

# Business Start-Ups, Survival, and Growth: Data Resources and Research Findings from the Bureau of Census Business Dynamics Statistics Program

Association of Public Data Users  
September 2012

Findings reported in this briefing draw from research conducted by

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We thank the Kauffman Foundation for financial support. Any opinions and conclusions expressed herein are those of the authors and do not necessarily represent the views of the U.S. Census Bureau. All results have been reviewed to ensure that no confidential information is disclosed.

# Understanding Job Creation

- Firms are heterogeneous responding differently to different types of shocks
  - Need large datasets capturing more dynamic parts of the economy (small, young and large)
  - If interest in changes then also need higher frequency data
- Economies experience underlying secular trends as well as business cycles
  - Need long time series
- Significant variation across industries and geographies
  - Need detailed industry and geography
- But there are also significant data gaps. For example:
  - Financial information (DD-SS)
  - Business owner demographics
  - Timeliness
  - Disclosure limitations (detailed levels of industry and geography needed to understand state and local issues)

# Longitudinal Business Database (LBD)

- Universe database of US non-farm private sector employer businesses
  - Administrative data enhanced with Census collections
  - Long time series 1976-2010
  - Longitudinal linkages of both firms and establishments
  - Complete sectoral coverage
  - Detailed geography and industry
- Basic backbone to which all other Census business data can be linked
- Firm and establishment characteristics
  - Firm size and firm age. Age is critical to understanding firm growth dynamics, entrepreneurial activity and job creation

# LBD: Public Use Products

- Business Dynamics Statistics
  - Basic data by firm size and age across sectors, states and time.  
**Expansions to more detailed ind and geography coming soon!**
  - Data visualizations available (currently down)
  - <http://www.census.gov/ces/dataproducts/bds/index.html>
- Synthetic LBD (ver. 1) – public use microdata
  - Deployed via the Cornell Virtual RDC  
(<http://www.vrdc.cornell.edu/news/data/lbd-synthetic-data/>),  
information at  
<http://www.census.gov/ces/dataproducts/synlbd/index.html>
- Sister program: ILBD

**Table 1 Net Job Creation by Firm Size and Firm Age, U.S. Private Sector, 2010 (Panel A – CURRENT YEAR SIZE)**

Firm Age	2010 Firm Size											
	a) 1 to 4	b) 5 to 9	c) 10 to 19	d) 20 to 49	e) 50 to 99	f) 100 to 249	g) 250 to 499	h) 500 to 999	i) 1000 to 2499	j) 2500 to 4999	k) 5000 to 9999	l) 10000+
a) 0	815,561	426,998	315,611	317,689	226,045	195,530	27,102	D	D			
b) 1	-161,226	-31,814	-21,562	-19,115	-19,024	-32,730	4,244	865	3,303	-3,411	15,439	-1
c) 2	-101,042	-32,575	-25,842	-16,603	-240	-3,077	-11,607	-3,517	-4,446	-806	D	D
d) 3	-83,440	-36,721	-25,801	-20,273	-6,509	-3,109	-2,577	-1,695	8,579	1,747	-19,770	-7,097
e) 4	-75,883	-35,015	-32,562	-25,403	-11,149	-3,368	-3,773	2,234	D	-6,411	D	5,241
f) 5	-65,112	-31,927	-28,237	-24,536	-7,864	-4,477	-3,674	D	2,373	-9,101	2,890	D
g) 6 to 10	-188,743	-104,200	-99,898	-108,912	-43,996	-25,148	-20,890	14,136	-23,369	-12,052	-20,868	5,263
h) 11 to 15	-114,682	-64,695	-72,649	-89,965	-43,054	-28,782	-12,369	9,959	-8,913	-1,122	-493	-3,098
i) 16 to 20	-72,115	-41,212	-50,834	-73,687	-30,905	-17,316	-21,720	4,327	-2,597	-19,713	-17,778	15,291
j) 21 to 25	-52,665	-32,968	-40,077	-68,573	-31,496	-14,923	-12,289	5,825	-2,949	-9,866	-12,957	-18,302
k) 26+	-53,299	-33,733	-44,784	-88,755	-48,530	-34,357	-27,002	-8,114	-14,916	262	-12,200	82,344
l) Left Censored	-46,266	-41,623	-53,300	-124,466	-82,883	-67,803	-47,451	-40,297	-76,992	-78,996	-100,802	-424,055
m) ALL	-198,912	-59,485	-179,935	-342,599	-99,605	-39,560	-132,006	4,131	-115,991	-139,469	-160,031	-345,058

Source: U.S. Census Bureau, Business Dynamics Statistics at [http://www.ces.census.gov/index.php/bds/bds\\_home](http://www.ces.census.gov/index.php/bds/bds_home)

