April 7, 2011

High-Impact Firms and Jobs in South Carolina

Doug Woodward
Professor of Economics
1. Small businesses create jobs.

2. Entrepreneurs cultivate private business activity and jobs.

3. High-impact, local firms generate a high share of jobs.
Jobs Imperative

- Biggest challenge facing the state.
- Federal stimulus is over this year.
- Now up to private sector.

But what kinds of *private* firms create jobs?
Saving Grace

• Private sector is dynamic
  – Creative destruction
• New businesses, entrepreneurs
• Business ecosystem evolving
Business Ecosystem

• Firm Births
  – Entrepreneurs and employment creation

• Firm Survivability
  – Employment stability and expansion
Buffalo
Large and Small Business: No Conflict

• True: Buffalo like to get their own way (sometimes).

• No wonder: Can add 1000s of jobs
  – We want the jobs
  – Knock-on effects for small businesses

Yet doesn’t small businesses create most jobs?
What we know about small firms and jobs

Private businesses and entrepreneurs widely regarded as essential to regional economic growth.

Small firms viewed as important generators of new jobs.
Basic Facts on Small Firms and Jobs

• Small firms account for 26.3% of total employment in South Carolina.
  – But 51% of all net employment gains in South Carolina.

• Small firms account for 27.2% of total employment in the United States overall.
  – Compared with 45% of net employment gains for the U.S overall.
Small Firm Size and Job Creation

South Carolina compares well to the U.S. in average net job creation rates, especially for small firms.

Net Job Creation Rate

- SC
- US

<table>
<thead>
<tr>
<th>Firm Size</th>
<th>SC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 19</td>
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<td>20 to 49</td>
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<td>1,000 to 2,499</td>
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<td>2,500 to 4,999</td>
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<td>5,000 to 9,999</td>
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<tr>
<td>10,000 to 24,999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td></td>
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</tr>
</tbody>
</table>
Local Firms Matter Too

• Evidence that a strong local, small firm concentration leads to higher economic growth.

  – Higher productivity and flexibility to adapt to specific local changes in the environment.

  – Owners of businesses who reside in the community highly likely to have the interests of the community directly in mind.
Local vs. Nonlocal Firms in South Carolina

• A local firm is headquartered in South Carolina.

• Local firms account for two thirds of total employment in South Carolina.

<table>
<thead>
<tr>
<th></th>
<th>Nonlocal</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Share of Employment</td>
<td>33.8%</td>
<td>66.2%</td>
</tr>
<tr>
<td>Average Share of Gross Job Creation</td>
<td>31.4%</td>
<td>68.6%</td>
</tr>
<tr>
<td>Average Share of Gross Job Destruction</td>
<td>31.7%</td>
<td>68.3%</td>
</tr>
</tbody>
</table>
Another view of Business and Jobs: Gazelles and High-Impact Firms

- Gazelles defined by Professor David Birth (MIT)
  - rapid growth in revenue.
  - most are small and medium-sized.

- Expanded firm definition Professor Zoltan Acs (George Mason, SBA)
  - beyond gazelles, rapid revenue growth.
  - adjusted by employment size and growth.

- Professor Acs findings for high-impact firms:
  - High-impact firms represent a small share of all firms.
  - but account for most the private-sector net employment in the economy.
  - From 2002-2006 he found 2.5 percent of firms created the most jobs in South Carolina.
Fast-running Cheetahs
High-Impact Firms Create Jobs
Overview of Remaining Remarks

• Do high-impact firms generate most jobs in South Carolina?

• What are high-impact firms?
  • Industries, clusters?
  • Geographic concentration?
  • Age of firm?
Local High-Impact Firms

• A high impact firm must:
  – double its sales in at least four years and
  – have an employment growth quantifier of at least two.
    • Job growth rate multiplied by its absolute change.
• Use 2004-08 to measure sales growth.
• Include only firms with local headquarters.
  – 95 percent if high-impact establishments are local
# High-Impact Local Firms and Jobs 2004-2008

