Good Jobs: The Increasing Importance of Who You Work For in Labor Market Success

Robert J. Lampman Memorial Lecture

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“Poverty” research is mainly focused on people:

- human capital (education, training)
- responses to welfare and tax reforms (e.g. NIT)
- marriage and family

But if you ask a typical person - getting a “good job” is the key to success

Recent recession: job losers have suffered large, persistent losses in incomes

In this lecture I will argue that:

a) getting a "good job" is mainly about working at a "good firm"

b) firms appear to offer firm-specific wage premiums/discounts over "the market"

c) the variation across firms in these wage premiums is big: too big to be explained by rent sharing

d) firm wage premiums help explain many aspects of labor market behavior and outcomes (including important micro and macro facts)

Outline

I. Background

II. How much do firms matter in wage outcomes?

III. Interpretation: rent sharing, efficiency wages or ?

IV. What other features of the labor market can be explained by firm wage premiums?

- cyclical wage variation
- career progression
- gender gaps

V. What else *might* be explained?

I. Background

1a. In the standard model that economists use to study the labor market (CRS, integrated factor markets) firms don't matter

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

- working model for many questions: trade; immigration; SBTC; human capital; minimum wages; occupational choice; local labor markets

1b. A “modern” version:

- multiple skill groups; workers perfectly mobile across firms

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

- But each worker is paid his/her “market wage”.

-No **special link** to current or past employers
-One good firm benefits all workers in the market

2. What do we know from earlier work?

a. Research using *firm-level union contract* data (micro-Philips curve studies; efficient contracting; strikes/wages)

-wages are relatively sensitive to “outside” conditions (unemployment)

-wage patterns are highly persistent (Auto companies/parts companies)

- wages adjust slowly and can be out of equilibrium for extended periods (inflation catch-up)

Typically no workers, only “job categories”

b: Research using panel data with job identifiers: PSID, NLSY, SSA records

(i) lots of job mobility among young workers; large returns to voluntary mobility (Topel Ward)

(ii) older workers settle into long-lasting jobs (Hall)

(iii) important job component in level and variance of wages/earnings (Abowd Card, Altonji et al, Guiso et al)

Are job effects due to **match** effect or **firm** effect?
Prevailing view: jobs=matches (why?)
Career = human capital + match capital

c. Research on displaced workers

(i) job losers can suffer large, persistent losses (Jacobsen Lalonde Sullivan)

(ii) losses are bigger in recessions (Davis von Wachter)

(iii) losses are similar in Germany and US, despite differences in labor markets

Are theses losses “too big” and “too persistent” to be driven by match effects?

d. Research on firm-level data sets (LRD...)

- enormous heterogeneity in productivity and wages across firms within industries (Davis Haltiwanger)

- employment re-allocations contribute (a lot) to productivity growth (DH, Hsieh-Klenow)

- productivity is systematically related to "management" (Ichniowski Shaw; Bloom van Reenen)

Little or no information on worker quality

e. Theoretical research on “frictional markets”

- Burdett Mortensen: firms set a wage to balance turnover costs and wage costs

- Mortensen Pissarides: firms post job openings. Workers have different “match productivity”

extensions

- Cahuc et al: additive firm effect in log prod.; firms respond to outside offers
- Stole and Zwiebul: strategic use of empl. to lower marginal productivity

3. Matched Worker Firm Data and "Firm Effects"

- Abowd Kramarz Margolis (AKM): canonical worker/firm effects model. Allows both firm and match effects (firm=shared component of match)

- heterogeneity in both workers and firms

- despite acceptance by (some) labor economists, NOT a successful paradigm so far
    - weak theoretical grounding (BM?)
    - limited attempts to use the model

Reality check - do firms really "post" different wages?

1. 1940s-1960s institutional literature (e.g. Rees and Schultz): systematic pay differences across firms

2. How do firms hire? Hall&Krueger survey
   - Q1: 'take it or leave it' offer or some bargaining?
   - Q2: knew pay exactly at time of 1st interview
     - 26% pay known/no bargaining
     - 37% pay uncertain/no bargaining
     - 25% pay uncertain/bargaining

