Trends in earnings and wage dispersion:
The role of hours worked
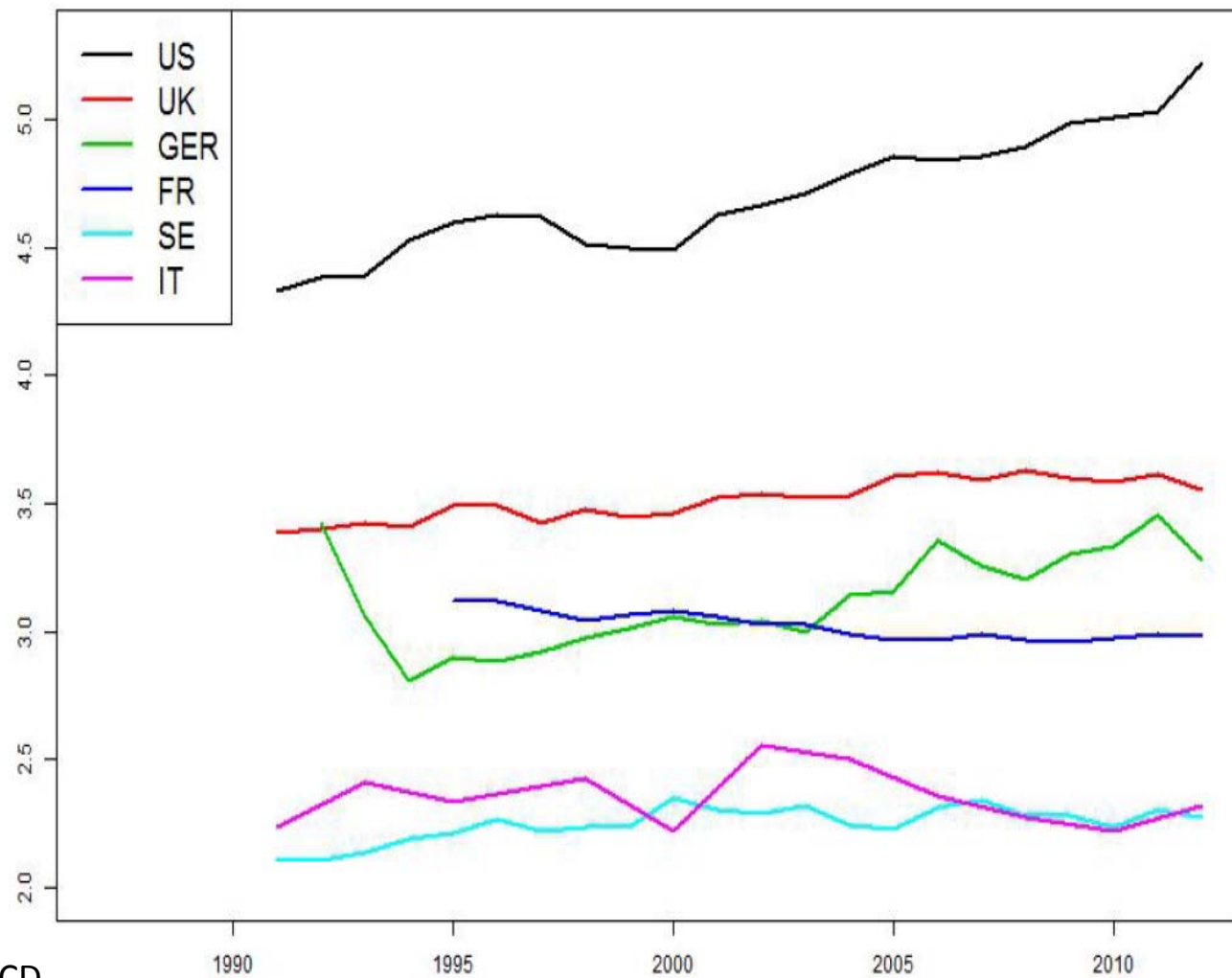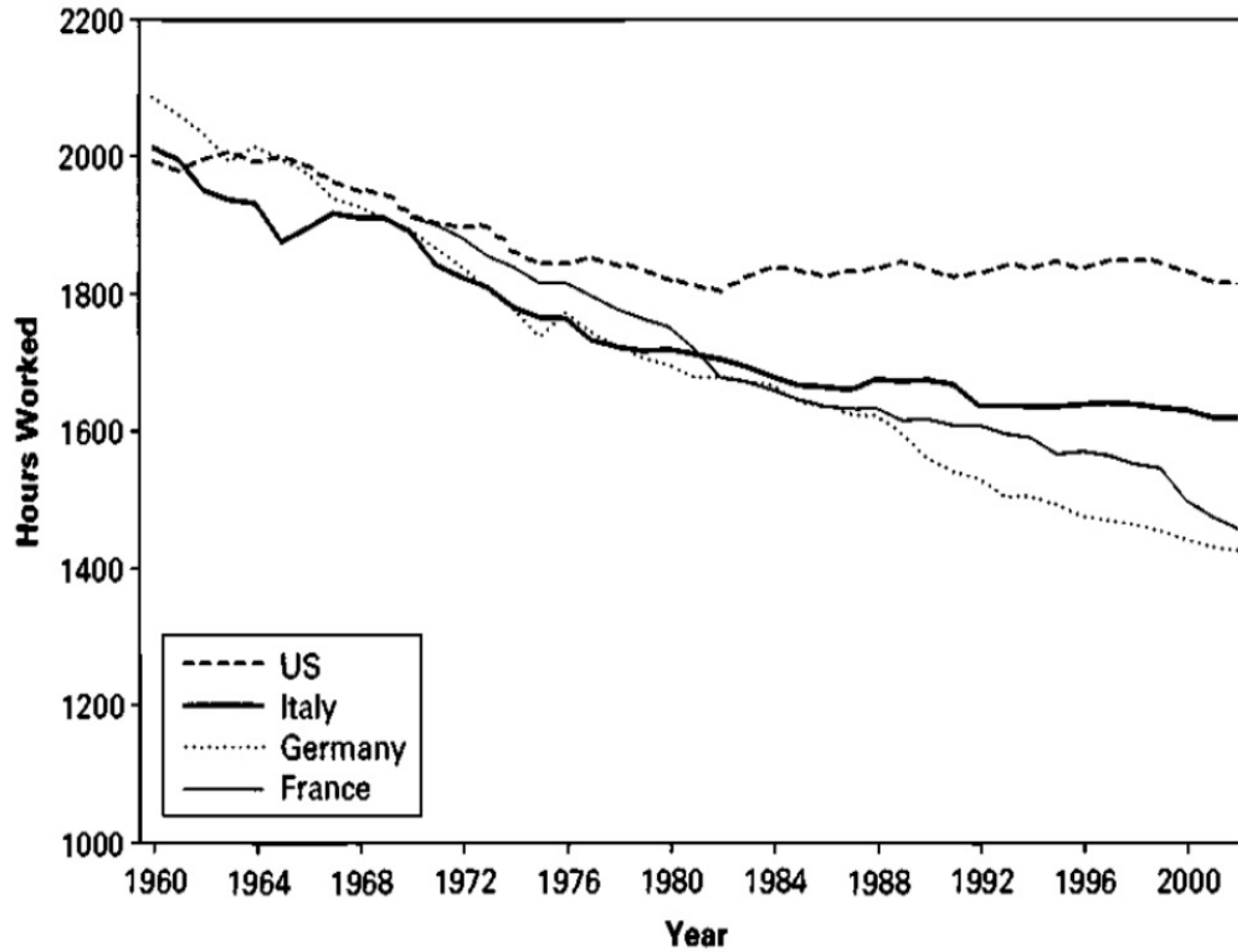
Cecilia García Peñalosa
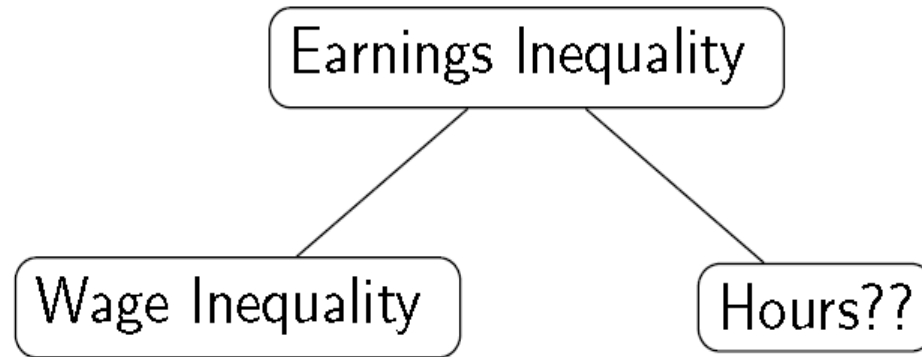
Aix-Marseille School of Economics

