

Competency Working Group

CAE-CD Program Goal Re: Competency

Establish program policy encouraging designated institutions to integrate cybersecurity competency development and measurement into academic programs.

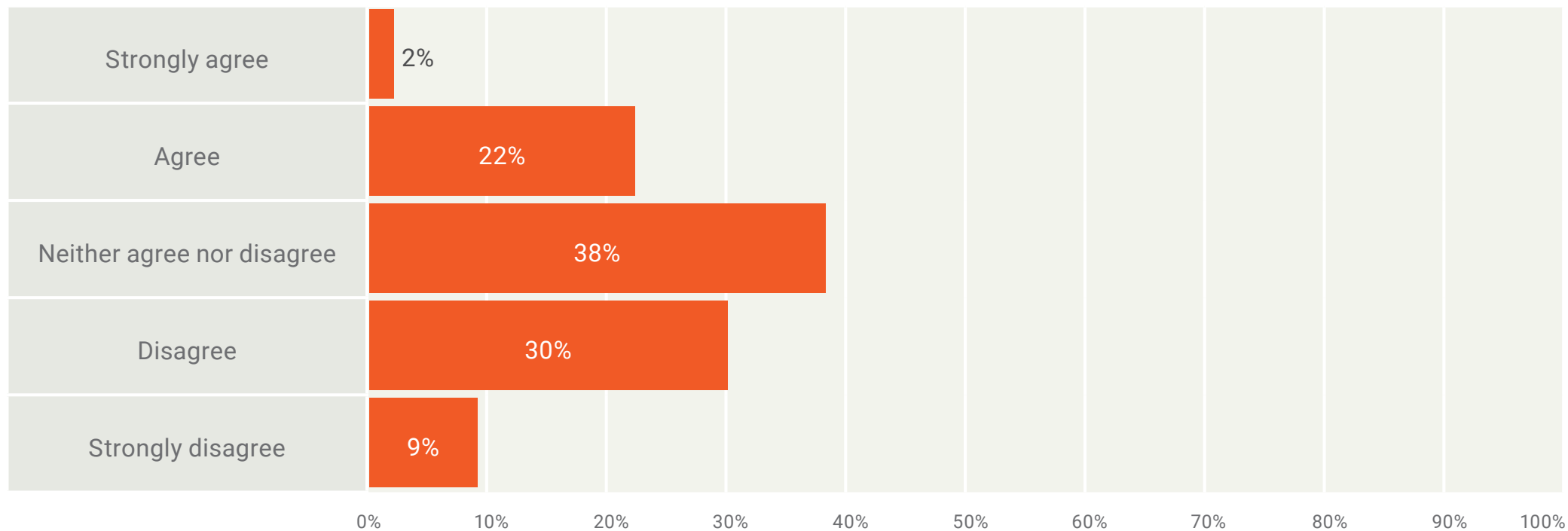
Establish competency metrics reporting requirements

Help students envision development of themselves into cybersecurity professionals, and provide them the means to document their achievements.

Market CAE-CD graduates to employers in government and industry; facilitate relationships with CAE-CD schools

FIGURE 9—DEGREE TO WHICH UNIVERSITY GRADUATES ARE WELL PREPARED FOR CYBERSECURITY CHALLENGES

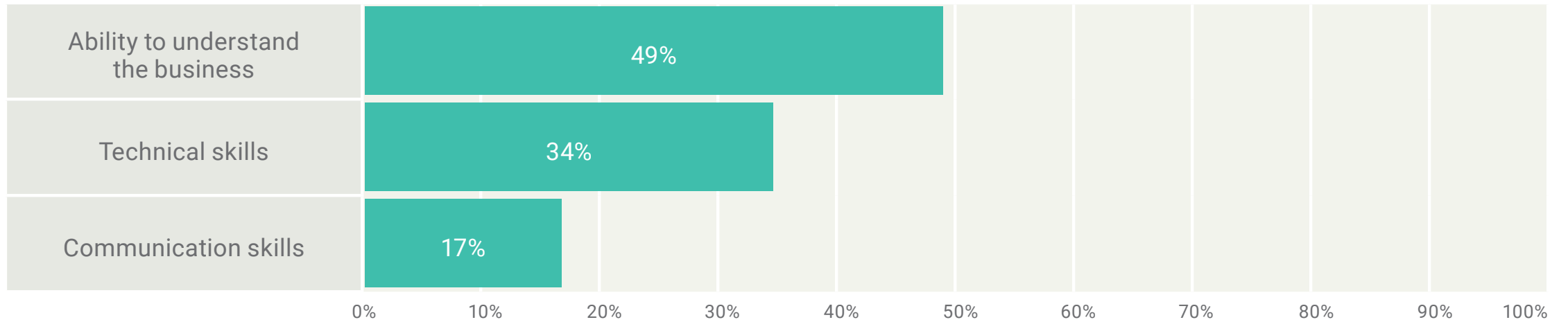
To what extent do you agree or disagree that recent university graduates in cybersecurity are well prepared for the cybersecurity challenges in your organization?



STATE OF CYBERSECURITY 2019: CURRENT TRENDS IN WORKFORCE DEVELOPMENT

FIGURE 8—BIGGEST SKILL GAP

What is the biggest skill gap you see in today's cybersecurity professionals?



Survey at Virtual Career Fair

- Survey with 4 questions
 - List work role titles you can recall.
 - List the tasks that you would be expected to do for each work role.
 - Of the tasks listed, which have you done?
 - If you did any of the tasks, where did you do them?

Results from the Survey

- 139 respondents – only 11 attempted to answer
 - List work role titles you can recall.
 - 11 answered first question
 - List the tasks that you would be expected to do for each work role.
 - 11 Answered second question
 - 4 answers, not really answers (software developer – develops software)
 - Of the tasks listed, which have you done?
 - 10 Indicated they had actually done the tasks
 - If you did any of the tasks, where did you do them?
 - 3 – School, 3 School lab, 5 – Work, 3 – home network

Evidencing Competency Working Group

- Objectives: Establish CAE-CD program objectives for evidencing competency in designated academic programs
 - Lexicon
 - Student documentation
 - Designated program metrics
 - Identify & evaluate tools
 - Functionality of each
 - Application to CAE-CD purpose
 - Cost
-
- Sub-Group 1
- Sub-Group 2

Competency

- **A competency is demonstrated when a person is able to complete a task in the context of a work role.**
 - A work role is a role an individual may be hired to do as defined by a recognized framework (ie – NICE Workforce Framework, MOS Manual, etc.).
 - A task is a defined piece of work for a given work role.

How To Apply This Definition

- Look at your current labs and exercises.
- Look at the tasks listed for the work roles you prep students for.
- Identify the hands on exercises that either are already covering tasks or can be modified to cover tasks listed in a recognized work role task list.

Program metrics annual reporting (SG1)

Work Role*	Task*	NIST Competency	Learning Experience* (ABCD)	Tools being used* (WG 2 list)	3 levels Exposure Comprehension Competency

A – Audience

B – Behavior (Task)

C – Condition – with/out the aid of reference, internet, etc.

D – Degree - %completion, %accuracy, time limit

* Mandatory

Moving forward

- Meeting at NICE?
 - How many are going?
- Establish a new timeline and deliverables
- Identify schools that will be willing to participate in a pilot of evidencing competency of students