

The Journey of South Carolina Computer Science

*Drafting a Strategic K-12 Computer
Science Plan*

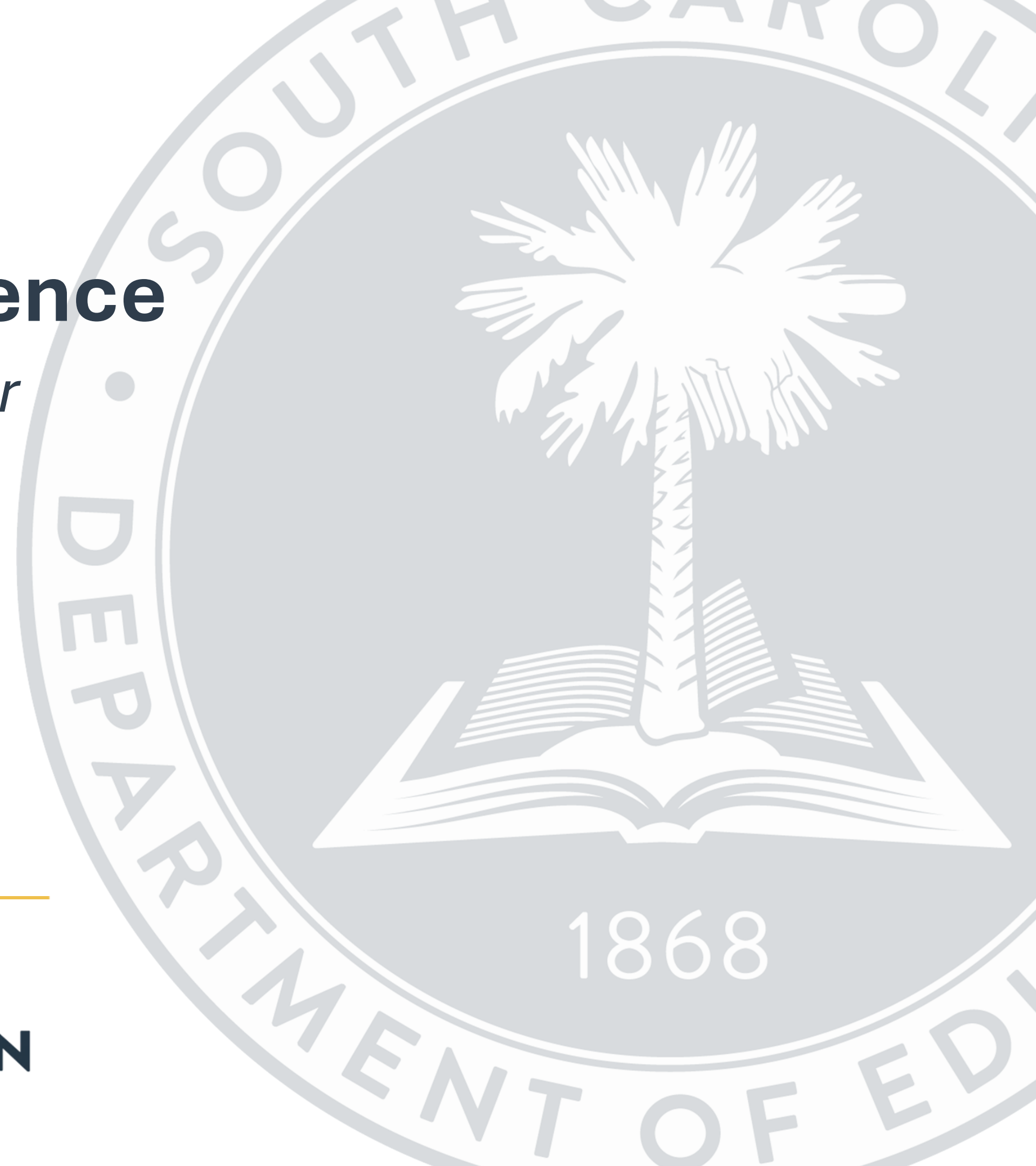
Palmetto Education Summit

Dr. Jennifer Albert, Benjamin Dusek

June 16, 2026



**SOUTH CAROLINA
DEPARTMENT OF EDUCATION**



Agenda

- Introduction
- Reasons for Computer Science
- Landscape of Computer Science in South Carolina
- Community Share Out
- Discussion
- Commitment
- Next Steps





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- *STEM Center Director, The Citadel University*





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Introduction

Why Computer Science in South Carolina?
Note Catcher



Your Role on This Journey

As we go through the presentation think about your role and your context.

