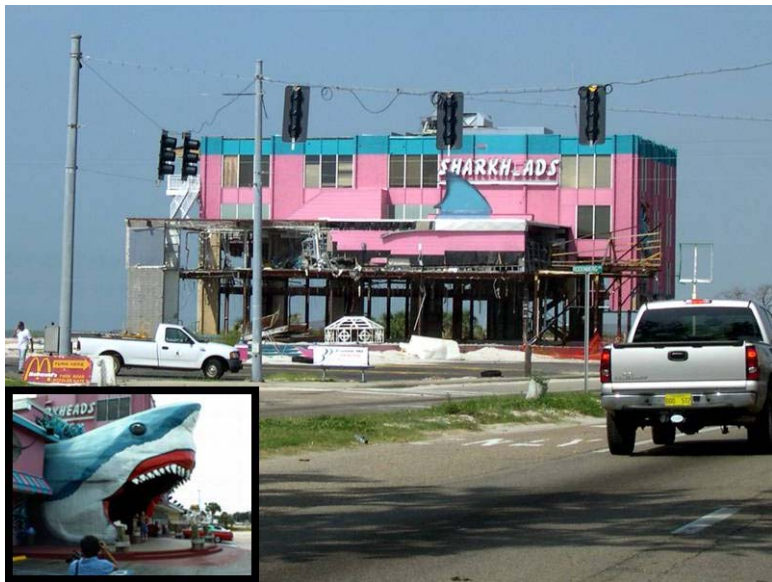# Taken by Storm: Business Survival in the Aftermath of Hurricane Katrina (and Rita)[*]

Emek Basker and Javier Miranda

Sharkheads Souvenir Store, Biloxi, MS

Which Businesses Survived the Storms?

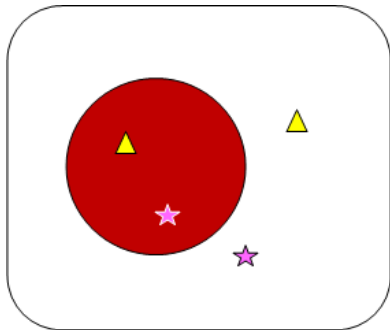- Damaged vs. undamaged

Which Businesses Survived the Storms?

- Damaged vs. undamaged
- Small firm vs. large firm

Which Businesses Survived the Storms?

- ▶ Damaged vs. undamaged

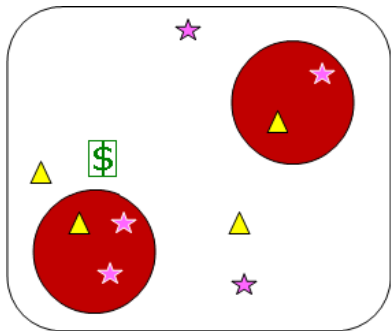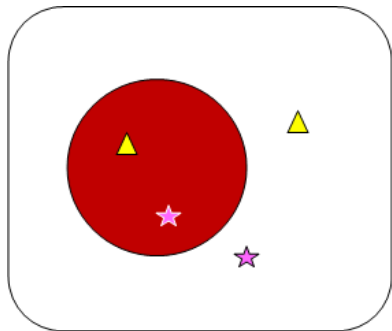- ▶ Small firm vs. large firm

