Reconciling Micro and Macro Evidence on the U.S. Economy

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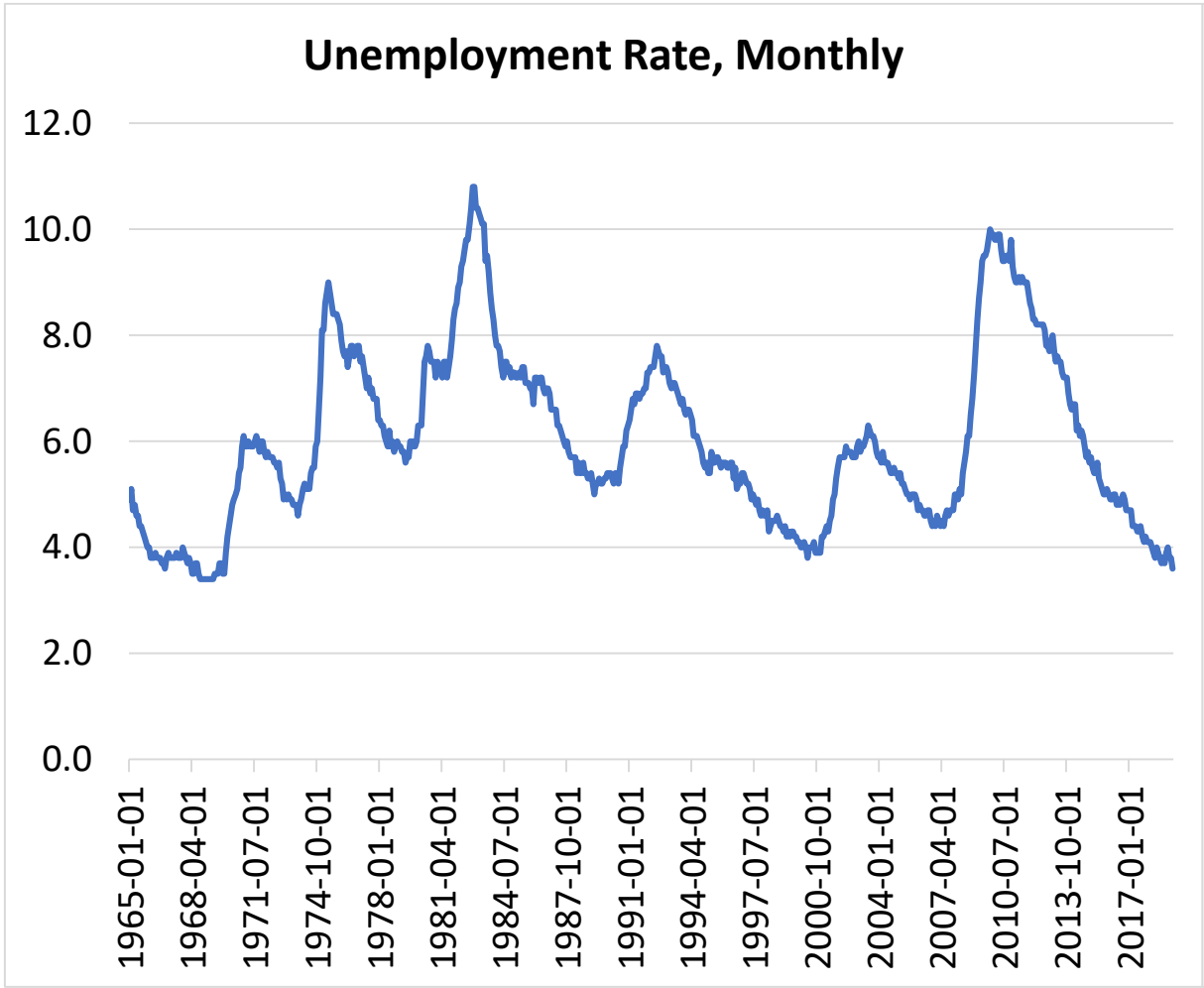
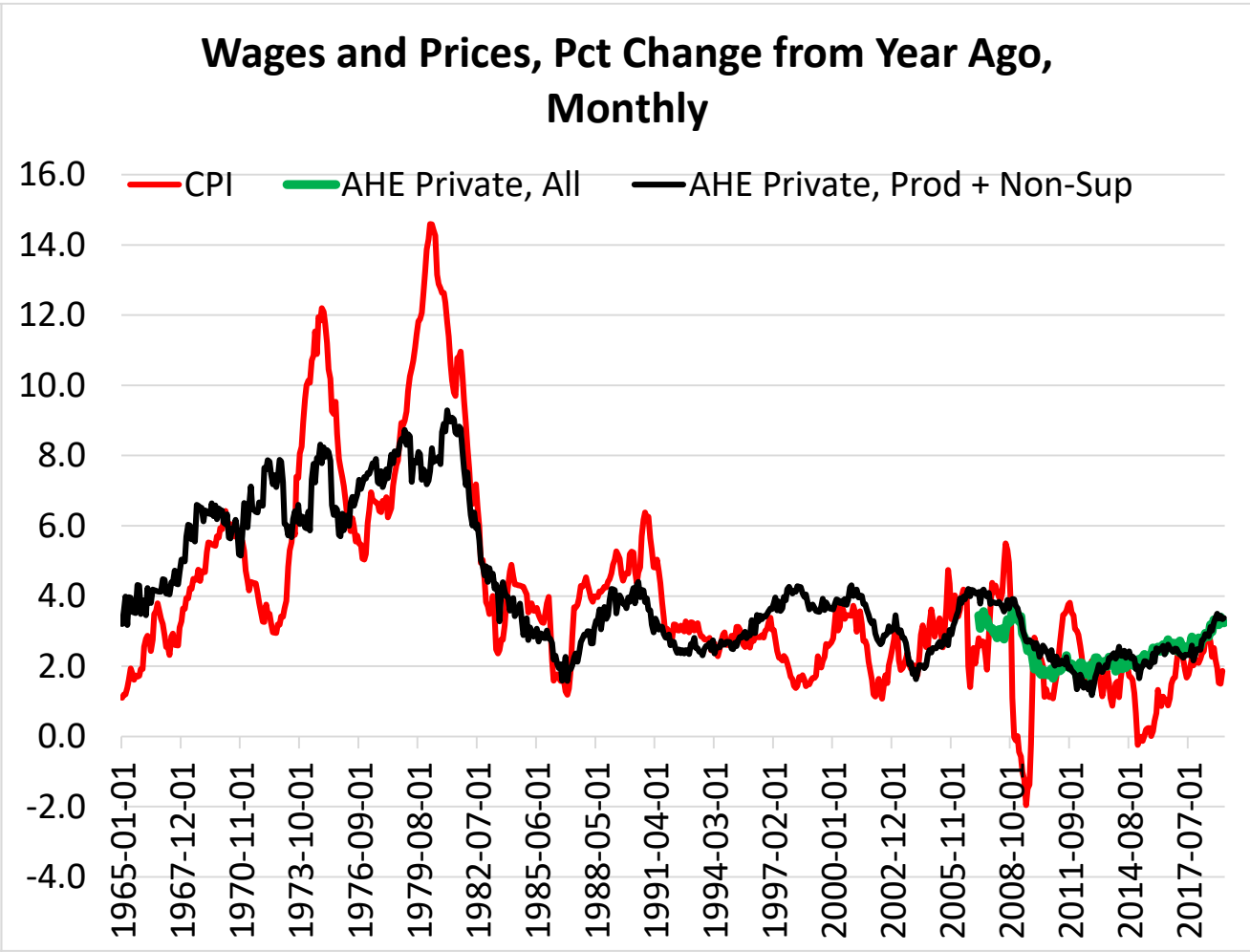
*This talk without implication draws on collaborative work with many colleagues (including a number that are in this room)

Key Indicators Suggest U.S. Economy is a Robust Period of Low Unemployment and Moderate Pressure on Inflation

