of the Senate Committee on Ways and Means.

The Department of Business, Economic Development & Tourism supports the concept of SB 2480 SD1, which would amend Act 111 to provide additional funds to meet the demand for science, technology, engineering, and math (STEM) programs in Hawaii's public schools, change the means of financing some of these programs, include funding for Project EAST, and add funds to support K-12 creative media education programs. As you know, many of the measures in Act 111 were strongly supported by the Administration during the 2007 Legislature and the various agencies that were assigned responsibility to implement them have been working to make them a reality. It is the vision of the Governor that all schools who wish to adopt STEM programs have that opportunity. We note that any additional funds have not been included in this year's updated six-year financial plan.

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. Education programs that weave the arts and sciences together to engage a broad spectrum of students, such as the proposed Creativity Academies, as well as Project EAST, are important to expanding the reach of STEM education statewide. It is important that we have an inventory of all the worthy projects in our schools, in addition to the STEM academies and Project EAST mentioned in this bill, so that working together, DBEDT, the Department of Education, the University of Hawaii, and all the STEM education stakeholders can 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.

Date of Hearing: February 25, 2008

Committee: Senate Ways and Means

Department: Education

Person Testifying: Patricia Hamamoto, Superintendent

Title: S.B. 2480, SD1, SSCR2479, Robotics; RET; Project EAST; TANF Funds; Appropriation

Purpose: Amends Acts 111 and 271, Session Laws of Hawaii 2007, to appropriate funds for the support and expansion of existing creative media education programs such as robotics, research experiences for teachers, and project EAST programs while supporting the recently developed, Hawaii excellence through sciences and technology academy pilot programs

Department's Position: While the Department of Education (DOE) supports STEM and creative media education programs, the DOE does not support S.B. 2480, SD1, SSCR2479 at this time due to Hawaii's impending fiscal austerity and priority for the current Board of Education's budget requests. The DOE recommends that the STEM and creative media education programs to be facilitated jointly by the University of Hawaii and the DOE. The DOE recommends that funding appropriation for DOE related programs for this initiative to be transferred to the DOE as the expending agency.



# UNIVERSITY OF HAWAII SYSTEM

## Legislative Testimony

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### Written Testimony Presented Before the Senate Committee on Ways and Means

February 25, 2008 at 10:30 a.m.

by  
Virginia S. Hinshaw, Chancellor  
and  
Peter Crouch  
Dean, College of Engineering  
University of Hawai'i at Mānoa

### **SB 2480 SD1 – RELATING TO TECHNOLOGY WORKFORCE AND DEVELOPMENT**

Chair Rosalyn Baker, Vice Chair Shan Tsutsui, and Members of the Committee on Ways and Means:

Thank you for the opportunity to testify. The University of Hawai'i at Mānoa supports the intent of SB 2480 SD1, which would expand the initial commitment to supporting science, technology, and education that were appropriated in ACT 111, Session Laws of Hawai'i 2007. We don't yet have a complete understanding of the impact of other provisions of the bill, or what the financial sources are, but we welcome the opportunity to explore these opportunities as the objectives become clearer.

The passing of ACT 111 resulted in statewide implementation of the Administration's Innovation in Education Initiative – Fostering Innovation and Relevance through Science and Technology – Pre-Academy Program. The robotics competitions will provide hundreds of students and teachers with hands on experience as problem solving members of a robotics team and bring them in contact with peers from across the state and nation.

The Research Experiences for Teachers – Middle School Program is a cross-disciplinary educational partnership driven by the needs and requirements of teachers, and by technological advancements in engineering, specifically in advanced wireless communications. It is a unique model which will bring innovation and excitement into the middle schools classrooms.

We want to take this opportunity to recognize our faculty, Dr. Magdy Iskander who together with his graduate and undergraduate students took a small pilot National Science Foundation RET program and transformed it into a model which is gaining national interest. RET has already made a difference in five public middle schools and engaged hundreds of teachers and students with state-of-the-art wireless communication tools and lab content. We think it's quite remarkable to have internationally renowned faculty working together with middle school teachers to bring

the exciting field of advanced communication, electro-magnetic spectrum, signal strength processing, and antenna design to the middle school level. These technologies and content areas are the guts behind the “toys” our pre-teen and teenagers grow up with. The subject supports the content standards and is made relevant by means of its exciting applications.

We are encouraged by the State’s commitment to STEM learning and look forward to extending the pipeline through the postsecondary level.

