To: Honorable Eric J. Holcomb, Governor of Indiana, Dr. Katie Jenner, Secretary of Education

From: Lynn Schemel, Chief Academic Officer

Date: July 15, 2024

Subject: Next Level Computer Science Program Biannual Report - July 2024

Background

Indiana Code (IC) 20-20-45 established the Next Level Computer Science (CS) Grant Program and Computer Science Fund to award grants to eligible entities to implement high-quality teacher professional development programs in CS. The Indiana Department of Education (IDOE) is charged to administer the program and fund, as well as develop grant guidelines in collaboration with the Governor's office.

IC 20-20-45-12 requires IDOE to biannually submit a progress report to the Governor regarding the:

1. Development and administration of the program and fund; and
2. Status of public schools in meeting CS curriculum requirements.

Development and Administration of the Program and Fund Timeline*

January 2024	IDOE delivers the IC 20-20-45 biannual report to the Governor's Office, Indiana General Assembly, Indiana Commission for Higher Education, and the Indiana State Board of Education.
February 2024	IDOE awards $1.7M in grants from the Next Level CS Fund to institutions of higher education and nationally-recognized organizations providing high-quality CS professional development through the Designing for Impact Next Level CS Grant program. Individual awards were determined based on intended outcomes resulting from the grant application and design.
March 2024	IDOE collaborates with Nextech to evaluate ongoing needs and develop strategies to deliver targeted resources to K-8 CS educators.

May 2024

IDOE collaborates with Nextech and the National Computer Science Teachers Association to host the third annual Indiana CSPDWeek for Indiana K-12 educators in Bloomington.

The grant period for the inaugural CS Catalyst Grant closed on Sunday, June 30. IDOE awarded $327,000 from the Next Level CS Fund for proposals designed to implement strategies to expand CS learning opportunities and strengthen regional partnerships to support sustainability, specifically through high-quality teacher CS professional development programs and the implementation of sustainable CS curricular programs.

In May, IDOE published guidance regarding recent legislation that passed requiring all high schools to include high-quality CS instruction within their curriculum. Currently, 91% of public high schools in Indiana offer a foundational computer science course, yet only 7% of Indiana high school students are currently enrolled in one of these courses. This requirement will help more students gain the digital literacy skills needed for future success.. More information can be found here.

Provider Training Overviews

Since June 1, 2018, over 4,850 Indiana K-12 educators received CS training through partnerships between IDOE and eligible entities pursuant to IC 20-20-45. The following information reflects IDOE's current partnerships. Refer to the Appendices for training partner contracts.

BloomBoard, Inc. is committed to creating and providing professional learning pathways that help educators acquire transferable credentials and licensing opportunities to enhance instructional design. BloomBoard, Inc. currently supports 33 Indiana educators through 10 training courses, enabling them to earn micro-credentials. These micro-credentials will help expand CS learning experiences for preschool-grade 12 students by leveraging CS content and practices through authentic problem-solving. Additionally, these educators can accumulate micro-credentials in CS courses toward earning a master's degree in Technology and Computer Science Education from a partnering higher education institution. The following table illustrates a summary of educator participation in BloomBoard, Inc.'s two spring 2024 cohorts.

BloomBoard, Inc. Training Numbers				
Cohort	Educators	Course	Seats	
			Spring Term I (January - February 2024)	Spring Term II (March - April 2024)

Cohort 1	25	EDUC 5173 Computing Systems and Basic Programming	8	1
		EDUC 5263 Cybersecurity	15	0
		EDUC 5273 Pedagogical Practices that Support CS Learning 1	9	5
		EDUC 5283 Pedagogical Practices that Support CS Learning 2	4	9
		EDUC 5293 Promoting Inclusive Practices in Computer Science	9	4
		EDUC 5253 Integrating Computer Science Practices	0	9
		EDUC 5793 Capstone	0	14
Cohort 2	8	EDUC 5243 Foundations of Computer Science Instruction	8	0
		EDUC 5153 Computing and Society	0	8
		EDUC 5163 Computational Thinking	0	8
Total	**33**	**10**	**53**	**58**

Indiana University (IU) conducted an extensive Building Capacity for Preservice Computer Science Education project, which aims to enhance and strengthen the impact of Indiana computer science learning opportunities for Indiana students in preschool through grade 12. It provides opportunities for preservice and in-service teachers to increase their CS pedagogical knowledge and ability to implement authentic problem-solving using computing to address or improve systems and circumstances in local communities. In the first half of 2024, IU hosted a series of workshop-based professional development opportunities as well as a CS cohort of elementary preservice teacher educators.

Part I: Workshop-Based Professional Development

IU CS Training Numbers		
Workshop Name	**Workshop Description**	**Total Trained January – June 2024**
Rethinking Circle Time (ReCT)	ReCT discusses how computational thinking concepts, which include pattern recognition, abstraction, decomposition, algorithm design, and debugging, can be integrated into K-2 literacy classes. The workshop provides various examples of computational	102*

