

Graduate wage dispersion across Europe in the 21st century

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training**

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Motivation

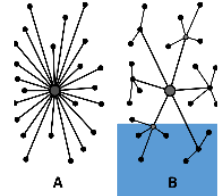
- Higher educational attainment is growing: 11 percentage points across Europe since 2005
- Trend is fuelled by educational aspirations of a growing middle class, promoted by favourable policies, and expectation of economic returns
- UK, US: While access to higher education has widened, outcome stratification within graduates has grown (e.g., by university prestige, degree class, degree level, graduate employment)

Drivers of skilled labour demand



Technological change

- ICT
- Digitalization
- Automation
- Offshoring of services
- Global value chains
- ...



Organizational change

- Digital Taylorism
- Decentralized decision making
- Remote working practices
- ...



Institutional change

- De-unionization
- Labour market flexibility
- Minimum wages, Social protection
- ...



Great Recession & aftermath

- Capital formation,
- High-skill vacancies
- Productivity growth
- ...

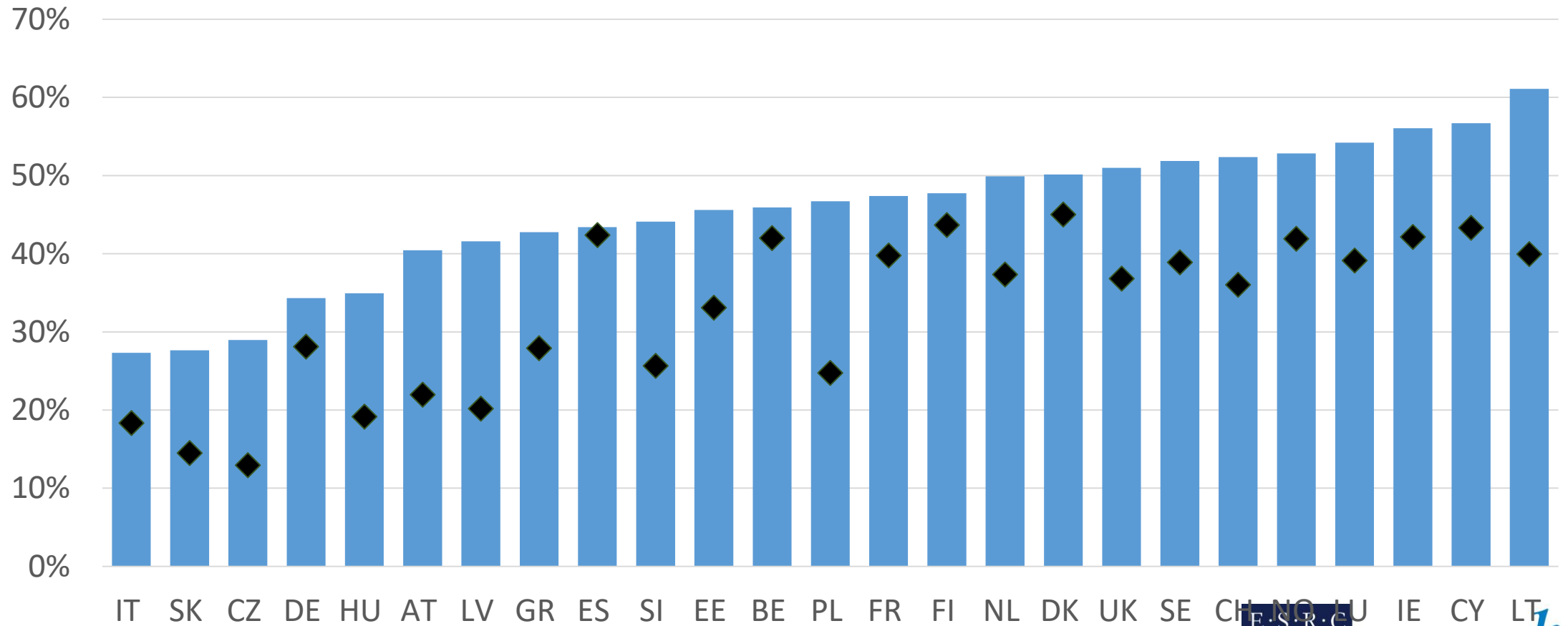
Research Question

1. To what extent has graduate wage dispersion widened across European countries?
2. How do patterns differ across country clusters?

