

UNIVERSITY OF HAWAI'I SYSTEM 'ÕNAEHANA KULANUI O HAWAI'I

Legislative Testimony Hōʻike Manaʻo I Mua O Ka ʻAhaʻōlelo

> Testimony Presented Before the House Committee on Higher Education Wednesday, February 5, 2025 at 2:00 p.m. By Doug Simons, Director Institute for Astronomy And Brennon T. Morioka, Dean College of Engineering And Michael Bruno, Provost University of Hawai'i at Mānoa

HB 563 – RELATING TO THE UNIVERSITY OF HAWAII'S SPACE SCIENCE AND ENGINEERING INITIATIVE

Chair Garrett, Vice Chair Amato, and Members of the Committee:

It is a pleasure to provide testimony in **strong support** of HB 563 which is intended to enable a workforce development program under the new University of Hawai'i Space Sciences and Engineering Initiative (SSEI) as a long-term investment in STEM education for our keiki and workforce development for our communities.

In 2023, in support of SSEI, the Legislature approved funding for 10 engineering faculty positions within the College of Engineering and \$2M to conduct an architectural study for a new engineering support facility building next to Institute for Astronomy at Hilo (IfA-Hilo) to house SSEI and increase capacity for designing/fabricating instruments, enable new technology development, and provide internships for students. While functioning as one team, half of the new engineering faculty will be located at the College of Engineering in Manoa and half at IfA-Hilo on the University of Hawai'i at Hilo (UH Hilo) campus. The latter will teach pre-engineering classes for UH Hilo students as a pathway to acquiring degrees in several engineering fields via the College of Engineering. To date 5 of these faculty positions have been filled while we are finalizing the recruitments for three others to start in the Fall of 2025. For the first time, preengineering classes are being offered at UH Hilo for students as part of this exciting new program. Excellent progress has been made designing the new SSEI building. Joint administrative support for SSEI via UH Hilo, College of Engineering and the Institute for Astronomy has been established, startup funds provided by the legislature have been used to acquire equipment for SSEI, and the first Federal grant proposals from SSEI faculty have been submitted.

Even with this flurry of activity, there remains an essential SSEI component that needs to be strengthened and launched – a dedicated workforce development program designed to engage local schools, engineering/STEM firms, teachers, community organizations, etc. and establish a bridge between students and STEM jobs via SSEI. That is the core intent of HB 563. It is essential that we take an integrated K-career approach on Hawai'i Island like we are with O'ahu

school complexes, partnering with schools while providing unique engineering internships and learning opportunities, all leading to rewarding higher paying STEM careers that diversify the State's economy and helps keep our students in Hawai'i after they graduate. SSEI is designed to leverage off of existing investments including astronomy, aerospace, advanced manufacturing, and other existing STEM outreach programs, while augmenting and "rewiring" programs and resources within the University of Hawai'i (UH) to serve as the platform for all of this activity.

UH is thankful for the investments already made by the State Legislature in SSEI and is committed to ensuring all of the effort and resources at work lead to long-term benefits for our local students and communities. We need to advance SSEI on all fronts in parallel, including and in particular our means to reach into elementary, middle, and high schools to connect and inspire local students to participate in SSEI. Without a dedicated workforce program that links K-12 students with SSEI and ultimately higher paying jobs here in Hawai'i, the vision of SSEI will not be fully realized.

We appreciate the opportunity to provide our testimony in strong support and respectfully ask for your favorable consideration, provided its adoption does not impact priorities as indicated in our Board of Regents Approved Budget. Thank you for the opportunity to testify on this measure. C. Kimo Alameda, Ph.D. *Mayor*



Benson Medina Director

> Dennis Lin Deputy Director

County of Hawai'i

DEPARTMENT OF RESEARCH AND DEVELOPMENT

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February 3, 2025

HEARING BEFORE THE HOUSE COMMITTEE ON HIGHER EDUCATION HOUSE COMMITTEE ON EDUCATION

WEDNESDAY, FEBRUARY 5, 2025 2:00 PM CONFERENCE ROOM 309 VIA VIDEO CONFERENCE

TESTIMONY ON HB 563 COMPANION TO SB767 AND SB1268

RELATING TO THE UNIVERSITY OF HAWAI'I'S SPACE SCIENCE AND ENGINEERING INITIATIVE – IN SUPPORT

Aloha Chairs Garrett & Woodson, Vice Chairs Amato & La Chica, and members of the committee:

My name is Benson Medina, Director of Research and Development at the County of Hawaii. My testimony is in **STRONG support** of HB 563 relating to the University of Hawai'i's Space Science and Engineering Initiative (SSEI). Providing funding to strengthen astronomy's local workforce pipeline is a sound investment that will allow local people to benefit from astronomy's presence on Hawai'i Island. The County of Hawaii continues to support workforce development programs on the island and sees this as a great investment in our community.

With Maunakea being the most scientifically productive ground-based astronomy location in the world; the Maunakea Stewardship and Oversight Authority being set as an example of mutual stewardship in the scientific community; and astronomy contributing over \$200M in economic output annually statewide, Hawai'i is an international leader in the field that already has national and international interest and momentum to expand Hawai'i's influence in the field.

Providing kama'āina with the technical expertise to design and fabricate instrumentation; operate and maintain facilities; and do scientific research will not only benefit local communities, but strengthen astronomy by bringing diverse and place-based perspectives to the field. Mauankea Scholars, one of the programs that will receive funding through this bill, gives students the opportunity to engage in world-class science as high schoolers. SSEI will provide college students on Hawai'i Island with the opportunity to receive an engineering degree while getting hands-on experience at world-class facilities. Combined with other opportunities through a workforce development program like the one proposed by this bill creates a generation of Hawai'i students competitive in any academic or professional STEM environment, and gives them the opportunity to take pride in and do work of this caliber at home.

February 4, 2025 Page 2

With the right training and opportunities more kama'āina can become leaders and innovators in the fields of engineering and astronomy, and contribute to science as well as their communities. This is why I ask for your favorable consideration in passing this measure.

Sincerely,

Q

Benson Medina Director

To: Andrew Takuya Garrett, Chair Terez Amato, Vice Chair Committee on Higher Education

From: Vaughn G. T. Cook, Co-Chair of the Joint Government Affairs and Economic Development Committee of the Japanese Chamber of Commerce & Industry of Hawai'i and Parent of 3 Local Kids

RE: HB 563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative - In Support

Aloha Chair Garrett, Vice Chair Amato, and Members of the Committee,

My testimony is in **support** of HB 563 relating to the University of Hawai'i's Space Science and Engineering Initiative. As a parent of a young adult entering a Master's Degree program, a college Junior and a High School Sophomore, all either current or former Waiakea High School students in Hilo, Hawaii, I strongly believe creating opportunities for young people to study, work, and make a decent living without having to leave the state is critical to keeping Hawai'i's culture and communities alive.