IU CS Training Numbers		
Workshop Name	**Workshop Description**	**Total Trained January – June 2024**
	thinking activities, including unplugged, plugged, embodied, and Scratch Jr., using manipulatives such as picture cards, direction cards, and circle diagrams.	
Primary AI	Artificial intelligence (AI) has become a fundamental technology with a transformative impact on our society. Primary AI is a teacher training workshop targeting students in grades 4-6. It presents a comprehensive AI and science curriculum integrated with an immersive learning environment, including various AI concepts such as perception, planning, robotics, machine learning, and ethical considerations related to AI.	50*
CSforSocialGood	CSforSocialGood emphasizes how CS can improve social good. It adopts problem-based learning (PBL) and integrates block coding to engage learners with real-world problems. The workshop introduces unplugged (sorting cards) and plugged activities (Scratch) that teachers can use for teaching middle school and grade six students.	110*
AI Goes Rural	AI Goes Rural is an introductory training course regarding AI designed to emphasize the importance of visualization and representation with computers, how computers perceive and learn from data, provide opportunities for learners to apply AI concepts to real-world applications, and consider the ethical implications of AI. It targets teachers interested in teaching grades six through eight with fundamental AI concepts.	57*
Introduction to CS	The workshop is designed for preservice teachers to understand basic CS concepts. With Indiana's adoption of CS standards within the Indiana Academic Standards for Science, it is vital that those entering the teaching profession have a basic knowledge and understanding of related topics. Topics addressed in the unit include CS history and stereotypes, computational thinking concepts, computer science integration across the disciplines, particularly for creativity and problem-solving, machine learning and AI, and the societal impacts of CS.	97*
Data Science in Education	The combination of CS, mathematics/statistics, and domain application is data science. Data science is a field that transforms data into numbers that can be analyzed and interpreted for different areas of study. The workshop aims to promote educators' understanding of the nature of data and AI so that they can utilize data to improve their teaching and implement data inquiry lessons to build students' data literacy. The target learners of this workshop are preservice teachers.	27*
Total Educators Impacted		**152**

IU CS Training Numbers					
Date	**School**	**Workshop Length**	**Professional Development**	**Number of Preservice Teachers**	**Number of Faculty Members**
February 2, 2024	University of St. Francis	3 hours	• Intro to CS • CS for Social Good • ReCT	45	3
February 13, 2024	Vincennes University	6 hours	• Intro to CS • CS for Social Good • ReCT • AI Goes Rural • Primary AI	30	1
February 20, 2024	Indiana University Southeast	2 hours	• AI Goes Rural • Primary AI • Data Science in Education	20	0
April 21, 2024	Indiana State University	3 hours	• Unpacking the K-8 CS Standards	15	1
April 23, 2024	Manchester University	1 hour, 15 minutes	• CS for Social Good	15	2
April 24, 2024	Ivy Tech Muncie	3 hours	• Introduction to CS • ReCT • AI Goes Rural • Data Science in Education	7	3
May 1, 2024	Manchester University	3 hours	• Introduction to CS • ReCT • CS for Social Good	20	2
Total				**152**	**12**

Part 2: CS Cohort of Elementary Preservice Teacher Educators

As part of the Building Indiana Computing Capacity (IC2) for Indiana Preservice CS Education project, IU initiated the CS Cohort of Elementary Teacher Educators. IU collaborated with 20 faculty members representing 14 elementary teacher preparation programs across Indiana. This collaboration included asynchronous and synchronous online sessions and activities during April and May 2024. The CS cohort members were involved in five hours of synchronous online sessions and 2.5 hours of asynchronous videos of CS-related topics. Some of the topics covered and discussed include:

- CS and CS Visions
- CS Standards and Framework
- Programing and Coding Workshops
- CS Curriculum and Resources for K-5
- CS Integration
- CS in Elementary Teacher Preparation Programs

In addition to online sessions, 15 of the cohort members stayed in Bloomington to participate in the CSPDWeek. Participation included sessions organized by IU and CSPDWeek partners, which included topics like the integration of CS in literacy, physical computing, AI for social good, and more. Cohort members had a chance to reflect on their journey of learning and teaching CS in their elementary preservice teacher preparation programs. In total, cohort members attended 24 hours of professional development sessions throughout the week of events from Monday, June 10, through Friday, June 14. Additional details and the summary of cohort activities are delineated below.

IU CS Cohort Activities Summary			
Represented Universities	**Participants**	**CS Cohort Activities March – May 2024**	**CS Cohort Activities June 2024**
• Marian University • University of Southern Indiana • Vincennes University • Purdue University • Ball State University • Manchester University • Ivy Tech Community College (Muncie) • Butler University • University of Evansville • Purdue University Fort Wayne • Indiana State University • Indiana University Southeast • Ivy Tech Community College • University of Saint Francis	20 faculty members of elementary teacher preparation programs	**March:** • Applications • Initial 1:1 meeting **April:** • Initial 1:1 meeting • Whole group meeting • Coding workshops • Asynchronous activities and resources **May:** • 1:1 check-in • Group meetings • Asynchronous and resources	**CSPDWeek:** • 24 hours of in-person professional development sessions **CS Cohort:** • Six hours of in-person sessions • Five hours of networking and collaboration time

CodeHS has partnered with IDOE since 2020 to consistently deliver high-quality and engaging professional learning experiences. From January to July 2024, over 400 Indiana teachers solidified best practices in CS instruction through a wide variety of professional development options ranging from developing computational thinking skills to learning new programming languages to preparing for teacher licensure exams in CS. Through the Designing for Impact Next Level Computer Science Grant, K-12 educators have access to CodeHS, Inc's one-day workshops, bootcamps, and Train-the-Trainer workshops.

