SCCS

STATE COMMITTEE ON COMPUTER SCIENCE

IN PARTNERSHIP WITH THE **OHIO DEPARTMENT OF EDUCATION** AND **OHIO DEPARTMENT OF HIGHER EDUCATION**

Making Ohio a National Leader in Computer Science Education

Organizational Meeting

Committee Facilitator Kelly Gaier Evans - Battelle
Chair: Mike Duffey, Ohio Department of Higher Education
Vice Chair: John Wiseman, Ohio Department of Education
March 9, 2022 from 9:30-12:30 p.m.

Approval of Minutes

Chair, Mike Duffey

- March 30, 2022

Need:

- Motion to approve minutes
- Second

Updates and Announcements

STATE COMMITTEE ON **COMPUTER SCIENCE**

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Educational Prep Programs | CS requirement

July 2019 | HB 166

- Appropriated $1.5 M for FY2020 for teachers to cover content and exams, but fund use was severely limited by rules
- Established 2-year moratorium on teacher certification (CS) requirement to address qualified teacher shortage
- CS can count towards world language when required for graduation

September 2021 | ODE

- ODE updates EMIS codes to add courses aligned to state CS standards

June 2021 | HB 110

- Requires ODE and ODHE to establish a committee to develop a K-12 state plan for CS education
- Extended moratorium by 2 years through 2023
- ==Requires ed prep programs to require candidates to receive instruction in computer science & computational thinking==
- Specifies that each state university shall recognize the successful completion of a course in advanced CS (aligned to state standards) in high school.

SCCS STATE COMMITTEE ON **COMPUTER SCIENCE**
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Educational Prep Programs | CS requirement

- A representative from the higher education panel will join us at the May 11th meeting to give an update on what they have put together to address the requirements.

- They are building out a resource that all Ohio universities can choose to draw from to meet this requirement.

Framing our time

Our work today

9:30 -9:45 a.m.   Welcome and recap
- Approval of minutes (February)
- Updates/Announcements
- Frame our Time Together and overview of the agenda

9:45-10:40 a.m.   Revisions based on feedback

10:40-10:50 a.m.   Coffee and stretch break

10:50-11:50   Presentations and discussions

11:50-12:10   Consensus

12:10-12:55   Industry update
- Intel update
- Industry panel

12:55-1:00   Homework and wrap up

February 16 and March 9, 2022

Challenge 1:
The state has not prioritized Computer Science Education with funding and resources.

Recommendation 1:
Creation of an Office of Computer Science Education (OCSE)

Recommendation 2:
"One for CS" - State of Ohio 1% Goal for K-12 funding in CS education

February 16 and March 9, 2022

Challenge 2:
The state
has not made
Computer Science
a requirement in K-12
education.

Recommendation 3:
Creation of a statutory
"Student's Right to Access
CS"

Recommendation 4:
Establishment of CS as
Graduation Requirement

March 30 and April 20, 2022

Challenge 3: Schools do not have the support they need to implement Computer Science.	**Challenge 4:** Students do not enroll in CS courses.
Challenge 5: There is a low supply of CS teachers. **Part A:** Licensure challenges & Teacher Recruitment	**Challenge 5:** There is a low supply of CS teachers. **Part B:** Training & Prof. Development around CS

Computer Science Student to Career Pipeline

May 11th and June 1st

It's hard to find clear pathways for a Computer Science career.

Need connection between what skills industries are looking for and what is being taught in the classroom

Not all students have early access (prior to high school) to computer science courses.

From discussion to state plan

1. After all recommendations are shared and discussed in each part 2 meeting, we'll circle back to each recommendation and ask:

   A. Are you in favor of including this recommendation in the plan (by show of hands)?

   B. For this non-official consensus,

      A. If not a 2/3rds majority, we will prioritize circling back after all votes to ask clarifying questions regarding the opposition to including in the plan.   Please share concerns and thoughts on how this could be mitigated.

      B. If we have a 2/3rds majority, we will circle back to get concerns as time allows.

   C. If we have a majority consensus in the part 2 meeting which says to include, we will add this recommendation to the plan and add all notes on the concerns including any recommendations on how to mitigate for identified concern.

2. All recommendations will receive a formal vote during our June 1-2 retreat.

   A. Recommendations with concerns will be revisited prior to a formal vote.

Norms

- **We all have different filters, share yours**
- Always assume positive intent
- Be curious and ask questions
- Be here now
- Communicate respectfully
- **Safe space to contribute ideas (disagree w/content not the person)**
- Treat everyone with courtesy and respect
- Embrace data, where it is and isn't available
- Come to meetings fully prepared which includes any homework or review of materials sent prior**

Identified challenges
with feedback on recommendations

Committee homework overview

Challenge 3: Schools do not have the support they need to implement Computer Science.	This solution and implementation plan effectively solves the challenge	The SCCS should include this in the committee report as a recommendation and part of the Ohio CS State Plan
Recommendation 5: Ohio should design a CS playbook (including a curriculum in a box) and provide in-person teams from the newly formed Office of Computer Science Education that visit districts and help them to implement CS for the first time/more advanced level. Ohio should provide stipends to school personnel for time spent on these activities.	40.00%	100.00% *Note: 15 responses were submitted*

*Only counted "Yes" responses.
Did not count if committee member answered "Maybe"

Committee homework overview

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How you think this recommendation would impact Ohio.