Earnings inequality: D9/D1 ratio


Source: OECD

Average hours worked

Hours worked and earnings inequality

Hours worked and earnings inequality

- Hardly any work relating hours worked and inequality

- Bell and Freeman 2001
  - The increase in inequality within occupations has created incentives for individuals to work more hours

- Bowles and Park, 2005

Hours worked and earnings inequality

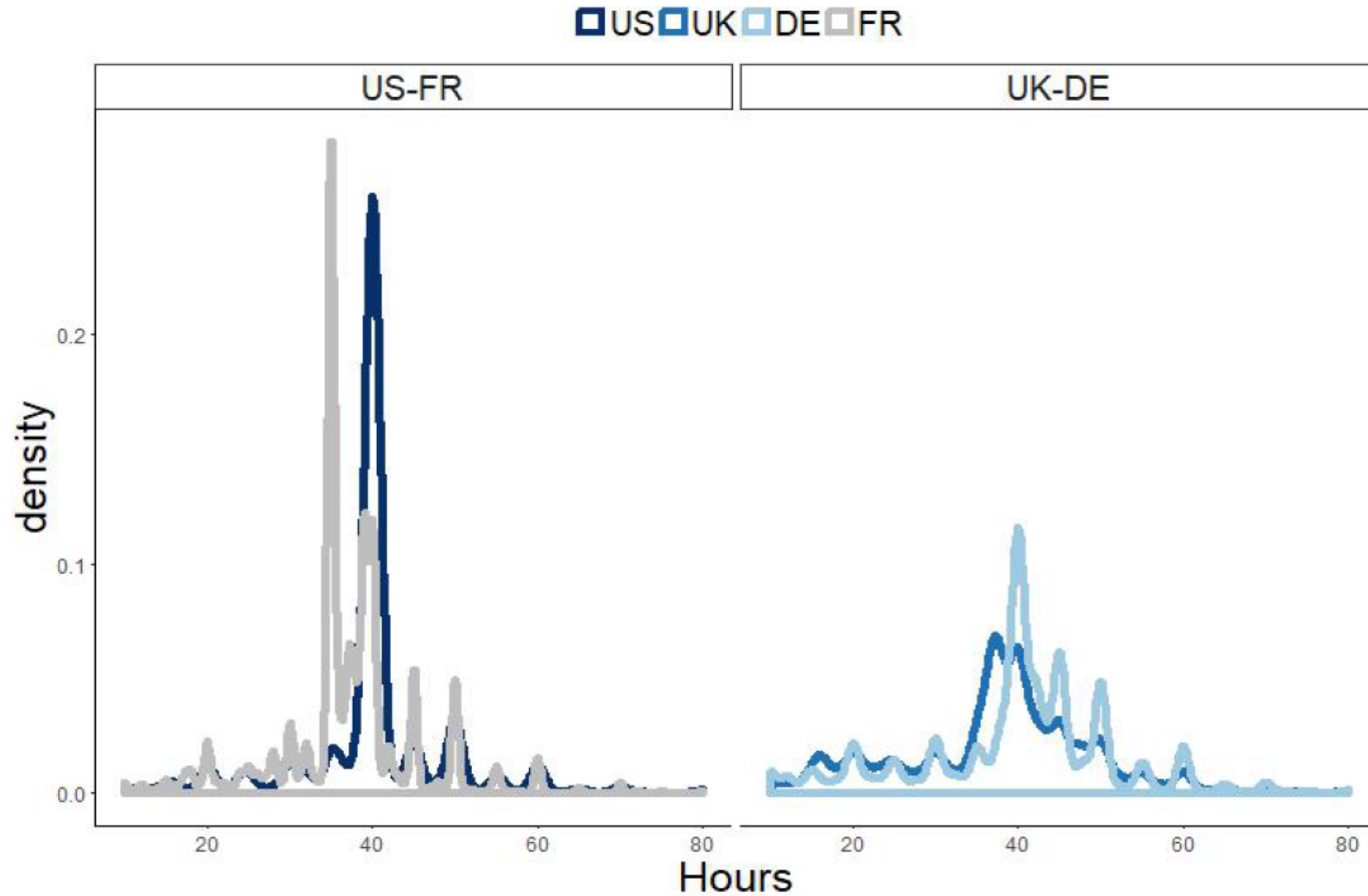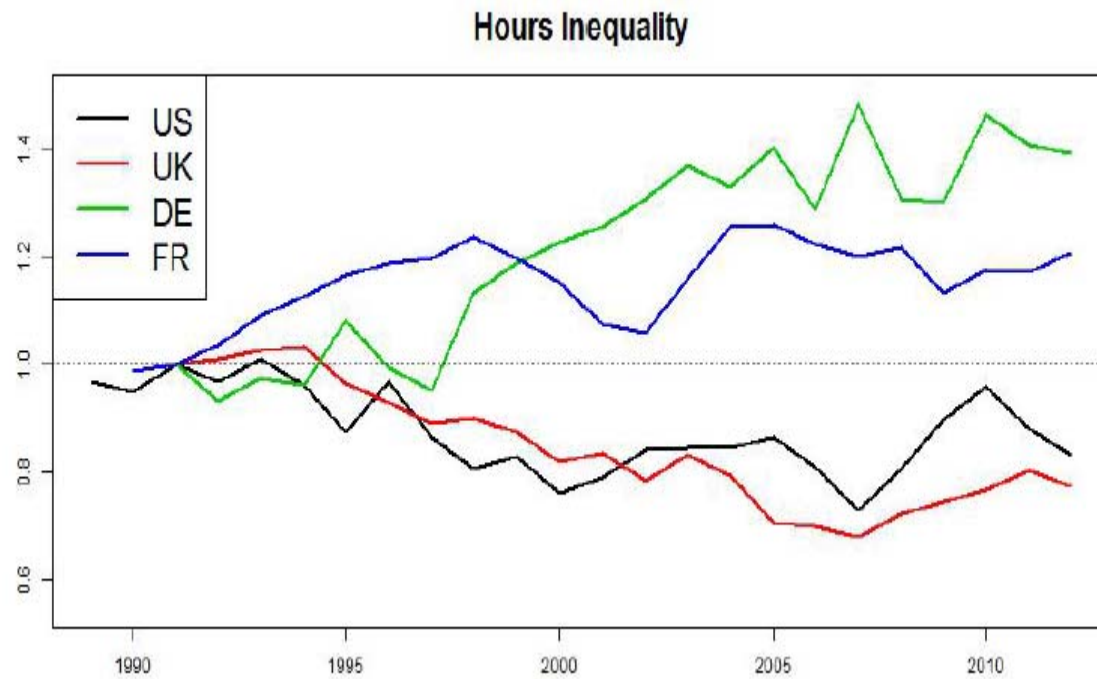Source: Bowles and Park, 2005
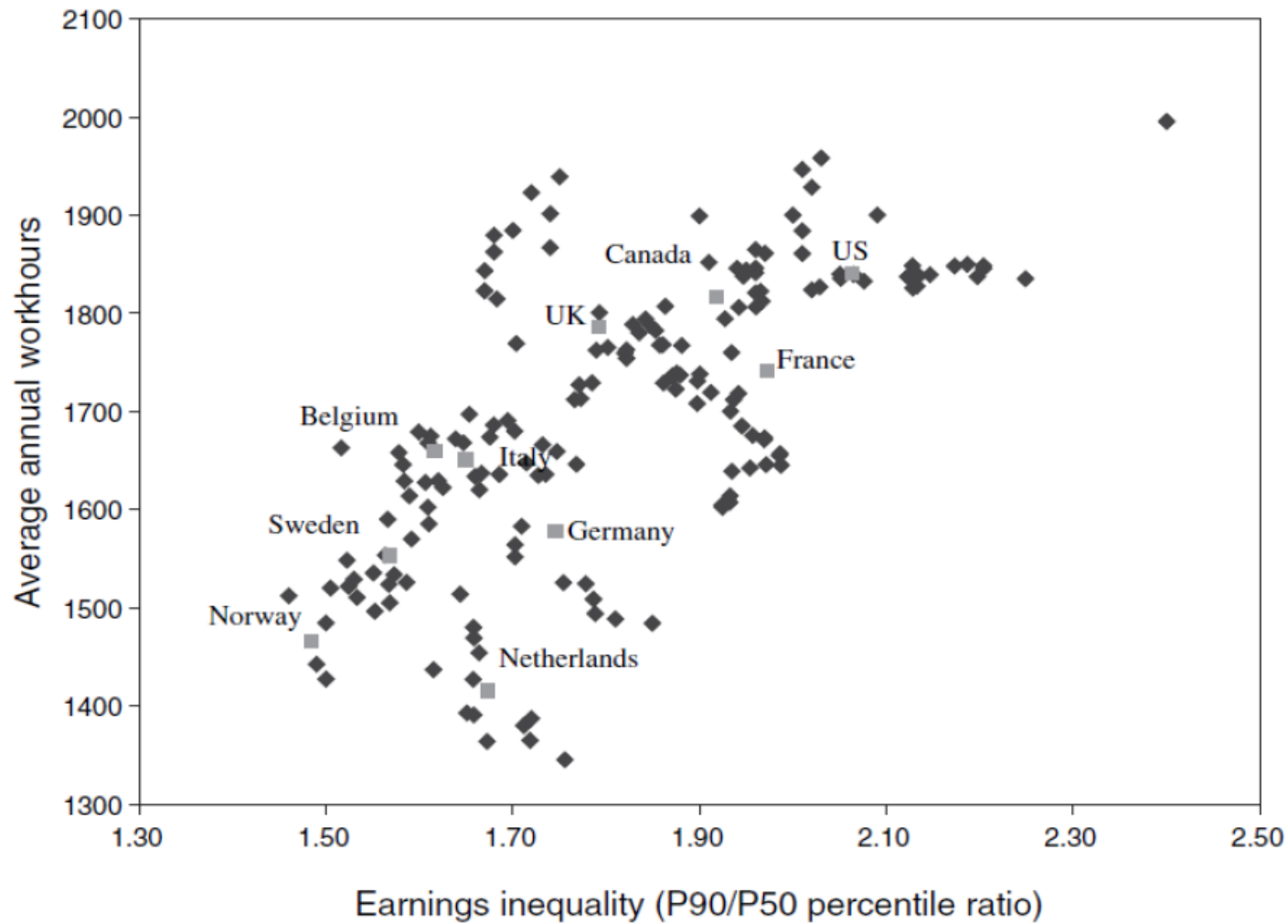
This talk

- Recent work joint with Daniele Checchi and Lara Vivian

- Are there differences in the distribution of hours?