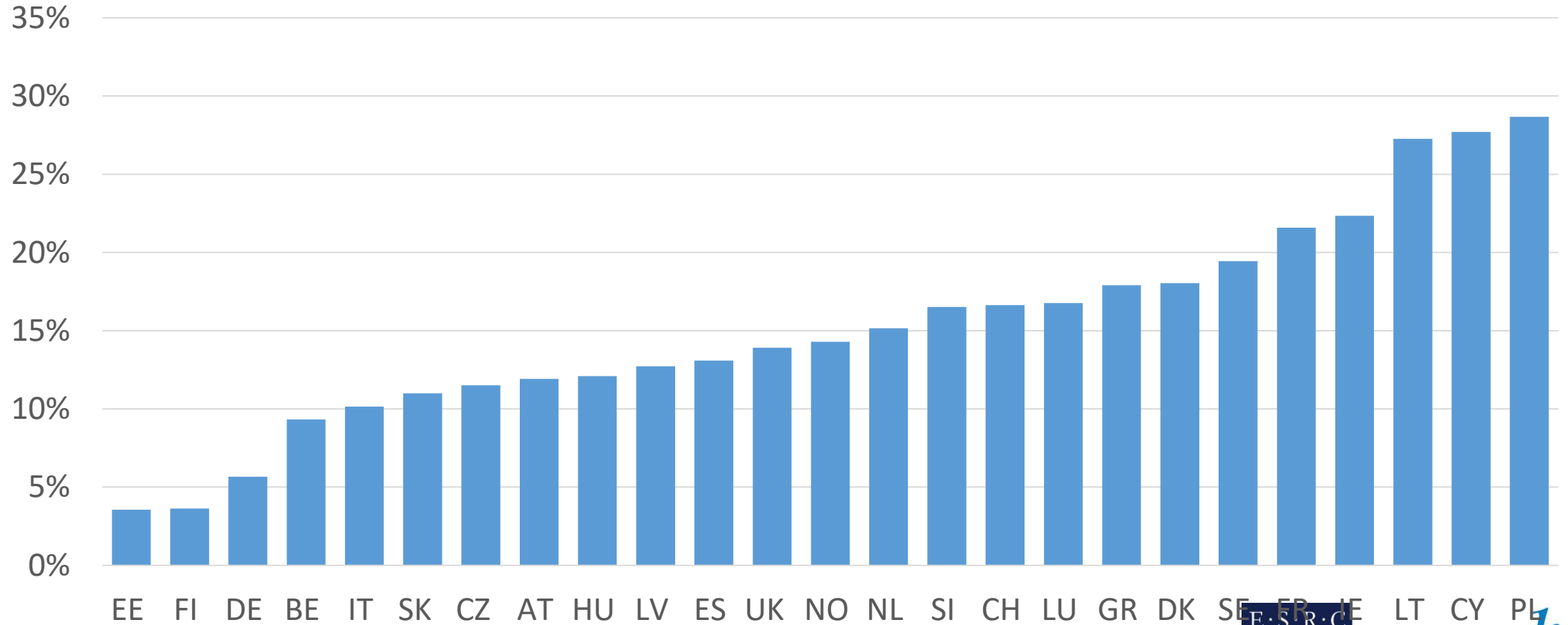
Growth of Graduate Labour Supply, in brief

- Tertiary-educated graduates have become more prevalent everywhere, but at a widely varying pace
- They will go on growing everywhere for some time to come

Rise of tertiary educational attainment 2005-2015 (30-34 years)



Gap in tertiary education between 30-34 and 55-59 years olds, 2015



Rising graduate wage heterogeneity?

