The Return of the Firm to Labor Economics

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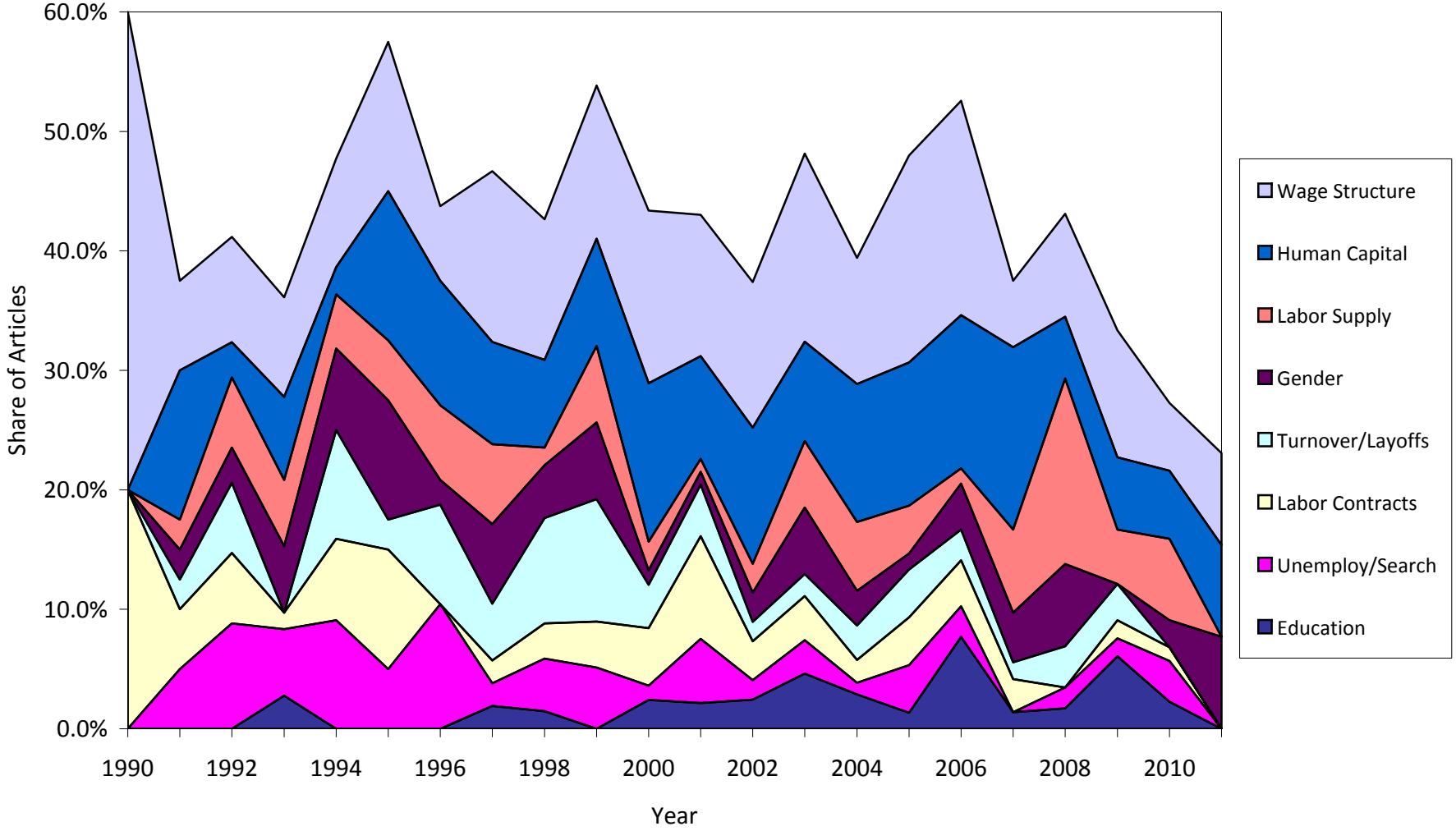