The answers to the questions we present should reflect your reality.

- Teachers
- Leaders
- Partners

This work involves all of you



Why Computer Science in South Carolina?

Universal Literacy

- Every student
- Every school
- Every grade level
- Teacher Capacity

Economic and Workforce Development

- Advanced Pathways
- Career Prep
- College Prep
- Emerging Technology
- Certified Teachers
- Work based Experiences





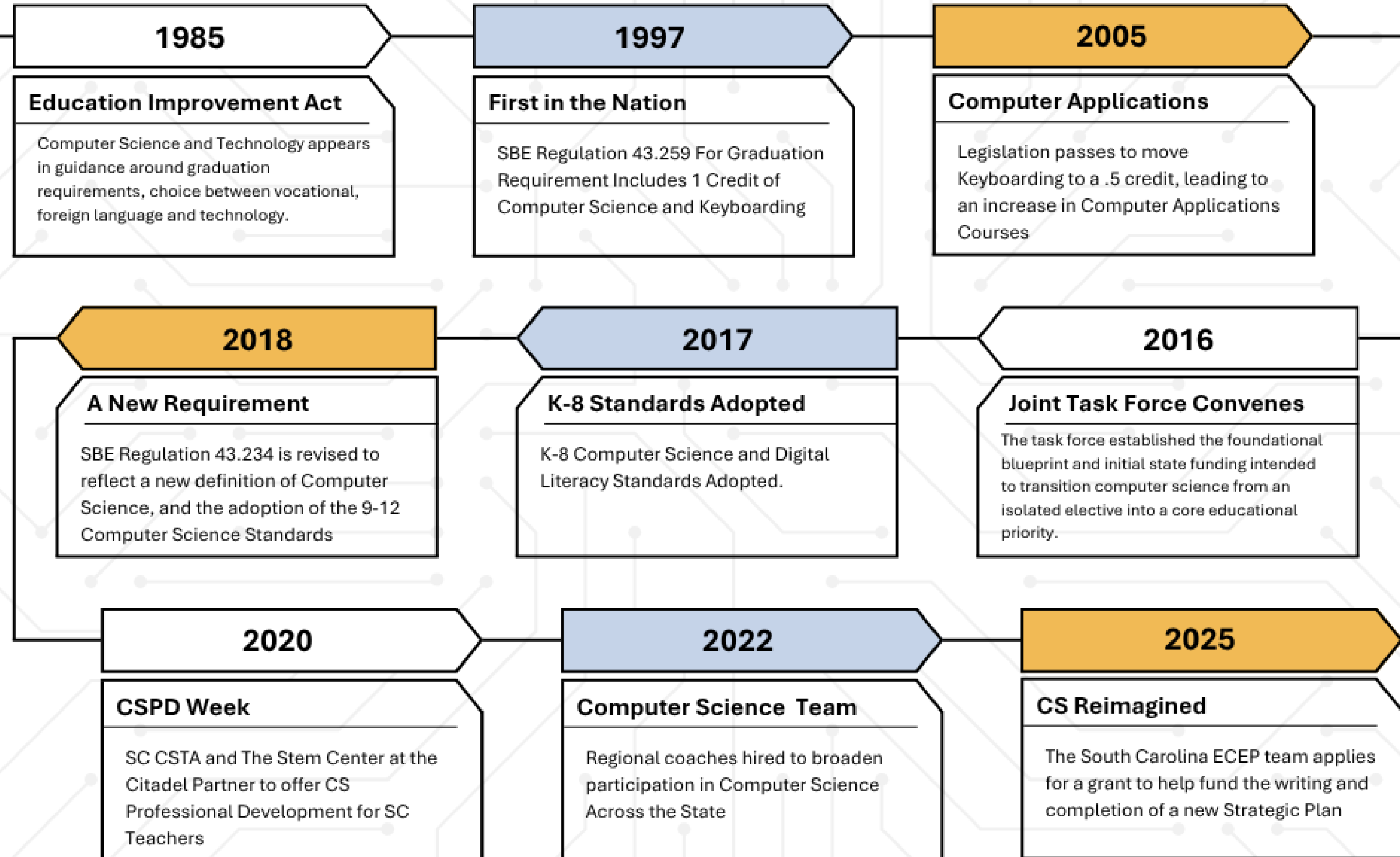
Introduction

History of Computer Science in South Carolina



South Carolina Computer Science

How Did We Get Here?