Furthermore, as Co-Chair of the joint Government Affairs and Economic Development Committee of the Japanese Chamber of Commerce & Industry of Hawai'I (JCCIH), I believe this bill is vital to the interests of our members and their families. For nearly 70 years, the JCCIH has stood up for local businesses while promoting Japanese values. One of our TOP 2025 Priorities is:

Economic Development: Agriculture, Tourism, Technology & Astronomy:

We support efforts to grow new and existing industries on Hawai'i Island, especially in areas that make our community more competitive and secure including agriculture, tourism, technology and astronomy. We support the Thirty Meter Telescope.

With the Maunakea and Haleakala already established as internationally leading locations in the field of astronomy, it makes sense to invest more into space science education in Hawai'i so local people, including our children, can get high-tech, high-pay jobs at these facilities rather than hiring from out of state.

Adding an engineering degree pathway at UH Hilo will provide more opportunities for Hawai'i Island youth, especially those who may not be able to go to college off-island.

We have some of the best astronomy facilities in the world on Maunakea, and we should seek programs that provide the opportunities astronomy provides to kama'āina students. Providing resources for the Space Science and Engineering Initiative and Maunakea Scholars to serve more students is a way for these facilities to directly benefit local students in the short-term, and local communities in the long-term.

These programs inspire and create new pathways for kama'āina to find success and security at home, which is why we ask that you pass this bill and make it possible for them to continue to grow. I ask for your favorable consideration in passing this measure.

Mahalo for considering my testimony,

Vaughn G. T. Cook Vice President and Co-Chair of Government Affairs/Economic Development Committee of the Japanese Chamber of Commerce & Industry of Hawai'i AND Parent of 3 local Children who are current or former students of Waiakea High School in Hilo, Hawaii

SB767/SB1268/HB563 TESTIMONIAL TEMPLATE #2

To: Title [name], Chair Title [name], Vice Chair Committee on [Committee]

From: [testifier's name]

RE: SB767/SB1268/HB 563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative - In Support [date and time]

Aloha Chair [name], Vice Chair [name], and Members of the Committee,

My testimony is in **support** of SB767/SB1268/HB 563 relating to the University of Hawai'i's Space Science and Engineering Initiative. As a [student/teacher/parent/resident/profession] of [location], I believe creating opportunities for young people to study, work, and make a decent living without having to leave the state is critical to keeping Hawai'i's culture and communities alive.

Hawai'i is facing a workforce crisis with a shortage of high-paying jobs that support the cost of living here, and many of the available jobs being low-wage in the service and hospitality industry. As a result, many young people end up leaving Hawai'i not because they want to, but because they are seeking opportunity, or survival, elsewhere.

Funding UH's Space Science and Engineering Initiative and Maunakea Scholars is a strategic investment in Hawai'i's workforce. High tech jobs already exist at home with the potential for even more jobs based on the existing space science industry in Hawai'i, but for many local students seem out of reach due to a lack of opportunities to engage in internships and other workforce development programs. By aligning STEM education and hands-on experience that prepares students for high-tech jobs, this initiative can help kama'āina benefit from and grow an existing industry.

In order for our communities to thrive, we need to invest in education and developing a workforce that will attract, fill, and keep good jobs in Hawai'i. This is why I ask for your favorable consideration in passing this measure.

Mahalo for considering my testimony,



SB767/SB1268/HB563 TESTIMONIAL TEMPLATE #3

To: Title [name], Chair Title [name], Vice Chair Committee on [Committee]

From: [testifier's name]

RE: SB767/SB1268/HB 563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative - In Support [date and time]

Aloha Chair [name], Vice Chair [name], and Members of the Committee,

My testimony is in **support** of SB767/SB1268/HB 563 relating to the University of Hawai'i's Space Science and Engineering Initiative (SSEI). Providing funding to strengthen astronomy's local workforce pipeline is a sound investment that will allow local people to benefit from astronomy's presence on Hawai'i Island.

With Maunakea being the most scientifically productive ground-based astronomy location in the world; the Maunakea Stewardship and Oversight Authority being set as an example of mutual stewardship in the scientific community; and astronomy contributing over \$200M in economic output annually statewide, Hawai'i is an international leader in the field that already has national and international interest and momentum to expand Hawai'i's influence in the field.

Providing kama'āina with the technical expertise to design and fabricate instrumentation; operate and maintain facilities; and do scientific research will not only benefit local communities, but strengthen astronomy by bringing diverse and placebased perspectives to the field. Mauankea Scholars, one of the programs that will receive funding through this bill, gives students the opportunity to engage in world-class science as high schoolers. SSEI will provide college students on Hawai'i Island with the opportunity to receive an engineering degree while getting hands-on experience at world-class facilities. Combined with other opportunities through a workforce development program like the one proposed by this bill creates a generation of Hawai'i students competitive in any academic or professional STEM environment, and gives them the opportunity to take pride in and do work of this caliber at home.

With the right training and opportunities more kama'āina can become leaders and innovators in the fields of engineering and astronomy, and contribute to science as well

as their communities. This is why I ask for your favorable consideration in passing this measure.

Mahalo for considering my testimony, NAME

SB767/SB1268/HB563 TESTIMONIAL TEMPLATE #4

To: Title [name], Chair Title [name], Vice Chair Committee on [Committee]

From: [testifier's name]

RE: SB767/SB1268/HB 563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative - In Support [date and time]

Aloha Chair [name], Vice Chair [name], and Members of the Committee,

My testimony is in **support** of SB767/SB1268/HB 563 relating to the University of Hawai'i.

I participated in the Maunakea Scholars program as a ROLE: TEACHER/MENTOR/STUDENT/ETC in YEAR(S) while I was at SCHOOL. It was an experience that was important to me, because SHARE YOUR REASON.

[for alumni: describe your project]

[for administrators, teachers & mentors: describe what the program has done for your students]

Programs like Maunakea Scholars are important because we as kama'āina deserve access to the best opportunities to learn, work, and take on roles as industry-leading experts in STEM fields if that's what we choose for ourselves.

[Describe the effect that this program has had on you personally, or on your fellow participants] Maunakea Scholars inspired me to grow and create new pathways, which is why I ask that you pass this bill to expand the program and create more opportunities like it with a workforce development program at the UH Space Science and Engineering Institute.

Mahalo for considering my testimony, NAME



Executive Officer Carla Kuo

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Hawai'i Island Chamber of Commerce

1321 Kino'ole Street - Hilo, Hawai'i 96720 Phone (808) 935-7178 - Fax (808) 961-4435 - Email exec@hicc.biz - www.hicc.biz

TESTIMONY BEFORE THE HOUSE COMMITTEE ON HIGHER EDUCATION HB 563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative – IN SUPPORT Wednesday, February 5, 2025 2:00 PM

Aloha Chair Andrew Takuya Garrett, Vice Chair Terez Amato, and Members of the Committee,

My name is Carla Kuo, and I serve as the Executive Officer of the Hawai'i Island Chamber of Commerce, which represents over 300 business and individual members primarily located on the East side of Hawai'i Island. I am writing in strong support of HB 563, which provides essential funding for the University of Hawai'i's Space Science and Engineering Initiative (SSEI). Investing in astronomy's local workforce pipeline is a strategic decision that will ensure the people of Hawai'i directly benefit from the presence of world-class astronomy on Hawai'i Island.

