

# Computer Science Micro-credentials

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# What is a Micro-credential

Recognition achieved through demonstrating competency of a defined skill or competency, including industry-recognized competencies.

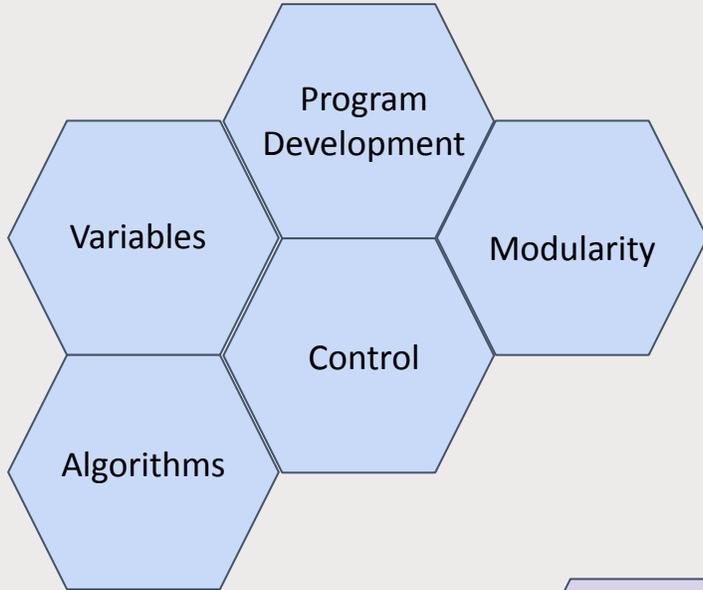
# Project Recap

- Secondary Teacher Micro-credentials
- Elementary Teacher Micro-credentials
- High School Student Micro-credentials

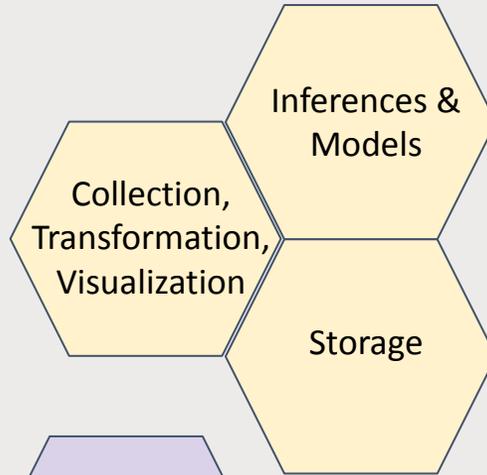
# Teacher Micro-credentials

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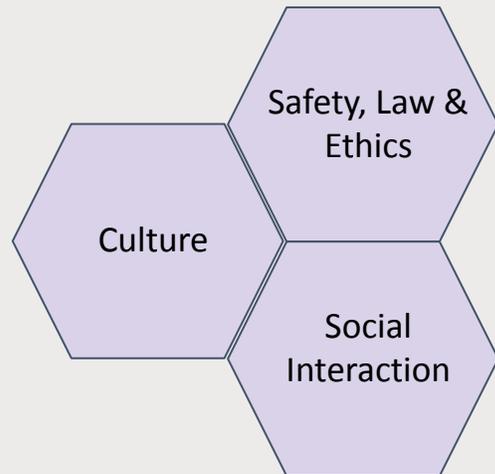
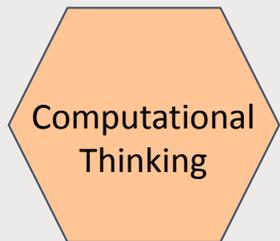
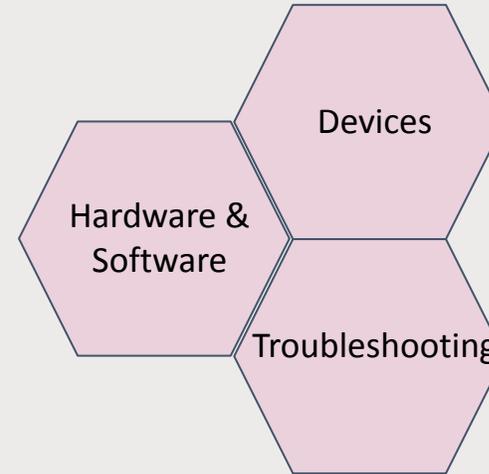
## Algorithms & Programming



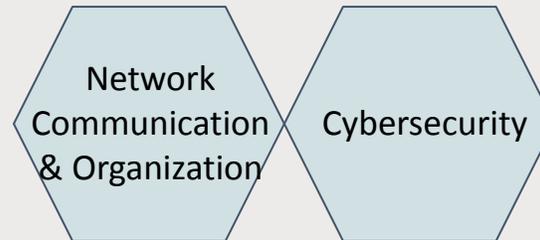
## Data & Analysis



## Computing Systems



## Impact of Computing



## Networks & Internet

# Teacher MC Earning Progress

## February 2022

1. 40 teachers participating and 29 teachers have submitted evidence for at least one micro-credential.
2. 80 micro-credentials were earned.
3. 4 educators were on track to complete all 17 MCs.

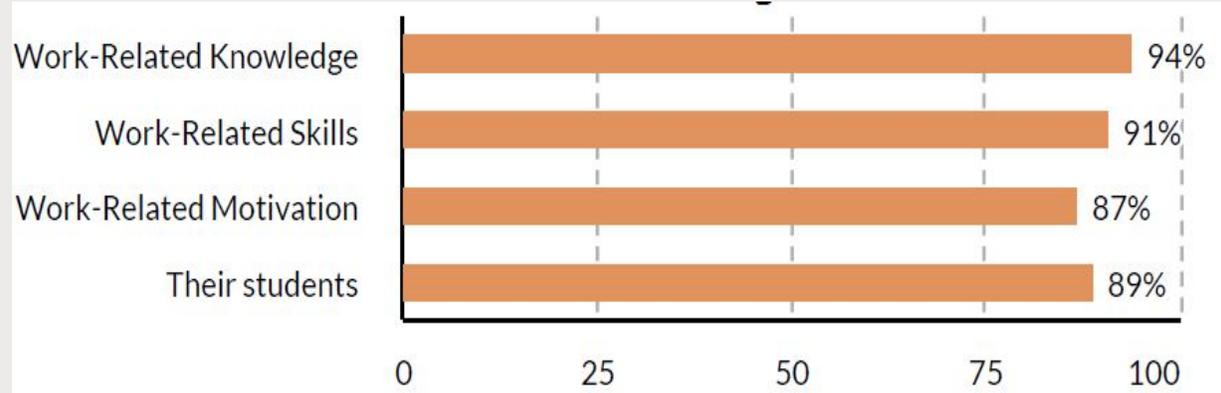
## January 2024

1. 133 teachers participating and 56 teachers have earned least one micro-credential.
2. 563 micro-credentials have been earned.
3. 24 teachers have completed all 17 micro-credentials.