CodeHS CS Training Numbers		
Workshop	**Description**	**Total Trained January - June 15, 2024**
JavaScript Bootcamp	Educators participate in a four-week hybrid learning experience including asynchronous skill building with JavaScript and an option to participate in a weekly live session with CodeHS facilitators. Educators learn effective	3

CodeHS CS Training Numbers		
Workshop	**Description**	**Total Trained January - June 15, 2024**
	instructional strategies, specific content knowledge, assessment, and differentiation strategies.	
Java Bootcamp	Educators participate in a four-week hybrid learning experience including asynchronous skill building with Java and an option to participate in a weekly live session with CodeHS facilitators. Educators learn effective instructional strategies, specific content knowledge, assessment, and differentiation strategies.	5
Python Bootcamp	Educators participate in a four-week hybrid learning experience including asynchronous skill building with Python and an option to participate in a weekly live session with CodeHS facilitators. Educators learn effective instructional strategies, specific content knowledge, assessment, and differentiation strategies.	9
Cybersecurity Bootcamp	Educators participate in a four-week hybrid learning experience including asynchronous skill building with Cyber and an option to participate in a weekly live session with CodeHS facilitators. Educators learn effective instructional strategies, specific content knowledge, assessment, and differentiation strategies.	6
Building a CS Program Workshop	Educators and administrators participate in a one-day, in-person workshop to help schools and districts develop a strategic plan for building a CS pathway, exploring CS courses, building student interest, recruiting underrepresented students, building educator capacity, and sustaining your CS program.	5
CS Methods Workshop	In these half-day or one-day workshops designed to meet the needs of individual districts, educators explore topics ranging from elementary, middle, and high school CS courses to best practices in teaching CS.	43
Teaching Lower Elementary (K-2) CSWorkshop	In this one-day workshop, elementary educators learn best practices for teaching CS in lower elementary, how to use CodeHS elementary interdisciplinary CS lessons, assess student performance, and get started with ScratchJr.	4
Teaching Upper Elementary (3-5) CSWorkshop	In this one-day workshop, elementary educators learn best practices for teaching CS in upper elementary, how to use CodeHS elementary interdisciplinary CS lessons, assess student performance, and get started with ScratchJr.	4
Online Mini PD Course	Teachers can choose from over 15 online five-hour courses including Collaboration in CS, project-based learning, blended learning, CS instructional strategies, and more.	271
Praxis CS Exam Preparation	Educators participate in a Praxis Prep cohort, including an asynchronous 50-hour Praxis CS Prep course, live classes, and one-on-one support from the CodeHS PD facilitators.	26

CodeHS CS Training Numbers		
Workshop	**Description**	**Total Trained January - June 15, 2024**
AI Workshops	AI Basics (for Indiana Teachers), AI Use Cases (for Indiana Teachers), AI Bootcamp, AI Workshop, Using Chatbots (for Indiana Teachers)	49
Indiana Courses	CodeHS offers several courses aligned with Indiana Academic Standards for middle school and high school CS teachers: Indiana CS I, Indiana CS III: Cybersecurity, Indiana Principles of Computing, Indiana Topics in CS, Indiana CS (Grades 6, 7, & 8), Indiana Introduction to CS.	51
Data Science Bootcamp	The Data Science Bootcamp covers essential data science skills, including data collection, cleanup, transformation, analysis, and visualization using Python libraries. Lessons covered writing algorithms, telling data stories, building statistical models, and creating impactful data visualizations. Participants applied their skills to real-world scenarios through final projects, gaining concrete tools to solve organizational problems with data science techniques.	5
Total Educators Impacted		**481**

Nextech is a nonprofit dedicated to providing access to CS education for all K-12 students in Indiana through its mission to ensure every student has the opportunity to develop essential tech skills, preparing them for future careers in an increasingly digital world. Through its partnership with IDOE, Nextech has offered a range of programs, including teacher training, student coding competitions, and immersive learning experiences.

During the 2023-2024 contract, Nextech supported IDOE through various CS professional development opportunities available in-person, virtually, or in a hybrid environment, as well as access to ongoing collaboration and support. This partnership provides professional development and curricula at no charge, reimbursement opportunities for school-day events, accommodations for multi-day CS events, and support to schools and districts for K-12 CS implementation plans. Some of these opportunities are highlighted below:

- Professional Development CS Courses for Grade Bands (preschool, K-5, K-8, 6-8, 6-10, 6-12, 9-12, K-8, K-12): Course opportunities vary in length (e.g., six hours to 12 hours), offering specialized support in areas from CS standards support to artificial intelligence and digital citizenship.
- CSPD Week: This week-long event, supported by Nextech and the national and Indiana chapter of the Computer Science Teachers Association (CSTA), was held from Monday, June 10, through Friday, June 14. The event hosted 404 educators from 277 schools and 120 districts in Bloomington to discuss the future of CS and new strategies to help students master these skills.
- Specialist Support and Customizable Workshops: Nextech also offers schools and districts the opportunity to develop custom one-day professional development opportunities designed to meet their individual needs.

Nextech Contract #3 - CS Training Numbers		
Workshop	**Description**	**Total Trained January 1 - June 30, 2024**
Integrating CS in Middle School Deep Dive	One- or two-day workshop for middle school teachers interested in taking a deeper dive	10
Principles of Computing	One-day workshop focusing on professional development for teachers seeking to align curriculum to Next Level Programs of Study (NLPS) 7183 Principles of Computing	27*
WeTeach CS Certification Prep Course	Immersive five-day course designed to provide an overview of the educator competencies to become endorsed to teach CS in Indiana	26
CS Principles	Nine-day professional development experience for high school teachers including five-day, intensive training in the summer followed by quarterly workshops during the school year.	14
CS Discoveries	Nine-day professional development experience for middle and high school teachers including five-day, intensive training in the summer followed by quarterly workshops during the school year.	42
CSA	Nine-day professional development experience for high school teachers including five-day, intensive training in the summer followed by eight workshops throughout the school year.	**4**
Topics in CS	Five-day intensive professional development to provide training for the NLPS course 7351 Topics in Computer Science.	6
Unpacking CS Indiana Academic Standards	One-day or six-hour workshop for K-8 teachers seeking to understand the updated Indiana Academic Standards for CS.	20
Integrating CS in K-5 Classroom	One-day or six-hour workshop for elementary school educators to help integrate CS into existing K-5 coursework	7
Integrating CS in 6-8 Classroom	One-day or six-hour workshop for middle school educators to help integrate CS into existing 6-8 coursework.	15
Integrating CS in 9-12 using AI	One-day or six-hour workshop for educators to help connect AI concepts in the high school classroom.	86
Integrating CS in K-8 using AI	One-day or six-hour workshop for educators to help connect AI concepts in the K-8 classroom.	109
CS Fundamentals	One-day or six-hour workshop for K-5 teachers to help become familiar with CS.	25
CS Fundamentals Deep Dive	One-day or six-hour workshop for K-5 teachers to help create a plan to teach CS fundamentals.	9
Counselors for Computing	One-day or six-hour workshop for school counselors to help broaden their understanding of CS.	17

