

EDNtestimony

From: kapohohonu@hawaii.rr.com
Sent: Thursday, March 17, 2011 4:31 PM
To: EDNtestimony
Subject: Testimony in support of SB 1173, SD2, hearing scheduled for March 21, 2011, 2:00 p.m.

Senate Bill 1173, SD2: Making an Appropriation for Matching Grants for Space Education Programming Services

Date of hearing: Monday, March 21, 2011

Time: 2:00 p.m. Place: Conference Room 309; State Capitol, 415 S. Beretania Street

Dear Representative Roy Takumi, House Education Chair, Representative Della Au Bellatti, Vice Chair, and members of the Education committee

The Challenger Center Hawaii program was born out of a tragic event 25 years ago when seven astronauts including Hawaii's Ellison S. Onizuka and the first Teacher in Space, Christa McAuliffe, perished on liftoff of the space shuttle orbiter, Challenger. Out of the ashes rose a number of educational initiatives that not only commemorated the educational legacy of mission 51-L, Challenger, but continues to inspire the next generation of explorers through the contextual based programs being offered. Challenger Center Hawaii is one such program that provides professional development for teachers, a curriculum based on addressing standards, and accountability through the school team participating in the culminating mission. As a recent national assessment in science of Hawaii's students revealed, we continue to rank poorly in comparison to other states. There are compelling needs to be addressed in science and technology related to our future economic sustainability and growth, security, health and wellness, energy, global environmental crises, and innovation. The recent tragic consequences of the earthquake and tsunami in Japan and the growing threat of the spread of radiation through the damage caused to the nuclear reactors, are even more compelling reasons for catalyzing student interest in science, engineering and technology careers.

We fully support your passage of Senate Bill no. 1173, SD2; the Challenger Center program is a highly academic, with a deep content program that fosters the abstract application of science into concrete reality.

There are few middle school oriented, contextual based programs offered that require classroom academic preparation in order to be successful. Beyond the science that is learned in the process, there are critical life skills that are learned such as effective communication, time management, problem solving and teamwork. The learning is experiential, and the scenario and environment makes the learning engaging and relevant.

With the reality of the ever deepening state budget deficit, the goal of making the Challenger Center Hawaii sustainable through this funding for the remainder of the school year, 2011-2012 and requirement for the development of a financial sustainability plan, will allow the Challenger Center Hawaii time to develop the long term financial plan and any needed adjustment to the program.

The Hawaii County Workforce Investment Board and Mauna Kea Observatories' Astronomy Workforce Survey, August 2010, provides an insight as to the need to expanded investment in science, technology and engineering education for pre-college students. Of the 80 per cent of the jobs in a typical observatory not in research fields, 57 per cent are in the technology fields which typically require a two or four year college level education. Of the technical

observatory staff and administrative staff in a 2007 survey, 40 per cent were hired from overseas locations and 73 per cent were not Hawaii born. Projected 2023, there is a potential of 299 jobs in the technical and administrative areas being awarded to those not born in Hawaii. Although the observatories would prefer to hire locally qualified applicants, they have found a lack of qualified professionals from Hawaii. From 2010-2023, there are a projected 473 jobs related to the observatories, of which 333 are in the technology areas including software, mechanical and electronics. If this study is typical of technology oriented businesses in Hawaii, and if Hawaii would like to diversify its economy using innovation, it is critical that we invest deeply in science and technology education today. Ellison Onizuka's commencement words at Konawaena High School in 1980 are even more important today as we inspire the next generation of innovators, our future work force, in Hawaii.

"If I can impress upon you only one idea...Let it be that the people who make this world run, whose lives can be termed successful, whose names will go down in the history books, are not the cynics, the critics, or the armchair quarterbacks.

They are the adventurers, the explorers, and doers of this world. When they see a wrong or problem, they do something about it. When they see a vacant place in our knowledge, they work to fill that void. Rather than leaning back and criticizing how things are, they work to make things the way they should be. They are the aggressive, the self-starters, the innovative, and the imaginative of this world.

Every generation has the obligation to free men's minds for a look at new worlds...to look out from a high plateau than the last generation. Your vision is not limited by what your eyes can see, but by what your mind can imagine. Many things that you take for granted were considered unrealistic dreams by previous generations.

If you accept these past accomplishments as commonplace then think of the new horizons that you can explore. From your vantage point, your education and imagination will carry you to places which we won't believe possible. Make your life count - and the world will be a better place because you tried."

The next generation of explorers are in our classrooms today. It is our hope and dream that our state can provide the best opportunity for each and every student to make their life count. We ask for your support of Senate Bill no. 117, SD2, an investment in the present and future.

