

Instructional Supports and Content Sharing

Focus on Computer Science Standards



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#EachChildOurFuture

In Ohio, each child is *challenged*, *prepared* and *empowered*.



Vision

In Ohio, each child is **challenged** to discover and learn, **prepared** to pursue a fulfilling post-high school path and **empowered** to become a resilient, lifelong learner who contributes to society.

Four Learning Domains



Foundational Knowledge & Skills

Literacy, numeracy and technology



Well-Rounded Content

Social studies, sciences, languages, health, arts, physical education, etc.



Leadership & Reasoning

Problem-solving, design thinking, creativity, information analytics



Social-Emotional Learning

Self-awareness & management, social awareness, relationship skills, responsible decision-making



One Goal



Ohio will increase annually the percentage of its high school graduates who, one year after graduation, are:

- Enrolled and succeeding in a post-high school learning experience, including an adult career-technical education program, an apprenticeship and/or a two-year or four-year college program;
- Serving in a military branch;
- Earning a living wage; or
- Engaged in a meaningful, self-sustaining vocation.

Three Core Principles



Equity



Partnerships



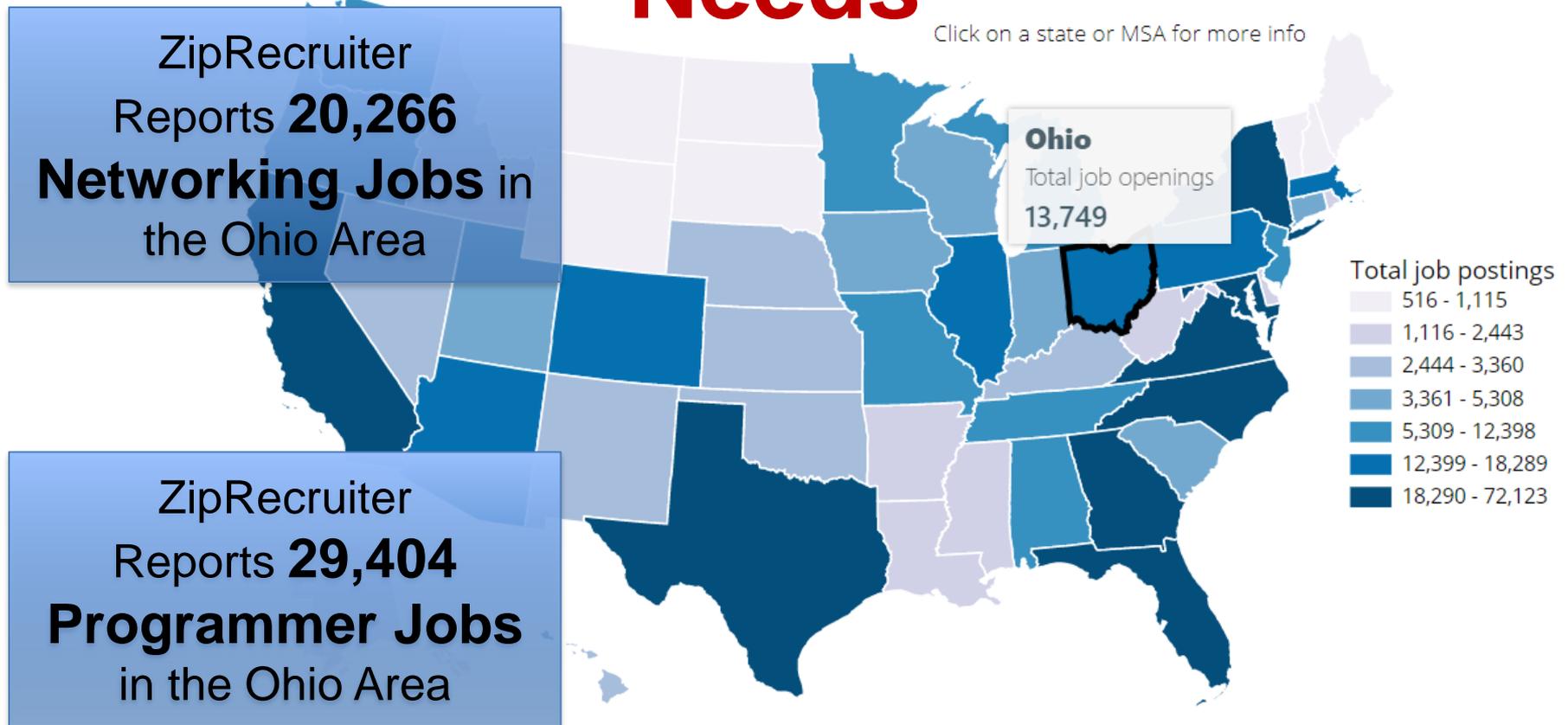
Quality Schools

10 Priority Strategies

- 1 Highly effective teachers & leaders
- 2 Principal support
- 3 Teacher & instructional support
- 4 Standards reflect all learning domains
- 5 Assessments gauge all learning domains
- 6 Accountability system honors all learning domains
- 7 Meet needs of whole child
- 8 Expand quality early learning
- 9 Develop literacy skills
- 10 Transform high school/provide more paths to graduation



Cyber and Other CS Workforce Needs



Heatmap from cyberseek.org

What is computer science?

Logical reasoning, computing systems, networks and the internet, data and analysis, algorithms and programming, impacts of computing, and structured problem solving skills applicable in many contexts from science and engineering to the humanities and business

Computer Science to Satisfy Graduation Requirements



Computer Science to Satisfy Graduation Requirements for Mathematics

Permits credit in computer science to satisfy the mathematics curriculum requirement for high school graduation

The course must address high school mathematics standards and focus on the study of, or usage of, algorithms for problem solving.

Computer Science to Satisfy Graduation Requirements for Algebra 2/Math 3

Permits credit in Advanced Computer Science to satisfy the Algebra 2/Math 3 or its equivalent mathematics curriculum requirement for high school graduation

Computer Science to Satisfy an Advanced Science Requirement

Permits credit in advanced computer science to satisfy an advanced science curriculum requirement for high school graduation*