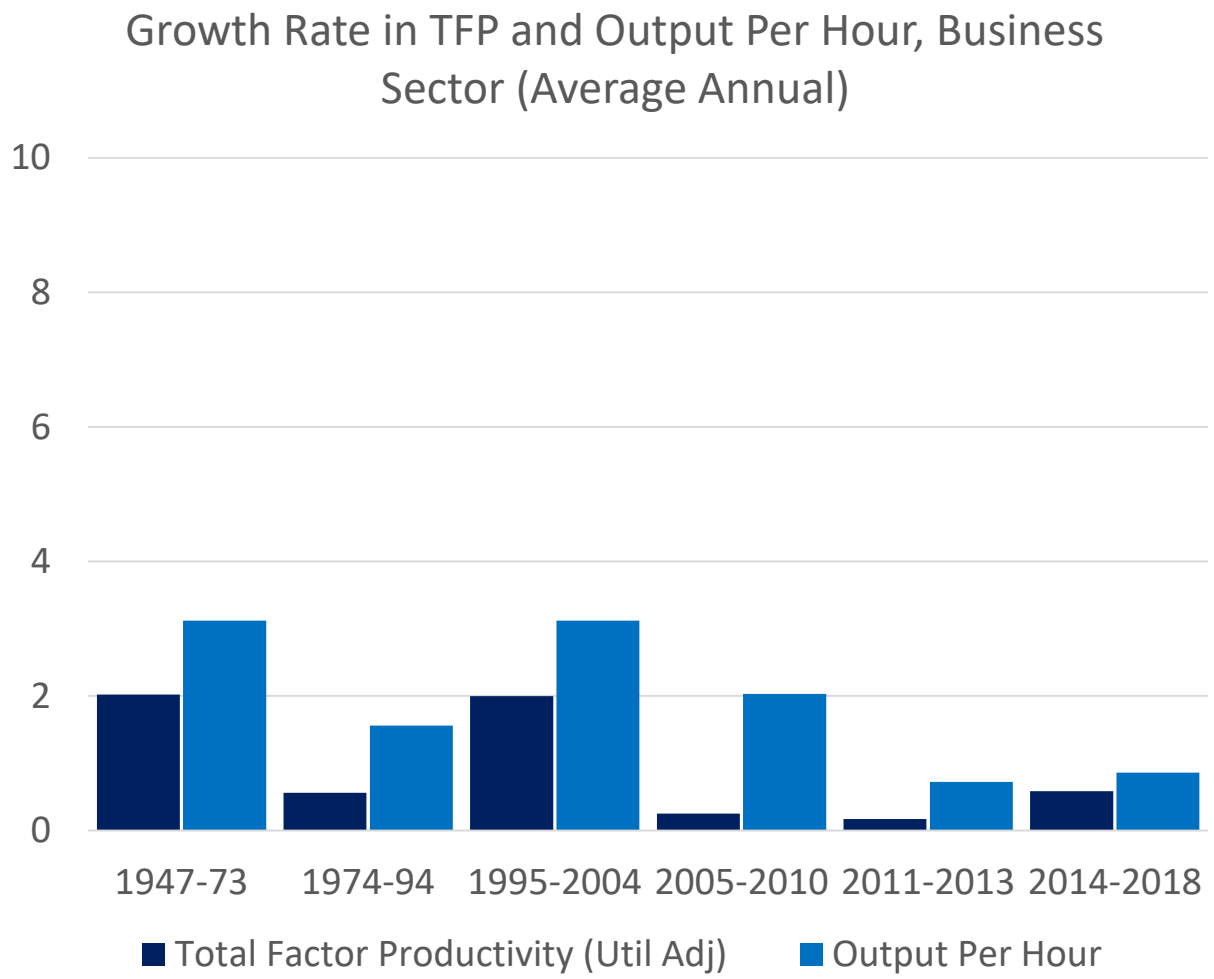


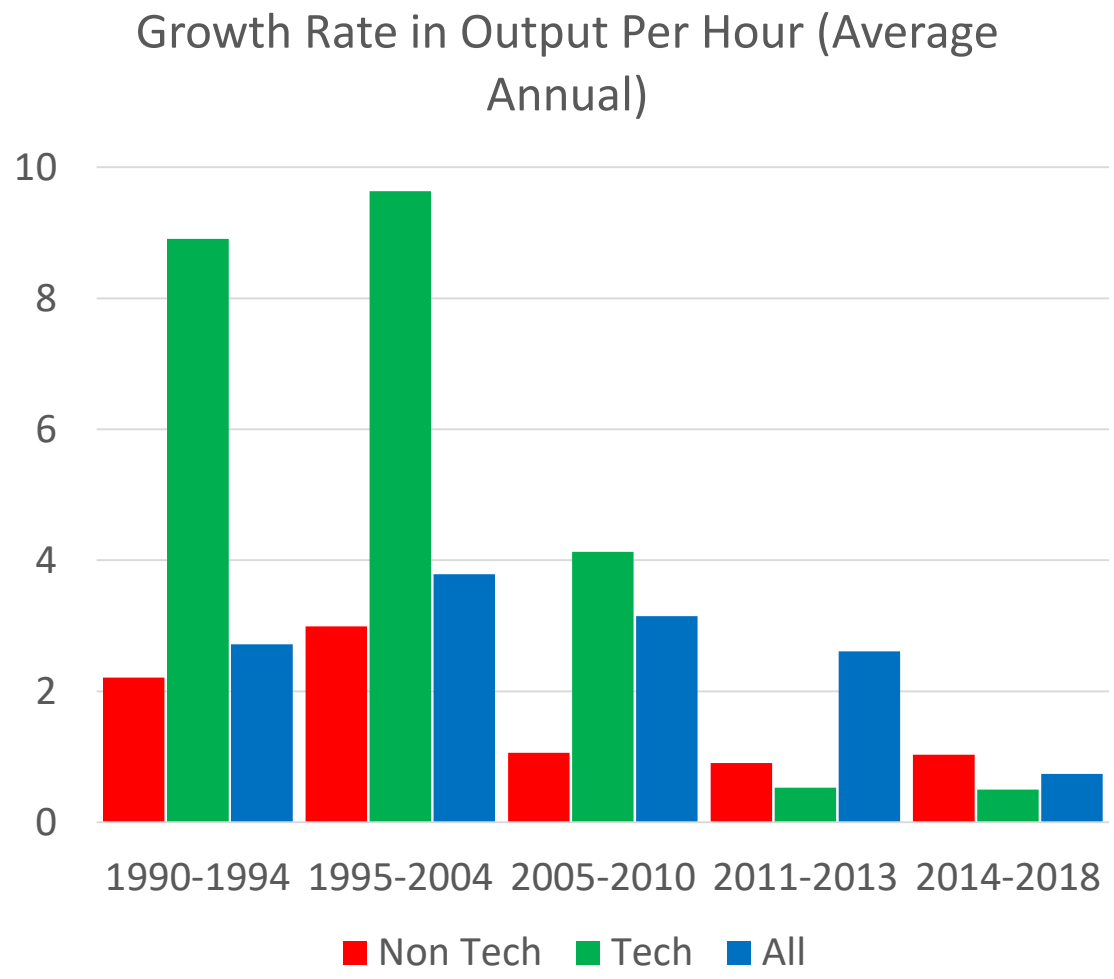


Source: BLS

Productivity Growth Has Been Very Low Since Early 2000s. Including in High Tech (STEM intensive industries).

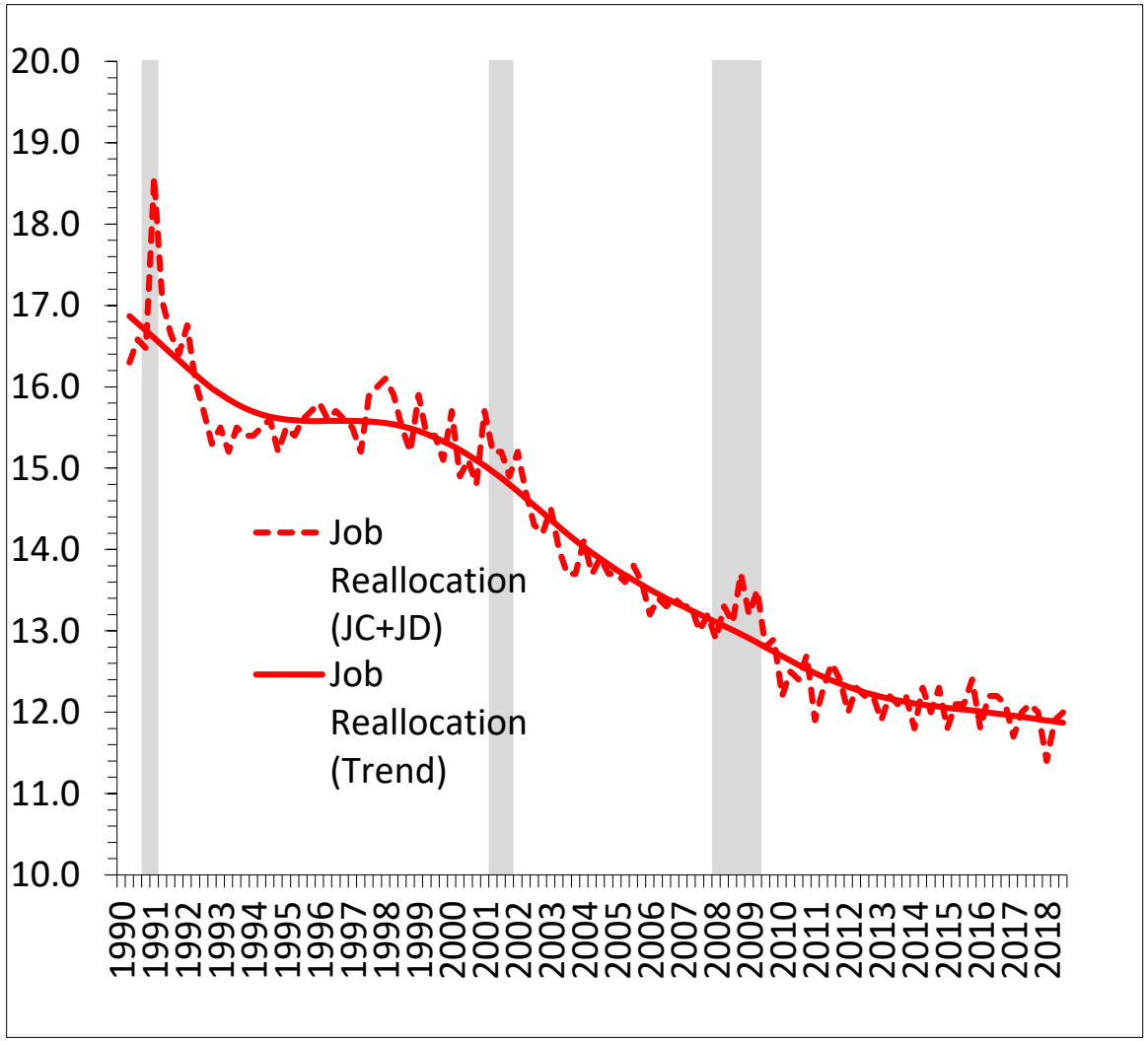
Some modest signs of recent upturn (last 4 quarters).

