

Extract from  
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### Chapter 3.

## **HIGHLIGHTS FROM THE BUSINESS DYNAMICS STATISTICS**



The full report is available at <[www.census.gov/ces](http://www.census.gov/ces)>.

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## Chapter 3.

# HIGHLIGHTS FROM THE BUSINESS DYNAMICS STATISTICS

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U.S. businesses are very dynamic. They have high rates of business openings and closings, as well as expansions and contractions. Business dynamics are a fundamental part of innovation, productivity growth, and job creation in our economy. Much of what we know empirically about business dynamics comes from research conducted over the last 25 years at the Center for Economic Studies (CES) and the Research Data Centers (e.g., the work of Dunne, Roberts, and Samuelson [1988] and Davis, Haltiwanger, and Schuh [1996]).

Citing these and other studies, the National Research Council's Committee on National Statistics released a 2007 report recommending that federal statistical agencies, among other things, explicitly incorporate business age into their statistics and provide more statistics on young, entrepreneurial businesses. Following on these recommendations, CES released Business Dynamics Statistics (BDS) in 2008.

The BDS address several key shortcomings in official statistics. These shortcomings previously precluded data users from fully appreciating the dynamism of the U.S. economy. The BDS are the first official data product to include high quality measures of firm age. For the first time data users will be able to examine

how economic outcomes differ with business age.

### INNOVATIVE AND ACCESSIBLE

The richness of the BDS derives from its source, the confidential Longitudinal Business Database (LBD). CES developed the LBD by linking annual snapshots of the Census Bureau's Business Register from 1975 to the most recent year available. The LBD includes data describing the basic characteristics of every establishment with paid employees in the United States as well as of the firms that operate them.<sup>1</sup>

The BDS contain key economic data items, including number of establishments, establishment openings and closings, employment, job creation and destruction, and job expansions and contractions. The data can be downloaded from <[www.ces.census.gov/index.php/bds](http://www.ces.census.gov/index.php/bds)>.

The LBD and BDS were developed by linking existing data and required no new data collection. For a modest investment of resources, CES was able to unlock a vast store of rich information on business dynamics,

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<sup>1</sup> An establishment is a single physical business location. A firm is a legal entity with a controlling ownership stake in one or more establishments. Most firms operate only a single establishment. However, many establishments are operated by firms owning multiple establishments.

which once lay unused, and make it available to data users. The BDS represent important progress over existing products with which it shares many characteristics such as the Bureau of Labor Statistics' Business Employment Dynamics (BED) and the Census Bureau's Statistics on U.S. Businesses (SUSB).

The new elements in the BDS provide data users with unprecedented information on the life cycle of U.S. businesses. Text Boxes 3.1–3.3 provide some examples of the types of analyses possible with the BDS but examples represent only a small fraction of the possible uses of these new data. The examples in the text boxes show how the BDS can be used to track entrepreneurial activity across states, measure the employment impact of startups, and examine business dynamics by firm age.

### LBD DATA PRODUCTS

The release of the BDS is part of an effort to make relevant information from the confidential LBD accessible to a wide range of users. Other efforts currently underway include creating a synthetic public-use microdata file based on the LBD. The BDS will be updated annually. Expansion to cover new areas will occur as time and resources permit.

## REFERENCES

Davis, Steven J., John Haltiwanger, and Scott Schuh. 1996. *Job Creation and Destruction*. Cambridge, MA: MIT Press.

Dunne, Timothy, Mark J. Roberts, and Lawrence Samuelson. 1988. "Patterns of Firm Entry and Exit in U.S. Manufacturing

Industries." *RAND Journal of Economics*, 19(4): 495–515.

National Research Council. 2007. "Understanding Business Dynamics: An Integrated Data System for America's Future." In *Panel on Measuring Business Formation, Dynamics*

and Performance, ed. J. Haltiwanger, L.M. Lynch, and C. Mackie. Committee on National Statistics, Division of Behavioral and Social Sciences and Education. Washington, DC; The National Academies Press.

Text Box 3-1.

### ENTREPRENEURIAL ACTIVITY ACROSS STATES

Analysts and policymakers want to understand entrepreneurial activity and the process of job creation, especially at the subnational level. Entrepreneurial activity is generally seen as crucial for innovation and growth. Currently,

few reliable data sources permit comparisons of entrepreneurial activity across time and space. One possible measure of entrepreneurial activity is the fraction of private sector, nonagricultural employment accounted for by young firms.

