

SB1173

Challenger Center for
Space Science Education

300 N. Lee St., Suite 301
Alexandria, VA 22314
703.683.9740
www.challenger.org



February 4, 2011

Re: Senate Bill 1173 - Making an appropriation for matching grants
for Space Education programming services - February 9, 2011 at 1:15 pm

Dear Senator Jill Tokuda, Chair Senate Education Committee and Senator Will Espero, Chair Public Safety, Government Operations and Military Affairs and members of the committees,

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



February 4, 2011

Re: Senate Bill 1173 - Making an appropriation for matching grants for Space Education programming services - February 9, 2011 at 1:15 pm

Dear Senator Jill Tokuda, Chair Senate Education Committee and Senator Will Espero, Chair Public Safety, Government Operations and Military Affairs and members of the committees,

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 continue to be the voice for Challenger Center Hawaii with the Senate by passing Senate Bill 1173. Their hard work and unrelenting dedication 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,

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



February 7, 2011

Re: Senate Bill 1173 - Making an appropriation for matching grants for Space Education programming services - February 9, 2011 at 1:15 pm

Dear Senator Jill Tokuda, Chair Senate Education Committee and Senator Will Espero, Chair Public Safety, Government Operations and Military Affairs and members of the committees,

As chairman of the Board for Challenger Center for Space Science Education and former NASA Astronaut, I want to thank you for your support for Challenger Center Hawaii and ask that you influence the Senate to include them in the Senates DOE budget. 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. 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 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", written in a cursive style.

Scott Parazynski, MD
Chairman, Challenger Center for Space Science Education



Challenger Center Hawaii

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



February 7, 2011

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Liane S. Kim

TO: Senator Jill M. Tokuda, Chair
Senate Education Committee

Senator Will Espero, Chair
Senate Public Safety, Government Operations and
Military Affairs

Members of both Committees

RE: SB No. 1173 – Grant for Space Education Programming

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.

I support SB No. 1173 but would like to respectfully suggest amendments to the statements detailing the requirement for matching funds. For example, should the legislature appropriate \$120,000 for FY 2011-2012, the matching grant requirement would be \$960,000. This amount of money is simply not needed nor feasible. I respectfully suggest that the Bill be amended (line 7 on page 1) to "provide a \$20 match in fees, grants, private donations, or other fundraising sources for every \$100 awarded by the DOE for the fiscal year 2011-2012."

There are two concerns with Section 2 of the bill. First, it should be noted that \$145,000 in ARRA-SFSF Part B (“stimulus”) funds have been set aside for CCHI for the period July 1, 2011 – December 31, 2011. Accordingly, in order to provide an equal amount for FY 2012-2013 (and assuming the \$120,000 grant from Section 1 of the bill is approved) the sum of \$265,000 would need to be appropriated for FY 2012-2013. This amount could be reduced to \$227,000 by stepping up the partial match funding as set forth in the following paragraph.

Regarding the Section 2 language on the partial matching grant, there is a similar concern to the language in Section 1 as discussed above. Accordingly, I respectfully suggest that the Bill be amended (line 2 on page 2) to: “provide a \$40 match in fees, grants, private donations, or other fundraising sources for every \$100 awarded by the DOE for the fiscal year 2012-2013.” By increasing the private sector match in this manner, CCHI can gradually transition to a public-private partnership and less dependence on State funding.

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*

February 8, 2011

*TO: Senator Jill M. Tokuda, Chair
Senate Education Committee*

*Senator Will Espero, Chair
Senate Public Safety, Government Operations
And Military Affairs*

Members of both Committees

RE: SB No. 1173 Grant for Space Education Programming

Chair Espero, Chair Tokuda and Committee Members:

Thank you for the opportunity to provide testimony in support of SB 1173, "Making an Appropriation for Matching Grants 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. 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, 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.

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

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

February 8, 2011

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

Date of Hearing: Wednesday, February 9, 2011

Time: 1:15 pm Place: Conference Room 225; State Capitol, 415 S. Beretania Street

Dear Senator Jill Tokuda, Chair Senate Education Committee and Senator Will Espero, Chair Public Safety, Government Operations and Military Affairs and members of the committees,

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, 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. Our mission was to join the Challenger Center for Space Science Education (CCSSE) learning center network. We succeeded by becoming the 14th Challenger Learning Center (CLC) in April 1993. Currently there are 48 CLCs throughout the United States, Canada, Great Britain and South Korea.

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.

As an educator, I am overjoyed as I observe the transformation that occurs in our students during the 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.

Although 25 years have passed, we at Challenger Center Hawaii continue to keep Ellison's dream alive. 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.

Unfortunately, Ellison's legacy and the legacy of the Challenger 51-L crew are in jeopardy. We are struggling to keep our CLC operational. Opened in April 1993, Challenger Center Hawaii has touched the lives of over 85,000 public and private middle school students in our state. We have also trained 1,432 teachers in our curriculum.

During the 2010 legislative session we were moved and honored that our students and teachers rallied to support us. 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. Our students also initiated a petition drive to 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 another school year.

