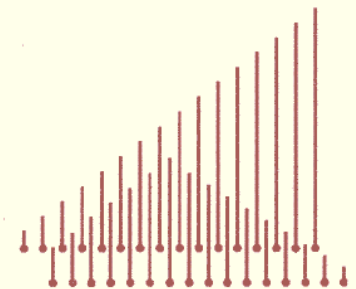


# Working time flexibility and productivity in Britain

## Theory and evidence

John Forth and Alex Bryson

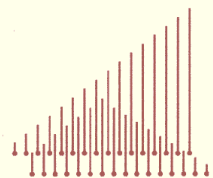
Eurofound, 2<sup>nd</sup> June 2011



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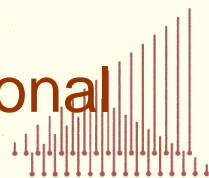
# Overview

- Conceptualisation
- Institutional context
- Theorised effects
- Prevalence and impact in GB
- Research opportunities



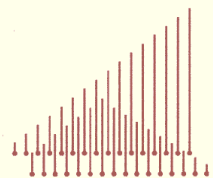
# Concepts

- *Working time flexibility*: flexibility in the scheduling of work, involving temporary or long-term variations from the 'standard' full-time, five-day week
- Flexibility may favour the employer, employee or both
- Forms of working time flexibility:
  - Flexitime / Annualised hours
  - Shift work
  - Part-time work / job-sharing
  - Term-time only contracts
  - Overtime working
- Related: temporary contracts; sub-contracting; functional flexibility.



# Institutional context

- Long-term focus in GB on flexible labour market to ease hiring/firing (the employers' extensive margin)
  - Low levels of employment protection
- More recent focus on flexibility within a continuing employment relationship (lowering constraints on scheduling of working hours)
  - High incidence of part-time work (historic)
  - Time off for dependents (1999)
  - Parents given right to request flexible working (2003)
- New government consultation on “Modern workplaces”
  - Extending the right to request
  - Compulsory pay audit where pay discrimination identified



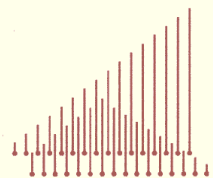
# Institutional context

“We want to create a society where work and family complement one another. One where employers have the flexibility and certainty to recruit and retain the skilled labour they need to develop their businesses. And one where employees no longer have to choose between a rewarding career and a fulfilling home life.”

Modern Workplaces, p.2

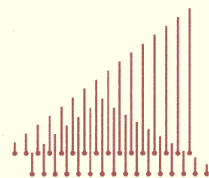
“We appreciate that stimulating culture change on flexible working across the labour market will require more than just regulatory change. We will therefore work with business leaders and employers to promote the business case for flexible working.”

Modern Workplaces, p.7



# Theorised effects

- More efficient scheduling of labour inputs
  - Effort intensification
  - Aid to recruitment and retention in tight labour markets
- } Employer's intensive margin
- Issues:
    - Ceding control over scheduling to employees (interdependencies)
    - Monitoring costs
    - Peer effects (where eligibility not universal)

