

Discussion: Firm and Worker Dynamics in a Frictional Labor Market

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Big picture: What does the paper do?

What does this number refer to?

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So there is a lot going on....

Big picture: What does the paper do?

- ▶ Proposes a new theory of the interaction between multi-worker firms and workers in a frictional labor market.
- ▶ A crucial element are job-to-job transitions across firms of different sizes and productivity
- ▶ Lots of complexity....
 - ▶ Involve three agents (current firm, future firm, worker)...
 - ▶ whose outside options and threat points can be complicated...
 - ▶ and in a multi-worker firm with decreasing returns to scale, hiring decisions also depend on current size and payroll.

Strengths

- ▶ Empirically relevant for an important question regarding productivity
- ▶ Tractable!!!
- ▶ No specific wage mechanism
- ▶ Didactically extremely well written

What does it take?

- ▶ A lot....

What does it take?

- ▶ A lot....
- ▶ Requires a formulation of the firm and workers problem as a function of their joint surplus only:
 - ▶ Restriction of renegotiation to be zero-sum: a poached employee ends up at the firm with the higher marginal joint surplus. Joint surplus is unaffected by internal distribution of existing employees' wages → plays no role.
 - ▶ However, profit to the firm depends on the outcome of an internal renegotiation. Ex-ante, a firm therefore has an incentive to post inefficiently many vacancies in order to trigger a renegotiation.
- ▶ Workers anticipate this inefficient behavior and offer reduced wages in return for lower vacancy posting, maximizing the joint surplus.
 - ▶ Since the joint surplus of a firm only depends on firm size and productivity, the model can be reduced to only these two states.

The model has some testable predictions

- ▶ Useful (at least for me...) to compare to the series of papers Moscarini and Postel-Vinay...
 - ▶ Focus on including aggregate fluctuations in a model with multi-workers firms and on-the-job search
 - ▶ Poaching is done by the largest firms

The model has some testable prediction

		All firms	A. Size		B. Size and Age		C. Productivity	
			Small n<50	Large n≥500	Small, Young Age≤10	Large, Old Age>10	Low Q1	High Q5
A. Gross flows								
Hires								
Poaching	EE_{hir}	8.3	8.9	7.7	11.1	7.4	7.2	6.5
Non-employment	NE	7.7	10.2	6.2	12.2	5.9	7.7	6.0
Separations								
Poaching	EE_{sep}	8.3	8.7	7.8	10.3	7.5	8.0	5.7
Non-employment	EN	7.4	9.6	6.0	11.0	5.7	7.9	6.0
B. Net flows								
Poaching	$EE_{hir} - EE_{sep}$	0.0	0.2	-0.1	0.8	-0.1	-0.8	0.8
Non-employment	$NE - EN$	0.3	0.5	0.2	1.2	0.2	-0.2	0.0
C. Total net flows								
Poaching + Non-employment		0.29	0.78	0.06	1.98	0.07	-1.00	0.80

