



1



2

Introductions



Mike
Lesiecki

Luka Partners



Lyssa
Wilson Becho


5

Behind the Scenes



Lori
Wingate



Ana
Councill



Emma
Leeburg



Cynthia
Williams



Janet
Pinhorn



Shannon
Payne



Kelly
Robertson



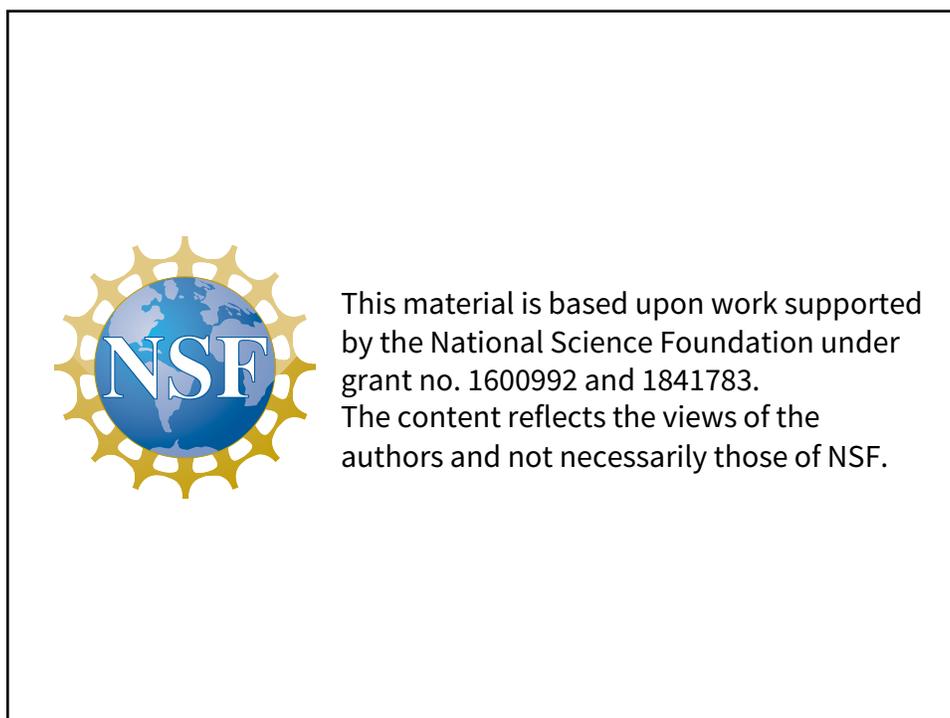
Val
Marshall



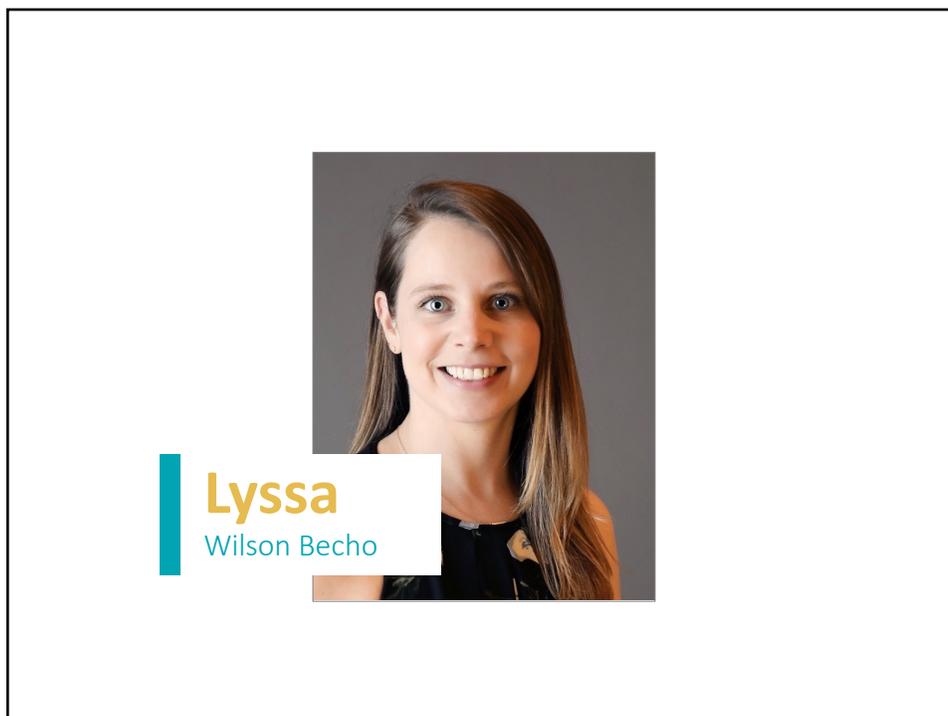
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9



AGENDA

- 1. Defining impact**
What makes impact evaluation different?
- Question Break**
- 2. Determining causality**
What are the three requirements for determining causality?
- 3. Strategies for practice**
What strategies can you use for impact evaluation?
- Question Break**

A photograph of a woman in a lab coat and safety goggles working in a laboratory. The word 'AGENDA' is written in large, bold, orange letters over the image. To the right of the image is a list of agenda items, including three numbered items and two 'Question Break' items with question mark icons.

10

CHAT

Which statement presents the most compelling evidence of project success? And why?

<p>A</p> <p>98% of students reported being satisfied or very satisfied with the new lab materials. 90% said they would recommend the course to a friend.</p>	<p>B</p> <p>Students who used the new lab material were three times more likely to pass the licensing exam than those who used the old lab materials in their preparatory courses.</p>	<p>C</p> <p>1,500 students used the new lab materials in 2018.</p>
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11



12

IMPACT EVALUATION



Measures the long-term effects of a project's activities



Attends to causality and the project's role in bringing about these effects



Assesses **intended and unintended** effects

13



TERMINOLOGY

Outcomes

“The likely or achieved short-term and medium-term effects of an intervention's outputs”

(OECD, 2002)

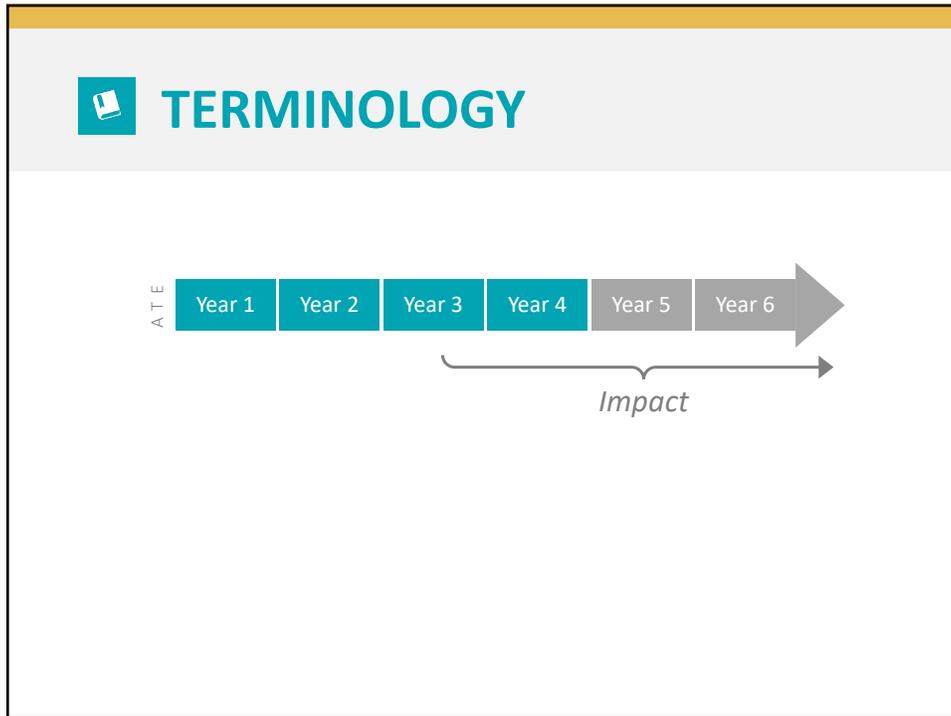
Impact

“Positive and negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, and intended or unintended”

(OECD, 2002)

Organization for Economic Co-operation and Development. (2002). Glossary of key terms in evaluation and results-based management. Retrieved from <https://www.oecd.org/dac/evaluation/2754804.pdf>

