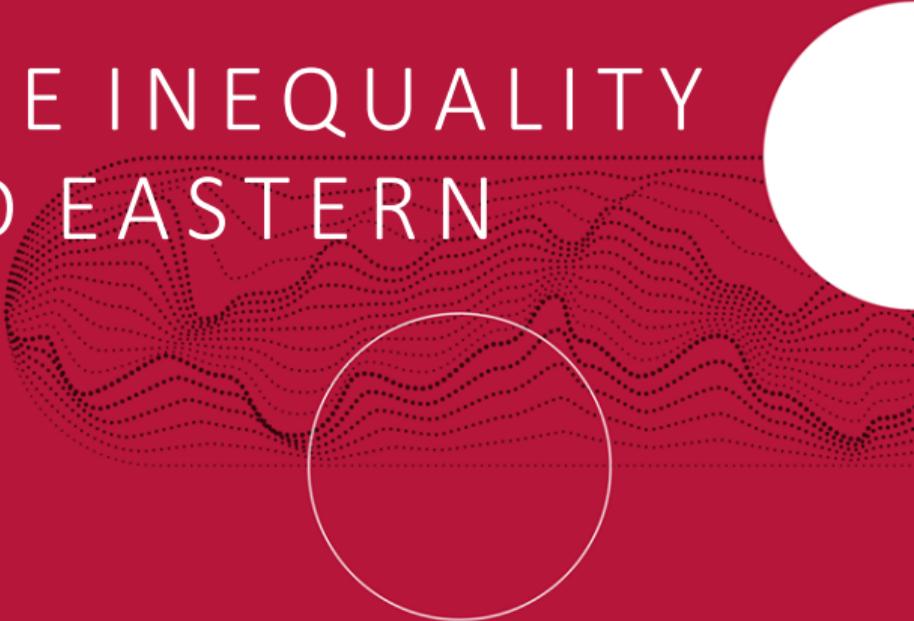


FIRMS AND WAGE INEQUALITY IN CENTRAL AND EASTERN EUROPE



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- What are the micro determinants of wage inequalities?

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- Within-firm component higher, but high growth in the between-firm component in the U.S. 1992-2007: Barth et al. 2016
- Low between-firm component contribution in Sweden, compared to Brazil, and growth mainly in the within component (Akerman et al., 2013)

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- We use gross hourly wages

Measure of wage inequality



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$$\text{Var}(\hat{w}_{it}) = \frac{1}{N_t} \sum_i (\hat{w}_{it} - \hat{w}_t)^2 = \frac{1}{N_t} \sum_j \sum_{i \in j} (\hat{w}_{it} - \hat{w}_{jt})^2 + \frac{1}{N_t} \sum_j N_{jt} (\hat{w}_{jt} - \hat{w}_t)^2 \quad (1)$$

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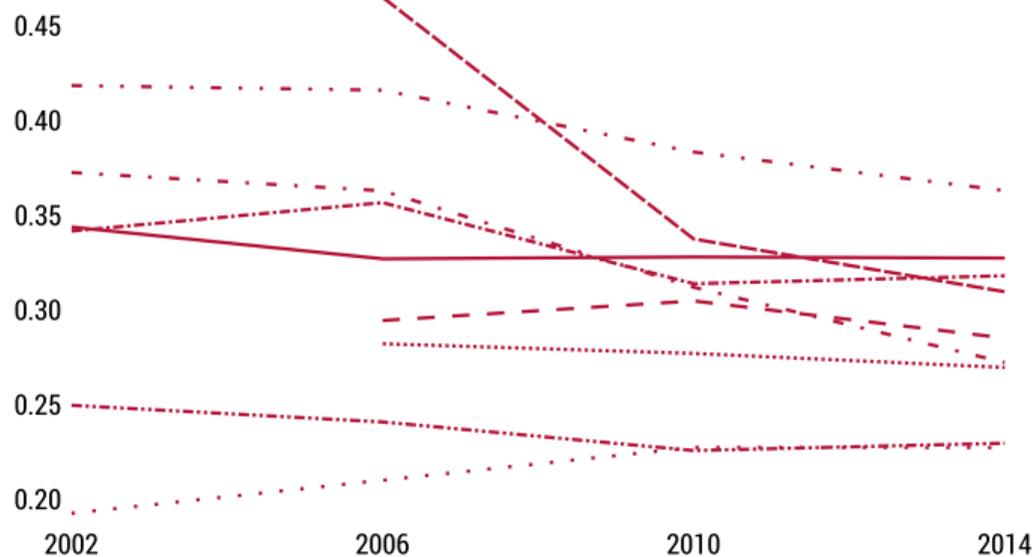