Art and Rene Kimura
Educational specialists
Hawaii Space Grant Consortium, University of Hawaii Class of 51-L

Challenger Center for
Space Science Education

300 N. Lee St., Suite 301
Alexandria, VA 22314
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March 18, 2011

RE: Senate Bill 1173, SD2: Making an appropriation for matching grants for Space Education Programming Services

Date of Hearing: Monday, March 21, 2011

Time: 2:00 pm

Place: Conference Room 309; State Capitol, 415 S. Beretania Street

Dear Rep. Roy Takumi, House Education Chair, Rep. Della Au Belatti, Vice Chair and members of the Education committee:

As chairman of the Board for Challenger Center for Space Science Education and former NASA Astronaut, I ask for your support of Senate Bill 1173, SD2. Every Challenger Learning Center has had a major impact on education in its community, internationally, as well as nationally, and Hawaii is no exception.. Each center has had a major impact on education in Hawaii and nationally. The centers provide opportunities for students to reach their full potential, become more confident as they apply their problem-solving skills to make good decisions in real life situations.

I would like to urge the State Legislature to pass Senate Bill 1173, SD2. Education may seem like the logical choice for cuts to attempt to alleviate the state's budget deficit, but the truth is that this is a short-term remedy for a long-term problem, and it will effectually continue the cycle we are beginning now. Education is the foundation of a functioning society, and we must not cut programs that will promote higher education. At this crucial economic juncture, it is imperative that Challenger Center Hawaii at Barbers Point Elementary School continues to receive the resources it needs to produce a highly skilled workforce and increase college-bound rates of students in Hawaii.

There are many reasons to preserve funding for students to attend the Challenger Center, space education programming. Since the beginning of this decade, the center has positively impacted over 85,000 students, teachers and parents in Hawaii. Center Director Liane Kim and her staff are a standout in their field and are highly respected by Challenger Center and their peers for their professionalism and dedication. The service they provide to the community is invaluable as they inspire a new generation of scientists and engineers to join the 21st century workforce. Adolescence is a critical period in the development and education of students, in order to prepare for high school and beyond they must be proficient in core 21st Century skills.

I humbly ask for your wisdom in exerting your power/influence to include Senate Bill 1173, SD2 in the budget and thereby encourage the BOE to continue this valuable program. I urge the legislature to recognize the value of STEM education by resisting further budget cuts and making education a fiscal priority. Hawaii's future depends on funding the organizations that provide this service, and I look forward to hearing your response in this matter.

Sincerely,

A handwritten signature in black ink, appearing to be "SP" or "S.P.", written in a cursive style.

Scott Parazynski, MD
CCSSE Chairman of the Board

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RE: Senate Bill 1173, SD2: Making an appropriation for matching grants for Space Education Programming Services

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Place: Conference Room 309; State Capitol, 415 S. Beretania Street

Dear Rep. Roy Takumi, House Education Chair, Rep. Della Au Belatti, Vice Chair and members of the Education committee:

I am writing to request that the appropriations from matching grants for Space Education programming services is passed and included in the DOE budget. Challenger Center Hawaii is an important STEM program which aligns with President Obama's, Governor Abercrombie's and the DOE's mission to prepare students for the 21st Century workforce. As you know Challenger Center for Space Science Education (the nonprofit started by the families of the seven astronauts lost in the Challenger space shuttle tragedy in 1986) has a vital Challenger Learning Center within the state that has been in operation since 1996 changing the lives of Hawaiian students and teachers.

At Challenger Learning Centers across the country and in your state, STEM (science, technology, engineering and mathematics) educational programs for teachers and interactive space mission simulations for students are provided year-round. The Challenger Learning Center at Barbers Point Elementary School provides professional training and materials to the state's teachers, while providing hands-on, integrated space-related thematic instruction to the students. These students utilize STEM skills in a real-world application as they learn teamwork, communication, problem solving and decision-making. STEM education has been a priority in Hawaii for many years and through the Challenger Learning Center's outreach, the learning center is laying a foundation for elementary and middle school students to become proficient in STEM fields, to help improve students' education, prepare them for successful careers and promote skills in STEM – subjects that are vital in maintaining a competitive workforce. These very students will someday be the teachers of our next generation.

As the President of Challenger Center for Space Science Education, I know that it is not easy to make ends meet. These are tough economic times, but the proposed elimination of funds from the learning center would be devastating. Promoting our entire Challenger Center Network and the programs they offer, I know the mission experience and educational programs offered at these facilities are not duplicated anywhere else. This is a critical time for our country and our educational systems, from kindergarten through college. Budgetary decisions made now will set the future legacy for our children and the health and economy of our country.