Reasons for Computer Science

**We should teach Computer
Science because...**



We should teach computer science because...



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Waiting for participants





Reasons for Computer Science

Reasons for Computer Science



You told us this is what matters – here's how it connects



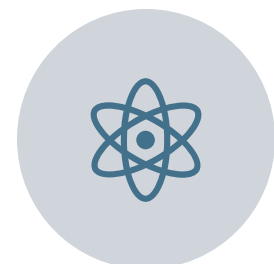
Access Equity



**Competencies
& Literacies**



**Citizenship &
Civic
Engagement**



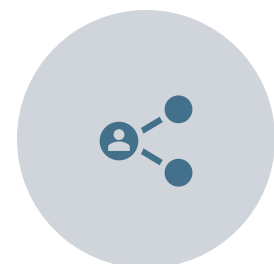
**Technological,
Social &
Scientific
Innovation**



**Economic &
Workforce
Development**



**School Reform
&
Improvement**



**Personal
Agency, Joy &
Fulfillment**

Prioritization and underinvestment

1

Pick one vision out of the seven that we should prioritize

2

Pick one vision out of the seven that we are underinvesting in

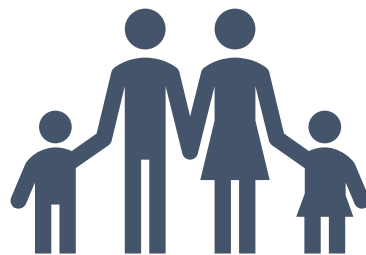
3

Turn and talk to a neighbor about each one.

Reasons for Computer Science Explained

Access Equity

Focusing on fairness, addressing systemic barriers, and closing the "digital divide" to ensure every student—regardless of location—has a seat at the table.



Competencies & Literacies

Teaching CS as a foundational literacy, promoting 21st-century skills like creativity, collaboration, critical thinking, and design thinking



Citizenship & Civic Engagement

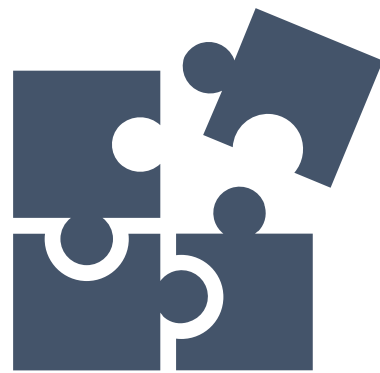
Preparing students to be informed digital citizens who understand the technological world and can contribute productively to a digital democracy.



Reasons for Computer Science Explained

Technological, Social & Scientific Innovation

Equipping students to create new knowledge and develop technological solutions for complex, global challenges (e.g., climate change, cybersecurity)



Economic & Workforce Development

Preparing students for the modern labor market, filling industry shortages, and strengthening local economies.



Reasons for Computer Science Explained

School Reform & Improvement

Using CS as a catalyst to modernize pedagogy, increase student engagement, and move away from traditional "sage-on-the-stage" instruction



Personal Agency, Joy & Fulfillment

Treating CS as a creative outlet, fostering a sense of discovery, and giving students the agency to express themselves through technology