It would create additional barriers / problems.	It would keep Ohio stagnant.	It would move Ohio forward without creating new barriers.	It would solve many existing barriers / problems.
0.00%	7.14%	42.86%	50.00%

Note: 14 responses were submitted

Committee homework overview

Challenge 4: Students do not enroll in CS courses.	This solution and implementation plan effectively solves the challenge	The SCCS should include this in the committee report as a recommendation and part of the Ohio CS State Plan
Recommendation 6: Ohio should make Computer Science a requirement and start a state-wide marketing campaign inside and outside the classroom with the focus on community and career impact.	53.33%	93.33%

Note: 15 responses were submitted

How you think this recommendation would impact Ohio.

It would create additional barriers / problems.	It would keep Ohio stagnant.	It would move Ohio forward without creating new barriers.	It would solve many existing barriers / problems.
6.67%	6.67%	40.00%	46.67%

Note: 15 responses were submitted

Committee homework overview

Challenge 5: There is a low supply of CS teachers.	This solution and implementation plan effectively solves the challenge	The SCCS should include this in the committee report as a recommendation and part of the Ohio CS State Plan
Recommendation 7: Ohio should revise the teaching licenses and endorsements to match the other core content areas (mathematics, science, etc).	46.67% *Note: 15 responses were submitted*	100.00%

How you think this recommendation would impact Ohio.

It would create additional barriers / problems.	It would keep Ohio stagnant.	It would move Ohio forward without creating new barriers.	It would solve many existing barriers / problems.
6.67%	0.00%	40.00%	53.33%

Note: 15 responses were submitted

Committee homework overview

Challenge 5: There is a low supply of CS teachers.	This solution and implementation plan effectively solves the challenge	The SCCS should include this in the committee report as a recommendation and part of the Ohio CS State Plan
Recommendation 8: Ohio should create a network of SST regional managers to focus on teacher and district supports. The regional managers should collaborate with a point person from the Ohio Department of Education to manage the teacher pre- and post-license professional development offerings, stipends and vouchers.	50.00%	100.00%

Note: 14 responses were submitted

How you think this recommendation would impact Ohio.

It would create additional barriers / problems.	It would keep Ohio stagnant.	It would move Ohio forward without creating new barriers.	It would solve many existing barriers / problems.
7.14%	0.00%	35.71%	57.14%

Note: 14 responses were submitted

Work time

Group Assignments | 3/30 & 4/20

	School supports	Students do not enroll	Teacher Supply: Licensure & recruitment	Teacher Supply: Training & PD
Facilitator	Bryan Stewart (PK-12)	Tsavo Knott (Post-secondary)	Debbie Jackson (Post-secondary)	JK Lee (Post-secondary)
Timekeeper	Autum Barry (nonprofit)	Paula Naa Quartey (PK-12) (absent 3/30)	Mike Eilerman (PK-12) (absent 3/30)	Rebekah Michael (Post-secondary)
Reporter	Tom Newman (post-secondary)	Lisa Chambers (nonprofit)	Brent Wise (PK-12) (absent 3/30)	Chelsey Cook Kohn (PK-12)
Recorder	Tim Conley (PK-12)	Tasha Penwell (Post-secondary)	Katie Hendrickson (nonprofit)	Kelly Shrewsberry (Nonprofit)
Unassigned Role	Courtney Falato (Business) (absent 3/30)	David Landreman (Business)	Paul Sivilotti (Post-secondary)	John Wiseman (PK-12)
Unassigned Role	Mike Duffey (Post-secondary)	Kristi Clouse (nonprofit) (absent 3/30)	Doug McCullough (Business) (absent 3/30)	Tonja Coverdale Business (absent 3/30)
Unassigned Role		Pat Murakami (PK-12) (absent 3/30)		Lisa Nolan (Federal) (absent 3/30)

Unassigned roles to decide upon: Prioritizer, Investigator, Reality checker, Devil's advocate

Roles to maximize our group work

Role	Responsibility
Facilitator	Responsible for getting the group started, keeping it on task, and involving all members.
Timekeeper	Responsible for keeping group on task and on time
Reporter	Responsible for summarizing group decisions for the larger group.
Recorder	Responsible for keeping a record of the group's discussion
Prioritizer	Makes sure group focuses on most important issues and doesn't get caught up in details.
Investigator	Responsible for getting info from other groups when appropriate.
Reality checker	Responsible for noting group decisions and whether they are realistic.
Devil's advocate	Responsible for pointing out alternate viewpoints and asking tough questions.

