Taken by Storm: Business Survival in the Aftermath of Hurricane Katrina*

Emek Basker and Javier Miranda

Fifth Annual Microeconomics Conference
Federal Trade Commission
November 2012

Disclaimer: The views expressed are those of the authors and not necessarily those of the U.S. Census Bureau. All results have been reviewed to ensure that no confidential information is disclosed.
Sharkheads Souvenir Store, Biloxi, MS

Source: Monsterchef.net
Which Businesses Survived the Storms?

- Damaged vs. undamaged
Which Businesses Survived the Storms?

- Damaged vs. undamaged
- Small firm vs. large firm
Which Businesses Survived the Storms?

- Damaged vs. undamaged
- Small firm vs. large firm
- Far from bank vs. near bank
Which Businesses Survived the Storms?

- Damaged vs. undamaged
- Small firm vs. large firm
- Far from bank vs. near bank
Which Businesses Survived the Storms?

- Damaged vs. undamaged
- Small firm vs. large firm
- Far from bank vs. near bank
Data Sources

- Longitudinal Business Database (LBD)
  - Geocoded all MS stores, restaurants, and hotels
- Federal Emergency Management Administration (FEMA)
- Economic Census
Mississippi Trends

- **Damaged Area**
- **Undamaged Area in Damaged County**
- **Rest of State**

Graph showing establishment count relative to 2002 from 2002 to 2008.
Exit Models

- Cross-sectional linear probability models
- Damage vector:
  - Limited/moderate damage
  - Extensive/catastrophic damage
- Firm size interacted with damage vector
- Additional controls: establishment age and employment, productivity, productivity×damage, 82 county FE, 110 six-digit NAICS FE
- Three time periods:
  - 2004–06 (short run)
  - 2004–08 (long run)
  - 2002–04 (falsification exercise)
\[ \text{Prob(Exit | Extensive or Catastrophic Damage)} - \text{Prob(Exit | No Damage)} \]
Bank Proximity

- Geocoded all MS banks, calculated distance to nearest bank or bank branch (LBD)
- Triple-difference regression: interact distance with damage vector, firm size, and damage\(\times\)firm size
- Continue to control all other covariates
\[ \text{Prob(Exit | Extensive or Catastrophic Damage, FirmSize=1)} - \text{Prob(Exit | No Damage, FirmSize=1)} \]
Counterfactual?
\[ \text{Prob(Exit | Extensive or Catastrophic Damage, FirmSize=1)} - \text{Prob(Exit | No Damage, FirmSize=1)} \]
Summary

- Vulnerable establishments are more likely to exit immediately following damage
  - Establishments in small firms
  - Establishments located far from banks
  - Establishments in small firms located far from banks
Summary

- Vulnerable establishments are more likely to exit immediately following damage
  - Establishments in small firms
  - Establishments located far from banks
  - Establishments in small firms located far from banks

- Evidence consistent with credit/resource constraints
  - Credit?
  - Insurance?
  - Information?
  - Skill?
Sharkheads Souvenir Store, Biloxi, MS

Source: Sharkheads.com
Thank you