3. How do firms hire? van Ours and Ridder; job fairs

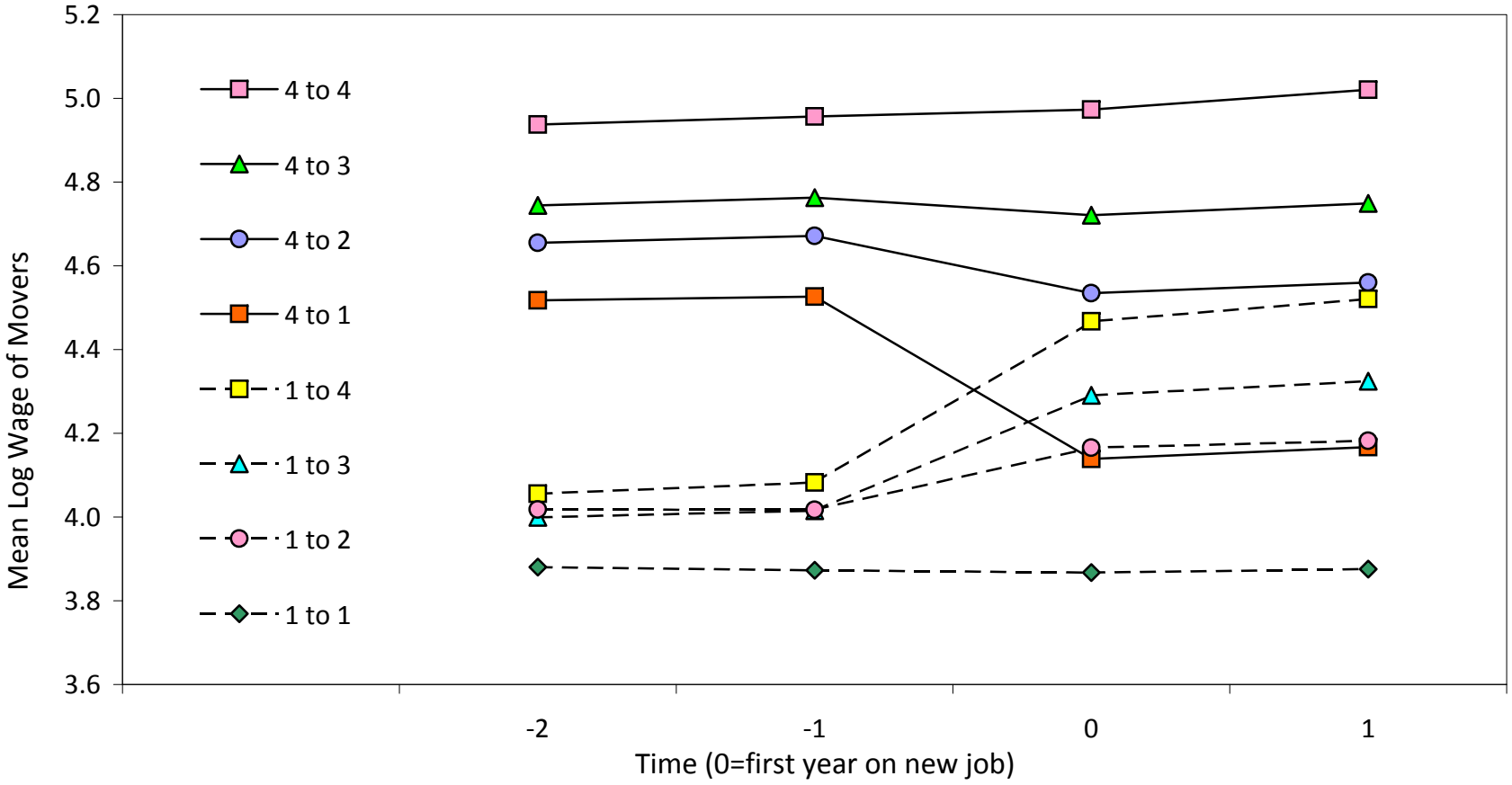
4. How do firms set pay? Surveys/benchmark jobs/pay line

II. How much do firms matter in wage setting?

An event study (from CHK):

- classify jobs in a year by average coworker wage (into 4 quartiles)
- select workers who change establishments; classify changes by quartile of co-worker wages in last year of old job/first year of new job
- focus on workers with 2+ years pre/post

Figure Vb: Mean Wages of Job Changers, Classified by Quartile of Mean Wage of Co-Workers at Origin and Destination Establishment, 2002-09



Notes: figure shows mean wages of male workers observed in 2002-2009 who change jobs in 2004-2007 and held the preceding job for 2 or more years, and the new job for 2 or more years. "Job" refers to establishment with most earnings in year, excluding part time work. Each job is classified into quartiles based on mean wage of co-workers (quartiles are based on all full time workers in the same year).

Take-aways:

1) wages rise/fall when you join a firm with higher/lower-paid coworkers
2) large gaps; bigger in the 2000's than late 1980s
3) approximately symmetric gains/losses (not much sorting on match component)
4) no <u>average</u> mobility premium
5) no clear trends in pre/post-transition wages
6) upwardly mobile workers have higher wages (conditional on origin quartile), reverse for d-m.

Wage model (AKM)

wage = person (skills, ambition etc)
+ firm premium
+ job-match premium
+ predictable part based on time/worker
(age/time trends/returns to schooling)
+ transitory “error”

job-match: some workers earn more or lesss
(relative to baseline person+firm)
“Heterogeneous treatment effect”

What's not to like?

1) additive person and firm components

-what if the firm premium is only paid to managers? Can look for systematic errors (LM)

2) how important is firm-wide component vs job match? Add job effects and see!

3) for estimation: firm assignment has to be "strictly exogenous" (we can't have people moving in anticipation of something other than the average firm component)

4) for economists: is this a "real" model?

