Why entrepreneurial skewness?

Potential reasons:

- Uncertainty about potential profitability for entrants and the subsequent selection and learning dynamics of young firms imply both dispersion and skewness in the growth rate distributions for young firms (Jovanović, 1982).
- Variation in productivity at the firm level stems from endogenous innovation (Acemoglu et al., 2013).
- Entrepreneurs exhibit ex ante heterogeneity in type:
  - Subsistence vs transformational entrepreneurs (Schoar, 2010).

Lots of heterogeneity across sectors

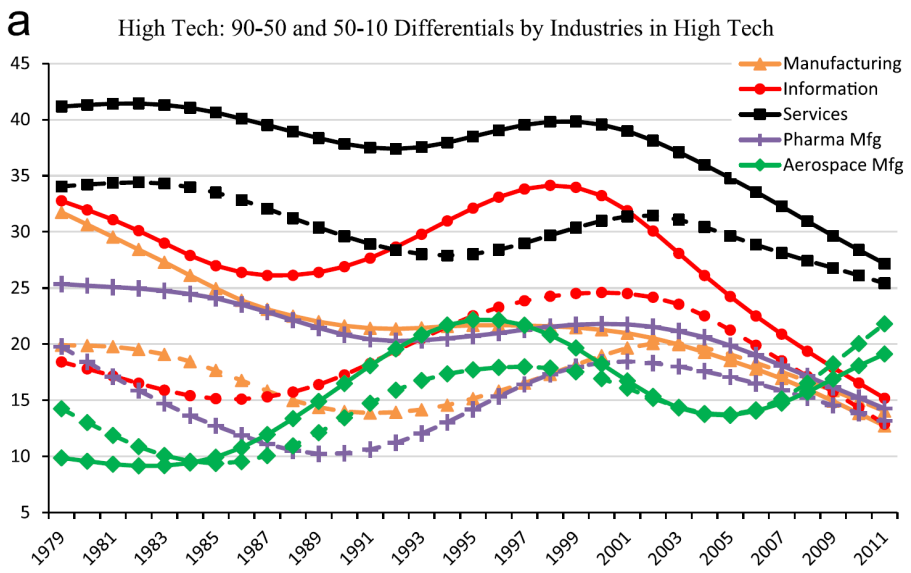
- The decline in dispersion is very different across sectors (figures 3 and 4)
  - Retail and service sectors exhibit the largest decline
  - Finance, insurance and real estate (FIRE) exhibit flat or increasing trend up to 2000
- There is a convergence in the post-2000 period
- Interesting trend for the information sector (high tech companies: spike around the dot-com bubble
- Similar picture when looking at the share of employment at young firms (figure 4)

Business dynamics - Summing up

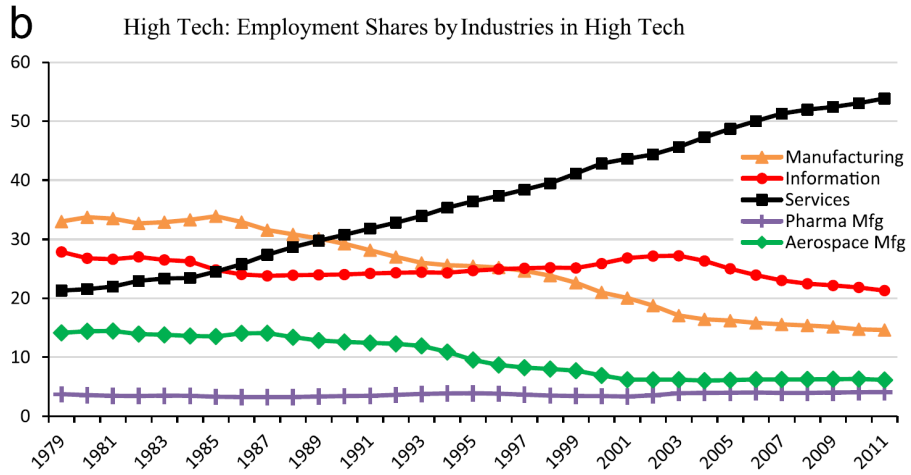
- Secular decline of US business dynamics
- Large heterogeneity by sector and firm type (private vs public firm)
  - Sector:
    - Decline was dominated by traditional sectors (retail and service)
    - Information and high tech had increase dispersion pre 2000 and then converged to traditional sectors after 2000
  - Public firms had an increase in dispersion around 2000 and then a decline thereafter