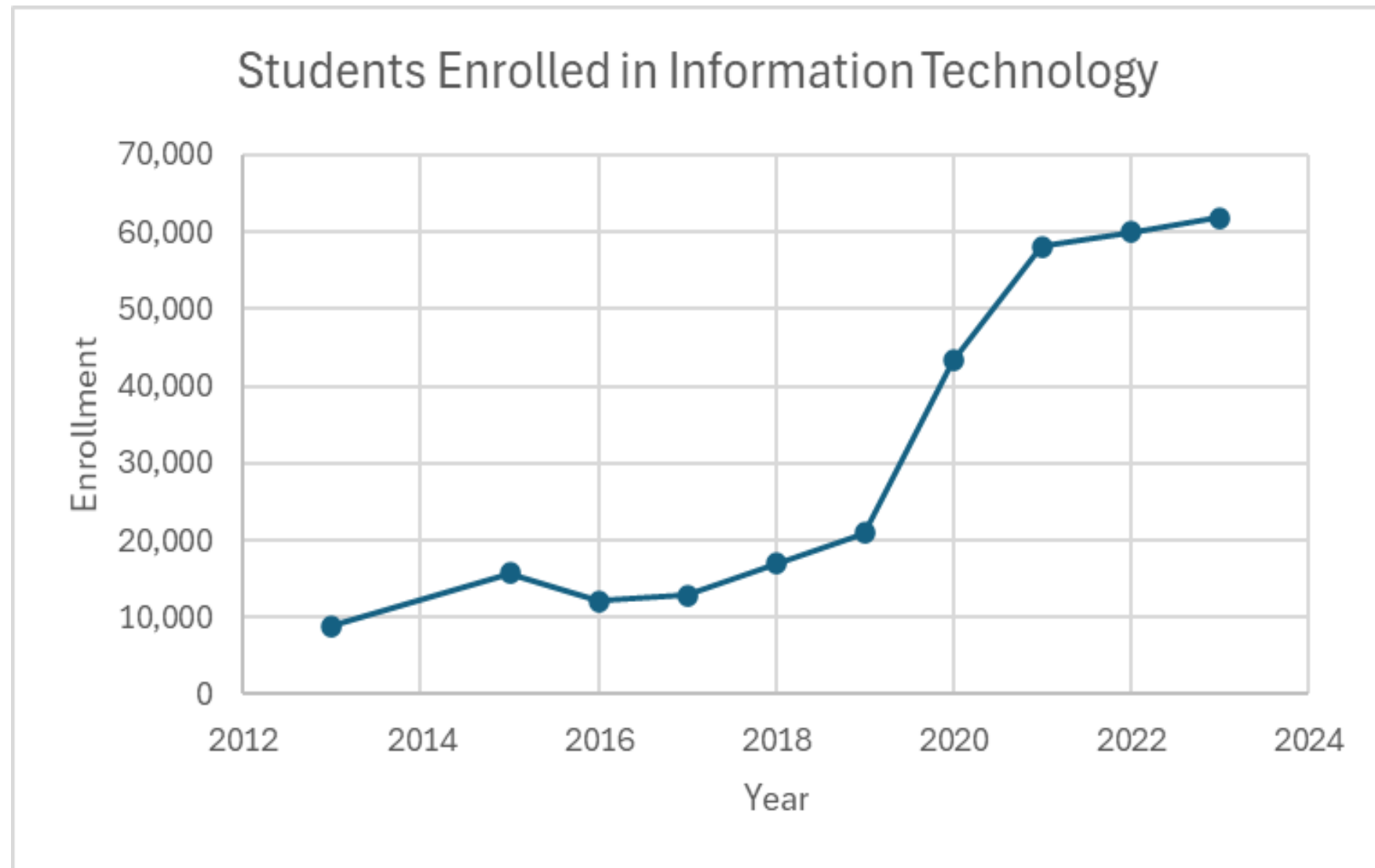
Landscape of Computer Science

Enrollment growth in Computer Science



Enrollment Growth in High School Computer Science Courses

Access has increased by 600 % in 12 years!