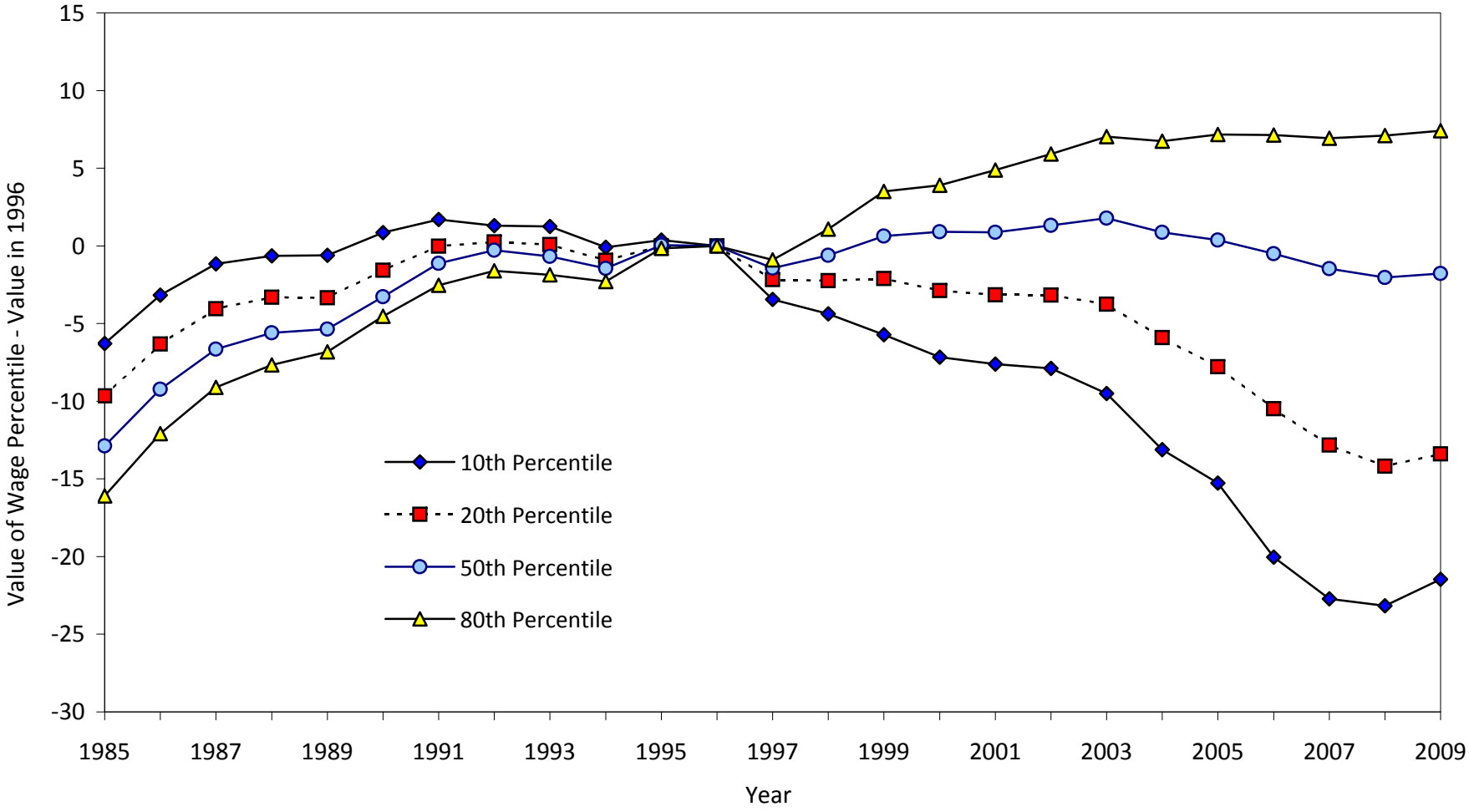
Applying AKM framework to rise in German wage inequality

- FT male workers (main job each year) 1985-2009
- big rise in inequality starting circa 1996
- compare model in 4 periods:

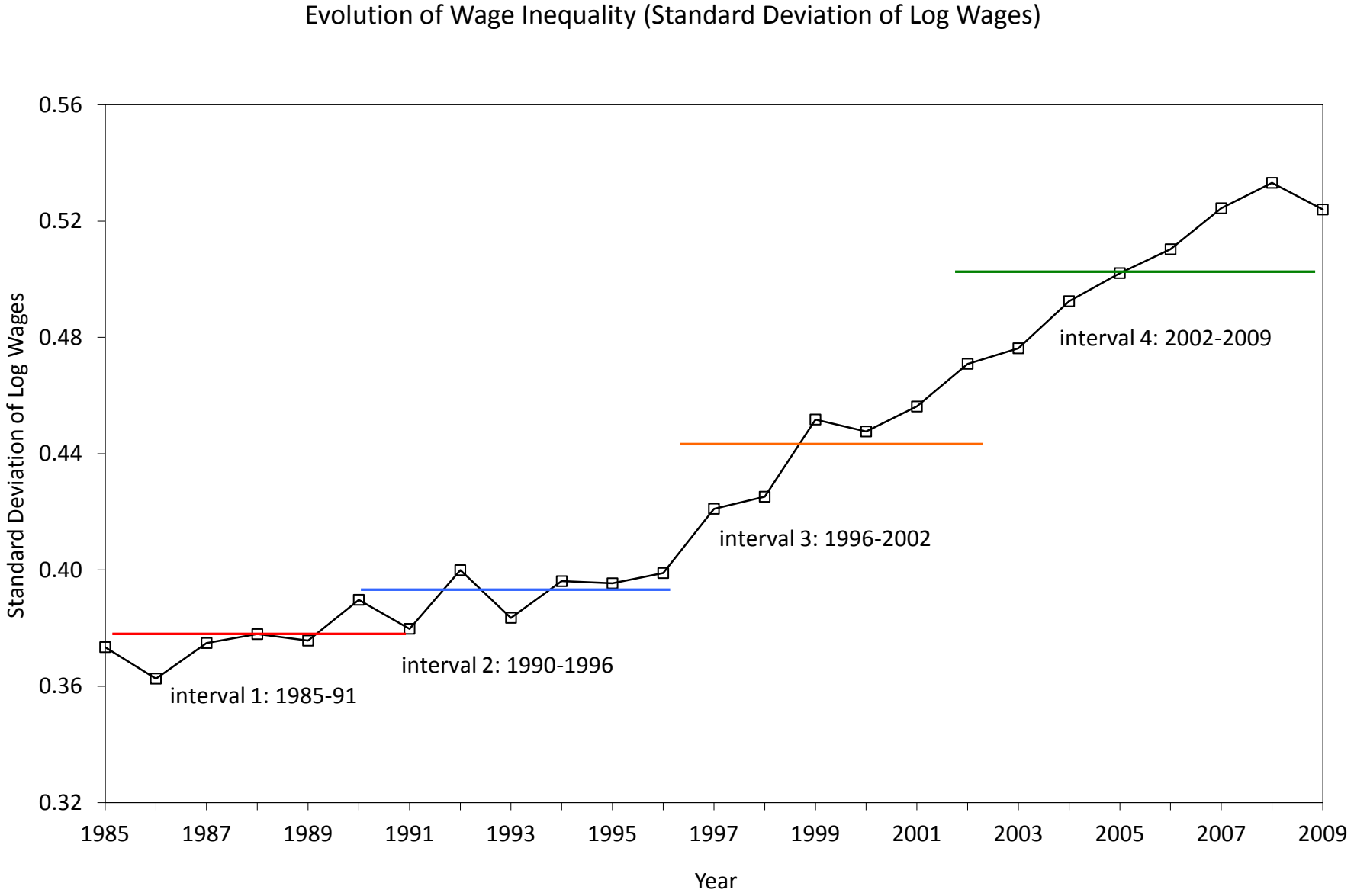
    1985-1991 - before reunification
    1990-1996 - reunification, E-W migration
    1996-2002 - the "sick man of Europe"
    2002-2009 - the German economic miracle

