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**Fellowship in
Food Protection**

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IFPTI Fellowship Cohort VIII: Research Presentation

Robert F. Leuer, MS

Relationships Between the Violative Conditions Observed at Medicated Feed Manufacturers Inspected by the Minnesota Department of Agriculture; Commercial Feed Program

Robert F. Leuer, MS
IFPTI 2019-2020 Fellow
Minnesota Department of Agriculture

Background

- Prevention is a core element of our food safety system
- Data in the form of violative conditions observed
- Scientific use of this data
 - Relationships between violative conditions
 - Opportunities for regulatory training
 - Outreach plan to industry

Background



- Medicated Feed in livestock has a large financial impact on agriculture
- Disease curative and production enhancing claims
- Risk of creating antimicrobial resistance

Problem Statement

The relationships between the violative conditions observed at medicated feed manufacturers inspected by the Minnesota Department of Agriculture; Commercial Feed Program are not known.

Research Question(s)

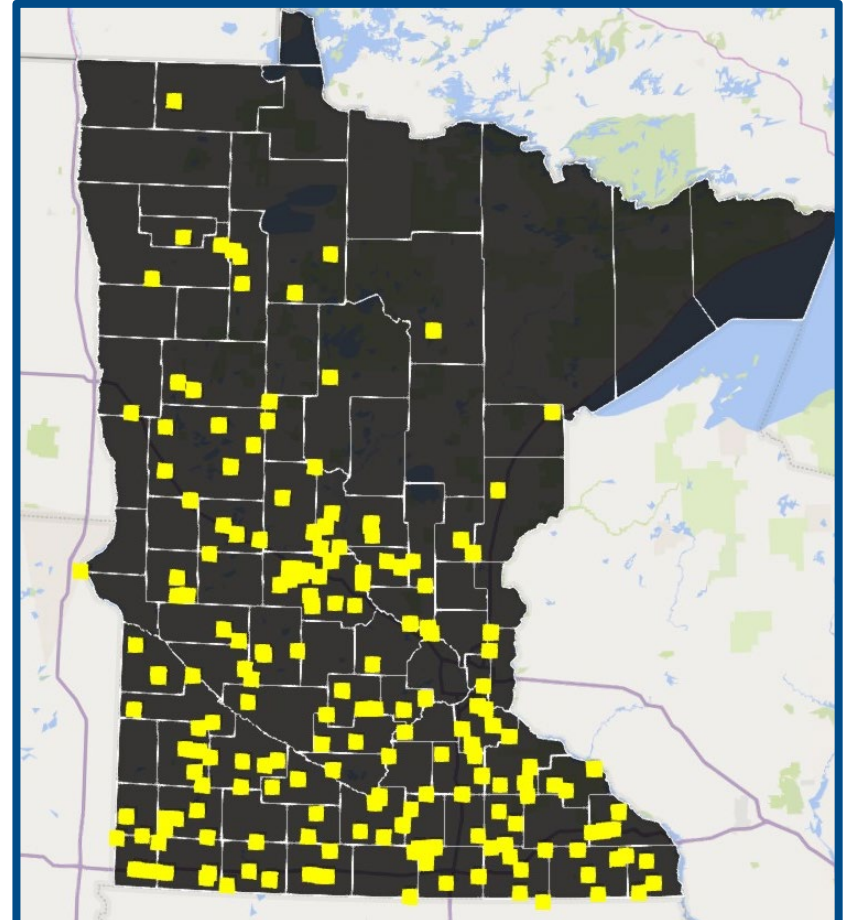
1. Are there relationships between violative conditions for firms regulated by the Minnesota Department of Agriculture; Commercial Feed Program?
2. What regulatory categories can relationships be found in?
3. What statistical tools are useful for determining these relationships?

Methodology

- Obtain inspectional data from USA Food Safety program
 - Medicated Feed Manufactures
 - Current Good Manufacturing Practice Regulations
21 CFR 225.120 – 225.202
 - 2018 & 2019
- Analyze dataset using Microsoft Excel function
CORR