2012
Right Below
10,000 Students

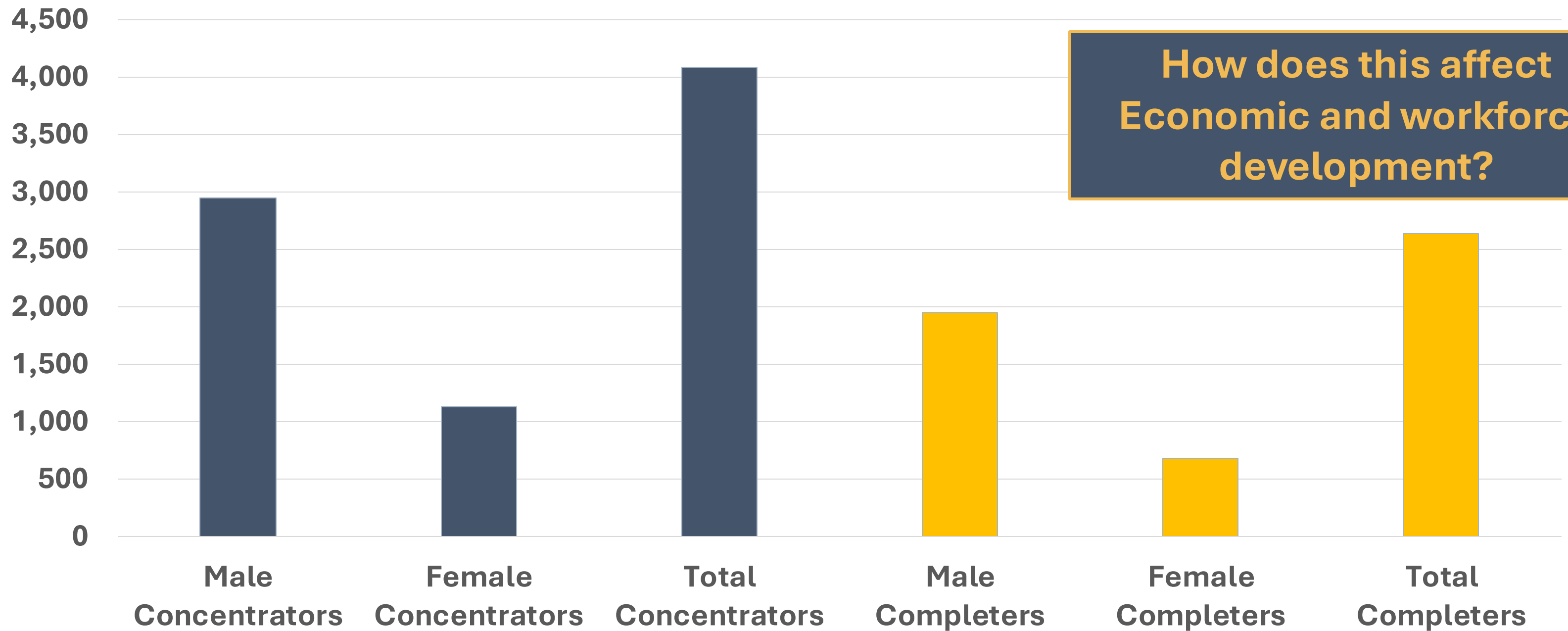
2018
Doubled to
20,000

2024
Right Above
60,000



Concentrators and Completers

Digital Technology
Concentrators and Completers 2024-2025



**How does this affect
Economic and workforce
development?**

 **Concentrator: 2 Courses**  **Completer: 3 or More Courses**





Landscape of Computer Science

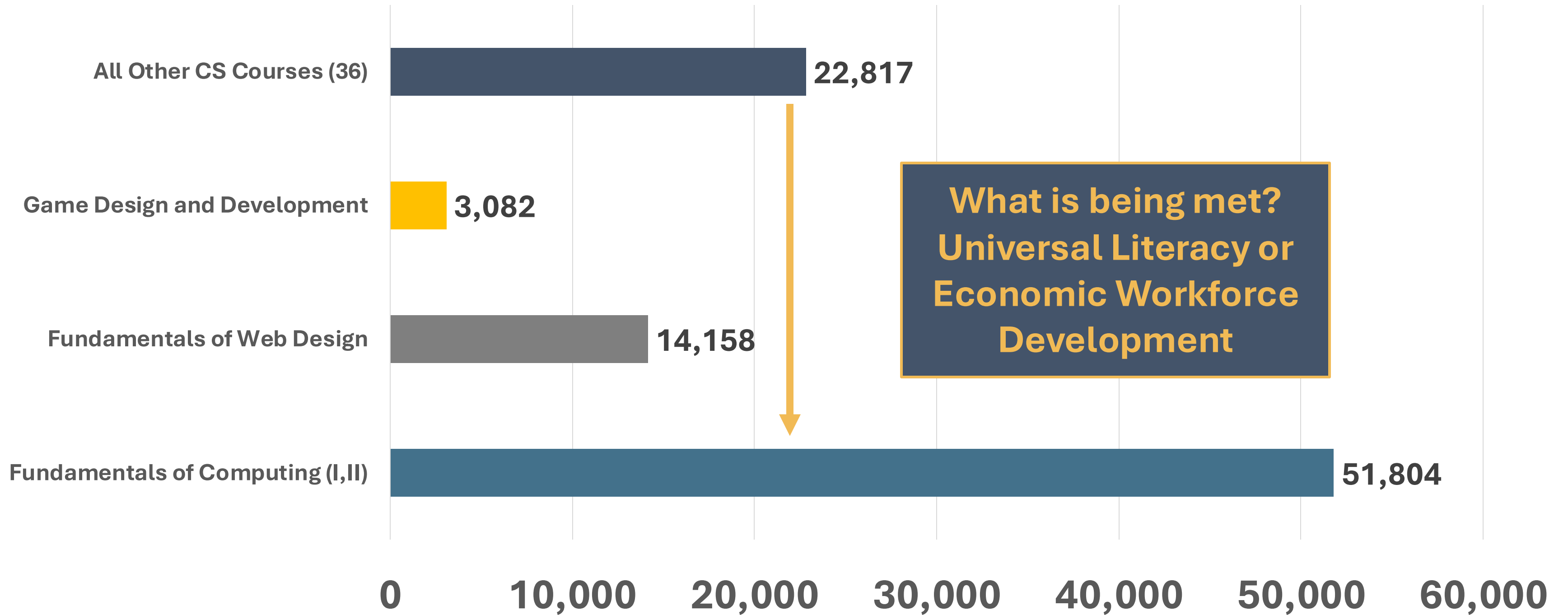
2025-2026

Computer Science Data



High School Course Enrollment Distribution

Course Enrollment For 25-26 SY



Middle School Enrollment

15,265 Students
Enrolled In
Fundamentals of
Computing I or II
In the 2025-26
School Year.



