

Flexible Work Time in Germany: Do Workers Like It and How Have Employers Exploited It Over the Cycle?

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Outline

- 1 Qualitative description of flexibility practices
- 2 Empirical analysis using SOEP
- 3 Questions
 - who controls workers' hours,
 - (and do workers like flexibility?)
 - how did employers use flexibility over the 2005–9 cycle?

Flexible working time

- 1 Various types of flexibility in working time in Germany
- 2 Categorize: flexibility for whom?
 - worker convenience
 - employer efficiency

Worker convenience

Workers may want to ...

- 1 Work non-standard hours regularly
- 2 Respond to unexpected events at home
- 3 Have leisure at whim
- 4 Rearrange hours over lifetime
 - including early or gradual retirement
- 5 Avoid other workers in commuting rush

Employer efficiency

- 1 Employers want to align production and product demand
 - seasonal or business cycle swings in demand
 - especially manufacturing, construction, hospitality
- 2 Employers want to accomodate customer needs
 - customers want long or flexible opening hours
 - customer demand may fluctuate over day
 - especially in services

Earliest flexibility – worker convenience

- 1 “Gleitzeit” (flexitime) introduced 1960s
- 2 Basic version
 - core time during which all workers present
 - but within limits, choose start, end, lunch times
 - length of day fixed
 - agree hours with supervisor
- 3 Flexible version (more recent)
 - can accumulate extra hours and use as days off
 - core time relaxed, applied to group
 - no need to consult supervisor
- 4 Mainly used in office settings

Emergence of flexibility for employer efficiency

- 1 Union campaign to reduce work week, early 1980s
 - with no reduction in monthly wage
 - led by manufacturing
- 2 Campaign successful
- 3 But unions made concessions in work practices

Employer efficiency: Jahresarbeitszeit – yearly working time

- 1 Aim: allow employers to adjust hours cheaply
- 2 Define window of 3 months to a year or more
 - Ausgleichszeitraum
- 3 Calculate average work hours over window
 - if average to standard, no overtime payments made
 - if average too high,
extra hours must be paid, at overtime rate (usually 125%)
- 4 Note: traditional window is one day (not one week)
- 5 Other features
 - limits on daily and weekly hours (ceiling, floor)
 - limits on cumulative overtime or undertime during window
 - if exceed ceiling: paid, at overtime rate

Implementation of yearly working time

- 1 Most common: union contracts permit but do not impose
- 2 Works council, firm decide whether/how to implement
- 3 If no works council (small establishments), agreement between workers, management
- 4 Rarer: rules laid out in union contract

Implementation of yearly working time

- ④ ISO/sfs surveys: often not all elements present
 - e.g. no floor or no ceiling on cumulated hours
 - or even no formal rules (small establishments)

- ⑤ And rules often “broken”
 - e.g. ceiling on cumulated hours exceeded
 - if extra hours paid off, not really a violation
 - surveys found hours sometimes unpaid and just lost
 - or carried over into next window

but even this sometimes permitted:
construction hourly-paid: can carry over into next window if worker agrees (so what is meaning of window?)

Spread of yearly working time

- 1 System has continued to spread since 1995
 - line between flexitime and yearly working time has blurred as flexitime has come to resemble yearly working time
- 2 Why spreading now no lower work hours in return?
 - motivation often employment stabilization or increase
 - sometimes employer commits to no layoffs in certain period
- 3 Have workers/unions come to like flexibility per se?
 - sometimes claimed system is "family friendly"
 - inherent tension worker convenience—employer efficiency

Economic analysis of yearly working time

- 1 Marginal cost of extra hour per worker reduced
- 2 Affects labor demand
 - substitute from workers to hours per worker
 - substitute from capital to labor
 - positive scale effect
 - net: demand for hours worked rises,
demand for workers ambiguous
 - employment smoothed over the cycle
- 3 Useful for industries with seasonal or cyclical demand

Who benefits from this flexibility?

- 1 Who benefits depends on who controls the work schedule
 - flexitime was explicitly controlled by worker
 - yearly working time was conceived as controlled by firm
- 2 Could be beneficial to firm to cede some control
 - to make workers happier and hence productive
 - possible trade-off with wage
- 3 In practice, sometimes worker/firm share control
 - firm determines peak times when overtime must be worked
 - worker has some power to decide when to take the time off
 - varies by establishment, industry, type of worker

Most recent flexibility – lifetime working time

- 1 Build up hours surplus over years
- 2 Use for sabbatical, elder care, early retirement
- 3 WSI survey: 2% establishments
(but higher share of employment)

So what is a working time account?

- 1 Merely a way of administering any of the flexible systems
 - Arbeitszeitkonto
 - Langzeitkonto
(long term - for sabbatical, early retirement)
- 2 Hours are banked (in units of hours)
 - balance can be positive or negative
- 3 Larger establishments more likely to have formal accounts
 - small more likely to administer on *ad hoc* basis

Key SOEP question

- 1 Wenn Sie Überstunden leisten, werden die in der Regel abgefeiert oder bezahlt oder gar nicht abgegolten?
If you work overtime hours, are they as a rule compensated with time off or paid or not compensated at all?
 - abgefeiert, teils–teils, bezahlt, gar nicht abgegolten, TNZ
 - compensated with time off, a combination, paid, uncompensated, N/A
- 2 Asked every year of SOEP since inception 1984

What does it mean to be compensated in both pay and time off?

- 1 May be paid at end of window for excess overtime
- 2 May be limit to hours can bank in account
 - limit per day, week, window
 - overtime beyond this limit must be paid immediately
- 3 I will call the mixture of pay and time off "hybrid"
- 4 Definition: flexibility= time off or hybrid compensation

Additional questions

- 1 Können diese Überstunden auch in ein sogenanntes Arbeitszeitkonto fließen, das Sie innerhalb eines Jahres oder länger mit Freizeit ausgleichen können?

Can these overtime hours flow into a so-called working time account, that you can equalize within a year or more with time off?

- can't tell purpose of account
- crude information about window length
- asked from 2002

Additional questions

- 2 Which of the following best applies to your work?
- a fixed beginning and end of daily work time
 - b sometimes varying daily work hours determined by firm
 - c choose own working time, no formal working time rules
 - d "Gleitzeit mit Arbeitszeitkonto" and a certain control over daily work time within this framework
- asked odd years 2003–2009
- 3 No information on
- undertime
 - short-time work

Sample

- 1 1984–2009
- 2 Employed
 - drop self-employed
 - drop others without fixed work hours
 - drop apprentices
- 3 Age 20–54 (to avoid early retirement)
- 4 Full time
 - as defined by respondent
- 5 Living in west
- 6 Not all variables exist in all years

Table 1: Who controls varying hours?

	All	Hourly-paid		Salaried	
		Manuf	Service	Manuf	Service
Fixed hours	45.2	67.7	60.1	26.3	35.8
Varying hours, firm controls	18.6	18.4	30.0	7.5	19.6
Worker controls hours	9.4	2.6	3.7	15.8	12.2
Shared control: WTA	26.8	11.3	6.1	50.4	32.3
	100.0	100.0	100.0	100.0	100.0
Obs	12,864	3015	1167	2312	6214

No trend over time 2003–2009

Caveats

- 1 Use of "Gleitzeit" deters hourly-paid from choosing option?
- 2 Fixed daily hours can still involve flexibility
 - e.g. work 8 hour shifts each day work, 35 hour week
 - implies overtime if work 5 days per week
 - accumulate overtime which take as days off
- 3 Can't easily split responses into worker vs firm control
 - e.g. daily hours could be fixed, but chosen by worker