14



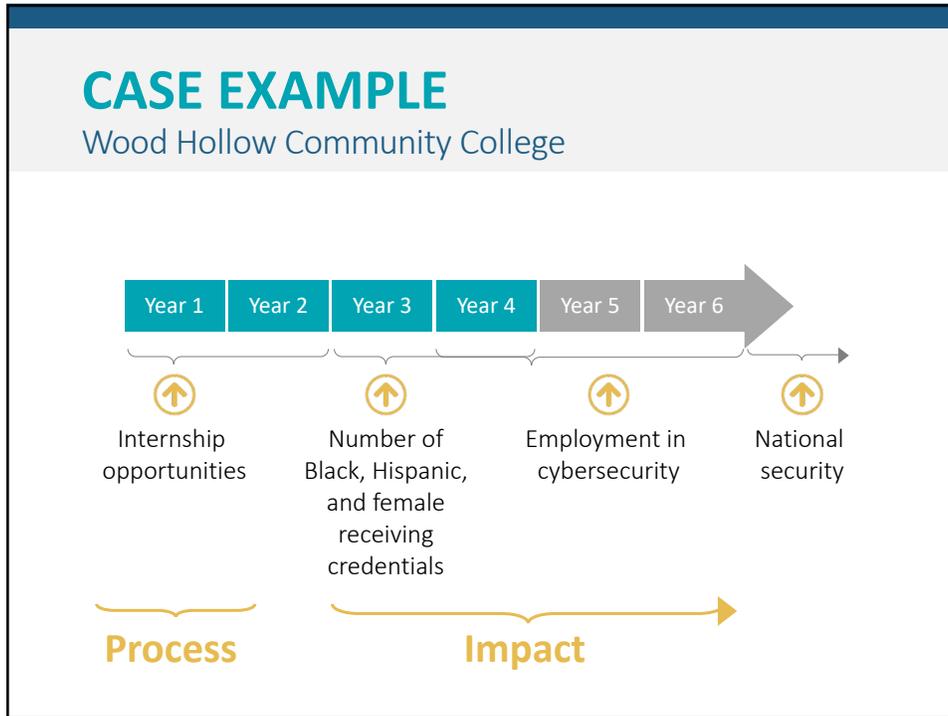
15

CASE EXAMPLE
Wood Hollow Community College

CYBERSECURITY FOR ALL

- ↑ Internship opportunities
- ↑ Number of Black, Hispanic, and female students
- ↑ Credentials in cybersecurity
- ↑ Employment in cybersecurity
- ↑ National security

16



17

IMPACT OR PROCESS?

Are these evaluation questions asking about process or impact?

- 1 To what extent did the demographics of those placed in internships match those of the target population?

18

IMPACT OR PROCESS?

Are these evaluation questions asking about process or impact?

- 1 To what extent did the demographics of those placed in internships match those of the target population?

PROCESS

19

IMPACT OR PROCESS?

Are these evaluation questions asking about process or impact?

- 2 To what extent did the number of students credentialed in cybersecurity change because of the project activities?

20

IMPACT OR PROCESS?

Are these evaluation questions asking about process or impact?

- 2 To what extent did the number of students credited and in cybersecurity change because of the project activities?

IMPACT

21

IMPACT OR PROCESS?

Are these evaluation questions asking about process or impact?

- 3 To what extent were students satisfied with their internship experience?

22

IMPACT OR PROCESS?

Are these evaluation questions asking about process or impact?

- 3 To what extent were students satisfied with their internship experience?

PROCESS

23

??? QUESTIONS?



Mike

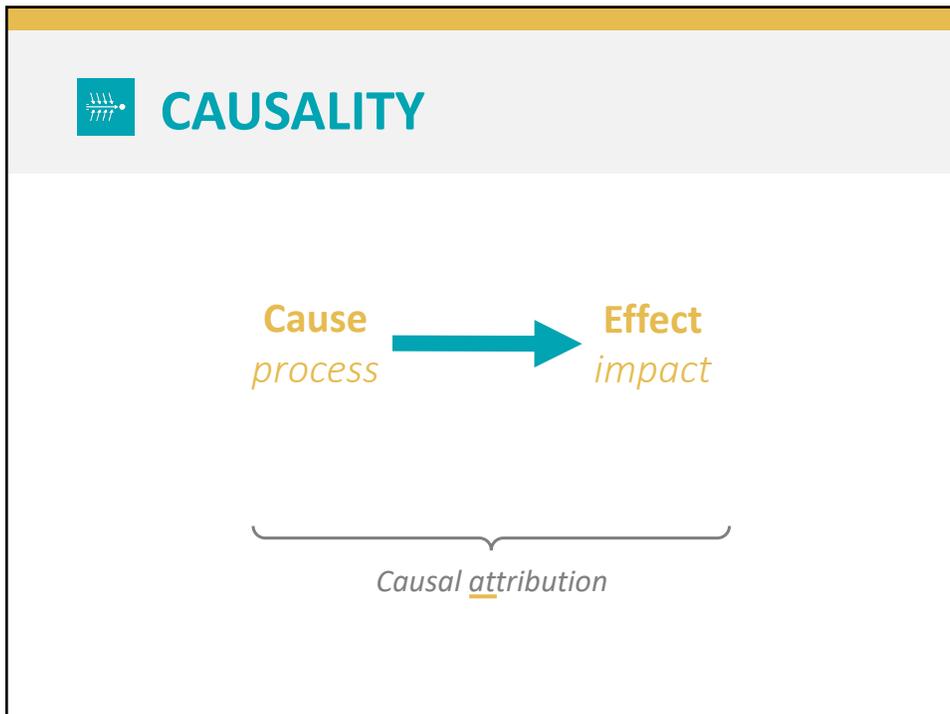


Lyssa

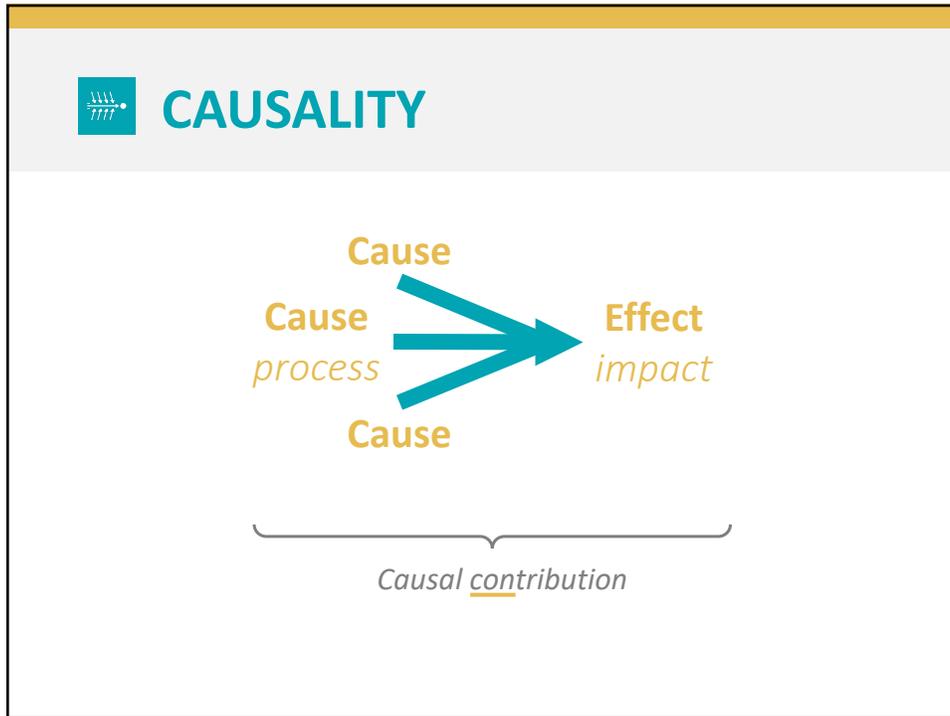
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27

DETERMINING CAUSALITY
Three requirements

- 1 Temporal precedence
The potential cause happened before the effect

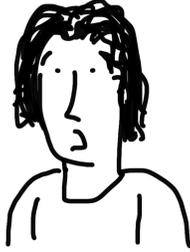
Web Center for Social Science Research Methods. <https://socialresearchmethods.net/kb/causeeff.php>

29

 **DETERMINING CAUSALITY**
Three requirements

Congratulations everyone!
Thanks to our program
unemployment is down.

