

Session Topic: Human Capital in Space and Time

Specific Paper: The Secular Decline in Business Dynamism in the U.S.

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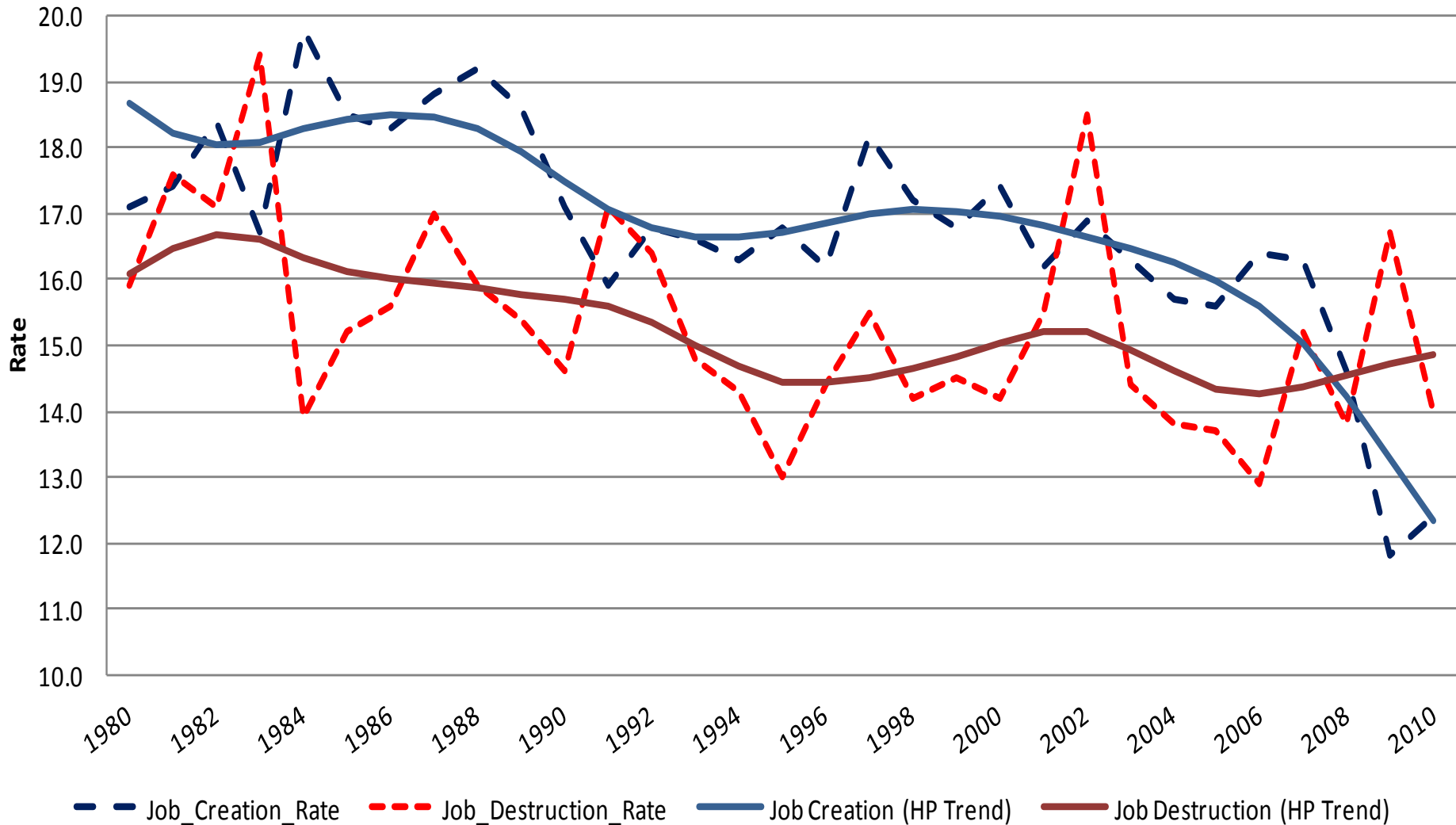
We thank the Kauffman Foundation for financial support. Any opinions and conclusions expressed herein are those of the authors and do not necessarily represent the views of the U.S. Census Bureau. All results have been reviewed to ensure that no confidential information is disclosed.