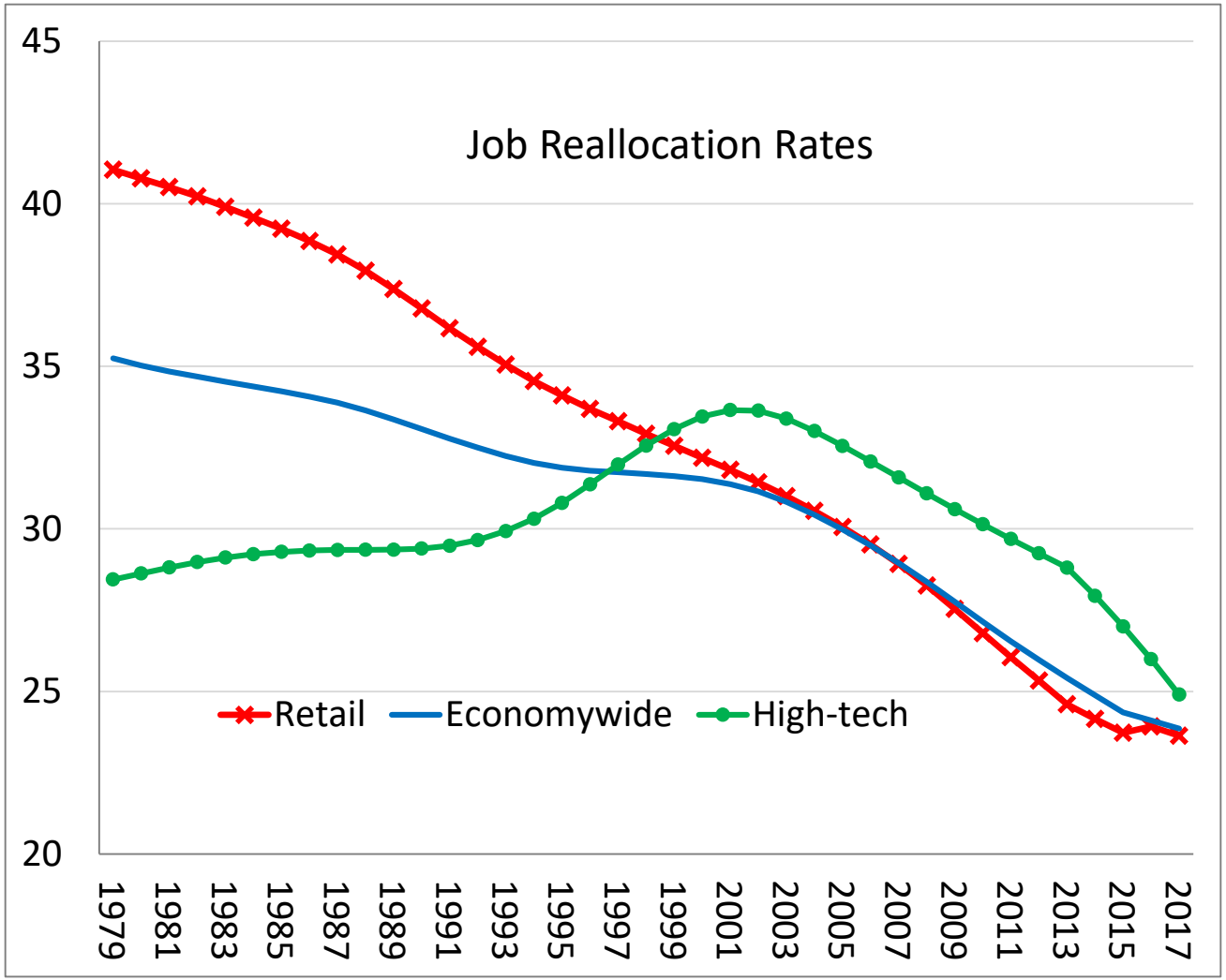




Source: Left Panel from Fernald, SF Fed. Right Panel from Aggregated 4-digit industries from BLS

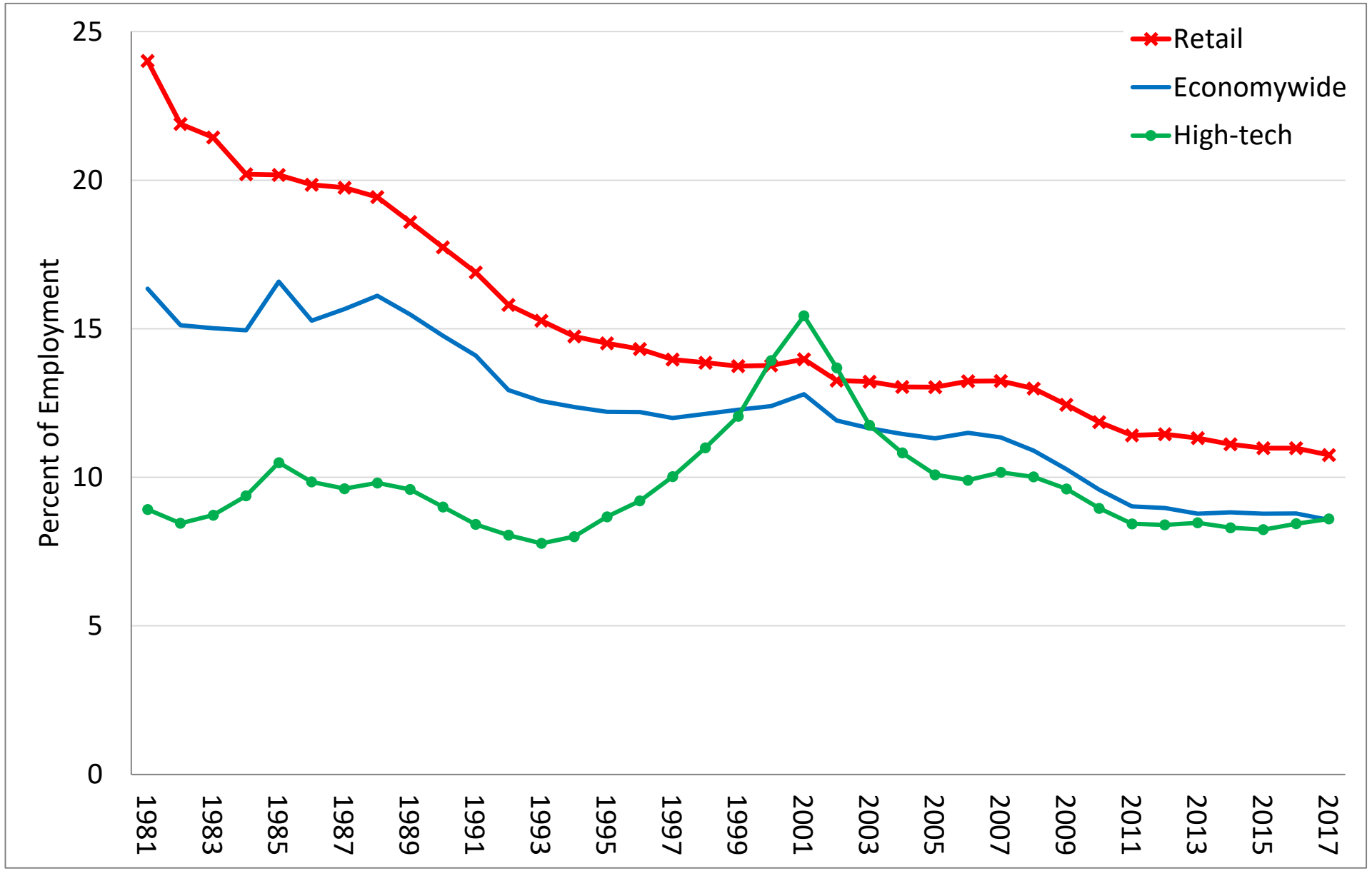
Post 2000 Decline in Productivity Growth Accompanies by Decline in Business Dynamism. (Dynamism Declining Even in High Tech in Post 2000 Period).



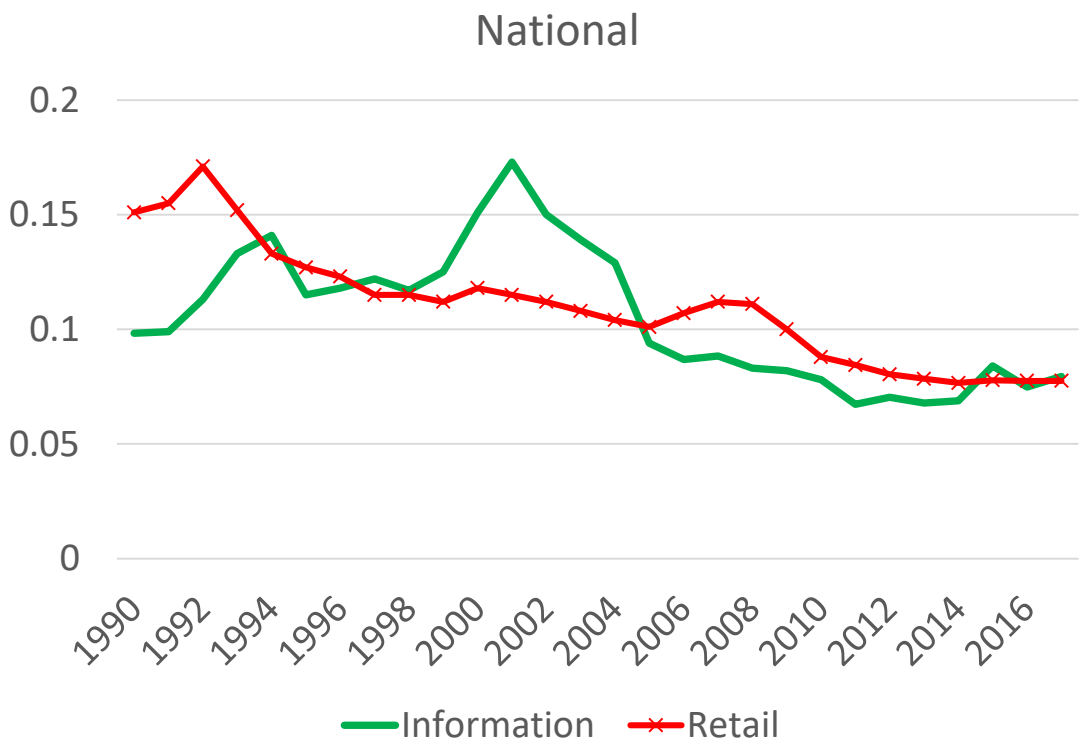


Source: Left Panel (BED, BLS). Right Panel: Spliced LBD tabulations from Decker et. al. (2017) and BED (Hodrick Prescott Trends)