Figure 2: Trends in overtime hours last month

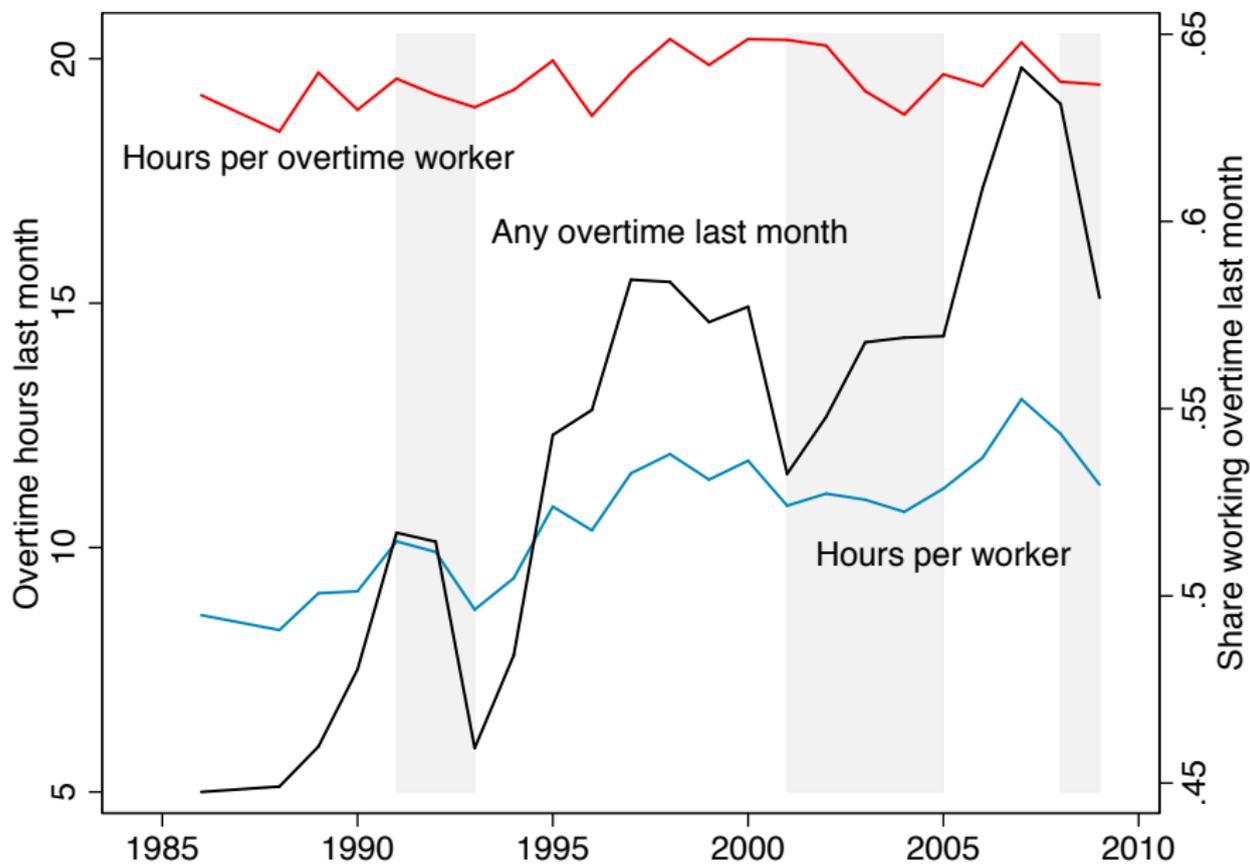


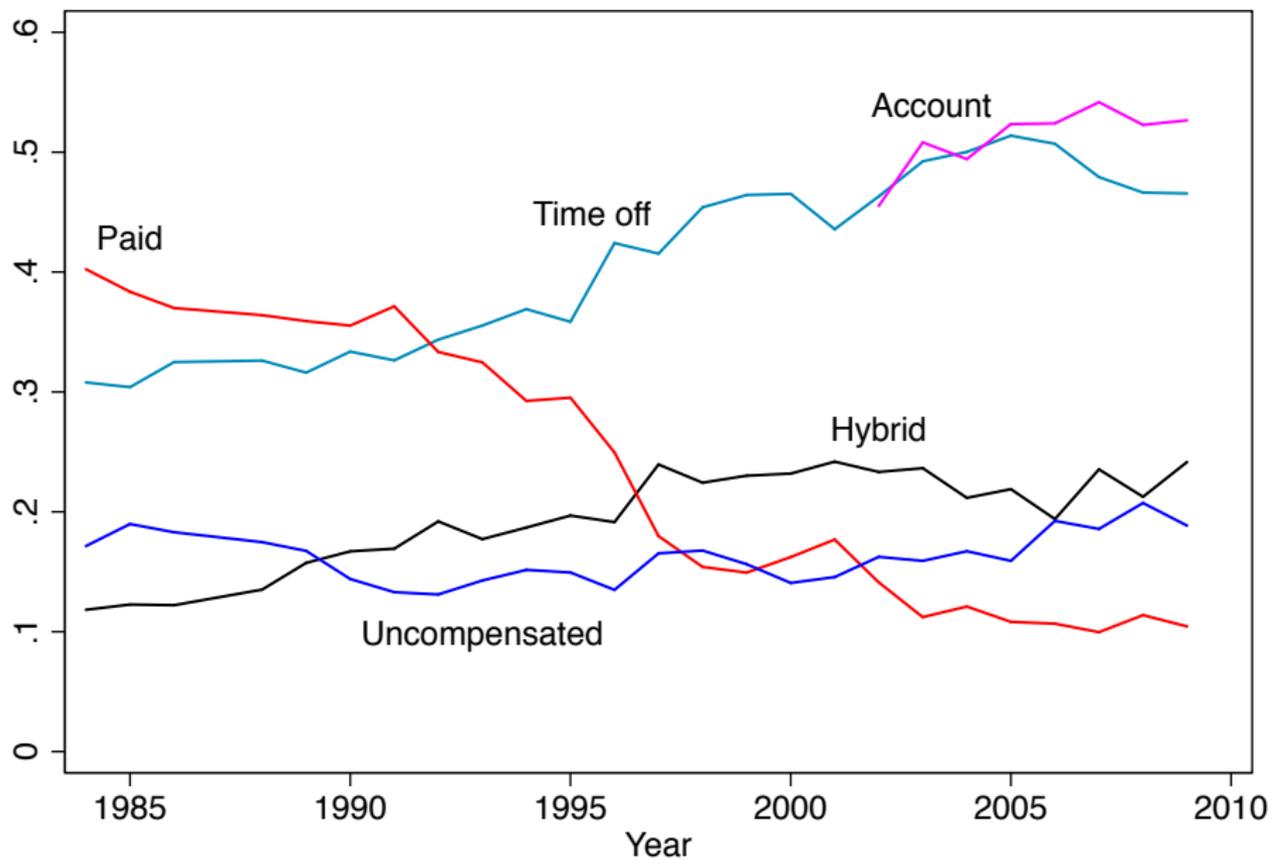
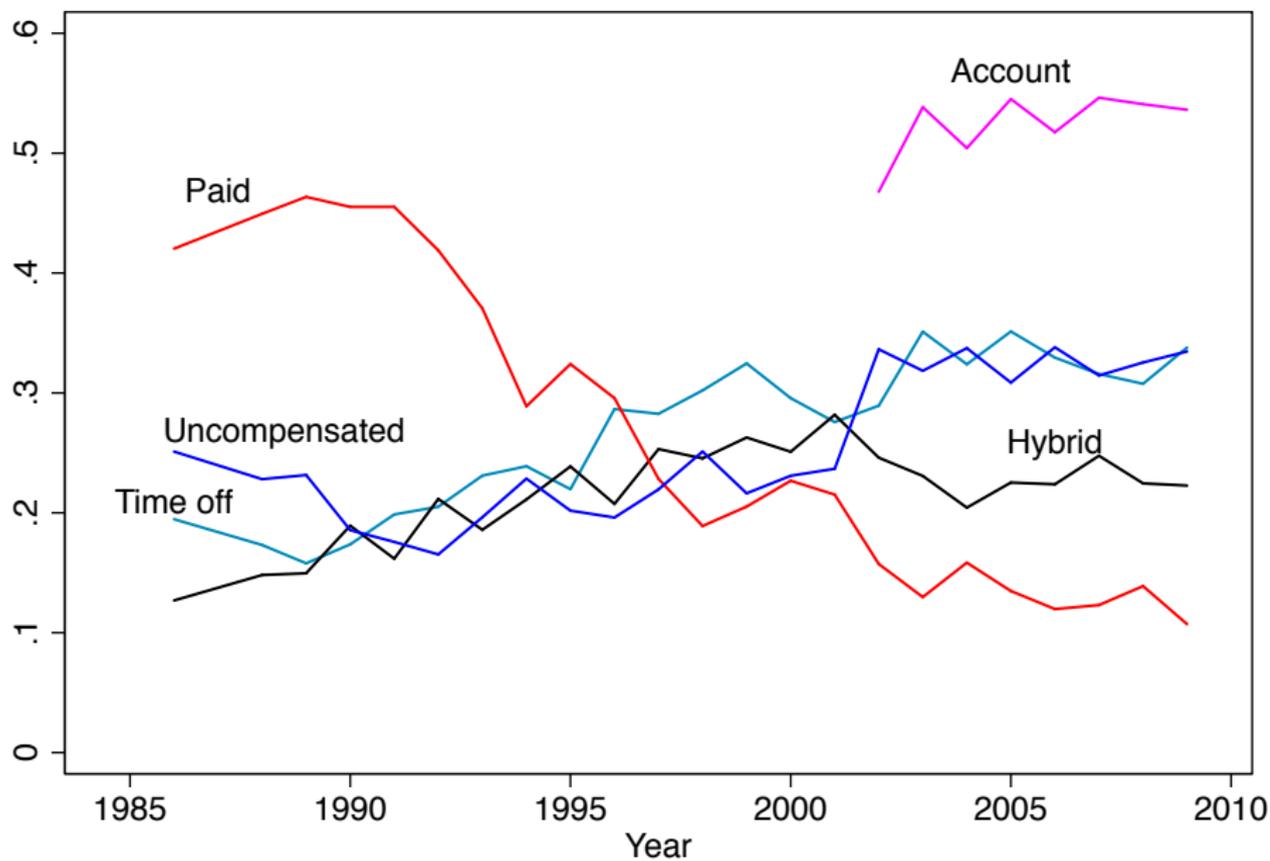
Figure 3A: Overtime compensation types – share of workers