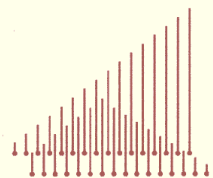


# Temporal variations in productivity

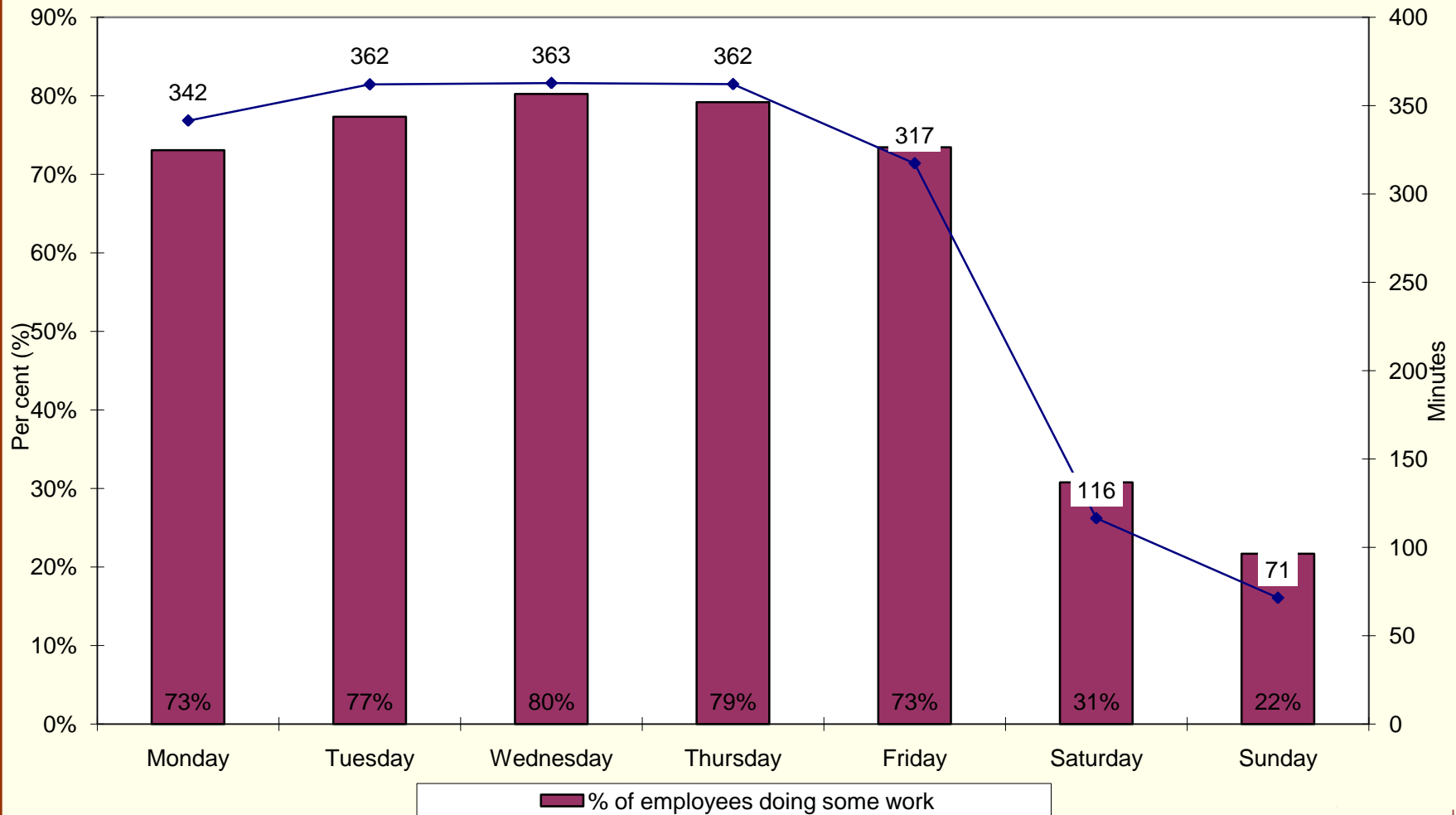
Some evidence of variations across the working day and working week

Potential causes:

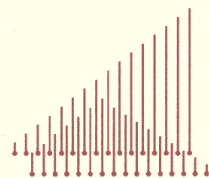
- Fatigue
- Practice efficiency
- Anticipation effects
- Circadian rhythms



