

# New York City Food Inspection Data

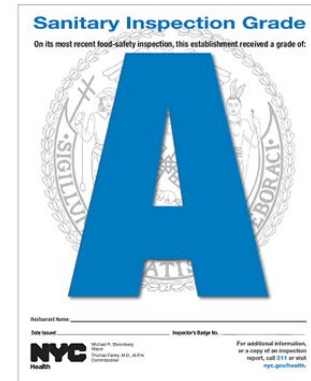
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# Motivation

- Since 2010, restaurants in NYC have been required to post the letter grade they received from their most recent food inspection at their front entrance, where it can be easily seen by potential customers.
- Results from a 2015 survey suggested that these posted letter grades factored in to customer's decisions when dining out.
- Poor food inspection results can harm restaurants financially.



King County



New York City

# Question

Is New York City's criteria for judging an establishment's food safety practices inherently biased against food establishments that serve certain ethnic, non-American cuisines?

# Data

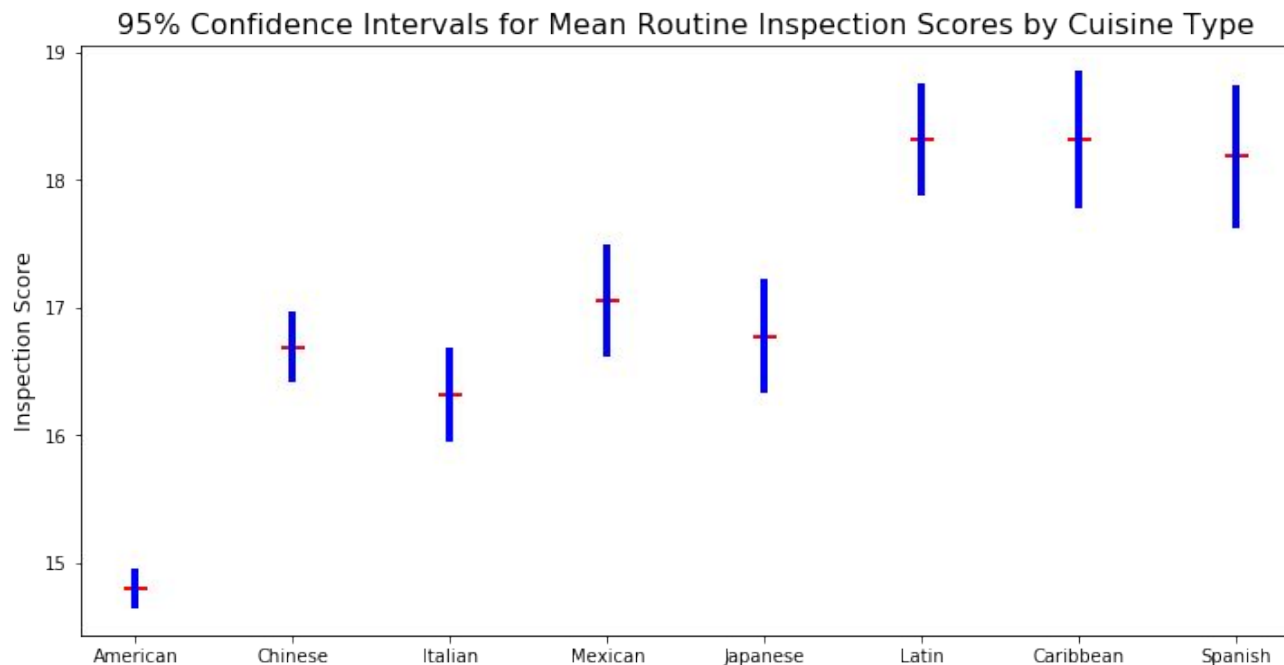


- Publicly accessible through the NYC OpenData portal
- Contains a field for the restaurant's cuisine type that's optionally provided by the restaurant owner/manager, though <5% of restaurant's elected to not specify cuisine type
- Provides inspection data dating back to roughly August 2014

# Considerations

- Compared the 8 most prevalent cuisine types in the dataset (American, Chinese, Italian, Mexican, Japanese, Latin, Caribbean, Spanish)
- The dataset provides a notion of an inspection type, with the main ones being cyclical initial inspections and cyclical re-inspections. I elected to only look at cyclical initial inspections for my analysis, which accounted for >50% of the inspections in the dataset. I will refer to these as routine inspections.
- On top of letter grades, the dataset provides a numerical inspection score where the lower the inspection score, the better. I will be using this inspection score as the metric for success for my analysis.

# Results



- All differences seen here from the American cuisine type are statistically significant with p-values  $< 0.0001$  after running Welch's t-tests.

# Conclusion

- Using routine inspection scores as a metric for success, restaurants in New York City that serve American cuisine perform significantly better on average than their counterparts that serve some of the main, ethnic cuisines.
- Are restaurants that serve ethnic cuisines performing worse on routine inspections because they pose higher health risks to the public? Or are their biases within the city's food safety requirements and inspection adjudication process that hinder their inspection scores?

# Sources

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<https://data.cityofnewyork.us/Health/DOHMH-New-York-City-Restaurant-Inspection-Results/43nn-pn8j>

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