Changing wage inequality = wages grow at different paces across the graduate wage distribution.

Data

European Statistics on Income and Living Conditions (EU-SILC), 2004-2015

Sample:

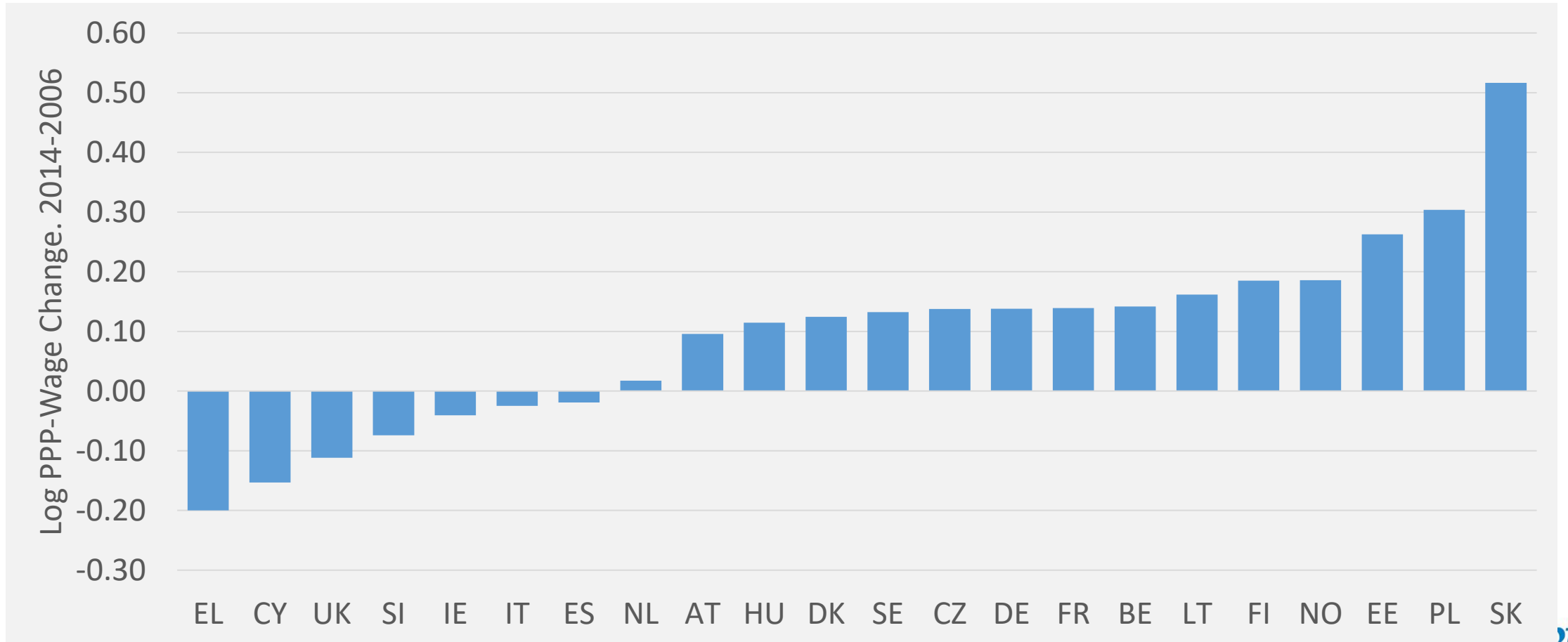
Graduates aged 35 to 34 years who worked for at least one fte-month in the year before the interview.