- What do these differences imply for earnings?

- Can we say something about their causes?

The distribution of hours of work

Time trends: inequality in hours worked

Hours Inequality

Decomposing earnings inequality

- Use decomposable measure of inequality: Mean Log Deviation (MLD)
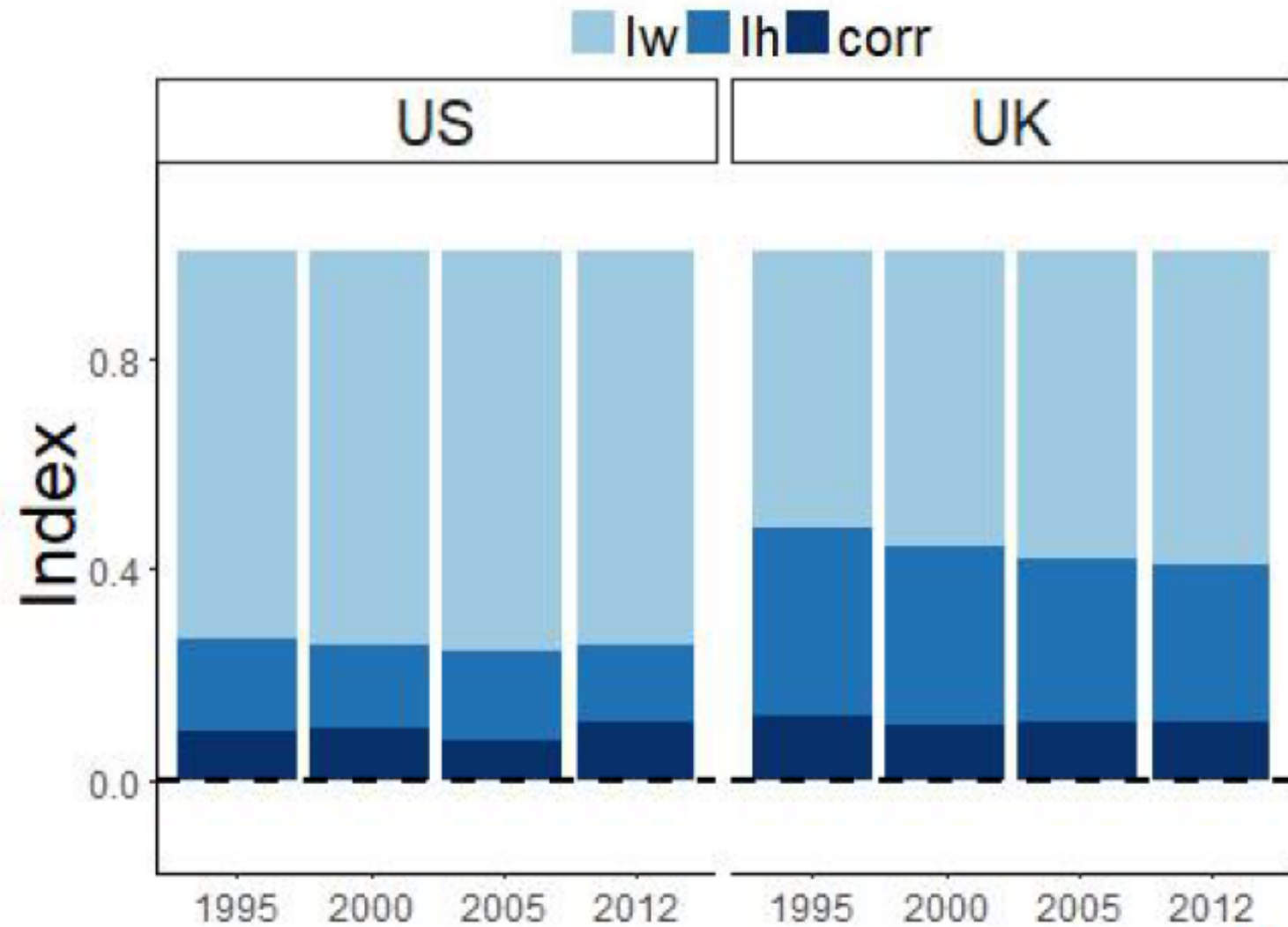- Absolute contribution
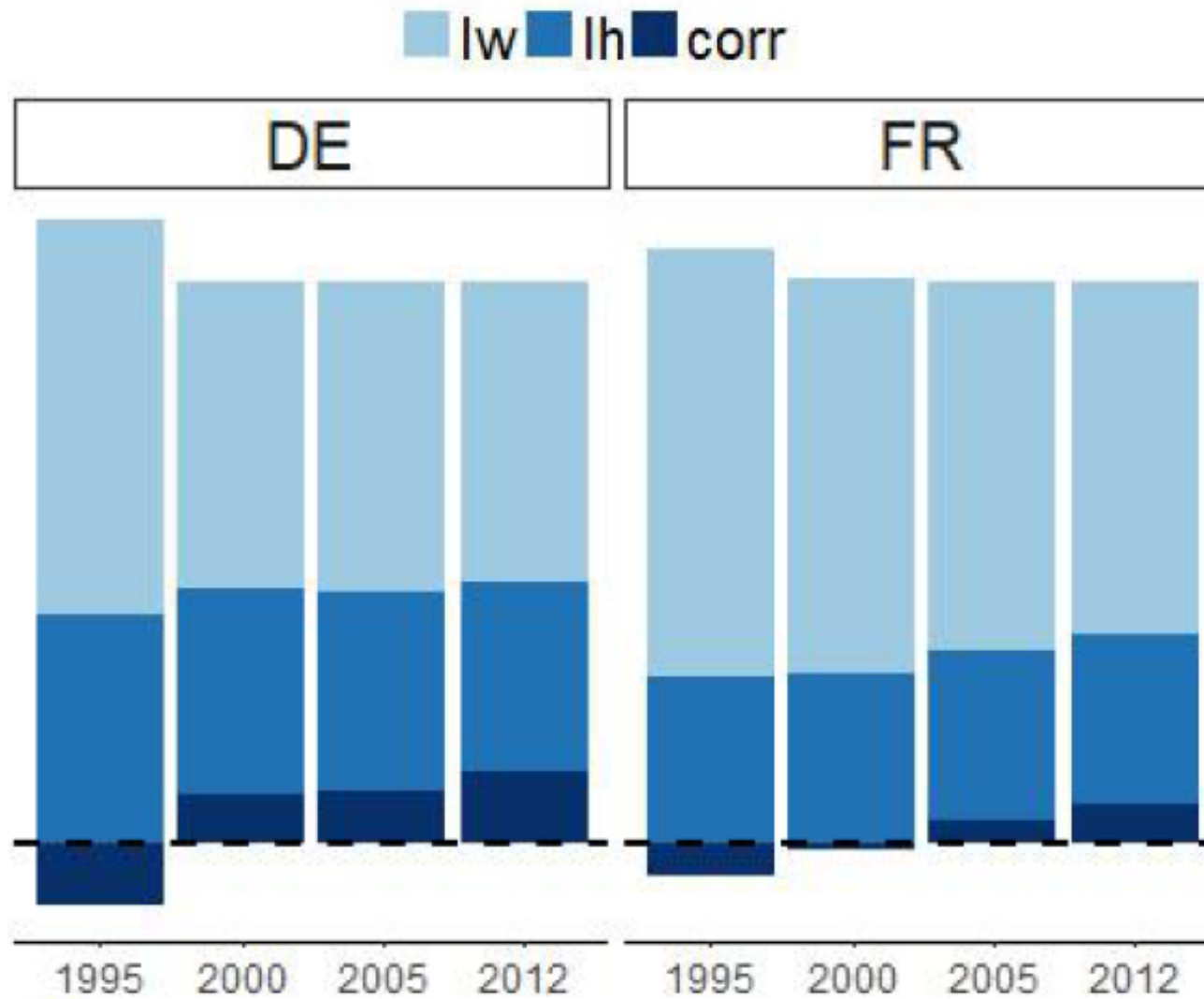$$I_y = I_w + I_h + CorTerm_{wh}$$
- Relative contribution
$$1 = \frac{I_w}{I_y} + \frac{I_h}{I_y} + \frac{CorTerm_{wh}}{I_y}$$
- Impact of hours worked depends on hours inequality and the correlation between hours and wages
  - Negative correlation – hours are equalizing
  - Positive correlation – hours are unequalizing