Disaggregating high-tech sector by industries

90-50 and 50-10 differentials for some industries



Employment shares by industries in high tech



High heterogeneity across industries

For instance compare manufacturing with services

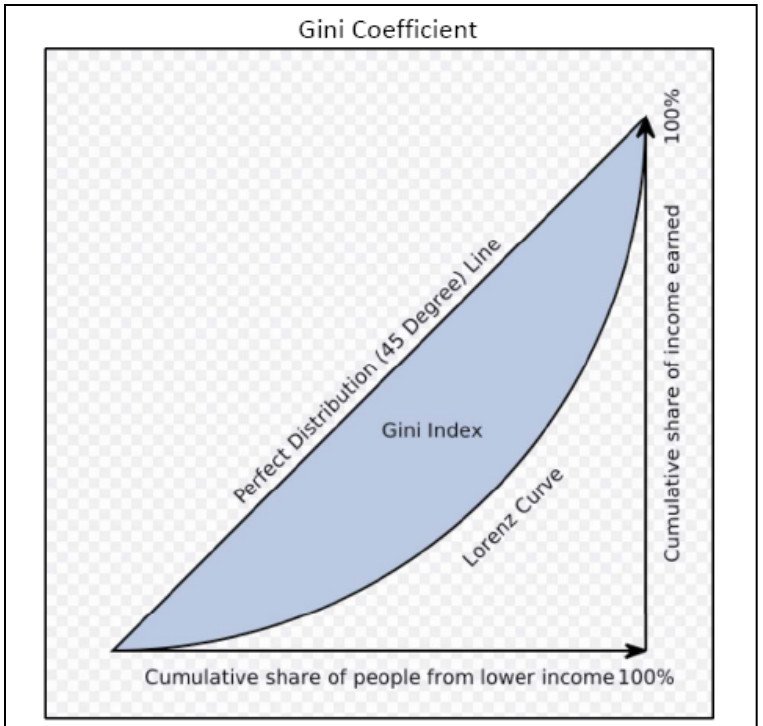
Fig. 16. (a) High tech: 90 – 50 and 50 – 10 differentials by industries in high tech. *Note*: *Y* axis does not start at zero. Solid (dashed) lines indicate 90 – 50 differential (50 – 10 differential). The 90 – 50 differential (50 – 10 differential) is the difference between the 90th and the 50th percentile (50th and 10th percentile) of the employment-weighted distribution of firm employment growth rates. Data are HP trends using parameter at 100. High tech is defined as in Hecker (2005) (see web appendix Table A1). "Manufacturing" is all Manufacturing high tech except pharmaceuticals and aerospace. Industries are defined on a consistent NAICS basis. Data include all firms (new entrants, continuers, and exiters). Author calculations from the Longitudinal Business Database. (b) High tech: employment shares by industries in high tech. *Note*: High tech is defined as in Hecker (2005) (see web appendix Table A1). "Manufacturing" is all Manufacturing high tech except pharmaceuticals and aerospace. Industries are defined on a consistent NAICS basis. Data include all firms (new entrants, exiters, and continuers). Author calculations from the Longitudinal Business Database.

Final remarks

- Persistent decline in US business skew over last decades
  - In 1990s the decline was driven by traditional sectors (retail, manufacturing)
  - Post-2000 the decline was involved also transformational businesses
  - A lot of heterogeneity across sectors and firm type
- Instructive paper – show novel facts about US economy
- Important to understand reasons behind the changes experienced after 2000

Firm size distribution and growth

- Expanding heterogeneity of firms
  - In early days, firms in industry will be very similar, Gini coefficient is zero
  - Over time, divergence and rising Gini coefficient
  - Most efficient firms never die



Firm size distribution and growth (2)

- Small firms growth faster conditional on no exit
  - Basis for econometric challenges with Gibrat's Law
- Narrowing dispersion in firm growth rates
- Big initial differences in growth rates across firms due to heterogeneity
  - Big revisions in x* as firms adjust priors
- In time, everyone grows at same rate
  - Quality is understood, with each firm only reacting to changes in the economy as a whole