

Federal, State and Local Government Datasets

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Government data pertaining to inspections have become increasingly accessible

- Data.gov initiative launched in 2009 by Vivek Kundra, first Federal Chief Information Officer, to make government data accessible
 - Goal to provide access in the form of machine-readable datasets to all Federal data that are not private or restricted for national security reasons
 - Selected state, city and county data sets also now listed on Data.gov website
- Inspections datasets included in Data.gov cover a wide range of domains. Some examples:
 - Workplace safety—OSHA Enforcement Dataset; contains case detail for more than 100,000 inspections conducted per year
 - Product safety—FDA Inspection Database; contains dates and outcomes for inspections related to currently marketed FDA-regulated products
 - Environmental compliance—EPA Enforcement and Compliance History Online (ECHO); contains downloadable information about environmental inspections, violations, and enforcement actions for EPA-regulated facilities



Making data public a huge step forward, but more involved in using them to learn about what works and what doesn't

- Inspection activities often targeted on firms where agency believes there are likely to be problems
 - Random inspections commonly viewed as inefficient use of resources
 - If inspections targeted, cannot assume difference in outcomes for inspected versus non-inspected firms caused by the inspections
- Deep knowledge of agencies' policies and procedures required to identify quasi-experimental variation that allows for causal analysis based on existing data. Some examples:
 - Identification of exogenous factors that drive inspection activity
 - Identification of dimensions along which inspection is random
 - Phased rollout of new approaches to inspection
 - Regional variation in approaches to inspection
 - Size cutoffs that determine whether a facility is inspected



“The Impact of Team Inspections on Enforcement and Deterrence,” Muehlenbachs, Staubli and Cohen, 2015

- Authors interested in whether the size of the team sent to inspect an off-shore oil platform affects the number of violations recorded
- Have detailed data on oil platform inspections from the Bureau of Safety and Environmental Enforcement, Department of the Interior, together with data from other sources about the platforms and their characteristics
- Issue: More inspectors may be scheduled to inspect platforms when a larger number of violations is anticipated
- Approach: Exploit fact that, if high winds prevent inspectors from visiting the platforms for which they are scheduled on a particular day, those inspectors may be added to the teams where the weather is better and the inspection can proceed



“Randomized Government Safety Inspections Reduce Worker Injuries with No Detectable Job Loss,” Levine, Toffel and Johnson, 2012

- Authors interested in how workplace safety inspections affect subsequent injury rates as well as employment, sales, credit ratings and firm survival
- Have detailed data on inspections in the state of California from the Occupational Safety and Health Administration, Department of Labor, as well as information from other sources about establishments in the state
- Issue: Inspections generally target workplaces with recent accidents or safety complaints that are more likely to have continuing safety issues
- Approach: Exploit fact that, from 1996 to 2006, Cal/OSHA randomly selected workplaces in high-injury industries for inspections



Randomized experiments the gold standard for evidence about what works and what doesn't

- Resource limitations and legal environment may constrain what is possible, but opportunities for experimentation nonetheless are likely to exist. For example:
 - If resource constraints mean that not all establishments or facilities can be inspected, identify a target group and randomize inspections within the group
 - If changes in inspection procedures are to be made, design phase-in of new procedures to support evaluation of the changes
- In many cases, it will be possible to use existing databases to evaluate the results of such experiments, so that separate data collection is not required



Discussion questions

- Can you think of past changes in agencies' inspection procedures that might be studied to shed light on best practices?
 - Questionnaire we have distributed asks about this; please share your thoughts!
 - Would like to find a way to surface this information on an ongoing basis
- Can you think of experiments with regard to inspections that it would be feasible for your agency or another agency to carry out?
 - Would need to think about both the likely cost of implementing the experiment and any legal barriers to doing so

