NSF-BSF: SaTC: CORE: Small: Evaluating Cybersecurity Precautions and Harms in Israeli Enterprises



Challenge:

- Despite spending more, firms cannot determine whether these investments are effective
- Goal is to strengthen empirical basis of relationship between security defenses and outcomes

Solution:

- Leverage data from firmlevel surveys of cyber defense and attack experience
- Triangulate with outside-in measures of firm security, public incidents

Task 1:

Precaution → Incidents

Security
Precautions

Incidents

Firm
Characteristics

Task 2:
Incidents → Harms

Reactive
Security

Firm
Characteristics

Causal model relating security precautions to incidents and harms

Scientific Impact:

First comprehensive empirical analysis of how organizational cybersecurity investments affect the likelihood of experiencing incidents undertaken at a national level (in this case, Israel)

Broader Impact and Broader Participation:

- Through INCD partnership, findings will have immediate and direct impact on advancing the cybersecurity of the state of Israel and its organizations
- Model for the data that should be gathered and analyzed in the U.S. and beyond in future

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