There are many reasons to preserve funding for students to attend the Challenger Center. Since the beginning of this decade, the center has positively impacted over 85,000 students, teachers and parents in Hawaii. Center Director Liane Kim and her staff are a standout in their field and are highly respected by Challenger Center and their peers for their professionalism and dedication. The service they provide to the community is invaluable as they inspire a new generation of scientists and engineers to join the 21st century workforce. Adolescence is a critical period in the development and education of students, in order to prepare for high school and beyond they must achieve in core 21st Century skills.

Please take the steps necessary to preserve the funding for young students to attend the Challenger Learning Center. The center provides an important service to the community to shape students' futures by helping them realize their full potential. This funding is critical to preserve and protect the vitality, growth and excellence of the educational opportunities for Hawaii's children to develop skills necessary to functioning as adults in the 21st Century and to continue the mission of the *Challenger 51-L* crew.

Sincerely,

A handwritten signature in black ink that reads "Daniel Barstow". The signature is written in a cursive style with a horizontal line underneath the name.

Daniel Barstow, President
Challenger Center for Space Science Education

Challenger Center for
Space Science Education

300 N. Lee St., Suite 301
Alexandria, VA 22314
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March 18, 2011

RE: Senate Bill 1173, SD2: Making an appropriation for matching grants for Space Education Programming Services

Date of Hearing: Monday, March 21, 2011

Time: 2:00 pm

Place: Conference Room 309; State Capitol, 415 S. Beretania Street

Dear Rep. Roy Takumi, House Education Chair, Rep. Della Au Belatti, Vice Chair and members of the Education committee:

The Challenger Learning Center of Hawaii at Barbers Point Elementary School has had a major impact on education in Hawaii and nationally. I am requesting that you be the voice for Challenger Center Hawaii with the Senate by passing Senate Bill 1173, SD2. The hard work and unrelenting dedication of the staff at Challenger Center Hawaii have continued the mission of our beloved crew and are preparing students to excel and realize their full potential. Over the years that the Challenger Learning Center has been in operation, they have managed to change the lives of children through the delivery of STEM-based science education. Using space as the theme of the inquiry-based learning, the staff of the Challenger Learning Center has been able to influence the direction of curricula and enthusiasm for learning in those who have attended. Teachers love the program as it puts learning into action, imitating life skills through teamwork, communication, problem solving and decision-making.

In an important document that is the industry standard, Norman Augustine, former CEO of Lockheed Martin, cites Challenger Learning Centers as the best vehicle to create a skilled workforce for our future. Liane Kim and the Challenger Center are doing that on a daily basis. The concentration of students who are influenced to choose engineering, math, science or technology careers will also create a greater number of students who graduate and want to remain in Hawaii to enforce the strength of the state. As citizens of the United States, we all recognize the necessity for creating a strong workforce for a sustainable future.

This past year alone, their center positively impacted over 5,000 students and teachers in Hawaii. The overall total for the Challenger Learning Center, that opened in 1993 has been over 85,000. Those students are the future workforces for the state of Hawaii.

Challenger Center is a growing Network of professionals and volunteers who help the world to understand how our loved ones lived. They lived to learn, to explore and to work as a team. You and your Challenger Learning Center continue that mission as we all work together to reach students everywhere -- to inspire, to explore and to learn! You have taken our dream and made it reality. You are recognized by the highest levels of government and industry as ideal partners to develop and deliver educational programs.

In conclusion, the impact on Hawaii's education system and the Challenger Learning Center network benefits greatly from your support and the ongoing work of the Challenger Learning Center. Your continued funding makes a positive impact on your dedication to the education of the students of Hawaii and meets President Obama's goals for strengthening this nation's education system.

Sincerely,

A handwritten signature in cursive script that reads "June Scobee Rodgers".

June Scobee Rodgers Ph. D.
Founding Chairman
Challenger Center for Space Science Education

March 18, 2011

RE: Senate Bill 1173, SD2: Making An Appropriation For Matching Grants For Space Science Education Programming Services

Date of Hearing: Monday, March 21, 2011

Time: 2:00pm **Place:** Conference Room 309; State Capitol, 415 S. Beretania Street

Dear Representative Roy Takumi, Chair of the House Education Committee, Rep. Della Au Belatti, Vice-Chair of the House Education Committee, and members of the committee,

My name is Liane Kim, a founding teacher and director at Challenger Center Hawaii (CCHI). Twenty years ago I had the privilege of working with the superintendent of public schools and corporate and community leaders to bring this innovative science, technology, engineering and mathematics (STEM) program to our islands. The Leeward District had the foresight to develop a STEM learning center long before STEM became a federal mandate. In April 1993, we reached our goal to join the Challenger Center for Space Science Education (CCSSE) learning center network and became the 14th Challenger Learning Center (CLC). Currently there are 48 CLCs throughout the United States, Canada, Great Britain and South Korea.

