

**Written Testimony Presented Before the
House Committees on Finance**

April 3, 2008 at 2:30 pm
State Capitol, Conference Room 308

by
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**SB2480, SD2, HD2 – RELATING TO TECHNOLOGY WORKFORCE AND
DEVELOPMENT**

Chair Marcus Oshiro, Vice Chair Marilyn Lee, and Members of the Committee on Finance

I appreciate the opportunity to provide testimony in support of SB2480, SD2, HD2 and commend the commitment of the Legislature to provide the opportunities and resources required to advance STEM education and experiences through various successful programs.

We are keenly aware of the variety of programs and the number of organizations involved in advancing Science, Technology, Engineering and Mathematics (STEM). Robotics, RET, Project EAST, HiEST Academies, STEM teacher development, creative media program and numerous other initiatives provide for a variety of engaging STEM experiences.

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 15 teachers and just over 900 students with state-of-the-art wireless communication tools and lab content. The number of schools is expected to more than

double by the end of the academic year. 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.

Dear Legislators;

My name is Keonaona Ventura and I am a student at H. P. Baldwin High School. I would like to thank you for supporting the EAST programs in Hawaii.

I am in my second year of the program and I have learned a lot more in this type of program than I did in the traditional classroom setting. By being in a project based class I am able to share my ideas openly and be more assertive.

I organized a school coffee program for teachers to help build teacher morale. It was my way of creating a positive environment for everyone. When teachers are happy we are all happy.

Please support SB2480.

Thank you,

Keonaona Ventura

Dear Legislators;

My name is Blaine McCammack and I am a 1st year student at H. P. Baldwin High School. I would like to thank you for supporting the EAST programs in Hawaii.

I am a freshman and I have been given the task to maintain the school webpage. Project based classes like EAST allowed me to learn about responsibility and dedication. I also learned to take criticism and work collaboratively with others.

I was selected to attend this year's EAST Conference in Hot Springs, Arkansas. The experience gave me a chance to see what other schools outside of Hawaii are doing to help their community. Please support SB2480.

Thank you,

Blaine McCammack

Dear Legislators,

Thank you for your support last year, but please continue to fund our program because EAST opens up many great opportunities, and helps you to get involved with whatever you're most passionate about. Please support us in 2008 - 2009.

Because of the program, I've been able to construct a robot for the FIRST competition being held in Oahu, HI in march. It's really fun and a really great experience.

Thank you,

Jess Walker
Student
Maui High EAST

Dear Legislators,

I'd like to thank you very much for funding the EAST Program. We really do appreciate it. Money provides us with repairs for our equipment, computers, and trips for us to learn more about the different programs we use here at EAST. In EAST, we are provided with all kinds of technology to help aid us in our projects that benefit the community. That's why I think the EAST Program is so important, we help and benefit our community.

Thank you,

Danny Rhey C. Acidera
Student
Maui High EAST

Dear Legislators,

My name is Edel Bolosan and I am a senior from Maui High School. I would just like to thank you for your support for last year. We really appreciate that you provided the funds for Project EAST. It would really mean a lot to us students who enjoy EAST if we would be able to get your support this year as well.

I really enjoy EAST, not because we make videos & work with different software, but because many students have benefited from this class in so many ways. Some of us entered competitions that had to do with technology, videos, and posters. This being my second year of EAST, I've learned so much. EAST has benefited me by showing me different things because we don't only do projects for ourselves or for a good grade but we help others. Also, I've learned a lot about many different software and how to use them. Since I am a college bound student, I can bring the things that I have learned or done in EAST with me rather than just forgetting about it. Thank you very much for your support.

Sincerely,

Edel Bolosan
Student
Maui High EAST

January 31, 2008

Dear Legislators,

Thank you all very much for your support and generosity for Project EAST. The bill that was approved from last year providing funding for the EAST program has helped the students including myself tremendously. It would be of great help if you could be a part of our learning experience in this program again this year. EAST has given me the opportunity to be in a Project Based learning environment which allowed me to get involved with my community. The purpose of our projects is to help different organizations and provide information to other people about important issues that are needed to be noticed. I have never thought I would gain so much in one class. I have learned to use many different software that help me to continuously help others in the community with whatever they want me to do. Learning about different people and what their story is, is really what makes me look forward to each day with a smile. With the EAST program you're part of something more than just a class full of students, but caring and loving individuals who come together to form a "family." Thank you very much for everything you've done.