Share of Activity at Young (Less than 5 years Old) Firms, U.S. Private Sector, High-Tech and Retail Sectors



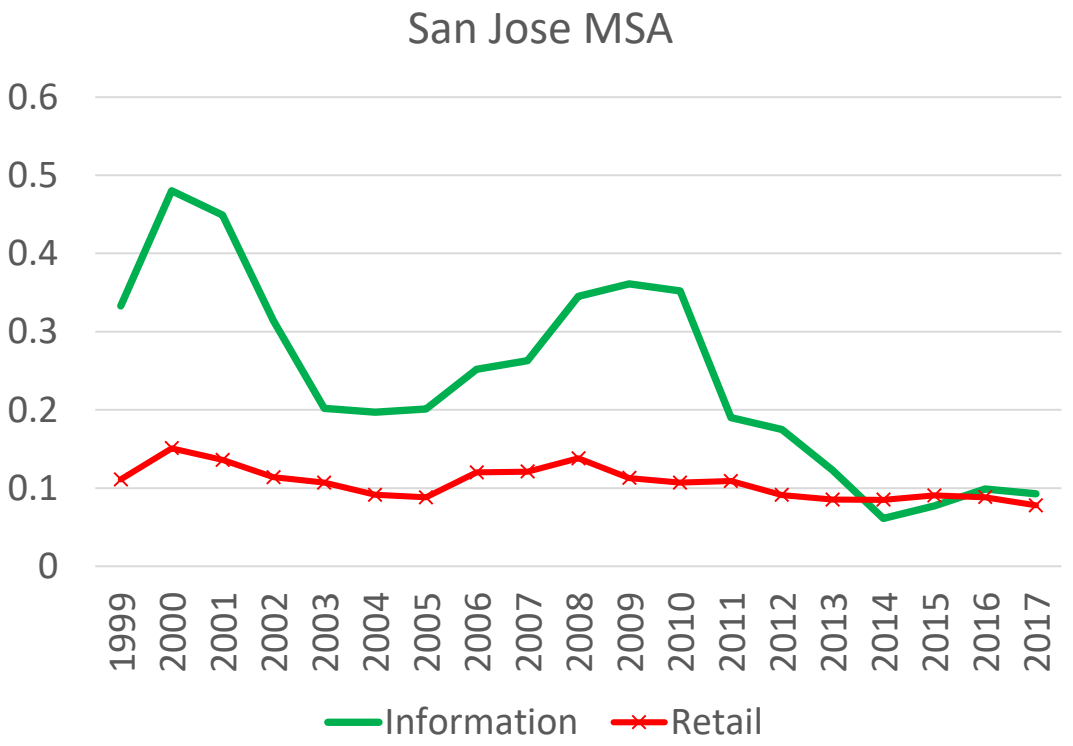
Source: Tabulations from LBD (Census) by Decker et. al. (2017) spliced with Business Employment Dynamics (BLS)



QWI national trends broadly match BDS

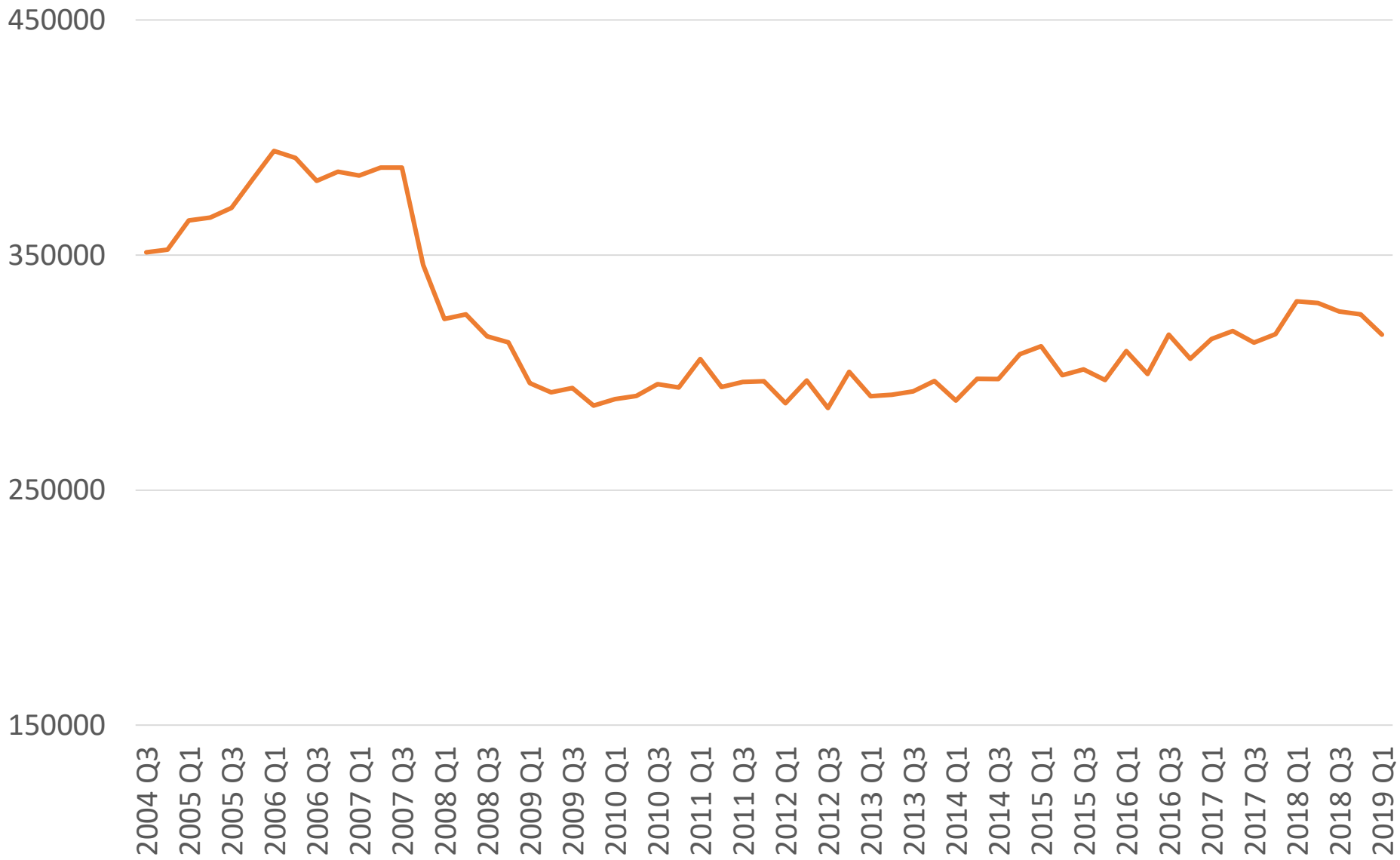
Share of Employment at Young (Age<6)

In 2000, about 50 percent of employment in in the information sector in San Jose MSA (including Silicon valley) was in firms < 6 years old. Now it is about 10 percent.



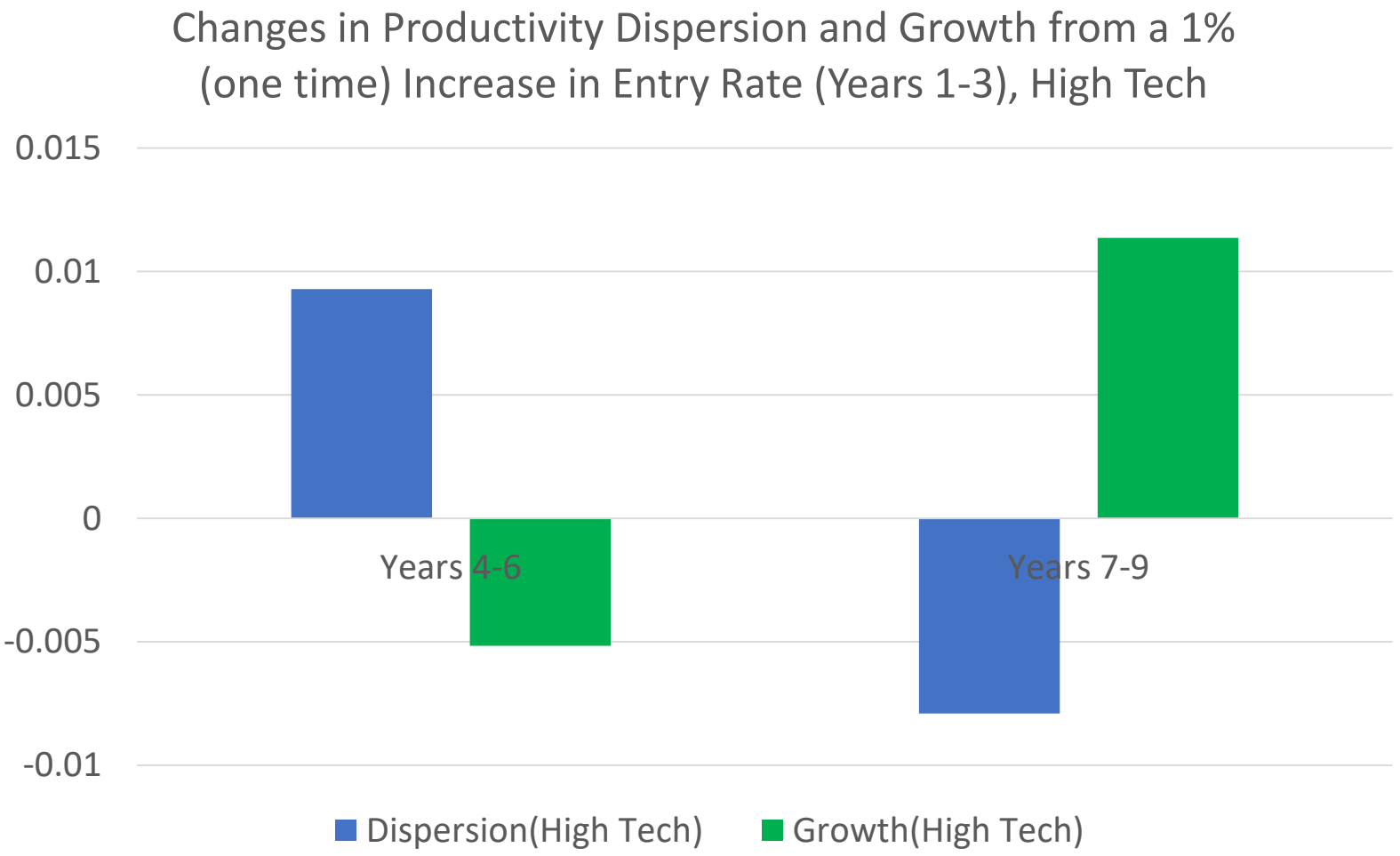
Source: Quarterly Workforce Indicators (QWI)