Despite our challenging situation, our passion is still alive. We remain determined and focused on our mission of survival. We will do whatever is necessary to keep Ellison's legacy alive for future generations. As we commemorate the 25th Anniversary of the Challenger accident and our 18th Anniversary of operation approaches I humbly ask for your assistance. I believe that our students, teachers and the citizens in our state would love to learn that the educational mission of the Challenger 51-L crew continues and they would want our vision for STEM education to thrive and survive.

With a grateful heart,

Liane Kim

Liane Kim
Founding Educator/Director
Challenger Center Hawaii

February 8, 2011

The Honorable Jill Tokuda, Chair
and Members of the Committee on Education
The Honorable Will Espero, Chair
and Members of the Committee on Public Safety,
Government Operations and Military Affairs
Hawaii State Senate
415 South Beretania Street
Honolulu, Hawaii 96813

Dear Chair Tokuda, Chair Espero and Committee Members:

**S.B. 1173 – 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 Senate Bill 1173 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.

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February 8, 2011
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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,



Theresia C. McMurdo
President

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

Date of hearing: Wednesday, February 9, 2011

Time: 1:15 p.m. Place: Conference Room 225; State Capitol, 415 S. Beretania Street

Dear Senator Jill Tokuda, Chair, Senate Education Committee and Senator Will Espero, Chair Public Safety, Government Operations and Military Affairs and members of the committees

The Challenger Center Hawaii program was born out of a tragic event 25 years ago when seven astronauts including Hawaii's Ellison 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.

We fully support your passage of Senate Bill no. 1173; it is a highly academic, 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 state budget deficit, the goal of making the Challenger Center Hawaii sustainable through this funding that requires matching funds, will allow the Challenger Center Hawaii time to develop a 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. 1173.

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

February 7, 2011

Honorable Senator Jill Tokuda

Chair – Committee on Education

RE: SB 1173

Appropriation for Matching Grants for Space Education

I would like to request for STRONG SUPPORT for SB 1173 for the appropriation of Matching funds for Space Education. We are fortunate to have the Challenger Center of Hawaii as one of the two Space Educational facilities for the students of Hawaii. The Astronaut Ellison Onizuka Space Center in Kona is also in jeopardy of losing it's one and only teacher position which I hope can be included as a part of this SB 1173. We have these 2 great space science facilities for our students, which serves as a Spark plug for science and math. If we fail and allow these facilities to unfunded by the Department of Education, we will never get them back.

My brother Ellison believed that the future is in science, math, and space exploration. He proved to the students, and people of Hawaii dreams and goals can be attained through hard work, studying hard, and determination.

I have attached Ellison's "Message to Future Generations" which he delivered to the Graduating Class of 1980 at Konawaena High School. After the Challenger accident This message has gone nationally and internationally, and the message is exactly as it is titled – "A Message to the Future Generations".

I sincerely urge all of you to STRONGLY SUPPORT SB 1173 and to include the Astronaut Ellison Onizuka Space Center in this bill.

Sincerely,


Claude S. Onizuka

Astronaut Ellison Onizuka Memorial Committee



P.O. BOX 833 • KAILUA-KONA, HAWAII 96745 • PHONE 808 329-3441 • FAX 808 326-9751

A Message to the Future Generations

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 adventurists, 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.

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Your vision is not limited by what your eye 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.

*Ellison S. Onizuka
1980*

Senate Bill 1173: Making An Appropriation For Matching Grants For Space Education Programming Services

Date of Hearing: Wednesday, February 9, 2011

Time: 1:15 p.m. Place: Conference Room 225; State Capitol, 415 S. Beretania Street

Testimony: Senate Education Committee Chairperson Tokuda, Public Safety, Government Operations and Military Affairs Committee Chairperson Espero and committee members:

My name is Stanley Seki , retired DOE Administrator, and I am speaking **IN SUPPORT OF THE INTENT OF**

Senate Bill 1173 for the following reasons:

- (1) The Challenger Center Hawaii is a living legacy to the late Challenger astronauts notably Hawaii Born Ellison Onizuka
- (2) The Challenger Center is unique in that it was initiated and completed largely through the commitment and hard work (idea formulation through fund raising to having their students participating in the Challenger Center program) of classroom and resource teachers.
- (3) The Challenger Center 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 and administrators, and school children)
- (4) The Challenger Center Hawaii , which opened 18 years ago, was a forerunner of STEM education which is very much in vogue today.

Your support of this measure to support the continuance of the Challenger Center

Hawaii will greatly benefit the students who will be able to participate in this

STEM related educational program.

Mahalo Nui Loa!

February 5, 2011

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

Date of Hearing: Wednesday, February 9, 2011

Time: 1:15pm Place: Conference Room 225; State Capitol, 415 S. Beretania Street

Dear Senator Jill Tokuda, Chair Senate Education Committee and Senator Will Espero,
Chair Public Safety, Government Operations and Military Affairs and members of the
committees,

My name is Julia Segawa, teacher at Stevenson Middle School. I have had the
opportunity to bring my sixth and eighth grade students to Challenger Center Hawaii.
This program provides life-changing experiences for our students that are consistent
with State Standards and the Middle School philosophy.

