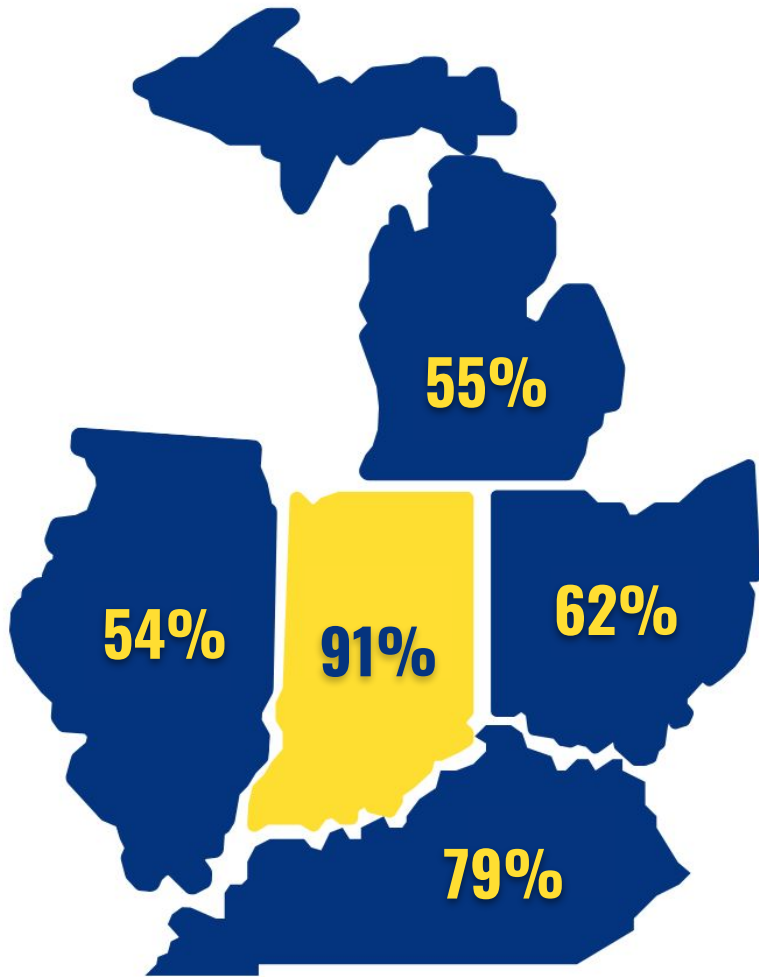


The State of Computer Science in Indiana

November 8, 2023



**Indiana Leads the
Midwest;
Sixth in the Nation in
High Schools offering
Computer Science.**

HIGHLIGHTS OF THE DATA

94%

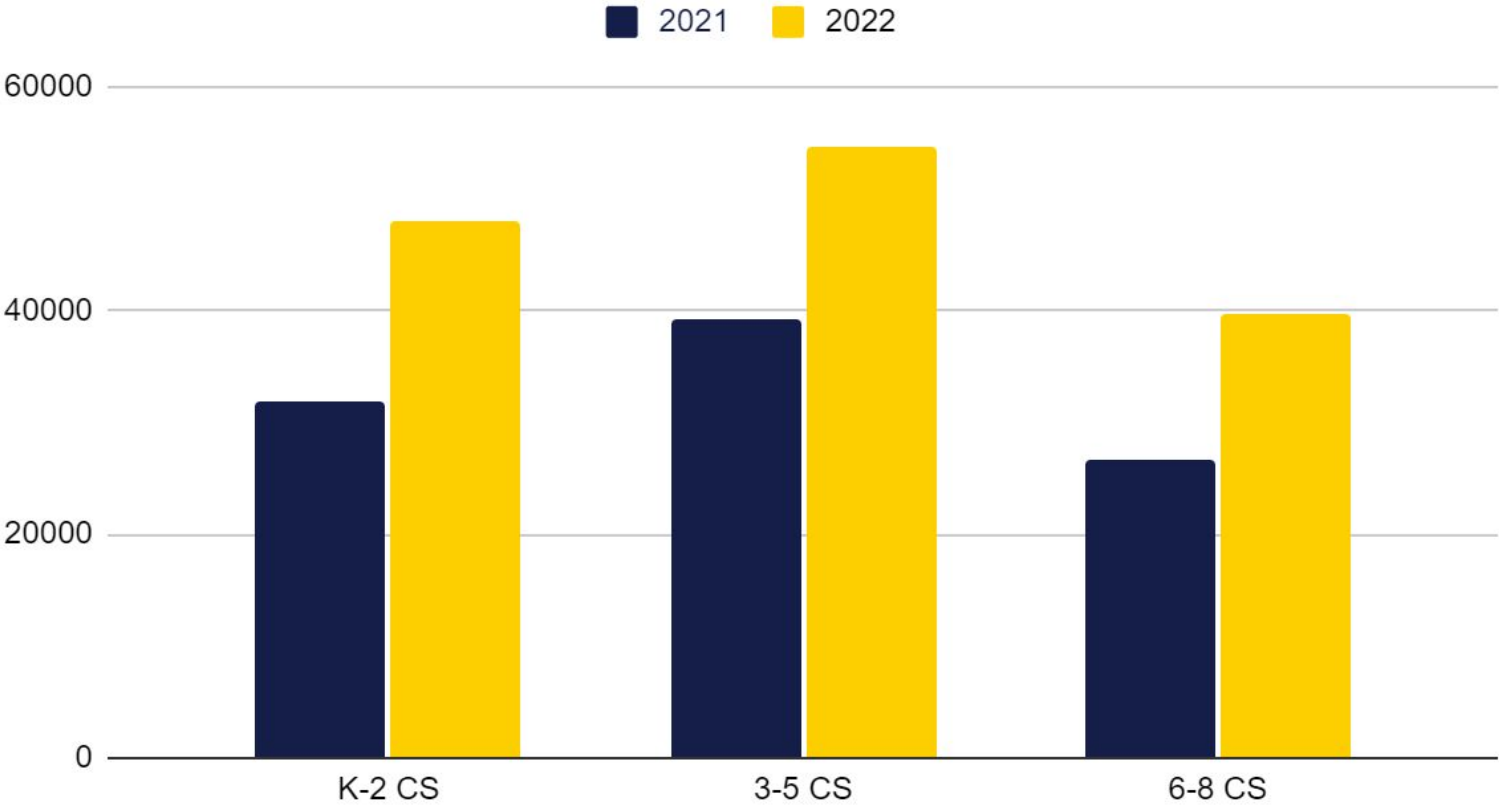
Students in 94% of **rural** schools have access.

84%

Students in 84% of **small** schools have access.

- 24% of students enrolled in computer science in Indiana were female.
- Students of all races and ethnicities are similarly likely to take foundational computer science.

K-8 CS Course Enrollments



DESIGNING FOR IMPACT COMPUTER SCIENCE GRANT

Grant goals:

- Increase pedagogical knowledge of in-service and pre-service teachers;