But those numbers
were collected before
our program was even
launched.



freshspectrum.com

30

 **DETERMINING CAUSALITY**
Three requirements

- 1** Temporal precedence
The potential “cause” happened before the “effect”
- 2** Covariation of the cause and effect
When the potential cause is present, so is the effect

Web Center for Social Science Research Methods. <https://socialresearchmethods.net/kb/causeeff.php>

31

 **DETERMINING CAUSALITY**
Three requirements



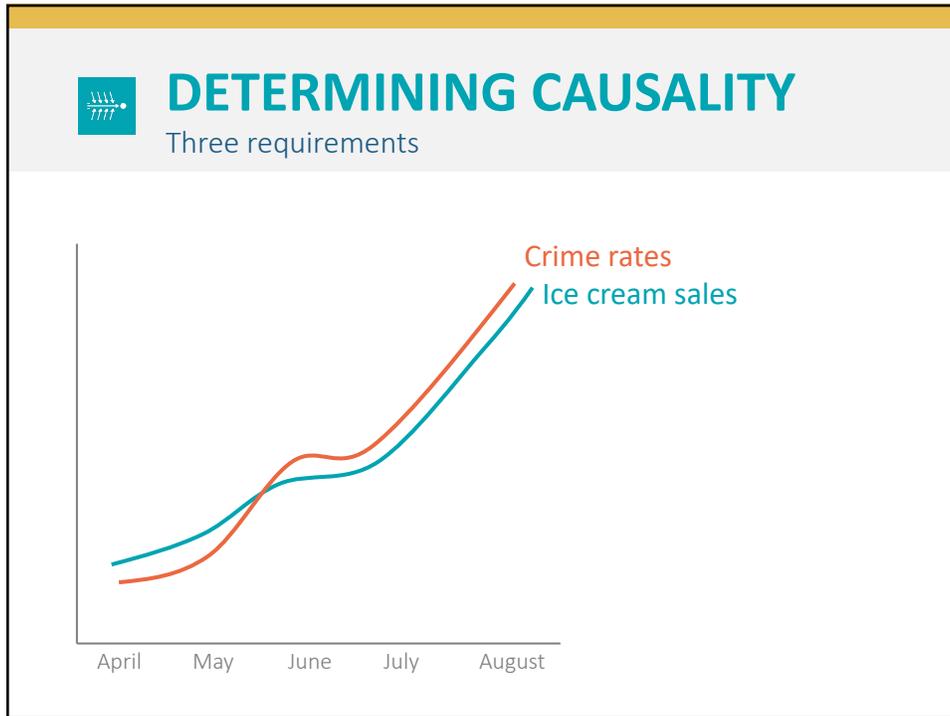
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 **DETERMINING CAUSALITY**
Three requirements

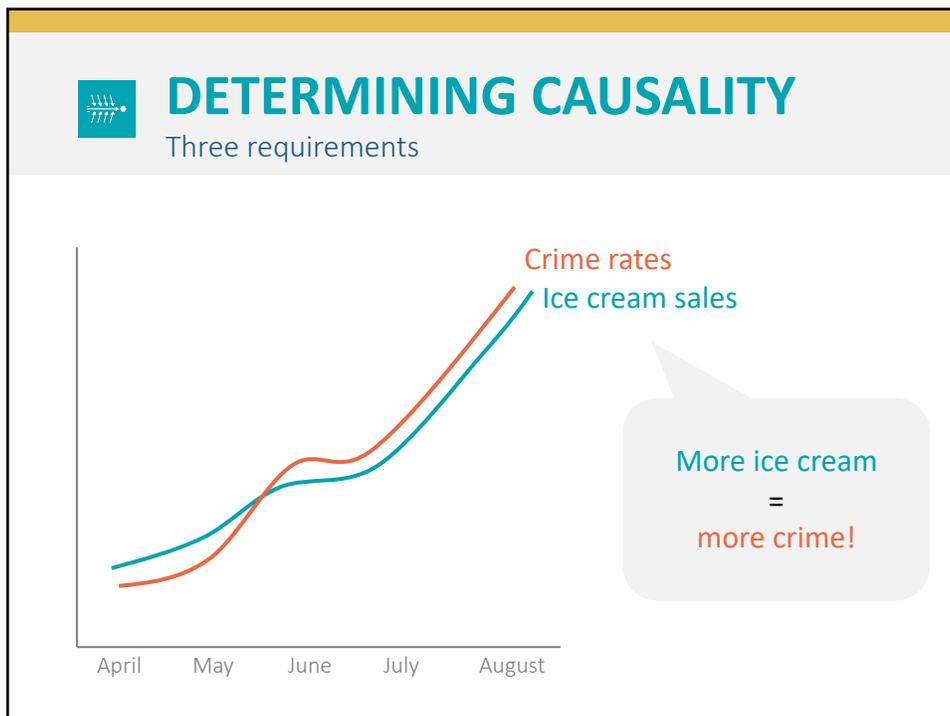
- 1 Temporal precedence**
The potential “cause” happened before the effect
- 2 Covariation of the cause and effect**
When the potential “cause” is present, so is the effect
- 3 No plausible alternative explanations**
Nothing else could have explained the effect

Web Center for Social Science Research Methods. <https://socialresearchmethods.net/kb/causeeff.php>

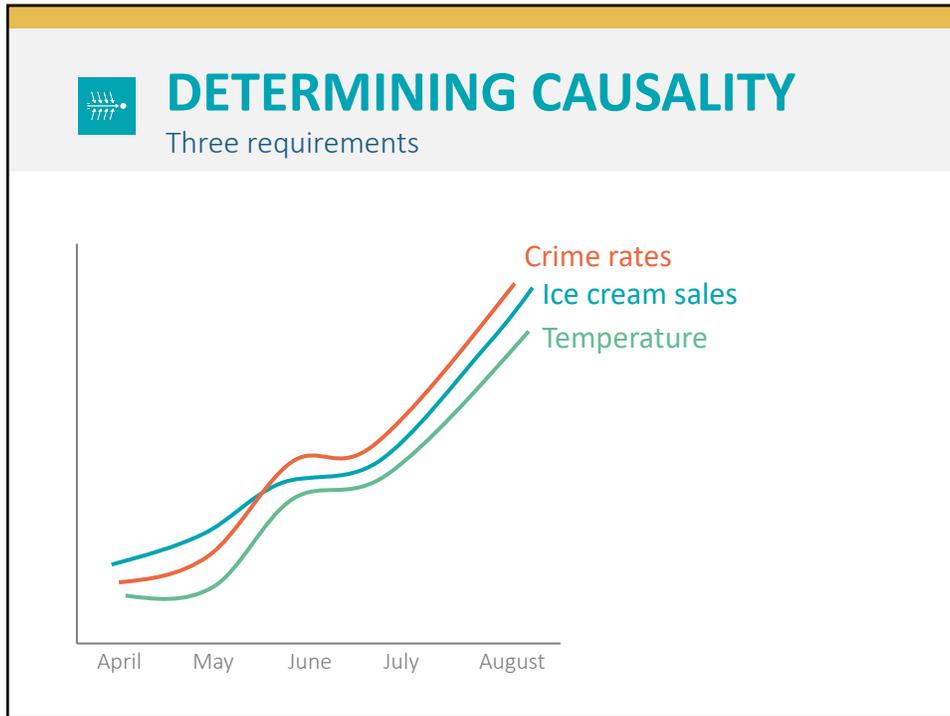
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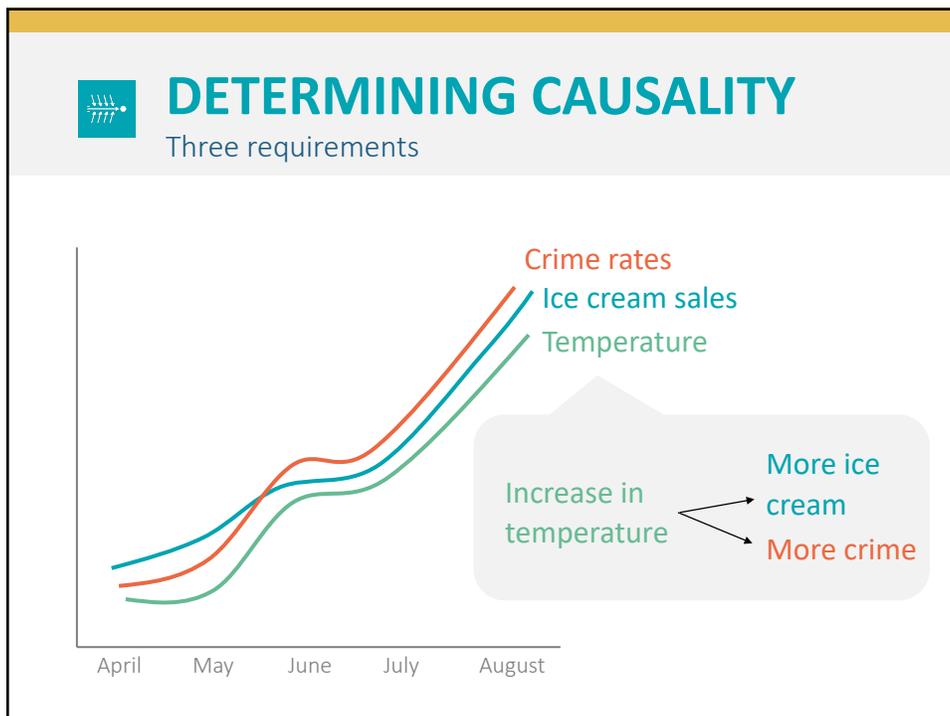
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35