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h) 11 to 15	-114,682	-64,695	-72,649	-89,965	-43,054	-28,782	-12,369	9,950	3,113	-1,122	-493	-3,098
i) 16 to 20	-72,115	-42,222	-50,834	-73,687	-30,905	-17,316	-21,720	4,327	-2,597	11,773	-17,778	15,291
j) 21 to 25	-52,665	-33,908	40,077	-68,573	-31,496	-14,923	-12,289	5,825	-2,949	-9,366	-12,957	-18,302
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Firms

35%

50%

Activity

50%

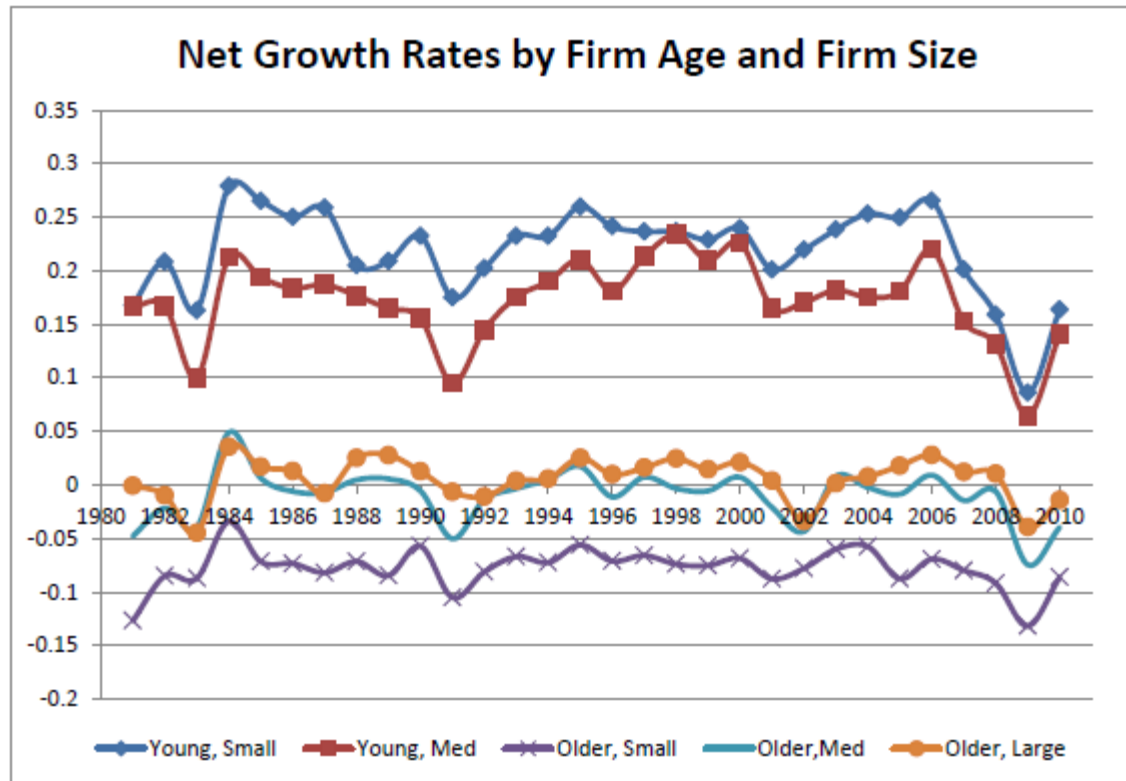
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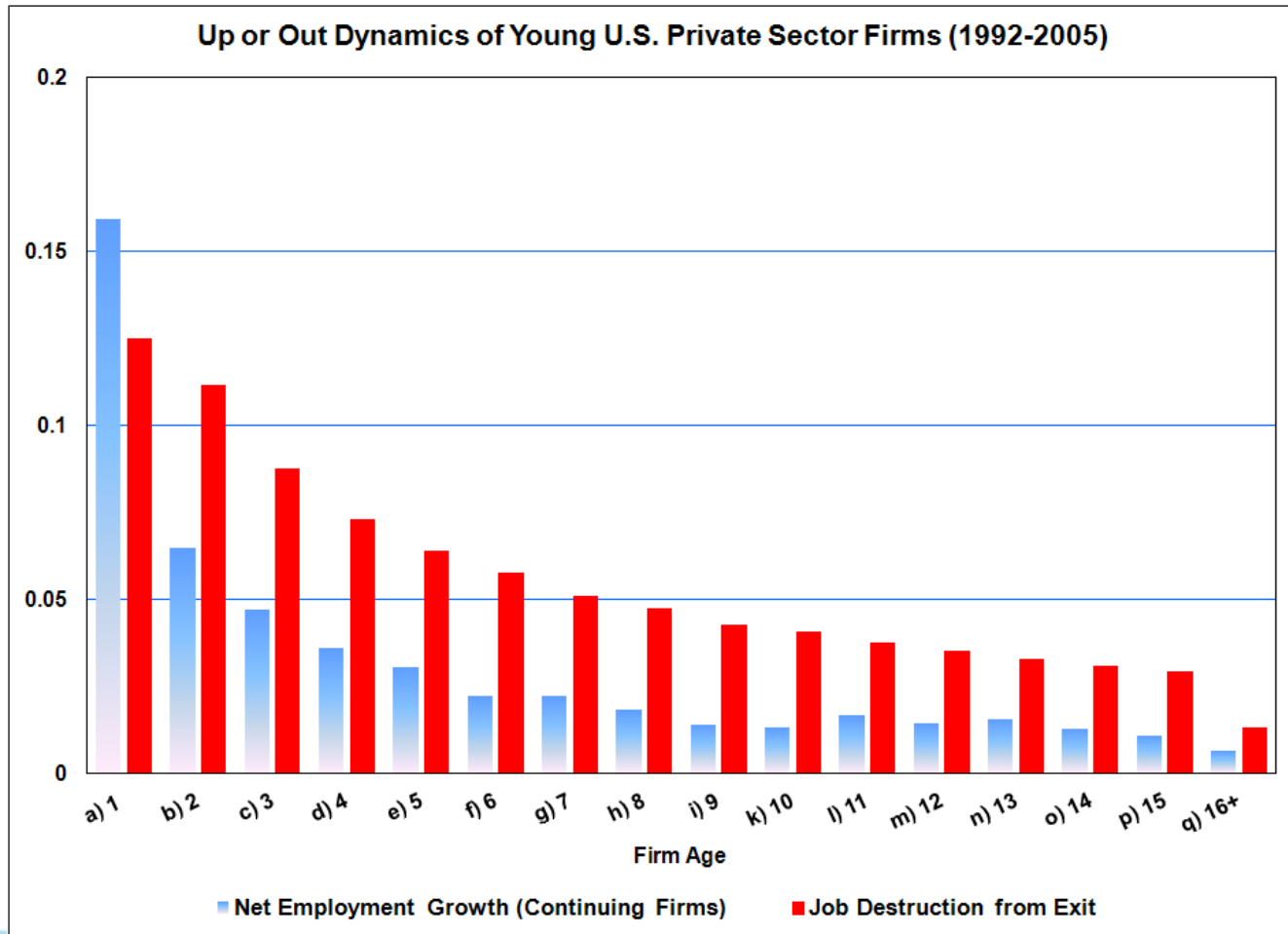
Source: U.S. Census Bureau, Business Dynamics Statistics at [http://www.ces.census.gov/index.php/bds/bds\\_home](http://www.ces.census.gov/index.php/bds/bds_home)