# Temporal variations in labour inputs

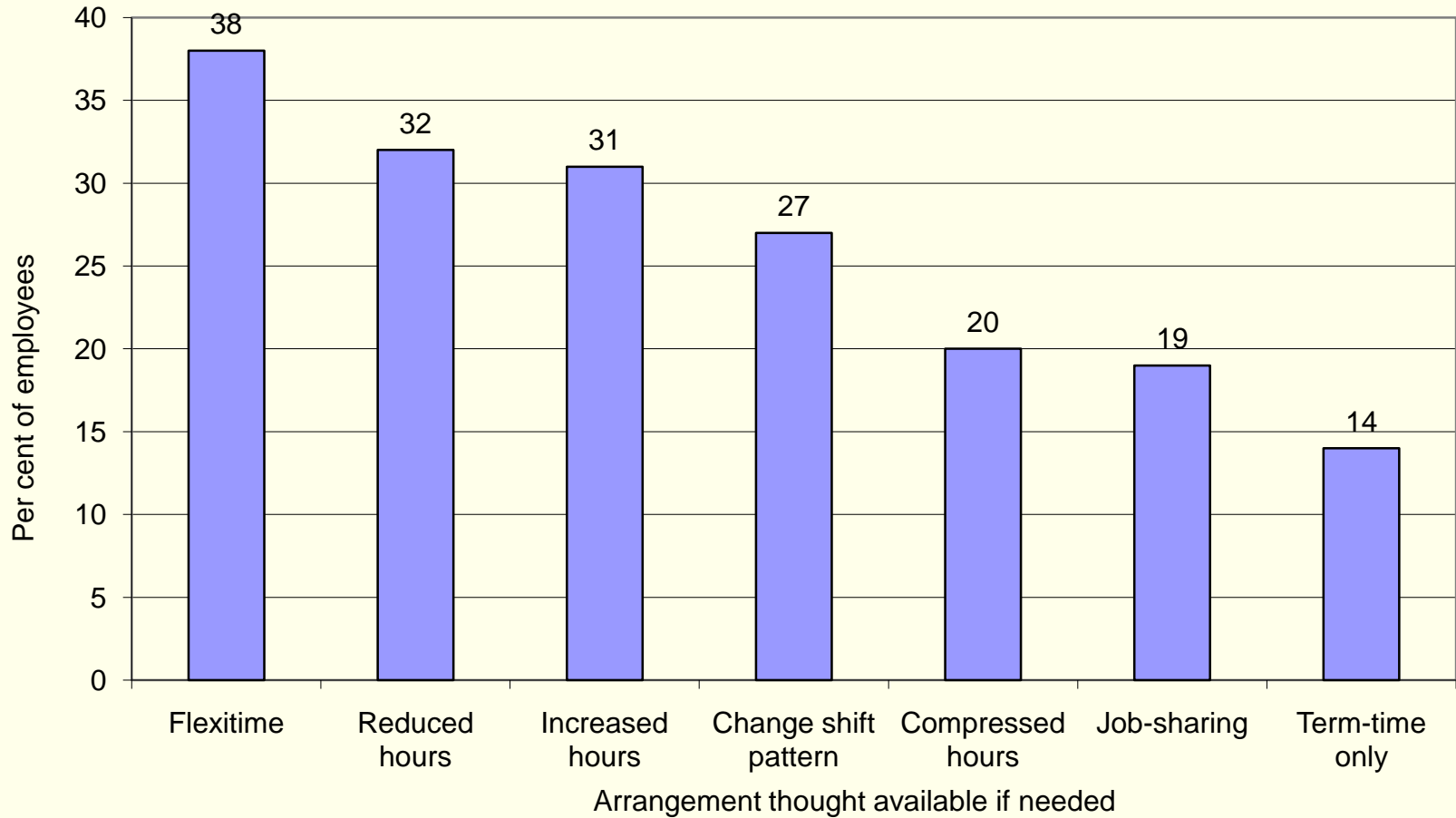


Source: Time Use Survey

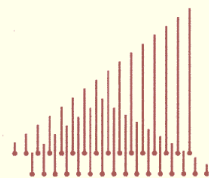




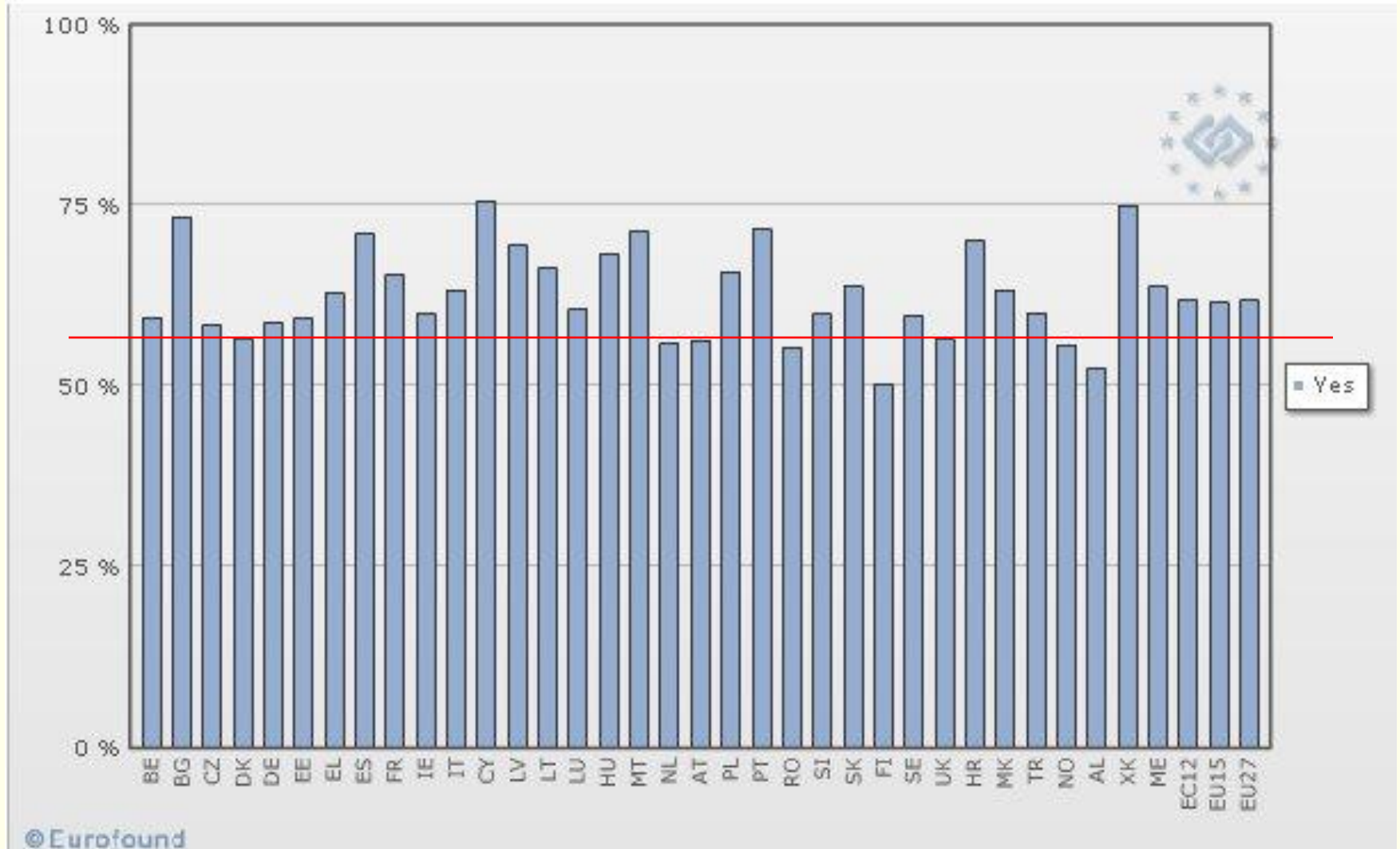
# Prevalence of WT practices in GB



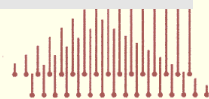
Source: WERS 2004



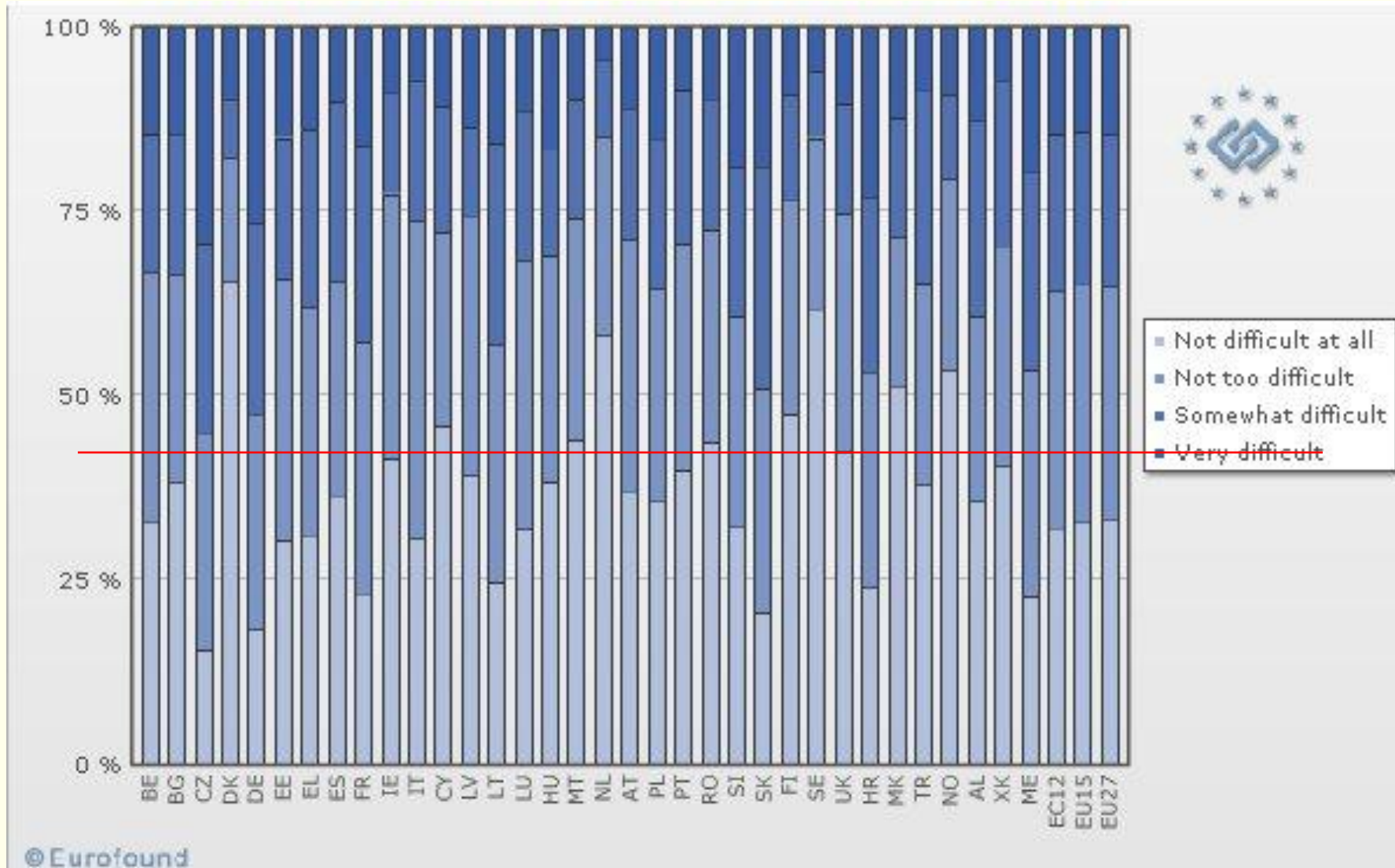
# Fixed start and finish times



Source: EWCS 2010

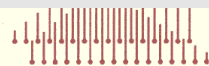


# Ability to take hour/two off



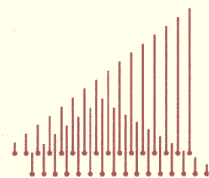
©Eurofound

Source: EWCS 2010



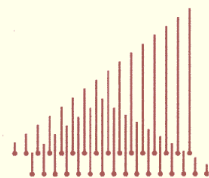
# Evidence from WERS 2004

- Bryson (2007) Manpower Human Resources Lab Discussion Paper No. 3
- Workplace Employment Relations Survey 2004
- Using data from nationally representative sample of 1,706 private sector workplaces with 5+ employees
- Restrict our attention to data from management respondent
  - Availability of various flexible working arrangements
  - Subjective ratings of workplace productivity and financial performance
  - Objective accounts data for subset of workplaces