# Teacher Satisfaction

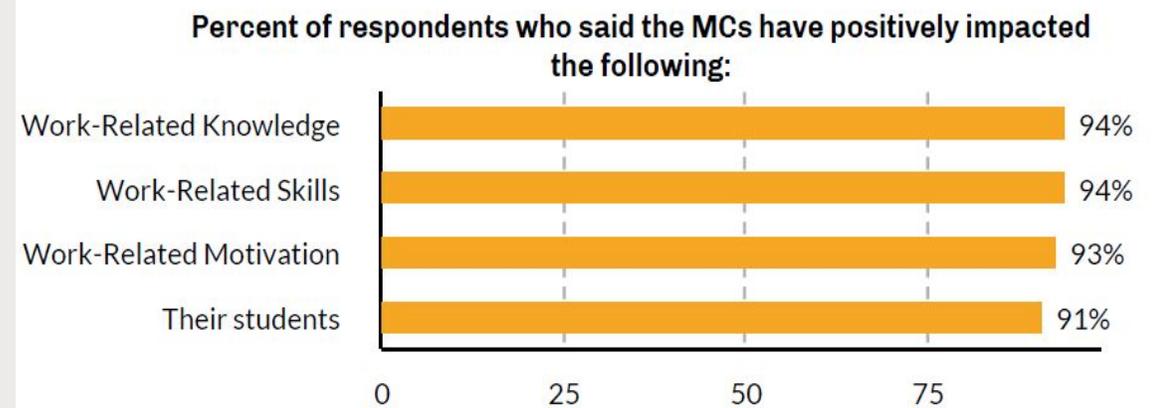
Percent of teachers how said the MCs have positively impact the following:

## Secondary Educators



**85% of teachers would recommend the MCs to other teachers.**

## Elementary Educators



**80% of teachers would recommend the MCs to other teachers.**

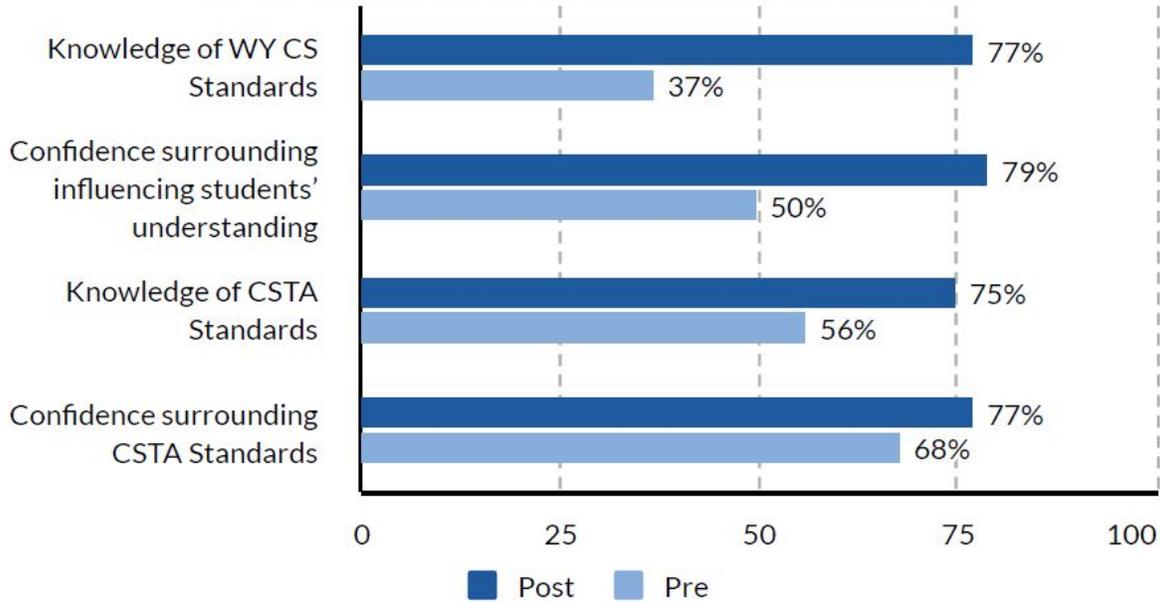
# Teacher Pre/Post-Assessment Ratings

Average percent of possible points earned on each scale

(CS - Computer Science; CASTA Computer Science Teacher Association)

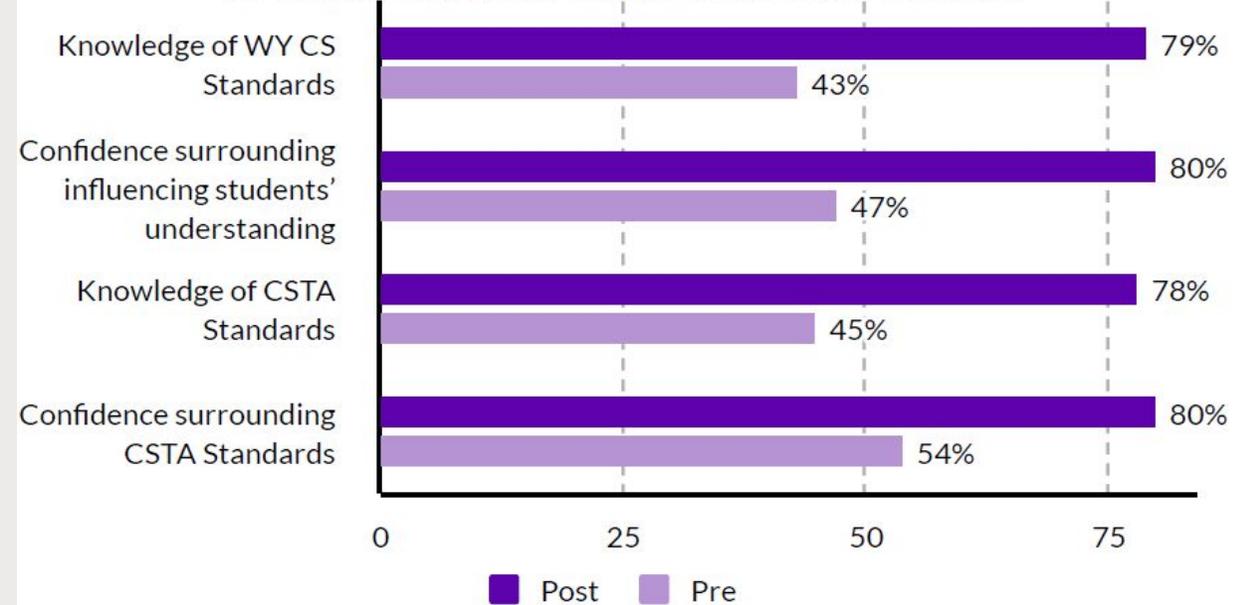
## Secondary Educators

Average percent of possible points earned on each scale  
(CS=Computer Science; CSTA=Computer Science Teacher Association)