I humbly ask for your support of SB 1173, SD2, so that CCHI can continue its mission “to prepare students for the global and technological workforce.” CCHI advocates career-opportunities for students in the much needed areas of science, technology, engineering and mathematics (STEM). Since its inception in 1993, over 85,000 students in Hawaii have participated in the space missions (*Rendezvous with Comet Halley* or *Return to the Moon*) at the CCHI. The CCHI has a space station (SS Campbell) and a mission control room (Weinberg Mission Control). SS Campbell includes different stations where student astronauts conduct experiments similar to those in the real International Space Station. They send the data from the experiments to their partners in Weinberg Mission Control which mirrors the real Mission Control at NASA’s Johnson Space Center. The mission controllers in turn record and analyze the data, solve problems that may arise, and communicate with their fellow student astronauts in the space station to make sure they are safe. Both the space station and mission control are equipped with the latest technology.

A sizeable investment of state monies has been made to keep the CCHI in working order. Initially, three classrooms at Barbers Point Elementary School were renovated to accommodate the necessary equipment and resources for the CCHI. Software as well as hardware are constantly being upgraded to keep the CCHI equipped with the latest technological advances. It would be a shame to see the demise of the CCHI after the state has made such a large investment.

CCHI is not a museum. It is a hands-on learning center that utilizes space exploration as a theme to teach STEM in relation to the Hawaii Content and Performance Standards III (HCPSIII) and General Learner Outcomes (GLOs). Students work in cooperative teams to solve real-life

problems during a spaceflight simulation. Teachers themselves attend professional development (PD) workshops during the summer to prepare their students for their visit. To date a total of 1,432 Hawaii teachers have participated in the PDs provided by the staff of the CCHI. The PDs allow teachers to focus on the Standards and GLOs in a real-life situation. The CCHI also supports the NASA Educator Resource Center which provides research materials and supplemental curriculum resources to teachers to enhance their own professional growth.

As an educator, I am overjoyed as I observe the transformation that occurs in our students during a mission. I am touched when a shy, insecure student blossoms into a confident, capable one. I love the progress that occurs when a puzzled, confused child “gets it” and the “aha” and understanding deepens. Without a doubt the CLC experience is an engaging, innovative, revolutionary approach to learning.

This unique approach to learning would not have been possible without the vision and determination of the surviving family members of the Space Shuttle Challenger crew. They were successful in turning a tragic event into a priceless STEM program. January 28, 2011 marked the 25th anniversary of the space shuttle accident and the passing of Hawaii born astronaut Ellison Onizuka.

When our students and teachers learned that the CCHI would not be operational in the 2010-2011 school year, they rallied to support us during the 2010 legislative session. Students and teachers from every school that participated in our program wrote letters supporting our program to the Governor, School Superintendent, Board of Education and the Legislators. The students also initiated a petition drive, *Save Challenger Center Hawaii*, and wrote letters to the editors of our daily newspapers. Once again a tragic event blossomed into a beautiful lesson in activism and civic responsibility. Their efforts enabled our CLC to remain operational for the present school year.

We need to continue to keep Ellison’s dream and legacy alive for future generations. He serves as a role model for our keiki for he was a man of humble beginnings who grew up on the Big Island of Hawaii and was the first Asian American to fly in space. We are stewards of his legacy and our mission is to inspire our students to value their education, strive for excellence and dream of possibilities. The CCHI enables students to be prepared for the global and technological workforce.

I humbly ask for your assistance to keep the CCHI operational indefinitely. Help us keep our doors open so that we can continue to inspire our students and help them dream. Let us work together to touch the future so our students can continue to “... explore and discover, learn and teach, build and share” (Barbara Morgan, Educator Astronaut, Mission Specialist on STS 118).

With a grateful heart,

Liane Kim
Founding Educator/Director
Challenger Center Hawaii

S.B. 1173 SD2: Making An Appropriation For Matching Grants For Space Education Programming Services

Date of Hearing: Monday, March 21, 2011

Time: 2:00 p.m. Place: HouseConference Room 309

TESTIMONY: House Education Committee Chairperson Takumi , Vice Chair Au Belatti and members of the Education Committee.

My name is Stanley Seki, retired Administrator with the Department of Education, and a member of the Challenger Center Hawaii (CCH) Advisory Committee. I am speaking IN SUPPORT OF THE INTENT OF Senate Bill 1173, SD2 for the following reasons:

- (1) The Challenger Center Hawaii is a living legacy to the late Challenger astronauts, notably Hawaii born astronaut Ellison Onizuka.
- (2) The Challenger Center Hawaii is unique in that it was initiated and completed largely through the commitment and hard work (from idea formulation through fund raising to having their students participating in the Challenger Center program) of classroom and resource teachers.
- (3) The Challenger Center Hawaii is also unique in that it was an excellent model of a true partnership among diverse groups in the Hawaiian community (Government agencies, private business, military, teachers ,administrators and school children).
- (4) The Challenger Center Hawaii, which opened 18 years ago, is a forerunner of STEM (Science, Technology, Engineering and Mathematics) education which is a top priority of education today.