High Propensity New Business Applications Only Show Modest Recovery from Decline in Great Recession



Source: Business Formation Statistics

Dynamics of Entry, Productivity dispersion and Productivity growth



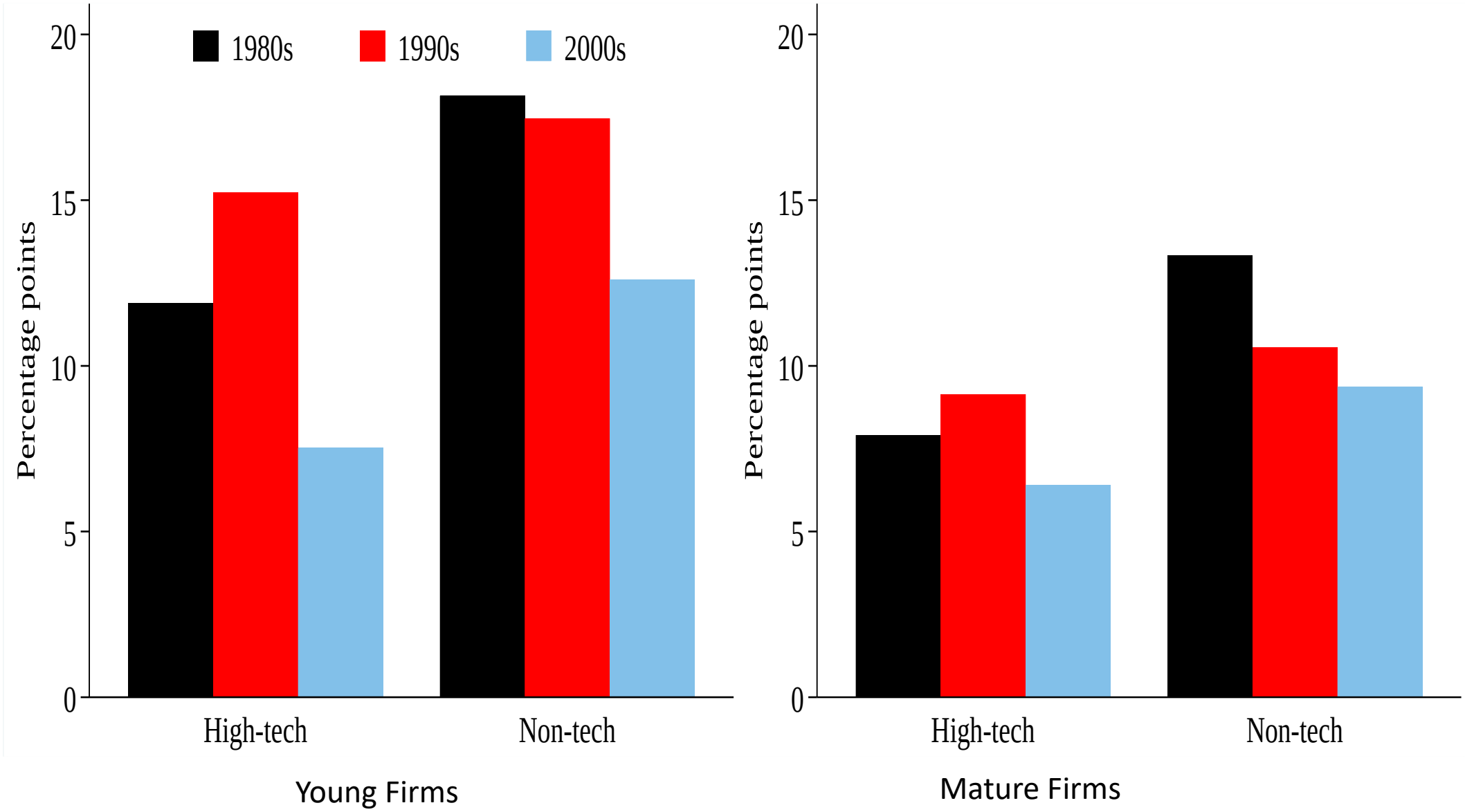
Surge in entry in a given 3-year period leads to:

- Rise in within industry productivity dispersion and decline in industry productivity growth in next 3-year Period
- Decline in within industry productivity dispersion and rise in industry in subsequent 3-year period
- Surge in reallocation following surge in entry as well (not depicted).
- Similar, dampened patterns for Non-Tech

Source: Foster et. al. (2018)

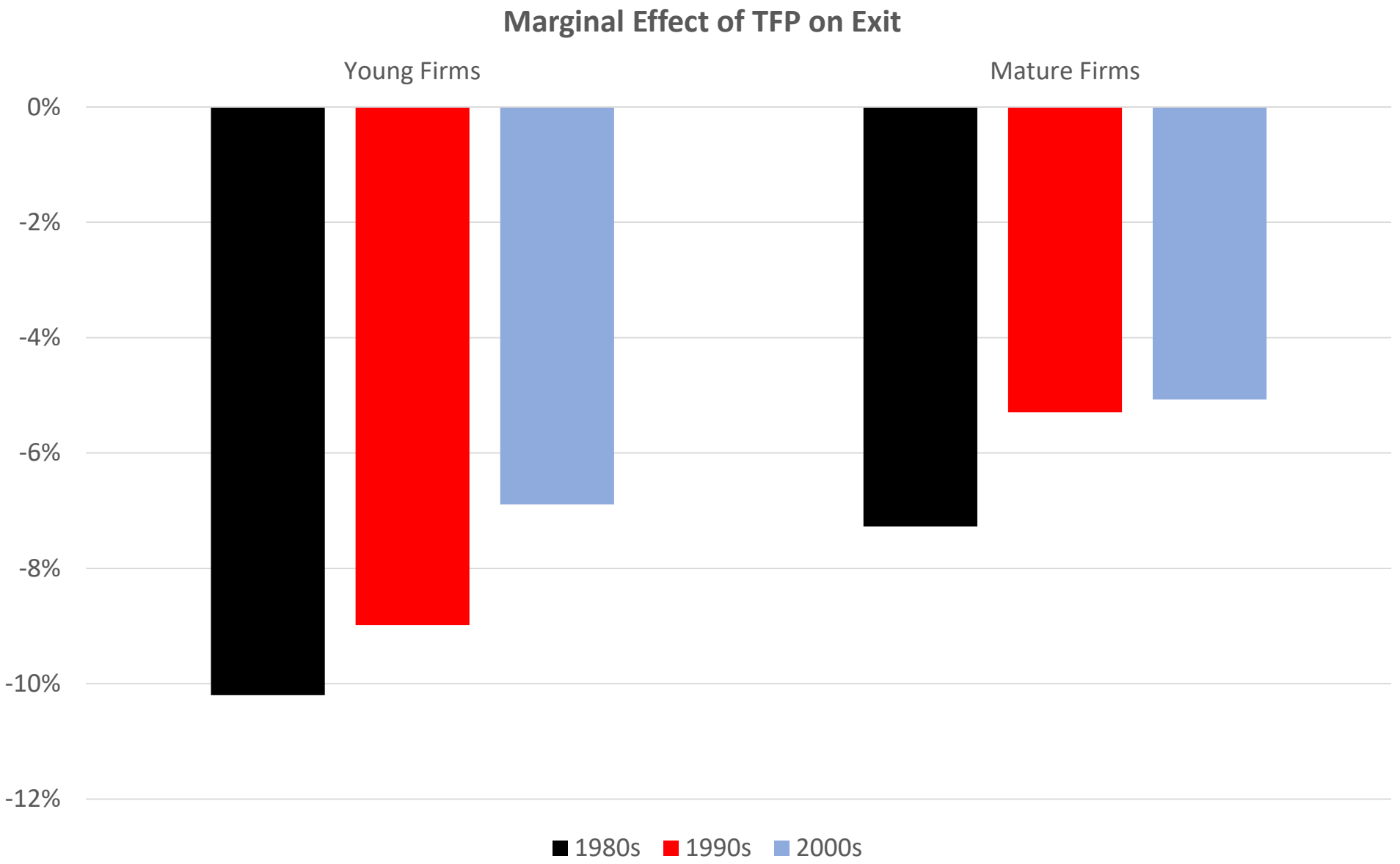
Using 4-digit NAICS data for High Tech sectors (ICT in mfg and non-mfg plus sectors such as Bio Tech)

Responsiveness to TFP Shocks has Declined in Post 2000 in Manufacturing. Similar results for Labor Productivity Shocks For Entire Private Sector