# Job Creation and Destruction in the US Economy: Cycles

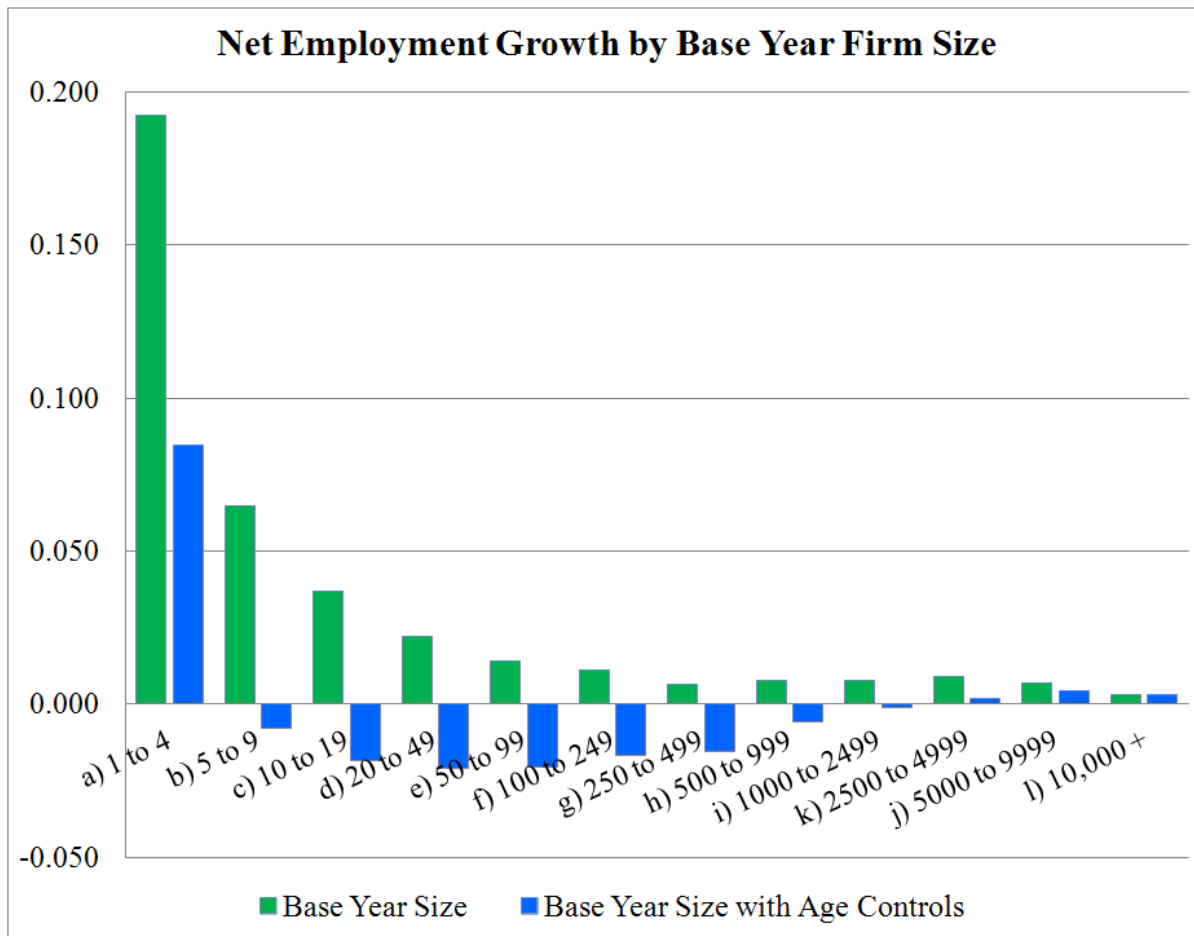




# *Up* or *Out* dynamics of young business

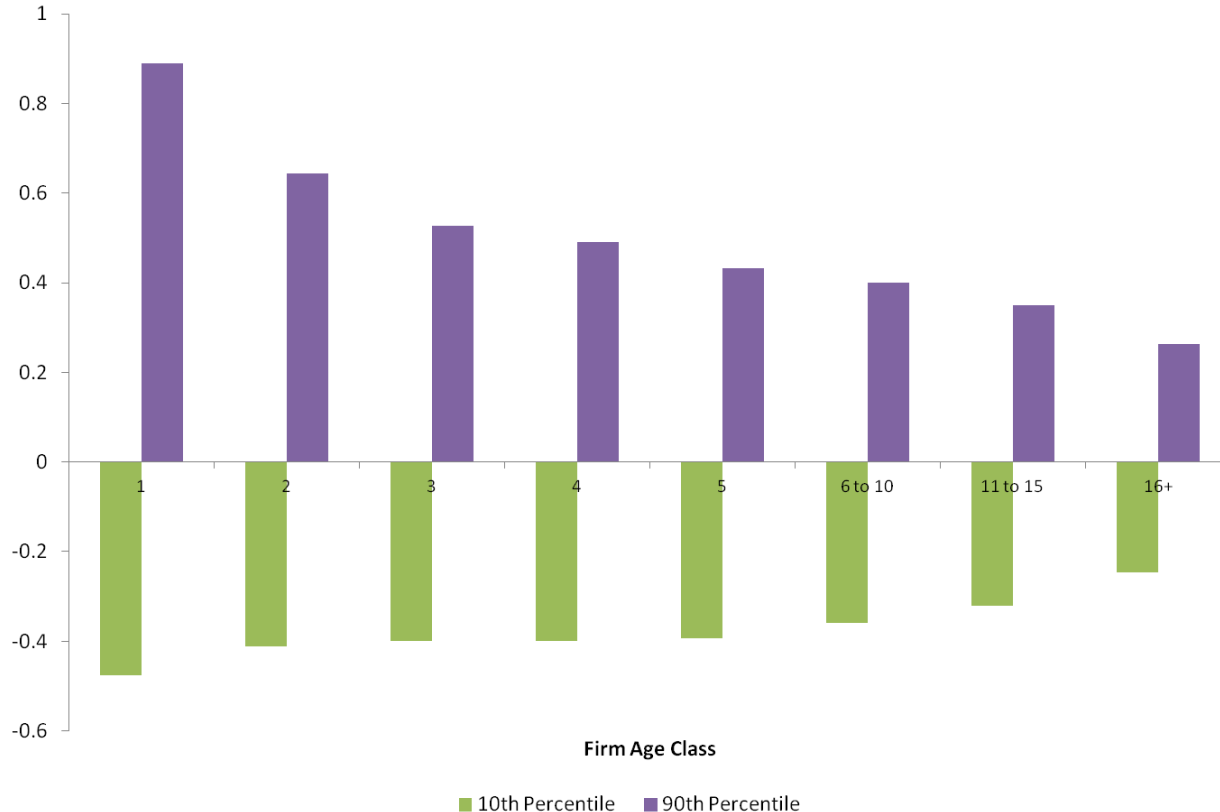