Sincerely,

Kristy Inamasu
Student
Maui High EAST

Dear Legislative Members,

Thank you for supporting our EAST program at Maui High School. We student's have truly benefited from the funds that you have provided for us last year. It would be greatly appreciated by all if you could support our EAST program this coming year. The money will surely be put to good use as it has been in the past.

Because we live in Hawaii and care about the economy, there are many opportunities that we students take advantage of in the improvement of our home. In fact it's the perfect place for us students to carry out environmental projects which are limitless! We students are pursuing our standards and ever pushing forward to incorporate the available technology with our environment. These projects have made it possible for many students to reach out of their shell with endless opportunities, continuing to grow and learn from experiences.

Please continue to support and success our Project EAST program in Hawaii.

Thank you,

Samantha Martin
Student
Maui High EAST

My name is Sheilah Jorgensen, and I am a participant of the Environmental and Spacial Technology program (EAST). I just wanted to thank you so much for all of the support that you have given us throughout the year.

EAST is very important to our school because it gives students a chance to go beyond what is required in our curriculum. Even though our school is centered around projects and encourages self-direction, EAST further promotes those skills by the way of technology-based projects that we believe will benefit the people in our community.

As an EAST participant, I have learned many things, not only information, but also soft skills that are necessary to our survival in tomorrow's society. These skills include but are not limited to:

Self-Directional Skills

Thinking and Problem Solving

Global Awareness

Financial, Economic, and Business Literacy

Communication Skills

Interpersonal Skills

Information Skills

Civic Literacy and Engagement

These skills we call ESLRs, which stands for Expected School wide Learner Results. These ESLRs are integrated into the entire school, not just EAST. But what I learned from EAST is that we need to have these skills in order to accomplish our goals and complete our projects. I learned that these skills are a lot more important than I originally thought, and I found myself using them all the time.

The project that my partner and I did was about wheelchair accessibility around the island of Maui. Our goal was to provide information to the physically disabled people that visit Maui on which places are wheelchair accessible and which are not. So we went around to the major tourist attractions and evaluated them on their accessibility. If we found that they were not very wheelchair accessible, or if there were ways to make their facility's accessibility better, we gave them suggestions with the hopes that they would have the interest in improving. During this project we had to be very good with communication and interpersonal skills because we were always talking to people and trying to make ourselves heard.

This was just an overview of what I believe our program has done this past year that I have been in it. My story is just one of many about the dedication and skill that is required to make this program a success. Once again, thank you so much for supporting our program and giving us a chance to improve both ourselves and the community.

Thanks again,
Sheilah Jorgensen

Jeanel Acob
Cheifess Kamakahele Middle School
4431 Nuhou Street
Lihu'e, HI 96766
March 10, 2008

Hawaii State Legislator
In regards to: Senate Bill SB2480
Honolulu, Hawaii

Dear Hawaii State Legislator,

Thank you for your support in our EAST program and providing funds for our program. Without your support, EAST wouldn't be here right now. EAST is important to me because in EAST class we get to learn how to use new technology and what we can do with it for our projects. Also the projects we do in EAST help our community become a better one. What I learned in this class is how to use different technology like voice recorders and video cameras and also how to use programs like Adobe Photoshop and Soft Image to make animation and pictures for our class. Also in EAST I learned facts about what we can do to save our community and what's going on in our community too. This program helped me to know that teamwork gets the job done faster and helps you make new friends and get along with each other. We also did a project about drinking and driving which got me interested in helping people to stop this habit and how their friends can help them to stop it and keep them safe. I also learned a lot in this project. For example, while doing this project I learned that every 5 minutes someone dies from a car accident and that when passengers are inside a car with a drunk driver the passengers mostly die instead of the drunk driver. So from this project it could help the kind of people who are doing this. East will also help the students learn new things and that's why EAST should keep on continuing in the future. Once again thank you for supporting EAST.