- ▶ Far from bank vs. near bank

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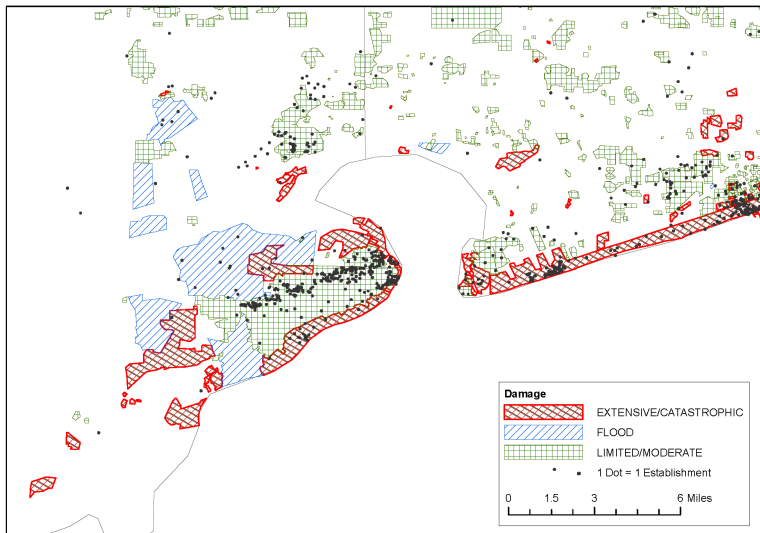- ▶ Small firm vs. large firm
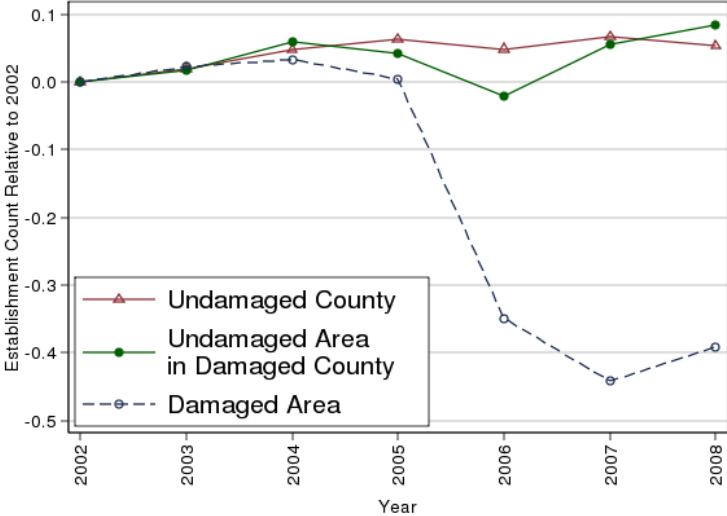- ▶ Far from bank vs. near bank

Data Sources

- Longitudinal Business Database (LBD)
- Federal Emergency Management Administration (FEMA)
- Economic Census

Katrina Damage: Hancock & Harrison Counties, MS

Mississippi Trends

Exit Models

- Cross-sectional linear probability models

- Damage vector:
    - Flood damage
    - Limited/moderate wind damage
    - Extensive/catastrophic wind damage

- Interact firm size with damage vector

- 14 county FE and 110 six-digit NAICS FE

- Additional establishment controls: age and employment

- Three time periods:
    - 2004–06 (short run)
    - 2004–08 (long run)
    - 2002–04 (falsification exercise)

Prob(Exit | Extensive or Catastrophic Damage) − Prob(Exit | No Damage)


Chain Size (Establishments)
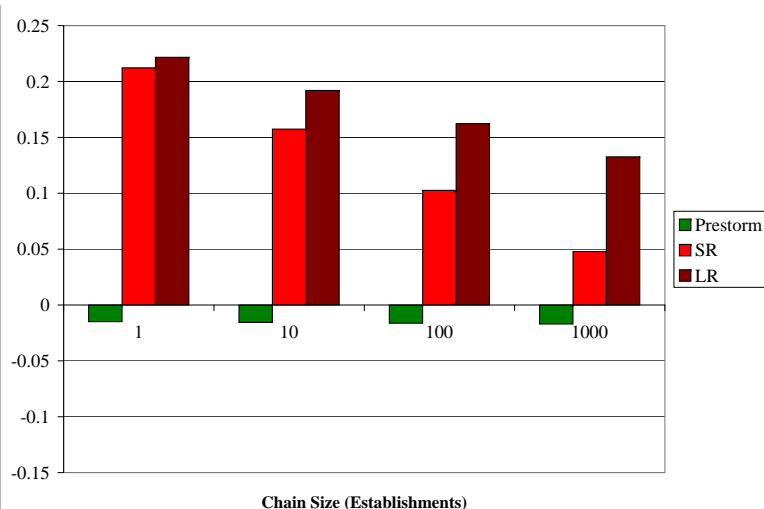
Credit Constraints or Crappy Business?

Credit Constraints or Crappy Business?