$V(\log w_{ijt}) =$ **V(person) + V(firm) + 2cov(p,f)**
+ other components

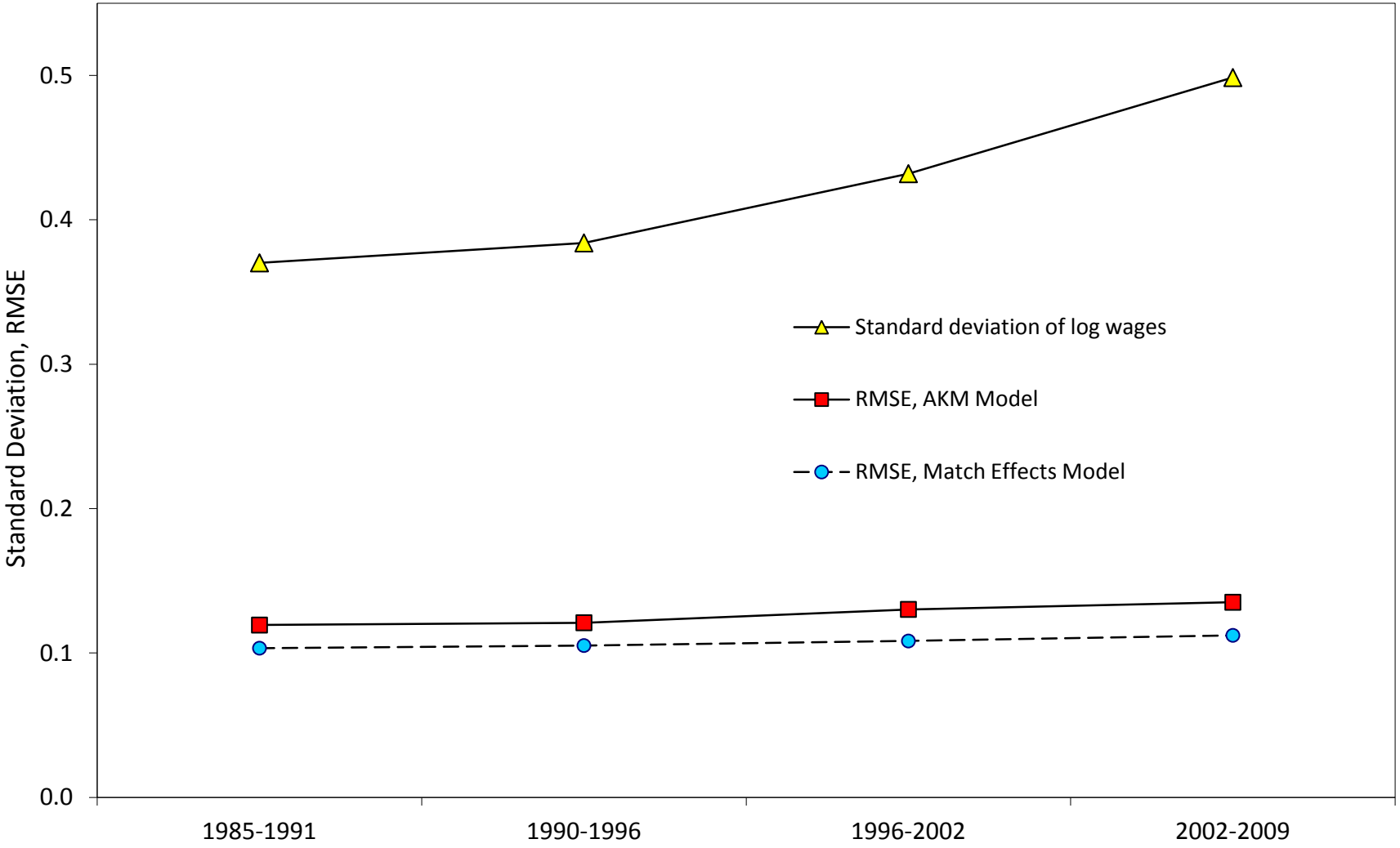
Figure I: Trends in Percentiles of Real Log Daily Wages for West German Men