Nextech Contract #3 - CS Training Numbers		
Workshop	**Description**	**Total Trained January 1 - June 30, 2024**
K-5 Hands on CS	Five-day, intensive hands-on experience where educators choose from a menu of professional development options based on implementation strategy and grade level, with eight optional follow-up workshops throughout the school year.	149
Investigating the Eclipse using CS in 6-8	This half-day workshop is for 6-8 general teachers, CS teachers, media/library specialists and resource/tech teachers interested in using the solar eclipse as an avenue to help teach CS.	4
Investigating the Eclipse using CS in K-5	This half day workshop is for K-5 Teachers, Computer Science Teachers, Media/Library Specialists and Resource/Tech Teachers interested in using the solar eclipse as an avenue to help teach computer science.	5
Universal Design of Inclusive K-12 CS	One day or 6 contact hour workshop for K-8 educators interested in learning ways that they can scaffold and add additional challenges to their computer science lessons to meet the needs of all learners and build capacity for learning CS.	26
Making CS Happen	In this workshop, K-8 teachers have the opportunity to explore how to implement maker education.	6
Total Educators Impacted		607

*This workshop was included in the December 2023 report and was moved to May 2024.

2023-2024 CS Catalyst Grant

The CS Catalyst Grant provided opportunities for schools/corporations to:

- Accelerate CS pedagogical knowledge of educators for preschool through grade 12 and expand course sequences and/or implement integrated CS learning opportunities;
- Increase the number of preschool through grade 12 students who have access to high-quality CS learning experiences;
- Promote teacher understanding of and ability to implement authentic problem-solving using computing to address or improve systems and circumstances within the school or local community; and
- Expand and maintain systems to sustain development of teacher capacity to teach CS, recruitment of student groups typically underrepresented in CS, and connections to industry and community experts who can inform future expansion of CS opportunities beyond the grant cycle.

Grant Recipients:

- Carmel Clay Schools
- Concord Community Schools
- Gary Community School Corporation
- Hanover Community School Corporation
- Kokomo School Corporation
- Lake Central School Corporation
- Marion Community Schools
- MSD Martinsville Schools
- MSD of New Durham Township
- Orleans Community Schools
- Paoli Community School Corporation
- Rossville Consolidated Schools
- South Montgomery Community School Corporation
- Springville Community Academy
- St Benedict Cathedral School
- Tri-Central Community Schools
- Washington Community Schools

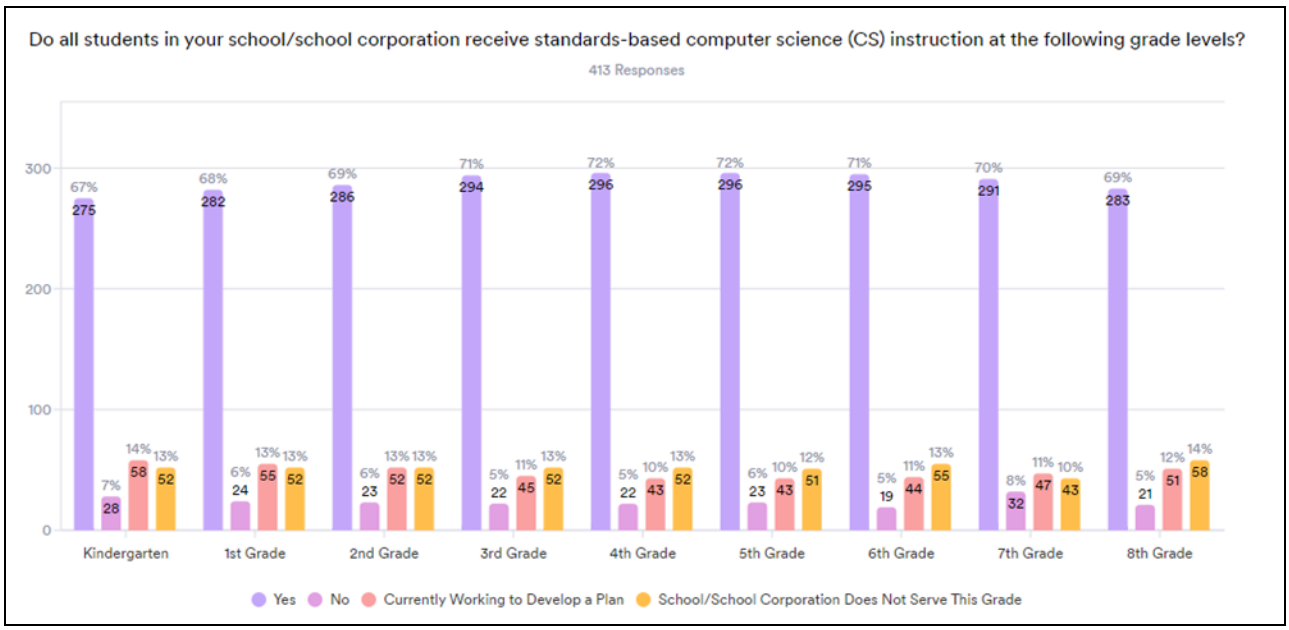
Status of Public Schools Meeting CS Curriculum Requirements