36



37

DETERMINING CAUSALITY
Three requirements

- 1 Temporal precedence**
The potential “cause” happened before the effect
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Web Center for Social Science Research Methods. <https://socialresearchmethods.net/kb/causeeff.php>

38

PART THREE
STRATEGIES FOR PRACTICE

39

CASE EXAMPLE

Wood Hollow Community College

CYBERSECURITY FOR ALL



- ↑ Internship opportunities
- ↑ Number of Black, Hispanic, and female students
- ↑ Credentials in cybersecurity
- ↑ **Employment in cybersecurity**
- ↑ National security

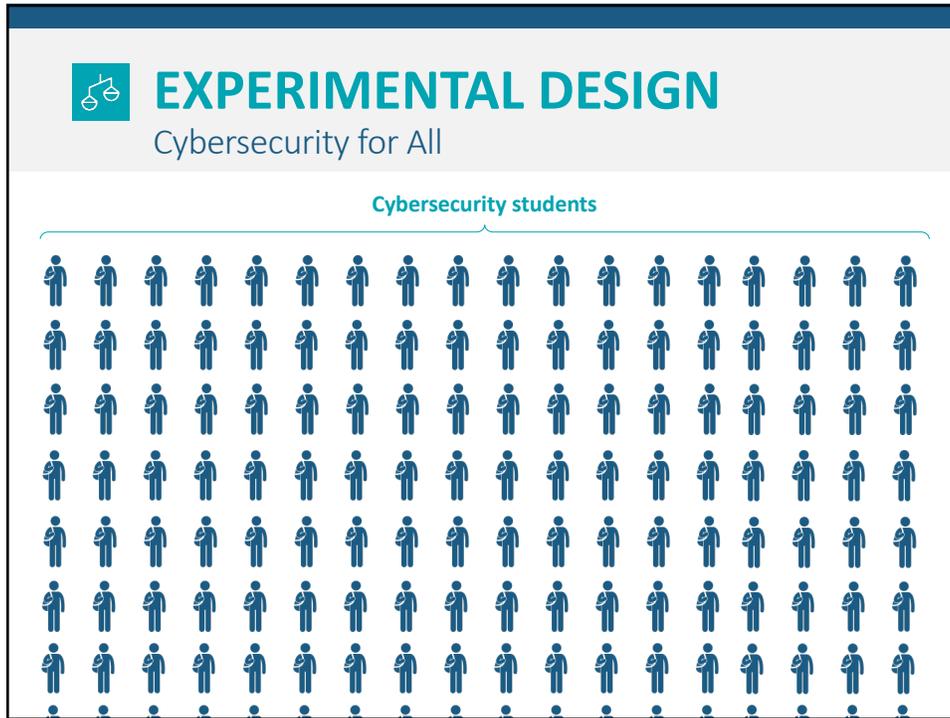
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EVALUATION SCENARIOS

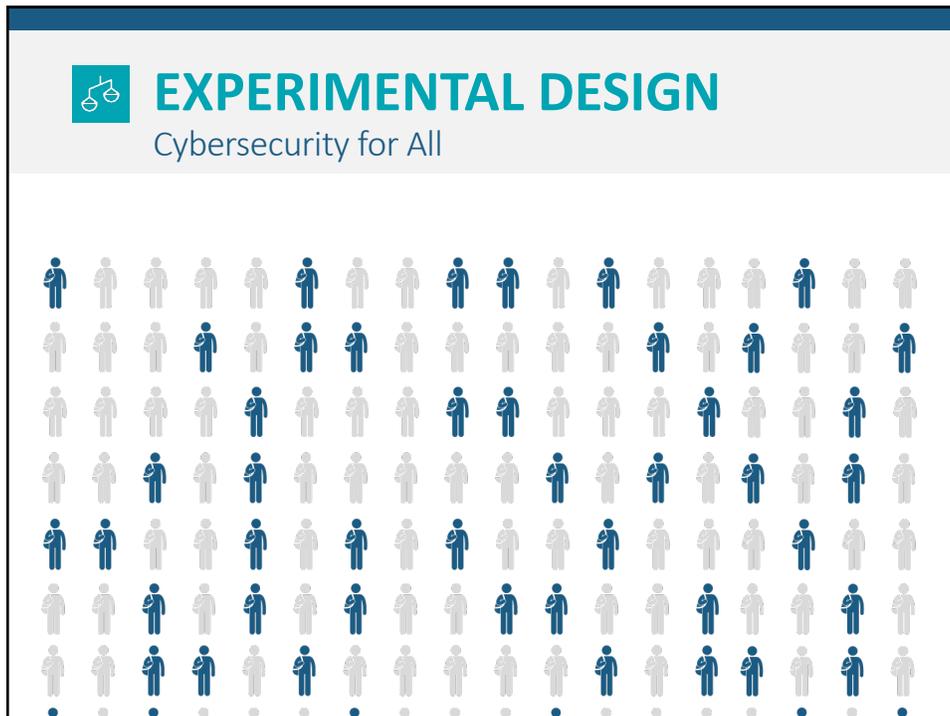
Cybersecurity for All

-  **Experimental Design**
-  **Logical Analysis**
-  **Asking Participants**

41

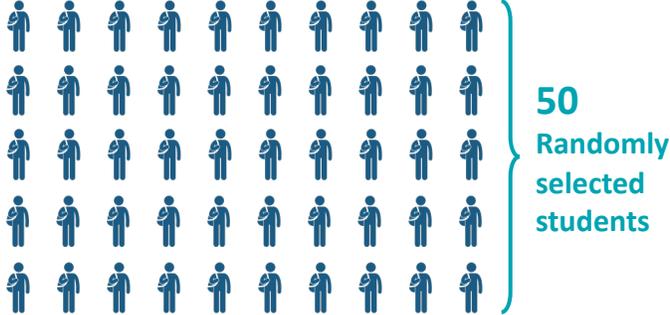


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43

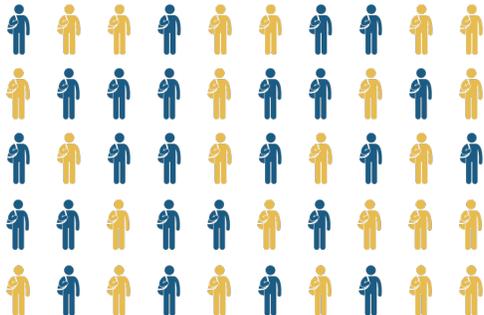
 **EXPERIMENTAL DESIGN**
Cybersecurity for All



50
Randomly
selected
students

44

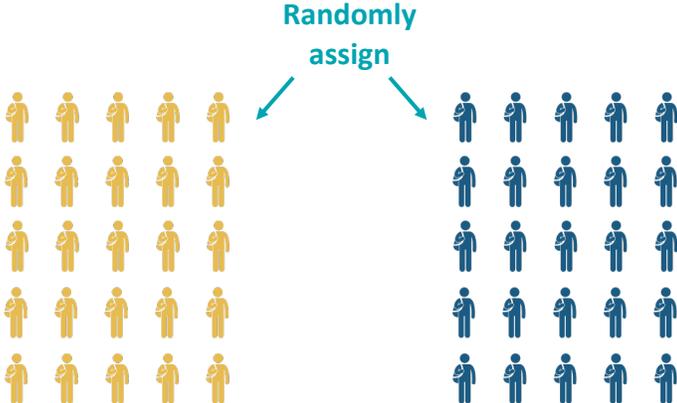
 **EXPERIMENTAL DESIGN**
Cybersecurity for All



