Client 24-031

Meeting time: 03/27, Wednesday, 9:30 AM

Current stage: Design (Presently collecting data)

Expected completion date: 11/30/2026 (project) 6/1/24 - Next Aggregate Results Report due to the Indiana Office of Technology

Supported by a grant or contract: Yes, Indiana Local Government Assessment Program. Granted to cyberTAP by the Indiana Office of Technology

Background:

The client is a researcher with ITaP/CyberTap interested in analyzing cybersecurity safeguard implementations among IoT technologies.

The client’s project is designed to put local governments in contact with top tier cybersecurity experts, and provide them with practical, prioritized advice about doable, powerful cybersecurity fundamentals. The goal is to make Indiana more secure in the short term and shape our collective cybersecurity strategy and policy for the long term.

They aim to provide data-driven analysis to the Indiana Office of Technology supporting recommendations for action by IOT to advance cybersecurity postures among Indiana's local governmental entities. They created a survey and sent it to Indiana local governments concerning cybersecurity safeguard implementations. The ratings scale of the implementations is qualitative – {Not Implementing, Developing, Implementing, Optimizing}. They are evaluating several qualitative and quantitative factors attempting to determine what factors, if any, are predictive of strong cybersecurity postures as defined by the previously mentioned ratings scale. They decided to come to the SCS to determine if their analysis methods are appropriate for their study, and if possible, optimize their methods for statistical analysis.

The end goal of their study is to create statistical metrics to support recommendations to the Indiana Office of Technology regarding how it can best interact with Indiana local governments to move cybersecurity posture forward in that environment.

Research questions from client:

1. What factors, if any, are statistically significant in predicting cybersecurity posture as defined by Implementation Ratings score?

Statistical issues

1. Are we using the best methods to answer this question?

Discussion points:

1. What type of regression model is the client using?
2. How are the ratings computed. The client included the survey but did not include any descriptions of the variables.
3. What are the current methods the client is using to answer their question? What are their initial results? What is their survey sample size.
4. What specific aspect of cybersecurity is being investigated, and what performance is being assessed and how?
5. Who will do the survey? Who will actually fill out the survey?
6. What exactly does the client want to do with respect to csec? What do they need help with, how do they score the performance, it is missing in the application? Are they interested in the actual performance, or what the government actually wants to do?