

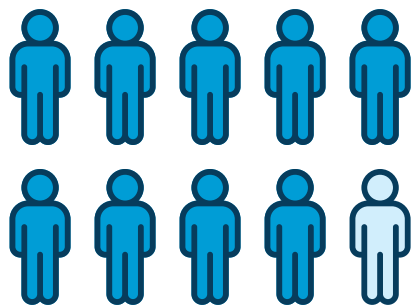
ARTIFICIAL INTELLIGENCE (AI) IN K-12 COMPUTER SCIENCE (CS) CLASSROOMS

Results from a Statewide Survey of CS Teachers and Administrators in Pennsylvania

(n = 917 teachers, 514 administrators)

In collaboration with the Pennsylvania Department of Education and Pennsylvania Training and Technical Assistance Network, the American Institutes for Research® administered a survey to all K-12 CS teachers, principals, and superintendents across the Commonwealth from December 2024 to March 2025.

AI in Foundational CS Courses



Nearly **9 in 10 CS teachers and school administrators** in Pennsylvania believe that learning about AI should be in foundational CS learning experiences.

AI in Elementary School

The majority of **CS teachers (61%)** and **school administrators (67%)** agreed that AI concepts should be taught to elementary school students.

Administrators reported using generative AI weekly or more frequently to:



Draft and enhance communications



Research topics relevant to their role

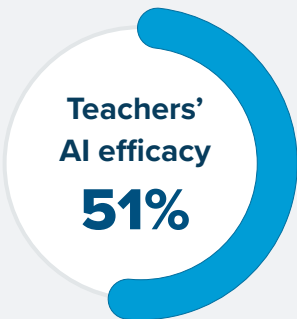


Support teacher professional learning



95%

Nearly all **CS teachers and administrators** showed interest in professional development about teaching AI in classrooms.



Teachers' AI efficacy
51%

About half of the **CS teachers** reported feeling equipped to teach students about AI in their instruction.

Teachers more familiar with generative AI technologies reported greater:



Support for teaching AI concepts in elementary and foundational CS instruction



Instructional hours related to AI concepts in their CS courses



Confidence to teach students about AI concepts

Overall, teachers in bigger cities expressed more interest in and familiarity with AI.

CS teachers in larger urban areas reported higher self-efficacy in teaching AI concepts, greater interest in professional development related to AI instruction, and increased familiarity with recent generative AI technologies such as ChatGPT than teachers in more rural areas.



Administrators Identified Fewer Concerns With Student AI Use Than CS Teachers.

CS teachers' and administrators' biggest concerns with student AI use include:



Increased cheating & plagiarism
(**60%** of CS teachers, **36%** of administrators)



Greater levels of misinformation
(**55%** of CS teachers, **31%** of administrators)



Increased dependency on technology
(**55%** of teachers, **26%** of administrators)