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Non-High Impact</th>
<th>High-Impact</th>
<th>High-Impact Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Firms (2004)</td>
<td>193,435</td>
<td>188,297</td>
<td>5,138</td>
<td>2.7%</td>
</tr>
<tr>
<td>Total Employment (2004)</td>
<td>1,807,061</td>
<td>1,755,594</td>
<td>51,467</td>
<td>2.8%</td>
</tr>
<tr>
<td>Gross Job Creation</td>
<td>454,000</td>
<td>402,875</td>
<td>51,125</td>
<td>11.3%</td>
</tr>
<tr>
<td>Gross Job Destruction</td>
<td>379,386</td>
<td>378,079</td>
<td>1,307</td>
<td>0.3%</td>
</tr>
<tr>
<td>Net Job Creation</td>
<td>74,614</td>
<td>24,796</td>
<td>49,818</td>
<td>66.8%</td>
</tr>
</tbody>
</table>
Success of High-Impact Firms and Jobs

• The high-impact firm employment was just over 100,000 in 2008.

• About 51,500 was the 2004 job tally.

• In four years, from 2004 to 2008, the total high-impact employment about doubled.
<table>
<thead>
<tr>
<th>Company</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>CANAL INSURANCE COMPANY</td>
<td>GREENVILLE</td>
</tr>
<tr>
<td>USLC (Cloth Cutting, Bolting)</td>
<td>SPARTANBURG</td>
</tr>
<tr>
<td>COX INDUSTRIES (Furniture)</td>
<td>ORANGEBURG</td>
</tr>
<tr>
<td>K W ASSOCIATES (Beer Wholesale)</td>
<td>COLUMBIA</td>
</tr>
<tr>
<td>AMERICAN LAFRANCE SC (Ambulances)</td>
<td>LADSON</td>
</tr>
<tr>
<td>CAROLINA AUTO AUCTION INC</td>
<td>WILLIAMSTON</td>
</tr>
<tr>
<td>TOWER HOMES INC (Construction)</td>
<td>TAYLORS</td>
</tr>
<tr>
<td>FORCE PROTECTION INC (Military Vehicles)</td>
<td>LADSON</td>
</tr>
<tr>
<td>LINDE MTL HDLG N AMER CORP (Forklifts)</td>
<td>SUMMERVILLE</td>
</tr>
<tr>
<td>CONTRACT ENVIRONMENTAL SVCS</td>
<td>EASLEY</td>
</tr>
<tr>
<td>Q2 ADMINISTRATORS LLC (Medical Claims Service)</td>
<td>COLUMBIA</td>
</tr>
</tbody>
</table>
High-Impact Firms Change

• Cheetah firms differ over time periods.

• Blue-Cross/Blue Shield and Sonoco were examples from previous periods.
High-impact Industries

• Data cleansed
  – Some industries removed
    • Only private sector
    • No non-profit, religious institutions
    • No banks and utilities

• High-impact firms span many industries.
## Top Industries for High-Impact Firms

<table>
<thead>
<tr>
<th>Industry</th>
<th>Employment 2008</th>
<th>Employment Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional, Scientific, and Technical Services</td>
<td>11,230</td>
<td>11.09%</td>
</tr>
<tr>
<td>Administrative and Support Services</td>
<td>10,119</td>
<td>9.99%</td>
</tr>
<tr>
<td>Specialty Trade Contractors</td>
<td>9,392</td>
<td>9.27%</td>
</tr>
<tr>
<td>Food Services and Drinking Places</td>
<td>6,171</td>
<td>6.09%</td>
</tr>
<tr>
<td>Construction of Buildings</td>
<td>4,359</td>
<td>4.30%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>4,310</td>
<td>4.26%</td>
</tr>
<tr>
<td>Merchant Wholesalers, Durable Goods</td>
<td>4,186</td>
<td>4.13%</td>
</tr>
<tr>
<td>Merchant Wholesalers, Nondurable Goods</td>
<td>3,480</td>
<td>3.44%</td>
</tr>
<tr>
<td>Ambulatory Health Care Services</td>
<td>3,026</td>
<td>2.99%</td>
</tr>
<tr>
<td>Social Assistance (Child and Adult Care Centers primarily)</td>
<td>3,017</td>
<td>2.98%</td>
</tr>
<tr>
<td>Repair and Maintenance</td>
<td>2,760</td>
<td>2.72%</td>
</tr>
<tr>
<td>Machinery Manufacturing</td>
<td>2,375</td>
<td>2.34%</td>
</tr>
<tr>
<td>Accommodation</td>
<td>2,194</td>
<td>2.17%</td>
</tr>
<tr>
<td>Heavy and Civil Engineering Construction</td>
<td>2,051</td>
<td>2.02%</td>
</tr>
</tbody>
</table>
Traded Clusters and High-Impact Firms

Do high-impact firms generate new sales from *outside* South Carolina?