Contribution to changes in inequality

Contribution to changes in inequality

Contribution to changes in inequality

| Country	year	ly	lw	lh	*corr*
US	1995	0.225	0.165	0.039	0.021
	2012	0.247	0.183	0.037	0.027
	Δ%	9.78			
	δ		0.81	-0.09	0.27
UK	1995	0.260	0.136	0.091	0.033
	2012	0.248	0.147	0.073	0.028
	Δ%	-4.61			
	δ		0.91	-1.5	-0.42
DE	1995	0.147	0.103	0.060	-0.016
	2012	0.229	0.122	0.077	0.030
	Δ%	55.78			
	δ		0.23	0.21	0.56
FR	1995	0.133	0.101	0.040	-0.008
	2012	0.137	0.086	0.042	0.010
	Δ%	3			
	δ		-3.75	0.5	4.5

Average hours by quintile of the wage distribution

Index: 1995=1
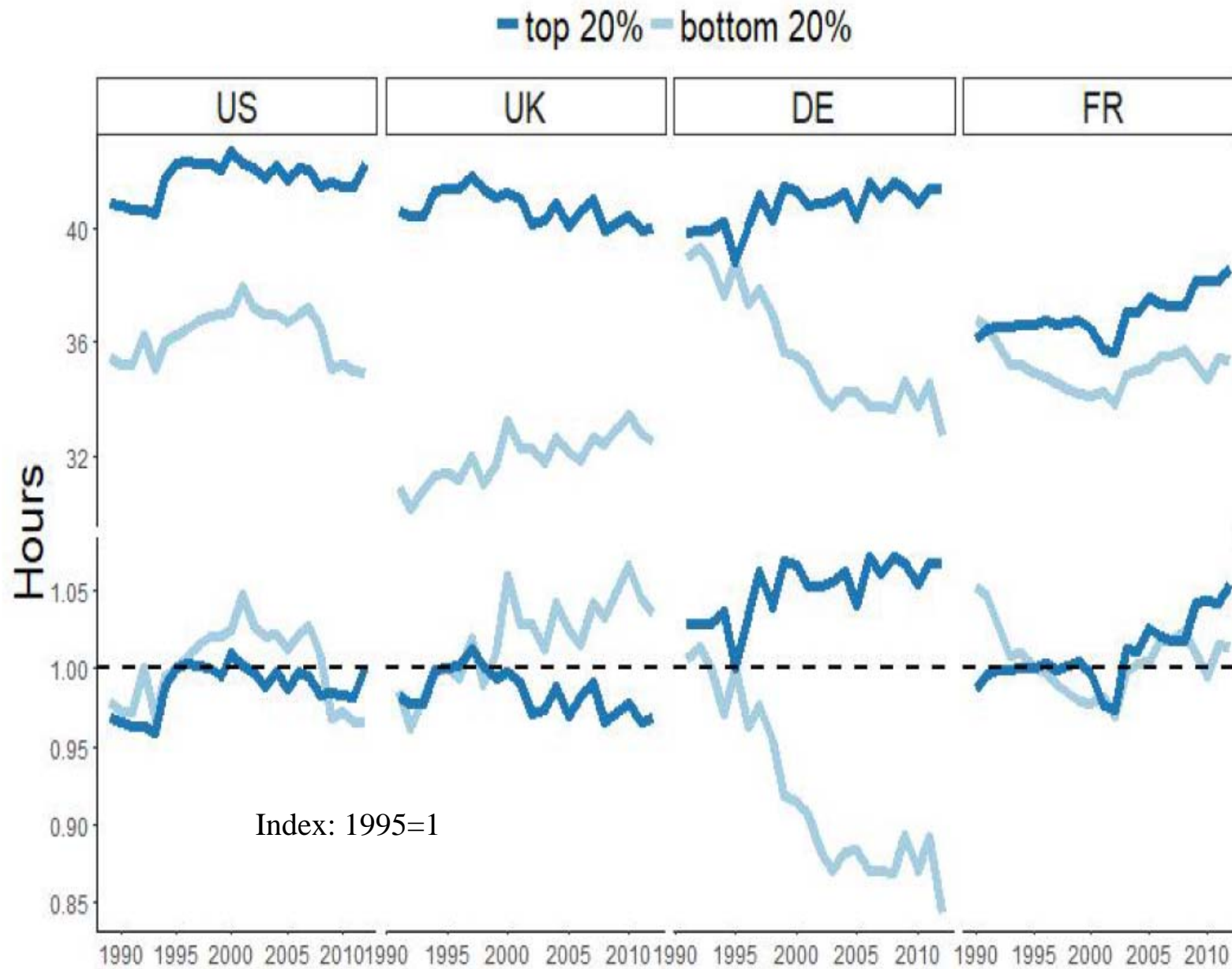
What about zero hours?