45

 **EXPERIMENTAL DESIGN**
Cybersecurity for All

Randomly assign



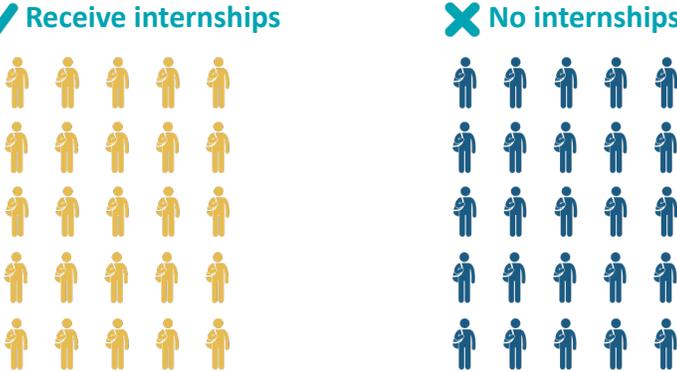
The diagram illustrates the process of random assignment. On the left, there is a 5x5 grid of 25 orange human icons. Two arrows labeled "Randomly assign" point from this grid to two separate groups on the right. The first group consists of 12 blue human icons arranged in a 3x4 grid. The second group consists of 13 blue human icons arranged in a 3x5 grid.

46

 **EXPERIMENTAL DESIGN**
Cybersecurity for All

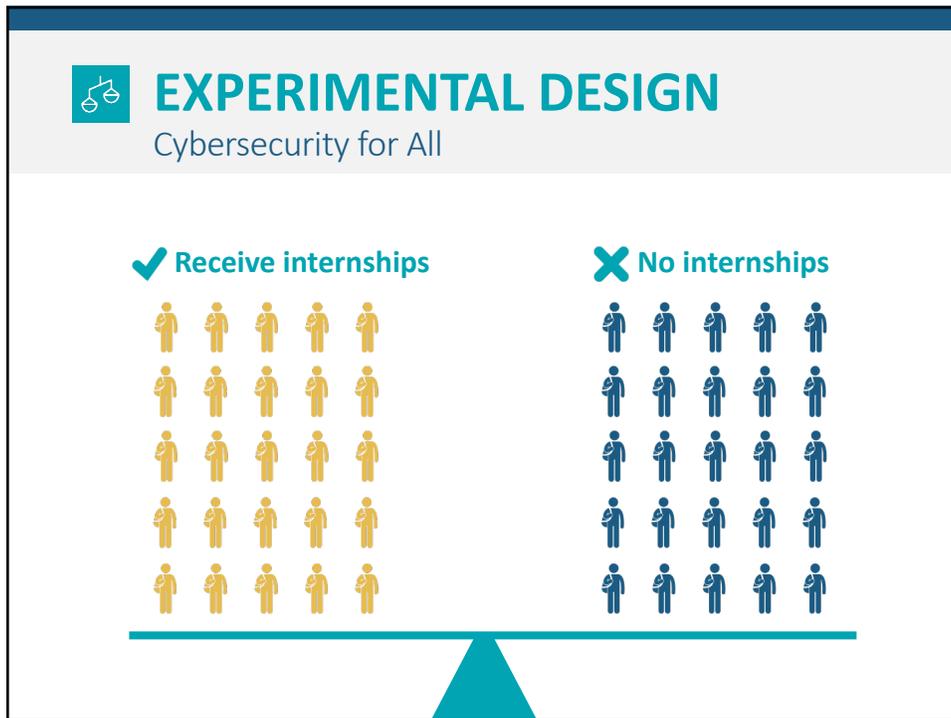
✓ Receive internships

✗ No internships

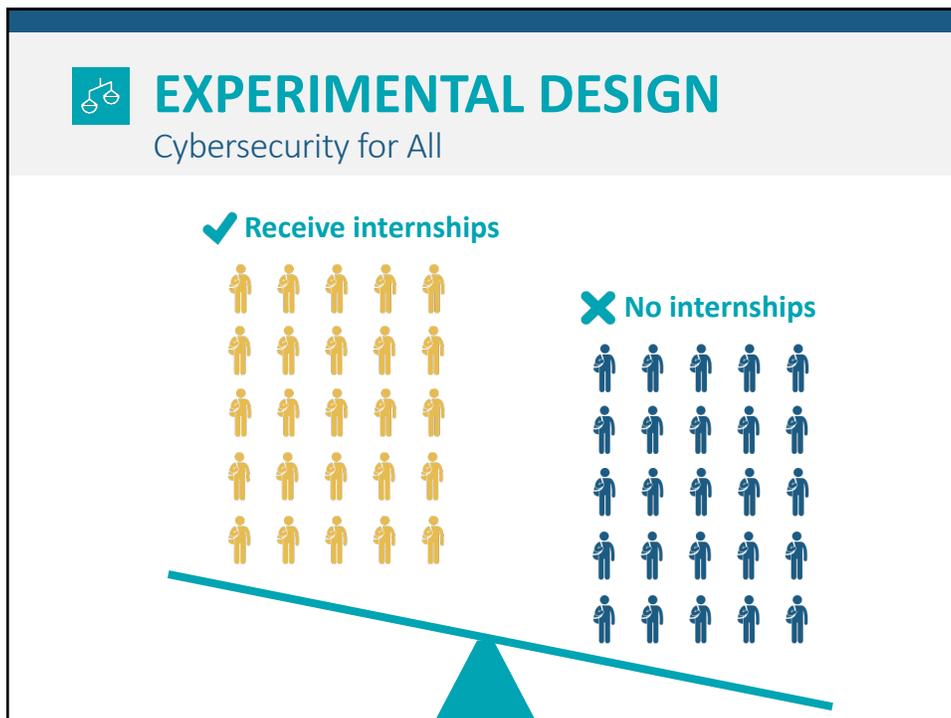


The diagram shows two groups of subjects. On the left, under the heading "Receive internships" with a checkmark, there is a 5x5 grid of 25 orange human icons. On the right, under the heading "No internships" with an X, there is a 5x5 grid of 25 blue human icons.

47



48

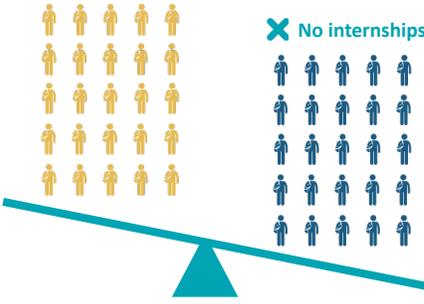


49

 **EXPERIMENTAL DESIGN**
Cybersecurity for All

✓ Receive internships

✗ No internships



Temporal precedence

Covariation of the cause and effect

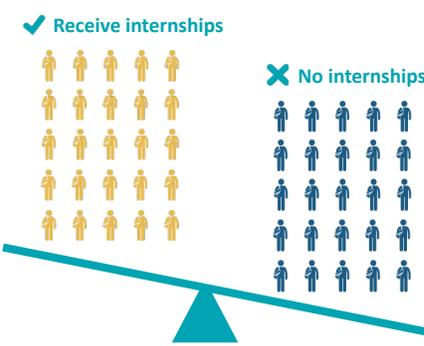
No plausible alternative explanations

50

 **EXPERIMENTAL DESIGN**
Cybersecurity for All

✓ Receive internships

✗ No internships



Temporal precedence

Covariation of the cause and effect

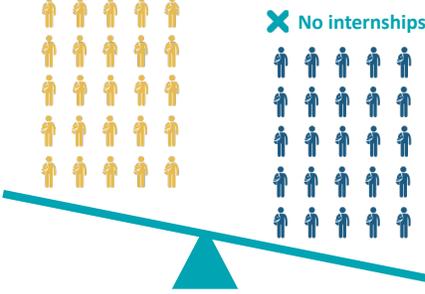
No plausible alternative explanations

51

 **EXPERIMENTAL DESIGN**
Cybersecurity for All

✓ Receive internships

✗ No internships



Temporal precedence

Covariation of the cause and effect

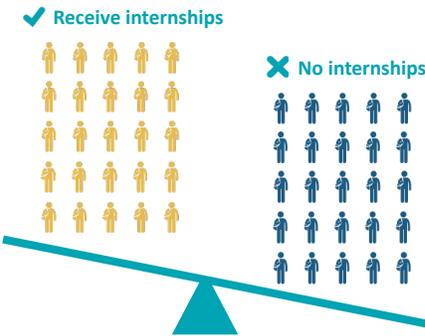
No plausible alternative explanations

52

 **EXPERIMENTAL DESIGN**
Cybersecurity for All

✓ Receive internships

✗ No internships



Temporal precedence

Covariation of the cause and effect

No plausible alternative explanations

53

EXPERIMENTAL DESIGN

Cybersecurity for All

✓ Receive internships

✗ No internships

54

LOGICAL ANALYSIS

Cybersecurity for All

PROJECT LOGIC MODEL

ACTIVITIES

SHORT TERM

IMPACT

55

 **LOGICAL ANALYSIS**
Cybersecurity for All

Does the data
match the
program theory?