Maunakea is the most scientifically productive ground-based astronomy site in the world. With the establishment of the Maunakea Stewardship and Oversight Authority as a model for mutual stewardship and astronomy contributing over \$200 million annually to the state's economy, Hawai'i is already a global leader in the field. This bill will help expand Hawai'i's influence by strengthening its workforce and fostering local expertise.

By equipping kama'āina with the skills to design and fabricate instrumentation, operate and maintain observatories, and conduct scientific research, we not only uplift local communities but also enrich astronomy with diverse, place-based perspectives. Programs like Maunakea Scholars introduce high school students to world-class science, while SSEI will provide Hawai'i Island college students the opportunity to earn engineering degrees with hands-on experience at cutting-edge facilities. Together with the broader workforce development initiatives supported by this bill, these programs will empower Hawai'i students to excel in STEM fields and pursue meaningful careers both locally and globally.

With the right training and opportunities, more kama'āina can become leaders and innovators in engineering and astronomy, contributing to both scientific advancements and their communities. For these reasons, I respectfully urge you to support this measure. Mahalo for your time and consideration.

Sincerely,

Carla Kuo Executive Officer, Hawaiʻi Island Chamber of Commerce

To: Representative Garrett, Chair Representative Amato, Vice Chair

From: Mary Beth Laychak, Maunakea Scholars

RE: HB 563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative - In Support

DATE: February 5, 2025 TIME: 2pm PLACE: VIA VIDEOCONFERENCE Conference Room 309

Aloha Chair Garrett, Vice Chair Amato, and Honorable Members of the Committee,

Thank you for the opportunity to testify in **strong support** of HB 563, which would expand hands-on STEM learning for Hawai'i students by supporting workforce development through the University of Hawai'i's Space Science and Engineering Initiative and the Maunakea Scholars program.

Investing in STEM education drives innovation, cultivates critical thinking, and prepares students for careers in high-demand fields. Programs like the Space Science and Engineering Initiative and Maunakea Scholars provide Hawai'i students with hands-on experience and direct exposure to STEM career opportunities, equipping them with the skills needed to thrive in these industries.

As the lead program officer for Maunakea Scholars, I appreciate the opportunity to provide more information on this program and the impact that it has made on Hawai'i students.

For nearly a decade, Maunakea Scholars has awarded Hawai'i high school students observing time on Maunakea's powerful telescopes, enabling them to conduct independent research on black holes, star clusters, and other celestial phenomena. The competitive, one-of-a-kind program allows students to develop proposals, which are then evaluated by a panel of professional astronomers. Students awarded observing time complete their own, independent research projects driven by their curiosity about our universe. Throughout this process, students are mentored by astronomers, many from the University of Hawai'i Institute for Astronomy.

Budget and logistics permitting, we bring students to Hawai'i Island to visit the observatories and conduct realtime observations alongside support astronomers—an experience mirroring that of professional researchers. Since its inception, Maunakea Scholars has also grown to include telescopes worldwide that contribute viewing time and mentorship opportunities.

The students we serve are, and will remain, exclusively in Hawai'i and primarily attend Hawai'i Department of Education schools. By the end of the 2024-2025 school year, **over 1,200 students** will have participated in the program from 13 high schools across the state:

Hawai'i Island

- Honoka'a High School
- Kamehameha Schools Kea'au
- Kealakehe High School
- Kohala High School
- Waiakea High School

Maui

• King Kekaulike High School

Moloka'i

• Moloka'i High School

Lānaʻi

• Lāna'i High School

Oʻahu

- Kalani High School
- Kamehameha Schools Kapālama
- Kapolei High School
- Nanakuli High School
- Waipahu High School

Maunakea Scholars alumni leverage the knowledge and confidence gained through the program to pursue a wide range of careers. Our goal is not solely to produce astrophysicists; **we strive to broaden students' horizons and empower them to explore new opportunities**. Graduates go on to fields such as astronomy, education, engineering, and technology, with many securing internships or jobs in Hawai'i. Two program alumni currently work in Hawai'i astronomy with positions on Hawai'i Island. Another is currently applying to graduate school with the hopes of pursuing her PhD in astronomy. Project alumni are working in engineering fields in Japan and on the continent with the hopes of gaining the experience to return home to Hawai'i, potentially to work at the newly formed UH Space Science and Engineering Institute. Two more alumni are educators, striving to inspire their students to embrace STEM fields.

We founded Maunakea Scholars with the deeply held belief that if world-class astronomical research is being conducted on Maunakea using the best tools available, then those opportunities must be accessible to our kama'āina youth. We firmly believe in this mission and are honored to support students as they harness these resources to fuel their intellectual curiosity and academic growth.

While our vision is to expand Maunakea Scholars to every high school in Hawai'i, our ability to do so is currently constrained by staffing and financial limitations. This bill would create a dedicated program coordinator position, allowing us to serve more students and grow access to transformative STEM education opportunities. When combined with the proposed workforce development program at the UH Space Science and Engineering Institute, Maunakea Scholars becomes an even more powerful tool in the effort to supporting kama'āina students from kindergarten to their career.

I strongly support this bill and so humbly ask for your favorable consideration in passing this measure.

With gratitude,

Mary Beth laychak

Mary Beth Laychak Program Lead Maunakea Scholars



February 4, 2025

RE: House Bill 563 Relating to the University of Hawai'i's Space Science and Engineering Initiative

Dear Chair Takuya Garrett, Vice Chair Amato and the Committee on Higher Education, and Chair Woodson, Vice Chair La Chica, and the Committee on Education,

Founded in 1968, the Kona-Kohala Chamber of Commerce works to enhance the quality of life for our community through a strong, sustainable economy on Hawai'i Island. With 460 member businesses and organizations, our mission is to provide leadership and advocacy for a successful business environment in West Hawai'i.

The Kona-Kohala Chamber of Commerce **strongly supports** HB 563: Relating to the University of Hawai'i's Space Science and Engineering Initiative.

As an organization that supports the growth of Hawai'i's technology sector, we believe this bill will foster innovation, diversify the island's economy, and provide quality, high-paying jobs for the people of Hawai'i.

We support educational programs that feed directly into the region's key industries, including the astronomy industry on Hawai'i Island. Therefore, we support this educational initiative that promotes workforce development and internship programs in science, technology, engineering, and mathematics (STEM).

Funding UH's Space Science and Engineering Initiative and Maunakea Scholars is a strategic investment in Hawai'i's workforce. The passage of HB 563 is critical for the continued growth and success of Hawai'i's economy and its people.

Please vote to pass HB 563: Relating to the University of Hawai'i's Space Science and Engineering Initiative.

