



INDIANA

2023 State of Computer Science Education

The rapid pace of technological advancement, as seen with the widespread integration of generative artificial intelligence (AI), underscores the need for foundational knowledge in computer science for all students. This report calls upon advocates to embrace the urgency of this matter and revamp school curricula to align with the demands of the 21st century, including requiring that all students learn computer science.

Currently, 57.5% of public high schools in the United States (U.S.) offer a foundational computer science class—an achievement marking the largest percentage growth in the last five years. Across the 35 states* where data is available, 5.8% of high school students are enrolled in foundational computer science. Even with growing access this growth, large disparities still exist, and we must continue to focus on eliminating participation gaps.

5,623

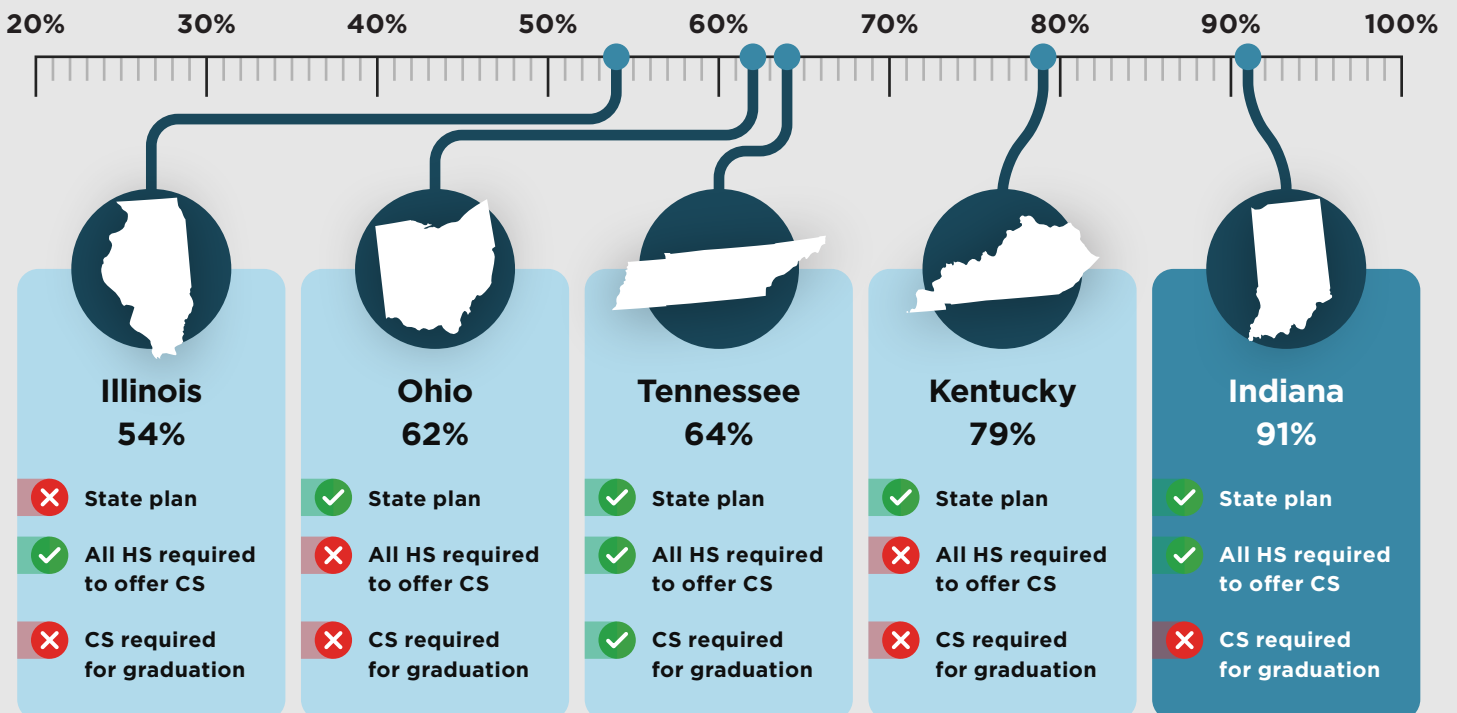
In 2023, IN averaged
5,623 open computing jobs
each month

\$85,637

These jobs have an average
salary of \$85,637

*AL, AR, AZ, CT, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, MS, NC, ND, NE, NJ, NM, NV, NY, OK, OR, PA, RI, TN, TX, UT, VA, VT, WV, WI

Comparative Access to Computer Science Courses (percentage of high schools offering)





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Ten Policies to Make Computer Science Foundational

1.

Create a **statewide plan** for K-12 computer science

2.

Define computer science and establish standards for K-12 computer science

3.

Allocate funding for rigorous computer science teacher professional learning

4.

Implement **clear certification pathways** for computer science teachers at elementary and secondary levels

5.

Create university programs to **encourage all preservice teachers** to gain exposure to computer science

6.

Establish **dedicated computer science** positions in a state education agency

7.

Require that all schools offer computer science with appropriate implementation timelines

8.

Allow computer science to count toward a core graduation requirement

9.

Allow **computer science to satisfy an admission requirement** at higher education institutions

10.