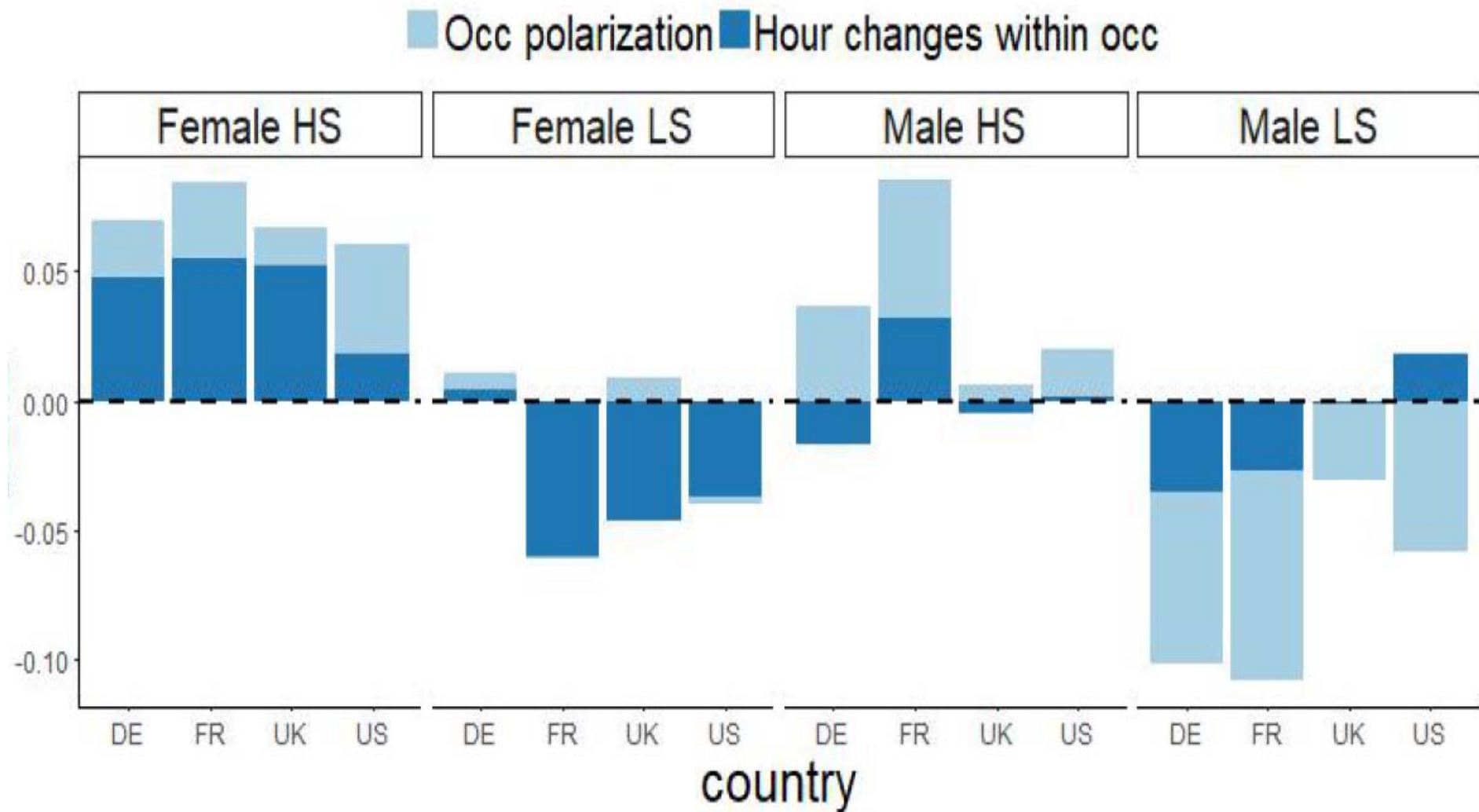| Gini coefficient of earnings	Employed	Entire population
France		
2000	0.131	0.551
2012	0.137	0.533
Germany		
2000	0.185	0.474
2012	0.229	0.469

