A Nationwide Database of Retail Food Safety Inspections

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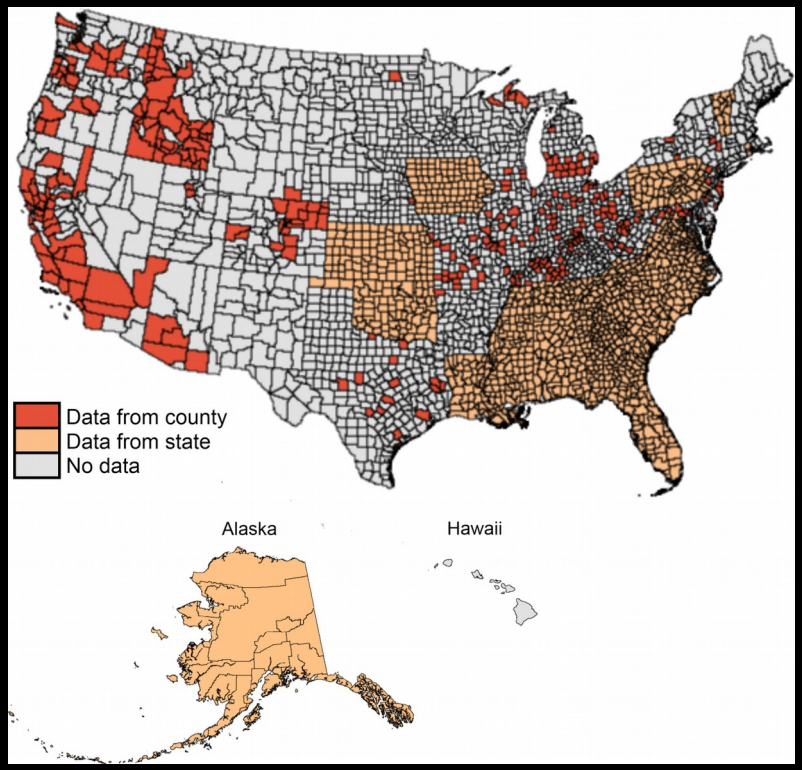
Maintained by HAZEL analytics

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

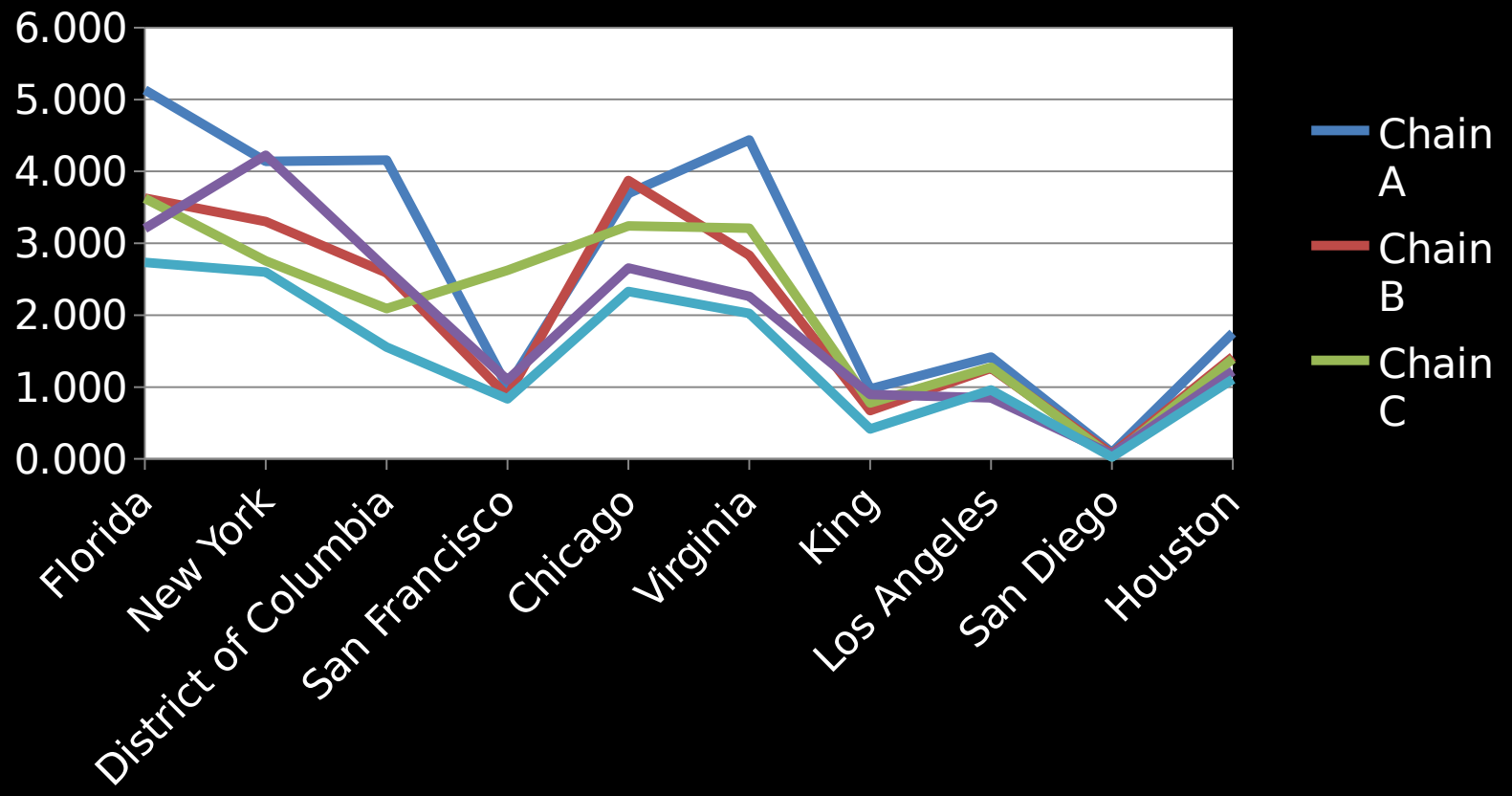
Example insights from our database

- 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.

Consistency



Further evidence for consistency
(11 jurisdictions in NY, WA, AK, AZ, OH and FL, 2010-2011)

Poisson Model	**Dependent Variable = # of hospitalizations due to intestinal infection per zip code per year**		
	(1)	(2)	(3)
# of violations per inspection	0.066***	0.076***	0.075***
	(0.022)	(0.021)	(0.022)
ZIP pop	x	x	x
# of inpatients due to other digestive illnesses		x	x
# of inpatients due to all other illnesses			x
Year FE	x	x	x
Jurisdiction FE	x	x	x
Standard error	robust	robust	robust
N	2678	2678	2678

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!