- Subset on establishments at least two years old (and included in the 2002 Census of Retail or Census of Services)

- $\ln(\text{productivity}) = \ln\left(\frac{\text{revenue}}{\text{payroll}}\right)$

  - Allow for different effects by sector
  - Fully interact with damage level

Prob(Exit | Extensive or Catastrophic Damage) − Prob(Exit | No Damage)
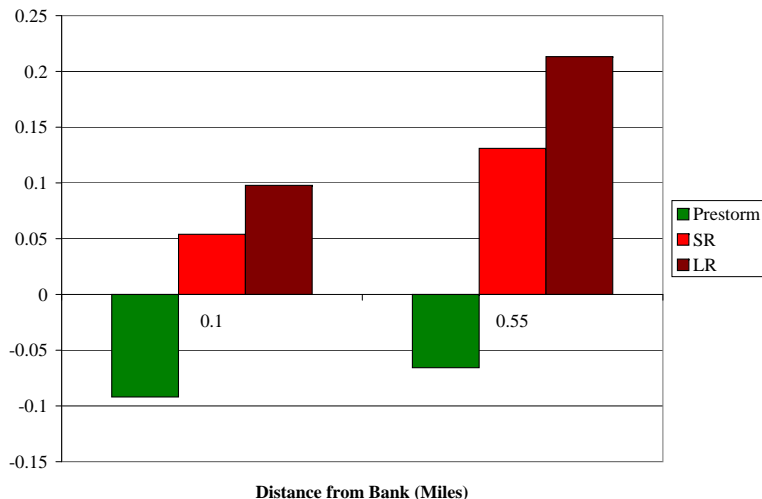

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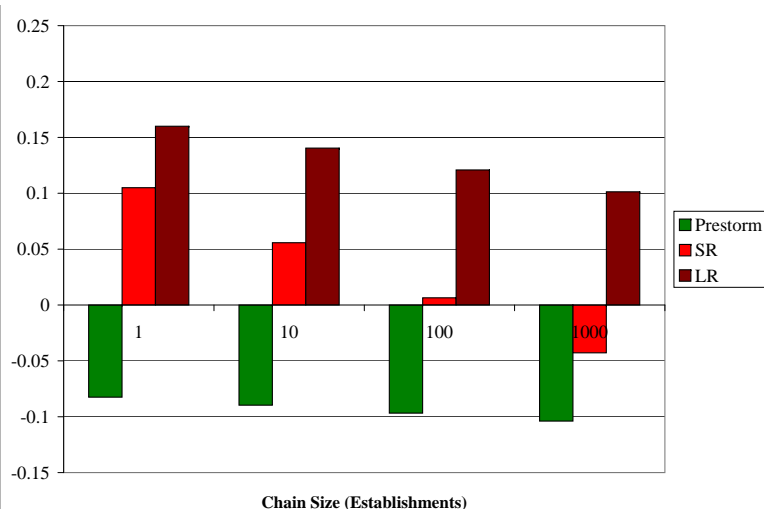
Bank Proximity

- 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 for productivity$\times$sector and productivity$\times$sector$\times$damage

- Specification test: repeat the analysis with distance to nearest dentist's office

Prob(Exit | Extensive or Catastrophic Damage, FirmSize=1) − Prob(Exit | No Damage, FirmSize=1)

Distance from Bank (Miles)

Prob(Exit | Extensive or Catastrophic Damage, FirmSize=1) − Prob(Exit | No Damage, FirmSize=1)

Distance from Dentist (Miles)
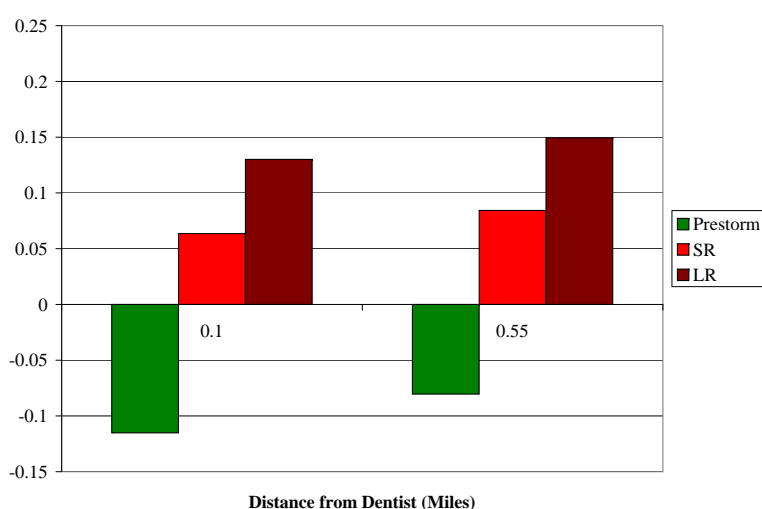
Summary and Future Directions

- Vulnerable establishments are more likely to exit immediately following damage
  - Establishments in small firms
  - Establishments located far from banks
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- Future work will focus on sole proprietorships
    - Owner demographics
    - Damage to owner's home

Thank you