# Small vs Young



# High Growth/Declining Firms

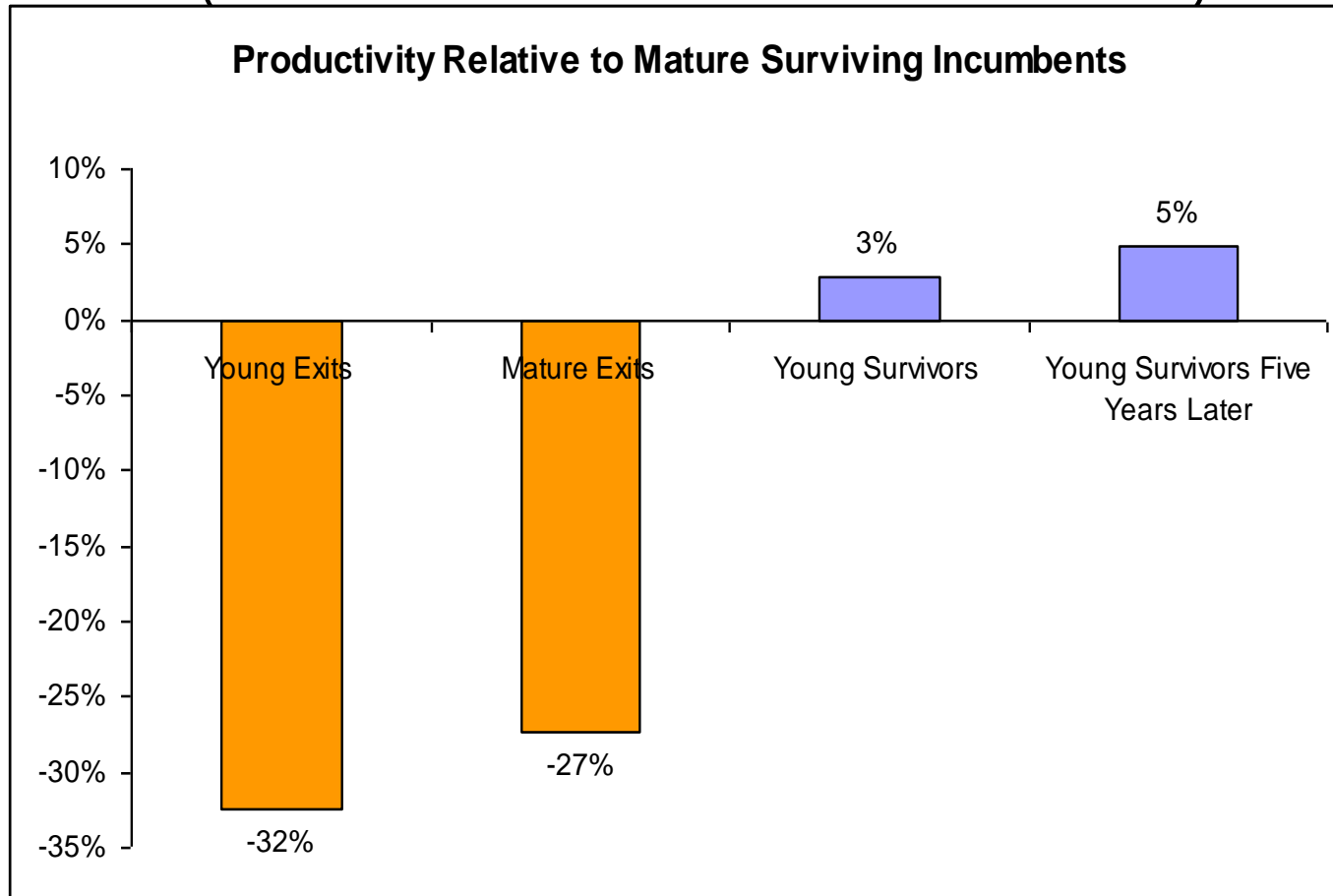
90th and 10th Percentiles of Net Employment Growth Rates for Surviving U.S. Private Sector Firms by Firm Age (2003-05)