CSSC State Plan
Recommendation Template

Instructions: Capture your recommendation here. This is the template we plan to use for each of the committee's recommendations to create structure in the final report. Our goal is that each recommendation is between 2-2 pages in length.

Note: Currently captured behind this template for your ease of reference is your initial recommendation from March 30th as well as any answers to questions from the state. Please note you also have a handout with committee feedback.

CHALLENGE

Challenge Statement (Challenge identified earlier in the committee work)

> Challenge 3: Schools do not have the support they need to implement Computer Science.

RECOMMENDATION

Clear and Concise Recommendation that summarizes at a high level your recommended solution. This should be done in one sentence.

Paragraph 1 | (SPECIFIC) ACTUALIZATION

How will you actualize this recommendation, what is the desired end product, process or outcome?

Paragraph 2 | (TIME-BOUND) TIMELINE

What is the timeline for implementation?

Paragraph 3 | MEASUREMENT

What are the intended outcomes and how will you measure these outcomes? What are the benchmarks that would need to be in place to ensure progress is on track?

Paragraph 4 | (ATTAINABLE) CONNECTION TO THE LARGER CS STATE PLAN

Is this recommendation dependent upon another recommendation? If yes, how?

What are the short term and long-term fiscal impacts/constraints when it comes to staffing and budget?

Paragraph 5 | (RELEVANT) POTENTIAL IMPACT

How does this move Ohio towards being a national leader in Computer Science education?

STOP | This section is to capture the full committee feedback during the committee presentation and discussion.

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Save your updated plans.

Share out and Discussions

Notes

- 15 minutes per recommendation
    - 5-7 minute for presenter to share out.
    - 8-10 minutes discussion (team recorder should capture group recommendations directly on the recommendation template)

Note-taker

Note-catcher for share- out

Challenge	What makes this a strong recommendation?	What is missing to make it a strong recommendation?	Are you ready to put this into the state plan? If no, is there a specific concern you would need to see addressed first?
CHALLENGE 3 Schools do not have the support they need to implement Computer Science.			
CHALLENGE 4 Students do not enroll in CS courses.			

Report out order

- There is a low supply of CS teachers. *Licensure challenges & Teacher Recruitment* (5A)

- There is a low supply of CS teachers*. Training & Prof. Development around CS* (5B)

- Students do not enroll in CS courses. (4)

- Schools do not have the support they need to implement Computer Science. (3)

Seeking Consensus

From today's discussion to state plan in June

1. If we have a majority consensus in the part 2 meeting which says to include, we will add this recommendation to the plan.

2. As time allows, we will provide space to discuss concerns including any recommendations on how to mitigate for identified concern (we will start with recommendations that did not receive a 2/3rds majority)

3. All recommendations will receive a formal vote during our June 1-2 retreat.
   A. Recommendations with concerns will be revisited prior to a formal vote.

Today

A. Are you in favor of including this recommendation in the plan (by show of hands)?

B. For this non-official consensus, for recommendations that did not achieve 2/3rds majority

    A. What is your specific concern? Are their thoughts on how this could be mitigated?

C. As time allows, revisit remaining recommendations to capture concerns and thoughts on mitigation.

Industry update

Intel update

U.S.News   NEWS »   News   Best Countries   Best States   Healthiest Communities   Cities   Elections   The Racial Divide

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Intel to Build $20B Ohio Chip Facility Amid Global Shortage

Chipmaker Intel says it will invest $20 billion to build a factory in central Ohio in an attempt to help alleviate a global shortage of chips that power everything from phones to cars to home appliances.

By **Associated Press** | Jan. 21, 2022, at 5:52 p.m.

Industry Panel

- **Jamie Timm**, WillowTree
- **Tonia Coverdale**, Nationwide
- **Greg Tacchetti**, formerly of State Auto (free agent after acquisition)
- **David Landreman,** Olive

- , Fifth-Third in Cincinnati
- **David Medwid**, Aware

In closing...

Upcoming Work

March 30th and April 20th

- Intel update and industry panel

- Revisit operationalizing CS in K-12

- Discuss/plan recs for challenges preventing districts from offering CS including CS teacher supply

- HW: feedback

- All recs revised & shared

- Discussion to include or not to include in state plan

April 11th and June 1st

- Discuss/plan recs for challenges in **the k-12 to workforce CS pipeline**.

- Discuss/plan recs on how to measure and report on post-secondary CS education

- HW: feedback

- All recs revised & shared

- Discussion to include or not to include in state plan

June 1st - 2nd

- Retreat

- Review and vote on entire set of recs

- Review and revise drafted state plan

What's next?

Upcoming Pre-work: Pre -read on information surrounding each identified **challenges in the k-12 to workforce CS pipeline.**

Upcoming Meetings

May 11 | COSI

June 1 & 2 | COSI

* Note: HB 110 gives us until October 2022, but plan to finish in spring/early summer.

Closing