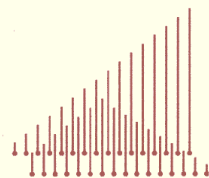
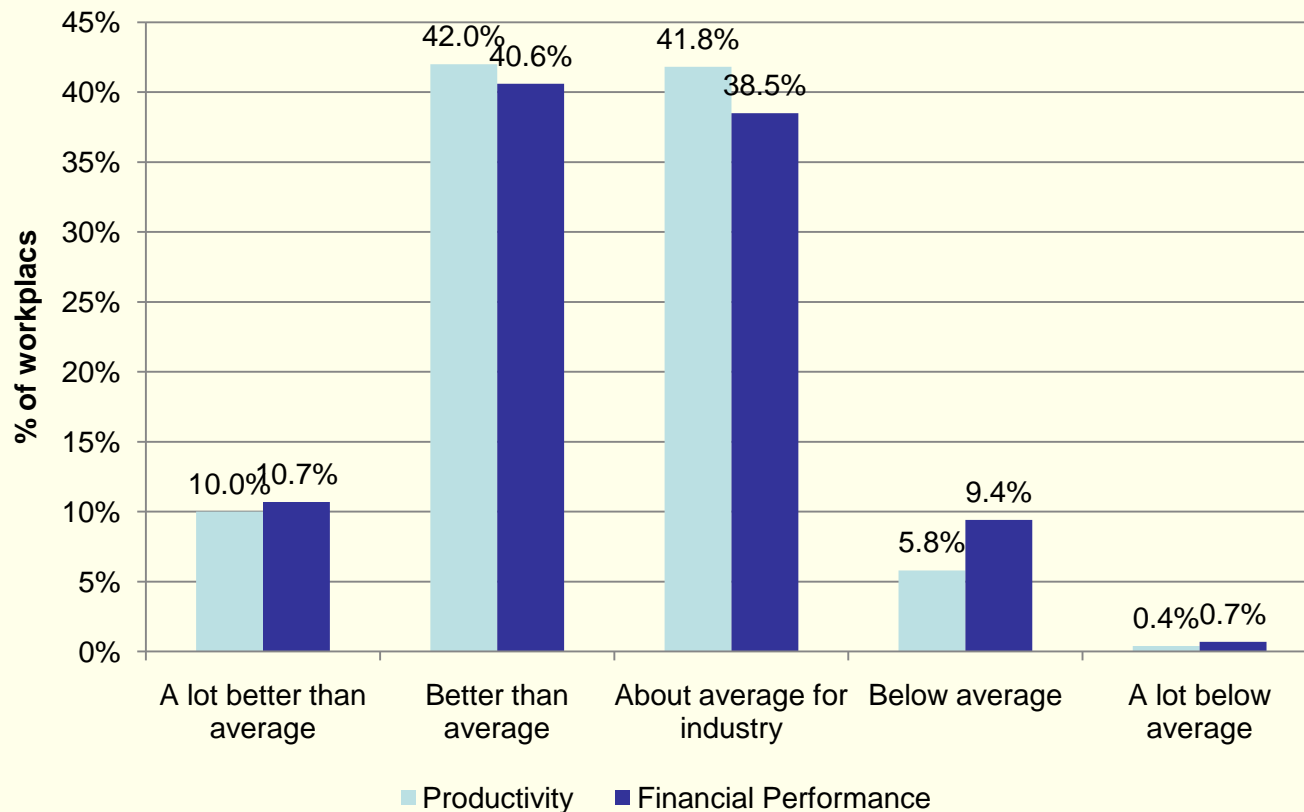
# Evidence from WERS 2004

- **WT flexibility:**
  - Annual hours contracts
  - Shift work
  - Part-time work
  - Regular overtime working
  - Zero hours contracts
- **Other flexible working practices:**
  - Functional flexibility
  - Temporary contracts
  - Temporary agency work / Subcontracting
  - Home working
- **Establishment characteristics**
  - Size, industry, age, region, unionisation, ownership, state of product market