## Elementary Educators

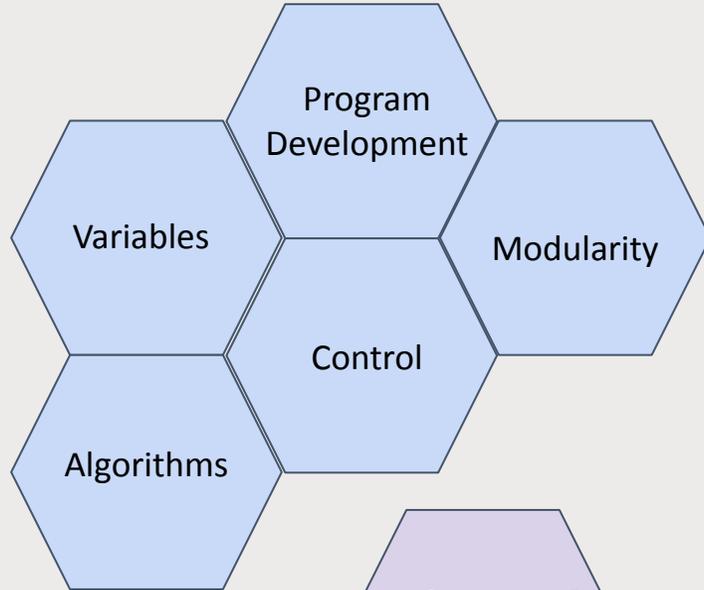
Average percent of possible points earned on each scale  
(CS=Computer Science; CSTA=Computer Science Teacher Association)



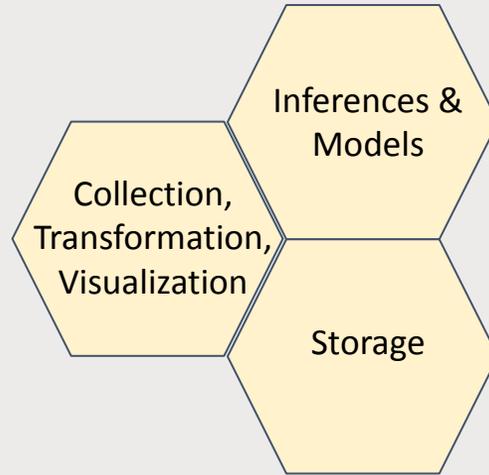
# Student Micro-credentials

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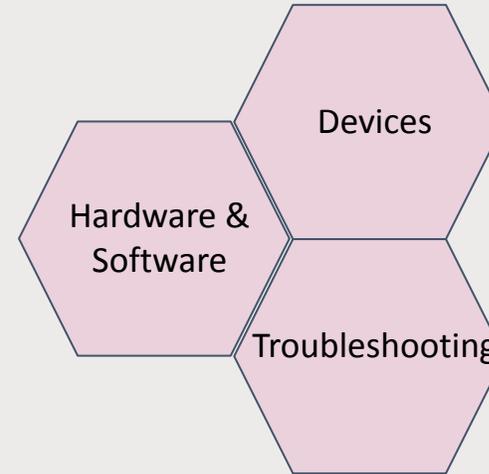
## Algorithms & Programming



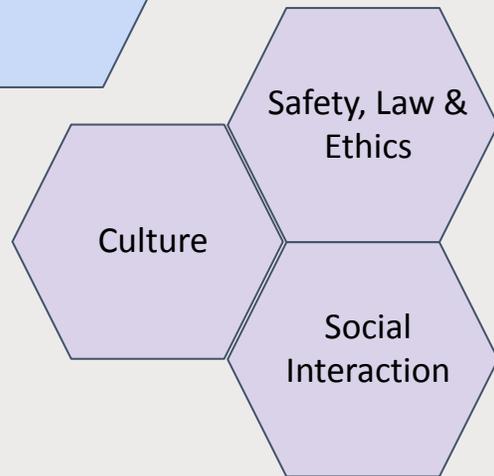
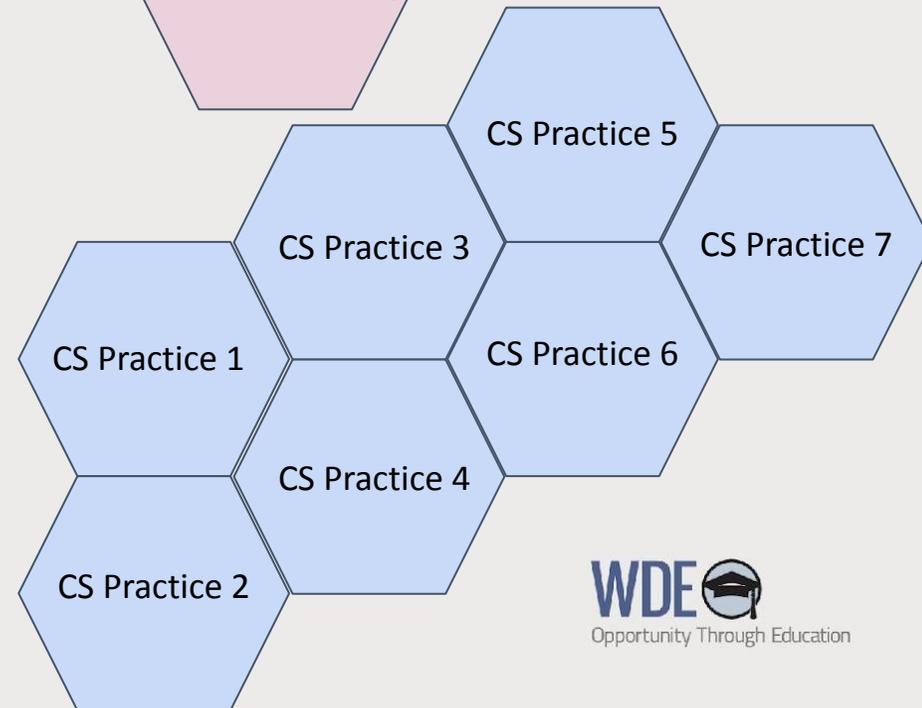
## Data & Analysis



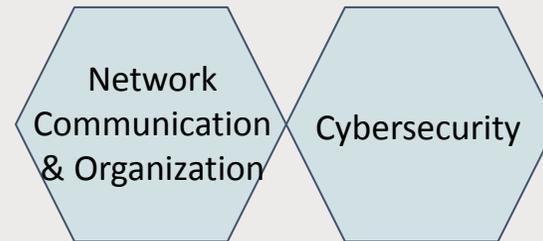
## Computing Systems



## Computer Science Practices



## Impact of Computing



## Networks & Internet

# Student Pilot

- Began pilot in Fall 2022
  - Expedition Academy (Green River)
- Expanded Pilot in Green River in Spring 2023
  - Expedition Academy
  - Green River High School
- Fall 2023
  - Green River High School (Pilot teacher only teaching here)
- Spring 2024
  - Green River High School
  - Evanston High School
  - Wind River High School



