Incentives for Food Safety and the Public Disclosure Food Safety Performance in Chicken Slaughter

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The Safety of Chicken

– Chicken is a major source of *Salmonella*, the second leading cause of foodborne illness in the U.S.

– Market Failure

  • Buyers cannot evaluate food safety, giving business an incentive to under-provide food safety
Incentives for Food Safety

• Businesses incur costs if determined to be a source of foodborne illness, i.e. reputation matters

• FSIS inspects plants; enacts Pathogen Reduction /Hazard Analysis Critical Control Point rule (PR/HACCP) in 1996
Share of young chickens testing positive for *Salmonella* over 2000-14.

Source: Author’s estimates using FSIS data.
Variables for Empirical Tests

• Food Safety Performance
• Plant size
• Plant further processing
• Performance of sanitation tasks
• Additional plant controls
• Food safety market environment
Possible Data

• FSIS Administrative Data

• Census Microdata

• Industry-level public data
The Limits of FSIS Administrative Data

• Has food safety process control information
• No cost or revenue information.
• No product information.
• Little information on plant characteristics.
  – FSIS contracts with Research Triangle Institute (RTI) and Dunn and Bradstreet for some data, but most data is imprecise.
Linking FSIS Data to Establishment-Level Economic Data from Census

• Data set would have extensive food safety, cost, and production information.

      BUT

• There would be many data leakages:
  – Poor matches of FSIS data with Census data
  – FSIS does not collect some key information each year.
The Data I Used

• Administrative Data
  – Three regulatory areas: *Salmonella* test results; sanitation and process controls; inspection of animals.
  – Plant economic data: multi-plant firm and number of employees obtained under contract with Dunn and Bradstreet

• Food Safety Environment
  – Number of plants suffering recalls, controls for aggregate changes in *Salmonella* levels.
Effect of Regulatory Periods on Performance on *Salmonella* tests.

- The percent of samples testing positive for *Salmonella* dropped by about 10.5 percent.

- By 2011, about 80 percent of all young chicken slaughter establishments had *Salmonella* levels equal to one-sixth the tolerance that had existed in 2005.
Thank You!

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