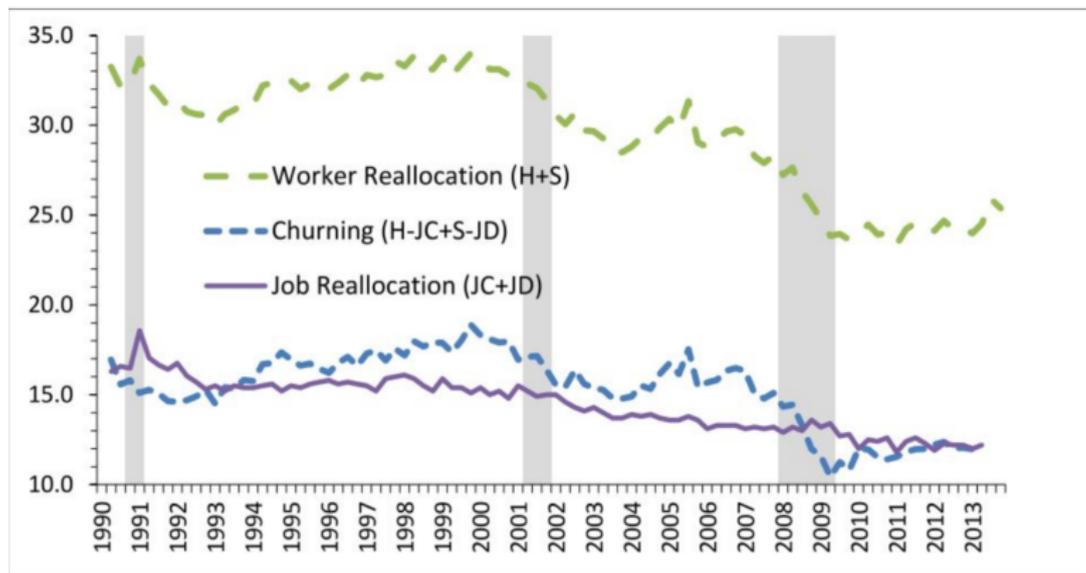
The model has some testable prediction

- ▶ The job ladder is in marginal surplus \rightarrow the relation between net poaching and *size* \times *productivity* is non-monotonic
- ▶ This is a key prediction of the model that goes to the heart of the mechanism...
 - ▶ Small firms are also often young firms, still growing toward their optimal size (recall the DRTS)
 - ▶ Large firms, however, are also productive firms
- ▶ Would be important to evaluate this prediction in the data!
 - ▶ Not sure the **french** / **danish** data the authors refer to is the best comparison group (besides the obvious France/Denmark aren't the US....I'll go back to this later)

What the paper could help us understand?

- ▶ Declining job reallocation rates
- ▶ Implications of changes in the firm size distribution
- ▶ Poaching by workers characteristics

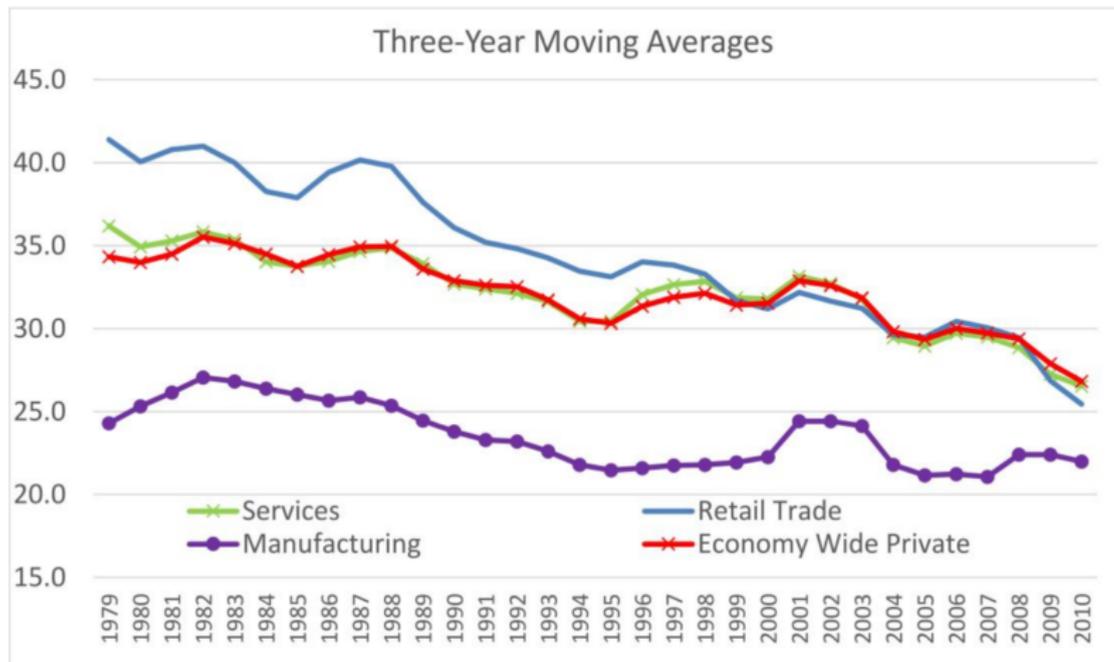
Declining job reallocation rates



Notes to Figure 2:

1. See notes to Figure 1.
2. Job Reallocation (JC+JD) is the sum of quarterly job creation and destruction rates in the BED. Worker Reallocation (H+S) is the sum of the quarterly rates of hires and separations in the reweighted JOLTS data, inclusive of retirements and other separations not shown separately in Figure 1. Churning (H-JC+S-JD) is the excess of worker reallocation over job reallocation.

Declining job reallocation rates



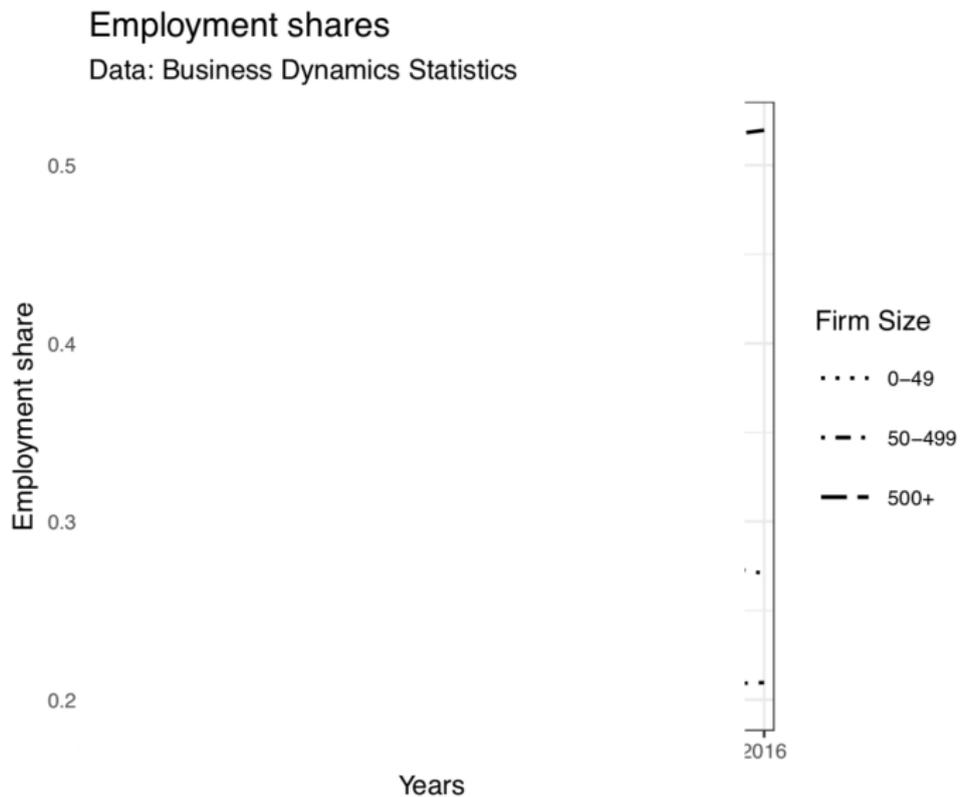
Trend in job relocation

- ▶ Can the model explain (some of this)?
- ▶ Perhaps...but then it needs to have a theory of job relocation by size (and changes over time)

