

JAN 19 2024

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# A BILL FOR AN ACT

RELATING TO THE UNIVERSITY OF HAWAII.

**BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:**

1           SECTION 1. The legislature finds that there is a need in  
2 the State for coherent, long-term workforce development programs  
3 to foster a sustainable and economically diverse base for  
4 science, technology, engineering, and mathematics (STEM)  
5 industries, particularly on the neighbor islands. Supporting  
6 STEM industries in the State will stimulate economic growth and  
7 ensure that Hawaii's youth remain in Hawaii to pursue careers in  
8 STEM industries.

9           The legislature further finds that the University of  
10 Hawaii's burgeoning space sciences workforce development program  
11 is now recruiting an initial cohort of faculty engineers within  
12 the college of engineering, located at the University of  
13 Hawaii's Manoa and Hilo campuses. This engineering cohort will  
14 focus on teaching, research, and engineering applied to  
15 astronomy and aerospace. A cornerstone of this program will be  
16 integrating this team with high-tech development and  
17 instrumentation at the observatories on Maunakea and Haleakala,



1 which combined have facilities worth over \$1,000,000,000 and  
2 sustain research, education, and technology development  
3 advancements on a regular basis.

4       The legislature recognizes that these globally significant  
5 investments in Hawaii, which combined have more than  
6 \$200,000,000 in annual economic impact statewide, can serve as  
7 the basis for a workforce development program that substantially  
8 deepens the long-term benefits of these investments for local  
9 students, businesses, and communities. The most cost effective  
10 approach to creating such a workforce development program is to  
11 expand upon programs that have demonstrated success, integrate  
12 them into a continuum of support from kindergarten to a career,  
13 and link students to a multitude of educational, hands-on  
14 learning opportunities and ultimately employers. The building  
15 blocks for such a program are substantially in place, but  
16 additional resources are needed to better integrate and expand  
17 them, providing an end-to-end STEM workforce development program  
18 that is unique globally.

19       The legislature also finds that premier examples of  
20 programs that serve as vital tracks at the high school and  
21 undergraduate levels for the proposed next-generation workforce



1 development program include the Maunakea scholars program and  
2 Akamai workforce initiative. The Maunakea scholars program is  
3 made possible through a partnership between the department of  
4 education, University of Hawaii, and Maunakea Observatories.  
5 The program started as a pilot program in 2016 involving  
6 students at Kapolei high school and Waiakea high school, and  
7 nearly a thousand students have since participated in the  
8 program in schools on Oahu, Lanai, Molokai, Maui, and Hawaii  
9 island. This program, the first and only one of its kind in the  
10 world, pairs high school students with mentors, mostly  
11 consisting of graduate students at the University of Hawaii  
12 institute for astronomy, to help the students design and execute  
13 their own research projects using all of the observatories on  
14 Maunakea and several observatories on Haleakala. This program  
15 focuses on rural public schools, working with students at a wide  
16 range of academic levels from credit recovery to Advanced  
17 Placement research. The program is designed to empower students  
18 to envision themselves as people who can engage in a variety of  
19 STEM professions like astronomy, engineering, computer science,  
20 data analytics, and mechanical technicians.



1           The legislature notes that, through mentoring and  
2 collaboration, numerous Maunakea scholars have gone on to pursue  
3 STEM degrees, including astronomy degrees at the University of  
4 Hawaii at Manoa and University of Hawaii at Hilo. Spinoff  
5 programs include the new Waipahu high school observatory, the  
6 only professional-grade high school observatory in the State;  
7 online classes that are part of the University of Hawaii Manoa  
8 Academy; science fair entries leading to scholarships; STEM  
9 capstone projects; and internships. The program currently  
10 involves ten public high schools and is already at capacity,  
11 given the resources available. Expanding the Maunakea scholars  
12 program to all public high schools is viable but will require  
13 additional staff and resources.

14           The legislature additionally finds that the Maunakea  
15 scholars program is also a feeder into the Akamai workforce  
16 initiative, which is arguably the gold standard for STEM college  
17 internships on Maui and Hawaii island. The Akamai workforce  
18 initiative is administratively led by the Institute for  
19 Scientist & Engineer Educators at the University of California  
20 Observatories, in partnership with the University of Hawaii. In  
21 twenty years, over five hundred college students have



1 participated in this internship program, eighty-eight per cent  
2 are still in STEM fields of education or careers, and over one  
3 hundred twenty-five students have STEM jobs in Hawaii. Most  
4 Akamai interns are engineering majors, with around fifty per  
5 cent being underrepresented minorities, twenty-five per cent  
6 being Native Hawaiian, and forty per cent being women. Each  
7 summer, over thirty local undergraduates have Akamai internships  
8 with astronomy, aerospace, and STEM organizations on Hawaii  
9 island and Maui. Like the Maunakea scholars program, expanding  
10 this program overall and to other islands in the State is  
11 feasible but will require more resources.