Sincerely,

Nendy Laros

Wendy J. Laros, President and CEO Kona-Kohala Chamber of Commerce



To: Representative Andrew Garrett, Chair Representative Terez Amato, Vice Chair Committee on Higher Education

> Representative Justin Woodson, Chair Representative Trish La Chica, Vice Chair Committee on Education

From: The Maunakea Observatories

RE: **HB 563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative -In Support** Wednesday, February 5, 2025

Aloha Chairs Garrett and Woodson, Vice Chairs Amato and La Chica, and Members of the Committees,

Mahalo for the opportunity to provide testimony **in support** of HB 563 relating to the University of Hawai'i's Space Science and Engineering Initiative (SSEI). Hawai'i faces serious workforce challenges with consequences ranging from worker shortages, lack of living wage jobs, decreased economic productivity, and ultimately a lack of opportunity that causes Hawai'i residents to struggle to stay here or to move away. These challenges and consequences are exacerbated on neighbor islands, including Hawai'i Island where Maunakea Observatories operates.

Investment in space science and engineering workforce development will create significant opportunities for Hawai'i Island youth to enter into STEM careers that will allow them to make a living without having to leave the island or the state. The development of an engineering degree track at UH Hilo that leverages access to Maunakea Observatories will provide local students access to a world-class education in a field that is receiving significant interest and investment on a federal and international level. Furthermore, funding a full-time position for a Maunakea Scholars Coordinator would strengthen the education and workforce development pipeline by engaging high school students statewide and provide exposure to space science that has already been proven to inspire and give students the experience and confidence to pursue STEM degrees and careers.

Investments in space science and astronomy already generate \$200M in annual economic impact statewide, with the potential for this number to grow if we are able to provide the workforce to move more space science-related activities, such as instrument design and fabrication, to Hawai'i. Hawai'i Island makes significant contributions to astronomy, with Maunakea being the most productive ground-based astronomy site in the world. Investing in the education opportunities that will empower local youth to play a significant role in the space sciences field will not only benefit them individually, but will benefit our local community and the field of astronomy.

We support HB 563 because cultivating and hiring local talent is a Maunakea Observatories priority. Thank you for the opportunity to provide testimony.

With aloha, The Maunakea Observatories

<u>HB-563</u> Submitted on: 1/31/2025 7:35:58 PM Testimony for HED on 2/5/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
cheryl burghardt	Individual	Oppose	Written Testimony Only

Comments:

Aloha,

I STRONGLY OPPOSE HB 563 which appropriates funds for salaries and fringe benefits of positions for the University of Hawai'i Institute for Astronomy's Space Science and Engineering Initiative Workforce Development Program, Maunakea Scholars Program, and Internship Program. Appropriates funds for office equipment and supplies, operational costs, and stipends for the Maunakea Scholars Program and Internship Program.

As I read through the report, as an educator, I understand the push for science and creating environments and paths for students to learn. What this bill does is provides \$\$ and personnel to one science department at the University of Hawaii, only. The beginning of the bill states that the legislature finds a "need" for long term science.." It continues to talk about stimulating growth and at one point states a figure of \$200,000,000 in annual economic impact statewide. The question is where is the documentation for these figures and conclusions? Since 2016, 1200 students have participated in the program. It is a great program, where are the resources? It also makes statements which the community has asked to see the data and to date has not.

I OPPOSE this bill because the legislature and state continue to look at the same data, listen to the same people and have not delved deep into what the actual benefits to the community have been. Providing solid learning in STEAM is an important path for the students of our islands, all of our students. In the case of the scholars program and the positions proposed to be allocated, there are no other sources for funds? From my personal experience, I note that some of the resources provided in state schools are provided by outside sources, corporations and countries which have a stake in what happens next in astronomy on our islands. This bill seems to also provide attention, funds to one area. Have they looked for grants and other sources for their funding?

I OPPOSE this bill with the hope that this committee will take the time to look deep into the funding and the benefits to all of our island communities and what those benefits really are. Thank you.

C. Burghardt

Kou, Oahu

To: Rep. Andrew Takuya Garrett, Chair Rep. Terez Amato, Vice Chair Committee on Higher Education and Technology

From: Laura Daclison

RE: **HB 563 - Relating to the University of Hawai'i - In Support** DATE: Wednesday, February 5, 2025 TIME: 2PM PLACE: VIA VIDEOCONFERENCE Conference Room 309

Aloha Chair Takuya, Vice Chair Amato, and Members of the Committee,

My testimony is in **support** of HB 563 relating to the University of Hawai'i Space Science and Engineering Initiative. As a teacher of Kapolei High School, I believe creating opportunities for young people to study, work, and make a decent living without having to leave the state is critical to keeping Hawai'i's culture and communities alive.

I participated in the Maunakea Scholars program as a student from Waipahu High School and a Teacher at Kapolei High School. It was an experience that was important to me, because it gave me a learning opportunity to help me grow as a student. This has also influenced my career path in the greatest way possible.

My project was the first to receive telescope time from one of the most powerful telescopes - the Keck Observatory. I was curious about planets that orbited multiple stars. The system that I observed was the Kepler-35 system, where there was a circumbinary planet orbiting around a binary star system, similar to Tatooine from Star Wars. I found this even more intriguing because this planet had similar traits to Earth, it was about the same size and had the same rocky structure. Through the Mauna Kea Scholars Program, I was given the opportunity to have direct access to the most powerful telescope and obtain data. I was able to present my findings in high school-level science fair, district science fair, and state science fair.

As a first-year teacher, I wanted to be involved in this program. I was able to connect with the program director on campus and quickly implemented this in my Chemistry curriculum. This program has enlivened my classroom and given my students motivation to exceed limits. My students were challenged to research their Mauna Kea Scholars project while also following the Chemistry curriculum at the same time. Because I was open about my own experience with the Mauna Kea Scholars Program as a high school student and presented the opportunity, my students all had a drive to complete their research on the side, hoping to follow in my footsteps. Students that have won telescope time are so proud of themselves and their work, they are all excited to access the most powerful telescopes in our trip to Mauna Kea.

Programs like Maunakea Scholars are important because we as kama'āina deserve access to the best opportunities to learn, work, and take on roles as industry-leading experts in STEM fields if that's what we choose for ourselves.

I was able to clearly define my career path after this entire experience. This whole time I knew I wanted a teacher but never decided what I should teach... This program helped me realize my calling - to be a science teacher at high school level! After high school, I went straight into the

degree, Secondary Education - General Science in hopes of becoming a science teacher. If there were the opportunity to teach astronomy, I would have happily chosen that content area rather than general science. I am currently a chemistry and environmental science teacher and wanted the same for my students. Next year, I asked to teach the course closest to astronomy, which is Earth System Sciences. I hope to continue giving my students this opportunity and change their lives.

Maunakea Scholars inspired me to grow and create new pathways, which is why I ask that you pass this bill to expand the program and create more opportunities like it with a workforce development program at the UH Space Science and Engineering Institute.

Mahalo for considering my testimony, Laura Daclison

<u>HB-563</u> Submitted on: 2/3/2025 8:42:23 AM Testimony for HED on 2/5/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Brock Taylor	Individual	Support	Written Testimony Only

Comments:

Aloha Chair, Vice Chair, and Members of the Committee,

My testimony is in support of HB 563 relating to the University of Hawai'i's Space Science and Engineering Initiative. As a student of Hawaii, I believe creating opportunities for young people to study, work, and make a decent living without having to leave the state is critical to keeping Hawai'i's culture and communities alive.