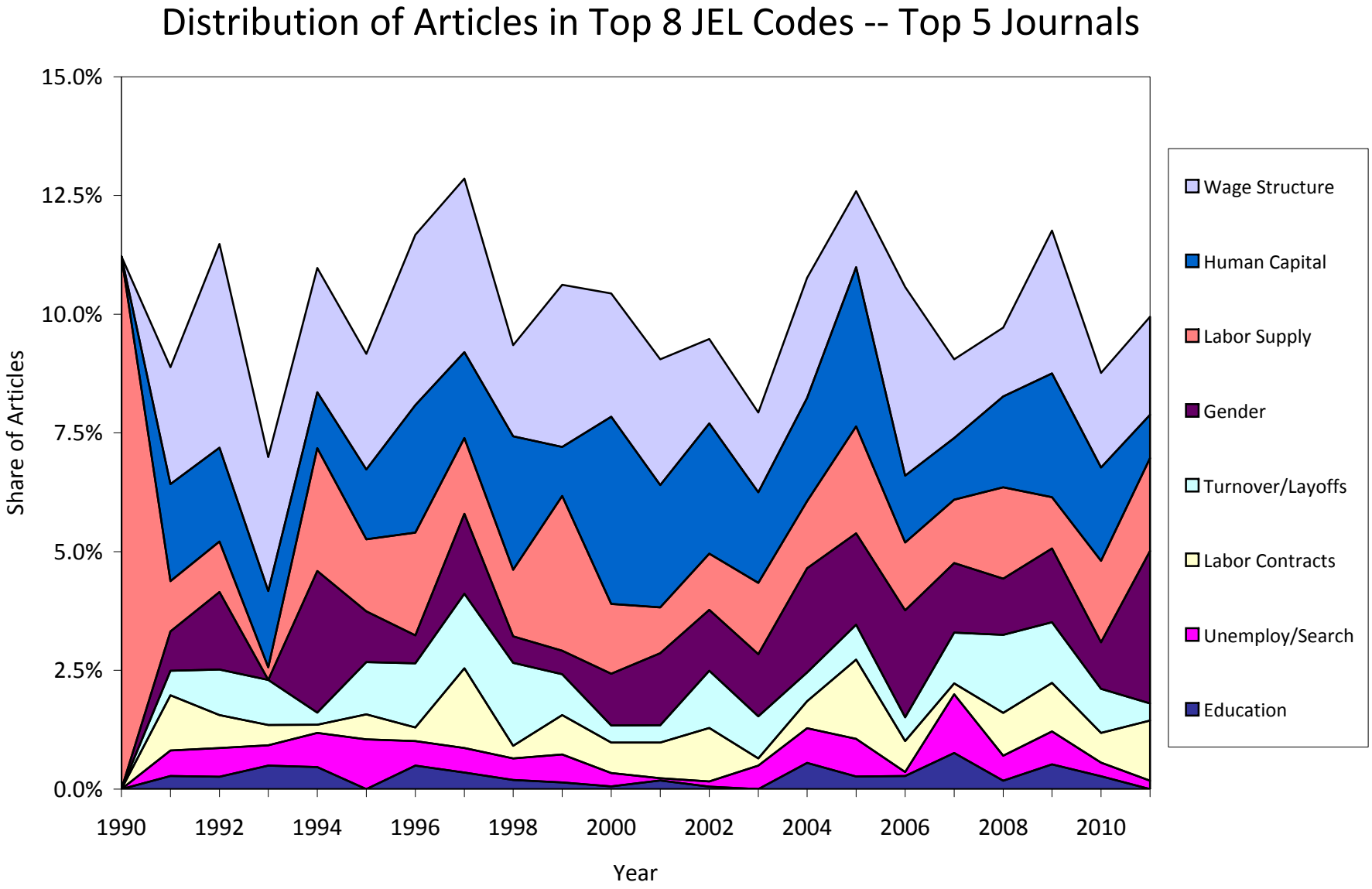
Modern labor economics research is focused on "people", not firms.