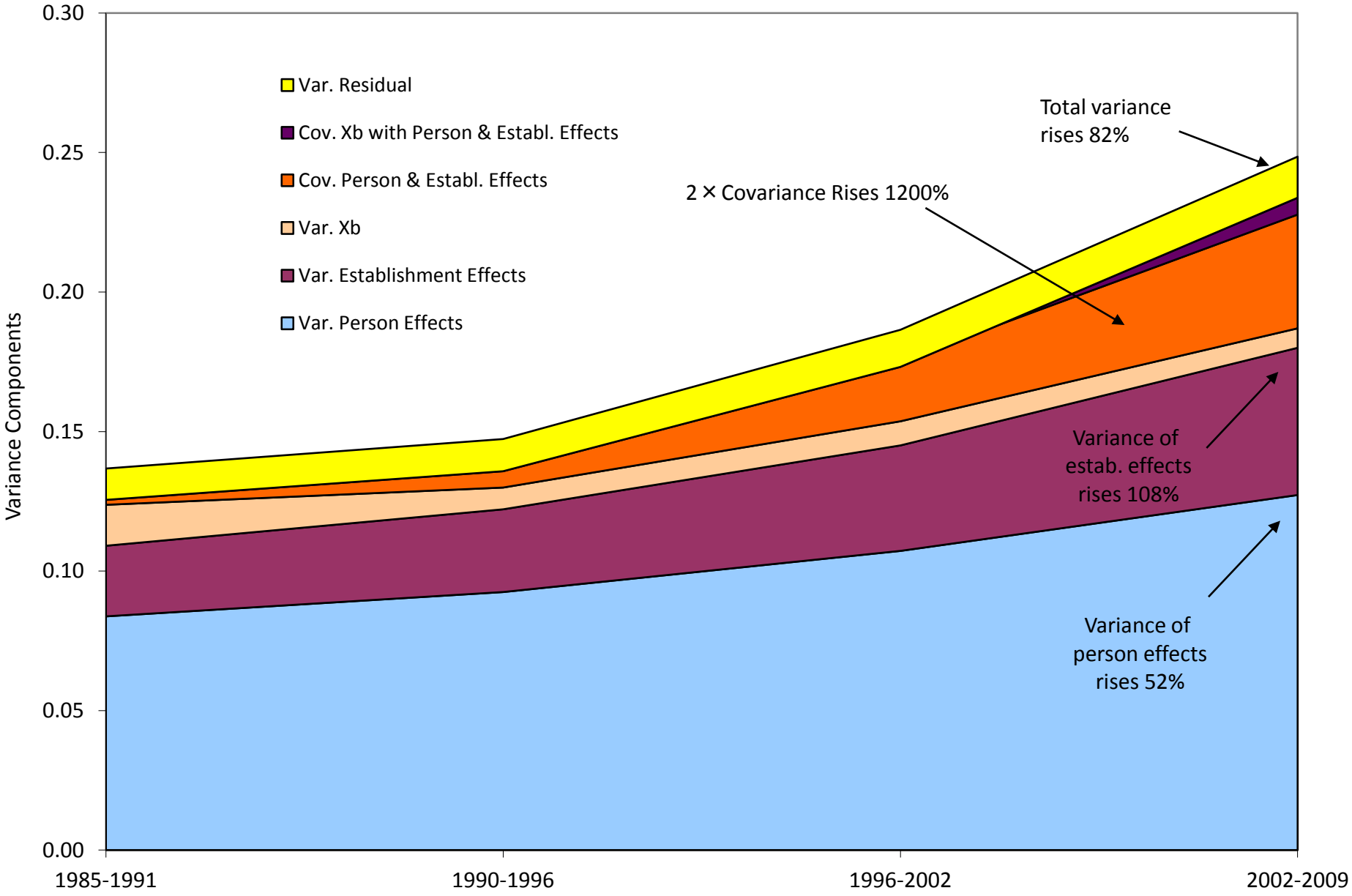
Note: figure shows percentiles of log real daily wage for full time male workers on their main job, deviated from value of same percentile in 1996 and multiplied by 100.


Evolution of Wage Inequality (Standard Deviation of Log Wages)
Standard Deviation of Log Wages
0.56
0.52
0.48
0.44
0.40
0.36
0.32
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
Year
interval 1: 1985-91
interval 2: 1990-1996
interval 3: 1996-2002
interval 4: 2002-2009

AKM explains nearly all of the rise in wage inequality



Decomposition of Variance of Log Wages



III. Interpretation

- high-wage firms survive longer
  (so they are more profitable, despite higher wages)
- Fr/Italy/PT: premiums correlated with profits
- jobs at high-wage firms survive longer
  (wage premium is not just an offset for hours/effort)
- modest widening of premiums over time
  BUT: new firms (post-1996) have big lower tail
  ⇒ emergence of low wage firms that specialize
  in hiring low-wage workers

a. Is the wage premium simply rent-sharing?

- wide variation across firms in profit/worker (TFP, ...)

- BUT: studies of rent-sharing typically find quite small response of wages to “exogenous” shifts in firm profits (benchmark = 0.05)

- variation in firm premiums is too large

b. Efficiency wages (endogenous productivity)

-e.g. incentive pay

Lazear (Safelite) case study, switch to piece rates

22% rise in prod. of stayers

44% rise in TFP $\Rightarrow \approx$22% sorting effect

Pekkarin-Riddell (Finnish matched data)

