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# Where *Not* to Eat? Improving Public Policy by Predicting Hygiene Inspections Using Online Reviews

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## **Abstract**

Restaurant hygiene inspections are often cited as a success story of public disclosure. Hygiene grades influence customer decisions and serve as an accountability system for restaurants. However, cities (which are responsible for inspections) have limited resources to dispatch inspectors, which in turn limits the number of inspections that can be performed. We argue that Natural Language Processing (NLP) can be used to improve the effectiveness of inspections by allowing cities to target restaurants that are most likely to have a hygiene violation. In this work, we report the first empirical study demonstrating the utility of review analysis for predicting restaurant inspection results.

**Keywords:** Safety; Food; Governance Compliance; Mathematical Methods; Software; Public Administration Industry; Retail Industry; Food and Beverage Industry;

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