A BILL FOR AN ACT

RELATING TO COMPUTER SCIENCE EDUCATION.

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

- 1 SECTION 1. The legislature finds that the importance of
- 2 computer science cannot be overstated. Computers have evolved
- 3 to become a part of everyday life, and an introduction to
- 4 computer science helps students better understand their digital
- 5 world and become problem solvers of the future.
- 6 The legislature further finds that, according to the Bureau
- 7 of Labor Statistics, the United States will continue to be
- 8 transformed by technological advancements rooted in computer
- 9 programs and applications over the next ten years.
- 10 Consequently, computing-based occupations now make up more than
- 11 half of all projected new jobs in the science, technology,
- 12 engineering, and mathematics fields, commonly known as STEM
- 13 fields. In the last decade between 2010 and 2020, the number of
- 14 computer science bachelor's degrees conferred more than doubled
- 15 from 39,600 to 97,000, respectively, an increase of one hundred
- 16 forty-five per cent. This means that college graduates with

- 1 computer science degrees have been, and will continue to be, in
- 2 high demand among employers across the nation.
- 3 Despite this trend, national survey and research results
- 4 show a disparity between the demand for computer science
- 5 education and its availability. Although ninety per cent of
- 6 parents want their children's schools to teach computer science,
- 7 only fifty-three per cent of schools offer computer science
- 8 courses. Further, disparities in access and representation are
- 9 pronounced among traditionally underrepresented groups. For
- 10 example, women make up just one-third of high school computer
- 11 science students nationally.
- In 2018, the legislature found a similar disparity at the
- 13 state level. To address this, the legislature passed Act 51,
- 14 Session Laws of Hawaii 2018, which mandated that all public high
- 15 schools offer at least one computer science course by the 2021-
- 16 2022 school year. In 2021, the legislature further expanded
- 17 those computer science course requirements to elementary,
- 18 middle, and intermediate schools by enacting Act 158, Session
- 19 Laws of Hawaii 2021. As a result, excluding "combo" schools,
- 20 which are schools with combined grade bands, such as Lanai high
- 21 and elementary school, one hundred per cent of public high

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- 1 schools now offer a foundational computer science course, 2 exceeding the national average, and forty-two per cent of all 3 public schools offer a computer science course. 4 Despite the success in expanding access to computer science 5 courses since 2018, the State has still fallen short on its 6 enrollment goals for these courses. According to the department 7 of education's Annual Report on Computer Science Courses and 8 Computer Science Content, published in November 2022, just 9 fourteen per cent of unique students were enrolled in a computer 10 science course, with sixteen per cent of those students 11 comprising those in high school. Notably, data isolating the 12 percentage of high school students enrolled out of total high 13 school students in the State was not provided by the report. In 14 sum, the legislature finds that promoting computer science 15 education remains a statewide necessity.
- 18 (A) Work with the department of education to conduct
 19 an analysis on the need, impact, and feasibility
 20 of making computer science a graduation
 21 requirement;

Accordingly, the purpose of this Act is to:

Require the board of education to:

1	(B) E	Based on its analysis, determine whether	making
2	C	computer science a graduation requiremen	ıt would
3	k	pe in the best interests of public school)1
4	٤	students and the public; and	
5	(C) F	Report to the legislature on its finding	s and
6	1	recommendations; and	
7	(2) Appropriate funds to the department of education for		
8	teache	er professional development in computer	science.
9	SECTION 2. (a) The board of education shall work with the		
10	department of education to analyze the need, impact, and		
11	feasibility of m	naking computer science a graduation req	quirement.
12	(b) The bo	pard of education shall determine whether	er making
13	computer science	e a graduation requirement would be in t	he best
14	interests of pub	olic school students and the public, bas	ed on the
15	analysis conducted pursuant to subsection (a).		
16	(c) The bo	pard of education shall submit a report	of its
17	findings and red	commendations, including proposed legisl	ation, to
18	the legislature	no later than twenty days prior to the	convening
19	of the regular s	session of 2024.	
20	SECTION 3. There is appropriated out of the general		
21	revenues of the	State of Hawaii the sum of \$	or so

- 1 much thereof as may be necessary for fiscal year 2023-2024 and
- 2 the same sum or so much thereof as may be necessary for fiscal
- 3 year 2024-2025 for teacher professional development in computer
- 4 science.
- 5 The sums appropriated shall be expended by the department
- 6 of education for the purposes of this Act.
- 7 SECTION 4. This Act shall take effect on July 1, 2050.

Report Title:

Computer Science; Board of Education; Department of Education; Graduation Requirements; Analysis; Report; Teacher Development; Appropriation

Description:

Requires the Board of Education to work with the Department of Education to conduct an analysis on the need, impact, and feasibility of making computer science a graduation requirement. Requires the Board of Education to determine whether making computer science a graduation requirement would be in the best interests of public school students and the public. Requires a report to the Legislature. Appropriates funds for teacher professional development in computer science. Effective 7/1/2050. (SD1)

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