Study Population

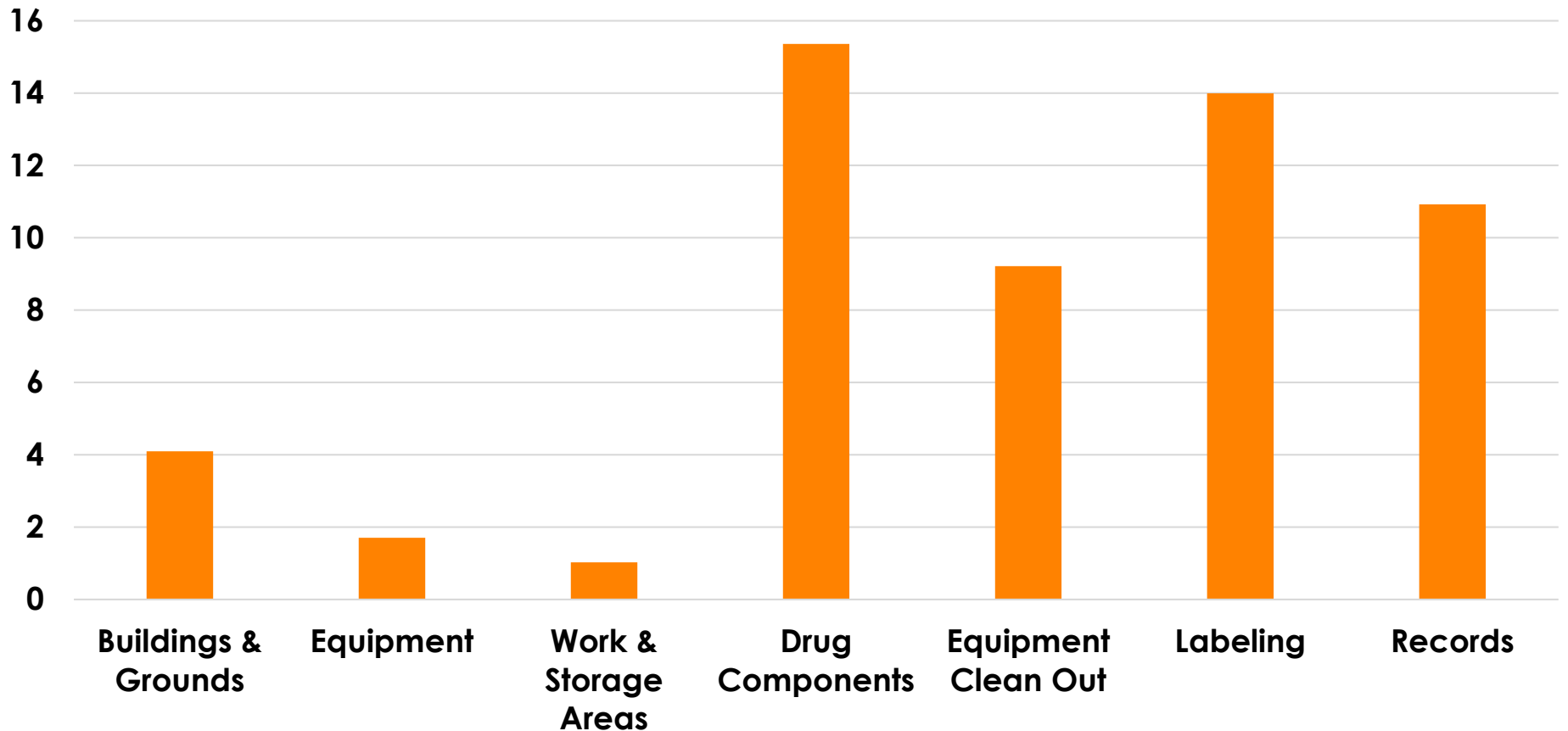
- 197 medicated feed manufactures
- 293 individual initial inspections
- 80 inspection with at least 1 observation