- Increase teacher ability to implement authentic problem solving using computing; and
- Increase opportunities for transferable credentialing and licensing.

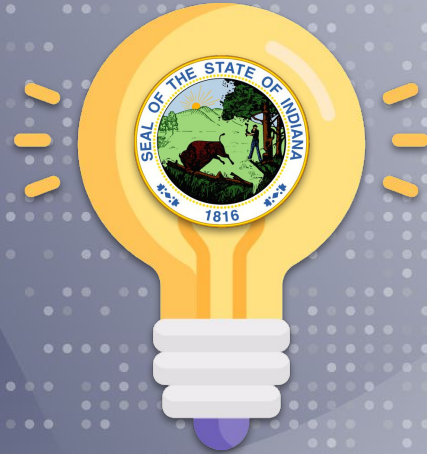


\$2.26M Awarded

COMPUTER SCIENCE CATALYST GRANT

Grants to state accredited schools to:

- Provide teachers with high-quality teacher professional development programs in computer science; and
- Develop and implement sustainable computer science curricular programs.



\$327K Awarded

CSPDWEEK - PARTNERSHIP FOR SUCCESS



INDIANA
DEPARTMENT of
EDUCATION



2022

209 K-12 educators participated in the inaugural year.

2023

Of 306 participants, over 100 teach kindergarten-grade 5 CS.