*This excludes biology and life science.

Using Coding Courses to Satisfy Foreign (World) Language

If a school district a foreign language as an additional graduation requirement, a student may apply one unit of instruction in computer coding to satisfy one unit of foreign language.



Computer Science Licensure Requirements

Stipulates the requirements in
licensure to teach computer science

Licensure for Computer Science

1

Hold a full teaching license in computer science

Licensure for Computer Science

2

Hold computer technology endorsement and pass the computer science Ohio Assessments for Educators (OAE exam)

[OAE #054 \(December 2019\)](#)

Licensure for Computer Science

3

Hold a full teaching license in any area and add on computer science through a supplemental pathway (OAC 3301-24-14), which includes passing the computer science OAE exam.

2019-2020 and 2020-2021

HB
166

- Hold a valid educator license in grades 7 through 12
- Prior to teaching the course, the individual completes a professional development program
 - Approved by the district superintendent or school principal
 - Provides content knowledge specific to the course the individual will teach

Educator Funding Available

\$1.5 million available for educator preparation funding in Fiscal Years 2020 and 2021.

- Currently licensed teachers
- Reimbursement of pedagogy coursework
- Content testing fees necessary to teach computer science.

HB
166

Strengthening Ohio's Math Pathways



Computer science
as an interdisciplinary
course

Data science as an
interdisciplinary
course

Strengthening Ohio's Math Pathways

Taught by:

- Math Teachers with a computer science supplemental
- Math teachers
- Computer science teachers

Delivered as:

- A single math course
- A single computer science course
- A series of Algebra and computer science courses

Industry-Recognized Credentials

Explore Career Fields

<p>Agriculture/Environmental Systems</p> 	<p>Arts and Communications</p> 	<p>Business, Marketing, and Finance</p> 
<p>Construction</p> 	<p>Education and Training</p> 	<p>Engineering</p> 
<p>Health</p> 	<p>Hospitality and Tourism</p> 	<p>Human Services</p> 
<p>Information Technology</p> 	<p>Law and Public Safety</p> 	<p>Manufacturing</p> 
<p>Transportation</p> 		

Industry-Recognized Credentials



- \$8 million each year for credential reimbursement.
- Schools must notify students when their career-tech course can conclude with an industry-recognized credential.
- Requires schools to pay the cost of credential exam.



Industry-Recognized Credentials Initiative

Provides \$12.5 million each year to pay schools \$1,250 for each student who earns a qualifying credential

Incentivizes schools to establish qualifying credentialing programs, with \$4.5 million in each fiscal year designated for this purpose

**Share your learning
community with us!**

#MyOhioClassroom



Celebrate educators!

#OhioLovesTeachers