What's published in JOLE and "top 5" (1990-2011)

	JOLE	Top 5
all "J" codes	68.6%	16.6%
J31 wage structure	10.9	2.6
J24 human capital	9.1	2.1
J63-64 turnover/unemp/search	7.7	1.4
J22 labor supply	4.8	1.6
J16 gender	4.1	1.4
J41 labor contracts	3.5	0.7

Distribution of Articles in Top 8 JEL Codes -- JOLE




Distribution of Articles in Top 8 JEL Codes -- Top 5 Journals
15.0%
12.5%
10.0%
7.5%
5.0%
2.5%
0.0%
Share of Articles
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
Year
Wage Structure
Human Capital
Labor Supply
Gender
Turnover/Layoffs
Labor Contracts
Unemploy/Search
Education

Where are the firms?

In this talk I will argue:

a) many interesting models and important policy questions revolve around firms

b) new data sources offer a “new frontier” for econometric methodology, choice modeling, policy analysis

Outline

I. Brief history

II. What do we know about how firms matter?

III. Open questions and new directions

I. Brief history

1a. In Hicks' (1932) neoclassical synthesis (CRS, integrated factor markets) firms don't matter.

- homogeneous skill groups

- firms face horizontal supply curves at the market wage; firm size is indeterminant

- still the basic framework for many questions: trade; immigration; SBTC; human capital, minimum wages, occupational choice

1b. A more “modern” version (widely used in IO, productivity literature):

- homogeneous skill groups; workers perfectly mobile across firms, each firm faces a horizontal supply curve

- firms differ in various attributes (entrepreneurial skill, management practices, ...) so there is a lot of heterogeneity across firms

- But each worker is paid his/her “market wage”. There is no special link to current or past employers

3. In the 1940's & 1950's: the “institutionalists” argued that firms matter.

- Lester, Reynolds, ...documented significant wage variation for similar workers at different firms in the same industry and geographic area

- H. G. Lewis argued that unions can capture firm-specific rents (though Friedman disagreed)

- late 1960s: census/cps micro data showed that unionized workers and those in large firms earn more

3. 1970s and 1980s: construction of firm-level contract data sets to test models of bargaining.

- inflation expectations and wage setting: Riddell, Christofides et al.

- strikes and wages: Tracy, McConnell

- efficient vs. inefficient employment setting: Brown and Ashenfelter, Pencavel and MaCurdy

- rent sharing: Abowd-Lemieux, Christofides-Oswald

Lessons from contract-based research

(i) wages depend on supply-side (unemployment) and demand side (industry shocks) factors

(ii) wages adjust slowly, and can be “out of equilibrium” for several years (inflation catch-up)

(iii) wages depend on ‘peer’ wages (pattern bargaining, spillovers)

(iv) similar workers at different firms earn very different wages

BUT: no controls for worker heterogeneity

4. 1970s+: individual panel data with job identifiers: PSID, NLSY, SSA records

- within-job wage growth (tenure effects) vs. between job wage growth (job switching)

- Mincer and Jovanovich, Abraham and Farber, Altonji, Topel: the causal effect of tenure

- Topel and Ward: wage growth for young workers depends on job-to-job mobility

Lessons from individual panel studies

(i) substantial job mobility among young workers; older workers often settle into “lifetime” jobs

(ii) returns to job tenure are small

(iii) large returns for “voluntary” job switches, especially for young workers

(iv) a given worker can earn much different wages at different jobs: there is not a single “market wage” for a given person.

BUT: no distinction between jobs, firms, and matches

5. Displaced Worker Supplements/ Studies based on UI/admin records

-Jacobsen Lalonde Sullivan: analysis of job losers using UI records: large, persistent wage losses

-von Wachter et al: even after 20 years, job losers in 1982 recession earn 20% less than matched non-losers

- wage losses are larger for those with higher job tenure, suggesting a loss of some form of specific capital: firm specific (Kletzer) and/or industry specific (Parent).

6. Late 1980s - large-scale firm panel data sets

- Davis and Haltiwanger (LRD): employment re-allocations across firms contribute to productivity growth

- D&H document enormous heterogeneity in productivity, wages, ... across firms within narrowly defined industries

- interpretation confounded by potential heterogeneity in workforce composition across firms

7. 1990s - matched employer-employee panels.

- Abowd Kramarz Margolis: canonical worker/firm effects model

- AKM document heterogeneity in both workers and firms

- surprisingly, worker and firm effects (in log wage model) appear to be uncorrelated

8. Theoretical developments (mostly 1990s+)

- Burdett Mortensen equilibrium search. Firms have a 'wage policy' and pay identical workers higher or lower wages. (Basis for Manning's M-in-M book)

- Mortensen Pissarides: canonical search and matching model with Nash-bargained wages. (No firm effects per se: just match effects)

-Melitz: GE trade model with heterogeneous firms (productivity differences drive heterogenous responses to opening of trade)

II. What do we know about how firms matter?

1. getting a job at a “good” firm raises wages

-Abowd et al: firm effects explain 20% + of wage variation, controlling for worker effects

- von Wachter & Oreopoulos; Kahn: new college grads who enter in recession have lower wages, mainly because they start at low-wage firms.

- Carneiro et al - pro-cyclicality of firm effects for newly hired workers.

2. different demographic groups have differential access to jobs at “good” (i.e., high-wage) firms

- Carrington & Troske; Amuedo-Dorantes & de la Rica: women tend to work in jobs where wages are lower for men and women

- Pendakur & Woodcock: immigrant wages are reduced by a “glass door” – limited access to jobs at high wage firms

(these studies use cross-section matched data and cannot fully separate worker and firm effects)

3. productivity is related to firm “choices”; these choices can affect wages etc.