12 The legislature believes that integrating distinct programs  
13 to provide career pathway continuity into jobs for local  
14 students is central to the envisioned workforce development  
15 program. Persistent mentoring to help bridge the historic gaps  
16 between education and employment tracks for local students,  
17 leading them to fulfilling, long-term careers, is the holistic  
18 approach that is needed.

19 Accordingly, the legislature finds that the University of  
20 Hawaii's institute for astronomy, which hosts the State's  
21 astronomy program, has extensive education, research, and



1 technology development programs in place and is already coupled  
2 to numerous astronomy and aerospace entities. The institute for  
3 astronomy is the logical place to host a next-generation  
4 workforce development program that interconnects local students  
5 with hands-on STEM training and careers. Coordinating all of  
6 this activity and sustained funding to cover operational costs  
7 will be key to further expanding the next-generation workforce  
8 development program.

9 The purpose of this Act is to support the University of  
10 Hawaii institute for astronomy by appropriating funds for:

- 11 (1) The salaries and fringe benefits of positions for the  
12 space sciences workforce development program, Maunakea  
13 scholars program, and Akamai internship program; and  
14 (2) Office equipment and supplies for the Maunakea  
15 scholars program and Akamai internship program.

16 SECTION 2. There is appropriated out of the general  
17 revenues of the State of Hawaii the sum of \$1,000,000 or so much  
18 thereof as may be necessary for fiscal year 2024-2025 for the  
19 University of Hawaii institute for astronomy, to be used as  
20 follows:



1           (1) \$700,000 for the salaries and fringe benefits of the  
2 following positions:

3           (A) \$200,000 for one full-time equivalent (1.0 FTE)  
4 University of Hawaii space sciences workforce  
5 development program manager;

6           (B) \$120,000 for one full-time equivalent (1.0 FTE)  
7 Maunakea scholars program coordinator;

8           (C) \$80,000 for one full-time equivalent (1.0 FTE)  
9 administrative clerk for the University of Hawaii  
10 space sciences workforce development program;

11           (D) \$180,000 for one full-time equivalent (1.0 FTE)  
12 administrator for the Akamai internship program;  
13 and

14           (E) \$120,000 for one full-time equivalent (1.0 FTE)  
15 coordinator for the Akamai internship program;  
16 and

17           (2) \$300,000 for office supplies and equipment for the  
18 Maunakea scholars program and Akamai internship  
19 program.

20           The sum appropriated shall be expended by the University of  
21 Hawaii for the purposes of this Act.



1 SECTION 3. In accordance with section 9 of article VII of  
2 the Hawaii State Constitution and sections 37-91 and 37-93,  
3 Hawaii Revised Statutes, the legislature has determined that the  
4 appropriations contained in H.B. No. , will cause the state  
5 general fund expenditure ceiling for fiscal year 2024-2025 to be  
6 exceeded by \$ or per cent. In addition, the  
7 appropriation contained in this Act will cause the general fund  
8 expenditure ceiling for fiscal year 2024-2025 to be further  
9 exceeded by \$ or per cent. The combined total  
10 amount of general fund appropriations contained in only these  
11 two Acts will cause the state general fund expenditure ceiling  
12 for fiscal year 2024-2025 to be exceeded by  
13 \$ or per cent. The reasons for exceeding the  
14 general fund expenditure ceiling are that:

- 15 (1) The appropriation made in this Act is necessary to  
16 serve the public interest; and  
17 (2) The appropriation made in this Act meets the needs  
18 addressed by this Act.

19 SECTION 4. This Act shall take effect on July 1, 2024.





S.B. NO. 2754

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INTRODUCED BY: *Thomas R. Swartz*



# S.B. NO. 2754

**Report Title:**

University of Hawaii; Space Sciences Workforce Development Program; Maunakea Scholars Program; Akamai Internship Program; Equipment and Supplies; Positions; Fringe Benefits; Appropriation; Expenditure Ceiling

**Description:**

Appropriates funds for salaries and fringe benefits of positions for the University of Hawaii Institute for Astronomy's Space Sciences Workforce Development Program, Maunakea Scholars Program, and Akamai Internship Program. Appropriates funds for office equipment and supplies for the Maunakea Scholars Program and Akamai Internship Program.

*The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.*