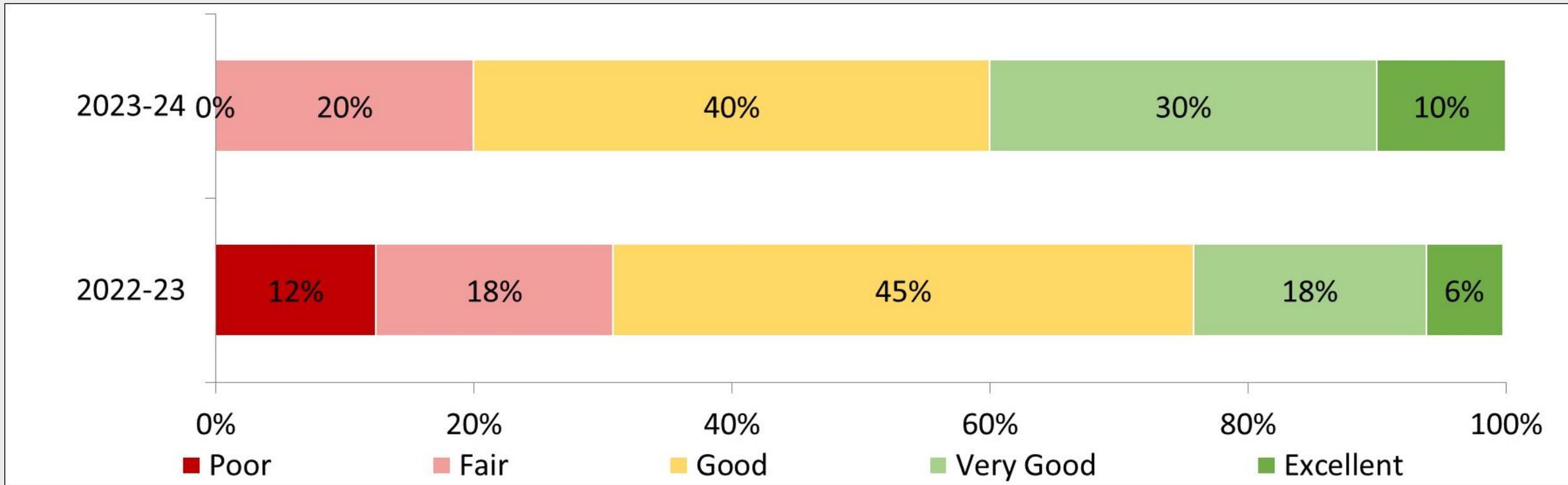
# Student CS MC Survey

- After submitting each micro-credential, student Earners are asked to complete the Student Computer Science Micro-Credential Survey.

|                            | <b>2022-23</b> | <b>2023-024</b> |
|----------------------------|----------------|-----------------|
| <b>Number of Responses</b> | <b>34</b>      | <b>20</b>       |
| Algorithms & Programming   | 0              | 12              |
| Computer Systems           | 9              | 5               |
| Data Analysis              | 3              | 3               |
| Networks & the Internet    | 22             | 0               |