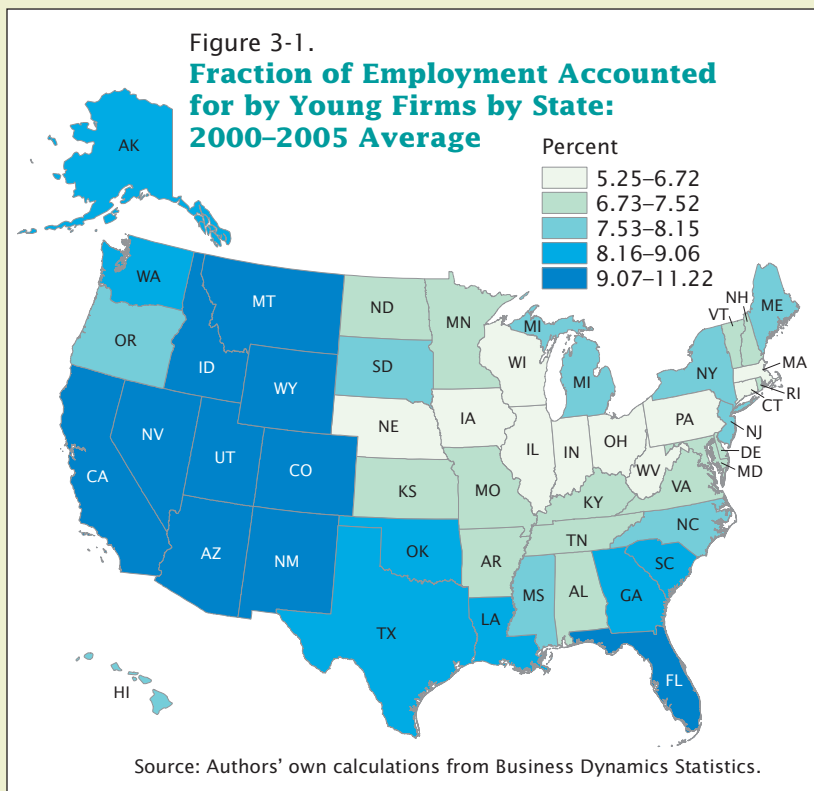


Figure 3-1 depicts the average share of employment accounted for by young firms (less than 3 years old) for each of the 50 states plus the District of Columbia in the Business Dynamics Statistics (BDS). States, mostly from the West and Southwest, have as much as 12 percent of employment accounted for by young firms. In contrast, states, mostly in the East and Midwest, have about 6 percent of employment accounted for by young firms.

Text Box 3-2.

## JOBS CREATED FROM BUSINESS STARTUPS IN THE UNITED STATES

### Business Startups Critical for Net Job Growth

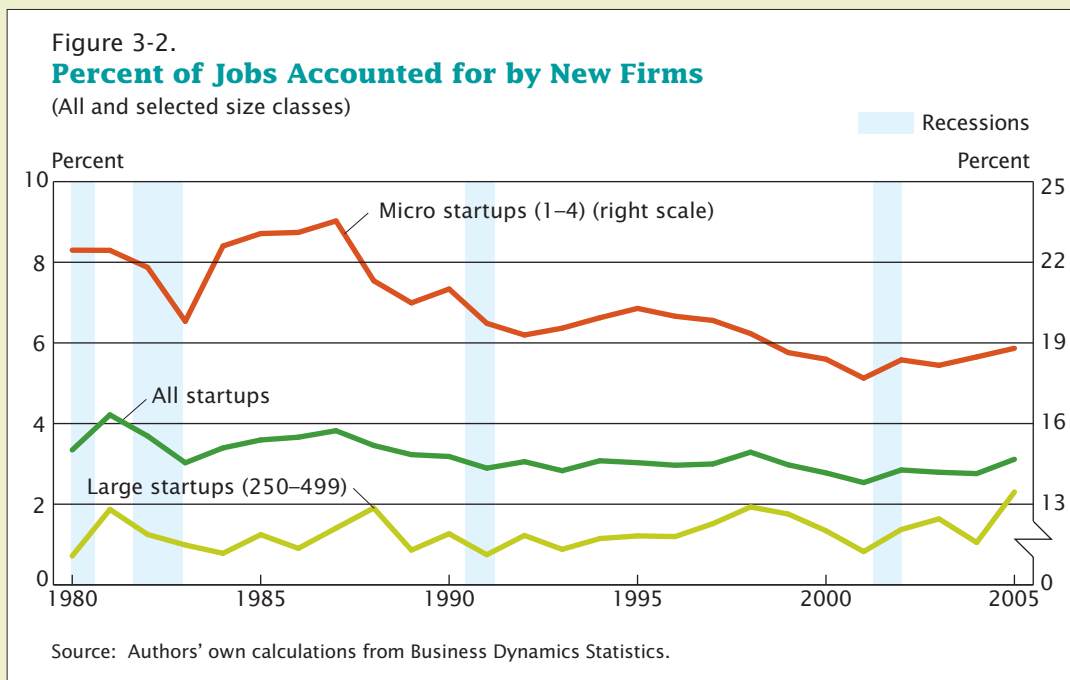
The fraction of U.S. private-sector nonfarm employment accounted for by business startups over the 1980–2005 period is about 3 percent per year. While this is a small fraction of overall employment, all employment from startups reflects new jobs. As such, 3 percent is large compared to the average annual net employment growth of the U.S. private sector for the same period (about 1.8 percent). This pattern implies that, excluding the jobs from new firms, the net employment growth rate for the United States is negative on

average highlighting the importance of business startups to job creation.