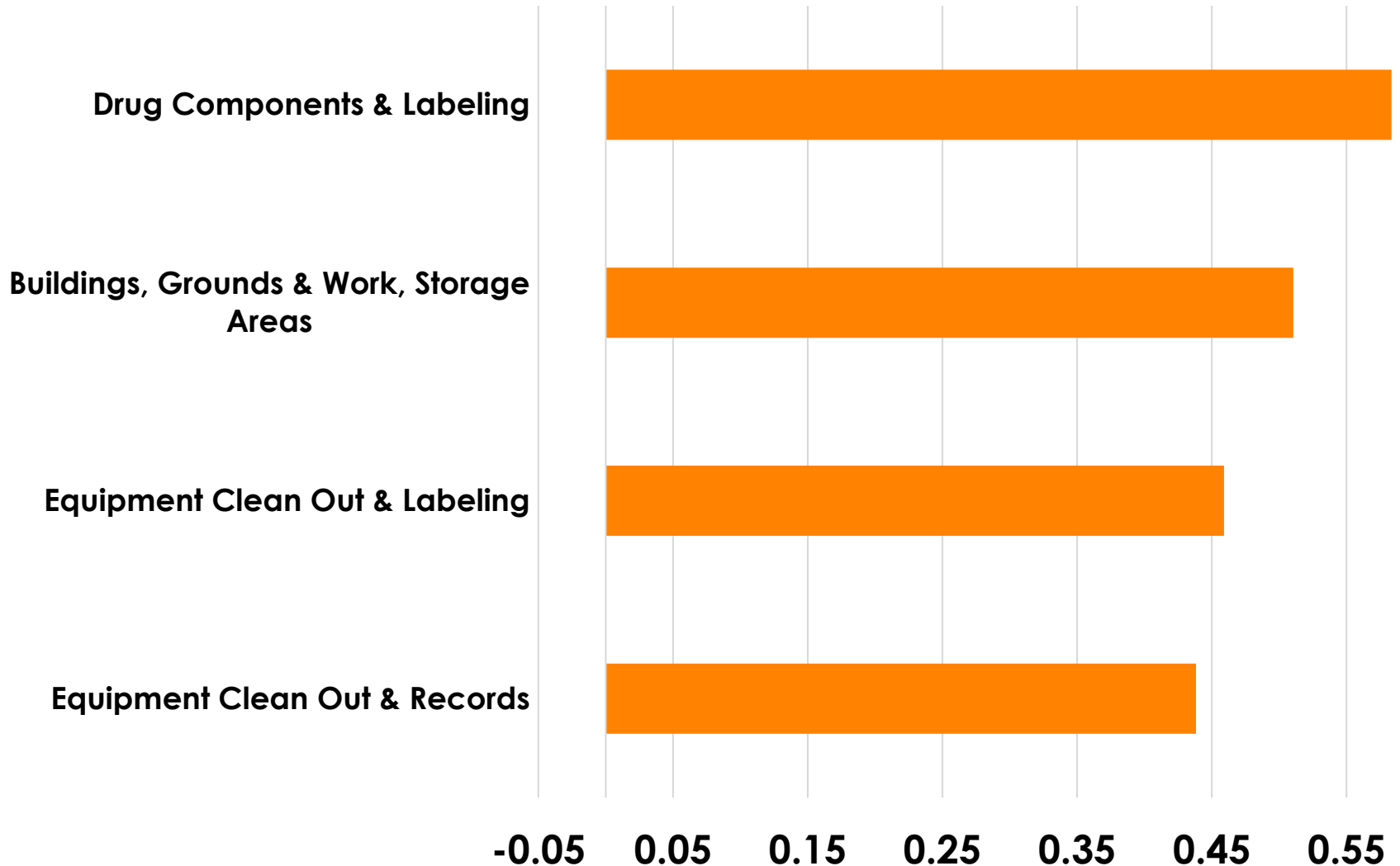
Minnesota Department of
Agriculture

Results

% of Inspections with Violative Observations

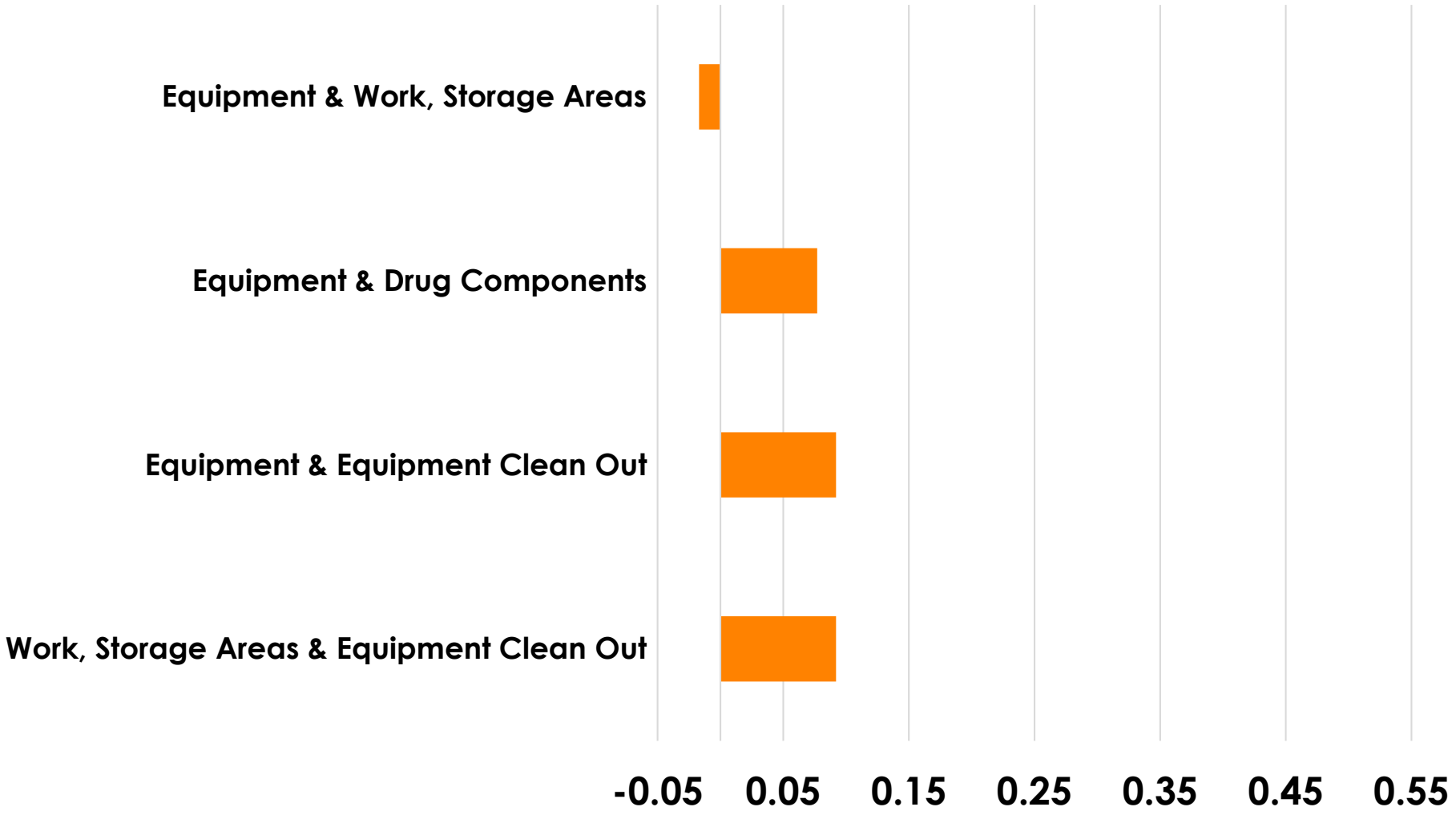


Correlation Coefficients



Results

Correlation Coefficients



Conclusions

- Positive correlations were found
- No strong negative correlations
- Logical relationships between the strongest correlations represent opportunities

Recommendations

1. Focus outreach efforts to increase the literacy and awareness of the importance of correct feed medication use.
2. Correlation studies based on inspectional observations are useful.
3. Inspector training and discussions at program meetings can be facilitated to further understand the implications of the identified correlations.

Recommendations