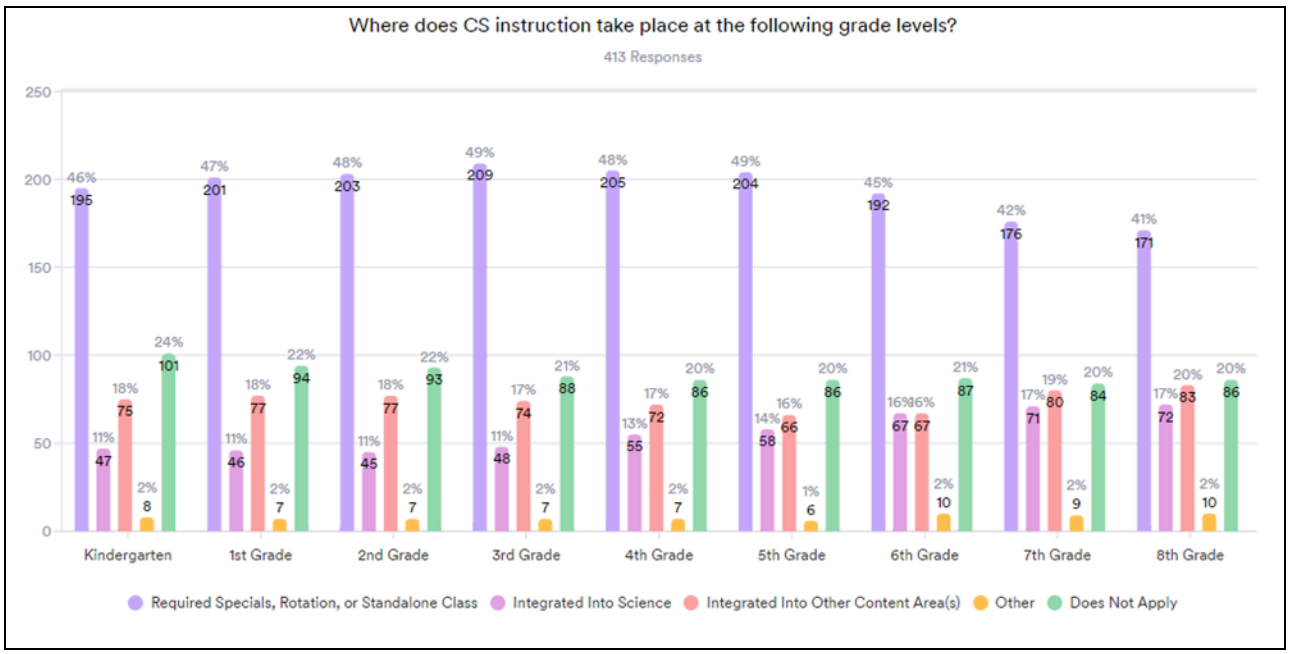
Grades K-8: Prior to the enactment of Senate Enrolled Act (SEA) 172 (2018), there was limited availability of CS-specific data for grades K-8. IDOE has identified the following courses as current indicators of progress at these grade levels.

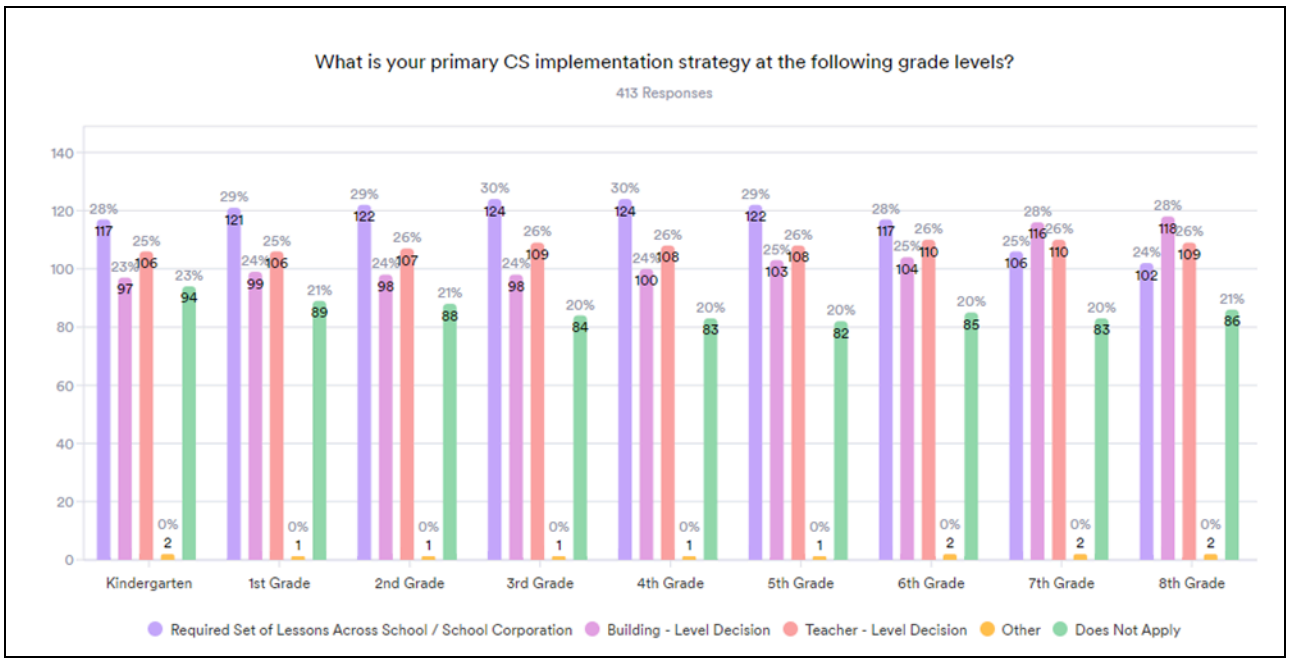
Relevant Elementary and Middle School Student Enrollment Trends *					
Course	Year				
	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
0488: Computer Science Middle Level	N/A	11,852	8,827	**	**
0488: K-2 Computer Science	N/A	N/A	31,961	47,945	59,052
0488: 3-5 Computer Science	N/A	N/A	39,223	54,566	67,151
0488: 6-8 Computer Science	N/A	N/A	26,556	39,584	42,448
4803: Introduction to Computer Science ***(Early High School)***	364	1,283	980	1,673	1,455