With the Maunakea and Haleakala already established as internationally leading locations in the field of astronomy, it makes sense to invest more into space science education in Hawai'i so local people can get high-tech, high-pay jobs at these facilities rather than hiring from out of state.

Adding an engineering degree pathway at UH Hilo will provide more opportunities for Hawai'i Island youth, especially those who may not be able to go to college off-island. We have some of the best astronomy facilities in the world on Maunakea, and we should seek programs that provide the opportunities astronomy provides to kama'āina students. Providing resources for the Space Science and Engineering Initiative and Maunakea Scholars to serve more students is a way for these facilities to directly benefit local students in the short-term, and local communities in the long-term.

These programs inspire and create new pathways for kama'āina to find success and security at home, which is why we ask that you pass this bill and make it possible for them to continue to grow. I ask for your favorable consideration in passing this measure.

I have personally found great success through these programs and am incredibly grateful for their existence. Having participated in Maunakea Scholars during high school, I grew a relationship with one of the telescopes which later directly led to internships and even a job that I am now moving to Japan in the summer to begin. Needless to say, I would not be in the spot I am now without the support of the Maunakea Scholars program. I think it would be a disservice to the islands to not further support programs like these that provide such incredible opportunities to their students.

Mahalo for considering my testimony,

Brock Taylor

<u>HB-563</u> Submitted on: 2/3/2025 9:08:55 AM Testimony for HED on 2/5/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Rodrigo Romo	Individual	Support	Written Testimony Only

Comments:

Aloha Chairs Takuya-Garrett, Woodson and members of the committees:

I am writing to provide strong support to this bill. Recent events have shown us the risks of having an economy that strongly depends on one single industry and thus the importance to diversify our economy.

Internships are one of the best ways to drive students into STEM careers, this bill will provide the support needed to neighbor islands to help develop the paths that would allow students to follow careers in STEM industries.

I sincerely hope that you support this measure.

Mahalo nui

R.Romo

Newton J. Chu 120 Pauahi St. #312 Hilo, HI 96720 (808)961-0406

SB767/SB1268/HB563 Testimony IN SUPPORT

To: Hawaii State Legislators

RE: **SB767/SB1268/HB 563** - Relating to the University of Hawai'i's Space Science and Engineering Initiative - In Support

Aloha Chair and Members of the Committee,

My testimony is in **support** of SB767/SB1268/HB 563 relating to the University of Hawai'i's Space Science and Engineering Initiative. As an Attorney and resident of Hilo, and parent of 2 graduates of Hilo High School who graduated college with degrees in Medicine and Physics and Astronomy, I believe creating opportunities for young people to study, work, and make a decent living without having to leave the state is critical to keeping Hawai'i's culture and communities alive.

Hawai'i is facing a workforce crisis with a shortage of high-paying jobs that support the cost of living here, and many of the available jobs being low-wage in the service and hospitality industry. As a result, many young people end up leaving Hawai'i not because they want to, but because they are seeking opportunity, or survival, elsewhere.

Funding UH's Space Science and Engineering Initiative and Maunakea Scholars is a strategic investment in Hawai'i's workforce. High tech jobs already exist at home with the potential for even more jobs based on the existing space science industry in Hawai'i, but for many local students seem out of reach due to a lack of opportunities to engage in internships and other workforce development programs. By aligning STEM education and hands-on experience that prepares students for high-tech jobs, this initiative can help kama'āina benefit from and grow an existing industry. In order for our communities to thrive, we need to invest in education and developing a workforce that will attract, fill, and keep good jobs in Hawai'i. This is why I ask for your favorable consideration in passing this measure.

Mahalo for considering my testimony, Newton J. Chu

HB-563 Submitted on: 2/3/2025 11:35:42 AM Testimony for HED on 2/5/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Alan Urasaki	Individual	Support	Written Testimony Only

Comments:

I am in support of this measure and urge the committee to adopt.

Mahalo.

SB767/SB1268/HB563 Testimony IN SUPPORT

To: Hawaii State Legislators

RE: SB767/SB1268/HB 563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative - In Support

Aloha Chair and Members of the Committee,

My testimony is in **support** of SB767/SB1268/HB 563 relating to the University of Hawai'i's Space Science and Engineering Initiative. As an Attorney and resident of Hilo, and parent of 2 graduates of Hilo High School who graduated college with degrees in Medicine and Physics and Astronomy, I believe creating opportunities for young people to study, work, and make a decent living without having to leave the state is critical to keeping Hawai'i's culture and communities alive.

Hawai'i is facing a workforce crisis with a shortage of high-paying jobs that support the cost of living here, and many of the available jobs being low-wage in the service and hospitality industry. As a result, many young people end up leaving Hawai'i not because they want to, but because they are seeking opportunity, or survival, elsewhere.

Funding UH's Space Science and Engineering Initiative and Maunakea Scholars is a strategic investment in Hawai'i's workforce. High tech jobs already exist at home with the potential for even more jobs based on the existing space science industry in Hawai'i, but for many local students seem out of reach due to a lack of opportunities to engage in internships and other workforce development programs. By aligning STEM education and hands-on experience that prepares students for high-tech jobs, this initiative can help kama'āina benefit from and grow an existing industry.In order for our communities to thrive, we need to invest in education and developing a workforce that will attract, fill, and keep good jobs in Hawai'i. This is why I ask for your favorable consideration in passing this measure.

Mahalo for considering my testimony. Respectfully submitted,

Roberta F. Chu 478 Kipuni Street Hilo, HI 96720

HB-563 Submitted on: 2/3/2025 11:59:22 AM Testimony for HED on 2/5/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Nimr Tamimi	Individual	Support	Written Testimony Only

Comments:

Aloha Chair and Members of the Committee,

My name is Nimr Tamimi, and I am a licensed professional engineer practicing in Hilo for over 37 years. I am writing in strong support of House Bill 563, which seeks to improve STEM education and workforce development in Hawaii.

As an engineer and business owner, I have firsthand experience with the persistent staffing shortages in our field. We have had vacancies in our company for years, struggling to find qualified engineers to fill these critical positions. The lack of a skilled workforce in STEM-related fields is a significant barrier to economic growth, particularly in Hawaii County.

Hawaii County, especially East Hawaii, remains the most economically depressed region in the state. One of the primary challenges we face is the lack of outreach and education on pathways to STEM careers. Many students are unaware of the opportunities available and the path to engineering and other technical fields, and there is insufficient guidance to help them navigate the journey to a STEM degree and, ultimately, a professional career.

By investing in STEM education, expanding outreach efforts, and creating clearer pathways for students, House Bill 563 can help address these workforce shortages and provide new opportunities for local students to pursue meaningful, well-paying careers in their own communities. Strengthening our local STEM workforce will not only benefit employers like myself and government agencies who rely on engineers, but will also contribute to the overall economic stability and development of Hawaii County.

I urge you to pass House Bill 563 to support the next generation of Hawaii's engineers, scientists, and technical professionals.

Mahalo for your time and consideration.