Business Dynamics Statistics

Moment	Model	Data
Employment share Size 0-49	0.252	0.273
Employment share Size 50-499	0.201	0.209
Employment share Size 500+	0.547	0.518
Firm share Size 0-49	0.961	0.956
Firm share Size 50-499	0.036	0.040
Firm share Size 500+	0.002	0.004
Employment share Age 1-5	0.020	0.092
Employment share Age 5-10	0.070	0.095
Employment share Age 5-10	0.910	0.813
Firm share Age 1-5	0.098	0.292
Firm share Age 5-10	0.066	0.211
Firm share Age 10+	0.846	0.507
Job Reallocation	0.291	0.248

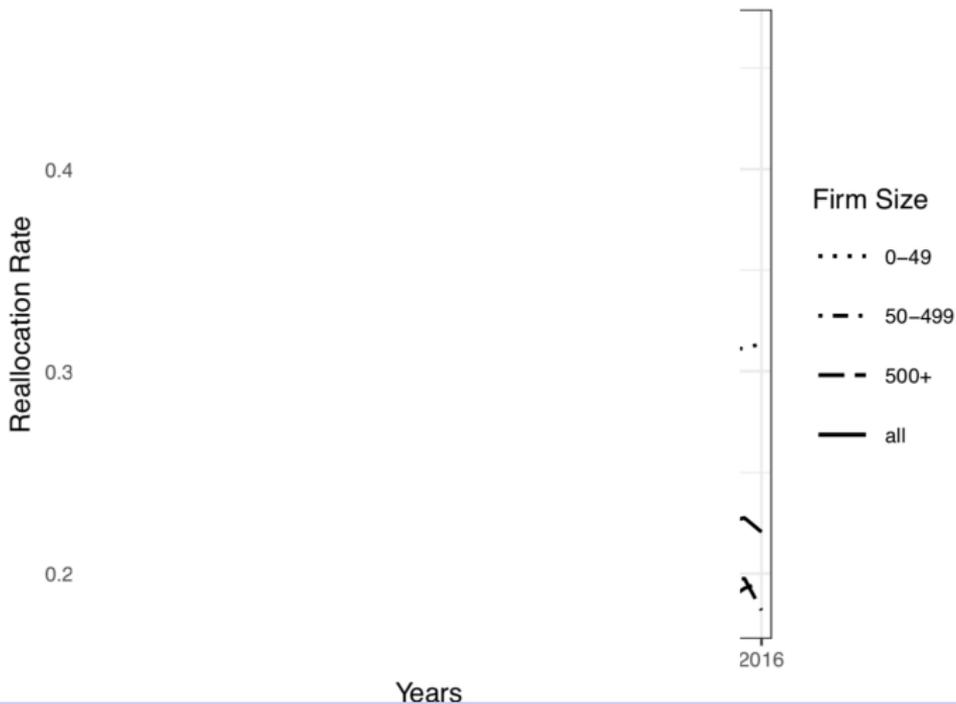
Business Dynamics Statistics



Business Dynamics Statistics

Reallocation Rates

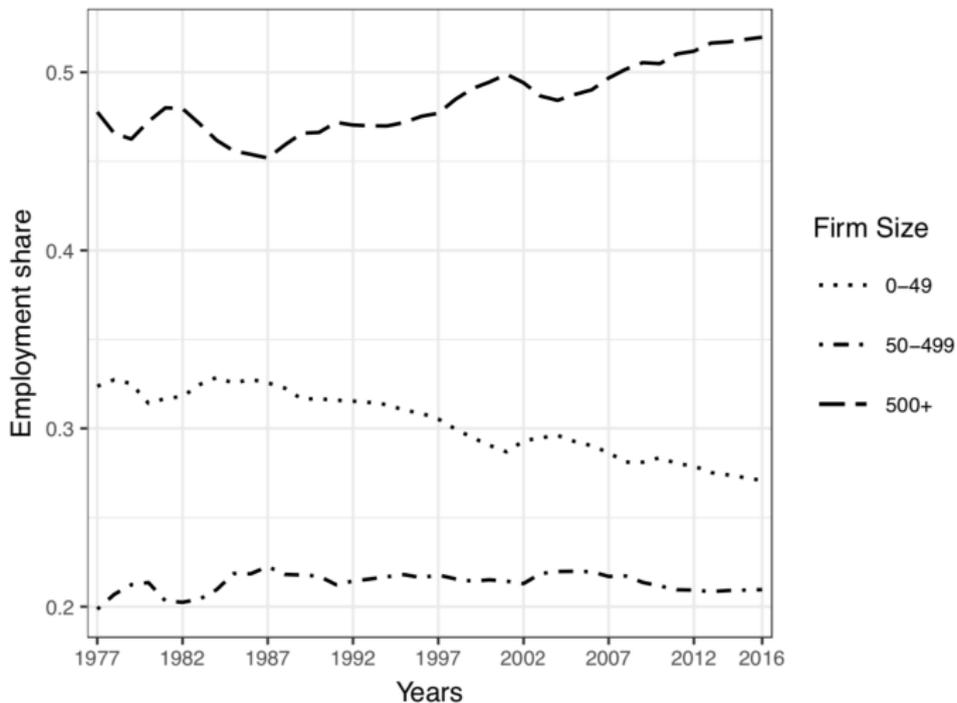
Data: Business Dynamics Statistics