Your support of this proposed legislation which can provide support for the continuance of the Challenger Center Hawaii will greatly benefit the students who will be able to participate in this STEM related educational program and ultimately the economy of the State of Hawaii.

Mahalo nui loa!



Challenger Center Hawaii

*A Hawaii Department of Education Program
Supported by the Hawaii Public Schools Foundation*



March 18, 2011

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STEERING COMMITTEE

Clinton R. Churchill
Theresa C. McMurdo
Stanley T. Seki
Charles T. Toguchi

TO: Representative Roy Takumi, Chair
House Education Committee

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Gov. John D. Waihe'e

Members of the House Education Committee

RE: SB No. 1173 S.D. 2 – Appropriation for
Space Education Programming

EXECUTIVE DIRECTOR

Liane S. Kim

My name is Clint Churchill and I am testifying in support of the Bill, with suggested revisions. I am a member of the Steering Committee of the Advisory Board for Challenger Center Hawaii (CCHI). Twenty years ago I chaired the effort to raise, from foundations and corporations, the capital funds needed to construct CCHI in three former classrooms at Barber's Point Elementary School. The concept at the time was that, should sufficient capital funds be raised to get the center started, the DOE would fund on-going operating expenses.

I applaud the State and DOE for living up to this commitment over the last 18 years but, on the other hand, understand the current budget crisis. Accordingly, we have re-kindled an Advisory Board (see list to the left) to support the continuation of the great mission and positive impact that CCHI has made on our school children. I will leave it to others to make laudatory remarks on the quality and value of the program.

As you may know, \$145,000 of Federal stimulus money has been committed to Challenger Center Hawaii for July – December 2011. This leaves the program \$100,000 short to enable continuation of the excellent S.T.E.M. program for the balance of the school year ending in June, 2012. I strongly encourage the Education Committee to recommend such funding to the House Finance Committee.

Section 2 of the bill calls for submitting a plan to the legislature to enable the Center to become financially self-sufficient. We will

Representative Roy Takumi, Chair, House Education Committee
Members of the House Education Committee
March 18, 2011

certainly submit a plan, but I would like to point out one concern: by listing private donations, fees, and Federal grant monies as funding sources (and thus excluding State funding), this has the effect of the State's abandoning the program financially after June, 2012. We would like to keep open the possibility of a public-private partnership to keep the Center funded. Over the next year, we intend to establish a 501(c)(3) to facilitate grants and other donations. The concern is that the time required to do so and secure initial grants by July of 2012 is simply too tight.

Accordingly, I respectfully suggest that Line 2 of Section 2 read "to partner financially with the State of Hawaii" in lieu of "to become financially self-sufficient".

Thank you in advance for considering the recommendations made above. As one of only seven states who lost sons and daughters in the tragic Challenger accident 25 years ago, it is vitally important that we keep this "living monument" on solid financial footing into the future. We simply can't let the families of the Challenger astronauts, and in particular the Onizuka family, down.

Very truly yours



Clinton R. Churchill
Advisory Board Member



Challenger Center Hawaii

*A Hawaii Department of Education Program
Supported by the Hawaii Public Schools Foundation*

March 18, 2011

*TO: Representative Roy Takumi, Chair
House Education Committee*

Members of the House Education Committee

*RE: SB No. 1173 SD2 "Appropriation for Space
Education Programming Services"*

Chair Takumi and Committee Members:

*Thank you for the opportunity to provide written
testimony in support of SB 1173 SD2, "Making an
Appropriation for Space Education Programming
Services."*

*My name is Charles Toguchi, former Superintendent
of Education, from 1987 to 1994. I am writing in
support of SB 1173 SD2. Almost twenty years ago, the
DOE and other community leaders worked with the
Legislature to secure funds to start the 14th Challenger
Center in Hawaii...in an established network of 48
Challenger Centers in the US, Britain, Canada, and
Korea.*

*The Challenger Center helped to provide space
exploration as a theme to teach (STEM)...science,
technology, engineering, and mathematics in relation
to the Hawaii Content and Performance Standards III
and the General Learner Outcomes (GLDs). The
Center was also established to honor Hawaii born
astronaut and Challenger crewmember, Ellison
Onizuka.*

*I had several opportunities to observe the program in
action...and was very impressed with the high level of
interaction between students and teachers...and the
knowledge that was gained by participating students.
The result was not only the fact that important subject
matter was gained ...but, that the attitudes of many of
the students toward science and math had changed.
The genuine and positive enthusiasm and appreciation
of science and math was clearly evident...in the
students' remarks, smiles, self confidence, and their
desire to further explore the world of science,
technology, engineering, and math.*

Sally Ride, the first woman and youngest American to fly in space, spoke to students at UC-Berkely on February 8, 2011. Ms. Ride said, "Scientists solve problems"....which is exactly what the students do at the Challenger Center. "We need to make science cool again," she said. Again, this is exactly what the Center does.