Sincerely,
Jeanel Acob
East student of C.K.M.S

To Whom It May Concern,

Thank you for supporting our program last year and we would greatly appreciate your continued support through bill SB2480.

I strongly would like the continuing support of the EAST Programs statewide because of the many benefits that the program provides students. As a current EAST student I have been introduced into the application of community-based issues with the many software and resources that computers and the Internet provide. I also came to know various amounts new software that helped me in preparation for a possible career in the technology career pathway. Having the EAST program in Keaau High School not just benefited me but all of the students in the program. Thanks to EAST, we learned basic working skills. Besides our work with computers, EAST students learned about teamwork, critical thinking, quality work production, and community service. In conclusion, EAST programs should continue to operate in schools and continue providing the benefits that it gave to me.

Sincerely,

Rogemson Albano

EAST Student

*** This Email was sent by a student at Keaau High School in Hawaii Department of Education.

March 10, 2008

To Whom It May Concern,

Hello my name is Conor Almeroth and I am a student in the EAST program at Lahainaluna. I'm very happy that I've been a part of this program. And I would like to thank you for letting us continue this program in our schools.

EAST has taught me a lot of things and improved on a lot of my own skills. When I first entered this class I had no idea how to use many of the programs that we have in the lab. This class has taught me that our society is becoming engulfed in technology and that by knowing how to use a computer and that society will come to point were we all will need how to use a computer. I feel that programs like EAST should be offered at every school. I think that having the ability to use a computer is intelligence in itself. EAST has also helped me with skills I already have.

It has taught me about teamwork and people. I'll be the first to admit that I'm not the smartest guy or best looking but I've always enjoyed working with people. I've worked with a lot of different kinds of people in this class and I've learned how to work with them. It's nice seeing people of different people working together. I've seen the pretty girl work with the geeky guy, the weird one with the jock, or the anti-social with the social. I think that if we want to improve our society we need to work like this.

I run track and cross country and my coach always tells me that we are social dependent creatures and I always understood him but never believed him. Being in EAST truly showed me that. EAST isn't here to learn about computers but to help each other, help mankind. I think we need to come together and work as one rather than individuals. I think we can start this through the EAST program.

I would like to thank you again for helping us improve ourselves and our communities. I hope that you will keep supporting this program. I hope that soon every school will have this program. Thank you very much for reading this letter and I hope that this letter will show you why EAST is an important program.

From,
Conor Almeroth

To Whom It May Concern

Aloha Ka Kou, my name is Justin Barlahan I am a sophomore at King Kekaulike High School. I was in EAST for two years and am planning on taking EAST for the rest of my high school years. This year I got the chance to attend the 2008 National EAST conference all thanks to your support. At the conference I learned about the awesome projects students are doing in their EAST labs that help their community. Through these projects I got inspired to start a new project which is mapping out different emergency evacuation routes for our school. For example if a propane tank was to blow up I would have to figure out how far of a radius the explosion would be and then come up with a safe evacuation route. I will have to collaborate with the Maui Fire Department and other organizations to complete this project.

Thanks to EAST we got the chance to tour the University of Arkansas at Little Rock (UALR). This visit inspired me to work and study harder in high school if I want to take my education to the next level.

EAST changed my life a lot. I am now a self directed learner and if I get stuck on a problem I will sit there until I figure it out. EAST made me a better person and student and I just want to say *Mahalo Nui Loa* for your on going support.

Mahalo,
Justin Barlahan

Dear Hawaii State Legislator:

Thank you for your support of the EAST program. Without your support we would not be able to work productively in our class. This class is worthwhile because we learn how to use current technology. We will be able to use the skills that we have learned in this class for future jobs that we may be involved in.