Figure 3B: Overtime compensation types – share of hours



Link between time off and working time accounts

- 1 Share of workers with account:
 - 88% time off only
 - 79% hybrid
 - 27% paid only
 - 8% uncompensated

Figure 4a: Working time account windows – share of workers

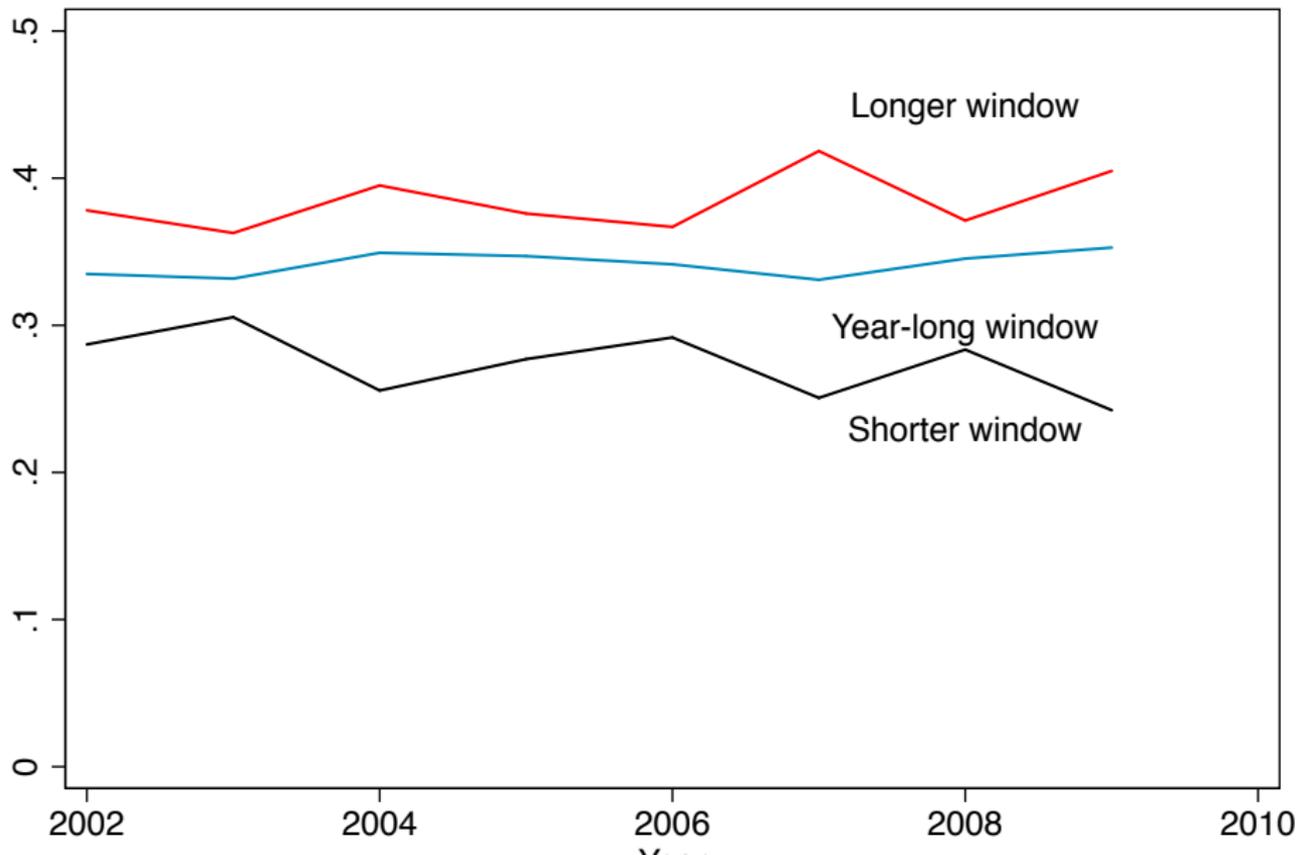


Figure 4b: Working time account windows – share of hours

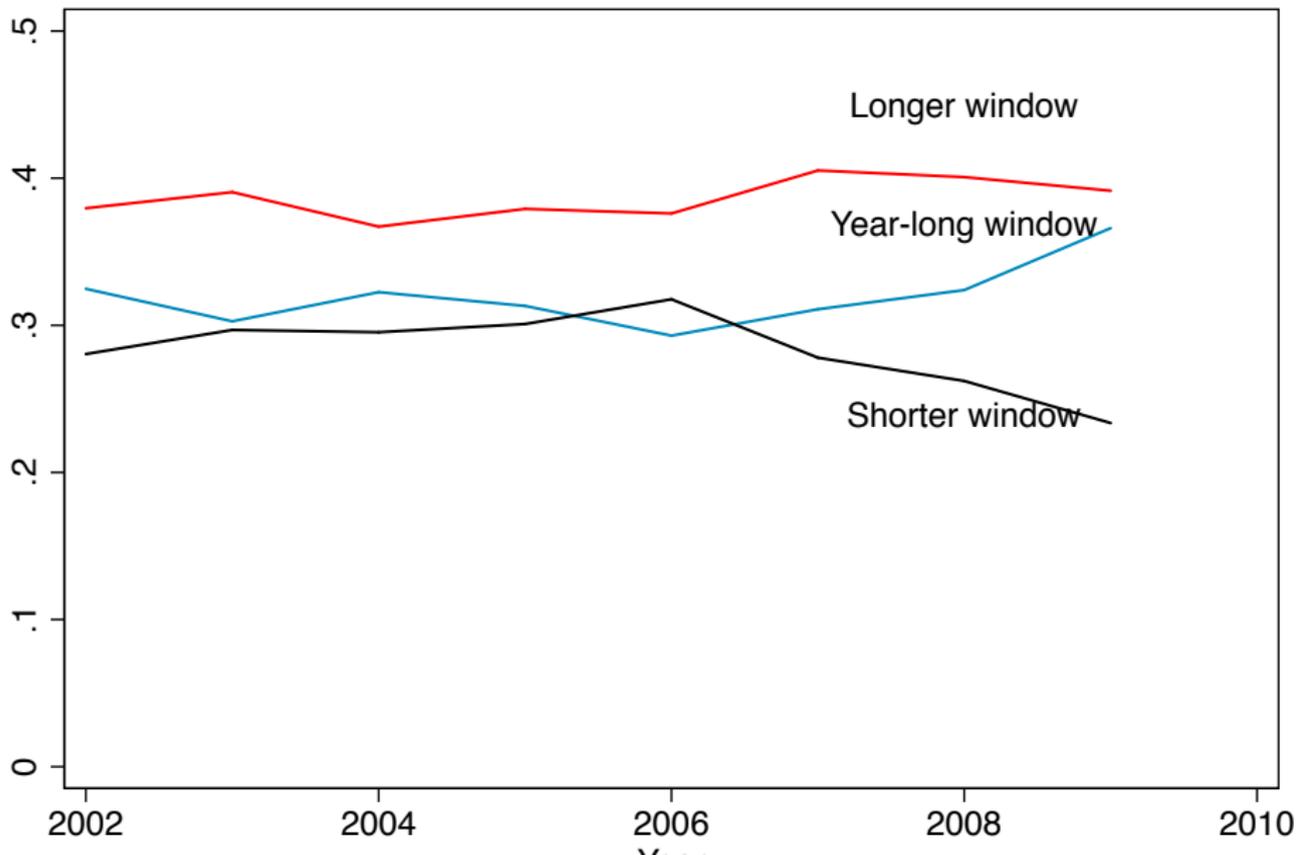


Figure 5: Shares of hours of overtime

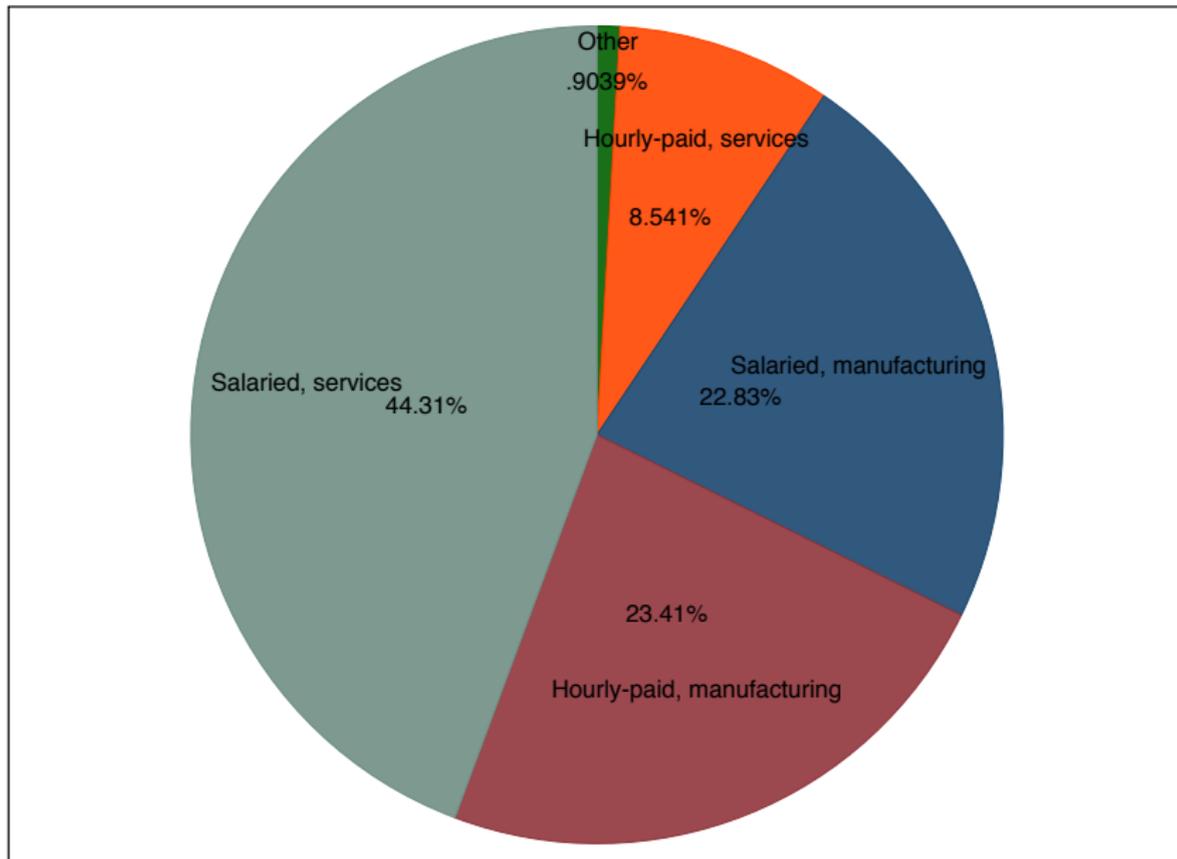
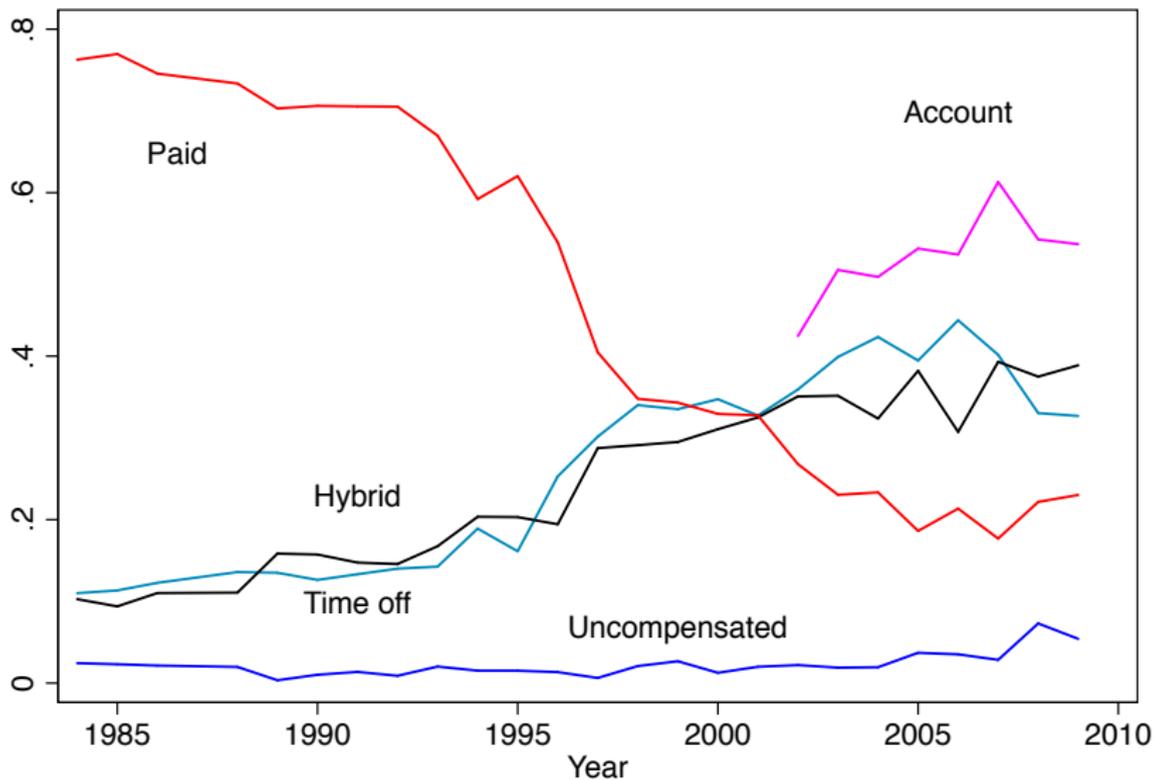
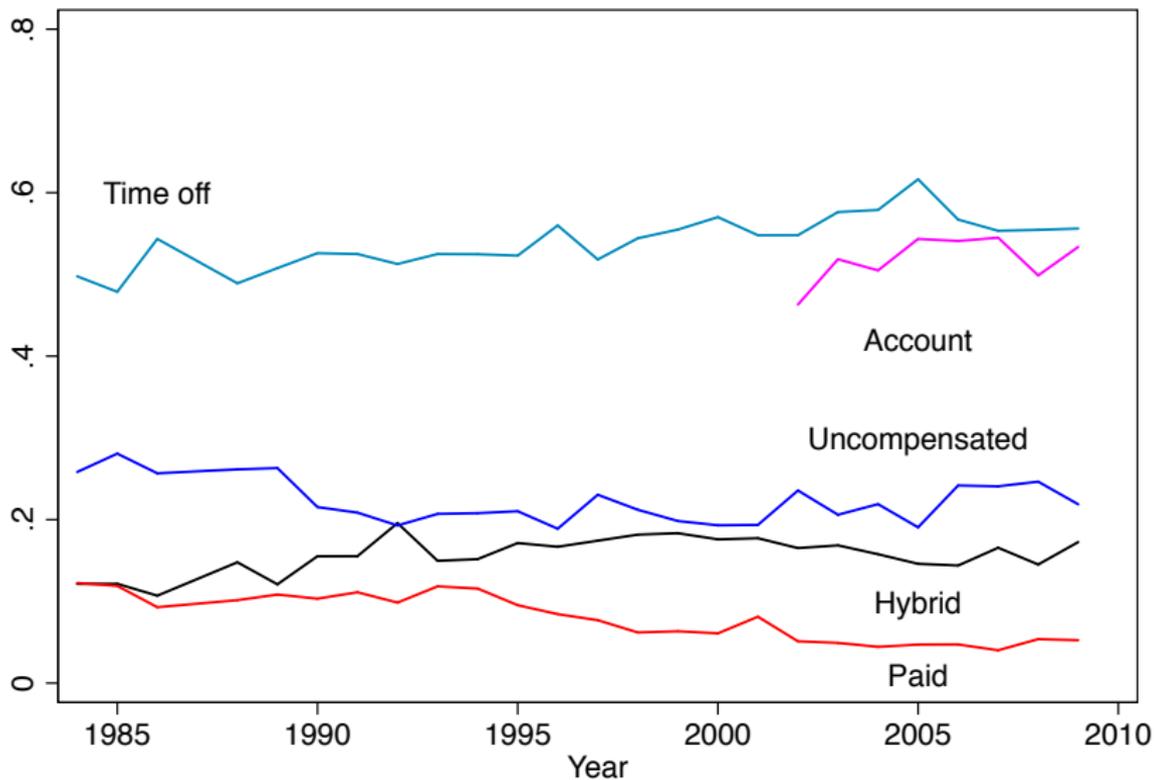