Earnings:

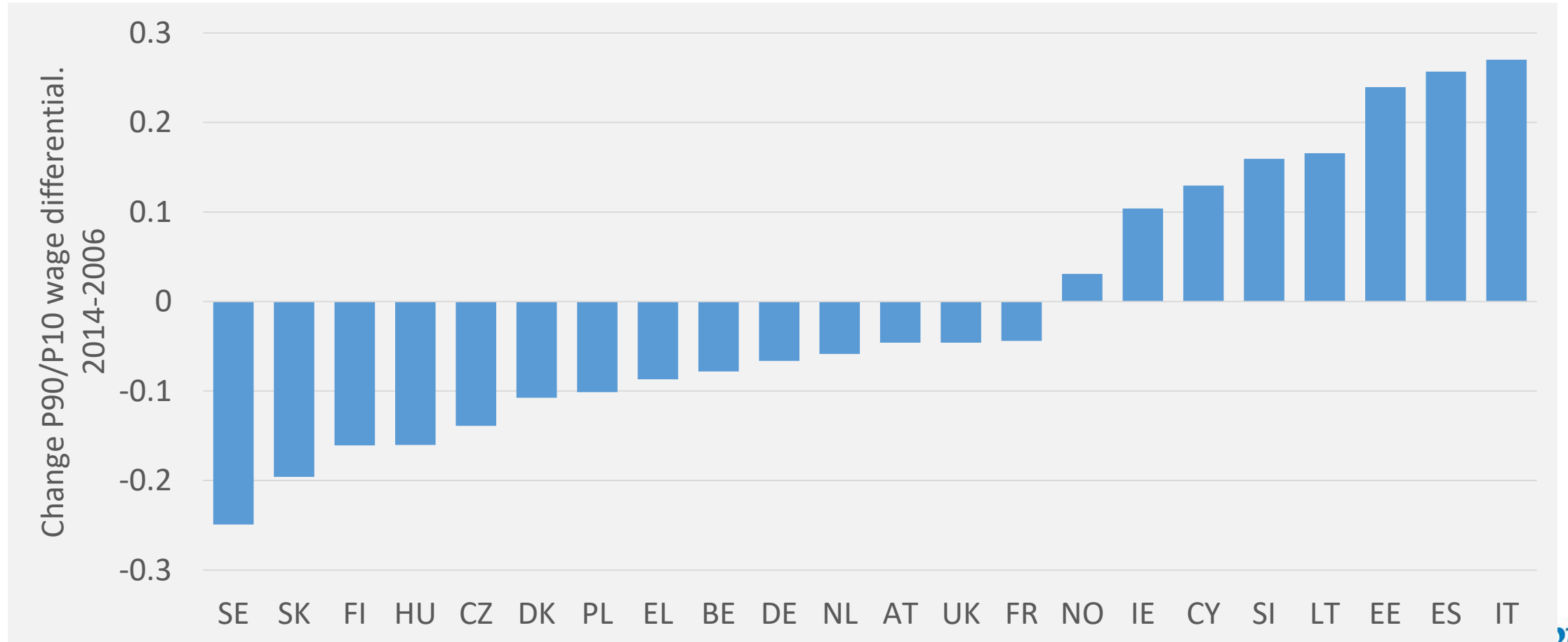
Average earnings per fte month. In PPP-EUR