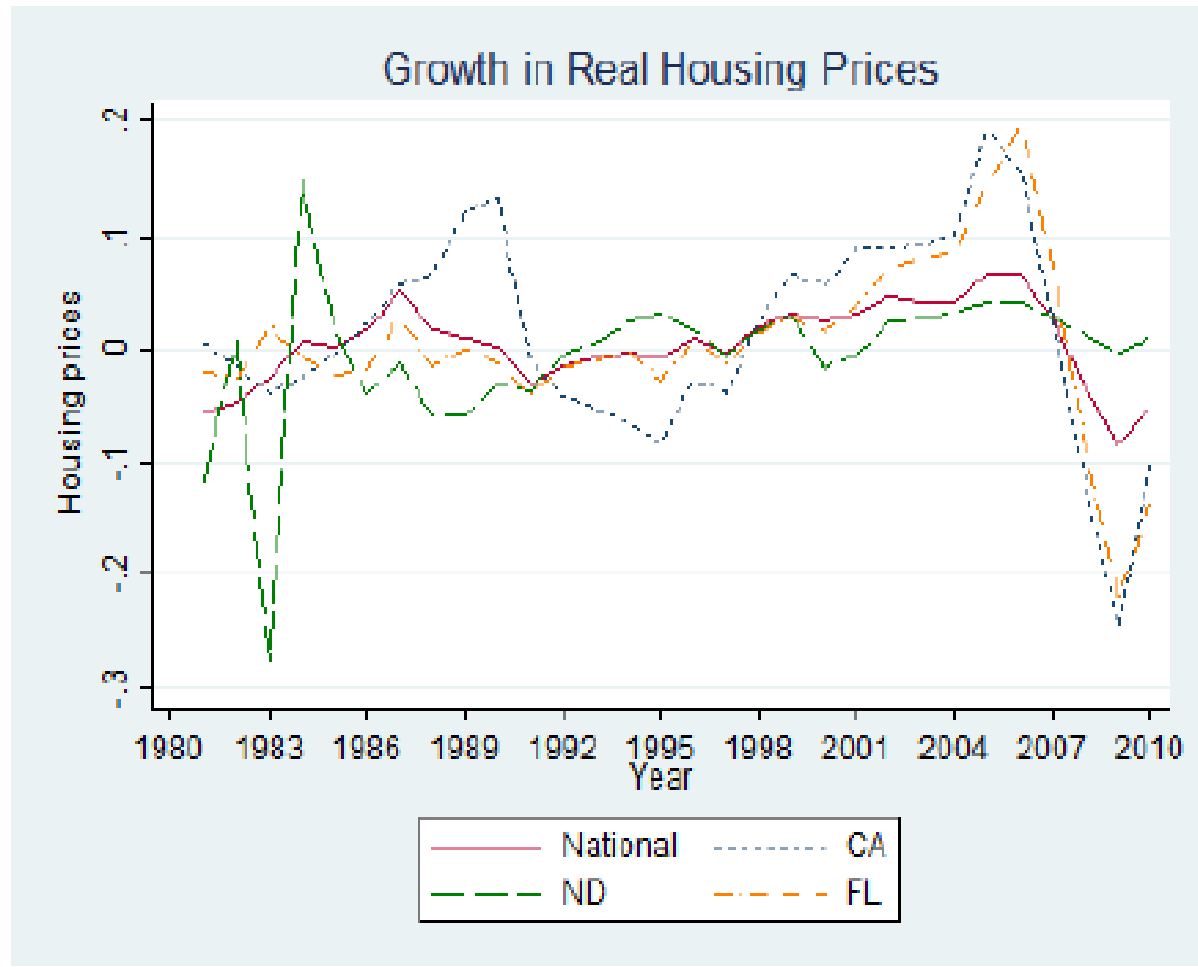
69% Of Creation Accounted For by Establishments With Annual Growth Rates > 30 percent

71% Of Destruction Accounted For by Establishments With Annual Growth Rates < -30 percent