- Bloom and van Reenan: productivity, profitability, and survival are highly correlated with “management practices”

- productivity varies with compensation/HR policies (Lazear; Ichniowski and Shaw)

4. higher profitability raises wages

- Abowd-Lemieux (contract data for wages; implicit assumption that workforce composition is stable).

- Margolis and Salvanes; Martins; Card et al. find profitability affects wages within a match – thus controlling for workforce composition (elasticities are modest, <0.1)

5. firms appear to face upward-sloping supply curves for labor; elasticities vary by group

- Ransom-Oaxaca: m/f supermarket workers

- Hirsch et al: m/f turnover/recruiting, German IAB

- Portugal-Cardoso: impact of minimum wage on turnover and net supply of teenage workers

- Giuliano: impact of minimum wage on hiring and turnover of teen vs. older workers in retail estabs.

- Sullivan/Staiger et al. nurses supply to hospitals

III. Open questions and new directions

1. How are workers sorted to firms? In the canonical AKM model

$$\log w_{ijt} = \alpha_i + \gamma_{j(i,t)} + x_{ijt}\beta + \epsilon_{ijt}$$

-how does $E[\gamma_{j(i,t)} \mid \alpha_i, x_i]$ vary across people? How does $E[\alpha_i \mid \gamma_j, x_j]$ vary across firms?

-has $var[\gamma_j]$ or $cov[\alpha_i, \gamma_{j(i,t)}]$ changed over time, contributing to rising wage inequality?

2. Dealing with endogenous mobility

- do workers prefer "high-γ" employers? (Is the wage premium offset by other features of the job, such as location in high-cost city - Moretti)?

- do firms prefer "high-α" workers? Need to specify relation of wages and productivity:

$$w = \lambda \text{ productivity}$$

-when λ=1, firms may be indifferent

-when λ<1 (as in matching models) firms prefer higher-productivity workers

-difficult econometric issues (2-sided sorting)

3. Allowing a "match" component. Woodcock extends the canonical model to

$$\log w_{ijt} = \alpha_i + \gamma_j + m_{ij} + x_{ijt}\beta + \epsilon_{ijt}$$

How big is *Var* $[m_{ij}]$ relative to *Var* $[\alpha_i]$ or *Var* $[\gamma_j]$?

If we ignore m_{ij} do we make faulty inferences about the worker or firm effects? What is the projection?

$$E[m_{ij} \mid \alpha_i, \gamma_j, x_{ij}] = \lambda_\alpha \alpha_i + \lambda_\gamma \gamma_j + \lambda_x x_{ij}$$

Match effects, continued

(i) Do observable outcomes (turnover, productivity...) depend on m_{ij} ?

(ii) Do some groups/sets of firms have a “wider” distribution of match effects? (M/F, B/W)

(iii) Is ‘matching’ an exogenous feature of production, or does it depend on market context (thicker/thinner markets), firm size (large/small), type of worker (high/low skill; mobile/immobile)

4. Extending the canonical model

$$\log w_{ijt} = f(\alpha_i, \gamma_j) + x_{ijt}\beta + \epsilon_{ijt}$$

$f(\alpha_i, \gamma_j) = \alpha_i + \gamma_j$ implies Cobb-Douglas

Can we test the additive (in logs) assumption?
Do we expect workers in different skill groups to benefit equally from a move from a low wage to a high-wage firm?

$f(\alpha_i, \gamma_j)$ or $f(\alpha_1, \alpha_2, \ldots \alpha_N, \gamma_j)$ (spillover effects)

5. Understanding the nature of firm effects

(i) Are firm effects really "fixed" or do they evolve stochastically?

- deregulation, loss of market leadership (GM)
- opening up of trade (Melitz/Verhoogen)
- new technologies

(ii) Do firm effects reflect choices over personnel/IR policies (Pekkarinen-Riddell), management,...?

(iii) Are firm effects really **within-firm spillover** effects?

6. Why do the connections to specific firms matter for workers?

a) Frictions? Monopsony models; MP matching models

b) Rent-sharing? (“old school” bargaining models)

c) separation of ‘internal’ and external labor markets – Baker-Gibbs-Holmstrom; contracting models

7. Policy analysis with firm effects

Starting to see policy evaluation research that addresses the importance of firms:

- minimum wages (Cardoso-Portugal, Giuliano)
- trade policy (Harrison, Verhoogen,...)
- occupational choice (Adda et al, ...)
- regional development subsidies (Kline et al...)
- gender/race differentials (Giuliano et al)