Overview

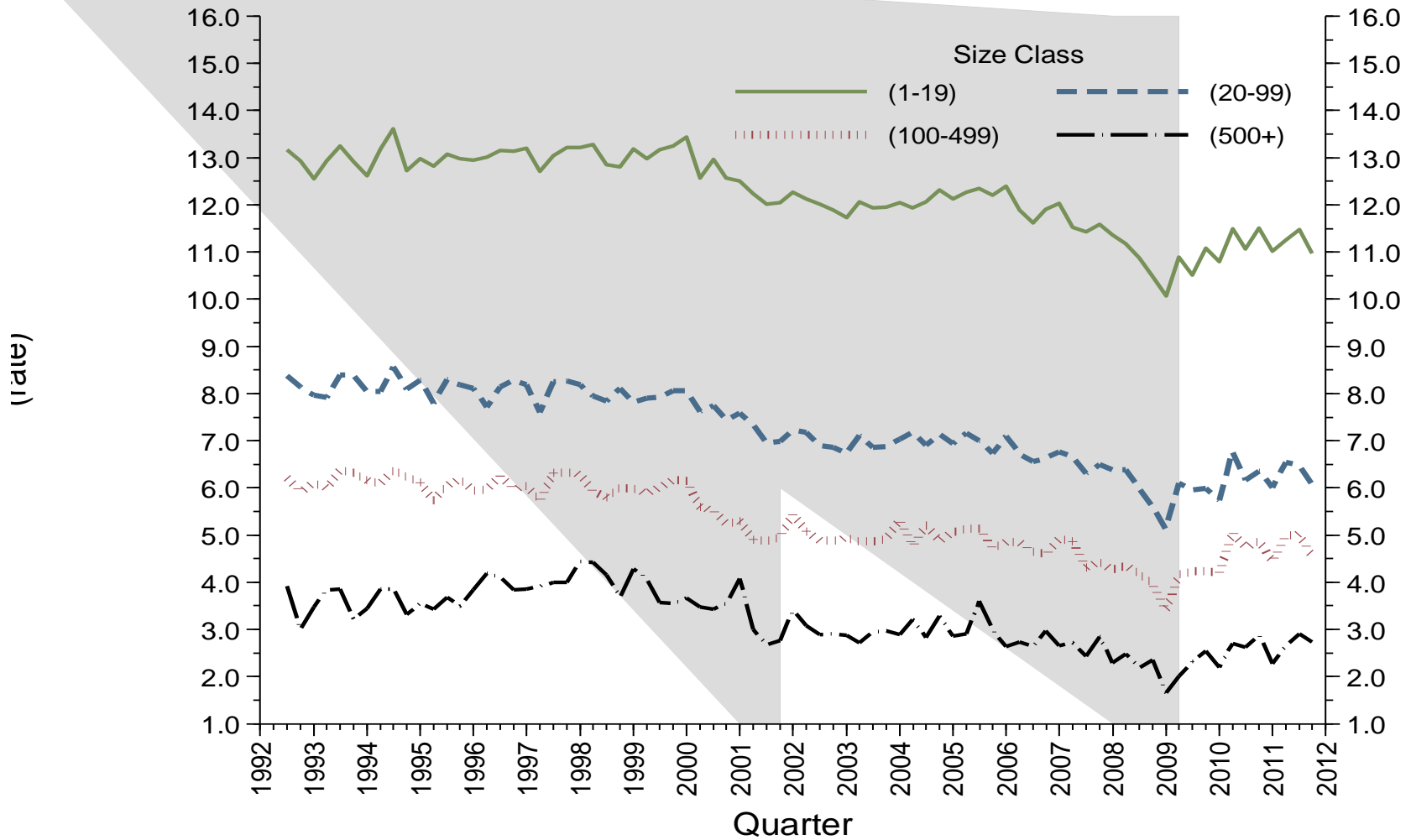
- Recent studies have documented secular decline in business dynamism in U.S.
 - Historically, U.S. has exhibited robust pace of creative destruction that has been productivity enhancing.
- Is the decline a source of concern?
 - Depends on factors underlying decline.
- We investigate...
 - What underlies decline in Business Dynamism?
 - Does this help explain Anemic Recovery?
 - What is role of human capital?