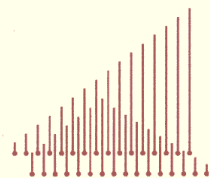
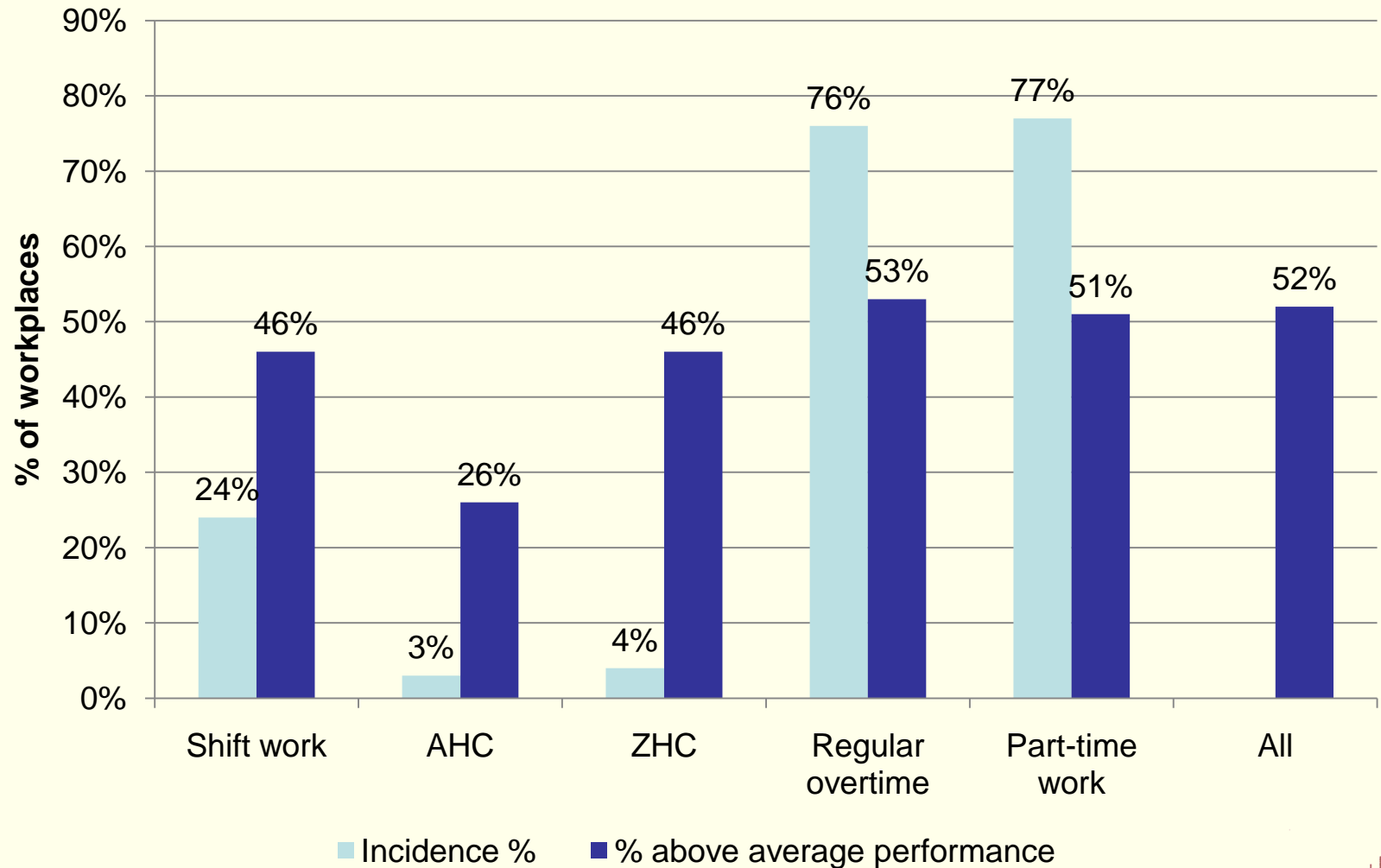


# Evidence from WERS 2004

- “Compared with other establishments in the same industry, how would you assess your workplace’s labour productivity [financial performance]?”