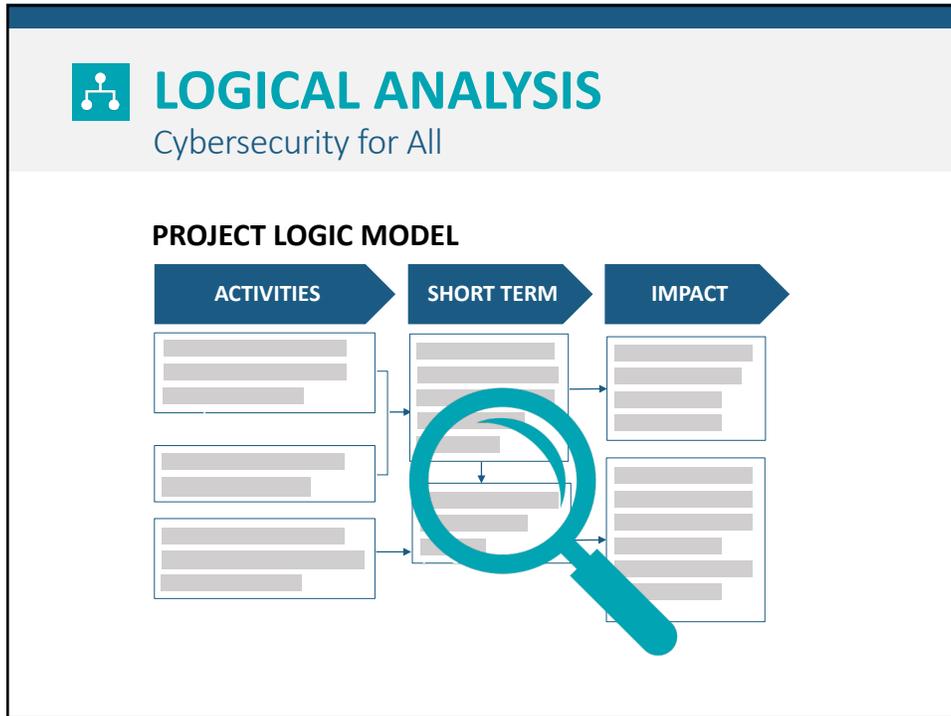
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 **LOGICAL ANALYSIS**
Cybersecurity for All

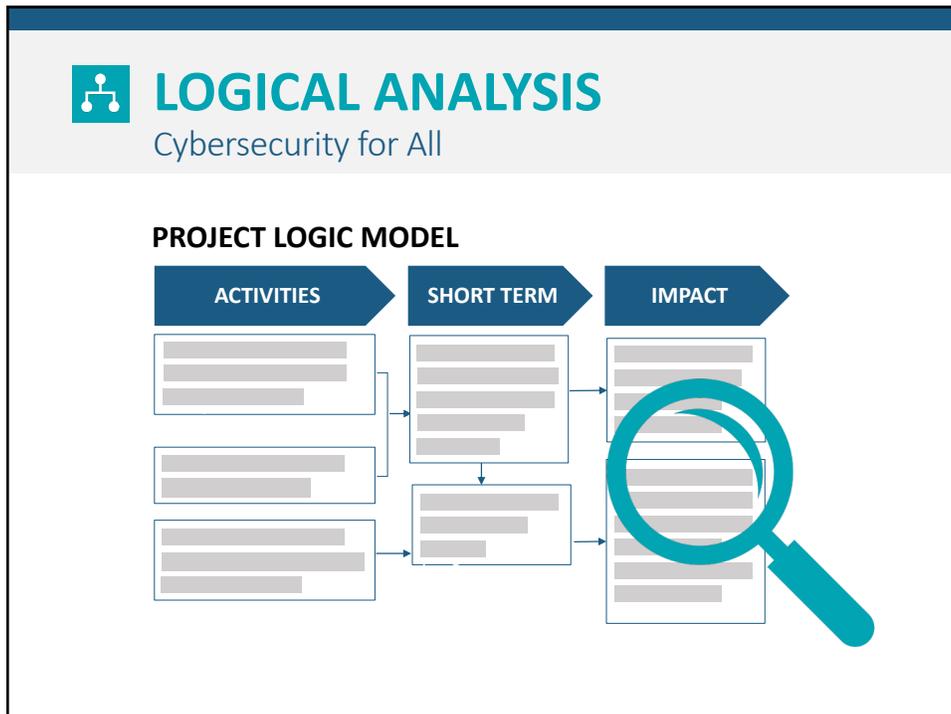
PROJECT LOGIC MODEL

ACTIVITIES SHORT TERM IMPACT

57

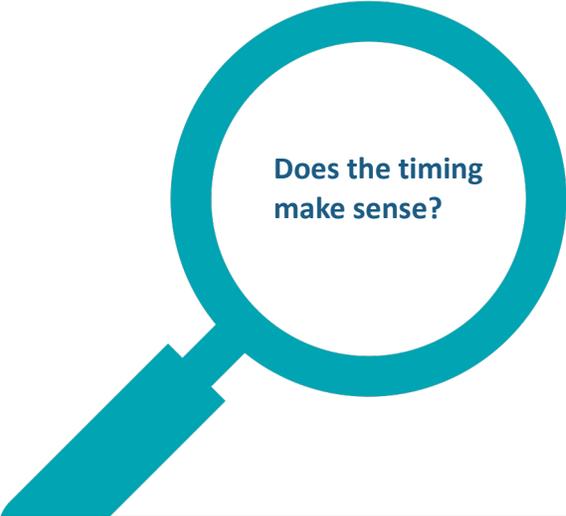


58



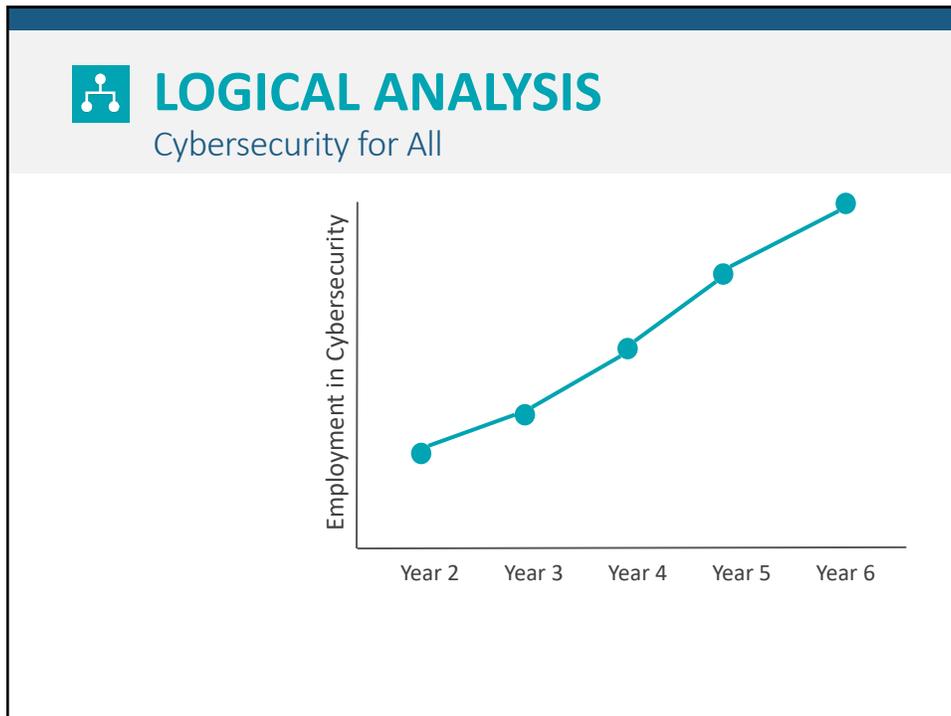
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 **LOGICAL ANALYSIS**
Cybersecurity for All