- About 48% of total high-impact employment is found in traded sectors identified by the Porter Cluster Mapping Project.
- Mostly heavy construction services and business services.
Composition of the South Carolina Economy

Employment by Traded Cluster, 2008

Rank in US

Business Services | 29 | 53,137
Heavy Construction Services | 12 | 40,597
Hospitality and Tourism | 21 | 37,649
Automotive | 11 | 29,119
Transportation and Logistics | 24 | 27,188
Textiles | 3 | 16,017
Education and Knowledge Creation | 28 | 14,948
Production Technology | 10 | 14,398
Plastics | 15 | 14,350
Financial Services | 32 | 13,133
Motor Driven Products | 5 | 12,032
Distribution Services | 30 | 11,838
Chemical Products | 11 | 9,427
Metal Manufacturing | 24 | 8,736
Processed Food | 31 | 7,772
Forest Products | 9 | 6,013
Information Technology | 25 | 5,353
Entertainment | 30 | 5,323
Building Fixtures, Equipment and Services | 23 | 4,994
Power Generation and Transmission | 7 | 4,549
Publishing and Printing | 31 | 4,332
Construction Materials | 7 | 3,290
Heavy Machinery | 25 | 3,170
Lighting and Electrical Equipment | 18 | 2,500
Furniture | 16 | 2,407
Medical Devices | 26 | 2,307
Biopharmaceuticals | 17 | 1,740
Prefabricated Enclosures | 22 | 1,249
Communications Equipment | 17 | 760
Aerospace Vehicles and Defense | 22 | 415
Apparel | 14 | 395
Analytical Instruments | 34 | 385
Agricultural Products | 32 | 246
Leather and Related Products | 24 | 243
Aerospace Engines | 25 | 20
Oil and Gas Products and Services | 43 | 20
Fishing and Fishing Products | 18 | 20
Sporting, Recreational and Children's Goods | 38
Jewelry and Precious Metals | 30
Footwear

South Carolina overall employment rank = 25

Note: Ranks are among the 50 US states plus the District of Columbia.
What about Small Business and High-Impact Firms?
Torture data long enough ...

it will confess.

<table>
<thead>
<tr>
<th>Firm Employment Size</th>
<th>Employment Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-High Impact</td>
</tr>
<tr>
<td></td>
<td>High Impact</td>
</tr>
<tr>
<td>1-19</td>
<td>126,766</td>
</tr>
<tr>
<td>20-49</td>
<td>-2,858</td>
</tr>
<tr>
<td>50-99</td>
<td>-11,240</td>
</tr>
<tr>
<td>100-249</td>
<td>-19,226</td>
</tr>
<tr>
<td>250-499</td>
<td>-23,287</td>
</tr>
<tr>
<td>500-999</td>
<td>-21,012</td>
</tr>
<tr>
<td>1,000-2,499</td>
<td>-23,397</td>
</tr>
<tr>
<td>2,500-4,999</td>
<td>-19,611</td>
</tr>
<tr>
<td>5,000-9,999</td>
<td>-4,515</td>
</tr>
<tr>
<td>10,000-25,000</td>
<td>23,176</td>
</tr>
</tbody>
</table>
Confession: Larger Cheetahs are Strong

• Larger high-impact firms create a lot of jobs relative to their overall employment size.

• Not as many firms, but the 250-1,000 size adds a lot of jobs
High-Impact Firm Geography in South Carolina

Urban!
SC High Impact Firms Employment 2008

Legend
- 1 - 5
- 6 - 10
- 11 - 25
- 26 - 50
- 51 - 1000
S.C. County Geographic Concentration

• What areas get *more than* their expected share of high-impact firms?

• Intensity: The next slide shows the share of county high-impact employment (2008) over the county share of total private employment.
High-Impact Firm Intensity

Location Quotient

Legend
- <1 Less Intensive
- >1 More Intensive
High Impact and Age

• High-impact firms add jobs across the firm age classes.