Job Creation and Destruction Rates

Source: U.S. Census Bureau, Business Dynamics Statistics



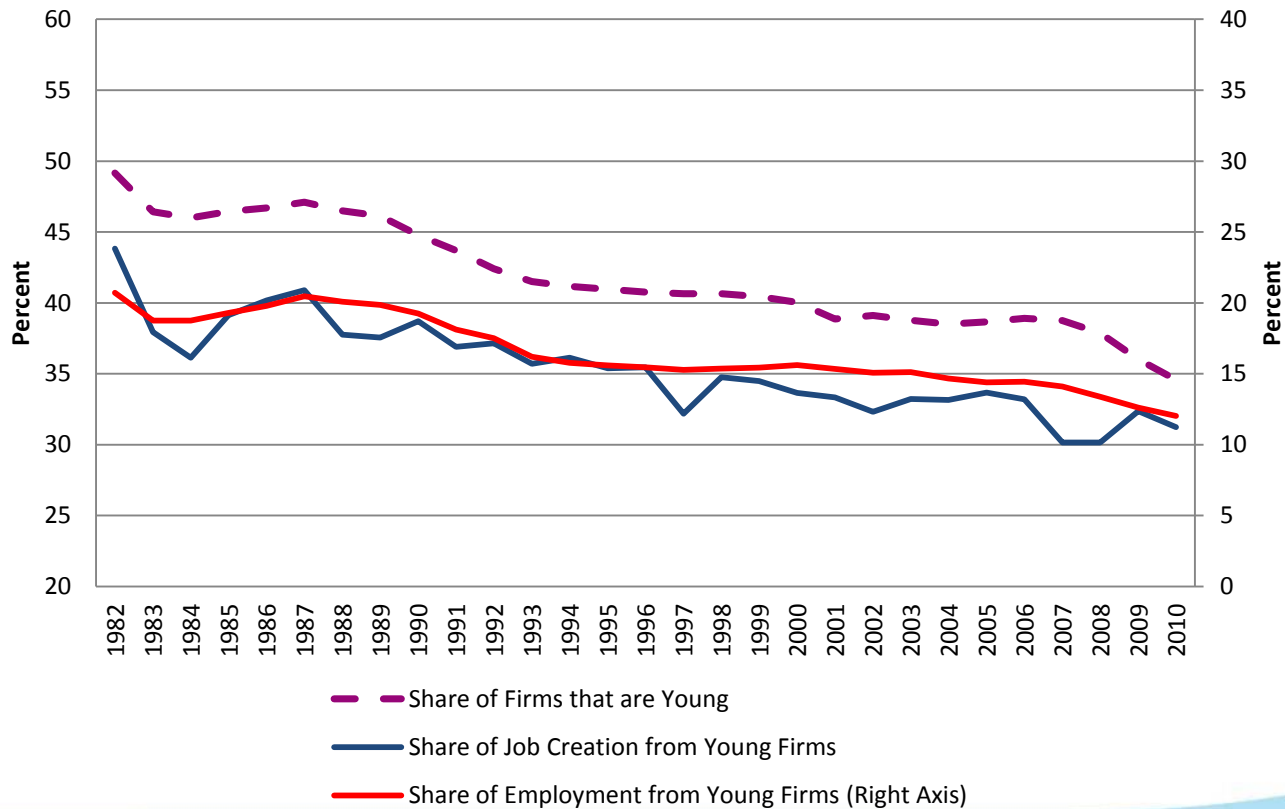
Quarterly Job Creation Rates by Firm Size for U.S. Private Sector, BED