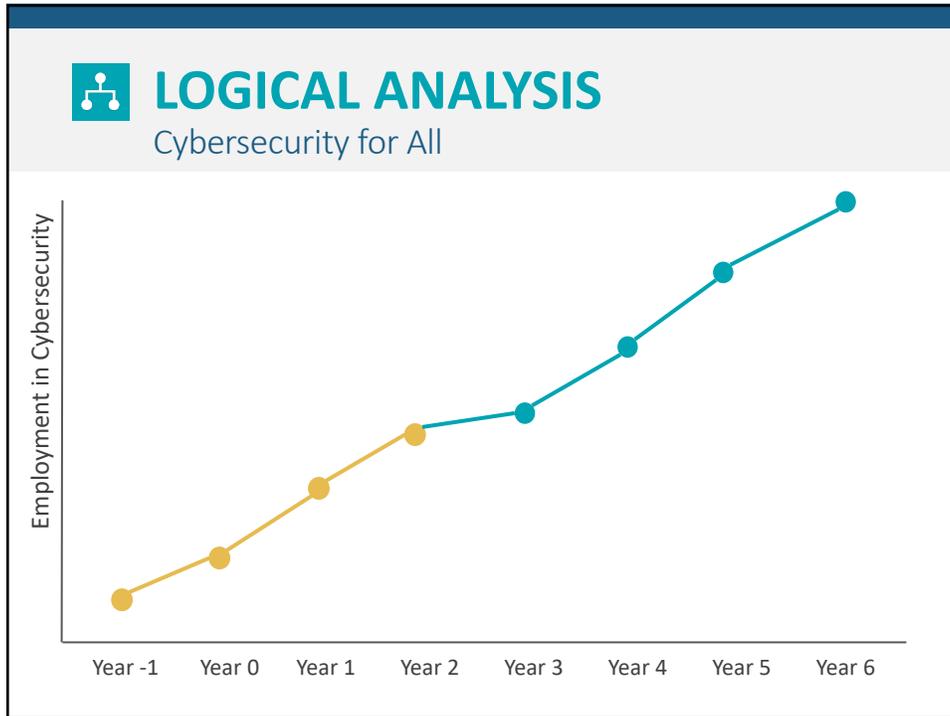


Does the timing make sense?

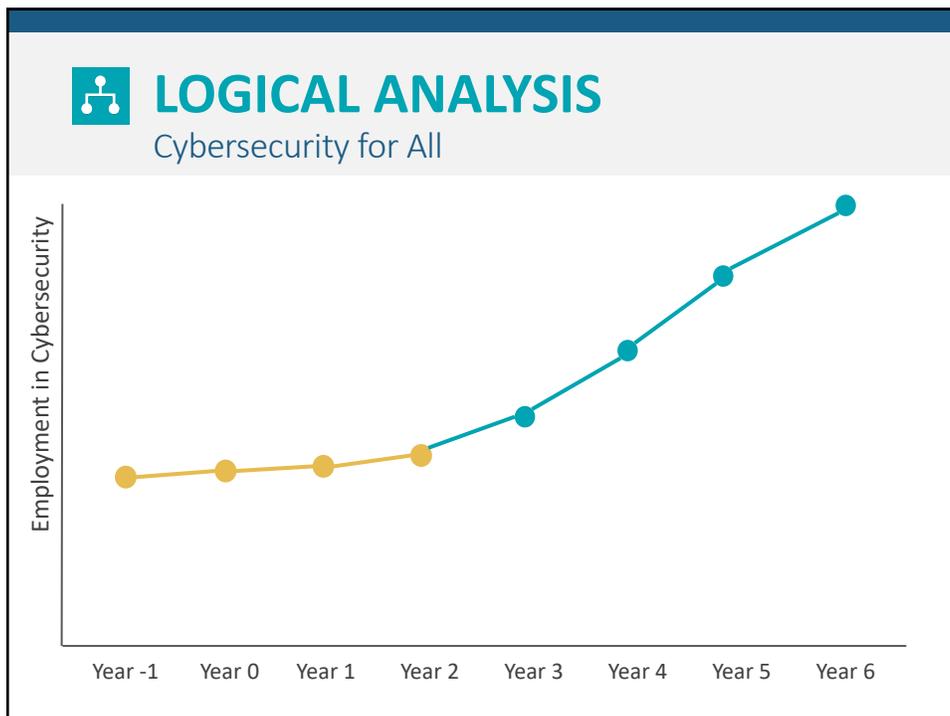
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61



62



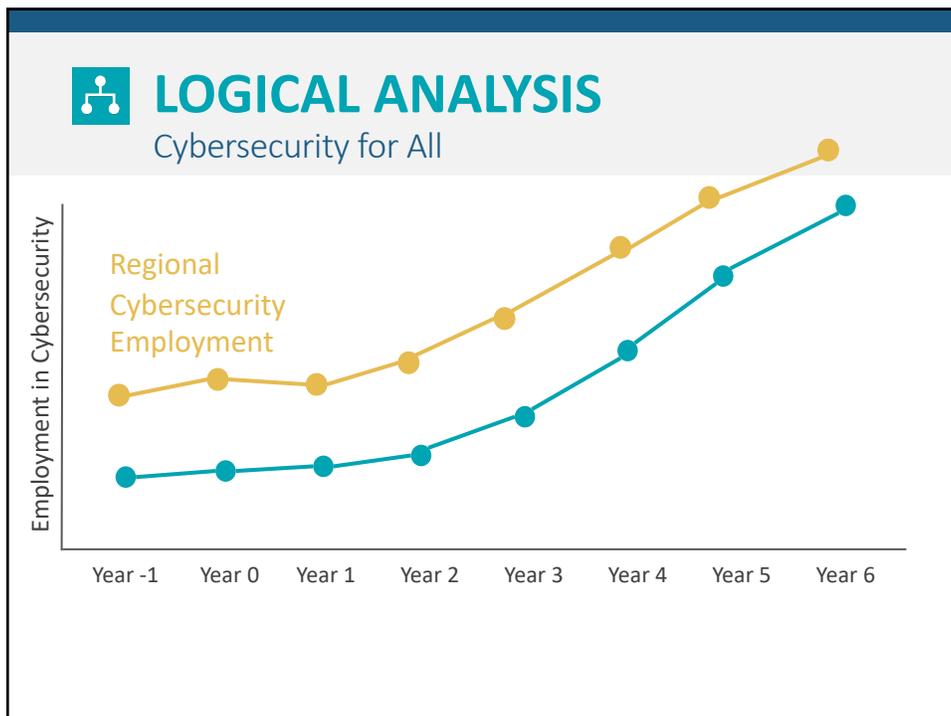
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 **LOGICAL ANALYSIS**
Cybersecurity for All

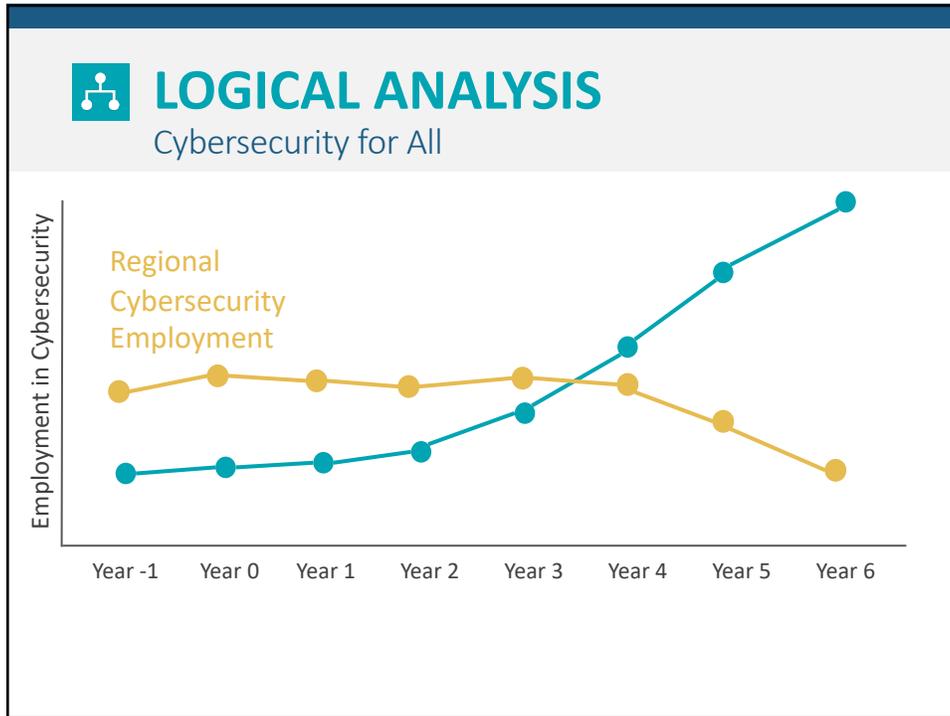


Are there other plausible explanations?