• High-impact firms more reliable job generators as they age.
## High-Impact Net Employment by Firm Age (2004-2008)

<table>
<thead>
<tr>
<th>Births</th>
<th>Net Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 years</td>
<td>12600</td>
</tr>
<tr>
<td>2-3 years</td>
<td>7775</td>
</tr>
<tr>
<td>4-6 years</td>
<td>7244</td>
</tr>
<tr>
<td>7-9 years</td>
<td>5136</td>
</tr>
<tr>
<td>10-13 years</td>
<td>4072</td>
</tr>
<tr>
<td>14-18 years</td>
<td>4514</td>
</tr>
<tr>
<td>&gt;19 years</td>
<td>8477</td>
</tr>
</tbody>
</table>
South Carolina is Not “Scaling Up” Firms At the Same Rate as Neighboring States

Since 1984:

• Only 11 companies have been established in South Carolina that now have $100 million-plus in annual sales.

• Only 42 now have $25 million or more in annual sales.

• South Carolina’s ratio of these of these $25 million-plus firms is much lower than in neighboring states.
Percentage of Revenue by Industry Segment
(For Companies Established After 1984)
That Now Have $25 Million or More in Annual Sales

SOURCE: Compiled from Hoover’s company database
Possible Reasons for Firm Survival and Growth

1. Urbanization
   - Specialized services
   - Specialized labor pools
   - Existing headquarters

2. Clusters
   - Spatial concentration of related businesses
   - High productivity and innovation
European Study of Clusters

With increased numbers of neighbouring firms in the same sector.

+23%  +35%  +19%  +34%
Summary of Key Findings

• Small business create a large share of jobs.

• A select number of local, high-impact firms create many new jobs in the state.

• High-impact firms spread across industry sectors.

• High-impact firms are highly urban.

• About half are in traded sectors of the economy.

• South Carolina is not retaining local, big revenue generating firms.
South Carolina is not seeing its small firms that grow into large firms.

- $25 million-plus in sales.

South Carolina is comparably weak in scaling up companies in information technology and professional services.

Other states seem to have an advantage because they have more existing anchor firms and clusters, which have “spun out” new companies or produced engineers and executives who started new firms.
Acquisition Challenge

• SC has fast growing companies (i.e. professional services) like ATD, ScanSource, Continental Insurance etc. being acquired by larger firms headquartered in larger metro areas.

  – Force Protection, Canal Insurance, etc. be next?

• Will higher paying HQ jobs and the related services (banking, legal) move away?

• We need examine the acquisition activity of SC high-impact and other firms scaling up over time.
Next Study: Cougars
Thank you!
You can access the presentation, final study, and a wealth of data on our web site (Google “Moore School Division of Research”):

Division of Research, Moore School of Business

South Carolina Economic Development Data Clearinghouse
Notes: National Establishment Time-Series (NETS) Data Used for Analysis

- Snapshots of firm ecosystem taken every year.
- An annual census of U.S. business sales and employment.
- Allows us to understand the long-term drivers of growth and employment in South Carolina or any sub-state region.
Notes: High-Impact Firm Definition

- ACS definition of an high-impact company (HIC) is:
  - “an enterprise whose sales have at least doubled over the most recent four-year period and which has an Employment Growth Quantifier of two or greater over the same period.”
  - An Employment Growth Quantifier is the product of a firm’s absolute change and percent change in employment.

- Our definition of HIC is slightly different from ACS. Instead of calculating the changes on sales and employment (absolute and relative) using the end points of a four year-period we use the average of the changes calculated over the latest 4 available 4-year periods. By doing this we smooth the data and hope to avoid problems that have to do with errors and delays on the reporting of employment and sales. For example, to identify HICs in the 94-98 period ACS computes the changes between the yearly values of 98 and 94. We do the same but (if available) we also compute the changes between 93-97, 92-96 and 91-95 and average these changes.

- So our definition can be loosely described as:
  - “an enterprise whose sales have on average at least doubled over the most recent four 4-year periods and which has an average Employment Growth Quantifier of two or greater over the same period.”

- Our definition of firm includes only the sum of all establishments located in S.C.
- We exclude Non-Profit Organizations, Public Administration, Religious, Grantmaking, Civic, Professional, and Similar Organizations, Utilities, Banks and Credit Unions, Educational Services, Hospitals, Offices of Physicians, Offices of Dentists and Offices of Other Health Practitioners