After students work in teams to solve real-life problems, their common reaction is, "Wow...this is cool!" These students will be our future scientists, engineers, mathematicians, and problem solvers.

If we are to compete on the world stage, we need programs such as the Challenger Center to engage our students...retain their interest...and truly get them interested in science and math.

Why end this STEM program that has been proven successful during the past 18 years?

Thank you for the opportunity to provide written testimony. It is my sincere hope that you will support SB 1173 SD2.

*Sincerely,
Charles T. Toguchi
Advisory Board Member
Challenger Center Hawaii*



CETRA
GROUP

STRATEGIC BUSINESS CONSULTING

900 Fort Street
Suite 480
Honolulu, HI 96813

March 21, 2011

The Honorable Roy M. Takumi, Chair
The Honorable Della Au Belatti, Vice Chair
and Members of the Committee on Education
Hawaii House of Representatives
415 South Beretania Street
Honolulu, Hawaii 96813

Dear Chair Takumi, Vice Chair Belatti and Committee Members:

**SB 1173, SD 2 – Making an Appropriation for Matching Grants
for Space Education Programming Services**

My name is Theresia McMurdo and I am a member of the Steering Committee of the Advisory Board for the Challenger Center Hawaii. I am testifying **in support** of SB 1173 SD2 to save an invaluable resource in the education of our children. Despite the title of this bill, the Challenger Center is really not about space education. It is more about inspiring our children to learn. It is about exciting the natural curiosity of our children and giving them the life-long love of learning.

You can say that nine tenths of education is inspiration and encouragement. The Challenger Center is the only place on Oahu that inspires and encourages our children in the areas of math and science. It gives them permission to aspire to succeed as Ellison Onizuka did.

When I helped build the Challenger Center twenty years ago, I was not married and I had no children. Little did I know that the center I helped build would inspire my two children who have both had the opportunity to participate in the center's programs over the years. For my children, it has made them appreciate the important role of math and science in our world today.

We talk a lot about how our country is losing its worldwide dominance in science and innovation. We talk about the dwindling number of students who pursue engineering, physical sciences and mathematics. We talk about how our children score below average in science and math skills. And then we expect our teachers to address these gaps but give them inadequate tools or no tools at all.

SB1173 Testimony

March 21, 2011

Page 2

We built the Challenger Center 20 years ago entirely on private funds. When I worked for Campbell Estate, I was involved in numerous public-private partnerships similar to this. I can tell you that, without a doubt, this is one of the partnerships of which I am most proud because it has yielded very tangible benefits for the children of Hawaii.

I respectfully ask for your support of this bill so that future generations of Hawaii's children may continue to be inspired as my children certainly have.

Sincerely,

A handwritten signature in black ink, reading "Theresia C. McMurdo". The signature is written in a cursive style with a large initial 'T'.

Theresia C. McMurdo
President



TESTIMONY

TO: REPRESENTATIVE ROY M. TAKUMI, CHAIR
HOUSE EDUCATION COMMITTEE (EDN)
THE TWENTY-SIXTH LEGISLATURE / REGULAR SESSION

FROM: DR. PATRICK K. SULLIVAN
FOUNDER & CHAIRMAN

RE: S.B.NO. 1173, S.D. 2

POSITION: IN SUPPORT OF S.B. NO. 1173, S.D. 2

DATE/TIME/LOCATION: MONDAY, 21 MARCH 2011 / 2PM / CONFERENCE ROOM 309

Dear Chairperson Takumi and Members of the House Committee on Education:

As the Founder and Chairman of Oceanit, I was honored to be invited to join the Advisory Board for the Challenger Center Hawaii (CCHI). Helping "at risk" students get excited about Science, Technology, Engineering and Mathematics (S.T.E.M.) is important to our future.

The Leeward District established the CCHI to help the Department of Education begin to address the disheartening results of a 1990 research study that revealed America's work force would not be prepared to meet the demands of the 21st Century as millions of middle school students had little interest in science, mathematics and technology. The results of the study recommended developing an innovative education program that utilizes teamwork, was active and not passive, and incorporates opportunities to think critically and make responsible decisions.

As a hands-on learning center that uses space exploration as a theme to teach science, mathematics and technology in relation to the Hawaii Content and Performance Standards III (HCPS III) and the General Learner Outcomes (GLOs), the CCHI has perfected this model, and its students thrive as they work in cooperative teams to solve real-life problems during a spaceflight simulation.