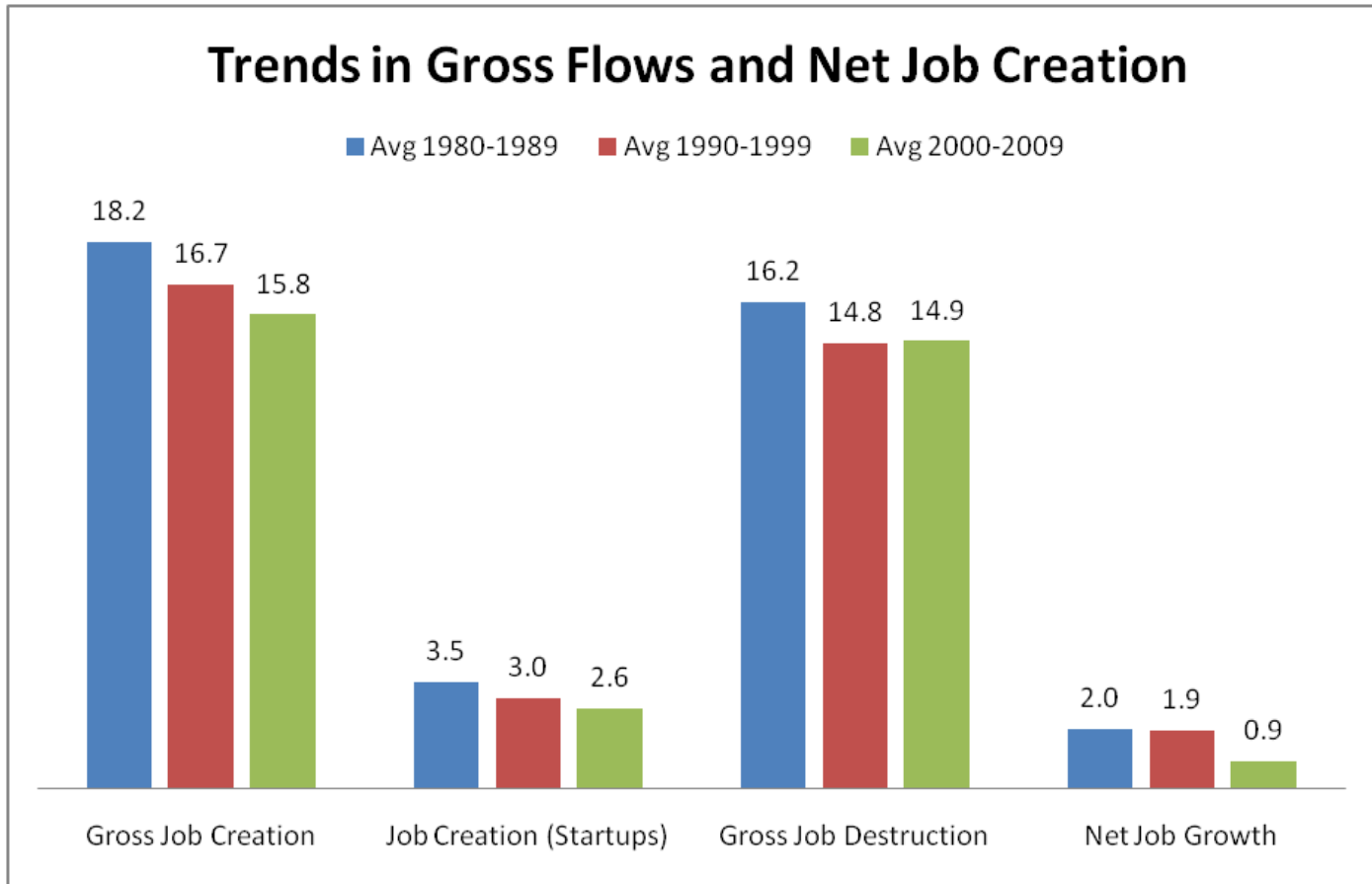
Source: BLS BED Data

Secular Decline: Young Firms

Declining Share of Activity from Young Firms (Firm Age 5 or less), U.S. Private Sector, BDS



Job Creation and Destruction in the US Economy: Trends and Cycles



Is the US economy becoming less dynamic?