across workers: 15% premium for piece rates

within jobs: 9% premium

IV. What other features of the labor market can be explained by firm wage premiums?

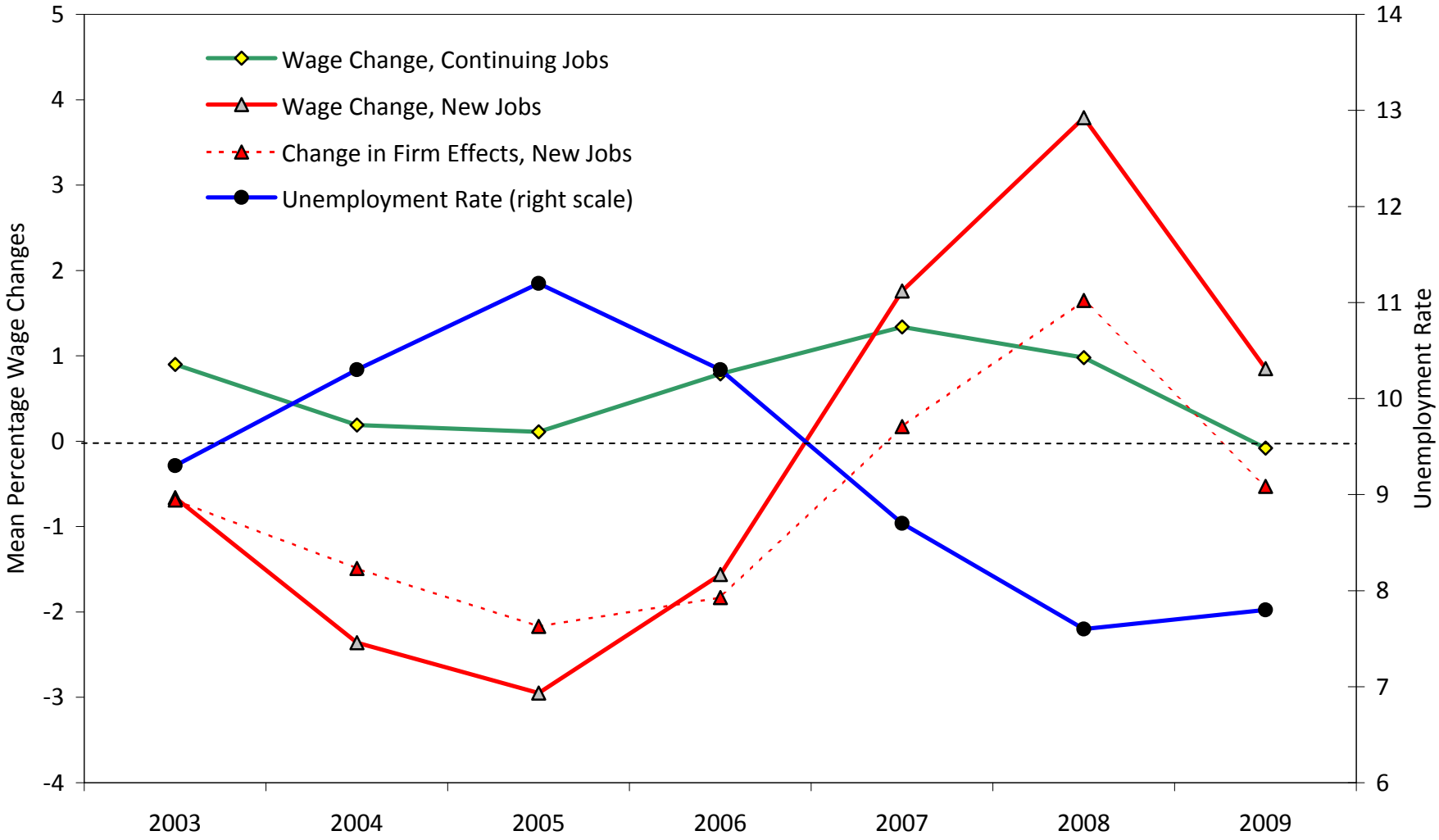
1. cyclical wage variation

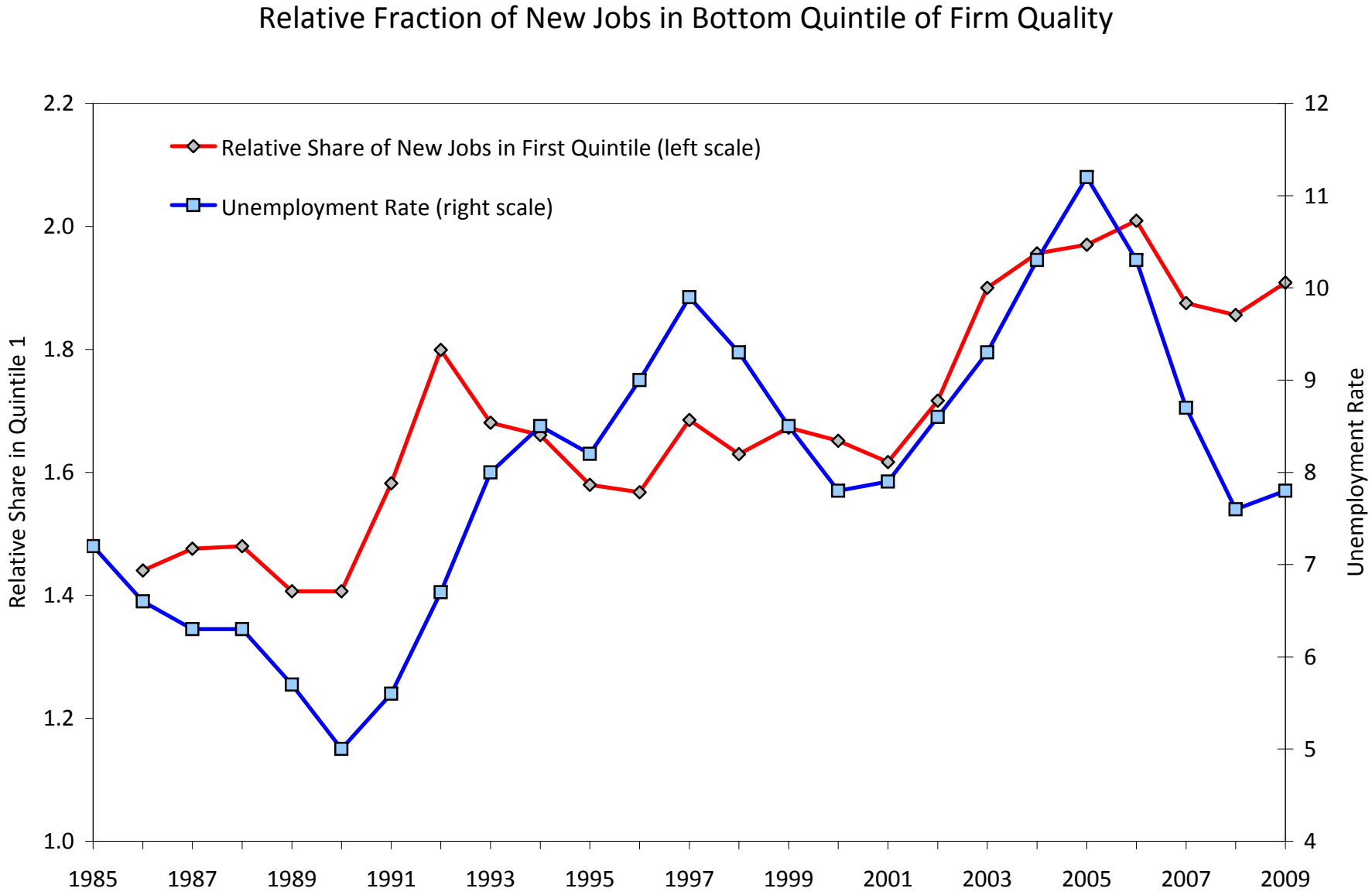
some part of cyclical wage adjustment arises from job-changers

