A Nationwide Database of Retail Food Safety Inspections

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Funded by the Sloan Foundation (2011-2014) & The Maryland Innovative Initiative 2014-2015

Maintained by HAZEL analytics
Data posted online by local jurisdictions (as of 2012)

Our Data Warehouse Coverage (2015)

- 87 local health departments
- 34 States
- 895K unique establishments
- 6.8M inspection records
- 18.5M violations
Heterogeneity and Fragmentation

• Out of 87 jurisdictions with online posting of data:
  • 12 provide no numerical count of violations (due to pdf publishing and other non-numerical formats)
  • 23 provide explicit grading in either letter grades or numerical points
  • Number of inspection records per establishment ranges from 1 to 38
  • Number of violations per inspection ranges from 0.066 in San Diego County to 9.35 in Fort Worth City, TX
Example insights from our database

• Of NYC inspections 41% report at least one violation whose description contains the words rodent, vermin, flies, mice, pests, rats, or insects.
  • Compared to 11% in DC, 8% in LA (County), and 6% in Seattle (King County).

• From lowest to highest violations (on average), restaurants with the following words in their establishment names: sandwich, salad, burger, pizza, pasta, japan/sushi, china/chinese.

• Half of our covered jurisdictions indicate whether an inspection is a re-inspection. Among these jurisdictions,
  • on average 10.6% of routine inspections led to a re-inspection
  • 15.1% of the violations found in the routine inspection recurred in the re-inspection.
  • Both numbers range greatly across jurisdictions.
Further evidence for consistency  
(11 jurisdictions in NY, WA, AK, AZ, OH and FL, 2010-2011)

<table>
<thead>
<tr>
<th>Poisson Model</th>
<th>Dependent Variable = # of hospitalizations due to intestinal infection per zip code per year</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
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<tbody>
<tr>
<td># of violations per inspection</td>
<td>0.066***</td>
<td>0.076***</td>
<td>0.075***</td>
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<tr>
<td>ZIP pop</td>
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<tr>
<td># of inpatients due to other digestive illnesses</td>
<td></td>
<td>x</td>
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<td>x</td>
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<tr>
<td># of inpatients due to all other illnesses</td>
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<td>Year FE</td>
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To summarize

• Online posting of government-collected data is only the first step
  – Significant effort is needed in centralization, cleaning, documentation, archive, and continuation

• Large potential to utilize the “big data”
  – For research
  – For government policy evaluation
  – For enhanced compliance

• We welcome data request!