DATA

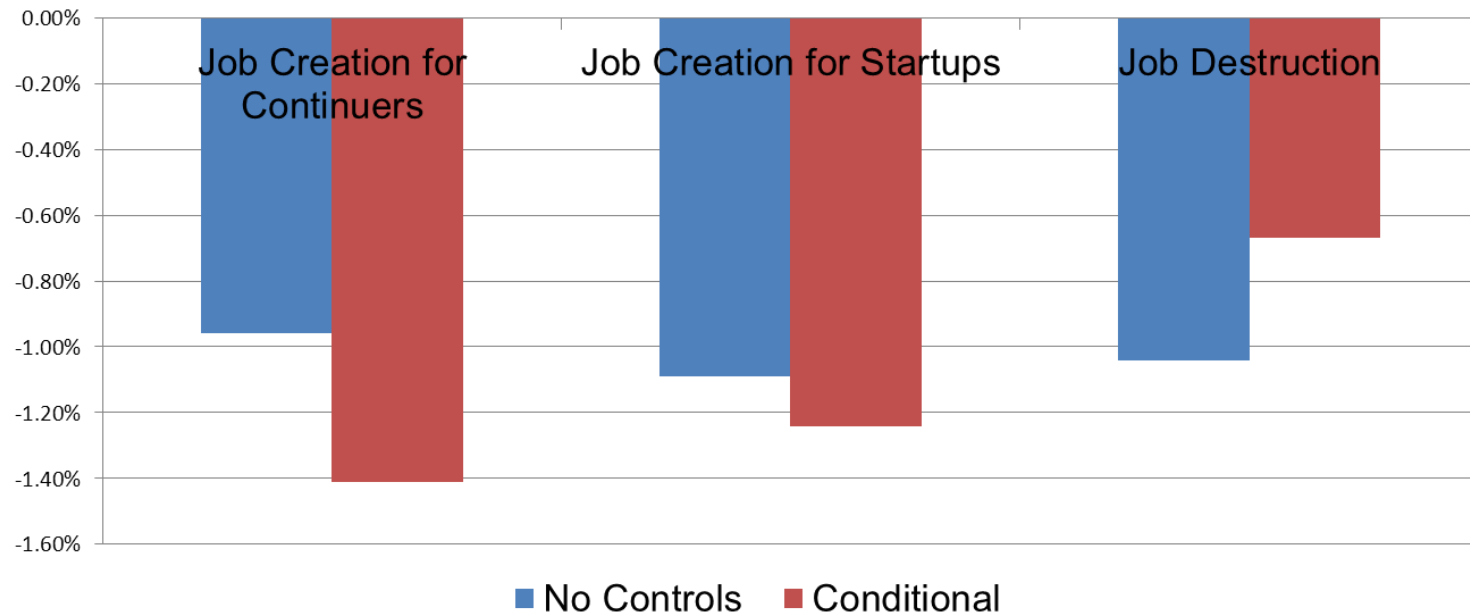
- Longitudinal Business Database
 - Private non-farm economy
 - Tracks both establishments and firms
 - We can identify startups
 - Entry/exit margins
 - Account for M&A activity
 - Establishment: employment, activity, location
 - Firm: firm size and age
 - We use 1982-2009

First Exercise: Changing Composition Effects

- Does Changing Composition of U.S. Businesses Account for Secular Patterns?
 - Industry, Size, Age, State, and MU Status
 - 8 size classes, 7 age classes, 295 NAICS, 50 States + DC, SU/MU (aprox. 261,000 cells per year)
- Method:
 - Employment-Weighted Fixed Effect Regressions
 - Residual Year Effects tell us extent to which patterns reflect composition effects
 - Separately for startups and continuer firms

Controlling for Composition Effects

Annualized Secular Change in Job Creation/Destruction Rates: With and Without Compositional Controls