Job changers:

$$\Delta \log w = \Delta \text{firm effects} + \Delta \text{match effects}$$

"quality" of new jobs (based on firm effect) is cyclical


Cyclicality in Wage Changes for Continuting and New Jobs (Full Time Males Only)
Wage Change, Continuing Jobs
Wage Change, New Jobs
Change in Firm Effects, New Jobs
Unemployment Rate (right scale)
Mean Percentage Wage Changes
Unemployment Rate
5
4
3
2
1
0
-1
-2
-3
-4
14
13
12
11
10
9
8
7
6
2003
2004
2005
2006
2007
2008
2009

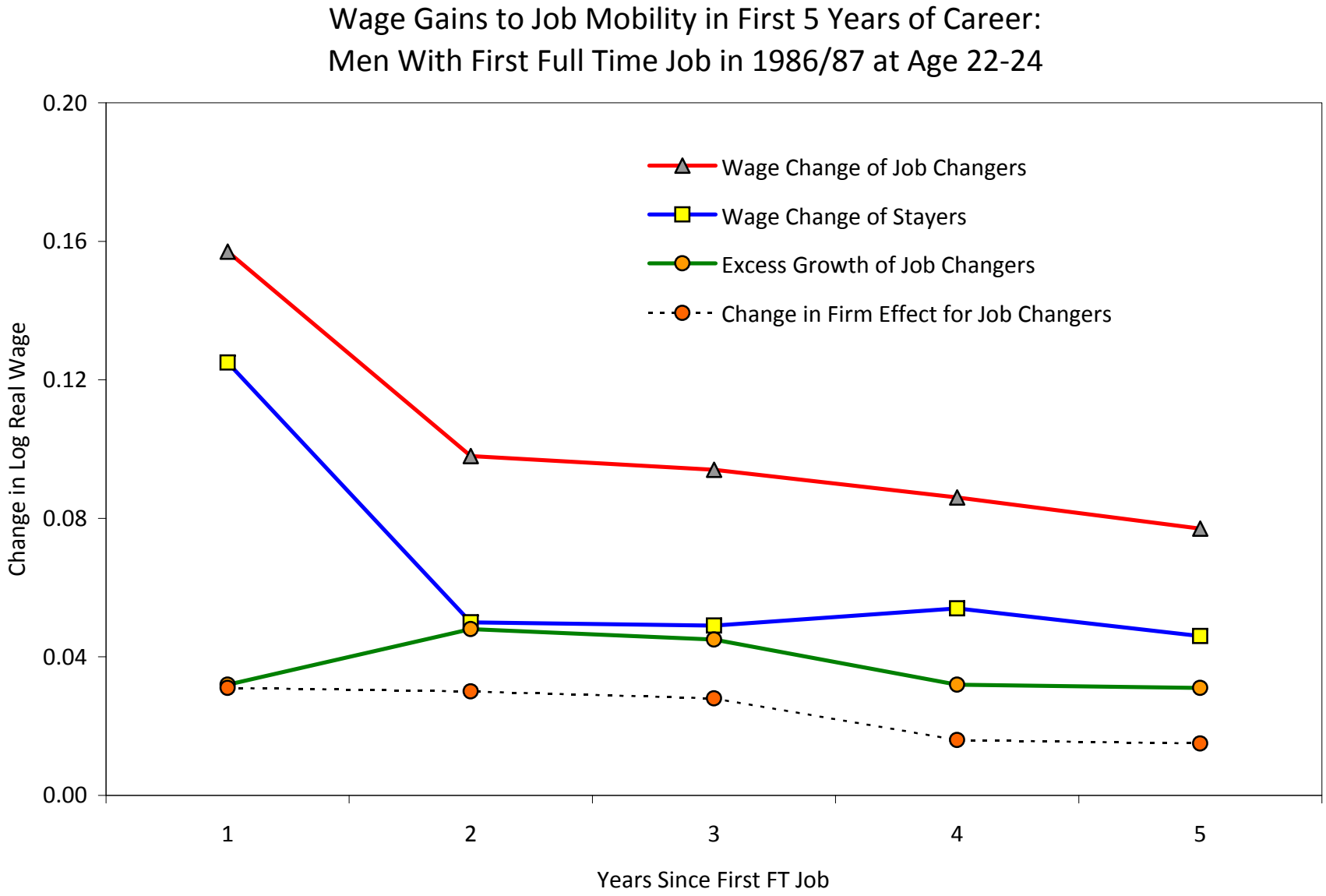

Relative Fraction of New Jobs in Bottom Quintile of Firm Quality
Relative Share of New Jobs in First Quintile (left scale)
Unemployment Rate (right scale)
Relative Share in Quintile 1
Unemployment Rate
2.2
2.0
1.8
1.6
1.4
1.2
1.0
12
11
10
9
8
7
6
5
4
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009

2. Early career progression

- Topel and Ward: young (male) workers' wages rise by changing jobs

- does this arise through rising firm quality (as measured by firm effects), rising match quality, or both?

- do long term effects of recession (Oreopoulos von Wachter, Kahn) come from lack of openings at high-wage firms?