I have learned a lot of programs such as adobe Photoshop, Softimage and Dreamweaver. Some projects that were working on are: Don't Hang Loose with the Mongoose, The Triple D Effect (Drink, Drive, Death), Auto Theft, and How to Be Safe in the Ocean.

I attended the EAST conference and we were able to share with them our projects and the audience was impressed by our work. At the EAST conference we also learned about other ways we can get out into the community and other ideas and ways of presenting our projects.

This program is a fantastic experience and I'm glad people are backing it.

In regards of Senate Bill SB2480,

Justus Bieber
East student

March 10, 2008

To Whom It May Concern,

First of all I want to thank you for taking the time to read my letter. I am writing on behalf of the Lahainaluna EAST Program, of which I am a student. EAST is an innovative and progressive national program whose initiative is to better the community using the multitudes of technology available to today's students.

Our Lahainaluna EAST Program was one of the first EAST Labs set up in Hawaii, but its creation would not have been possible without the support and funding from the Hawaii Legislature. With the funding we received we were able to create a brand new computer lab with the latest computer technology.

Unfortunately that was in 1999 and, as I am sure you are aware, technology today is leaps and bounds ahead of that and our lab is somewhat out of date. Although we have some new computers in the lab we still do not have enough for every student in our biggest class. Our once state-of-the-art GPS equipment is now lagging and largely outdated. The same could be said about our camera equipment and our printers.

Despite these limitations our EAST lab is able to accomplish many things and teach students the importance and possibilities associated with technology in today's world. Some of the projects that our Lab is working on are to find where the water from our stream goes, putting more or better water fountains on campus, and remaking our school website.

Funding from the state could help our lab accomplish so much more than it can now and help us make a bigger impact in our community. Once again I would like to thank you for taking the time out of you day to read my letter.

Sincerely,
Lake Casco
Lahainaluna EAST Student

March 10, 2008

To whom it may concern,

Thank you for taking time out of your busy schedule to read my letter. I am currently a student in the Lahainaluna EAST program. I am writing to inform you of the wonderful experience that is the EAST program.

The EAST program is an exemplary course in which students can take an active participation in their own education. It allows them to branch out from the traditional classroom in which students are spoon fed information from teachers, into an experience in which they are responsible to find the information and learn it themselves.

On the personal level EAST has allowed me to expand my knowledge of Adobe Flash, which is used to make websites, movies, and games. I am currently using my vastly increased knowledge to work on the Lahainaluna website, as well as a game that students will be able to play on the website. This will attract more traffic to the site.

We also do work on projects that have nothing to do with computers, such as the Kanaha Stream project, where students are researching what happened to the Kanaha stream, which used to run through our school, and trying to restore it.

Thank you again for taking the time to learn about the EAST project and how it is a positive influence on the students of Hawaii.

Thank you,

Eric Kasper

To whom it may concern,

I am currently a student attending Lahainaluna high school and also an administrator of a great progressive program called EAST. This school club is a elective program that allows determined students to pursue community projects in a proactive approach. EAST creates an environment where students like me can absorb valuable information that will in turn curtail positive instruments, which will allow young adults to be confident and qualified in a business atmosphere.

On behalf of both the E.A.S.T program and also Lahinaluna high school, I personally would like to thank the entire Legislators for your support in our determination to create a limitless learning experience for many generations to come.

Sincerely yours,

Cody Miller

Ethan Austin-Elbaz
Chiefess Kamakahahelei
4431 Nuhou Street
Lihue, Hawaii 96766
March 10, 2008

Hawaii state legislator
In regards to Senate Bill SB2480

Dear: Hawaii State Legislator

Thank you for your support of our EAST program, and for providing funds to run EAST in Hawaii.

EAST is important because it teaches kids how to use the latest technology that is available. Also what I learned in EAST is how to use photo shop, image ready, soft image, and game maker. Right now the project I am working on is about water safety, brochure and video on how to prevent drowning in Hawaii so that less people drown and so more tourist come because they will feel safe in our waters and hopefully in the future the economy will grow. The skills I learned in life are to know how to do quality work, and to be a self directed learner.

Sincerely,

Ethan Austin-Elbaz

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