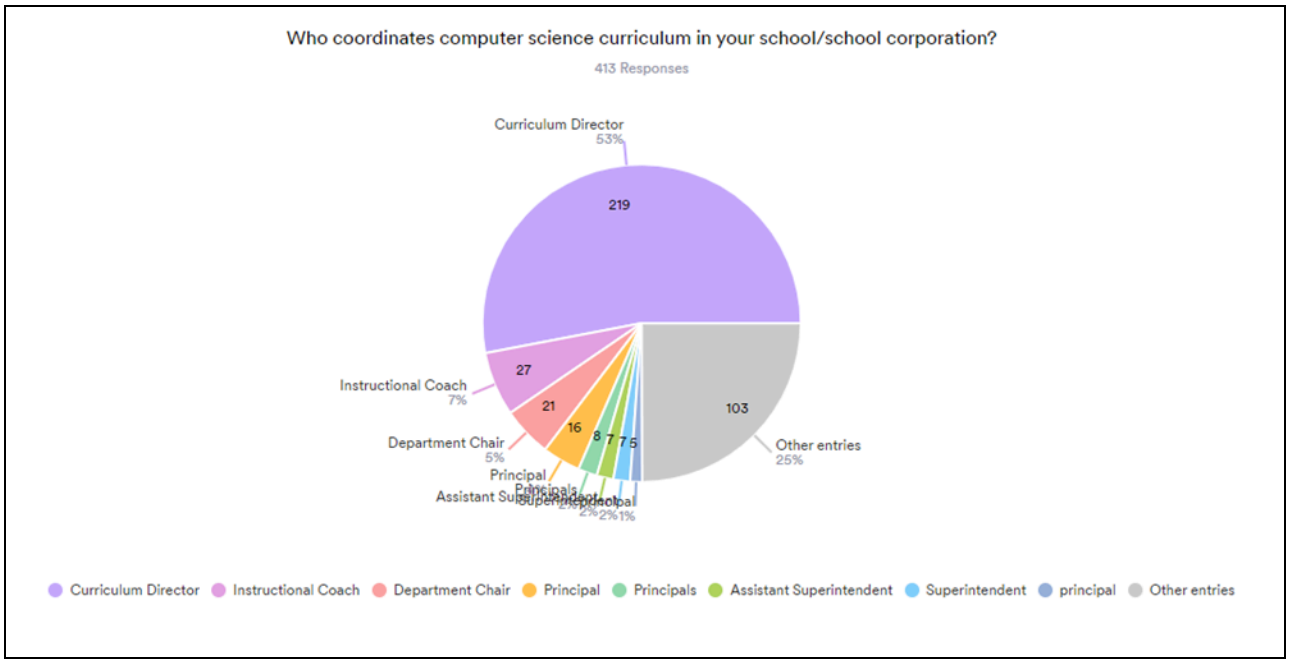
**CS Middle Level was phased out in 2021 to provide aggregated K-8 enrollment data.

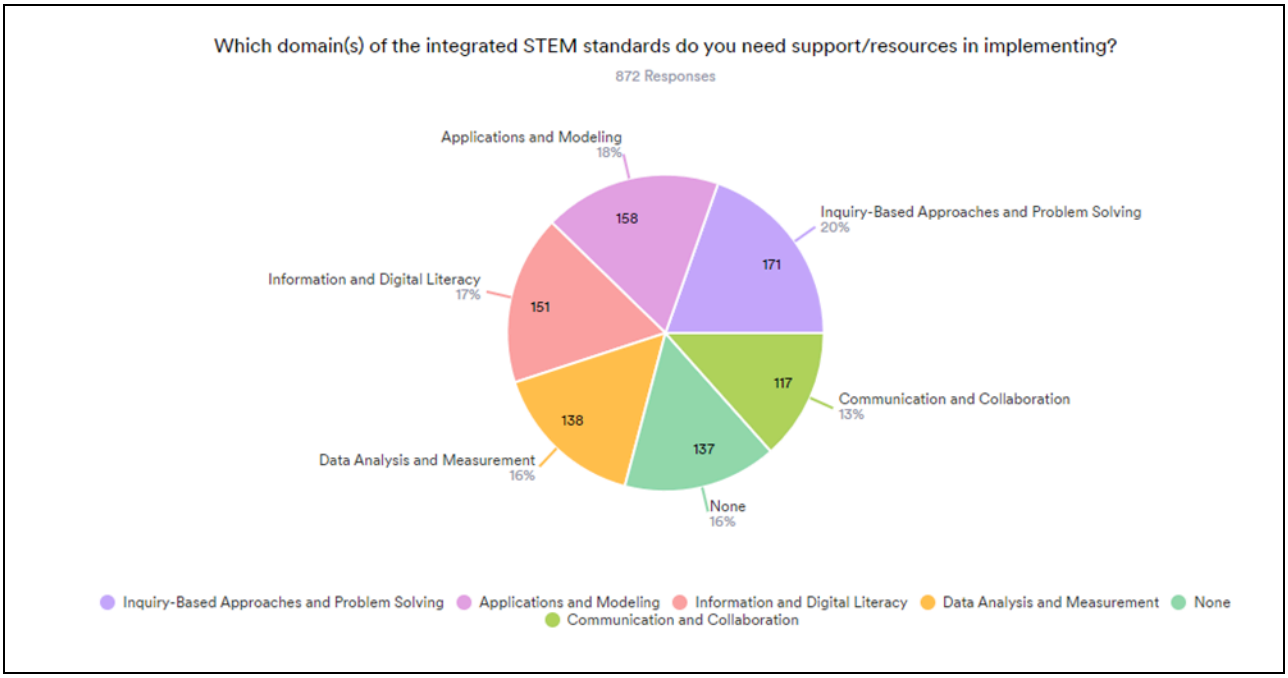
Additionally, IDOE included K-8 CS-related questions in the annual Tech Plan Survey for public school corporations and charter schools in spring 2024. The following figures provide visual representations of the survey results.