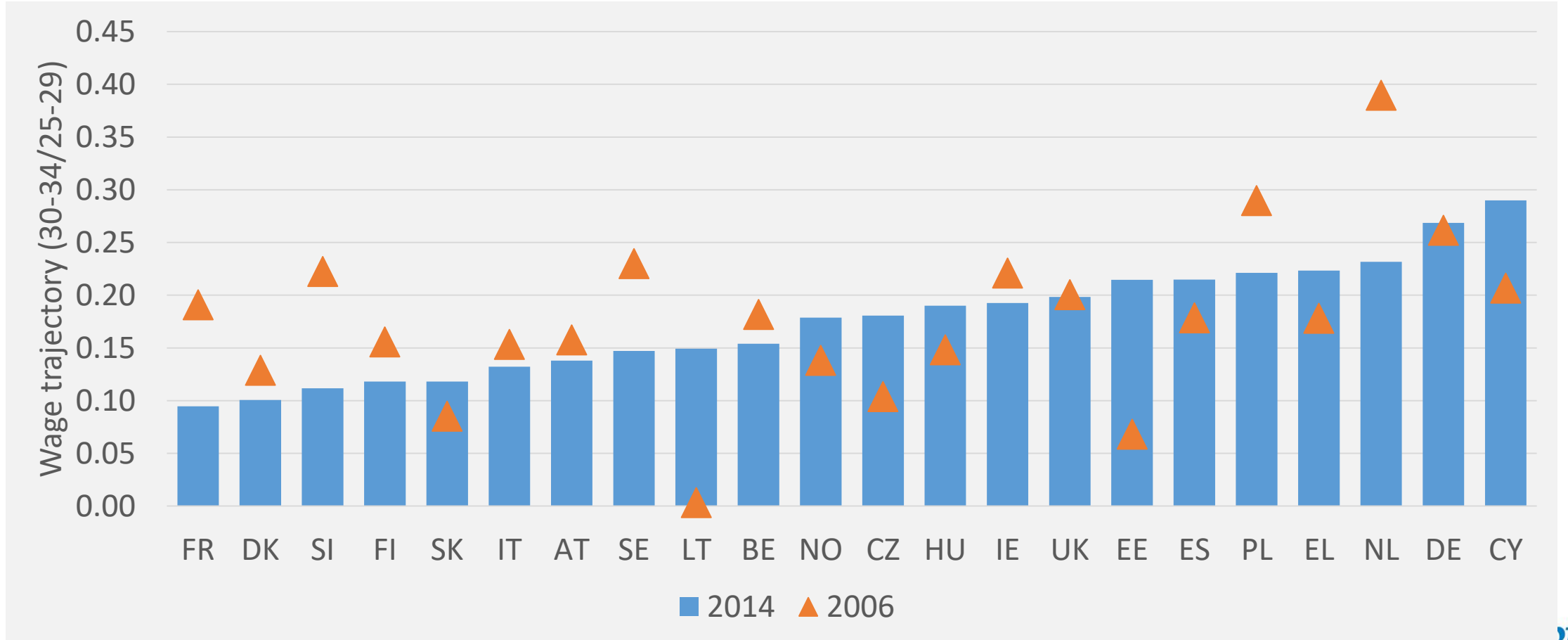
Muted wage growth across most countries, 2014-2006