Figure 3-2 shows the fraction of jobs due to business startups for all firms and for selected firm size classes: micro firms and midsize to large firms. For micro firms (firms with 1 to 4 employees), the percent of jobs in any given year accounted for by business startups is very large—about 20 percent on average (measured in the figure on the right scale). For larger firms (firms with 250 to 499 employees), the percent of jobs in any given year accounted for by business startups is substantially smaller.

### Job Creation Over the Business Cycle

The figure also shows that the role of startups over the business cycle differs in interesting ways across firm size classes. With the exception of the 2001 recession, the startup share of jobs at micro firms drops during downturns. The share of jobs accounted for by startups for all firms and for large firms are, in contrast, considerably more stable. The only notable business cycle decline in the startup rate for all firms and larger startups is in the early 1980s.



Text Box 3-3.

### HIGH GROWTH AND FAILURE OF YOUNG FIRMS

What is the role of young entrepreneurial firms in job creation? Until now, researchers lacked comprehensive data broken out by firm age necessary for understanding this fundamental dynamic in our economy.

#### Young Firms Grow Faster Conditional on Survival but Also Have Relatively High Exit Rates

Figure 3-3 shows the relationship between firm age and two measures of business dynamics: net employment growth and job destruction. The net employment growth rate—employment change at continuing (surviving) establishments and employment growth from opening new establishments—is shown in the blue bars. The job destruction rate is employment change from establishments that do not survive (known as “exits”). Omitted from the chart are establishments of new startup firms that, by definition, have an employment growth rate equal to 200 and no job destruction.

The figure shows that establishments of young firms have higher employment growth rates, if they survive, than those of older firms. For example, establishments belonging to very young firms (age 1) have a net employment growth rate of about 15 percent conditional on survival, whereas those belonging to older firms (aged 29 and over) have a net employment growth rate of about 4 percent conditional on survival. However, young firms experience much more employment loss due to establishment exit—nearly 20 percent at very young firms—than do older firms.

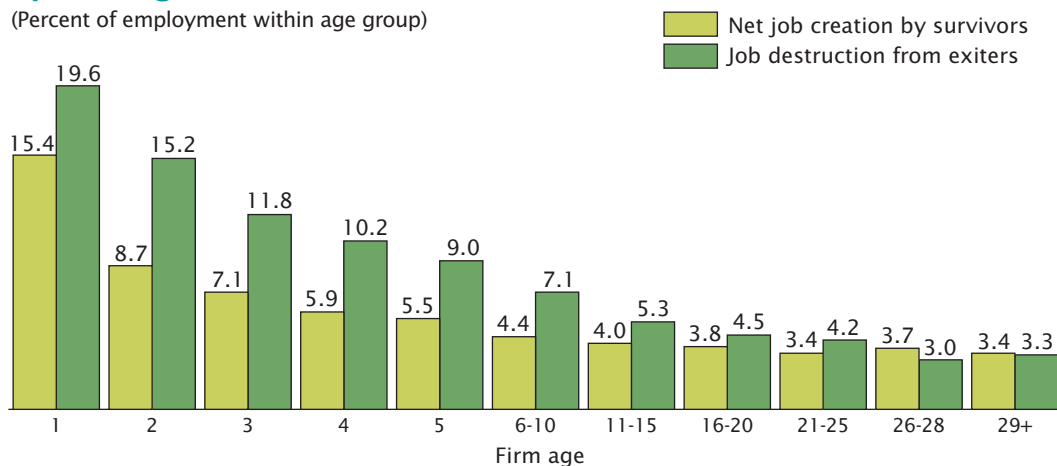
#### “Up or Out”

The pattern for young firms is thus one of “up or out” with very rapid net growth for survivors offset by a very high exit rate. This complex pattern highlights the importance of developing richer measures of business dynamics such as those in the BDS.

Figure 3-3.

#### Employment Dynamics for Survivors and Exitters by Firm Age: 1987–2005

(Percent of employment within age group)



Source: Authors' own calculations from Business Dynamics Statistics.