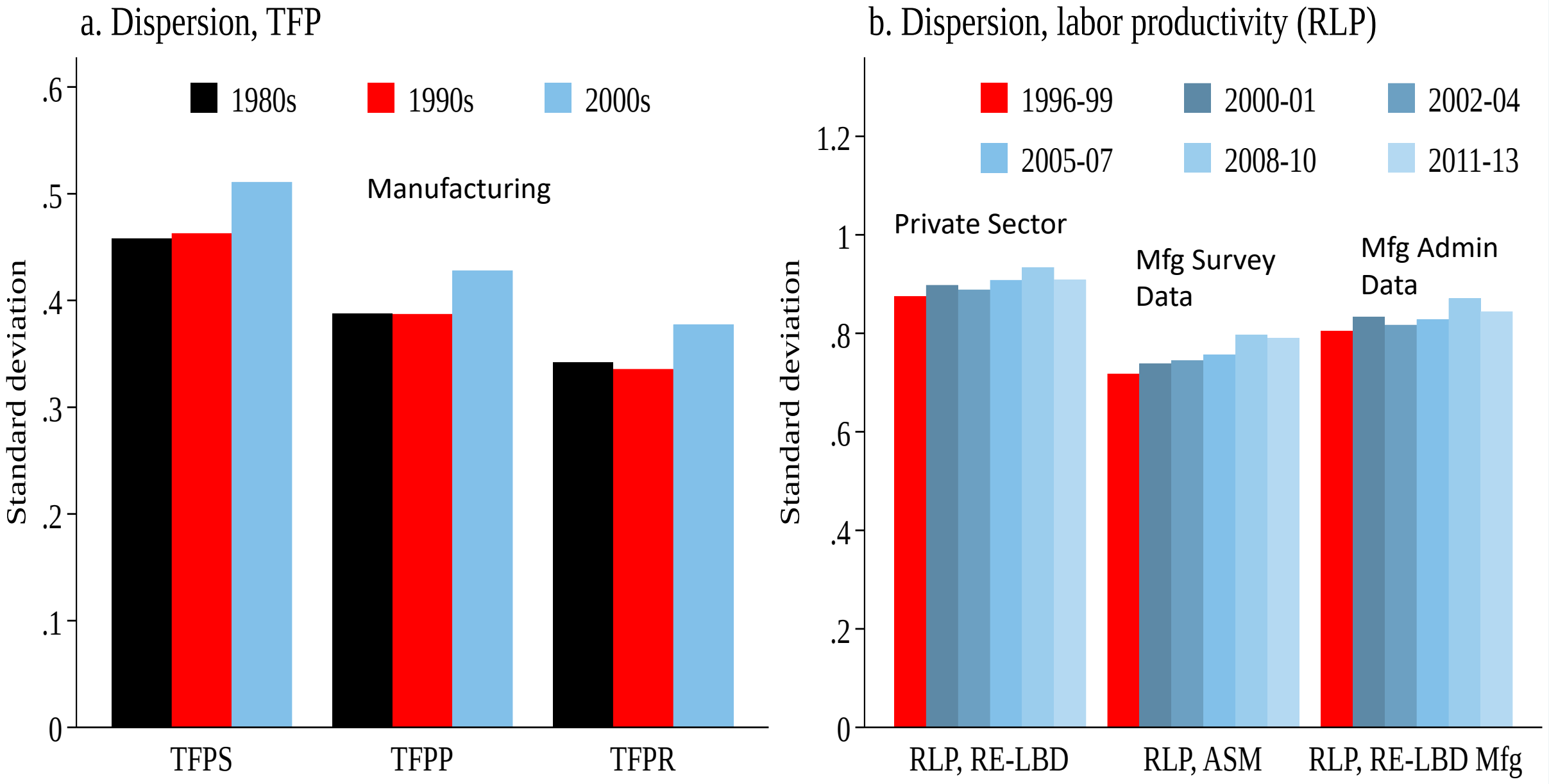
Source: Decker et. al. (2019) using tabulations from LBD/ASM/CM

An Important Component of Declining Responsiveness is that Low Productivity Firms Less Likely to Exit



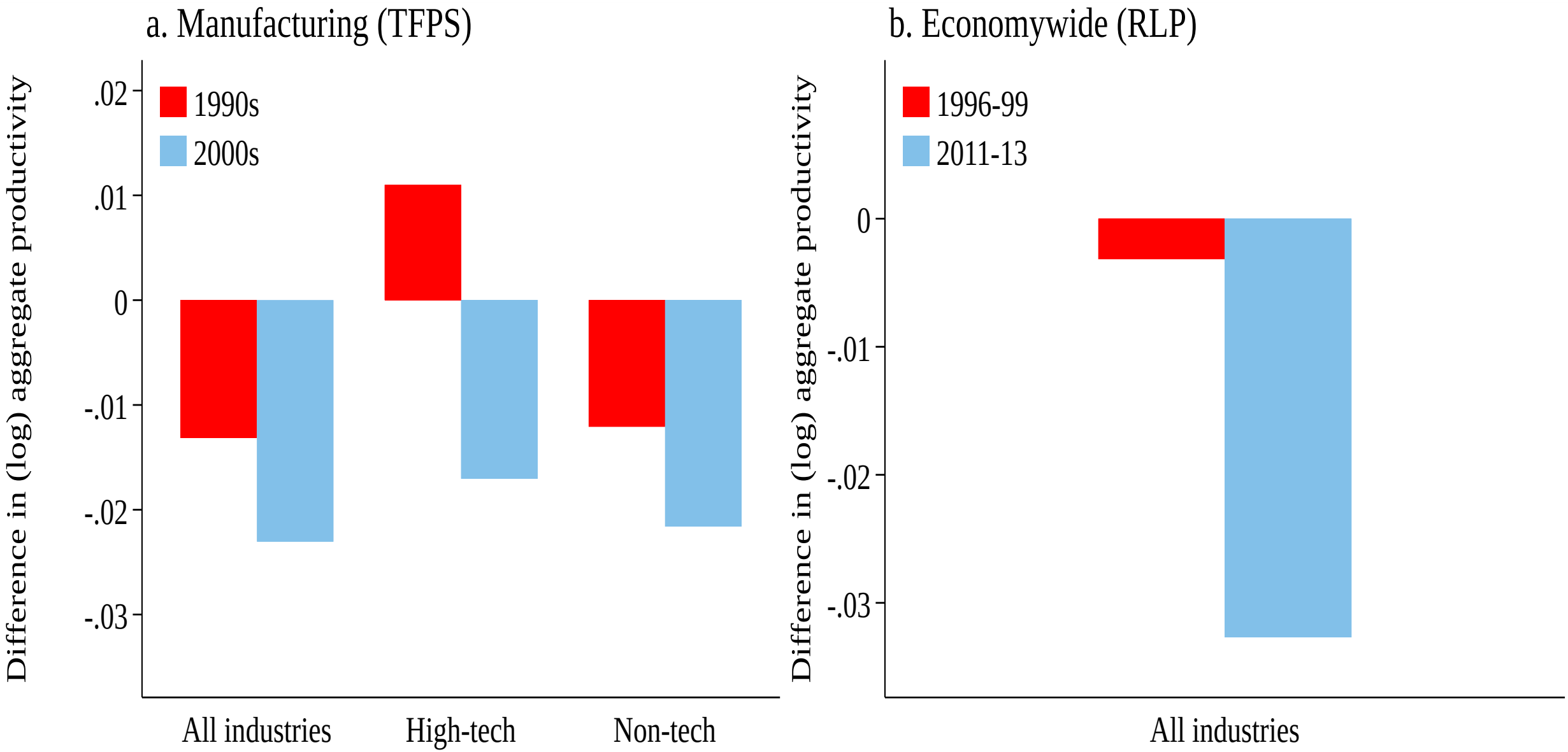
Source: Decker et. al. (2019) using tabulations from LBD/ASM/CM

TPF Shock Dispersion has Risen. Revenue Productivity (TFPR and Labor Productivity (RLP)) Dispersion Has Also Risen.



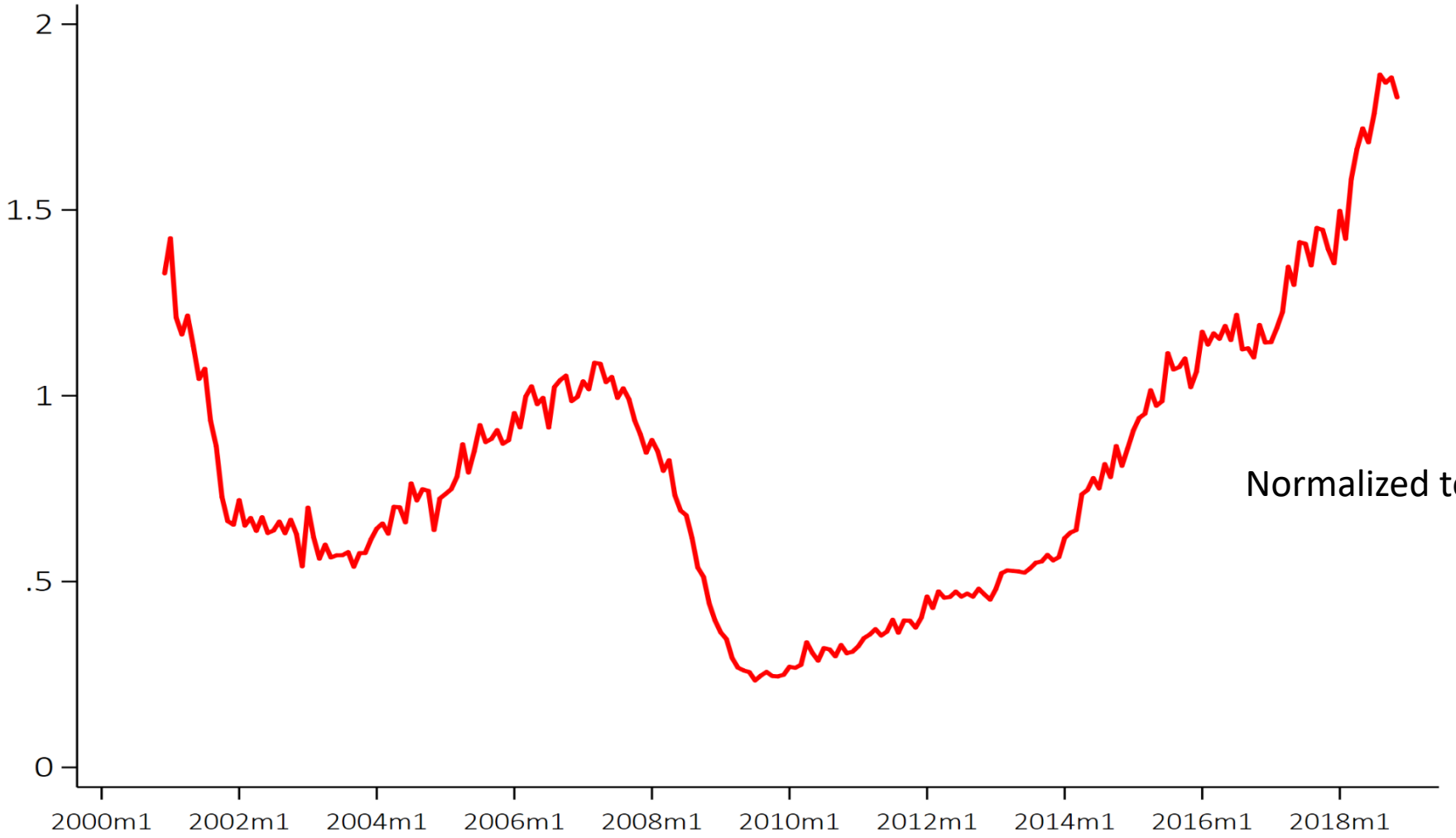
Source: Decker et. al. (2019) using tabulations from LBD/ASM/CM