# Productivity Growth (Economic Census Data)

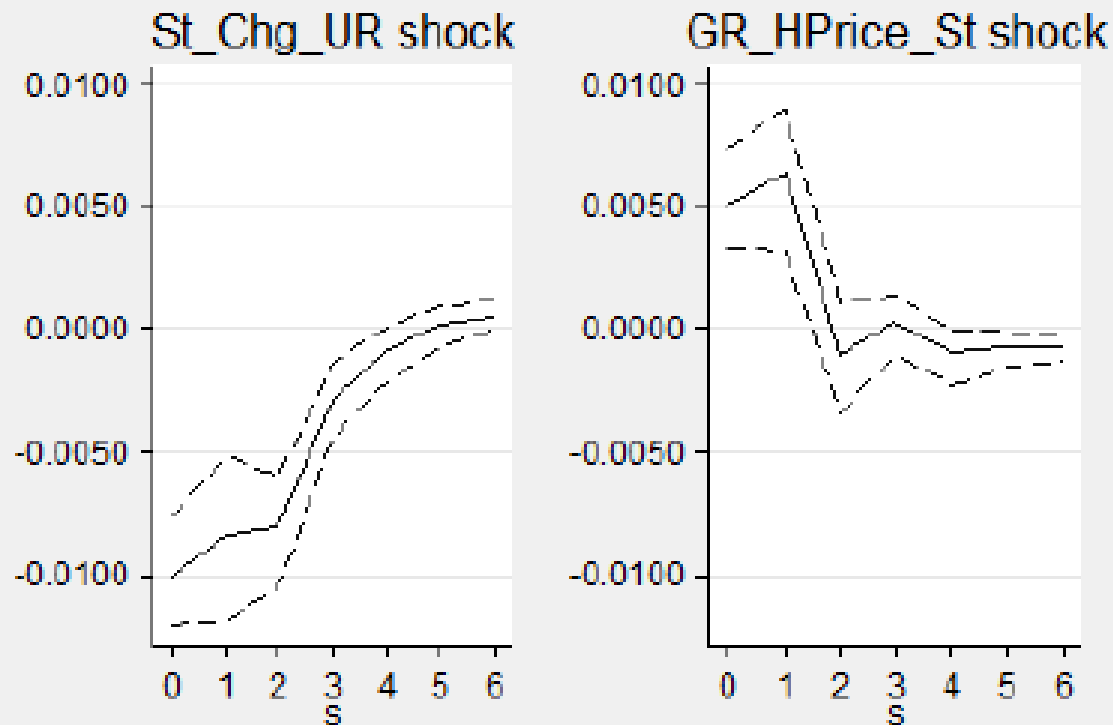


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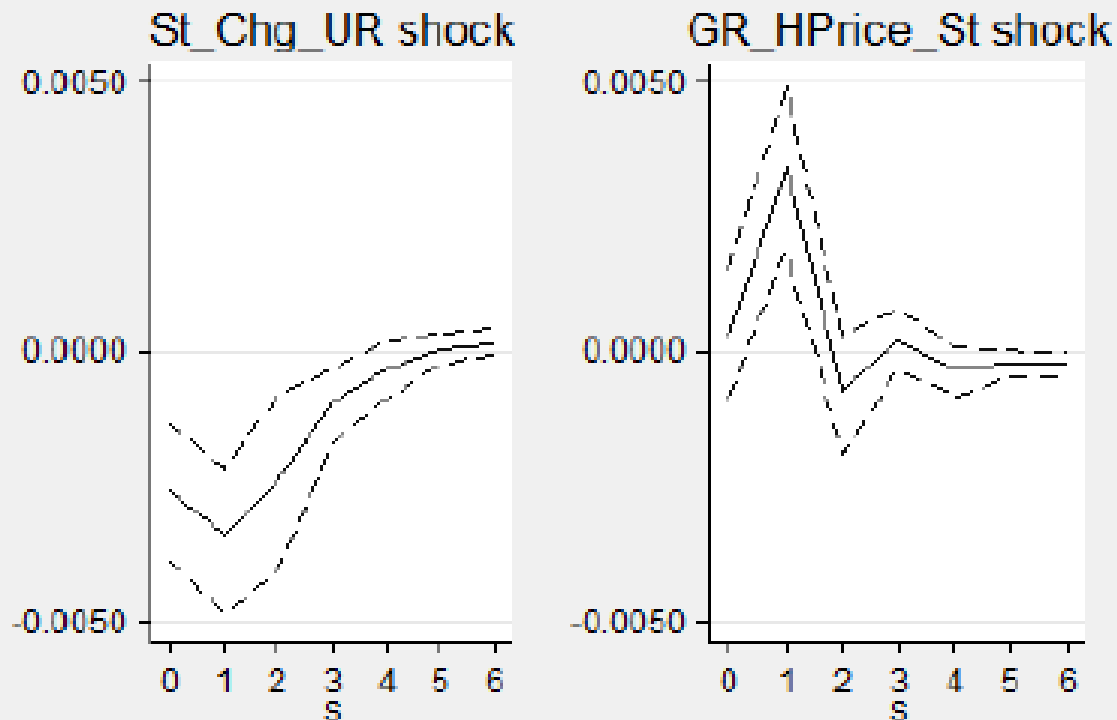
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Response of Difference of Young/Small with Large/Old Net  
Annual Levels VAR(2) Model, Year Effects