Figure 6A: Flexibility – share of workers; manufacturing hourly



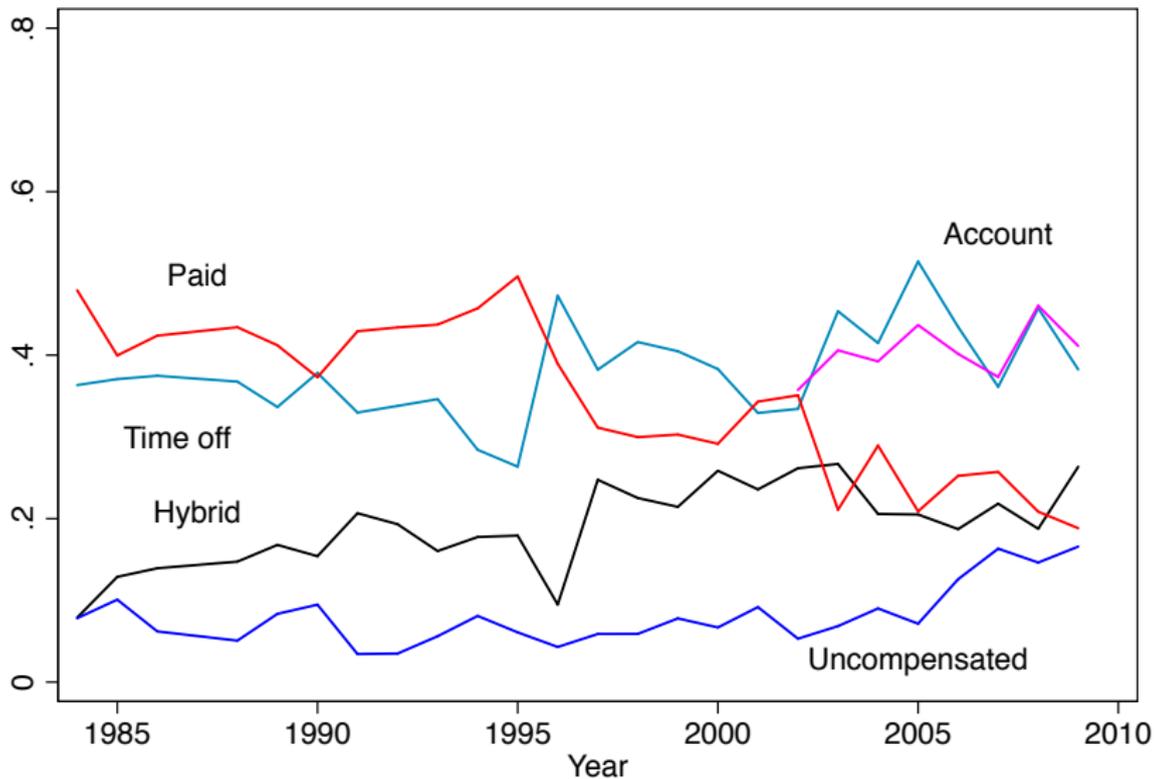
A. Hourly-paid workers, manufacturing

Figure 6D: Flexibility – share of workers; salaried services



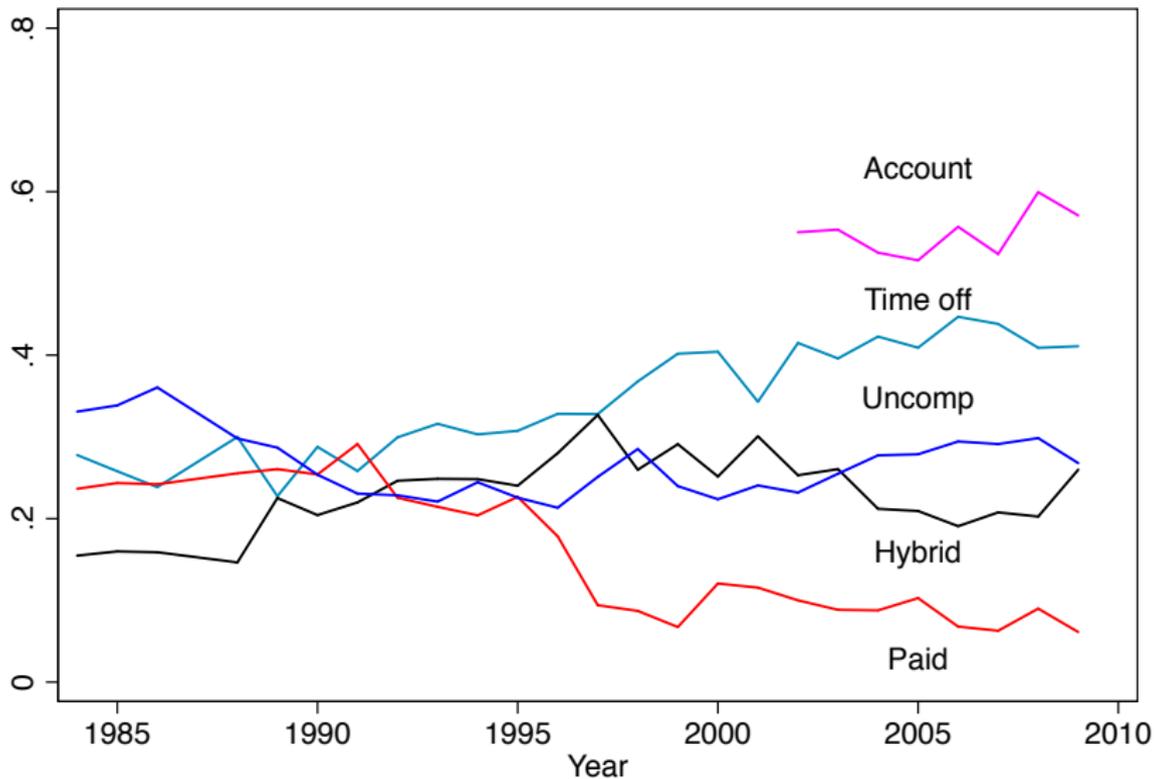
D. Salaried workers, services

Figure 6B: Flexibility – share of workers; hourly–paid services



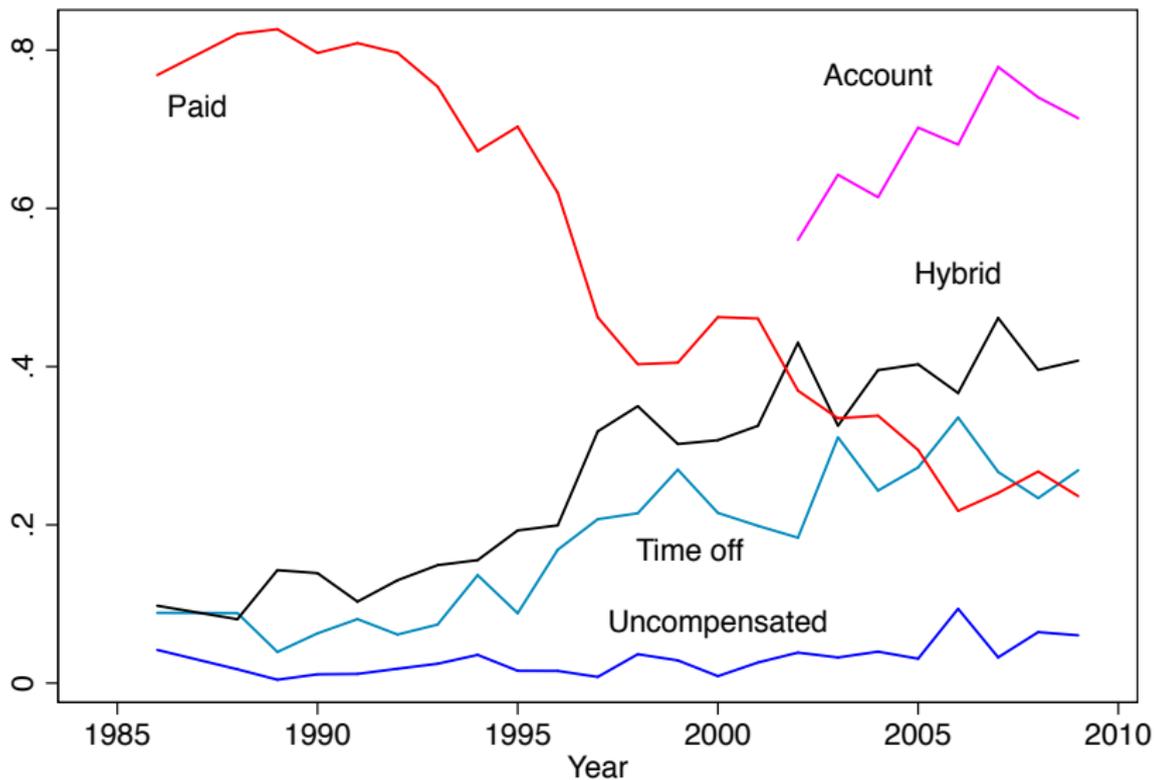
B. Hourly-paid workers, services

Figure 6C: Flexibility – share of workers; salaried manufacturing



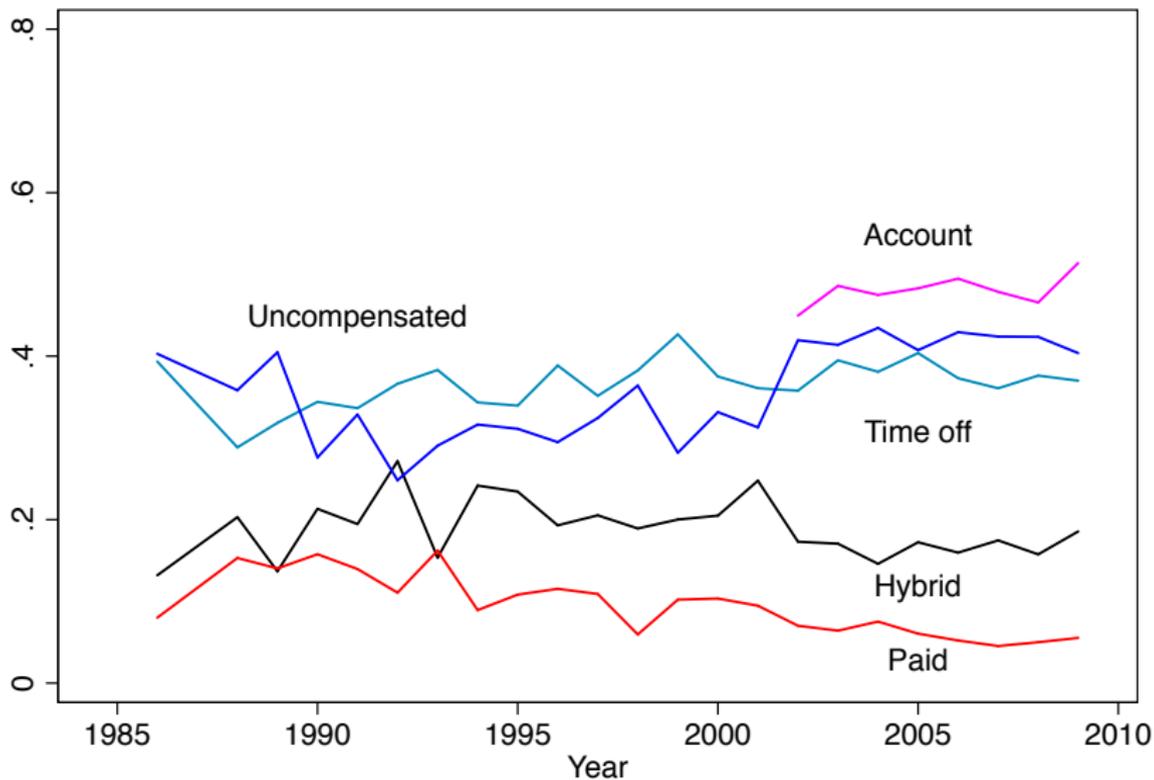
C. Salaried workers, manufacturing

Figure 7A: Flexibility – share of workers; manufacturing hourly



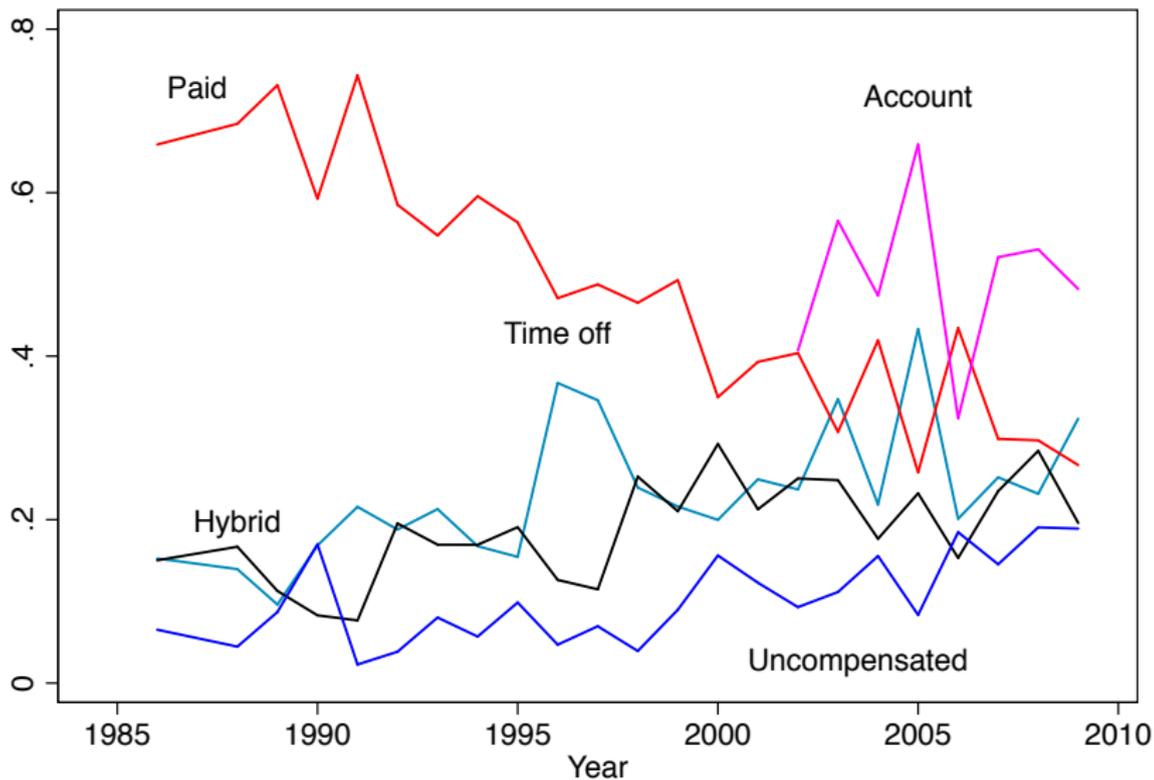