- Share findings with feed regulatory stakeholders.
- Opportunity for additional research and outreach nationally for increased medicated feed regulatory compliance.
- Use the methodology outlined in this study to examine the correlations that could be found in many food safety regulatory programs.

Acknowledgements

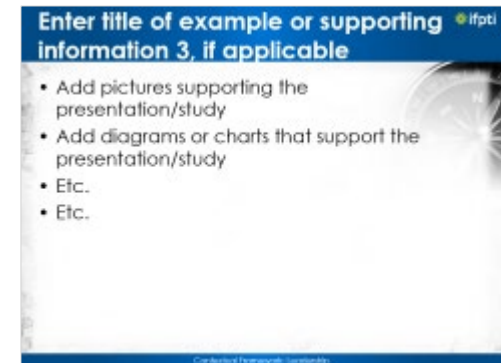
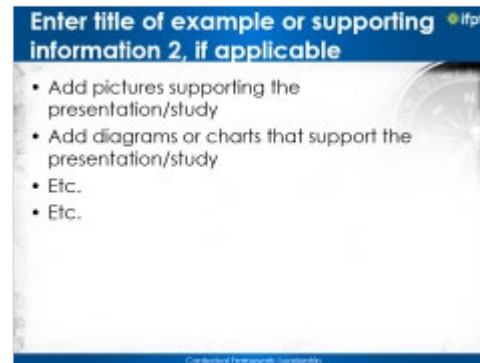
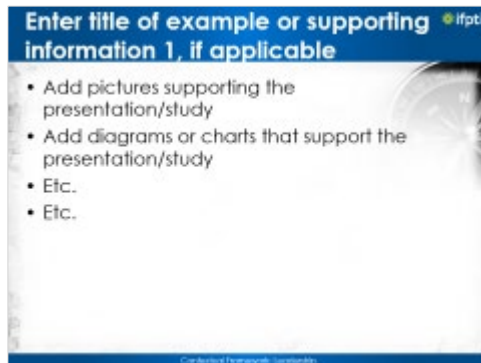
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- My wife Hilary, daughter Clare, and son Freddy for the understanding and time it took to complete this fellowship opportunity

Questions?

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225.120 BUILDINGS AND GROUNDS
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