The Challenger Center curriculum is solidly based on General Learner Outcomes
(GLOs) and HCPS III Standards and Benchmarks for Science, Math, Social Studies,
and English. The interdisciplinary format is conducive to student learning, as students
make relevant connections in different course areas. The latest in brain research
supports this. It also reinforces inquiry based learning. We use Problem Based
Learning (PBL) in our science classrooms. The PBL format presents a case study or
scenario for students to investigate. We have shown gains in student achievement in
our science classes through this method. Two of our school's case studies are based
on the Challenger experience.

Challenger prepares our students for the global and technical workforce. It is an
excellent example of Science Technology Engineering and Math (STEM). The actual
mission provides students the opportunity to apply what they learned in classroom
lessons and activities. Students must engage in active thinking and critical problem
solving while working together as a team. They are presented with realistic problems or
challenges during the mission and must solve it on their own within a limited time frame.
They use the latest in equipment and technology, which requires difficult skills and
mastery of knowledge. This is true rigor.

The relevance to current NASA initiatives and rigor of the mission are priceless. Many
students reflect and comment how they have a better understanding of not only the
benchmarks, but how STEM is vital in today's global community at large. I still have
high school students begging me to take them along as chaperones just so they can
experience Challenger Center again. Our current students are devastated that
Challenger Center may lose funding, or worse, be closed indefinitely.

I encourage you to observe a mission in progress. Looking at data about the center will
not truly reflect the impact Challenger has on our students. Pictures tell a thousand
words, but being there, observing the students in action will give you chicken skin. I
have seen many students take charge and show a different side of themselves, which
surprises everyone. Many of my proudest moments as a teacher are these memories,
especially when other students congratulate them on a job well done. The positive
psychological, emotional, and social impact cannot be expressed in words. You must
witness it firsthand.

I urge you to pass Senate Bill 1173. It will help keep Challenger Center open for Hawaii's students. It will impact thousands of students and our Hawaii community in the present and future. This program is valuable, relevant, rigorous, and the impact is far reaching.

This year is the 25th anniversary of the Challenger accident. Ellison Onizuka, teacher Christa McAuliffe, and the Challenger Crew's legacy live on through Challenger Center. Let's keep it alive!

Respectfully submitted,

Julia Yuan Segawa
Robert Louis Stevenson Middle School
Science Signature School
Science Teacher and Science Curriculum Coordinator

Jonette Gallagher
Grade 6 Teacher
Enchanted Lake Elementary School
770 Keolu Drive
Kailua, Hawaii 96734

Senate Bill 1173: Making An Appropriation For Matching Grants For Space Education Programming Services

Date of Hearing: Wednesday, February 9, 2011

Time: 1:15pm Place: Conference Room 225; State Capitol, 415 S. Beretania Street

Senator Jill Tokuda, Chair Senate Education Committee
Senator Will Espero, Chair Public Safety, Government Operations and Military Affairs
Members of the Committees

My name is Jonette Gallagher. I am currently a Grade 6 teacher at Enchanted Lake Elementary School. My students and I have been fortunate enough to have been a part of the Challenger Center of Hawaii experience for the past eleven years.

The Challenger of Hawaii experience is truly unique in the very essence of the word, unique. The experience provides each student with authentic opportunities: to engage in hands-on learning, to practice quick thinking, to isolate purposeful thinking, to embrace cooperative learning, to assume responsibility for the individual GLO's, and to gauge/identify personal learning styles all in the parameters of a specially designed space mission.

Every mission is different. Within each mission is an inherent component to have a child identify and recognize himself/herself as a language artist, as a mathematician, as a scientist, as a social scientist, as an artist, as a musician, as a computer technologist, and most importantly as a learner and a thinker.

"I didn't think I could do it." "We did it together." "I really had to think." "That was so stressful." Comments by the students suggesting challenge, thinking skills, and the need to work together are generated year after year after year. The children are actively challenged to think together as a team, not for just a moment, but throughout their entire experience at the Challenger Center of Hawaii.

The Challenger Center of Hawaii is the 14th of 83 Challenger Centers established in memory of all crew members of the ill-fated Space Shuttle Challenger. Our own Ellison Onizuka, a decorated member of that crew, eloquently addressed the 1985 Konawaena High School students with words still fitting for the students of today:

"Your vision is not limited to what you can see, but what your mind can imagine. Many things that you take for granted were considered unrealistic dreams by precious generations. If you accept these past accomplishments as commonplace then think of the new horizons 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."

In reflecting about the “Race to the Top”, I firmly believe the authors and writers of the proposals believed in and embraced the spirit of Ellison Onizuka. The “Race to the Top” opportunities to expand thinking and to expand learning to a level of “new horizons” are in keeping with the vision of Ellison Onizuka, one of our greatest dreamers. The children of Hawaii deserve the opportunity to dream and be inspired by that dream.

It is with urgency for our children that I ask you to please consider appropriations, funding, and alternative ways to secure the availability of the Challenger Center Hawaii not just for today, but for years to come.

Respectfully submitted,

Jonette Gallagher
Grade 6 Teacher
Enchanted Lake Elementary School