A. Hourly-paid workers, manufacturing

Figure 7D: Flexibility – share of workers; salaried services



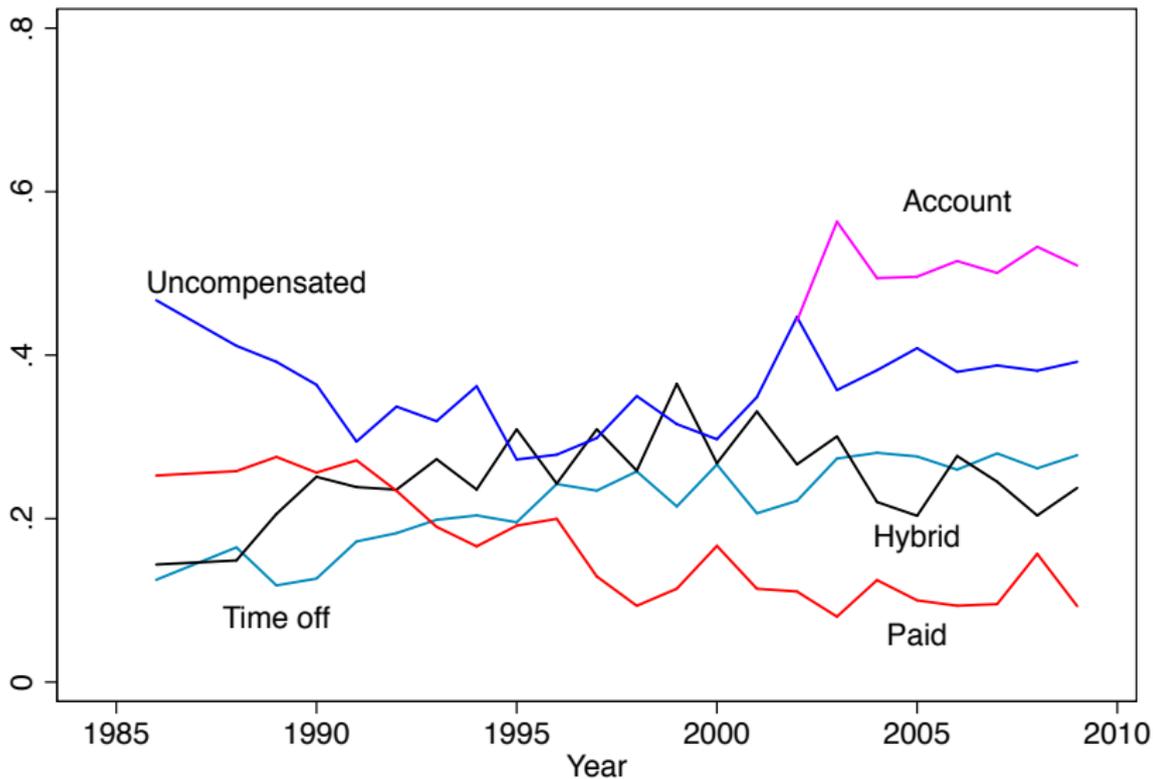
D. Salaried workers, services

Figure 7B: Flexibility – share of workers; hourly-paid services



B. Hourly-paid workers, services

Figure 7C: Flexibility – share of workers; salaried manufacturing



C. Salaried workers, manufacturing

Background

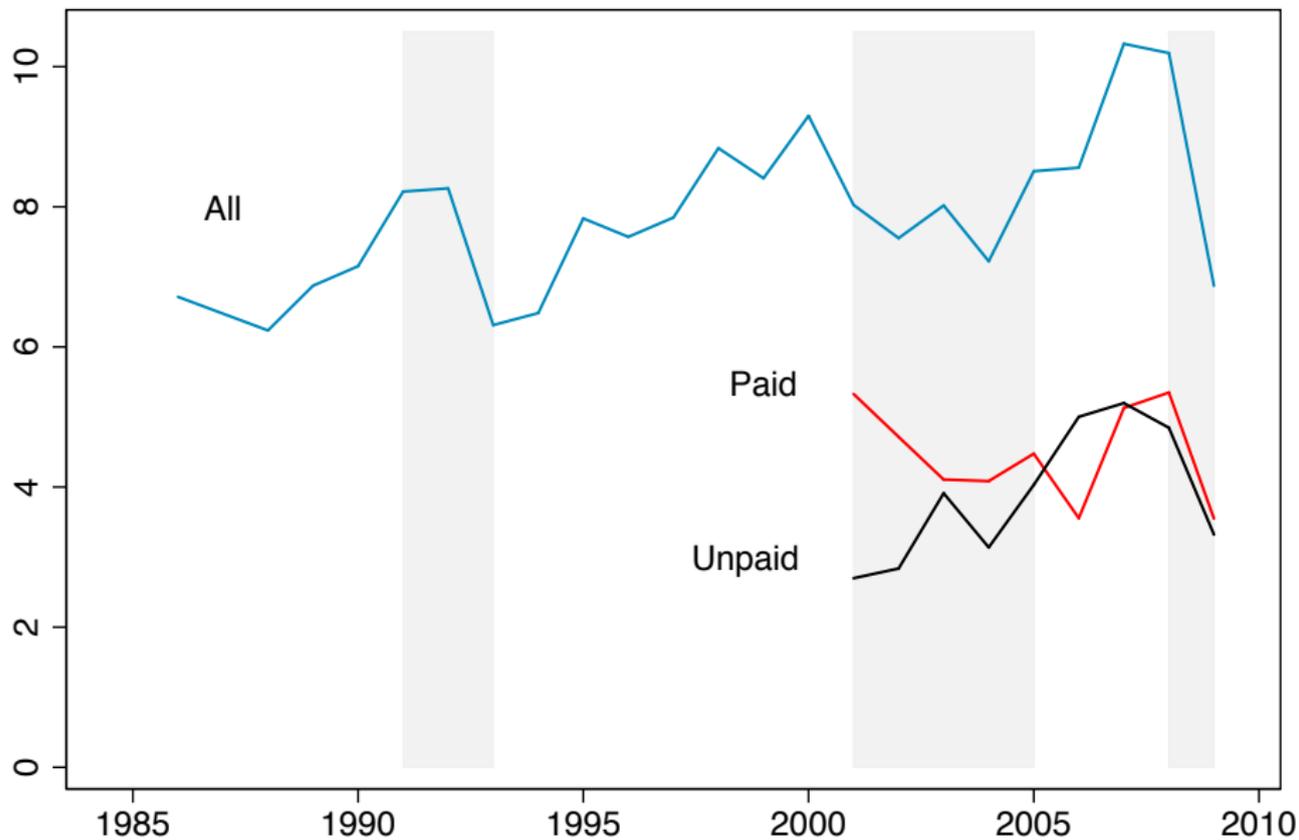
- 1 Flexibility should smooth employment over cycle
- 2 Use of time off prevented employment falling in recession?
 - much of flexibility already existed in 2001–2005 recession
 - Burda/Hunt: time off crowded out short-time work, leaving hours flexibility same
 - rather, firms unusually pessimistic in boom, so hired less, had less need to fire when recession came
- 3 Is this testable?
 - hard in absence of info on undertime, short time in SOEP
 - but can get fuller picture of how time off used over cycle

How do employers use time off over the cycle?

- 1 Focus on overtime last month to get cyclicality
 - in recent years, can split into paid/unpaid overtime
 - unpaid = time off or uncompensated
- 2 Queries
 - is adjustment on intensive or extensive margin?
 - which type of overtime is more cyclical, paid or unpaid?
 - is paid or unpaid overtime adjusted first?
 - what are constraints in use of flexibility?