Business Dynamics Statistics

Employment shares

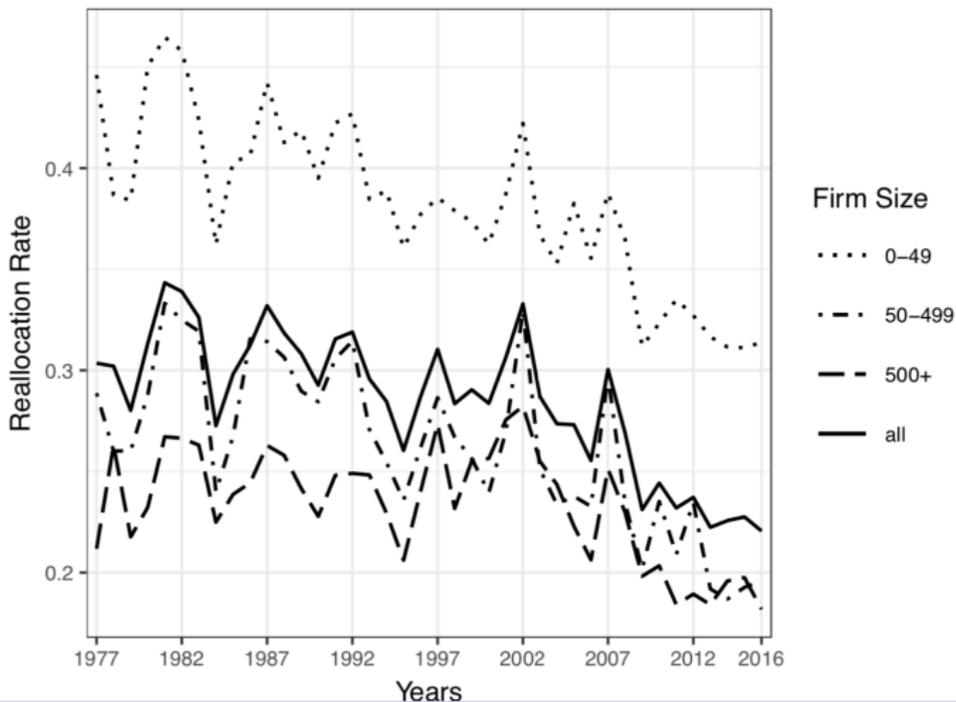
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Business Dynamics Statistics

Reallocation Rates

Data: Business Dynamics Statistics



Business Dynamics Statistics

- ▶ Can the model shed light on the changes in the size distribution?
 - ▶ What would it take? Is it reasonable?
- ▶ Job reallocation by size: Currently paper is silent on these
 - ▶ Given goal of the paper seems like a natural target
 - ▶ What in the model can explain the differential trends?
- ▶ Relate it to the overall decline in job reallocation... how much is a composition change emerging from the changes in the firm distribution?