How has wage inequality within graduates evolved? 2005-2015



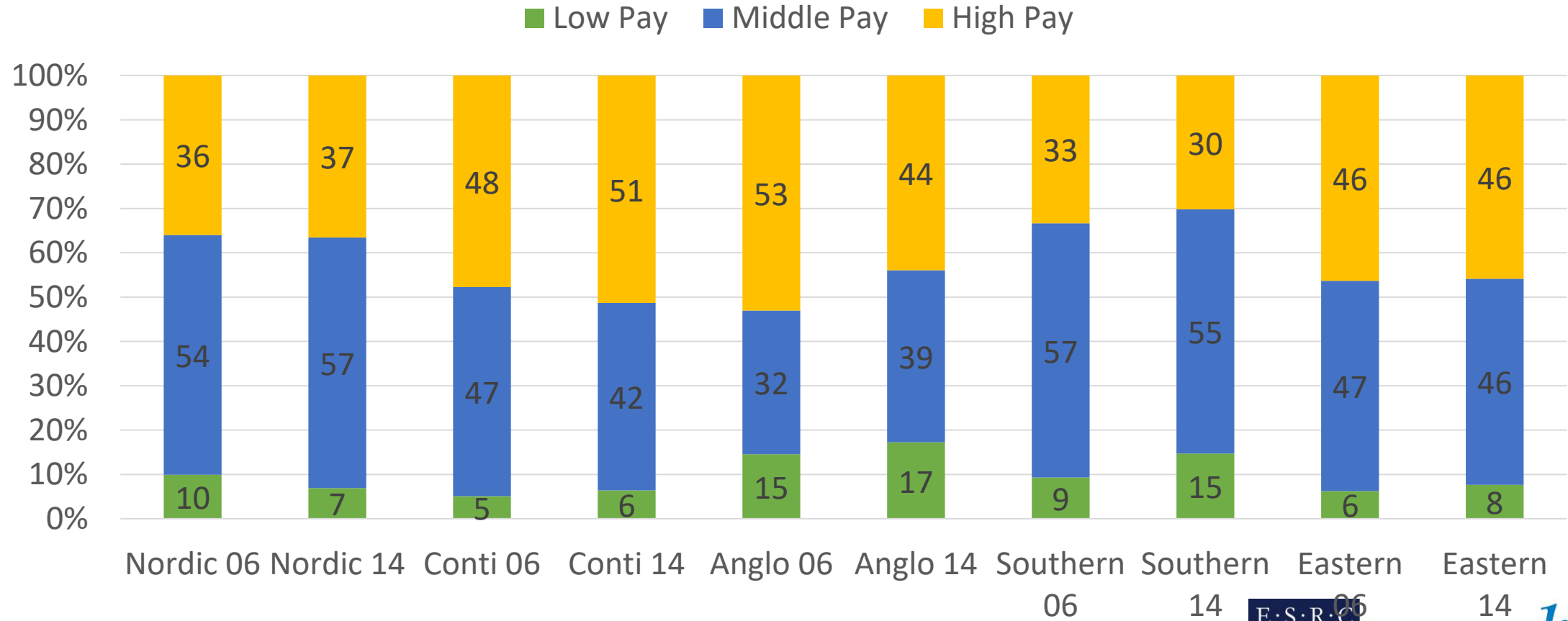
Have career trajectories slowed?



Patterns of graduate wage dispersion by country cluster

Country Cluster	Wage growth	Change age trajectory	Change upper tail dispersion	Change lower tail dispersion
Nordic	0.178***	-0.067**	-0.028	-0.108**
Continental	0.115***	-0.066**	-0.056***	-0.039#
Southern	-0.107***	0.035#	0.089***	0.034#
Anglo	-0.083***	0.005	-0.036	0.052#
Eastern	0.192***	-0.006	-0.092***	-0.042#

Graduate occupational destinations



Next Steps

- Investigate sources of skilled labour demand
- Assess the impact of computerisation, service offshoring and non-routinization on graduate wage growth
- Data by country-industry on computer usage and work tasks from European Working Conditions Survey and service offshoring from the World Input Output Database
- Multi-level fixed effects models to assess the effect of country-industry effects on individual outcomes

Initial Findings

	(1)	(2)	(3)	(4)	(5)
	Nordic	Continental	Southern	Anglo	Eastern
Computer use (z-score)	0.145** (0.041)	0.011 (0.054)	0.037 (0.028)	0.116* (0.043)	0.052# (0.031)
Service intermediates from abroad (z-score)	-0.010 (0.069)	-0.032 (0.032)	0.028 (0.078)	0.027** (0.009)	-0.027 (0.079)
Service intermediates from abroad (z-score)	-0.068 (0.087)	-0.032 (0.032)	0.027 (0.077)	0.021# (0.011)	-0.038 (0.087)
Computer use (z-score)	0.163*** (0.045)	0.003 (0.054)	0.030 (0.033)	0.109# (0.053)	0.030 (0.038)
N	7317	10076	17977	6075	13017

Conclusions

- Universal rise in the supply of graduates, but graduate labour market trends are diverse in cross-national perspective
- While wage dispersion among young graduates rose in Southern Europe and to a lesser degree in the Anglophone countries, average earnings fell significantly in both clusters
- This coincides with a rising share of graduates in low-paying occupations in the former, and a decline of young graduates in highly-paying jobs in the latter country group.
- Initial results indicate that although computerisation and globalisation act globally, their local impact differs.