Do all students in your school/school corporation receive standards-based computer science (CS) instruction at the following grade levels?
413 Responses
300
200
100
0
Kindergarten
1st Grade
2nd Grade
3rd Grade
4th Grade
5th Grade
6th Grade
7th Grade
8th Grade
Yes
No
Currently Working to Develop a Plan
School/School Corporation Does Not Serve This Grade


Where does CS instruction take place at the following grade levels?
413 Responses
250
200
150
100
50
0
Kindergarten
1st Grade
2nd Grade
3rd Grade
4th Grade
5th Grade
6th Grade
7th Grade
8th Grade
Required Specials, Rotation, or Standalone Class
Integrated Into Science
Integrated Into Other Content Area(s)
Other
Does Not Apply


What is your primary CS implementation strategy at the following grade levels?
413 Responses
140
120
100
80
60
40
20
0
Kindergarten
1st Grade
2nd Grade
3rd Grade
4th Grade
5th Grade
6th Grade
7th Grade
8th Grade
Required Set of Lessons Across School / School Corporation
Building - Level Decision
Teacher - Level Decision
Other
Does Not Apply


Who coordinates computer science curriculum in your school/school corporation?
413 Responses
Curriculum Director
53%
219
Instructional Coach
7%
27
Department Chair
5%
21
Principal
16
Principals
8
Assistant Superintendent
7
Superintendent
7
principal
5
Other entries
25%
103
Curriculum Director
Instructional Coach
Department Chair
Principal
Principals
Assistant Superintendent
Superintendent
principal
Other entries



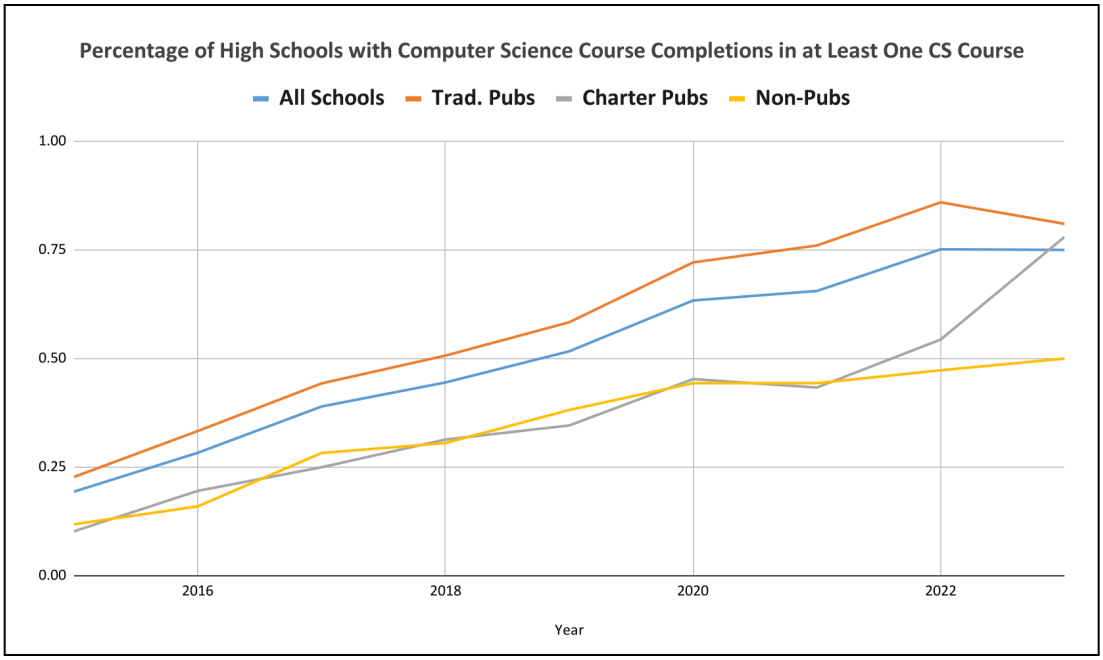
Grades 9-12

All High Schools			
School Year	**Number of Schools**	**Number of Schools Offering At Least One CS Course**	**Percentage of All Schools**
2018-2019	536	277	52%
2019-2020	535	339	63%
2020-2021	540	354	66%
2021-2022	527	396	75%
2022-2023	547	408	75%

Traditional Public Schools			
School Year	**Number of Schools**	**Number of Schools Offering At Least One CS Course**	**Percentage of Schools**
2018-2019	365	213	58%
2019-2020	366	264	72%
2020-2021	367	279	76%
2021-2022	370	310	84%
2022-2023	376	306	81%