Entering the next century Hawai’i faces a serious shortage of engineers required to support our high technology, construction, and infrastructure related State and City agencies. The shortage of engineers and technical talent is a national crisis and one which is being addressed by major government and industry stakeholders. Locally, the high demand for engineering graduates at the College’s twice-yearly career fairs is a key indicator that the shortage is real and current.

In closing, I’d like to take a moment to also remind you that our top priority this year is addressing the urgent repair and maintenance of our facilities. If Mānoa is to continue to blossom and support program such as this, we must have support to repair and maintain our facilities. We must enhance our efforts to become a destination of choice for student, faculty, and staff, the citizens of Hawai’i and beyond. We look forward to a productive partnership.

Thank you for the opportunity to testify. We appreciate your interest and support for Hawai’i’s premier institution of higher learning.

**Hawaii  
Crop  
Improvement  
Association**

Sarah Styan, President  
P.O. Box 609  
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Testimony by: Sarah Styan  
SB 2480sd1, Relating to Technology Workforce and Development  
Senate WAM Committee  
Monday, Feb. 25, 2008  
Room 211: 10:30 am

Position: Support

Chair Baker, and Members of the Senate WAM Committee:

My name is Sarah Styan. I am a Kauai resident, President of HCIA and research scientist of Pioneer Hi-Bred International, Waimea Research Station. The HCIA represents seed production and research facilities operating in Hawaii for nearly 40 years. The HCIA is comprised of five member companies that farm an estimated 8,000 acres on four islands, valued at \$97.6 million in operating budget (2006/2007 HASS). We are proud members of Hawaii's diversified agriculture and life sciences industries.

We applaud this measure that seeks to grow a highly skilled workforce and innovation in Hawaii through a comprehensive system of science, technology, engineering and mathematics (STEM), with focus on developing these skills in children from the middle school through high school years and inclusion of post-secondary education systems. Agriculture biotechnology, and specifically the seed corn industry has been a cornerstone of this innovation for nearly 40 years.

Through its member companies, HCIA provides more than 1,000 workers with employment among our five companies on the islands of Molokai, Kauai, Maui and Oahu. These jobs range from field worker to technicians to scientists. Like many other businesses in Hawaii, we struggle with finding qualified employees. This measure is key to developing a strong workforce of Hawaii youth for high-value, high-paying jobs in an industry like the seed crop industry.

We offer our assistance in the development of the STEM programs, particularly for agricultural science curriculum development and agriculture workforce development.

Thank you for the opportunity to present testimony.



## Economic Development Alliance of Hawaii

Feb. 23, 2008

The Honorable Roz Baker  
Chair, Senate Committee on Ways and Means  
Hawaii State Senate  
Hawaii State Capitol  
Honolulu, Hawaii 96813

[WAMtestimony@capitol.hawaii.gov](mailto:WAMtestimony@capitol.hawaii.gov) LATE

Re: SB 2480SD! RELATING TO TECHNOLOGY WORKFORCE AND  
DEVELOPMENT  
Public Hearing February 25, 2008, 10:30AM Rm 211  
E-testimony – [WAMtestimony@capitol.hawaii.gov](mailto:WAMtestimony@capitol.hawaii.gov)

My name is Paula Helfrich and I am CEO of the Economic Development Alliance of Hawaii. I am pleased to provide testimony in support of SB2480 SD1 relating to technology workforce and development.

EDAH and the EDBs of Maui, Kauai, Hawaii and Oahu have provided continuous support to the state legislature on public/private sector partnerships that have been successful in providing support to STEM-type programs innovative project implementation such as Project EAST, and leveraging of resources from federal, state, county and private sector initiatives. The state legislature has noted that it is essential to establish and monitor such programs on a long term basis in order to adequately plan and implement a broad range of services and measureable accomplishments towards economic diversification through workforce development.

EDAH and its partner entities have provided focus and program management for innovative K-12 workforce development and project based learning programs through STEM education (such as Project EAST of the Maui Economic Development Board and Aloha 'Ike on Kauai), science and technology support and assistance, and other diversification efforts.

EDAH and its partners are supportive of continuation of the on-going project partnerships based on these past successes, such as the 3Ts program established by the 2006 Hawaii State Legislature, funded in 2007 and implemented through the Economic Development Alliance of Hawaii in partnership with its member organizations.

We look forward to working with you further on this important initiative. We urge your favorable consideration and thank you for the opportunity to submit these comments.