



THE 2023 MINNESOTA COMPUTER SCIENCE EDUCATION ADVANCEMENT ACT

HF 759 and SF 757

Finance Explainer

CS Education Fund: \$4 million, annually beginning in FY24

Description	FY24	FY25
Advisory Committee and Facilitator	\$70,000	
PELSB CS Licensure & HE Engagement	\$40,000	\$40,000
Data Collection & Analysis	\$85,000	\$25,000
State CS Supervisor	\$125,000	\$125,000
MDE Memberships & Travel	\$10,000	\$10,000
Professional Development	\$200,000	
Implementation Grants	\$3,300,000	\$3,615,000
MDE 5% Grant Admin	\$165,000	\$180,750
<i>TOTAL</i>	<i>\$3,995,000</i>	<i>\$3,995,750</i>

PELSB CS Licensure & Higher Education Engagement: While teachers with a business, CTE, or mathematics licenses can teach a CS course, there is not a specific license for CS nor is there accompanying training in pre-service and in-service teacher preparation programs.

State CS Supervisor and Memberships and Travel: MDE has a STEM and CS Coordinator; these funds would allow the creation of a full-time position for computer science, similar to other subject areas within MDE.

Implementation Grants:

Grant funds would be used for a variety of activities including high-quality professional learning opportunities for K-12 CS content, travel expenses for teachers attending training, district planning and implementation, future credentialing, teacher preparation programs, and professional learning.

Before a state plan has been developed, activities funded can be aligned to existing state policy, which does support high school elective CS courses and the CS integrated in new standards. After the state plan has been developed, funding can be aligned to the plan and prioritized based on plan recommendations.

Examples:

- Development of support materials aligned to the integrated CS standards on the existing STEM Teacher Center website (a partnership of SciMathMN and MDE)
- Integrated CS PD aligned with new MDE standards
- PD for high school CS courses (e.g., AP, dual enrollment, CTE)
- Outreach to school districts to increase awareness of CS education
- District planning workshops (develop visions for CS education, set goals, benchmark progress, create implementation plans, etc.)
- PD for high school CS counselors to broaden participation in CS courses
- Support for teacher education programs to add integrated CS aligned to MDE standards
- Support for teacher education programs to add CS licensure programs
- Ongoing PD, including on pedagogy and deepening CS knowledge

Minnesota has over 500 school districts with approximately 2,250 public and tribal schools. Each district will need to create a plan for CS education (\$7,500/school) and each school will need at least one trained CS teacher, estimated at a cost of \$3,000/teacher¹. However, schools will likely need 2 or more teachers as CS efforts scale, in addition to ongoing PD costs of other staff (counselors, administrators, and specialists) and staying current in the discipline, including licensure.

Districts need at least 4-6 years to develop a K-12 CS pathway, followed by additional time to refine and expand pathways to ensure access, participation, and engagement. The cost per year to develop district CS pathways is approximately \$100,000 for small to mid-sized districts (1,000 - 10,000 students; includes teacher professional learning).

¹ The estimate of \$3,000 / teacher is based on multiple CS PD efforts run by the National Center for CS Education, Computer Science Teachers Association (CSTA) and other states, such as Maryland and California. The \$3,000 cost per teacher estimates 5 days of PD and includes a \$1,000 stipend, \$1,000 for travel support, and \$1,000 to support facilitation expenses.