<u>HB-563</u>

Submitted on: 2/3/2025 1:17:30 PM Testimony for HED on 2/5/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Justin Manuel R. Bergonio	Individual	Support	Remotely Via Zoom

Comments:

To: Representative Andrew Takuya Garrett, Chair Representative Terez Amato, Vice Chair Committee on Higher Education

Representative Justin H. Woodson, Chair Representative Trish La Chica, Vice Chair Committee on Education

From: Justin Manuel R. Bergonio

RE: HB 563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative -In Support DATE: Wednesday, February 5, 2025 TIME: 2PM PLACE: VIA VIDEOCONFERENCE Conference Room 309 State Capitol 415 South Beretania Street

Aloha.

My testimony is in support of HB 563 relating to the University of Hawai'i's Space Science and Engineering Initiative. As a teacher of Waipahu High School, I believe creating opportunities for young people to study, work, and make a decent living without having to leave the state is critical to keeping Hawai'i's culture and communities alive.

The connection between Waipahu High and the Maunakea Scholars program can be traced back to 2018 thanks to former physics and Academy of Engineering physics teacher Tessie Ford. In that time we have seen at least nine student projects being awarded coveted time with Maunakea Observatories, several honorable mentions, and even one student awarded the \$10,000 Hokuala scholarship. Accolades and numbers aside, one thing that cannot be quantified is the time and dedication of those who support our students on their journeys in the program: Mary Beth Laychak and the mentors at the Institute for Astronomy. Despite having to juggle the program through many schools throughout all the islands of Hawai'i, they manage to give one-on-one

time to our students, guiding them as they create their research proposals and mentoring them after they receive telescope time on their science projects. The human factor in this process is what really makes the difference between this program and all others out there. Furthermore, when the students are able to visit the observatory, see their data being collected in real time in the biting cold of a telescope control room 32,000 feet above sea level, and to learn from professional astronomers and telescope operators—it is just really something magical.

Programs like Maunakea Scholars are important because we as kama'āina deserve access to the best opportunities to learn, work, and take on roles as industry-leading experts in STEM fields.

In addition to the positive impacts this program has had on our students here at Waipahu High, being a part of the Maunakea Scholars program as a teacher has impacted my practice and even outlook as an educator. As a teacher, we are asked to wear many hats and do many things to meet the needs of our students, administrators, stakeholders, our community–and the list goes on. It is easy for teachers to quickly become jaded and burn out from the profession. However, thanks to this program, I feel like I've been reinvigorated to go on teaching with a lot more purpose. I'm excited to not only share the exciting new discoveries to our Maunakea Scholar students, but I'm also excited to share it with my geometry and calculus students, too! It has injected new life into my practice as I no longer see the disjointed subjects as stand-alone things to be checked off, but rather a beautiful tapestry of things that work together to paint a mosaic that is the universe. I hope to share this passion and beauty with everyone I meet because the world can be a beautiful place when you give yourself the chance to look up above and even down below.

These programs inspire and create new pathways for kama'āina to find success and security at home, which is why we ask that you pass this bill and make it possible for them to continue to grow. I ask for your favorable consideration in passing this measure.

Mahalo for considering my testimony.

Sincerely, Justin R. Bergonio

<u>HB-563</u> Submitted on: 2/3/2025 7:32:22 PM Testimony for HED on 2/5/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
John Pelletier	Individual	Support	Written Testimony Only

Comments:

To: The Honorable Andrew Takuya Garrett, Chair The Honorable Terez Amato, Vice Chair Committee on Higher Education

From: John Pelletier

RE: HB563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative - In Support

February 3, 2025

Aloha nui kākou, aloha Chair, Vice Chair, and members of the committee. I'm John Pelletier, a resident of Kona on the Island of Hawai'i, and I'm testifying in support of SB869.

Maunakea Scholars has been an incredible program that brings the benefits of the facilities on Maunakea to the keiki of Hawai'i. The program allows high school students to propose for and receive time on the telescopes for science projects that they conceive. As someone who works in Astronomy, I can tell you that the opportunities this program provides for high schoolers in our state is something found in very few places in the world, if anywhere else. I've personally helped with this program at Kealakehe High School, a Title 1 school on the Island of Hawai'i.

This program has been supported through volunteer efforts, and SB 767 will make an official position that can really strengthen this program to benefit more of our local keiki. This bill will also create a full time program manager position for the University of Hawai'i's Space Science and Engineering Initiative, which is another program that aims to benefit our local workforce.

By aligning STEM education and hands-on experience that prepares students for high-tech jobs, this initiative can help kama'āina benefit from and grow an existing industry.

Mahalo for the oppurtunity to testify, and mahalo ā nui for your ongoing service to the people of Hawai'i!

Ke aloha nō,

John Pelletier 'Ahupua'a 'o 'O'oma, North Kona, Island of Hawai'i

<u>HB-563</u>

Submitted on: 2/4/2025 7:07:59 AM Testimony for HED on 2/5/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Bryan Silver	Individual	Support	Written Testimony Only

Comments:

SB767/SB1268/HB563 TESTIMONIAL

To: Chair

Vice Chair

Committee

From: Bryan Silver

RE: SB767/SB1268/HB 563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative - In Support

3 Febuary 2025 2000 hrs

Aloha Chair, Vice Chair, and Members of the Committee,

My testimony is in support of SB767/SB1268/HB 563 relating to the University of Hawai'i's Space Science and Engineering Initiative. As a Teacher of Kalani High School, I believe creating opportunities for young people to study, work, and make a decent living without having to leave the state is critical to keeping Hawai'i's culture and communities alive.

With the Maunakea and Haleakala already established as internationally leading locations in the field of astronomy, it makes sense to invest more into space science

education in Hawai'i so local people can get high-tech, high-pay jobs at these facilities rather than hiring from out of state. As a Teacher how has utalize the program in its current and limited form I have had 16 students get telescope time, one has been named in a research paper, One has gotten an internship to work on Mauna Kea and several have been inspired to dive more in the field of research because of this program. With an expanse, more students could have these opportunities.

Adding an engineering degree pathway at UH Hilo will provide more opportunities for Hawai'i Island youth, especially those who may not be able to go to college off-island. We have some of the best astronomy facilities in the world on Maunakea, and we should seek programs that provide the opportunities astronomy provides to kama'āina students. Providing resources for the Space Science and Engineering Initiative and Maunakea Scholars to serve more students is a way for these facilities to directly benefit local students in the short-term, and local communities in the long-term.

These programs inspire and create new pathways for kama'āina to find success and security at home, which is why we ask that you pass this bill and make it possible for them to continue to grow. I ask for your favorable consideration in passing this measure.

Mahalo for considering my testimony,

Bryan Silver

2025 Hawai'i State Teacher of the Year

- To: Rep. Andrew Takuya Garrett, Chair Rep. Terez Amato, Chair Committee on Higher Education and Technology
- From: Dr. Whitney Aragaki

RE: HB 563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative - In Support

February 5, 2025; 2:00p HST

Aloha Chair Garrett, Vice Chair Amato, and Members of the Committee,

My testimony is in support of HB 563 relating to the University of Hawai'i.