Require that all students take computer science to earn a high school diploma

What Has Indiana Done to Advance Computer Science Education?

Indiana requires every elementary, middle, and high school to offer computer science.

Indiana has funded computer science education annually since 2019, totaling over \$18M after the 2023 legislative session.

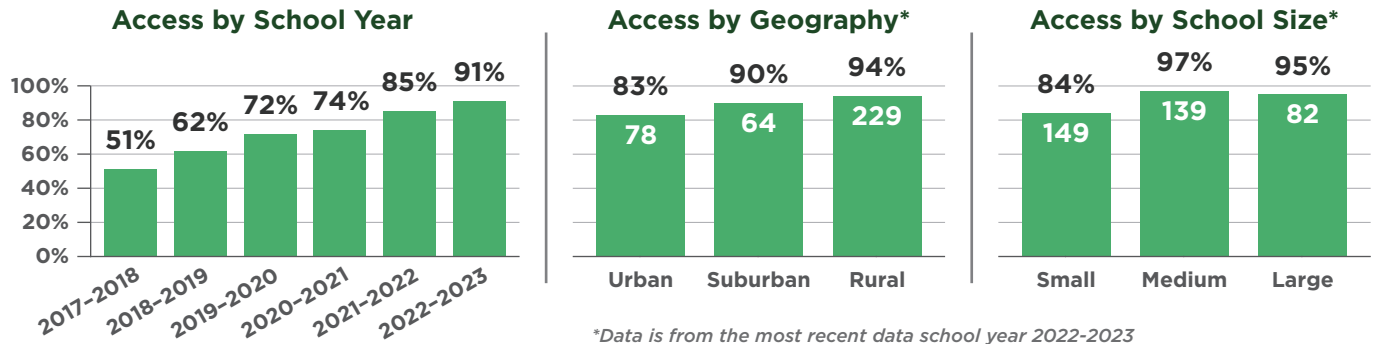
How Can Indiana Increase Opportunities for Students?

Indiana should adopt a graduation requirement for all high school students in computer science.



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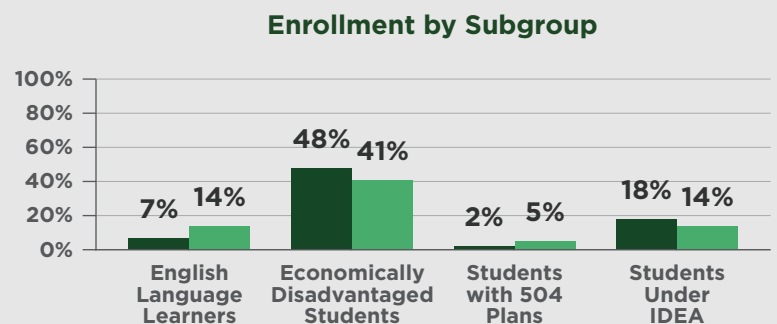
Percentage of Public High Schools Offering Foundational Computer Science



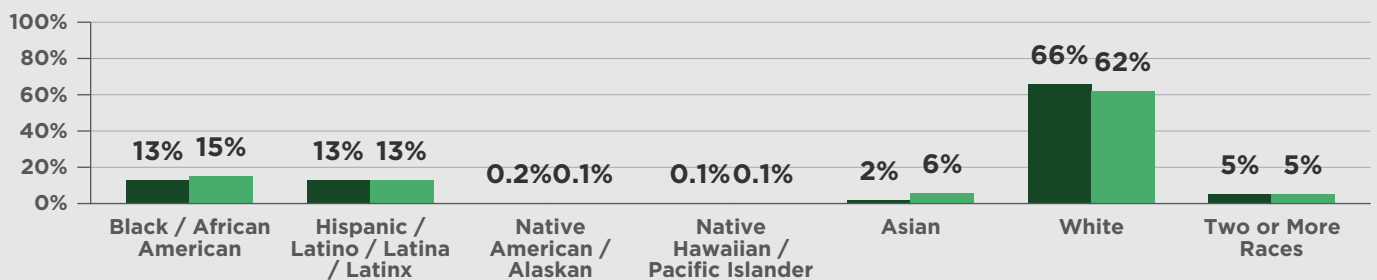
Participation in Foundational High School Computer Science by Student Demographics

6.0% of high school students took foundational computer science in 2022-2023

24% of students who took foundational computer science were female



Enrollment by Race / Ethnicity



Students of all racial and ethnic groups are similarly likely to take foundational computer science

● Student Demographics 9-12
● Participation in Foundational Courses

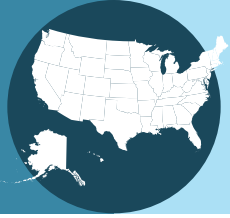
K-12 Access and Participation in Computer Science

30% of middle schools** are teaching foundational computer science education, with an enrollment of 126,630 students.

**93% of elementary schools reported course offerings and among those schools 30% reported teaching foundational computer science

52% of middle schools*** are teaching foundational computer science education, with an enrollment of 44,957 students.

***91% of middle schools reported course offerings and among those schools 52% reported teaching foundational computer science



UNITED STATES

Percentage of Public High Schools Offering Foundational Computer Science Nationally