- Composition effects can't explain trends
- Where it not for the compositional shifts the decline would have been even bigger!
- We have a bigger puzzle after controlling for observable

Within cell declines are pervasive

Category	Fraction of Cells With Declines in JC Flows	Fraction of Cells With Declines in JD Flows	Fraction of Cells With Declines in JC (Startups)
State	98.0%	100.0%	94.1%
Industry (4-NAICS)	89.9%	99.8%	72.8%
Size	100.0%	100.0%	NA
Age	100.0%	83.3%	NA
MU	100.0%	100.0%	NA

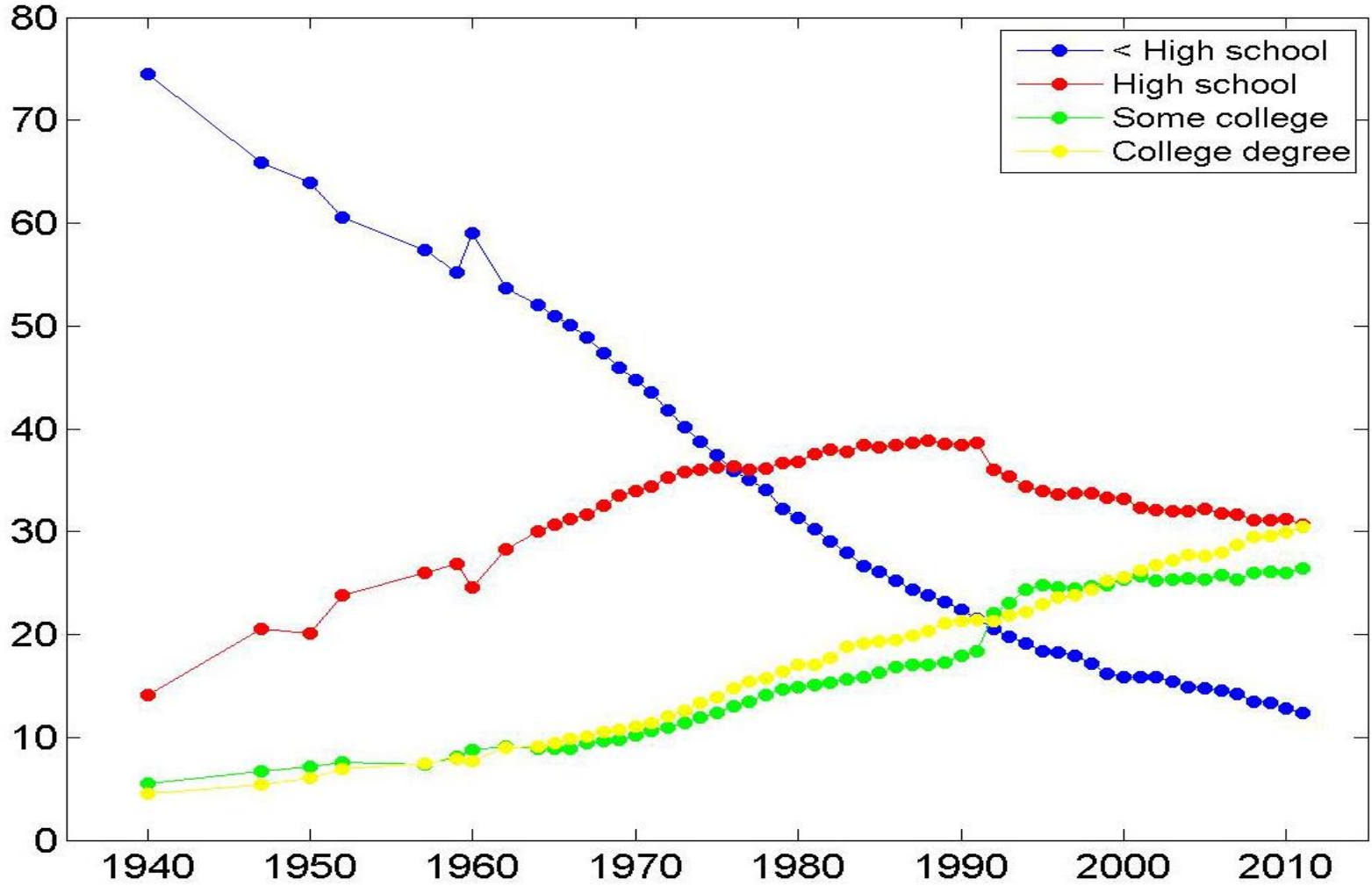
Note: Results for each column show summary statistics for within group changes and dispersion comparing the three years leading up to the peak in the 1980s (1987-89) to the three years leading up to the peak in 2000s (2004-06)