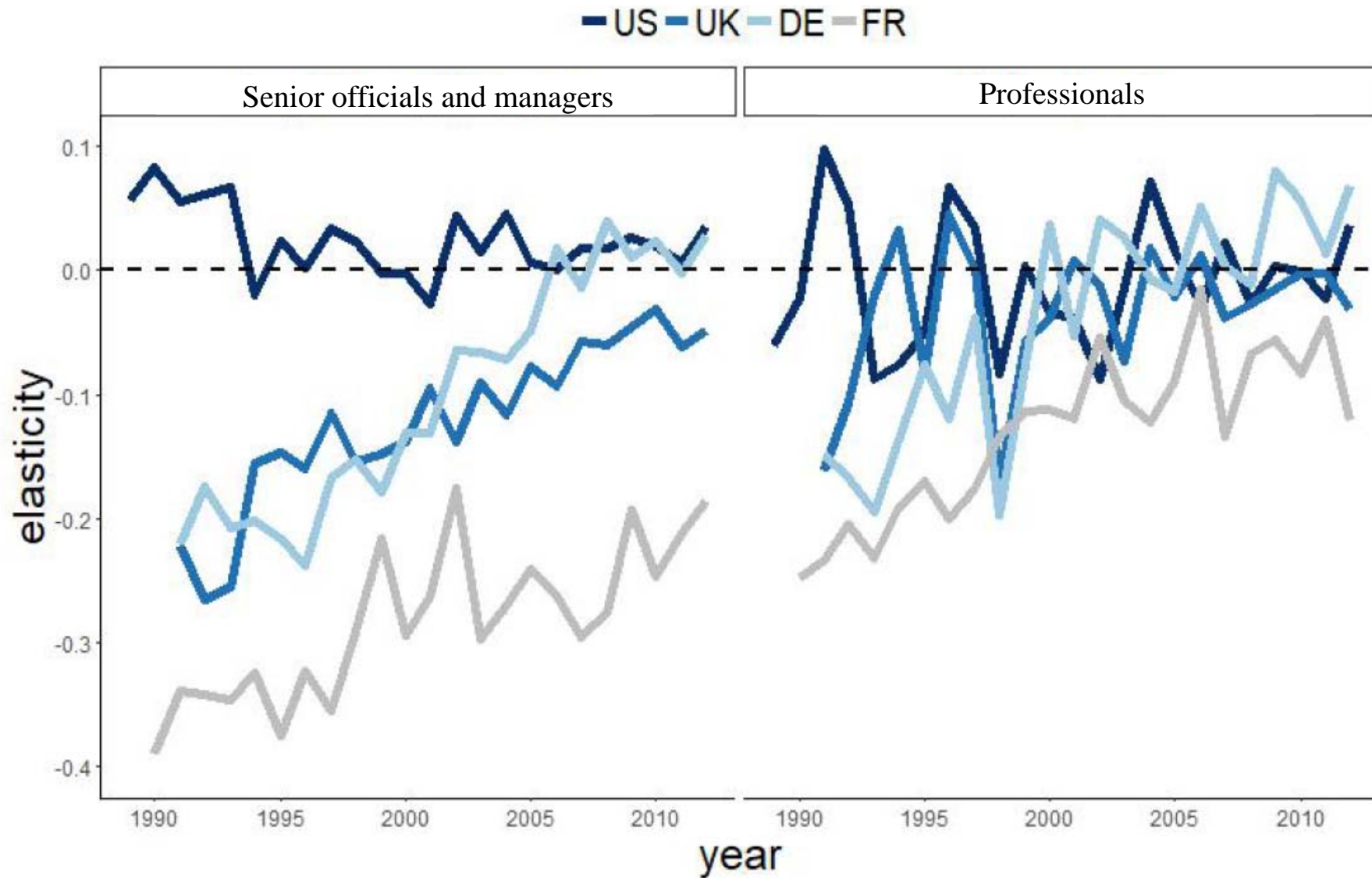# Correlation and elasticity of hours w.r.t. wages
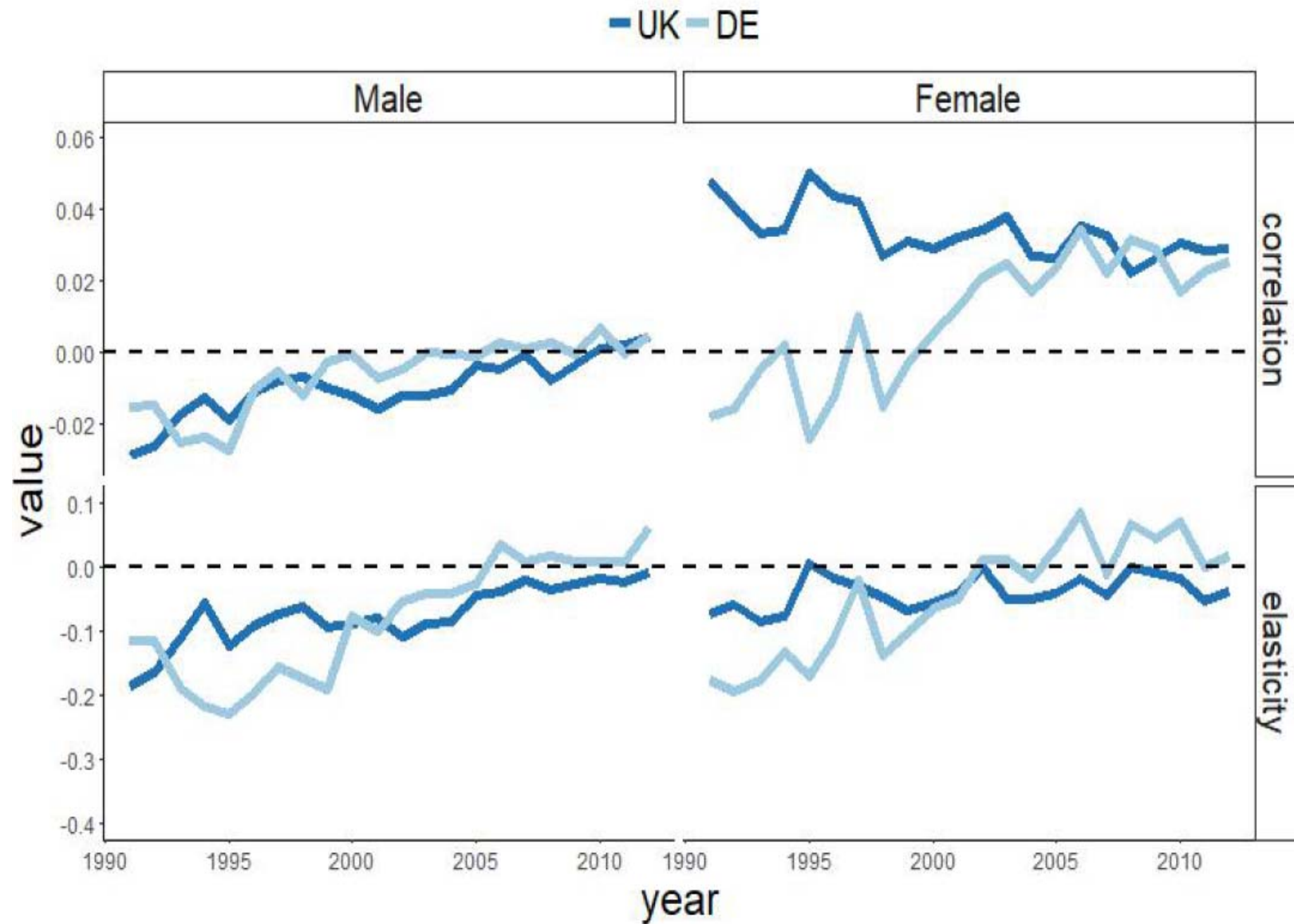
What is behind the change in the elasticity?