I participated in the Maunakea Scholars program as a teacher in 2015-2016 at Waiākea High School during its first programmatic year. It was an experience that was important to me, because I witnessed my students develop a coherence in astronomy – science that is happening directly in their own community, and was not yet directly discussed in schools.

My students in Environmental Science engaged directly with scientists and engineers with Maunakea Observatories. These scientists came into the classroom which underscored the focus on students and their learning. This program is not a drive-by experience, a one-time flash, but rather a sustained energy that centers student learning and direct instruction. Maunakea Scholars connects our students with the science and technology learning that provide high-wage, high-need careers here at home.

Programs like Maunakea Scholars are important because our local students deserve access to the best opportunities to learn, work, and take on roles as industry-leading experts in STEM fields if that's what they choose for themselves.

From that experience in 2015-2016, we have alumni who are now employed by the observatories – a clear connection and directly relevant experience for local students. Since then, Maunakea Scholars has been a steadfast experience for Waiākea High School students. Students now anticipate opportunities to learn and work in astronomy, an edu-cultural shift in the perception of STEM learning.

Maunakea Scholars inspired my students and I to grow and create new possibilities in STEM research and learning, which is why I ask that you pass this bill to expand the program and create more opportunities like it with a workforce development program at the UH Space Science and Engineering Institute.

Mahalo for considering my testimony, Dr. Whitney Aragaki Science Teacher, Waiākea High School 2021 Presidential Awardee in Excellence in Mathematics and Science Teaching 2022 Hawai'i State Teacher of the Year To: Andrew Takuya Garret, Chair Terez Amato, Vice Chair Committee on House Higher Education

From: Nathan Weir

RE: SB767/SB1268/HB 563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative - In Support 2/5/2025 2:00 pm

Aloha Chair Garret, Vice Chair Amato, and Members of the Committee,

My testimony is in support of SB767/SB1268/HB 563 relating to the University of Hawai'i.

I participated in the Mauna Kea Scholars program as a student in my Sophomore-Senior years of high school (2017-2020) while I was at Kealakehe High School. It was an experience that was important to me for so many reasons, the most important of which being my ability to explore and learn in a field usually restricted to high level college projects, which pushed me to pursue astronomy in college, and despite not staying with the major, it was something that helped me grow and learn in college.

My project was a project that aimed to study the accretion disks of supermassive black holes when compared to stellar mass black holes to determine if the chemical composition of the accretion disk itself was enough to allow for supermassive black hole formation. It was a project that I worked on for years, in science fairs, for school projects, and alongside help from CFHT. It taught me so much about the world around me and was an inspiration for my continued efforts in school. My high school experience would not have been the same without these programs, and I would want each and every driven high school student to be able to receive a similar experience as I did.

Programs like Maunakea Scholars and Akamai Internships are important because we as kama'āina deserve access to the best opportunities to learn, work, and take on roles as industry-leading experts in STEM fields if that's what we choose for ourselves. It also allows for a greater reach and penetration into the community in ways that opens up and promotes science and astronomy in a culture and place with deep roots in astronomical practices.

When I was fortunate enough to participate in the program alongside a number of my peers that same year, I was presented with an opportunity to interact with a whole side of science and culture that I had not known was available. I was supported and pushed in a way that promoted growth. For example, my science fair project that was based on and rooted around my project ended up making it to the State level competition, where I was able to present and talk about my project with industry professionals, giving me insights into the methods vital to becoming an astronomer. It was a life changing experience, so much so that I almost majored in Astronomy,

and several peers of mine are choosing to major in astronomy as a result of their time with Mauna Kea Scholars.

Maunakea Scholars inspired me to grow and create new pathways, which is why I ask that you pass this bill to expand the program and create more opportunities like it with a workforce development program at the UH Space Science and Engineering Institute.

Mahalo for considering my testimony,

Nathan Weir

HB-563 Submitted on: 2/4/2025 10:26:10 AM Testimony for HED on 2/5/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Amber Imai-Hong	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Takuya, Vice Chair Amato, and Members of the Committee,

My testimony is in support of SB767/SB1268/HB 563 relating to the University of Hawai'i's Space Science and Engineering Initiative. As a Native Hawaiian resident born in Hilo and raised in Kea'au, I believe creating opportunities for young people to study, work, and make a decent living without having to leave the state is critical to keeping Hawai'i's culture and communities alive. Throughout my career primarily on 'Oahu, I have mentored local students from K12 through graduate school to pursue STEM careers. It is my hope that we are able to build the Space Science Industry in Hawai'i, specifically Hawai'i Island, as we build up the workforce of highly trained and very capable students through the Space Science and Engineering Initiative.

With the Maunakea and Haleakala already established as internationally leading locations in the field of astronomy, it makes sense to invest more into space science education in Hawai'i so local people can get high-tech, high-pay jobs at these facilities rather than hiring from out of state.

Adding an engineering degree pathway at UH Hilo will provide more opportunities for Hawai'i Island youth, especially those who may not be able to go to college off-island. We have some of the best astronomy facilities in the world on Maunakea, and we should seek programs that provide the opportunities astronomy provides to kama'āina students. Providing resources for the Space Science and Engineering Initiative and Maunakea Scholars to serve more students is a way for these facilities to directly benefit local students in the short-term, and local communities in the long-term.

Programs like these inspire and create new pathways for kama'āina to find success and security at home, which is why we ask that you pass this bill and make it possible for them to continue to grow. As someone who has benefitted from similar initiatives in the past, and who has mentored students in programs similar to these in my current position as a Avionics Engineer and Program Manager, I ask for your favorable consideration in passing this measure.

Mahalo for considering my testimony,

Amber Imai-Hong

To: Representative Andrew Takuya Garrett, Chair Representative Terez Amato, Vice Chair Committee on Higher Education

From: Kiana Ejercito

RE: SB767/SB1268/HB 563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative - In Support

DATE: Wednesday, February 5, 2025 TIME: 2PM PLACE: VIA VIDEOCONFERENCE Conference Room 309

Aloha Chair Takuya Garrett, Vice Chair Amato, and Members of the Committee,

My testimony is in **support** of **SB767/SB1268/HB 563** relating to the University of Hawai'i. I participated in the Maunakea Scholars program as a student in 2021 at Kalani High School. This experience was very important for me and was one of the first steps in my pursuit of becoming a professional astronomer.

As a Maunakea Scholar, my project proposed dark matter mapping with the W.M Keck Telescope. While my project was not chosen, it inspired me to work harder and connected me to a graduate student who I was able to discuss with about being an astronomer. This experience encouraged me to major in Astrophysics at the University of Hawai'i at Mānoa. Then, I was fortunate to participate in an internship after my first year of college at the Institute for Astronomy, where I was able to visit the W.M. Keck Telescope and meet the graduate student again! It has been amazing to see how far I have come, starting from this program. Additionally, I had always felt that it was difficult to learn more about astronomy because there were no classes specializing in astronomy at my high school. The Maunakea Scholars Program therefore was crucial to inspire me to continue pursuing my interest in astronomy, helping me learn more about the field and getting real experience.