Annual Drag on Productivity from Declining Responsiveness is Substantial



Source: Decker et. al (2019)

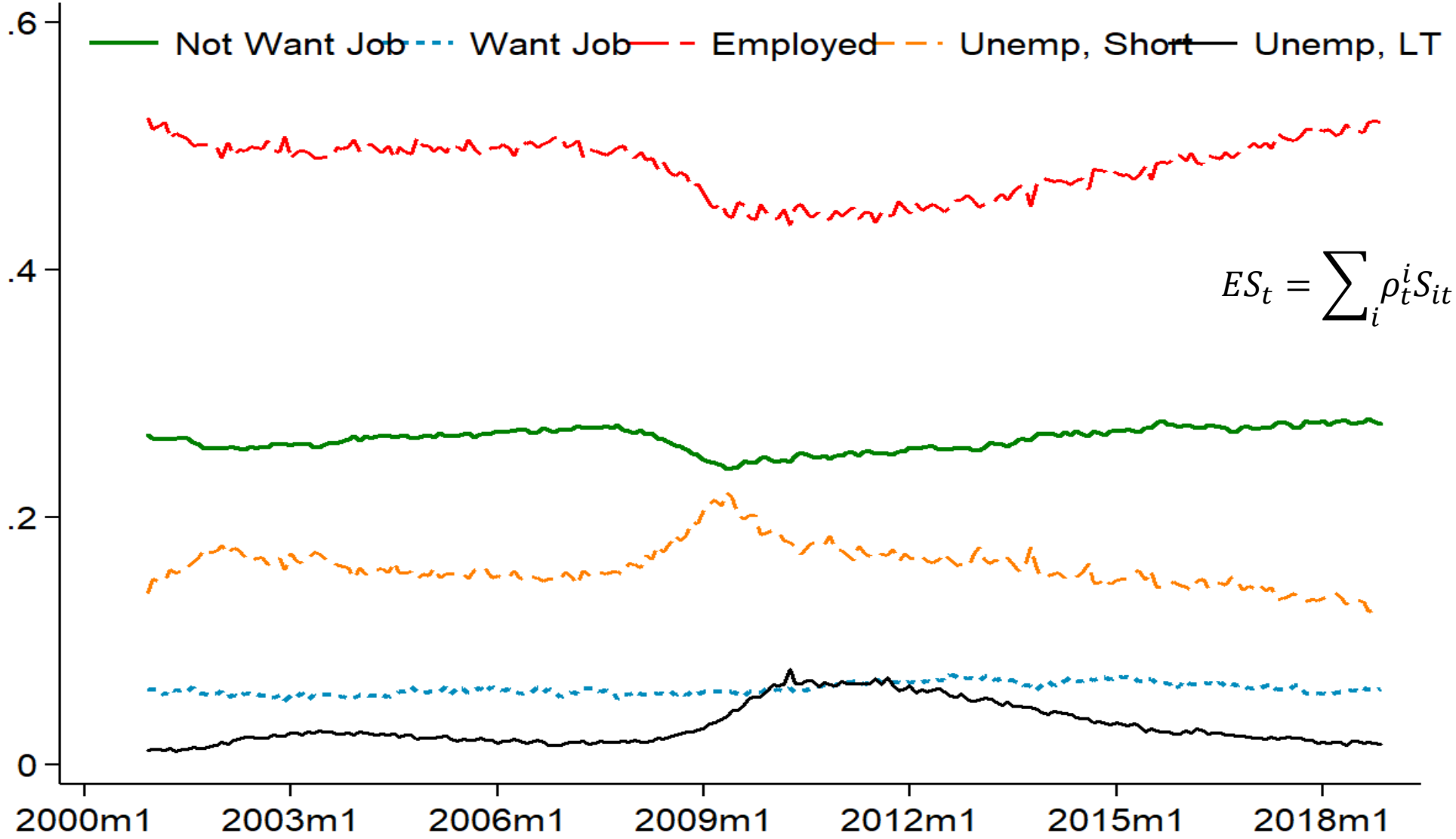
Standard measure of labor market tightness (V/U) higher than any time in past 20 years…



Normalized to one in 2007

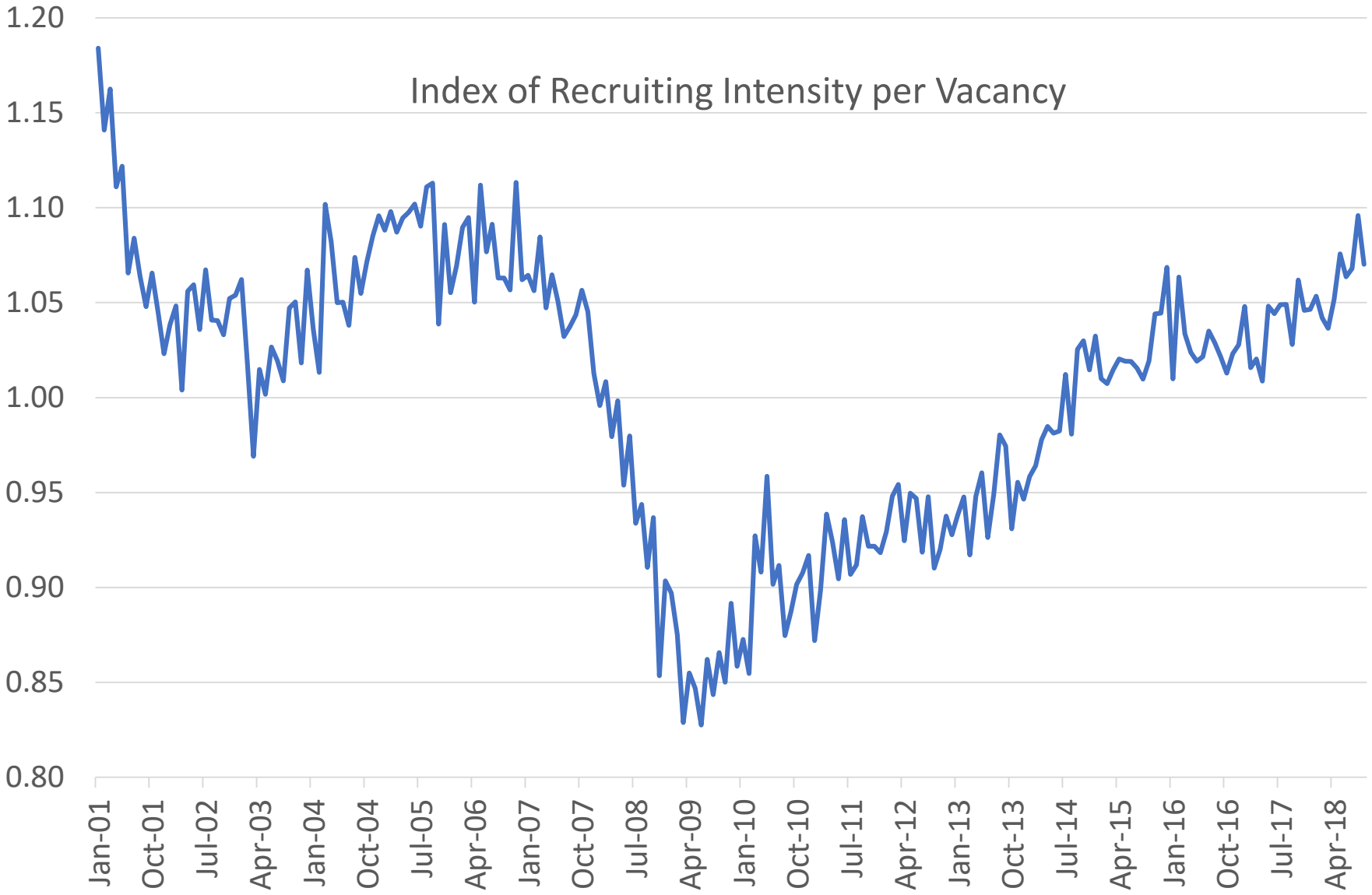
Source: Abraham and Haltiwanger (2019), Tabulations from CPS and JOLTS