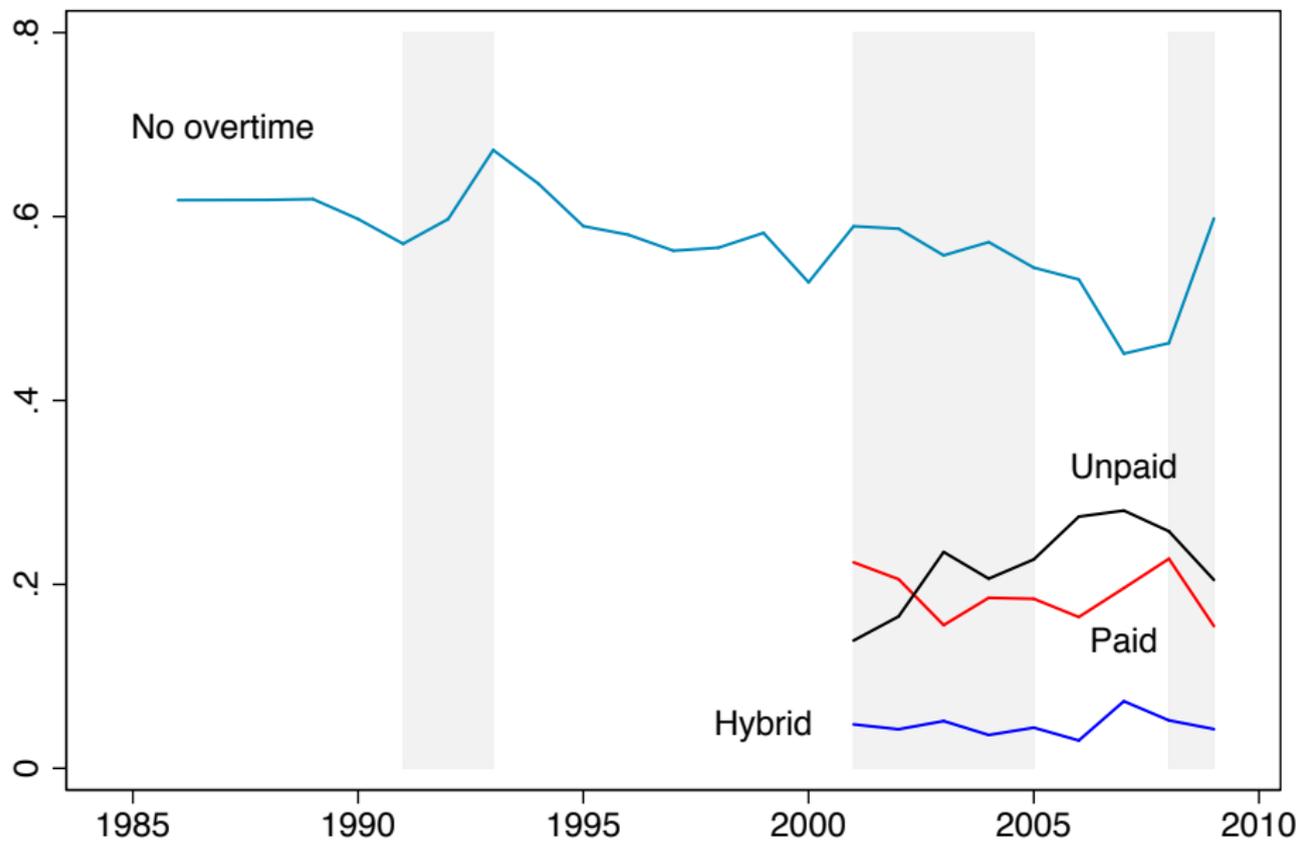
How do employers use time off over the cycle?

- ③ Focus on manufacturing
 - recent boom and bust occurred there
- ④ Focus on hourly–paid workers
 - who are most cyclical

Figure 9A: Overtime hours per worker

Is adjustment at the extensive or intensive margin?

- 1 Oaxaca decomposition of change in overtime per worker
- 2 Hourly-paid manufacturing workers
- 3 Rise in overtime 2004–2007 (steady 2007–2008)
 - 73% share workers with overtime
 - 27% overtime hours per overtime worker
- 4 Bust 2008–2009 similar: 71%, 29%
- 5 \Rightarrow adjustment is at extensive margin

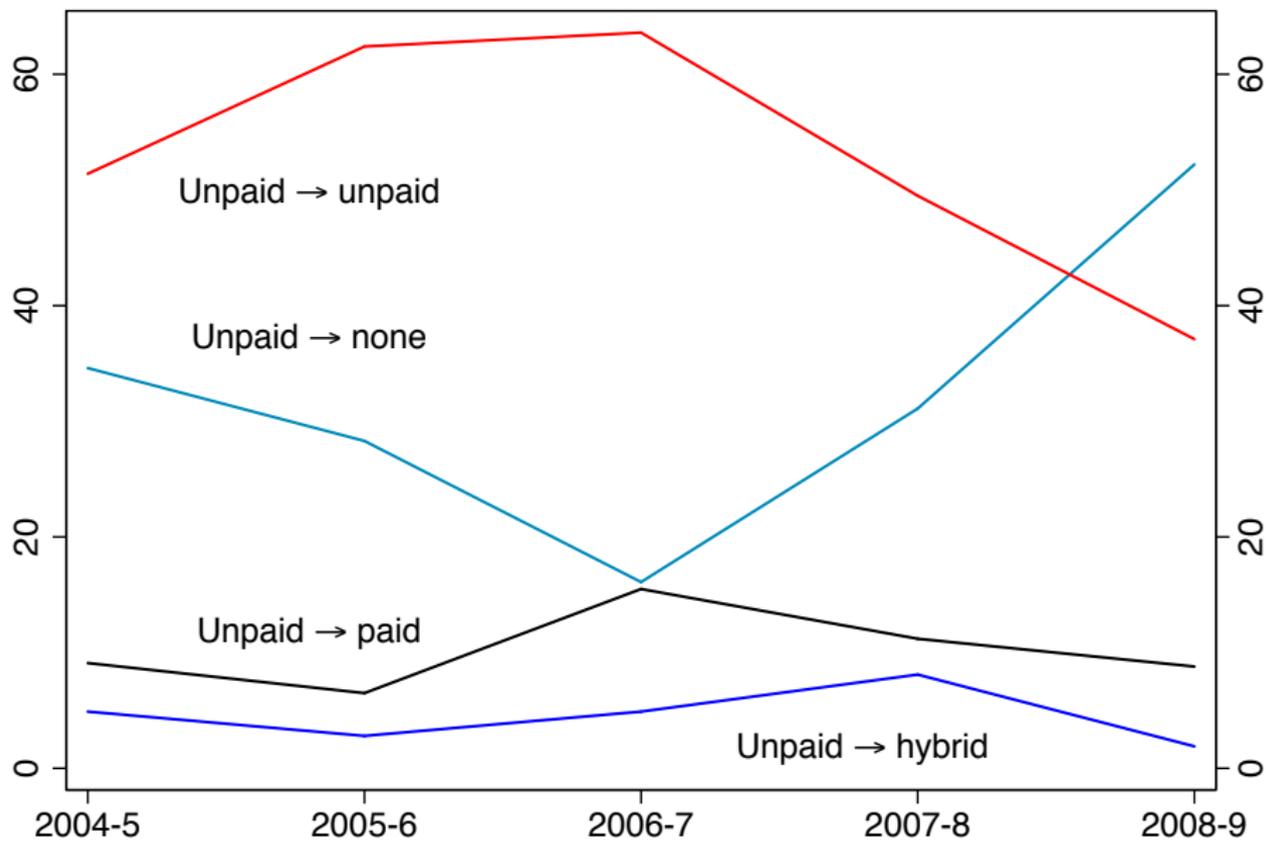
Figure 10A: Share workers with overtime (extensive margin)

Implications

- 1 Switch from unpaid to paid during boom suggests
 - time-off preferred to paid overtime for adjustment
 - but can't weather whole business cycle using time-off
- 2 Time-off workers must only be paid at end of window
 - not on frequent basis as exceed weekly maxima
 - since hybrid last month low, but high in general

Why must employers turn to paid overtime?

- 1 Is the constraint on time off
 - the window length?
 - the maximum positive account balance?
- 2 If window too short in boom
 - switch workers: unpaid-only → no overtime (undertime)
- 3 If hit maximum cumulated overtime hours
 - switch workers: unpaid-only → paid-only overtime
 - then when window constraint binds in turn:
paid-only → no overtime (undertime)
- 4 Use longitudinal data to distinguish

Figure 12B: Exits from unpaid overtime

Interpretation of constraints

- 1 Constraints
 - early: ceiling on cumulated hours
 - later: window length
- 2 Can't happen sequentially to same firm
 - else would see window constraint as PN transitions, not UN
- 3 Firm composition effect?
 - industries/firms recovering later may have had shorter windows and/or no ceilings, so hit window constraint before ceiling constraint
- 4 Worker composition effect?
 - later in boom, firms rotate into OT workers with contracts requiring paid OT

Implications

- 1 Relaxation of the constraints an obvious improvement?
 - longer windows
 - higher ceiling on cumulated hours
- 2 Problems
 - would increase insolvency problem
 - make worker turnover more of an issue
 - could come up against government working time constraints

Conclusions – control over varying daily hours

- 1 About $\frac{1}{2}$ workers have varying daily hours
- 2 About $\frac{1}{2}$ of these: worker/firm share control
- 3 Of rest: firm twice as likely to control
- 4 Hourly-paid:
have less variable hours, less control when do vary

Conclusions – trends, worker utility

- 1 Trends in flexibility, measured as time off for overtime
 - huge increase in flexibility for hourly-paid since 1984
 - less clear increase for salaried, except thru rising overtime; since 1999 story is shift towards uncompensated overtime
- 2 Do workers like flexibility? Weak evidence leads to:
 - lower satisfaction with work
 - greater satisfaction with leisure
 - no evidence flexibility is family friendly

Conclusions – employer use of flexibility over business cycle

- 1 Employers prefer to use time off to paid overtime
 - only use hybrid to settle at end of window
- 2 But had to switch to paid only at height of boom
- 3 Constraints on use of flexibility:
 - maximum cumulated overtime hours
 - window length