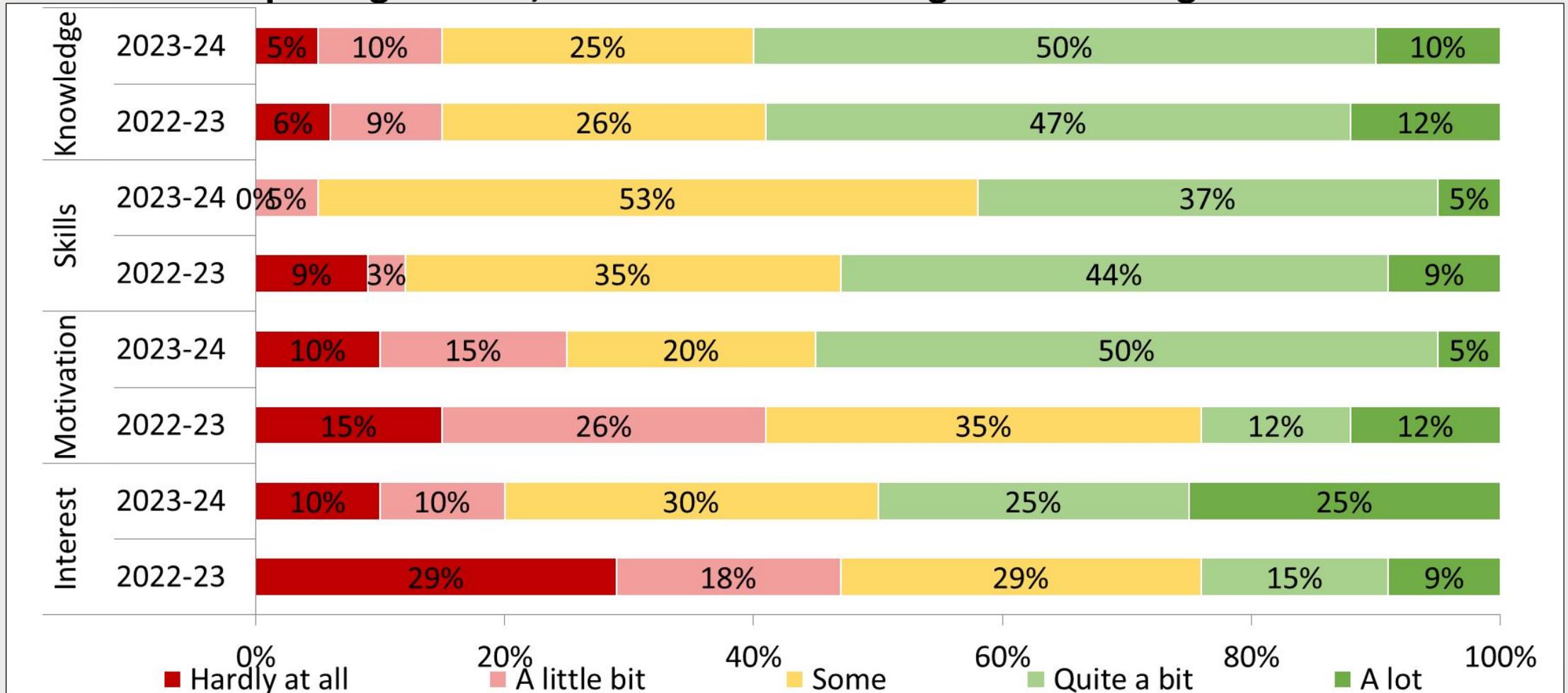
# Student CS Experience

## 1. How would you rate the overall micro-credential experience?



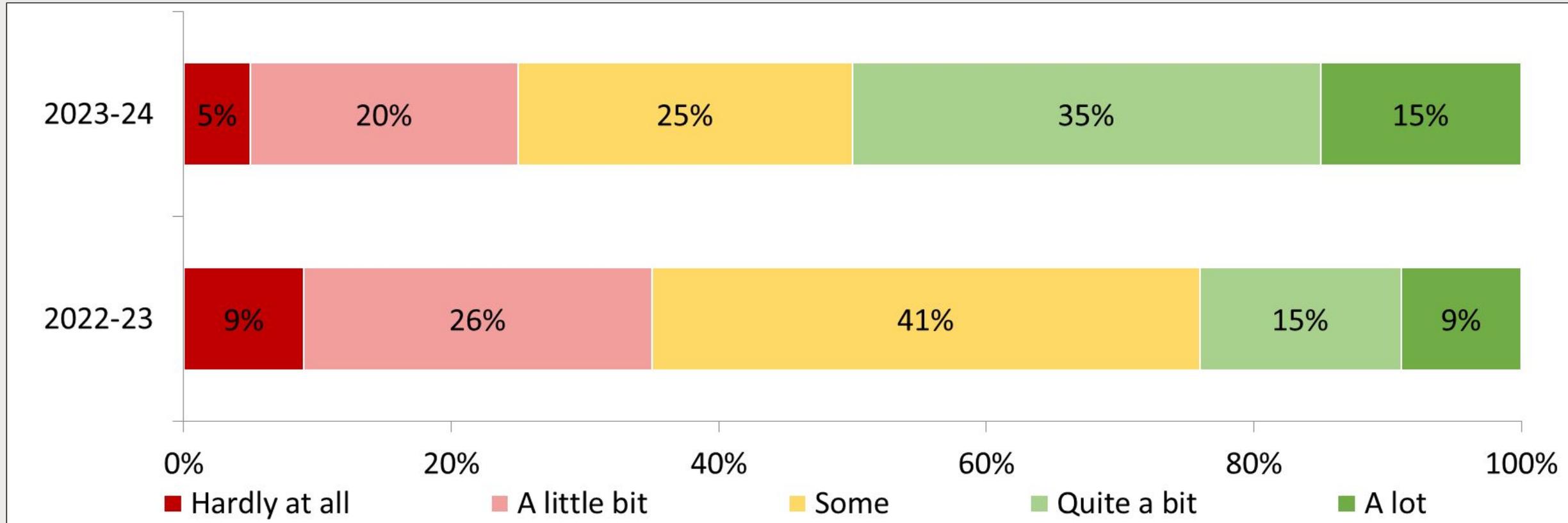
# Student Learning Growth

As a result of completing the MC, to what extent having the following for CS increased for you:



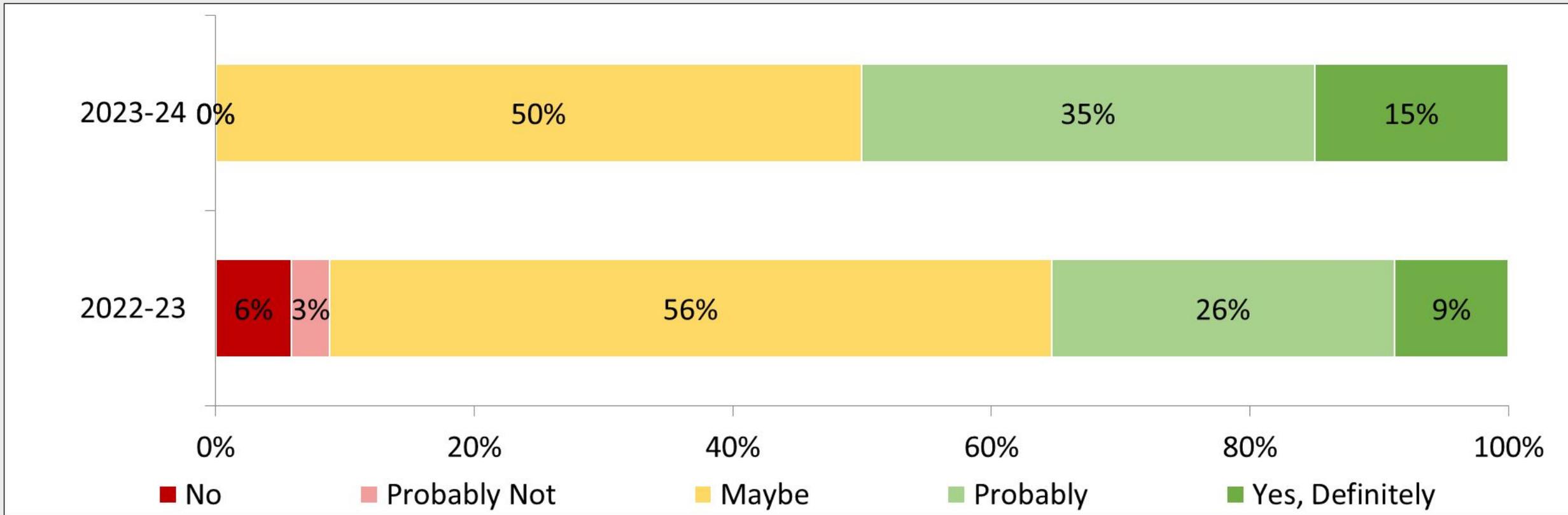
# MC Process

As a result of completing the micro-credential, to what extent was the MC process fun/engaging?



# Student Recommendations

## 7. Would you recommend this micro-credential to other students?



# Student CS Perception Survey

As part of the Perkins Innovation and Modernization Grant Project (Perkins I&M), the Student Computer Science (CS) Perception Survey was developed to measure the extent to which students have confidence in their CS abilities, are engaged in CS activities, and are aware of CS jobs.

# School Groups

Teachers from three types of schools were asked to have students in their high school CS classes complete the survey.

The types of schools include:

**Student MC Pilot Schools:** Schools that have students completing CS micro-credentials (N=1 school).

**Perkins Pilot Schools:** Schools that were identified as “pilot” schools for Perkins I&M (N=10 schools).

**Perkins Comparison Schools:** Schools that were identified as “comparison” schools for Perkins I&M (N=10 schools).

# Respondents by School Groups

- In November/December 2023, one school from each of the three types of schools listed below had students who completed survey.

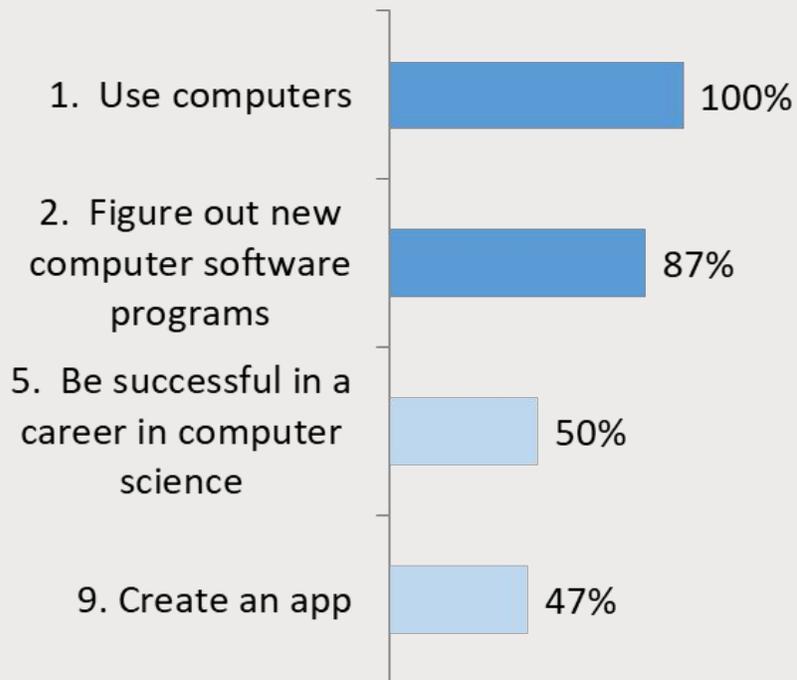
|                            | <b>2023-24</b> |
|----------------------------|----------------|
| <b>Number of Responses</b> | <b>57</b>      |
| Student MC Pilot Schools   | 15             |
| Perkins Pilot School       | 9              |
| Perkins Comparison Schools | 33             |