I appreciate the opportunity to provide written testimony on: **MAKING AN APPROPRIATION FOR MATCHING GRANTS FOR SPACE EDUCATION PROGRAMMING SERVICES**. I am in support of the Bill, with suggested revisions:

- a) SECTION 1. That line 2 read "\$100,000" in lieu of "\$" as this is the amount CCHI needs to augment the \$145,000 of Federal stimulus money committed to CCHI for July-December 2011 in order to continue its S.T.E.M. program for the balance of the school year ending in June 2012; and,
- b) SECTION 2. That Line 2 read "to partner financially with the State of Hawaii" in lieu of "to become financially self-sufficient..."

Thank you.

EDNtestimony

From: Alec_Masuda/PRIDGE/HIDOE@notes.k12.hi.us
Sent: Thursday, March 17, 2011 6:24 PM
To: EDNtestimony
Cc: Liane_Kim/LEEDO/HIDOE@notes.k12.hi.us
Subject: Challenger Learning Center of Hawaii

Dear Rep. Roy Takumi, House Education Chair, Rep. Della Au Belatti, Vice Chair and members of the Education committee,

I am writing a personal testimony in regard to the following:

RE: Senate Bill 1173, SD2: Making an appropriation for matching grants for Space Education Programming Services

Date of Hearing: Monday, March 21, 2011

Time: 2:00 pm Place: Conference Room 309; State Capitol, 415 S. Beretania Street

Everyone is aware of the challenges facing our economy and budget. Granted, priorities need to be set regarding which programs will receive funding. To my knowledge, STEM is a priority. The Challenger Learning Center of Hawaii is simply put, STEM in action. Cutting funding for Challenger Learning Center is thus hypocritical. Politicians of integrity cannot preach STEM and cut a program like CLC at the same time.

As a classroom teacher who has taken students for many years to the CLC, I can assure you any funding to help keep this program alive is money well spent. The CLC cannot be replicated in a typical school and classroom. If the CLC is gone, the experience is lost forever. It is a one-of-a-kind simulation that can only happen at a place like the CLC.

Challenger Learning Centers across the nation and world were built in memory of the Space Shuttle Challenger tragedy that occurred on January 28, 1986. Though over 25 years ago, that event is forever etched in the minds of those who witnessed the fatal explosion. The legacy of the Challenger lives on in each learning center every year with thousands of students. As you know, Ellison Onizuka from Kona, Hawaii was part of the Challenger Crew along with Sharon Christa McAuliffe, the first citizen passenger who was also a high school classroom teacher. These learning centers not only provide STEM education for students, they also honor those that lived it. Cutting the CLC of Hawaii is not just a blow to STEM education, it is the termination of a legacy - a legacy close to the hearts of many here in Hawaii because of pioneers like Ellison Onizuka.

My advice to you is to pay a personal visit to our CLC at Barber's Point Elementary. See for yourself STEM in action and then make your decision. It will be clear. Words alone cannot describe the experience. At a minimum, the CLC of Hawaii deserves the respect of those who will determine its fate.

Sincerely,

Alec Masuda

Date written: March 18th, 2011
Writer: ERIN STUDDT, 6TH GRADE SCIENCE TEACHER KAPOLEI MIDDLE SCHOOL
Re: Senate Bill 1173, SD2 MAKING APPROPRIATION FOR MATCHING GRANTS FOR SPACE EDUCATION PROGRAMMING SERVICES
Hearing Date: March 21st, 2011
Time: 2pm
Location: Conference Room 309

Dear Representative Roy Takumi, House Education Chair, Representative Della Au Bellati, Vice Chair and Members of the Education Committee,

I am here to talk about Senate Bill 1173, SD2. Challenger Center has been apart of my Science Curriculum for 4 years now. This flight simulation program teaches students to apply math and science skills in order to solve problems similar to what an astronaut might really face on a mission. We have many pre-mission activities that help prepare students for situations they may face at Challenger Center. They learn to use a variety of scientific tools such as an ammeter, balance, graduated cylinder, and robot arm. They learn how to better communicate with each other so the information they share is clearly understood. They also learn to take precise measurements and to use formulas with the data they have collected. Once the data has been collected, they also need to communicate back and forth from the space station to the mission control room where they analyze the data collected and then do research to find answers for problems and emergencies they face during their mission. At Challenger Center, students are on their own to solve tasks they encounter all within a limited time frame. The students have individual tasks to accomplish, but everyone must work together as a unit in order for the group to be successful in their mission. While the students may become stressed at times during their mission, they must trust they are prepared and they trust themselves and their classmates. Regardless of the outcome of the mission, students truly learn from the experience. I believe that this is a great program and an experience like this would not be attainable in a regular classroom setting alone. That is why this program should get its funding.