2024

Increased enrollment capacity to reach 400 educators.

PROFESSIONAL DEVELOPMENT INFRASTRUCTURE



Indiana University



PRISM Project at Rose-Hulman



CodeHS



Nextech



BloomBoard

STEM CERTIFICATION

Why STEM Certification?

“STEM Certification pushes us to keep moving forward knowing that there are always more ways to improve our curriculum for the best and future interests of our students and small community.”

~ Shelley Christmas, Loogootee High School



STEM Certified School Map

CS is the 'T' in STEM

S

Scientific inquiry informs the engineering process.

E

Design under constraint.

T

Humans create technology to satisfy wants and needs.

M

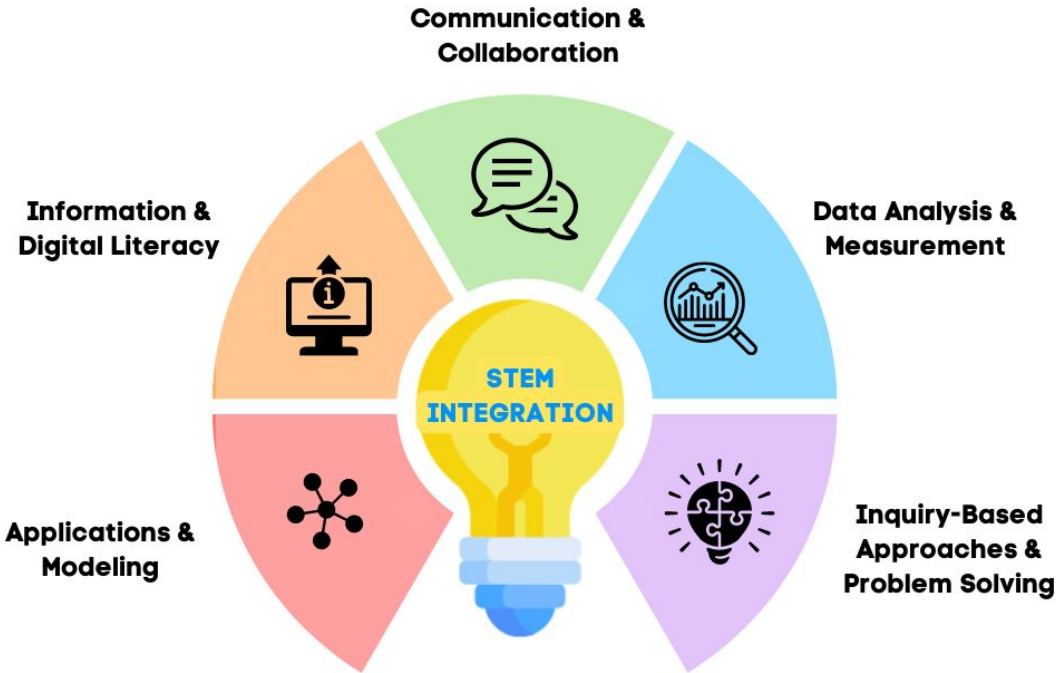
Study of relationships among quantities, numbers, and space.



Artificial Intelligence | Robotics | Data Science



K-12 INTEGRATED STEM STANDARDS INCLUDE CS



Integrated STEM Standards:

- Lean into the K-8 student practices in science and CS.
- Apply computational thinking in modeling and data analysis.
- Highlight the importance of CS as a STEM discipline.

INDIANA STEM CADRE MISSION

The **Indiana STEM Cadre** works to help every Hoosier student **receive foundational STEM integration skills** by developing and implementing collaborative professional development for educators (grades 4-8) rooted in research-based practices.



I-STEM: SCIENCE, TECHNOLOGY, ENGINEERING, & MATH



- Partnership with the Education Service Centers of Indiana to strengthen our **STEM** teacher pipeline
- Those eligible may receive **free tuition and books**, allowing them to complete the I-STEM program **at no cost**.
- Additional stipends are also available to incentivize employment in rural districts.

800+ people currently enrolled since June launch!