# CS Confidence Items

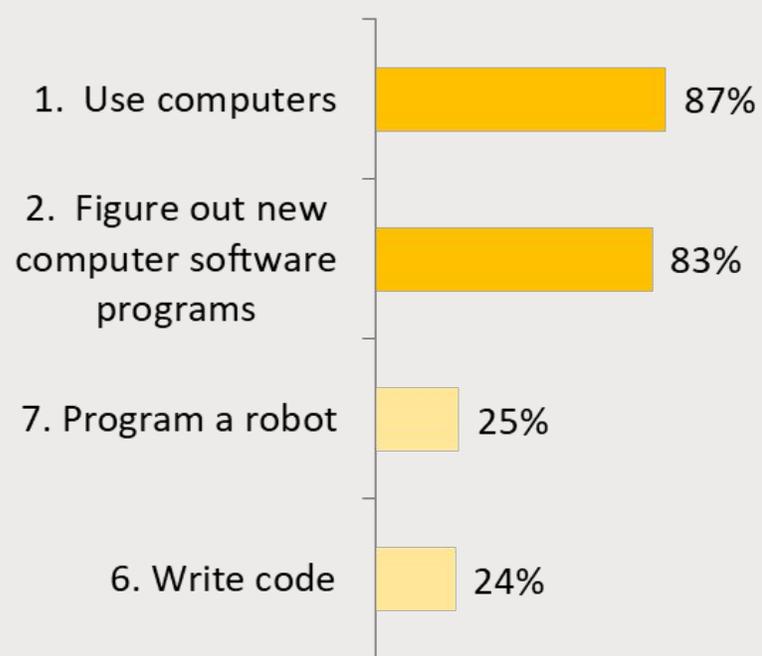
Lowest and Highest Confidence Items – Percent who said “Confident” or “Very Confident”

How confident are you in your ability to:

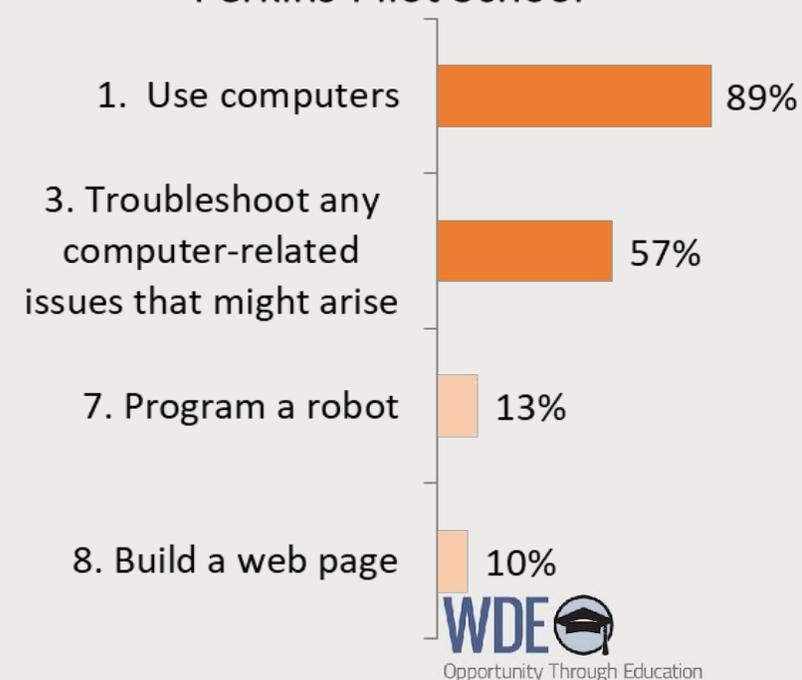
Student MC Pilot School



Perkins Comparison School



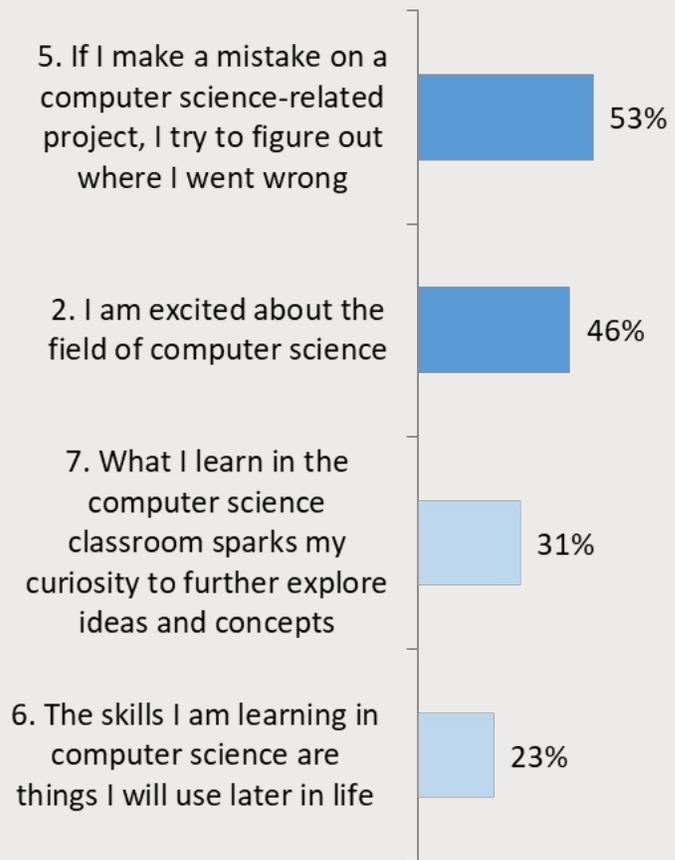
Perkins Pilot School



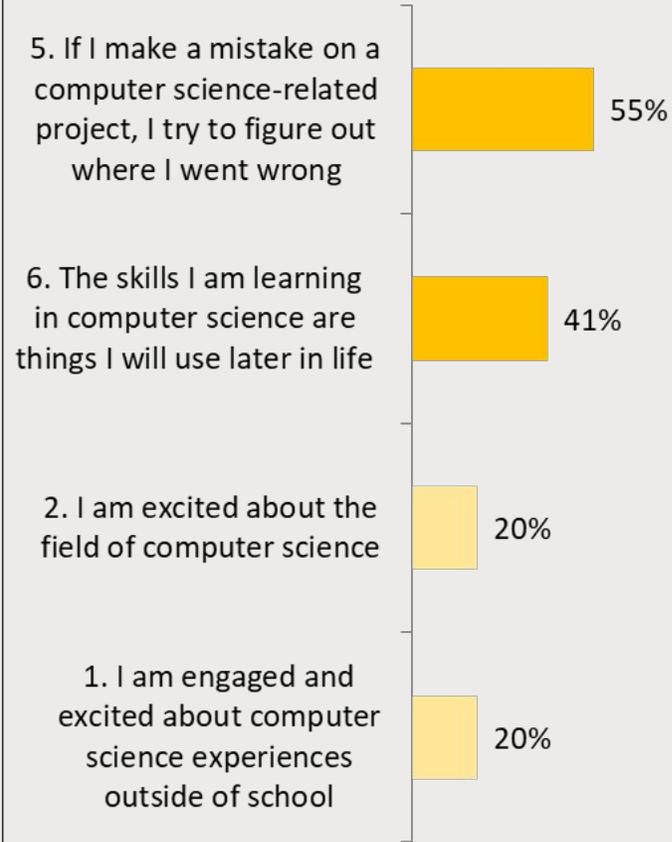
# CS Engagement Items

## Lowest and Highest Engagement Items – Percent who said “Agree” or “Strongly Agree”

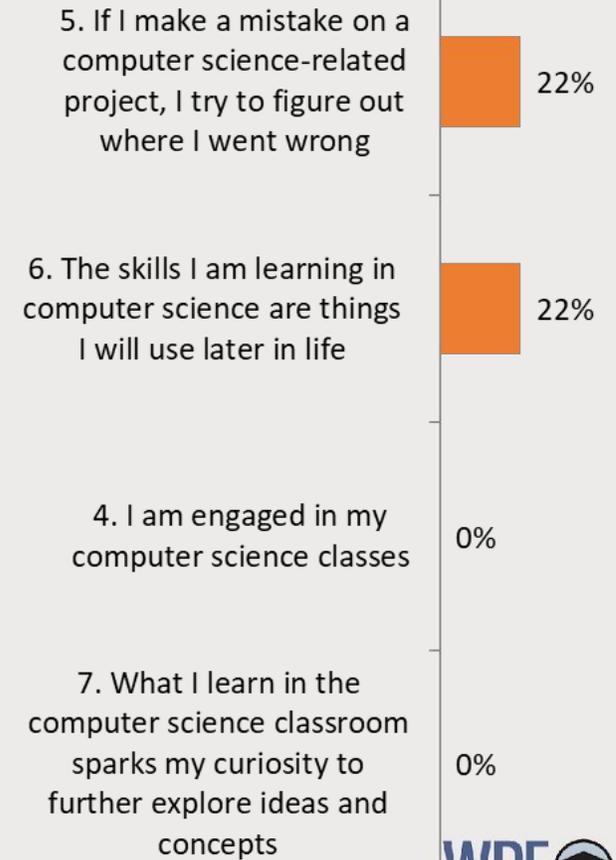
Student MC Pilot School



Perkins Comparison School



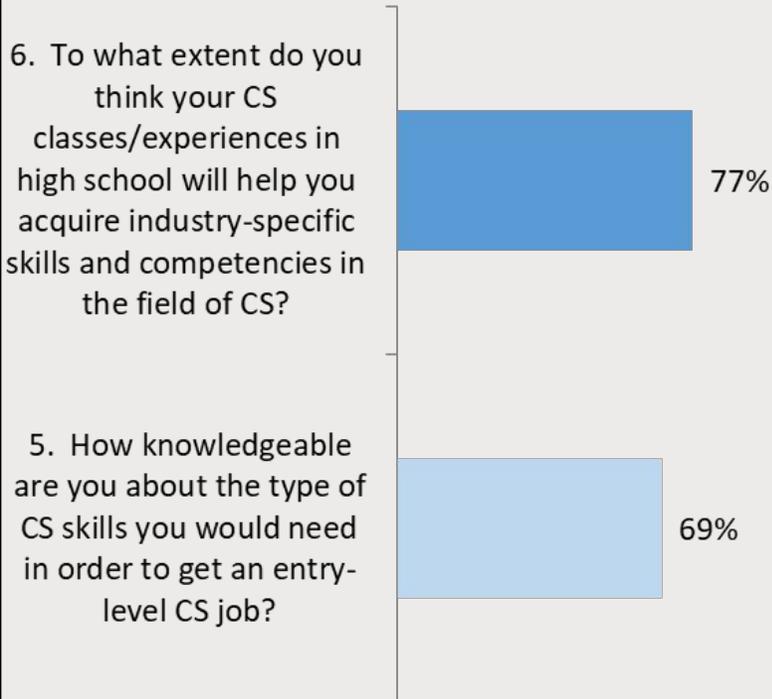
Perkins Pilot School



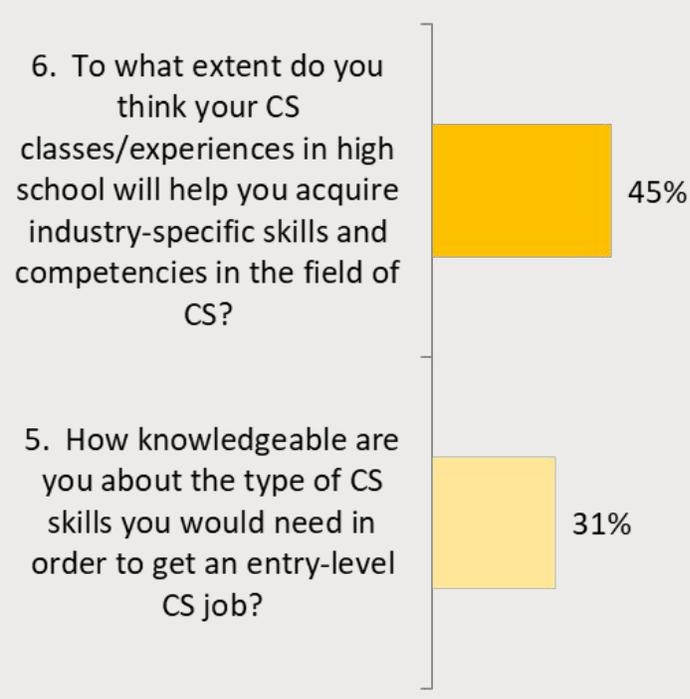
# CS Jobs Items

## Lowest and Highest Jobs Items – Percent who said “Neutral/Some,” “Knowledgeable/Quite a bit,” or “Very Knowledgeable/A lot”