**Exposure to
Computer Science**



**High School Credit in
Middle School**



**1st CS Experience is
in Middle School**



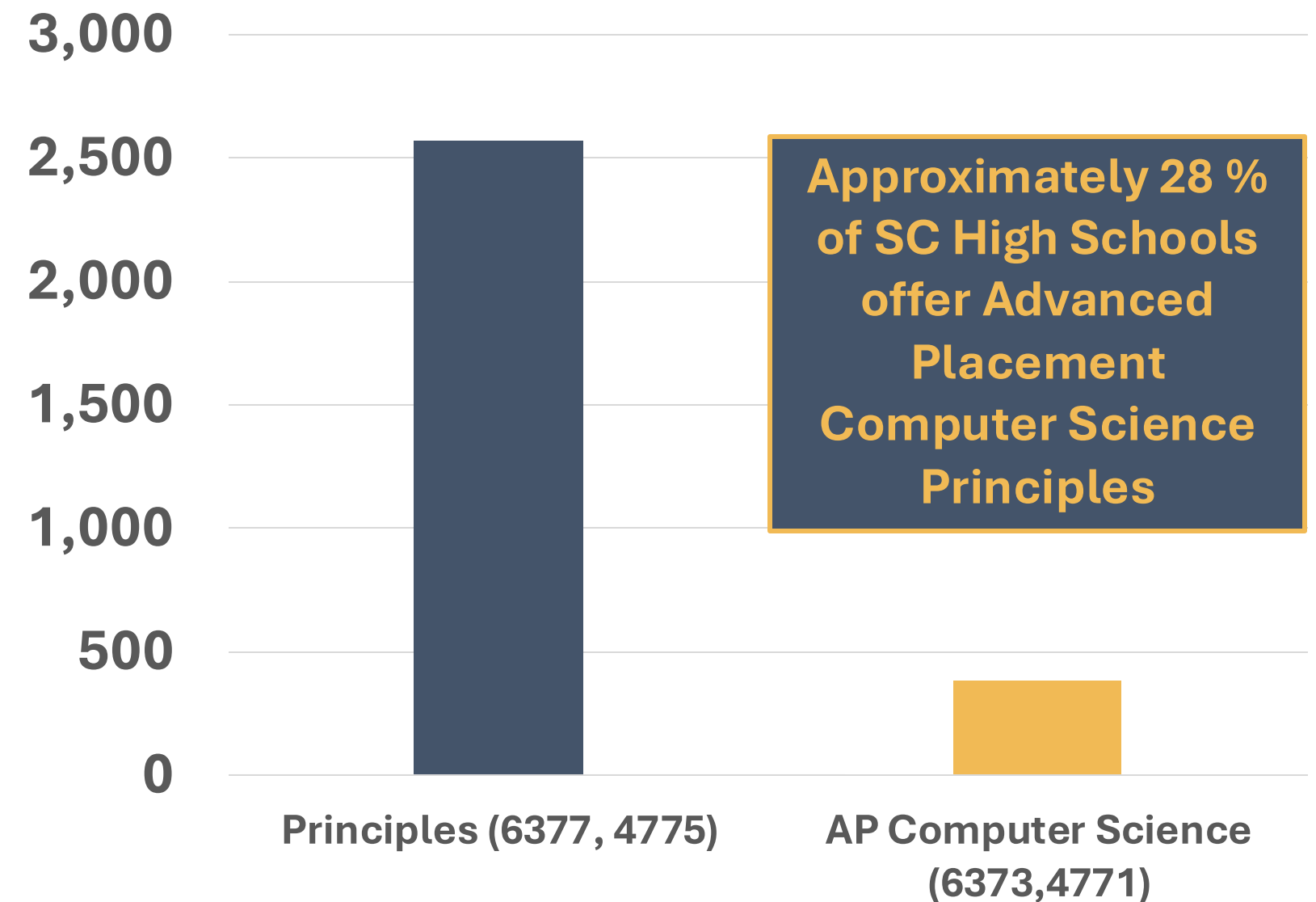
**High School Certified
Teachers**



Advanced Placement Computer Science

- **2,955 Students (2025-26)**
- **60 % Pass Rate Nationally**
- **60 % South Carolina Pass Rate**
- **Students Who Score a 3 or Higher are considered college ready**

Advanced Placement Computer Science
Course Enrollment 25-26



Teacher Certification

Grade Level Certification