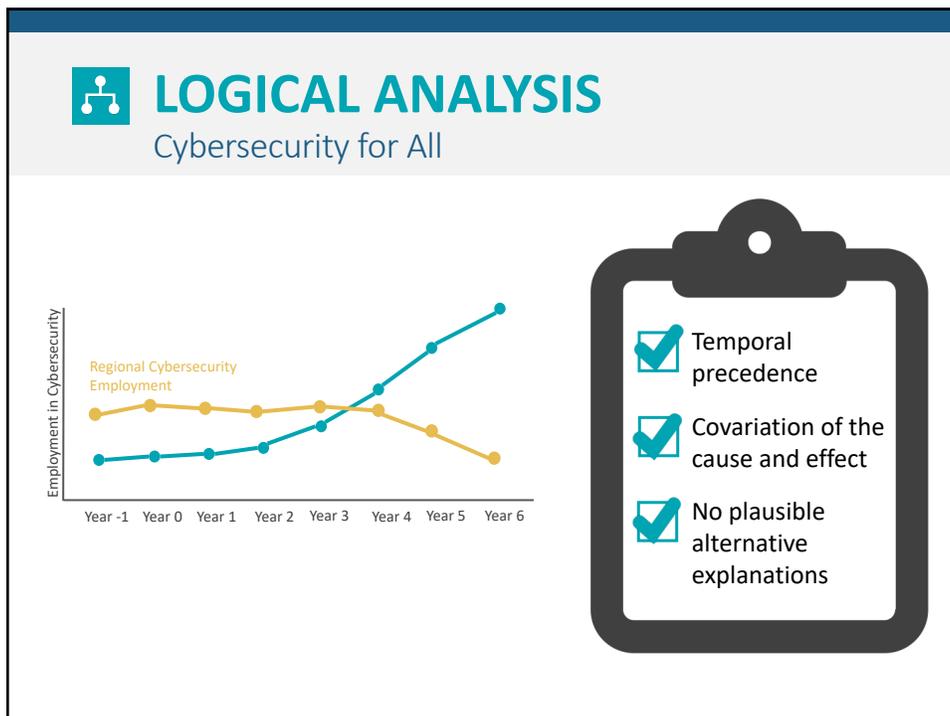
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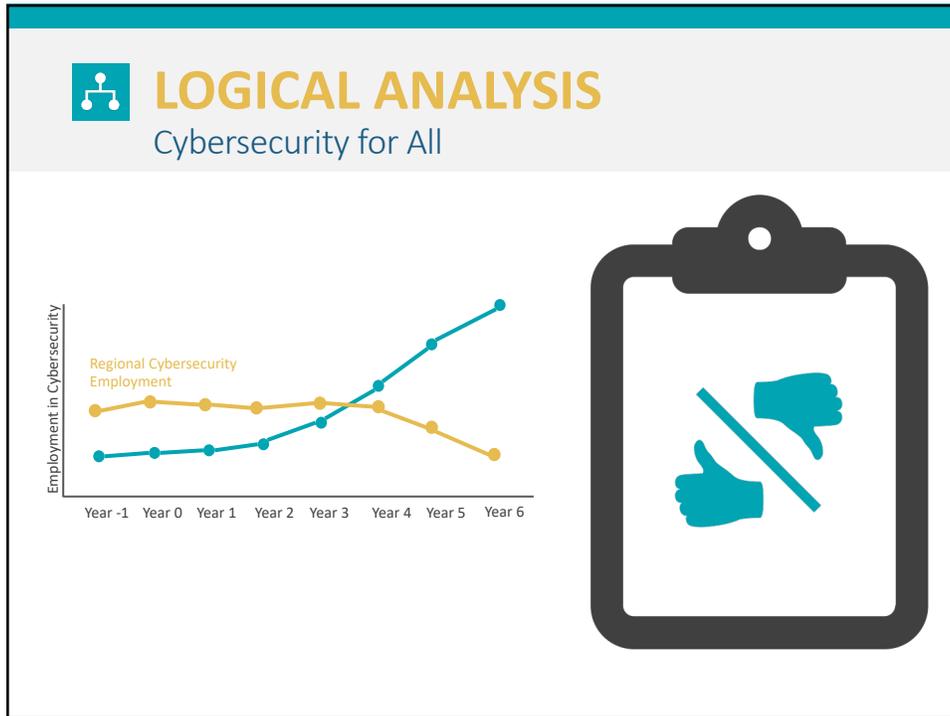
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66



67



68



69

 **ASKING PARTICIPANTS**
Cybersecurity for All

Post Graduation Survey
Wood Hollow Community College
Cybersecurity for All

To what extent did your internship with Cybersecurity for All influence your ability to find employment in the cybersecurity sector?

Not at all Small extent Moderate extent Great extent

70

 **ASKING PARTICIPANTS**
Cybersecurity for All



How was your choice in pursuing cybersecurity as a career path been *influenced* by your internship with Cybersecurity for All?

71

 **ASKING PARTICIPANTS**
Cybersecurity for All



Tell me about the most significant change you saw in your career path after your internship with Cybersecurity for All.

72

 **ASKING PARTICIPANTS**
Cybersecurity for All

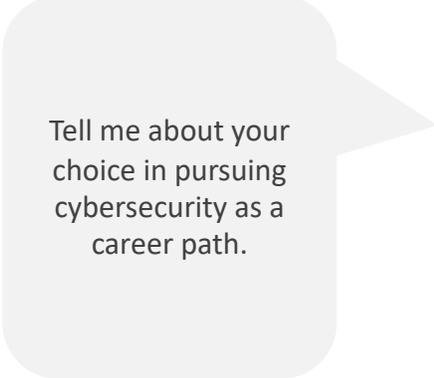


Were there other significant events that impacted your career path in addition to Cybersecurity for All?

73

 **ASKING PARTICIPANTS**
Cybersecurity for All



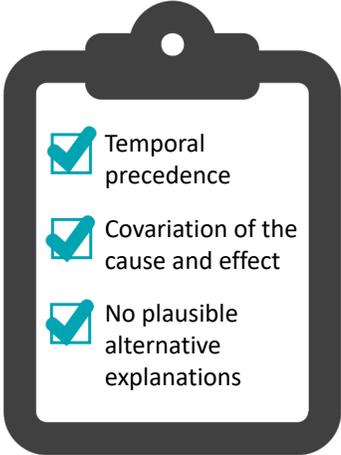

Tell me about your choice in pursuing cybersecurity as a career path.

74

 **ASKING PARTICIPANTS**
Cybersecurity for All





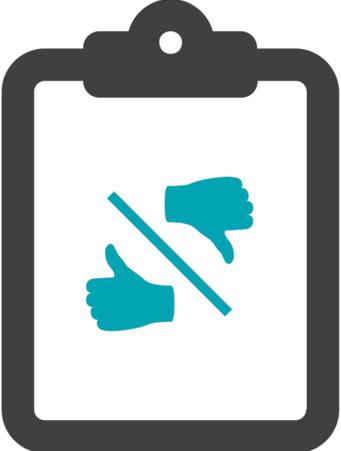


- Temporal precedence
- Covariation of the cause and effect
- No plausible alternative explanations

75

ASKING PARTICIPANTS

Cybersecurity for All



76

IMPACT EVALUATION

-  Measures the long-term effects
-  Attends to causality and the project's role in bringing about these effects
-  Assesses intended and unintended effects

77

DETERMINING CAUSALITY

Three questions to ask

- 1 Did the cause happen before the effect?
Temporal precedence
- 2 Does the effect increase when the cause increases, and decreases when the cause decreases?
Covariation of the cause and effect
- 3 Are there any other plausible explanations that could explain the change in the effect?
No plausible alternative explanations

78

??? QUESTIONS?



79

