The critical role of *new* firms

Ryan A. Decker Federal Reserve Board

Without implication, this presentation draws on joint work with John Haltiwanger, Ron Jarmin, Meagan McCollum, Javier Miranda, and Greg Upton. Prepared for the 2019 Kenan Institute Frontiers of Entrepreneurship Conference.

The analysis and conclusions set forth here are those of the author and do not indicate concurrence by other members of the Federal Reserve research staff or the Board of Governors.

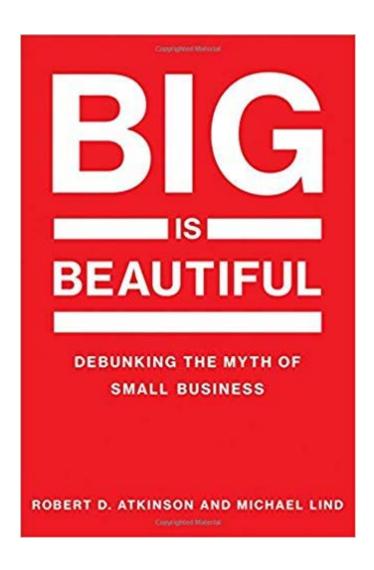
Any opinions and conclusions expressed herein are those of the author and do not necessarily represent the views of the U.S. Census Bureau. All results have been reviewed to ensure that no confidential information is disclosed.

Can big, incumbent firms deliver all the productivity and job growth?

- Incumbents seem to have key advantages
 - Scale
 - Access to funds (internal/external)
 - Capital stock (physical, intangible, human)
 - Political power

Can big, incumbent firms deliver all the productivity and job growth?

- Incumbents seem to have key advantages
 - Scale
 - Access to funds (internal/external)
 - Capital stock (physical, intangible, human)
 - Political power
- A recent view: big (incumbent) firms are best



Can big, incumbent firms deliver all the productivity and job growth?

- Incumbents seem to have key advantages
 - Scale
 - Access to funds (internal/external)
 - Capital stock (physical, intangible, human)
 - Political power
- A recent view: big (incumbent) firms are best

But (old!) theories of the firm suggest some incumbent disadvantages:

Can big, incumbent firms deliver all the productivity and job growth?

- Incumbents seem to have key advantages
 - Scale
 - Access to funds (internal/external)
 - Capital stock (physical, intangible, human)
 - Political power
- A recent view: big (incumbent) firms are best

But (old!) theories of the firm suggest some incumbent disadvantages:

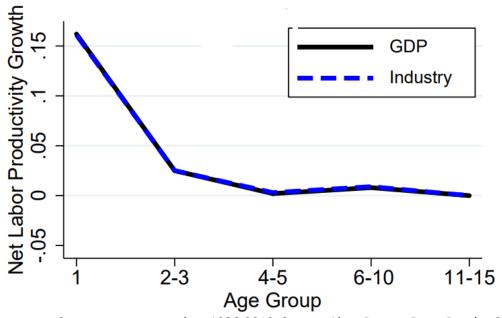
- Within-firm "property rights" (Grossman & Hart 1986)
- Incentive systems (Holmstrom & Milgrom 1991)
- "Growth options" (Myers 1977)
- "Disruption"/ "innovator's dilemma" (Christensen 1997)
- Revenue function curvature (Lucas 1978, Hopenhayn 1992)

Recent entrants disproportionately account for aggregate **productivity growth**

 Entrants: ¼ to ½ of aggregate productivity growth (Decker et al. 2017 OP decomps)

Recent entrants disproportionately account for aggregate **productivity growth**

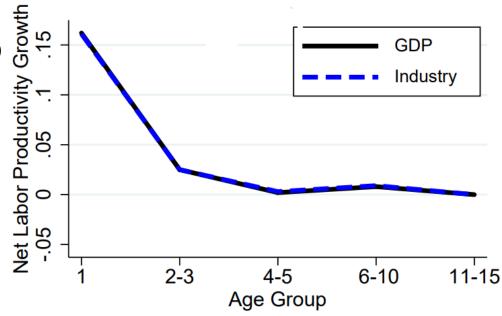
- Entrants: ¼ to ½ of aggregate productivity growth (Decker et al. 2017 OP decomps)
- No productivity growth among mature firms, on average (Alon et al. 2018)



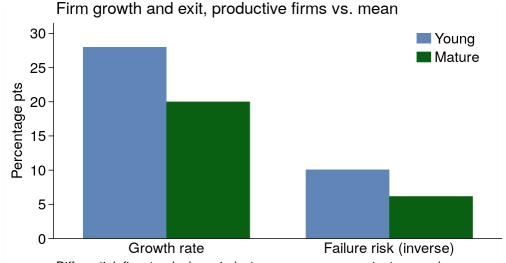
Gross output per worker, 1996-2012. Source: Alon, Berger, Dent, Pugsley 2018

Recent entrants disproportionately account for aggregate **productivity growth**

- Entrants: ¼ to ½ of aggregate productivity growth (Decker et al. 2017 OP decomps)
- No productivity growth among mature firms, on average (Alon et al. 2018)
- Productivity selection acts more intensely on young firms (Decker et al. 2018a)
 - Though selection has weakened



Gross output per worker, 1996-2012. Source: Alon, Berger, Dent, Pugsley 2018

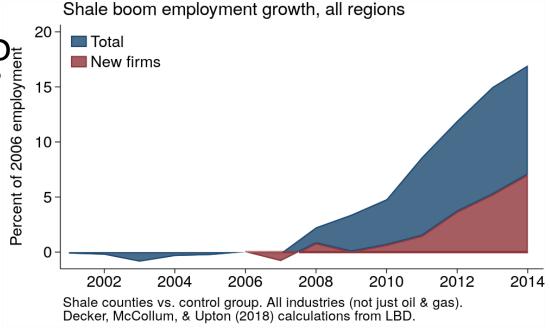


Differential, firm 1 s.d. above industry mean vs. mean output per worker. Averages over 1996-2013, controlling for business cycle and firm size. Decker, Haltiwanger, Jarmin, Miranda (2018) calculations from RE-LBD.

