Washington Office of Superintendent of PUBLIC INSTRUCTION

Computer Science

1. **Purpose:**
   Coordinate Washington's ongoing work with national computer science standards, implementation, and framework development.

2. **Description of services provided:**
   This proviso supports OSPI staffing to provide leadership, guidance, resource development, professional development, and program management to support the achievement of state learning standards related to computer science for Washington students. Staff work with schools and districts to support the implementation of K–12 Computer Science Learning Standards, including cross-subject connections and development and/or identification of professional learning and technical assistance.

3. **Criteria for receiving services and/or grants:**
   All districts benefit from technical assistance in support of computer science learning standards.

   Beneficiaries in 2020-21 School Year:

Number of School Districts:	All Schools Statewide
Number of Schools:	All Schools Statewide
Number of Students:	All Schools Statewide
Number of Educators:	All Schools Statewide

   Other: AESD, Universities, NextGen WA, Higher Education, Code.org, education and Industry partners, WA ECEP Broadening CS Participation, OSPI Internal partners (Social Studies, Art, Math, etc.), PESB, and other agency's as applicable to work.   ++

Number of OSPI staff associated with this funding (FTEs):	0.90 FTE
Number of contractors/other staff associated with this funding:	0

FY21 Funding:		
	State Appropriation:	$117,000
	Federal Appropriation:	$0
	Other fund sources:	$0
	TOTAL (FY21)	$117,000

4. **Are federal or other funds contingent on state funding?**

☒ No
☐ Yes, please explain.

5. **State funding history:**

Fiscal Year	Amount Funded	Actual Expenditures
FY21	$117,00	$114,055
FY20	$117,000	$116,000
FY19	$117,000	$116,018
FY18	$117,000	$117,000
FY17	$117,000	$113,422
FY16	$122,000	$109,222

6. **Number of beneficiaries (e.g., school districts, schools, students, educators, other) history:**

Fiscal Year	Number of School Districts	Number of Schools	Number of Students	Number of Educators	Number of Other
FY21	296	2000+	1.1 M→	65K	100+
FY20	296	2000+	1.1M	65K	100+
FY19	295	2000+	1.1M	N/A	100+
FY18	295	2000+	1.1M	N/A	100+
FY17	295	2000+	1.1M	N/A	100+
FY16	295	2000+	1.1M	N/A	100+

7. **Programmatic changes since inception (if any):**
Learning standards were adopted in 2018; Guidance on Teaching Computer Science published, Computer Science Data Brief published, implementation is ongoing. The passage of SB5088, SB5299, and legislation for two new CS specialty endorsements

8. **Evaluations of program/major findings:**
Having dedicated staffing at the state level to focus on computer science education enables the state to provide direction and leadership to support state priorities. For example, in the last year, the computer science lead has produced the CS data brief, managed the state's computer science grant program, collaborated with Educational Service Districts to build regional support for computer science, and provided technical assistance to school districts. In addition, the passage of SSB5088 and SB5299 have focused work on student opportunities, and the legislation for two new CS specialty endorsements is helping to provide teacher training and certification.

Since the creation of this position, the number of high schools offering computer science in Washington has grown to 335 high schools and 726 computer science courses in 2020.***

Computer occupations are projected to grow by 21%, equivalent to 18,000 annual openings, over the next ten years. The Bureau of Labor Statistics also projects strong growth and demand in IT and software development. Degree completion in computer science at the baccalaureate level has increased by 70%, but limited enrollment capacity remains a barrier to advancement, particularly in computer science. In addition, although the overall STEM completion numbers show a steady increase, disparities are seen across key racial and ethnic groups.** Engaging more K-12 students in computer science is needed to increase the likelihood students will pursue postsecondary computer science education pathways to meet the workforce demand.*

* AP Program Participation and Performance Data 2020, AP Program Participation and Performance Data 2020

** WA State STEM Education Innovation Alliance, 2021 STEM Education Report Card.

*** OSPI 2020, K-12 Computer Science Education Data Summary Report

9. **Major challenges faced by the program:**
   Certification of teachers to fulfill the requirements of SSB5088 is increasing the need for more computer science teacher training in the state.

10. **Future opportunities:**
    Leadership for computer science education is consistent with the state's focus on STEM (Science, Technology, Engineering, and Mathematics) opportunities to prepare students for Washington jobs and careers. In addition, the Legislature's continued funding for computer science grants in FY20 and FY21, and the implementation of HB1577 SB5299, SSB5088, and new Computer Science Specialty Endorsements, the need for state coordination and leadership remains vital.

11. **Statutory and/or budget language:**
    ESSB 5092, Sec. 1501 (1)(m) - $117,000 of the general fund—state appropriation for fiscal year 2020 and $117,000 of the general fund-state appropriation for fiscal year 2021 are provided solely for professional implementation of chapter 3 (SHB No. 1813), Laws of 2015 1st sp. sess. (computer science).

12. **Other relevant information:**
    N/A

13. **Program Contact Information:**
    Name: Shannon L. Thissen, MEd
    Title: Computer Science Program Supervisor
    Phone: office: 360-725-6092 | cell: 360-764-3778
    Email: shannon.thissen@k12.wa.us