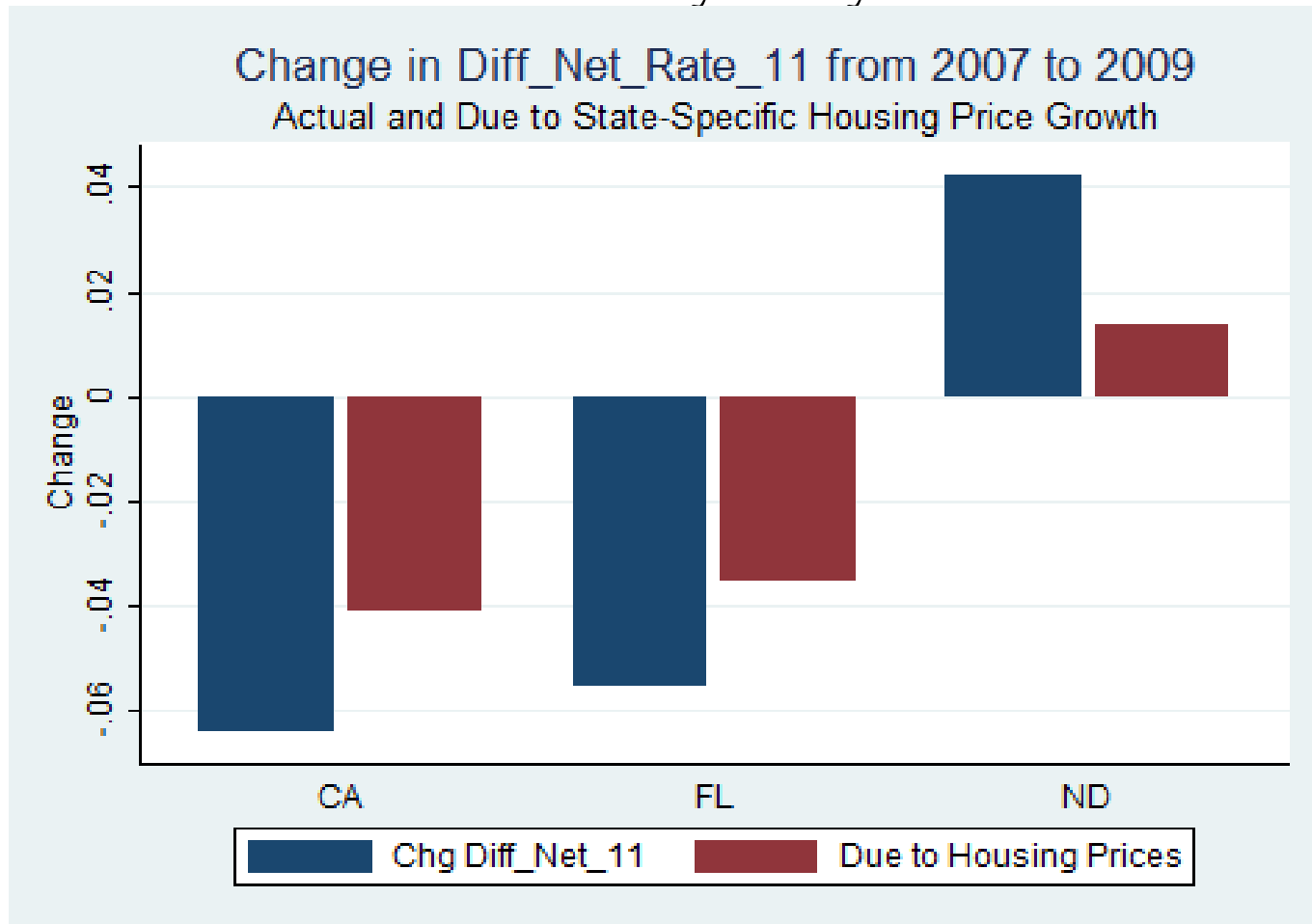


# Job Creation and Destruction in the US Economy: Cycles

Response of Difference of Old/Small with Large/Old Net Annual Levels VAR(2) Model, Year Effects



# Job Creation and Destruction in the US Economy: Cycles





# Ongoing Research and New Products

- Business cycles: Business dynamics of young/small/large firms (project underway)
- Supply chains: Coexistence of large/small/young (project underway)
- Linking the financial and real economy
  - Fed Banks? Treasury?
- Timely indicators of economic activity
  - National
  - Local level
  - CEA, NEC, Fed Banks...
- Innovation and growth (project underway)
  - USPTO
- Trade and growth (project underway)
  - Census Bureau trade statistics

# Summary

- Very rich resource of data to help answer critical questions about entrepreneurship and functioning of US economy
- Need to push on timely and local data
- Additional outside data
  - IRS
  - Treasury
  - Fed Banks
  - USPTO
- Private/Public Partnerships?
  - Kauffman Foundation model
  - Other?