Business Dynamics Statistics

1987				CF1	Shares of 2016 with RR 1987
	Share	RR			
					0.12
0-49	0.33	0.44	0.15		0.07
50-499	0.22	0.32	0.07		0.14
500+	0.45	0.27	0.12		0.33
Agg RR			0.34		
2016				CF2	Shares of 1987 with RR 2016
	Share	RR			
0-49	0.27	0.32	0.09		0.11
50-499	0.21	0.18	0.04		0.04
500+	0.52	0.18	0.09		0.08
Agg RR			0.22		0.23

Poaching across workers

- ▶ It is not uniform....there are covariates that predict
- ▶ Paper is silent on the worker's side

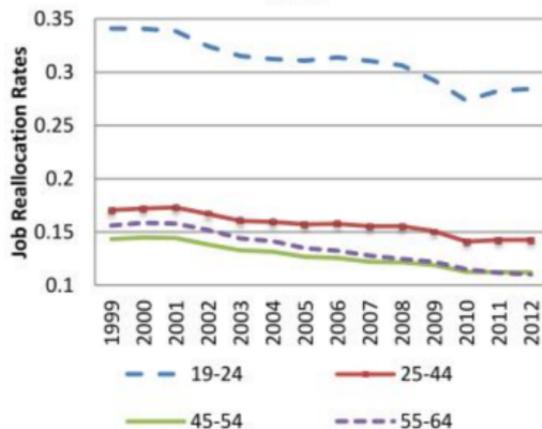
Poaching across workers

Productivity Ladder by Worker Education and Age

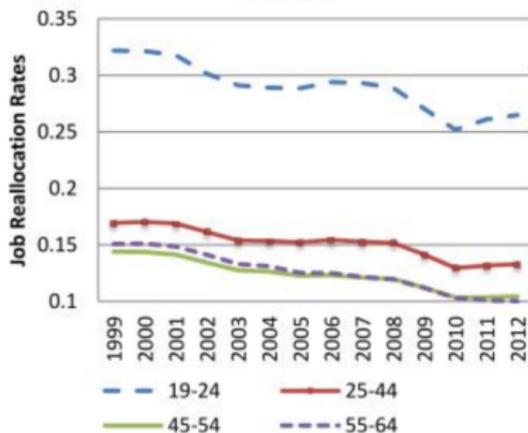
Worker Category	Share of Net Poaching Flows	Share of Workforce	Ratio
High-productivity firms:			
Less than high school	.16	.13	1.23
High school graduate	.30	.28	1.06
Some college	.32	.32	1.01
Bachelor's degree or more	.22	.27	.81
Low-productivity firms:			
Less than high school	.17	.13	1.24
High school graduate	.31	.28	1.12
Some college	.32	.32	1.00
Bachelor's degree or more	.21	.27	.76
High-productivity firms:			
Age less than 25 years	.29	.16	1.75
Age 25–34 years	.30	.22	1.40
Age 35–44 years	.20	.23	.85
Age 45 years or older	.21	.38	.54
Low-productivity firms:			
Age less than 25 years	.37	.16	2.24
Age 25–34 years	.26	.22	1.18
Age 35–44 years	.18	.23	.79
Age 45 years or older	.19	.38	.50