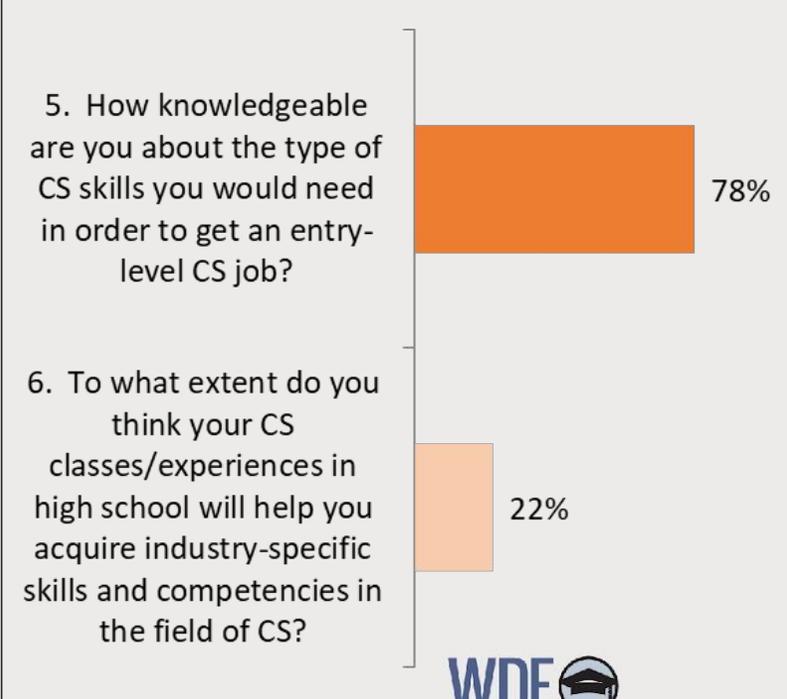
### Student MC Pilot School



### Perkins Comparison School

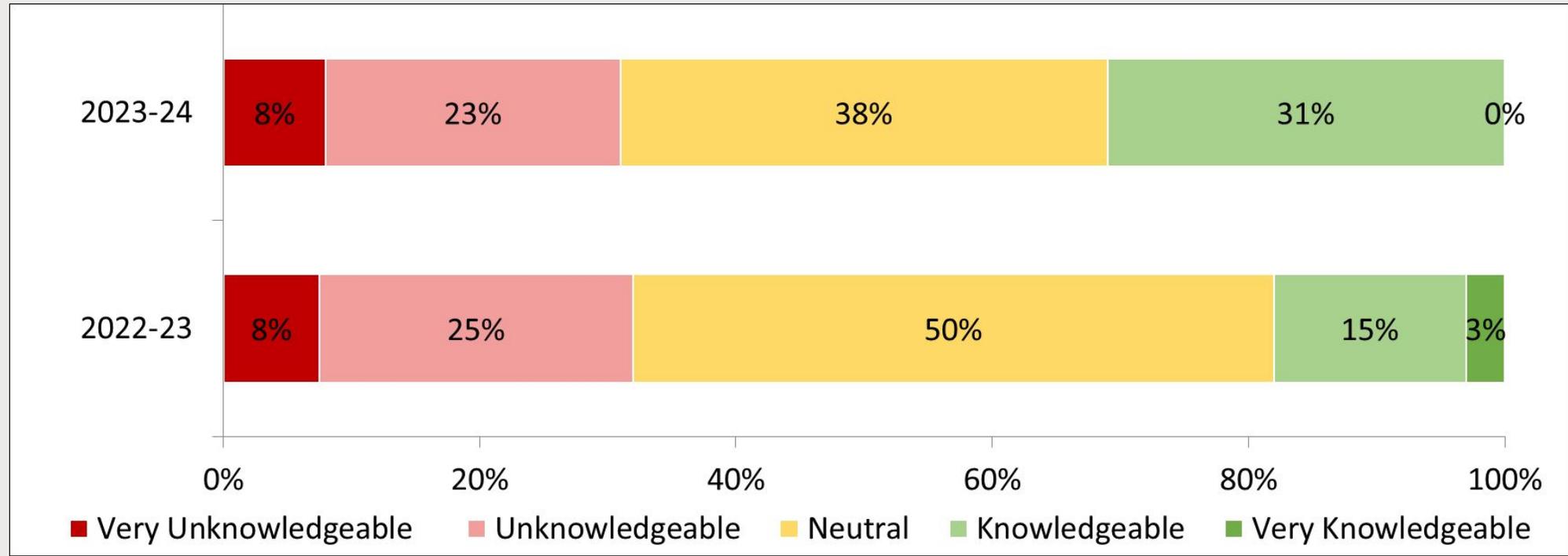


### Perkins Pilot School



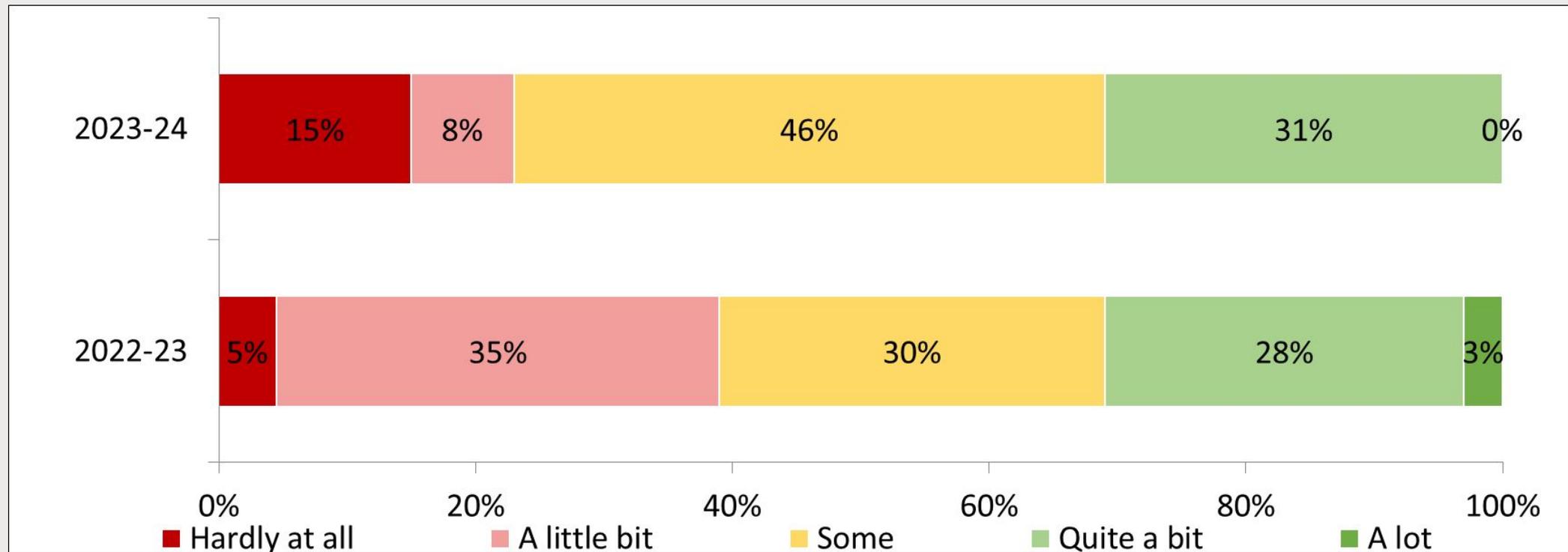
# Student MC Pilot School - CS Job Knowledge

5. How knowledgeable are you about the type of CS skills you would need in order to get an entry-level CS job?



# Student MC Pilot School - CS Industry

6. To what extent do you think your CS classes/experiences in high school will help you acquire industry-specific skills and competencies in the field of CS?



# WDE & DWS WIP Partnership

1. Expand and scale the student CS micro-credentials
  - a. High school credit
  - b. Dual enrollment credit
2. Develop and pilot student employability skills micro-credentials
3. Develop and pilot CTE teacher micro-credentials certification pathway
  - a. Advanced manufacturing focus
4. Digital wallet

Thank you for your support!