Effective Searchers (ES) Mostly Employed and Out of Labor Force – in current boom, increasingly so…



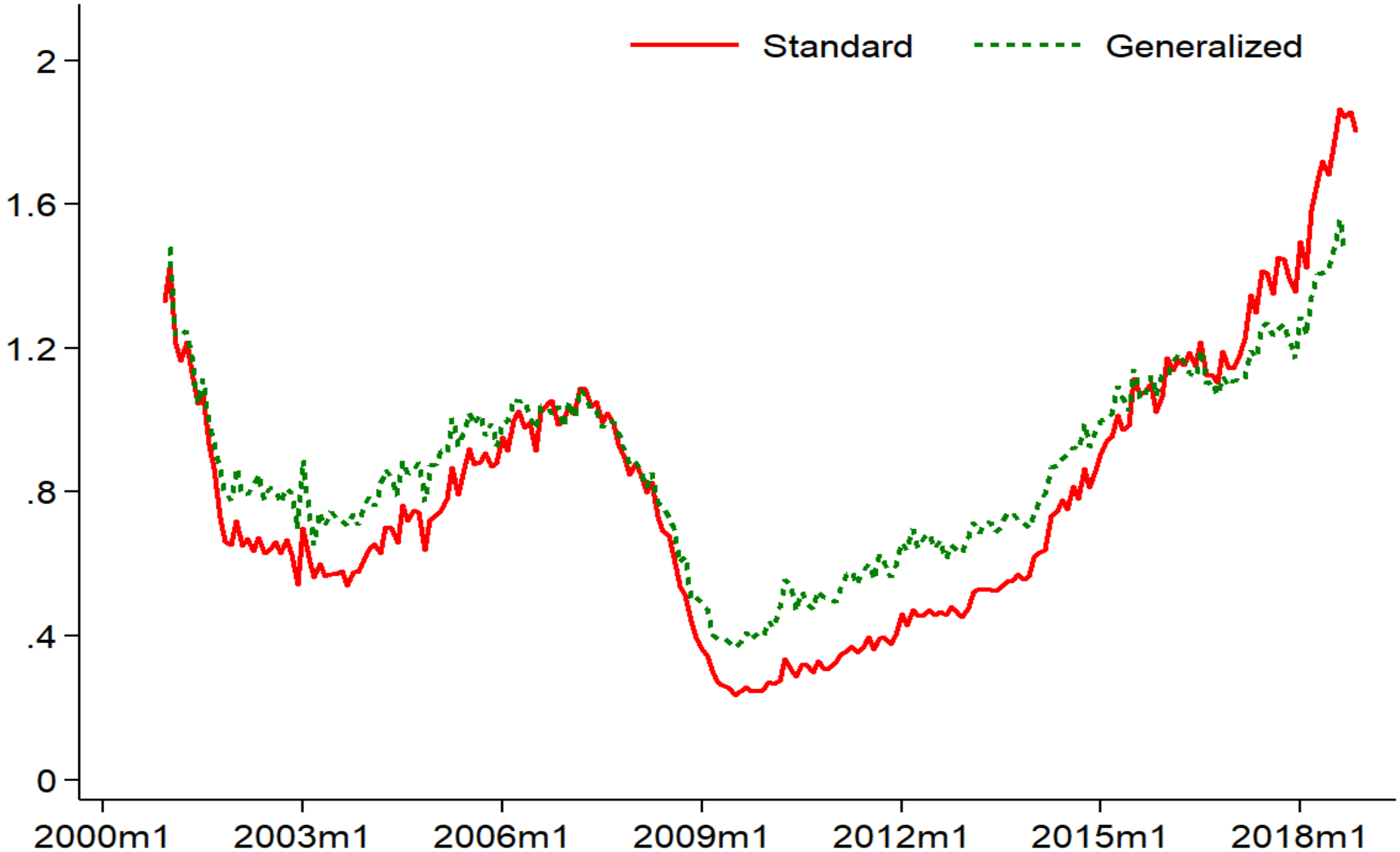
Source: Abraham and Haltiwanger (2019). Tabulations from the CPS and Parameter Estimates from Hall and Schulhofer-Wohl (2018).

Effective Vacancies = $\rho_t^v V_t$, where ρ_t^v is recruiting intensity per vacancy

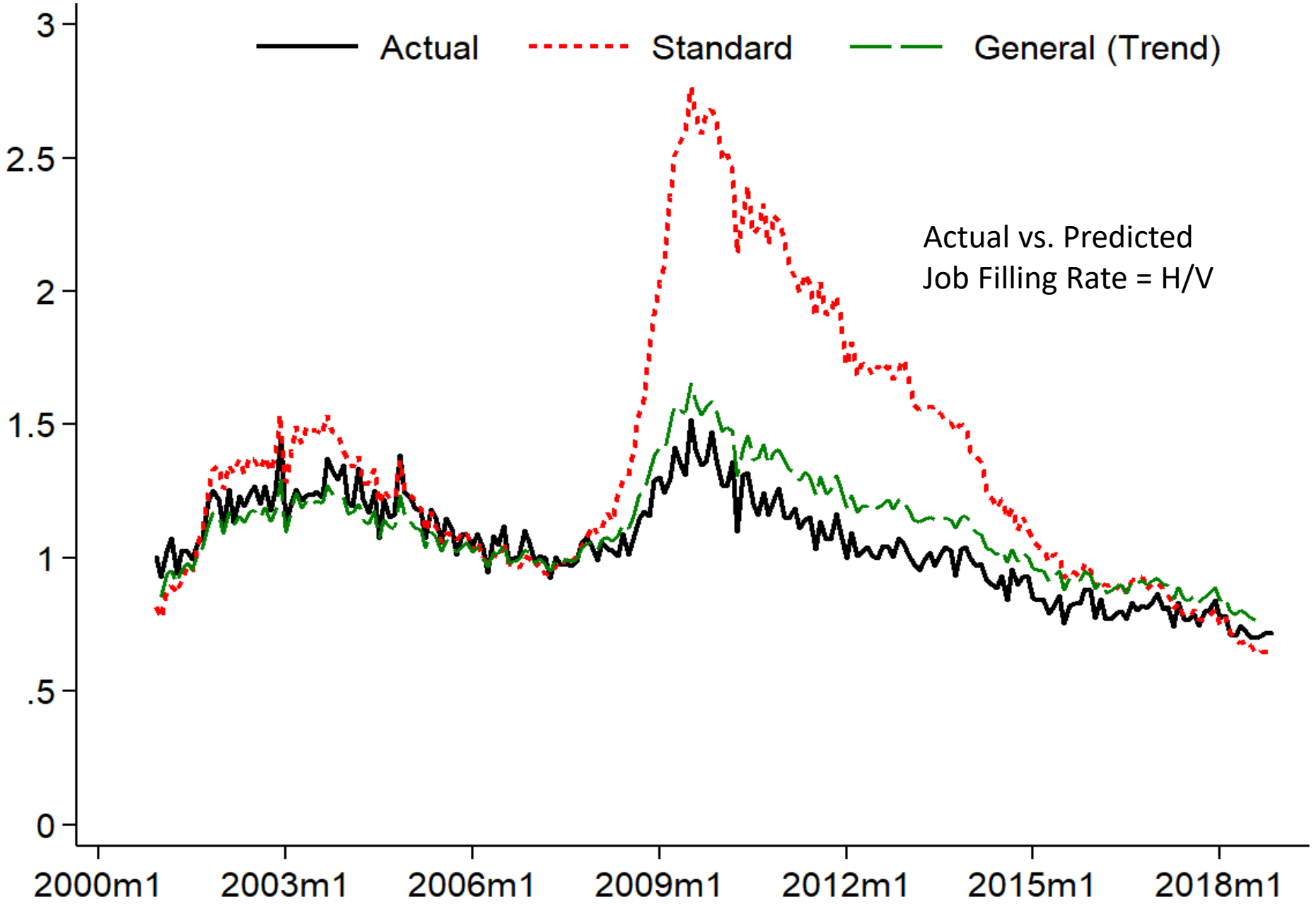


Source: Extended version of Recruiting intensity from Davis, Faberman and Haltiwanger (2013)

Labor Market is not as tight as implied by Standard (V/U) measure. Generalized = (Effective Vacancies/Effective Searchers)



Source: Abraham and Haltiwanger (2019). Tabulations from the CPS.



Actual vs. Predicted
Job Filling Rate = H/V

Generalized Matching Function Tracks Job Filling Rate Much more Closely than Standard Matching Function.

Predicted job filling Rate from matching Function is:

$$\mu\theta_t^{\alpha}$$

Where θ is labor Market tightness

Source: Abraham and Haltiwanger (2019). Tabulations from the CPS.

Open Questions

- What is the role of dynamism and startups for growth?
  - Do the declines reflect adverse changes in the business climate with increasing impediments to entry and post entry growth?
    - Occupational licensing, zoning restrictions, decline in employment at will?
    - What is the role of rising concentration and markups? (DeLoecker, Eeckhout and Unger (2018))
  - Does the decline in startups (in all sectors) reflect reductions in the pace of major innovations? (Gordon + Gort/Klepper/Jovanovic?)
  - Has there been a change in the nature of the experimentation role of startups?
    - Is the objective increasingly to be acquired rather than grow?
  - Is the rise in revenue productivity dispersion (during this period of anemic young firm activity) an indicator of rising frictions and distortions or slower diffusion? Might the latter be just an implication of the former?

Open Questions

- Changing perspective on the flows between E, U and N?
  - Has the structure of the labor market changed so unemployment does not mean what it used to?
    - The evidence for post 2000 suggests it has always been important to consider a broader definition of effective searchers but Great Recession and aftermath have made that especially clear
  - Workers frequently make transition from N to E even those saying they “Do Not Want a Job”. How should we think about such transitions?
  - Are the boundaries of work changing so it is easier to make such transitions?
  - What is the role of the gig economy in these changing dynamics?