# Computer Science Education Grant

### **Budget Language**

\$1,000,000 of the general fund—state appropriation for fiscal year 2024 and \$1,000,000 of the general fund—state appropriation for fiscal year 2025 are provided solely for the computer science and education grant program to support the following three purposes: Train and credential teachers in computer sciences; provide and upgrade technology needed to learn computer science; and, for computer science frontiers grants to introduce students to and engage them in computer science. The office of the superintendent of public instruction must use the computer science learning standards adopted pursuant to chapter 3, Laws of 2015 (computer science) in implementing the grant, to the extent possible. Additionally, grants provided for the purpose of introducing students to computer science are intended to support innovative ways to introduce and engage students from historically underrepresented groups, including girls, low-income students, and minority students, to computer science and to inspire them to enter computer science careers. The office of the superintendent of public instruction may award up to \$500,000 each year, without a matching requirement, to districts with greater than fifty percent of students eligible for free and reduced-price meals. All other awards must be equally matched by private sources for the program, including gifts, grants, or endowments.

### **Proviso Purpose**

The Computer Science (CS) Education grant supports the following three purposes: train and credential teachers in computer science; provide and upgrade technology needed to learn computer science; and, for computer science frontiers grants, to introduce students to and engage them in computer science.

### **Services Provided**

Grants were provided for the purpose of introducing students to computer science and supporting innovative ways to engage students from historically underrepresented groups, including girls, low-income students, and minority students, to computer science and to inspire them to enter computer science careers. This includes teacher training, technology, and services such as coding robots and curriculum, and systemic programs that enable districts to offer computer science classes.

### **Criteria for Receiving Services/Grants**

Districts, schools, skill centers, state-tribal educational compact schools (STECs), and Educational Service Districts (ESDs) that demonstrate readiness; non-profit organizations in partnership with a district, STEC, school, or ESD; institutions of higher education in partnership with a district, STEC, school, or ESD may apply for the grant.

Funds for the computer science and education grant program may be expended only to the extent that they are equally matched by private sources

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for the program, including gifts, grants, or endowments. OSPI may award up to \$500,000 to districts/STECs with greater than 50% of their student population qualifying for free- and reduced-price meals without a private match.

Engagement of underserved student populations is emphasized. Underserved student populations include: (1) economically disadvantaged students; (2) students from major racial and ethnic groups; (3) students with disabilities; (4) students with limited English proficiency (the federal term); (5) girls; and (6) students in alternative education.

#### Beneficiaries in the 2024-25 School Year

Number of School Districts: 30 direct grant beneficiaries; ~80+ total

Number of Schools: ~100+ (approximated based on grant reporting)

Number of Students: ~70,000+ (approximated based on school size)

Number of Educators: ~100+ (approximated based on grant reporting)

Other (non-district recipients): AVID Center; Chief Leschi Tribal Compact;

Education Service Districts 105, 112, 113, 121, 171,

and 189

# Are Federal or Other Funds Contingent on State Funding?

## **State Funding History**

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Fiscal Year	Amount Funded	Actual Expenditures
2025	\$1,000,000	\$988,308
2024	\$1,000,000	\$985,756
2023	\$1,000,000	\$948,944
2022	\$1,000,000	\$955,158
2021	\$1,000,000	\$995,568

# Number of Beneficiaries Per Fiscal Year (e.g. School Districts, Schools, Students, Educators, Other)

Fiscal Year	Number of Beneficiaries	
2025	Districts: 80; Schools: 100	
2024	Districts: 95, Schools: 122	
2023	Districts: 110, Schools: 80	
2022	Districts: 37, Schools: 45	
2021	Districts: 55, Schools: 220	

### **Programmatic Changes Since Inception (If Any)**

n/a

### **Program(s) Evaluation or Major Findings**

Beneficiaries of the grant utilized funding for many different approaches for supporting CS education, some examples of which include the following:

- Supplying robotics kits for foundational, early-grade exposure to computational thinking skills, with one district uniquely providing materials for an at-home alternative learning experience
- Hardware purchases (e.g. laptops, monitors, virtual reality headsets, drones) to bolster the capacity of computer labs and enable use of modern applications that require greater processing power
- Professional development for educators to gain specialized training, in some cases to attend virtual events like CollegeBoard's training for a new AP Cybersecurity framework, and in others to host educator training like one district's focus on developing a professional learning community around elementary robotics
- Registration and travel costs for educators to attend events such as the Northwest Council for Computing Education (NCCE) conference in Seattle focusing on technology education, building communities of practice, and testing materials from curriculum and hardware providers
- SCRIPT training, a CSforAll-developed training facilitated by a team of CS leads from the ESDs, to guide the district teams of educators and administrators through constructing an implementation plan for establishing CS coursework in their schools

A notably successful means of broad support from several ESD recipients was the creation of lending libraries, allowing educators in their regions to rent robotics kits for their classrooms. These libraries proved to be popular, allowing teachers to utilize kits without dipping into school budgets and moreover enabling smaller schools with historically less or no CS participation to facilitate foundational CS coursework.

### Major Challenges Faced by Program(s)

Perhaps the most prevailing challenge in CS education broadly, as reflected in reports from grant recipients, is interest from students in CS. Historically, the student demographic groups that have consistently enrolled in CS coursework and the demographics of most employees in the tech industry have been predominantly White, Asian, and male individuals. For Washington, the race demographics of students grades 6–12 enrolled in a CS course during the 2023–24 school year (hereafter called "CS students") closely aligned with the overall demographics of students in the state within about 2%. The one exception was Asian students which comprised 14.9% of CS students compared to the overall student population of 8.9%, a 5% difference.

Similarly, there has long been a gender gap in the tech industry as well as with CS students. The overall student population in 2023–24 was 51.5% male, 48.0% female, and 0.5% gender X. For CS students, those values are skewed 68.5% male, 31.5% female, and 0.5% gender X. Many studies have asserted that earlier exposure to CS education is needed to enable non-male students to gain interest in CS despite prevailing stereotypes about "who CS is for". Some grant recipients cited these concerns in struggling to attract attention of students in higher grade levels.

A common theme for both district-level and ESD-level activities was scheduling and coordination. Teachers often must balance a multitude of responsibilities which can make coordination of schedules for professional learning events or trainings difficult particularly during certain busy times of the school year. This led to lower attendance than anticipated in many cases.

### **Future Opportunities**

This body of work has been discontinued by the legislature. Beginning July 1, OSPI is no longer implementing this grant/program/partnership/contract.

### Other Relevant Information

OSPI publishes a dataset annually on CS education data. More information on the <u>demographics</u> of students and teachers engaging in CS coursework can be found in this dataset.

The approximated values for the number of beneficiaries under section 3 were calculated as follows:

- Number of School Districts: direct beneficiaries + average of about 6 districts per ESD estimated based on grant reports
- Number of Schools: summation based on an average of about 1–2 schools impacted per district
- Number of Students: average overall size of schools listed in district grantee reporting (about 700 students per school based on 2024–25 data in <u>OSPI's Report Card</u>) multiplied by the number of schools
- Number of Schools: similar to schools, estimated as an average of about 1–2 educators per district impacted per district

### **Schools/Districts Receiving Assistance**

Click here to see a list of all OSPI grant recipients in the 2025 Fiscal Year.

## **Program Contact Information**

Name: Terron Ishihara

Title: Computer Science Program Supervisor

**Phone:** (360) 791-1930

Email: terron.ishihara@k12.wa.us