30 Hours of Training

Industry Recognized Credentials

Course Work

079 – Computer Science Certification

5652 Praxis II

Non-Professional

15 Credits + Praxis

Professional

Praxis

38
Certified
CS
Teachers
(079)

850 +
**Computer
Science
Teachers**



**Does
this
reflect
your
reality?**



Turn and Talk



What has this data confirmed?



What has surprised you in this data?



What concerns you most about this data?



Community Share Out

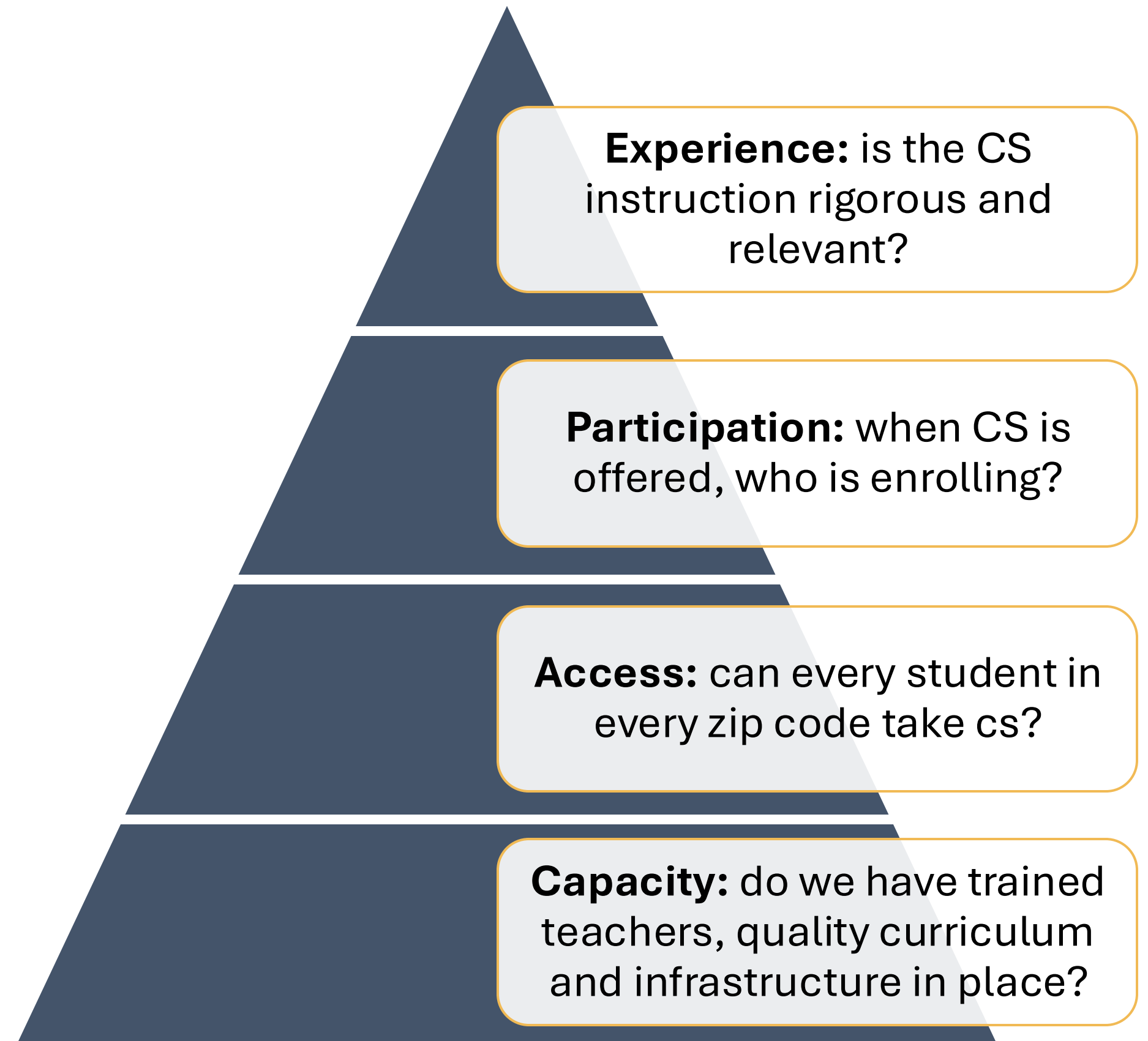
What is CAPE?