**130
CURRENT
VACANCIES**

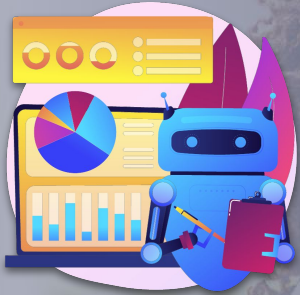
AS OF NOVEMBER 6, 2023



AI Literacy

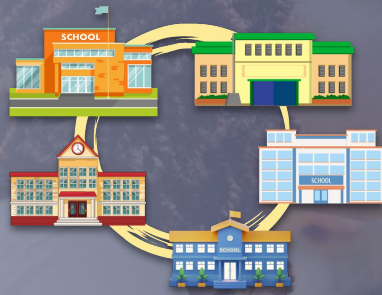
Educators and leaders have the power to alter the landscape of preparing students for their future in an ever-changing, technologically-advancing world.

AI Powered Platform Pilot Grant



AI Platforms

5



Corporations

36



Schools

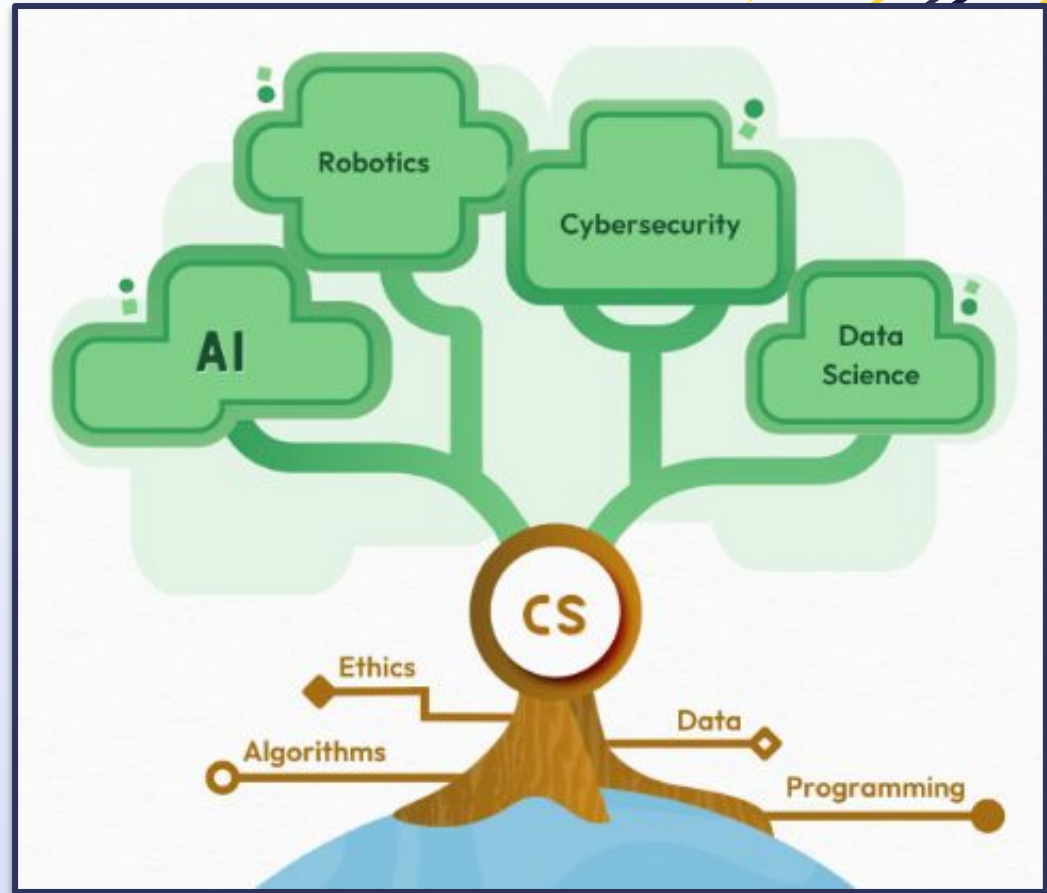
112



Student Impact

45K

Because AI is CS,
computer science has
to be a **fundamental,**
foundational, and
required part of K-12
education for 21st
century learners.





THANK YOU!