Public Charter Schools			
School Year	**Number of Schools**	**Number of Schools Offering At Least One CS Course**	**Percentage of Schools**
2018-2019	52	18	35%
2019-2020	53	24	45%
2020-2021	60	26	43%
2021-2022	57	30	53%
2022-2023	60	47	78%

Non-Public Schools			
School Year	**Number of Schools**	**Number of Schools Offering At Least One CS Course**	**Percentage of Schools**
2018-2019	110	42	38%
2019-2020	106	47	44%
2020-2021	106	47	44%
2021-2022	93	44	47%
2022-2023	104	52	50%



Traditional Public Schools Without a CS Course										
Locale	2018-2019		2019-2020		2020-2021		2021-2022		2022-2023	
	#	%	#	%	#	%	#	%	#	%
City: Large	6	32%	4	21%	3	16%	3	18%	2	12%
City: Midsize	4	40%	3	30%	4	36%	3	27%	3	27%
City: Small	10	38%	10	38%	6	26%	3	14%	6	27%
Rural: Distant	49	49%	38	38%	36	37%	16	52%	20	20%
Rural: Fringe	23	37%	14	23%	9	15%	18	19%	6	10%
Rural:Remote	2	50%	1	25%	1	25%	4	7%	1	25%
Suburb: Large	19	36%	7	13%	7	14%	1	25%	3	6%
Suburb: Midsize	1	17%	0	0%	0	0%	4	9%	0	0%
Suburb: Small	3	50%	3	50%	2	33%	0	0%	1	20%
Town: Distant	23	48%	12	25%	9	19%	1	20%	8	17%
Town: Fringe	8	40%	5	25%	3	15%	7	15%	1	5%
Town: Remote	0	0%	0	0%	0	0%	0	0%	0	0%
N/A	8	57%	10	56%	14	54%	0	0%	0	0%

Public Charter Schools Without a CS Course									
2018-2019		2019-2020		2020-2021		2021-2022		2022-2023	
#	%	#	%	#	%	#	%	#	%
35	66%	30	56%	34	57%	27	47%	13	12%

Non-Public Schools Without a CS Course									
2018-2019		2019-2020		2020-2021		2021-2022		2022-2023	
#	%	#	%	#	%	#	%	#	%
68	63%	64	59%	59	56%	49	53%	52	50%

Statewide Detailed CS Course Completion by Grade Level

Course	Grade Level							Total
	7	8	9	10	11	12	13	
AP CS Principles			189	503	493	436		1621

AP CS A			34	166	367	419		986
IB CS Standard Level					3			3
CS I	303	5	849	1,100	1,044	789	3	4,093
Introduction to CS	585	870	2,083	1,403	524	415		5,880
CS II			3	140	634	558		1,335
CS III: Software Development Capstone					19	90		109
CS III: Databases				13	20	57		90
CS III: Informatics				4	15	15		34
CS III: Special Topics			2	6	22	37		67
CS III: Cybersecurity Capstone				34	161	231		426
Principles of Computing		1	2,346	2,547	1,291	886		7,071
Software Development			1	38	91	63		193
Software Development Capstone				3	3	10		16
Topics in CS			58	218	264	172		712
CS			3	73	208	154		438
CS Capstone						4		4
Total	**888**	**876**	**5,568**	**6,248**	**5,159**	**4,336**	**3**	**23,078**

Plans for Continued Growth

1. Engage regional educational service centers (ESCs) in developing an outreach plan and support strategy to continue increasing access to high-quality CS curriculum and instruction.
2. Ensure timely and relevant CS professional development opportunities continue to be available for teachers of all backgrounds across all grade levels.
3. Identify additional strategies for supporting and engaging schools that are experiencing barriers to CS implementation.
4. Continue existing partnerships with organizations such as TechPoint Foundation for Youth, Expanding Computing Education Pathways Alliance, CSforIN, and others to continue scaling CS education across Indiana.
5. Maintain a high level of support and technical assistance for schools and corporations.

Conclusion

Indiana is fortunate to have a legislative climate that supports the implementation and growth of CS education for all schools. This support has allowed IDOE to procure professional development partnerships, resulting in tremendous growth of CS implementation in Indiana's K-12 schools in

recent years. The data and indicators outlined above demonstrate this growth and highlight areas where continued or expanded support is necessary. Successes of note include:

- The percentage of all high schools (public, public charter, and non-public) offering at least one CS course is sustained at 75% for the second consecutive year.
- The 2023-2024 ILEARN science assessment contained a separate computer science segment in grades four and six.
- 88 counties have at least one public high school offering at least one CS course.
- New career and technical education (CTE) programs of study have been aligned with postsecondary and industry credentials, including a new course offering and standards to fulfill the newly-enacted computer science graduation requirement.

Areas for improvement:

- While the number of high school students taking a CS course has reached 23,078, this number only represents approximately 7% of high school students.
- Anecdotal evidence and survey results indicate that absence of identified CS teachers may be a barrier to CS implementation in some schools.

With continued support from the Indiana General Assembly, the Governor's Office, Indiana K-12 schools, families, and other public and private stakeholders, IDOE can continue to support the expansion of CS education and opportunities for Indiana students, becoming a recognized leader in CS education across the U.S.

Appendices

Appendix A - BloomBoard, Inc. Contract (February 13, 2024 - Monday, June 30, 2025)

Appendix B - CodeHS Contract (February 13, 2024 - June 30, 2024)

Appendix C - Indiana University Contract (February 13, 2024 - June 30, 2024)

Appendix D - Nextech Contract (August 1, 2022 - June 30, 2024)

Appendix E - SEA 172 Gov CS Report (January 15, 2024)