What is CAPE?

Expanding Computing Education Pathways (ECEP)

- Framework for Broadening Participation in Computer Science
- Original Member 10 + Years – ECEP
- 29 States Plus Puerto Rico
- Close the gap in Computer Science Education





Community Share Out

Interactive Questionnaire



For Computer Science Capacity, name ONE barrier and ONE opportunity



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Waiting for participants

Hide responses



Emerging from the field:

Patterns

What is the one bottleneck that has shown up or repeated?

Did you identify a barrier that you had not considered before?

What is the biggest hurdle for your current context?

Prioritization

What would give us the highest return on investment for student outcomes?

How could we package success for another district implementation?

Where do we need state level policy changes to support the changes you want to make in your district?

Accountability

Where does the dead end hit in your district for CS?

How can we change the community perception of CS in the state not just the delivery?

What is the one piece of data or evidence that we are not asking for or tracking that would help tell your story?





Commitment and Next Steps

**What is your Commitment to
South Carolina Computer Science?**



Defining your Why



What are you trying to achieve with, Universal Literacy (CS as a foundational skill for all) and Economic/Workforce Development (CS as a career pipeline).



Are you teaching CS to create well-rounded citizens, or to feed a specific labor market?



Where does your district stand, and how does that alignment—or misalignment—shape the narrative you need to tell your local community?

Offering classes → to Scaling an ecosystem

Capacity: Do we have the educators and infrastructure to sustain growth?

Access: Are we truly removing barriers, or just shifting them?

Participation: Who is missing from the room?

Experience: Is the CS curriculum relevant, or is it just another textbook requirement?

Data: Are we looking at the proper data to gain the proper insight?



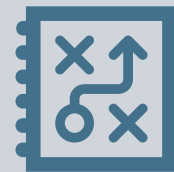
Grade Level Band Strategy & Quick Wins



K-5 (Foundation): Focus on integration and computational thinking. Quick Win: Identifying K-5 "pilot sites" for integrated curriculum.



6-8 (Exploration): Focus on bridging the gap. Quick Win: Strengthening local industry partnerships to bring CS to life outside the classroom.



9-12 (Pathways): Focus on alignment. Quick Win: Mapping current CTE pathways to regional workforce needs to ensure students are earning relevant credentials.



Commitment and Next Steps

Next steps for Computer Science in South Carolina



Next Steps and Transparency

- **A Team In Transition**
- **Gathering Input**
- **Reviewing and Refining Goals**
- **Increasing Awareness**
- **Clarifying Misconceptions**



Stay Connected and Informed

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The Citadel STEM Center

- CSPD Week
- Upcoming Programming

Clemson University

- [AI Literacy Micro-credentials](#)

Computer Science and Digital Learning Team