Poaching across workers

Job Reallocation Rates by Age Groups, Males

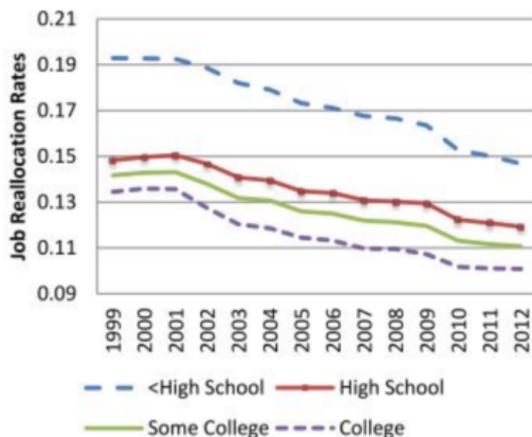


Job Reallocation Rates by Age Groups, Females

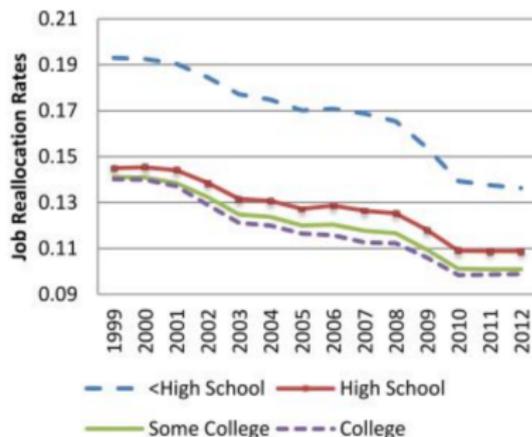


Poaching across workers

Job Reallocation Rates by Education, Males



Job Reallocation Rates by Education, Females



Wages

- ▶ One of the strengths of the paper is that it does not need to rely on a specific wage mechanism

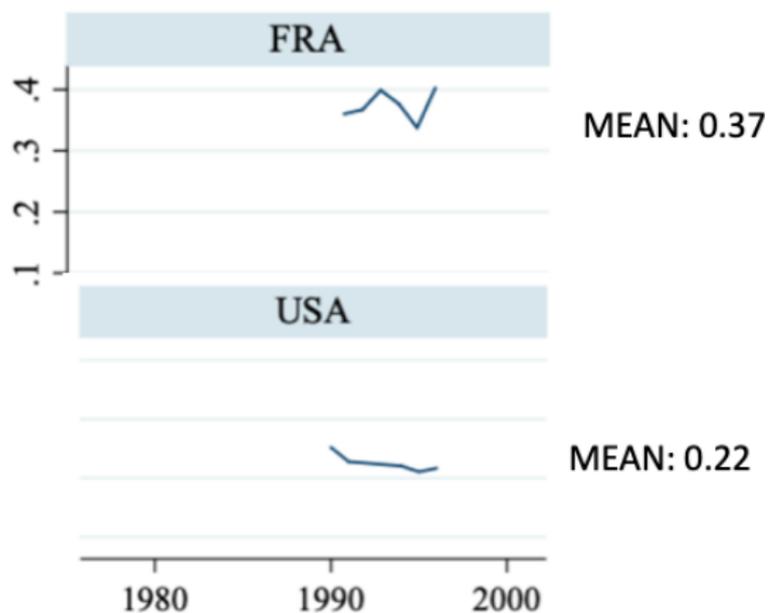
Wages

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- ▶ One of the weaknesses of the paper is that it does not need to rely on a specific wage mechanism
- ▶ Can one find a decentralization that is consistent with wage dynamics?
- ▶ Can we find any testable prediction that wages have to satisfy in this model?
 - ▶ For example (I might be wrong): how many existing workers see a reduction in their wage as a result of threats of hiring? in which firms does this occur in the model and in the data?

International differences



International differences



Source: Haltiwanger et al. (2014), 1977-2001

Conclusions

- ▶ Important ambitious paper and research agenda
- ▶ Current version looks extremely promising
- ▶ Testable implications would be good to address
- ▶ Address longer trends in firm size distribution and trends in job reallocation: can the framework help us understand these?
- ▶ Consider worker's heterogeneity side
- ▶ Decentralization that can be taken to wages data?
- ▶ Looking forward to seeing the next three papers on these topics!