Sincerely,
Erin Studt
Kapolei Middles School
6th grade Science Teacher

Date written: March 18th, 2011
Writer: SHYANN PROPIOS, 6TH GRADER KAPOLEI MIDDLE SCHOOL
Re: Senate Bill 1173, SD2 MAKING APPROPRIATION FOR MATCHING
GRANTS FOR SPACE EDUCATION PROGRAMMING SERVICES
Hearing Date: March 21st, 2011
Time: 2pm
Location: Conference Room 309

Dear Representative Roy Takumi, House Education Chair, Representative Della Au Bellati, Vice Chair and Members of the Education Committee,

I feel SB 1173, SD2 should be passed because it is an incredible educational experience. Challenger center is a great place because children our age get to learn and feel like a real member of NASA. Every job is important like my job, data officer. If I failed to send a message or pass on a message, the mission could fail.

Before our Challenger Center Mission, we prepared in our Science class. We've been participating in mission control and space station activities. In mission control, we would have to give instructions orally, but sometimes we would have to write it on a sticky note. Space station would have to build the project and make sure it looks good and was built properly. Afterwards, everyone would go outside and do trials with our project. So we would put down how far it went in meters, and then calculate the average. We would also discuss what we did good and what we struggled at for next time.

We had problems along the way too. Like people didn't understand each instruction clearly, how to find the mean, and how to cut, fold or label, the project. Everyone had to figure out a way to solve these problems. If people didn't understand instructions, mission control would have to say it differently in a kid friendly version. When people had a difficult time, like finding the mean, other students would help each other adding or dividing. We had to use teamwork. Before the mission, if students had a hard time say cutting and folding the project, we could ask Mrs. Studt, our Science teacher, what we could do to the project to fix it. She would help us fix it up by having us reread or clarify the instructions and she would explain to us what we did wrong for next time.

At Challenger Center, it was difficult and we had to think hard. There was a lot of problem solving to accomplish our tasks and finish our mission on time and safely. Everyone's job was critical, or else we might fail our mission.

Challenger Center should continue to be funded for the children in future missions. It gives us hope, goals, and dreams to strive for. It will also encourage kids to work hard and hopefully to get a similar job like a position at NASA or we can use these skills in any other jobs we may get in the future.

Thank you for your time.

belatti4-Joal

From: Jerzelle_Ruiz-Cabilao/KAPOMID/HIDOE@notes.k12.hi.us
Sent: Friday, March 18, 2011 2:35 PM
To: EDNtestimony
Subject: BILL SB1173, SD2 testimony for March 21, 2011 @ 2 pm Conference Room #309

This e-mail is a testimony for the following:

BILL SB1173, SD2 hearing on Monday March 21 at 2 pm at the State capitol conference room #309

Dear Representative Roy Takumi, House Education Chair, Representative Della Au Belatti, Vice Chair and members of the Education committee,

This testimony is in response to bill SB1173, SD2. I am a sixth grade student at Kapolei Middle school. This was my first year participating in the Challenger Center. It was one of the best days of my life because it was so realistic and it actually feels like you are in a real space station! Why do you want to end the Challenger Center? It is a great hands-on learning place for kids to learn about science in a fun way.

I would like to share about the Challenger Center to help change your mind about ending it. Before we go to the Challenger Center, there are pre-mission activities that train us. The pre-missions help us to communicate with our partner(s) in two ways: 1) written messages and 2) verbally. The type of activity that we did in the pre-mission taught us how to communicate with one another and explain to your partner how to construct a certain type of object (ex. a probe) or how to do a task.

The second thing that I would like to share about the Challenger Center is that the kind of problems we figure out are real scenarios that may take place on a real mission to space. For example, my job was "life support". I was responsible for the oxygen, food and water in the shuttle. If a red light is flashing at my station, I need to reread my task cards and see if I need to fix something that is wrong. If that doesn't work, then I have to communicate with my partner in Mission Control. The strategies that are being used are team work and communication. In all of the pre-missions and actual mission, you need to use critical thinking skills, problem solving and common sense to complete your mission on time and safely. My group passed our mission! We were so happy!

My question to the Representatives and member of the Education committee remains the same, "Why do you want to end the Challenger Center for our next generations to come? Why are you discontinuing the scientific learning experience for our keiki?". We should let the Challenger Center continue on their colorful journey so other students like me can learn how to use the strategies of learning how to communicate, use team work, critical thinking and problem solving in a fun scientific way. We need the Challenger Center. I want other kids to experience what I got to experience. Please don't end the Challenger Center!

Sincerely,

Lilinoe Ruiz-Cummings
Kapolei Middle school
Sixth grader