Empirical Strategy

- Overall decline dominated by within cell changes (not composition effects).
- Large differences in within cell declines
 - Including and especially across states
- Can we find observable covariates that account for these declines?
 - Broad categories of covariates from the literature:
 - Demographics, Business Climate, Financial Markets
 - Human Capital (observed and unobserved)?
 - Capital Intangible?
- We use timing differences and cross state variation to achieve identification.

Human Capital

- Changing skill composition can affect job volatility
 - Well documented very large increase in the skill composition of the workforce
 - Mincer (93, 95), Bound & Johnson (92, 95), Katz & Murphy (92), Juhn, Murphy, Pierce (93)...
 - Abowd, Lengermann, McKinney (2002) using LEHD find increase:
 - observable components of skill (education, experience)
 - even larger unobservable components of skill as captured by wage fixed effects (ability, educational quality, social capital, effort)
 - the average firm in virtually every industry upskilled considerably
 - Recent matching models posit Inverse relation between skill and employment volatility: Cairo & Cajner (2011), Lugauer (2012)
 - Investments in firm specific training complementary with skill
 - Upskilling → Higher training → 1. More costly employment adjustment, 2. lower volatility in response to shocks



Human Capital

- Implications
 - Less dynamism as captured by JC/JD/Entry?
 - Higher skill composition → Harder for firms to replace/rebuild high value job matches? => lowers firm's options to adjust employment
 - Less dynamism in worker flows?
 - Firms/workers less sensitive to small productivity shocks due to
 - high loss of firm specific hk upon separation for highly skilled-trained/productive workforce?
 - Harder for firms to replace/rebuild high value job matches?
 - High HK losses in response to large shocks? → Slow recovery?
 - Upskilling and continuous training important for job security?

Summary

- US is very dynamic but on trend decline
- Multiple factors at play
- Composition has effects, particularly the aging of the population of firms, but is compensated by move towards more volatile industries
- Critical to understand factors underlying job creation/destruction in order to inform policy

Next Steps

- Still early in this research
- Further examination of skill composition (observable and unobservable), demographics, finance, business environment measures
- Other within cell trends?
 - Technology
 - Globalization
 - Tastes/Consumption

Extra slides

Focusing on Secular Changes – The Role of Composition Effects

Job Creation for Continuers

Annualized Secular Changes in Job Creation for Continuers With and Without Controls.

	No Controls	Size	Age	Industry	State	MU	Size, Age, Industry, State, MU	Size, Age, Industry, State, MU (Interacted)
Long Diff	-0.96%	-0.95%	-0.76%	-1.47%	-1.01%	-0.95%	-1.29%	-1.41%
80s/90s Diff	-0.59%	-0.58%	-0.35%	-1.03%	-0.63%	-0.58%	-0.85%	-1.01%
90s/00s Diff	-1.48%	-1.48%	-1.34%	-2.08%	-1.55%	-1.49%	-1.93%	-1.97%

Note: Long Difference is log difference between 1987-89 average and 2004-06 average. 80s/90s difference is the log difference using 1987-89 average to 1997-99 average. 90s/00s difference is the log difference using 1997-97 average and 2004-06 average.

- Only Age Effects “Flatten” Downward Trend. Industry effects go the “wrong” way.
- All effects together yield an even larger puzzle
- Observables have less explanatory power during the second half of the period
- A period when the drop in job creation accelerated
- Bottom line: Most of change is within cell.