Programs like Maunakea Scholars are very important because by giving kama'āina opportunities in STEM, it supports and encourages us to find jobs here and help our community. Additionally, I believe that by offering these programs, it may connect the local community to astronomy better. These programs have made me feel very supported in following my passion to become an astronomer and I hope to similarly inspire other students in the future. My appreciation for programs such as the Maunakea Scholars program has motivated me to participate in outreach events with the Institute for Astronomy to help encourage students to become interested in science and increase diversity in the field. I am now in my final semester in my undergraduate degree in Astrophysics and have applied to graduate school to continue pursuing research in astronomy. In the future, my goal is to become a researcher and professor and teach here in Hawai'i. Participating in the Maunakea Scholars program thus has allowed me to make more connections and learn more about the astronomy community in Hawai'i. These programs inspire local students like me, help us explore our passions, and create new pathways. Therefore, I ask that you pass this bill to expand the program and create more opportunities like it with a workforce development program at the UH Space Science and Engineering Institute.

Mahalo for considering my testimony, Kiana Ejercito

SB767/SB1268/HB563 TESTIMONIAL TEMPLATE #1

To: Chair Takuya Vice Chair Amato Members of the Committee From: Ashley Truchan

RE: SB767/SB1268/HB 563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative - In Support 2/04/2025, 2:00 p.m.

Aloha Chair Takuya, Vice Chair Amato, and Members of the Committee,

My testimony is in **support** of SB767/SB1268/HB 563 relating to the University of Hawai'i's Space Science and Engineering Initiative. As a parent of a local students and as staff of UH Hilo, I believe creating opportunities for young people to study, work, and make a decent living without having to leave the state is critical to keeping Hawai'i's culture and communities alive.

With Maunakea and Haleakala already established as internationally leading locations in the field of astronomy, it makes sense to invest more into space science education in Hawai'i so locals have an opportunity to be in high-tech, high-pay jobs at these facilities rather than hiring from out of state.

Adding an engineering degree pathway at UH Hilo will provide more opportunities for Hawai'i Island youth, especially those who may not be able to go to college off-island. We have some of the best astronomy facilities in the world on Maunakea, and we should seek programs that provide the opportunities astronomy provides to kama'āina students. Providing resources for the Space Science and Engineering Initiative and Maunakea Scholars to serve more students is a way for these facilities to directly benefit local students in the short-term, and local communities in the long-term.

These programs inspire and create new pathways for kama'āina to find success and security at home, which is why we ask that you pass this bill and make it possible for them to continue to grow. I ask for your favorable consideration in passing this measure.

Mahalo for considering my testimony, Ashley Truchan

SB767/SB1268/HB563 TESTIMONIAL

To: Mr. Garrett, Chair Vice Chair Amato Committee on Higher Education From: Alison F. English RE: SB767/SB1268/HB 563 - Relating to the University of Hawai'i's Space Science and Engineering Initiative - In Support Feb. 5, 2025 at 2PM Aloha Chair Garrett, Vice Chair Amato and Members of the Committee,

My testimony is wholeheartedly in support of SB767/SB1268/HB 563 relating to the University of Hawai'i. I participated in the Maunakea Scholars program as a teacher and project mentor for the past eight years at Honoka'a High. It was a pivotal experience that was important to me and my students, because it has allowed my students to do authentic research with some of the best telescopes in the world. My students were able to place at the district level and travel to the state science fair. These experiences have helped shape my students' futures. As a result, I have students who have majored in Astronomy, Physics and Aeronautical Engineering, just to name a few.

Programs like Maunakea Scholars are CRUCIALfor our keiki because we as Hawai'i Island kama'āina deserve access to the best opportunities to learn, work, and take on roles as industry-leading experts in STEM fields to earn salaries which we can sustain ourselves and have fulfilling careers. These opportunities lead to STEM Internships, scholarships and admission opportunities in the sciences. Maunakea Scholars inspired me to grow and create new pathways for my students, which is why I ask that you please pass this bill to expand the program and create more opportunities like it with a workforce development program at the UH Space Science and Engineering Institute.

Mahalo for your kokua in considering my testimony,

Alison F. English Honoka'a High and Intermediate University of Hawai'i at Hilo <u>alison.english@k12.hi.us</u> 808-936-9756

<u>HB-563</u> Submitted on: 2/4/2025 1:54:09 PM Testimony for HED on 2/5/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Ciana-Lei Bence	Individual	Support	Written Testimony Only

Comments:

Aloha Members of the Committee,

My testimony is in support of SB767/SB1268/HB 563 relating to the University of Hawai'i.

I participated in the Maunakea Scholars program as a student in 2022-2023 while I was attending Kamehameha Schools Kea'au. As a high school student interested in astronomy and physics it was a tremendously formative experience that exposed me to the field and helped to get me where I am today, studying astrophysics at Yale University.

My project used data from the Keck telescope along with archival data to conduct an independent research project analyzing Active Galactic Nuclei (AGN) mass evolution patterns using emission spectroscopy to investigate the M-Sigma correlation. This project won me first place in astronomy at the Hawai'i State Science and Engineering Fair and awarded me a spot at the International Science and Engineering Fair where I presented my research. From this project, I also received a certificate from the State of Hawai'i House of Representatives. Since then I have gone on to complete a Research Experience for Undergraduates with the Institute for Astronomy and have recently presented my research at the American Astronomical Society conference this past January and have taken up research positions at my home institution. Without this experience, I can't say that I would have had the opportunity to do any of this or develop a deep passion for Astronomy, especially as a native Hawaiian member of the community.

Programs like Maunakea Scholars are incredibly important to us kama'āina in developing confidence and interest in STEM fields that are less accessible here in Hawai'i. We deserve access to the best opportunities to learn, work, and take on roles as industry-leading experts in STEM fields rather than outsourcing these positions.

Maunakea Scholars inspired me to grow and create new pathways, which is why I ask that you pass this bill to expand the program and create more opportunities like it with a workforce development program at the UH Space Science and Engineering Institute.

Mahalo for considering my testimony,

Ciana-Lei Bence

LATE *Testimony submitted late may not be considered by the Committee for decision making purposes.

<u>HB-563</u>

Submitted on: 2/5/2025 10:41:38 AM Testimony for HED on 2/5/2025 2:00:00 PM



Submitted By	Organization	Testifier Position	Testify
Patti Cook	Individual	Support	Written Testimony Only

Comments:

Aloha, I strongly support this proposed program that would invest in an integrated STEM education and workforce development pathway for Hawai'i students to both develop a locally trained and rooted workforce and ensure that the jobs available in astronomy and engineering here are and will be filled by islanders. Our residents have the capacity - without doubt - but need a more cohesive support system - pathway - to secure training and experiences to become leaders here in astronomy and also a wide array of other engineering related jobs. Hawai'i Island has the "parts" but not tied together sufficiently with the UH system etc. Please support and fund this program. It's tragic when capable islanders have to leave to get the education/training/work experience needed and for many reasons don't or can't return home and the jobs here are filled with people not from here.

MAHALO for considering this.

Patti Cook 808-937-2833