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WHY SMALL BUSINESSES?

Small businesses are the generators of new jobs and innovation in the US economy, and the vast majority of US businesses.

SBA states that 40% do not survive a serious natural disaster.

Hiles (1992) 70% of businesses can lose three quarters of their business as a result of losing business efficiency in the first 2 days.
Small businesses are complex units in partnership with owner’s families and communities.

Demise and recovery requires comprehensive study, preferably over time. They are processes, not events.

Small businesses are susceptible to both endogenous and exogenous shocks, thus the reasons for demise are usually complex.
Past research

- Based on secondary macro data rather than small businesses as unit of analysis.
- Business characteristics as predictors
  - Revenues and measures of capitalization
  - Employee numbers
  - Measures of business age and size
- Analysis within 0-3 years post-event.
- Measured only once
- Asked only surviving businesses
CONTRIBUTORS TO BUSINESS RECOVERY AND DEMISE AND RESILIENCE

Past research focus:

- Nature and degree of property damage
- Length of time closed
- Business characteristics such as
  - size and age of business
  - capitalization
  - industry
Under-researched reasons for survival and demise

- Family factors
- Community characteristics
- Government interventions
- Disaster impacts such as loss of key business resources
- Capital stocks lost and gained
- Recovery and demise over time
FAMILY MATTERS

Business demise is often family related, not always a failure of the business itself

- Olson et al. (2003); Winter et al. (2004)

Businesses whose owners who had damaged homes (exogenous shock) more likely to be vulnerable

- Tatsuki and Hayashi (2002)
A THREE-WAY PARTNERSHIP

Communities and families provide
- social capital
- financial capital to businesses

Businesses provide
- Social capital
- Financial capital to communities and families
DISASTER ASSISTANCE IS CAPITAL

- Immediate aid such as food and cash
- Shelter assistance
- Loan write-down or payment delay
- SBA loans
- Disaster payments to government units

Disaster assistance impact?

- Which types of disaster assistance have the most impact on recovery, survival and success of small businesses?
The *capacity for resilience* is a reservoir of resources:
- that cushions the business against disruptions
- is characterized by individual and collective creativity used to solve problems and get work done.
- And these resources come from...
  - Owner
  - Business
  - Community
  - Collective effort of family, business and community
No man is an island,
Entire of itself,
Every man is a piece of the continent,
A part of the main.
If a clod be washed away by the sea,
Europe is the less.  
John Donne, nd

Small businesses do not stand alone we need to study them in context
SUSTAINABLE FAMILY BUSINESS MODEL
OUR STUDY...

Small business as unit of analysis
Random sample of owners of surviving AND non-surviving businesses
Over time, 3 waves of data
Pre- and post-Katrina data
Comprehensive variable set
Owner, Business, Family, Community
LOCATION OF STUDY

Post Katrina
Mississippi

A laboratory with potential for demised businesses

A single state
THREE WAVES OF DATA

Wave 1: Thirty minute phone interviews
- Pre and post Katrina **business demographic** information on sales and employees, location, financial practices, mitigation, measures of business success.
- **Disaster impacts** on business and family (e.g. losses)
- **Disaster assistance** received by business and family
- Pre and post **business and disaster management** practices
- Pre- and post **family demographics**, financial practices, household disaster management practices
- **Owner resilience** and related demographics
- **Community attachment** and involvement
Wave 2: Mailed questionnaire
- Updated status of business (operating or not)
- Updated business success measures
  - Community reciprocity
  - Owner personal resilience
  - Owner’s participation in community
  - Owner’s assessment of community recovery

Wave 3: Mailed questionnaire
- Updated status of business
- Updated business success factors
- Follow-up as needed
The Sample:
497 small business owners
Randomly selected
Geographically distributed
Locations of participating businesses in the 10 county area:
OPERATING VS. NOT OPERATING: BUSINESS LOCATIONS

Unique Values: S7
- 0 (89) Closed
- 1 (366) Open
- 8 (1) Don’t know
Demised = closed permanently

Survived = operating, revenue and employee numbers below pre-disaster level

Recovered = operating, revenue and number of employees at pre-disaster level

Resilient = operating, revenue and employees at or above pre-disaster levels, adapted to improve likelihood of survival “next time”

DATA: BASELINE OPERATING STATUS OF ADJUSTED RANDOM SAMPLE

<table>
<thead>
<tr>
<th>Status</th>
<th>Number of Businesses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating</td>
<td>2768</td>
<td>78.5</td>
</tr>
<tr>
<td>Demised</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confirmed</td>
<td>243</td>
<td>6.8</td>
</tr>
<tr>
<td>Likely Demised</td>
<td>366</td>
<td>10.4</td>
</tr>
<tr>
<td>Deceased Owner</td>
<td>58</td>
<td>1.6</td>
</tr>
<tr>
<td>Total Demised</td>
<td>667</td>
<td>18.9</td>
</tr>
<tr>
<td>Unable to locate</td>
<td>92</td>
<td>2.6</td>
</tr>
<tr>
<td>Total</td>
<td>3527</td>
<td>100.00</td>
</tr>
</tbody>
</table>

## DATA: OPERATING VS NOT OPERATING BASED ON WAVE 1 INTERVIEWS

<table>
<thead>
<tr>
<th>Business Operating Status</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closed by Katrina</td>
<td>43</td>
<td>8.70</td>
</tr>
<tr>
<td>Closed by Owner</td>
<td>12</td>
<td>2.43</td>
</tr>
<tr>
<td>Currently Closed, Reopened after Katrina</td>
<td>69</td>
<td>13.97</td>
</tr>
<tr>
<td>Currently Open</td>
<td>370</td>
<td>74.90</td>
</tr>
</tbody>
</table>

25% closed for any reason
**DATA: RECOVERY STATUS OF SURVIVORS**

<table>
<thead>
<tr>
<th>Status</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survived</td>
<td>51</td>
</tr>
<tr>
<td>Recovered</td>
<td>21</td>
</tr>
<tr>
<td>Resilient</td>
<td>28</td>
</tr>
</tbody>
</table>

Survived = business with revenue and employee numbers below pre-disaster level

Recovered = business with revenue and number of employees at pre-disaster level

Resilient = absorbed disaster with minimal disruption to revenues, able to cover costs and has minimal change to operating procedures
Methodology paper
- How we got a sample including demised businesses
- Estimate rate of demise and survival
- Marshall et al. 2013 Natural Hazards

Model paper
- When is a business demised?
- Categorizing businesses as demised, survived, recovered and resilient, over time.
- Schrank & Marshall 2014 Natural Hazards
PAPERS IN PROGRESS

Can we predict which businesses survive and which don’t? (with Sydnor and Niehm)

What difference does mitigation make in survival/demise, recovery, resilience? (with Sydnor and Niehm)

Does disaster assistance of various types make a difference in survival/demise, recovery, resilience? (3 papers)
Community characteristics associated with business survival, recovery and resilience

- Attachment
- Reciprocity
- Participation and networks
- Community recovery

Family characteristics associated with business status

- Disaster impact on household
- Intermingled finances
- Family members working in the business
- Other income sources
- Family adjustment strategies
A TASTE OF PAPERS TO COME

Papers on various capital stocks associated with recovery and demise

- Human
- Intellectual
- Physical
- Economic/financial
- Social
- Natural

More to come!