Wage Gains to Job Mobility in First 5 Years of Career:
Men With First Full Time Job in 1986/87 at Age 22-24
0.20
0.16
0.12
0.08
0.04
0.00
Change in Log Real Wage
Wage Change of Job Changers
Wage Change of Stayers
Excess Growth of Job Changers
Change in Firm Effect for Job Changers
1
2
3
4
5
Years Since First FT Job

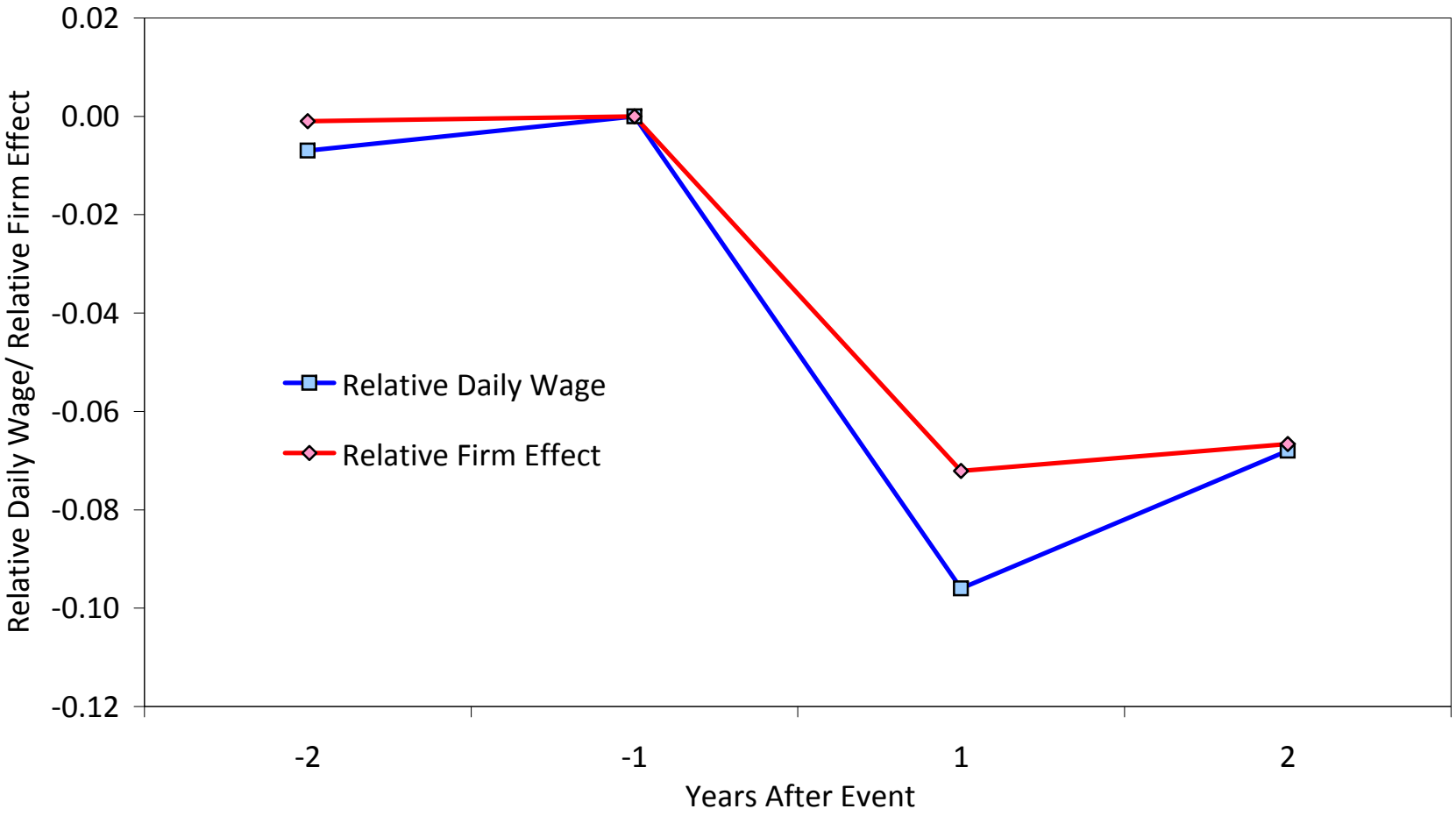
3. wage losses of displaced workers

- seminal JLS study: job losers in PA in early 1980s
  losses attributable to disappearing industry rents
  (and loss of union coverage)

- Davis + von Wachter: job losers with 3+ years tenure at plants with 50+ workers that shed 30% or more workers (*not closures*).

	Earnings Losses (with 0's)		
	1 yr out	5 yrs out	10 yrs out
avg expansion	-10%	-6%	-4%
avg recession	-17%	-10%	-6%

Contribution of Firm Effects to Wage Changes:
Workers Affected by Large Layoff Events, 2004-2007



Full time men with 2+ years of wage data before and after downsizing of 30% or more at firms with 50+ workers

4. Gender gaps

- women and men work at different firms

- wages vary negatively with frac. female co-workers

Card+de la Rica (Spain; lots of controls for worker, firm, and coworker chars.)

$$\text{Wage} = -0.15 \times \text{Fraction-Female}$$

- what fraction of gender gap at a given level of experience is due to segregation at low-wage firms?
- what fraction is due to a lower payoff for women for working at a high-ψ firm?

i.e.: $\psi_{jFemale} = \lambda \psi_{jMale}$, λ=relative bargaining power

Card, Kline, Cardoso - evidence from Portugal (QP = annual census of all jobs)

fit AKM models separately by gender

<u>counterfactuals:</u>

- raw MF wage gap (hourly wages) = 0.23
- give F's the male firm effects = 0.22
- give F's the male firm distribution = 0.18

20-25% of average gender gap is due to firm distribution

V. What else *might* be related to firm wage premiums?

1. Other "gaps"
   a. racial wage gaps
   b. rising return to education (works in Germany)
   c. immigrant assimilation (works in Portugal)
   d. rise in incomes of the top 1%
2. Networks
   - network capital = mean(ψ_j) for friends
3. Intergeneration correlation in earnings (Kramarz-Skans)