- Employment polarization – Goos et al. 2009
- Occupational inequality – Bell and Freeman 2001
- Rise of the service economy – Ngay and Petrongolo 2017

Change in hours worked: Decomposition by skill and gender

Legend: ■ Occ polarization ■ Hour changes within occ

Panels: Female HS, Female LS, Male HS, Male LS — each with countries DE, FR, UK, US

Y-axis: 0.05, 0.00, -0.05, -0.10

X-axis: country

# Elasticity of hours w.r.t. wages: Selected occupations

Conclusions

- Hours inequality has moved from having an equalizing effect to having an unequalising one
- Need to understand what determines hours worked
  - Are a low hours chosen?
  - Are they a characteristic of certain jobs?
- Importance of change in the h-w correlation
- Caveat – are low hours always *bad* for equality? German case

Additional tables and figures

Time trends: average hours worked
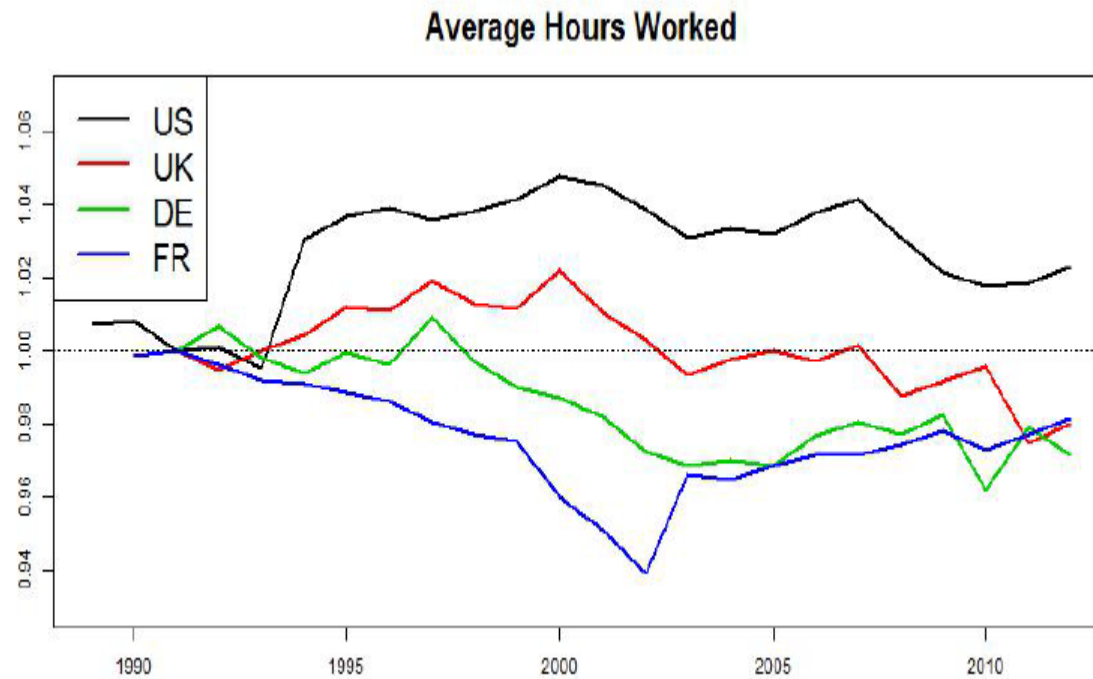
Contribution to changes in earnings inequality
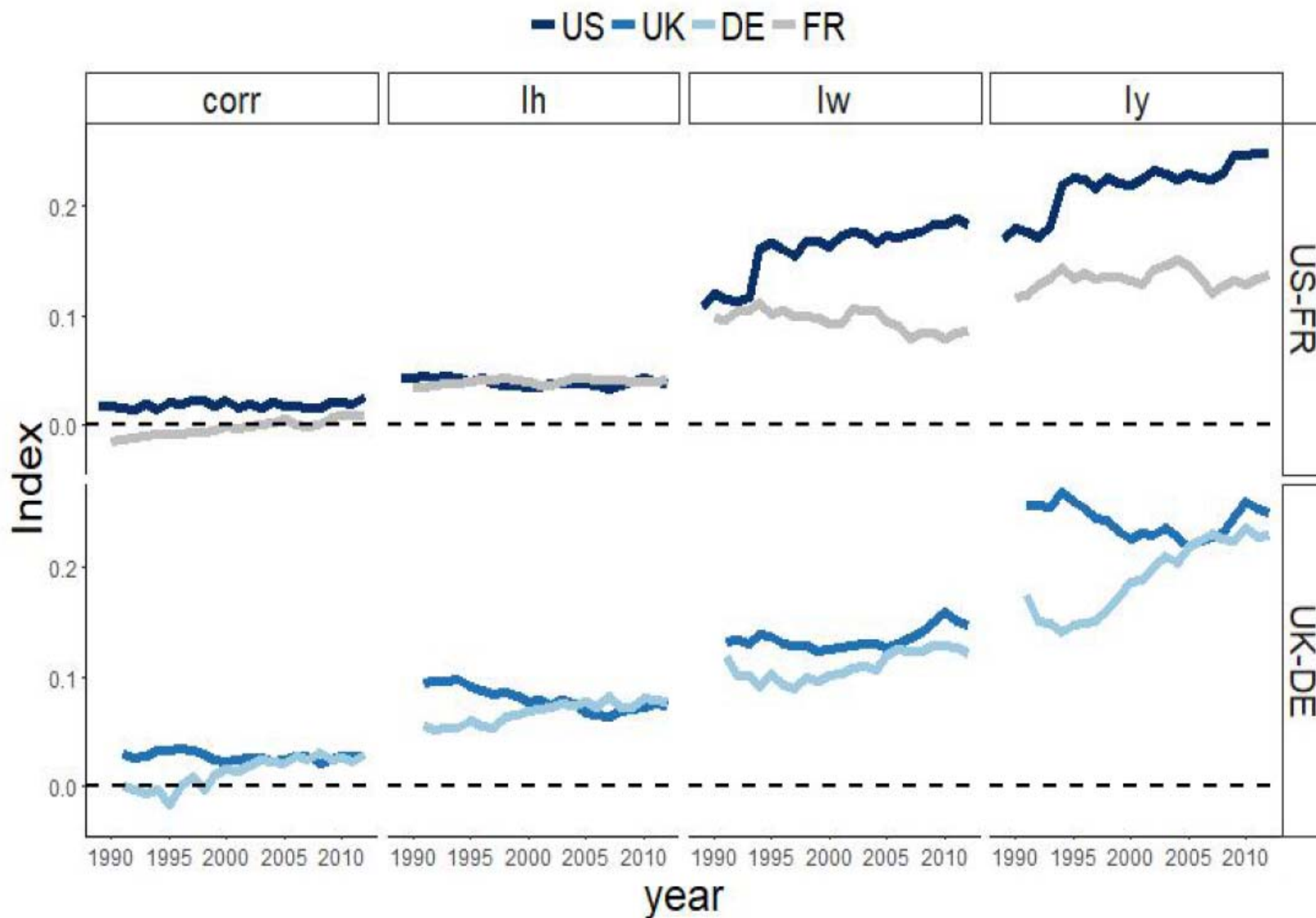
Unions and inequality

Correlation Term VS Union Density
■ US ■ UK ■ DE ■ FR