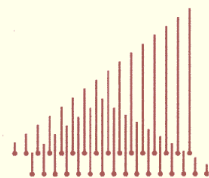


# Evidence from WERS 2004



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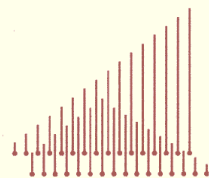
|                          | (1)                        | (2)                       | (3)    | (4)                        | (5)                       |
|--------------------------|----------------------------|---------------------------|--------|----------------------------|---------------------------|
|                          | labpro                     | labpro                    | lngvae | finperf                    | finperf                   |
| <i>Shift work</i>        | -0.360 **                  | -0.281                    | -0.002 | -0.238                     | -0.107                    |
| <i>AHC</i>               | -0.699 **                  | -1.007 **                 | -0.006 | -0.298                     | -0.602                    |
| <i>ZHC</i>               | 0.122                      | 0.413                     | 0.001  | 0.088                      | 0.480                     |
| <i>Regular overtime</i>  | 0.030                      | 0.216                     | -0.011 | -0.066                     | 0.038                     |
| <i>Part-time working</i> | -0.200                     | -0.067                    | -0.010 | -0.164                     | -0.083                    |
| Obs                      | 1470                       | 582                       | 511    | 1498                       | 599                       |
| Ordered Probit Model fit | F(59,1411)=2.71 p>f 0.0000 | F(55,523)=2.09 p>f 0.0003 |        | F(59,1439)=2.03 p>f 0.0000 | F(55,540)=1.39 p>f 0.0327 |
| R-squared                |                            |                           | 0.34   |                            |                           |





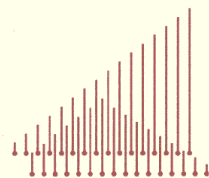
# Evidence from WERS 2004

|  | (1)                        | (2)                       | (3)    | (4)                        | (5)                       |
|--|----------------------------|---------------------------|--------|----------------------------|---------------------------|
|  | labpro                     | labpro                    | lngvae | finperf                    | finperf                   |
| <i>Number of flexible hours arrangements for employees (0,5)</i> | -0.184                     | -0.168                    | -0.006 | -0.145                     | -0.105                    |
|  | (2.81)**                   | (1.56)                    | (1.52) | (2.27)*                    | (0.89)                    |
| Obs  | 1470                       | 582                       | 511    | 1498                       | 599                       |
| Ordered Probit Model fit   | F(55,1415)=2.39 p>f 0.0000 | F(55,527)=1.85 p>f 0.0003 |        | F(55,1443)=2.03 p>f 0.0000 | F(55,544)=1.41 p>f 0.0308 |
| R-squared  |                            |                           | 0.33   |                            |                           |



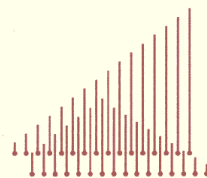
# Unresolved issues

- **Unobserved heterogeneity**
  - Bloom & Van Reenen (2006) – no independent association with performance after controlling for ‘good management’
- **Reverse causation**
  - Whitehouse et al (2007) - use WERS panel and find +ve association, but not a complete solution for selection effects
- **Understanding mechanisms**
  - Nadeem and Metcalf (2007) – positive association with employee commitment and job satisfaction; -ve association with work stress
  - de Menezes (2010) – some +ve associations with commitment, but does not lead to increased productivity
- **Importance of institutions**
  - Heywood et al (2005) – wage penalty associated with some flexible working arrangements



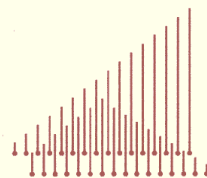
# Further research opportunities

- WERS 2011
  - Workplace and employee-level data on availability of different WT arrangements (circa 2,700 workplaces; 25,000 employees)
  - Panel data for around 900 workplaces [not individual employees]
  - Subjective and objective productivity & performance data
  - Data on intermediate outcomes (e.g. absenteeism; unpaid overtime; job satisfaction; commitment)



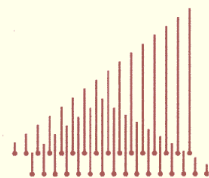
# Further research opportunities

- WERS vs IAB establishment panel
  - Flexitime / annualised hours contracts
  - Part-time work
  - Controls for other forms of flexibility (temporary contracts; agency work); standard establishment characteristics
  - Panel data to cope with unobserved heterogeneity
  - Subjective and objective performance data
- ECS 2009 and EWCS 2010
  - Intermediate outcomes (absenteeism)
  - Cross-country variation (institutional context)



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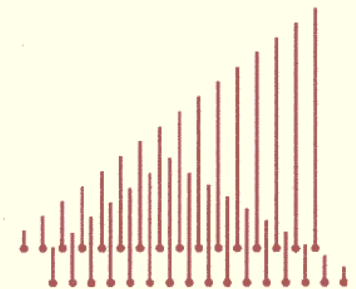


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