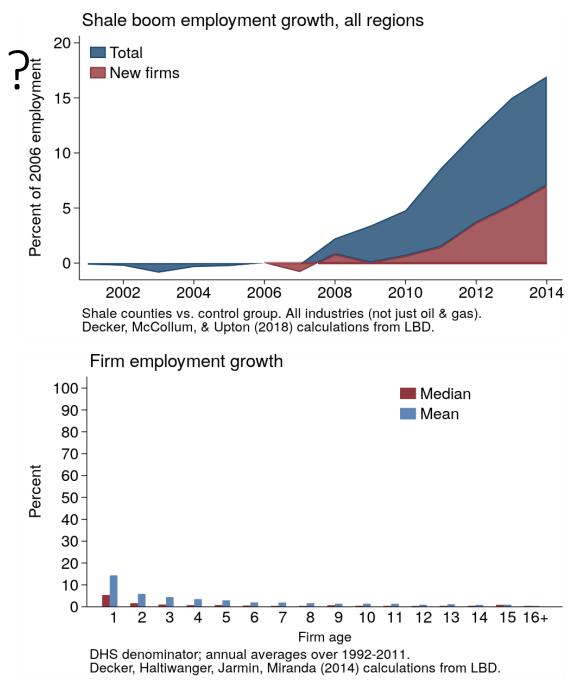
Recent entrants disproportionately account for aggregate **job growth**

- Entrants: 15-20% of gross job creation
 - Has been trending down!

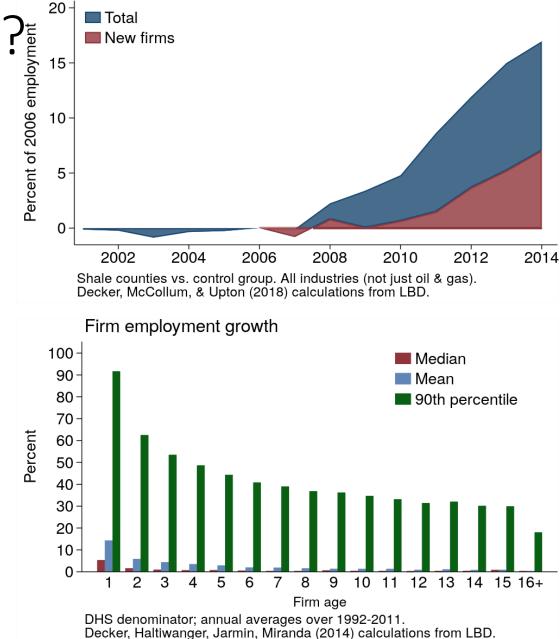
- - Has been trending down!
- Large role in overall response to shocks (Adelino et al. 2017, Decker et al. 2018b)



- Large role in overall response to shocks (Adelino et al. 2017, Decker et al. 2018b)
- No job growth among mature firms, on average

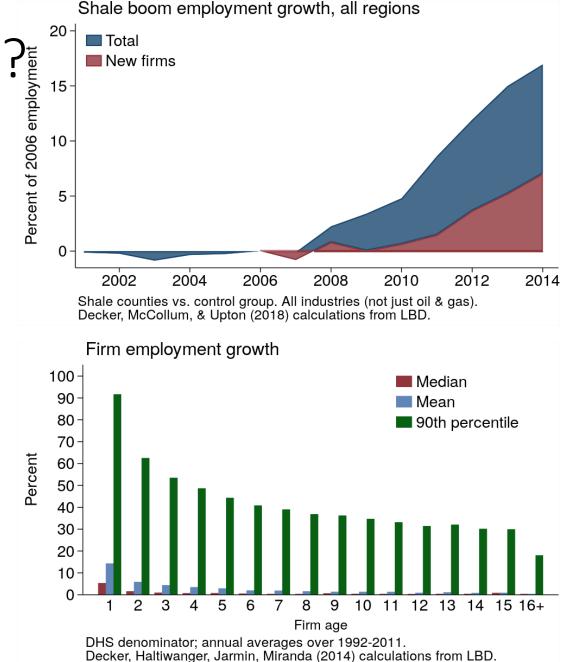


- Large role in overall response to shocks (Adelino et al. 2017, Decker et al. 2018b)
- No job growth among mature firms, on average
- Disproportionate share of "high-growth" firms are young (Haltiwanger et al. 2016)
 - Also trending down (Decker et al. 2016)



Shale boom employment growth, all regions

- - Has been trending down!
- Large role in overall response to shocks (Adelino et al. 2017, Decker et al. 2018b)
- No job growth among mature firms, on average
- Disproportionate share of "high-growth" firms are young (Haltiwanger et al. 2016)
 - Also trending down (Decker et al. 2016)
- High failure rate, BUT typical cohort retains 80% of entry employment at age 5 (Decker et al. 2014)



Entrants play critical role...

- ...and spawning is an important source of entrants
 - Can access some advantages of incumbents ("entrepreneurial incubators" as in Avnimelech & Feldman)...
 - ...without some of their constraints
- Role of spawns in overall entrant contributions is likely disproportionate
 - And understated? Even threat of spawning can boost innovation (Amador & Landier 2003)