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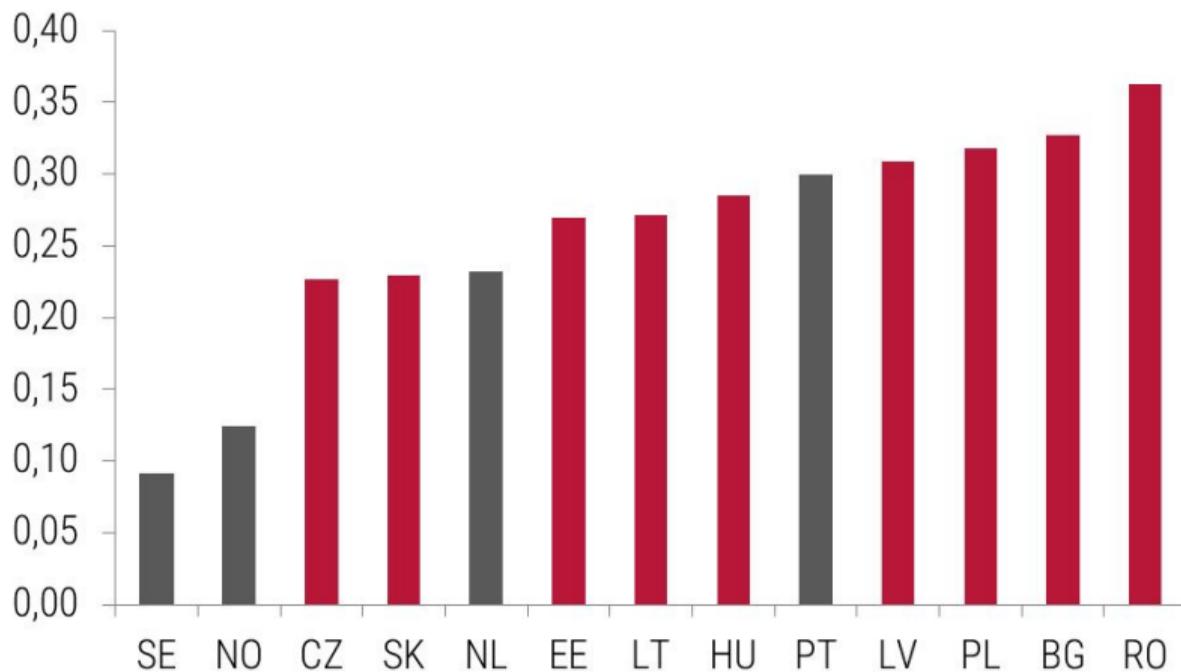
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- where \hat{w}_t is the average normalized log wage in year t in a given country, \hat{w}_{jt} denotes average normalized log wage for workers in firm j in year t , N_t is the number of all workers in year t and N_{jt} is the number of workers in firm j .

Variance of normalized log wages (2002-2014)



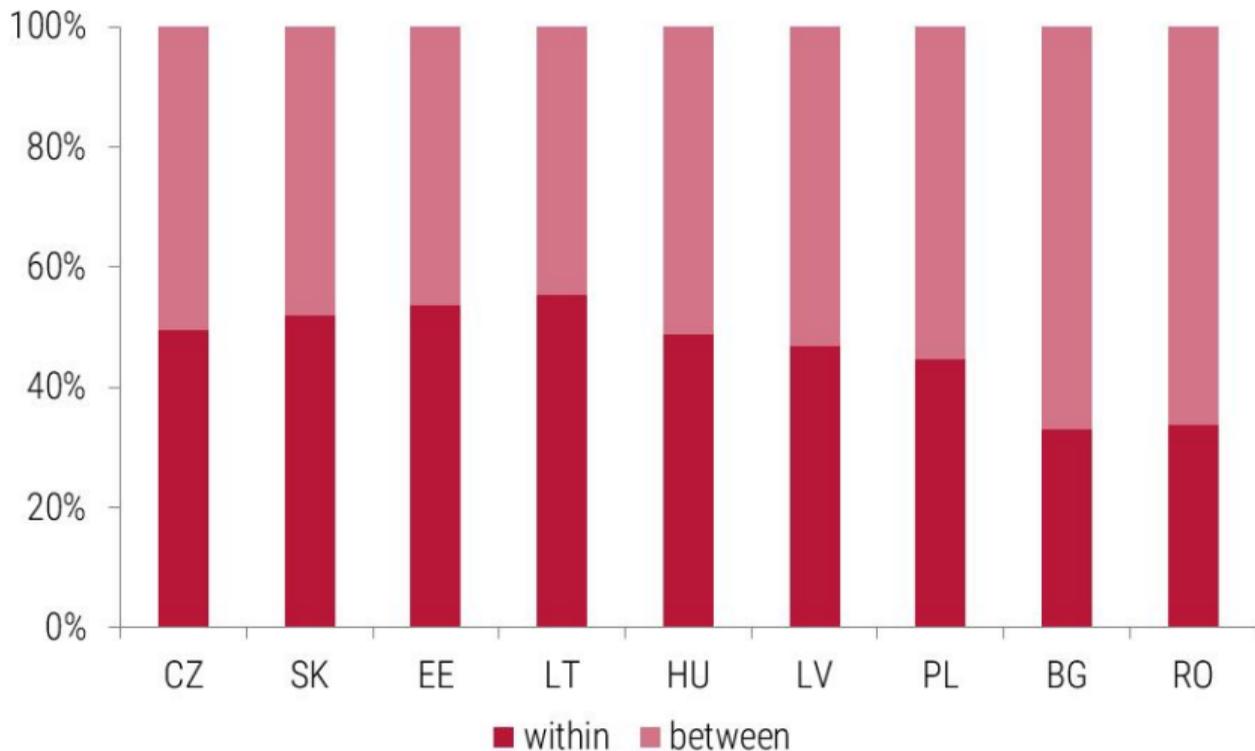
How do CEE compare to WE/ SE?



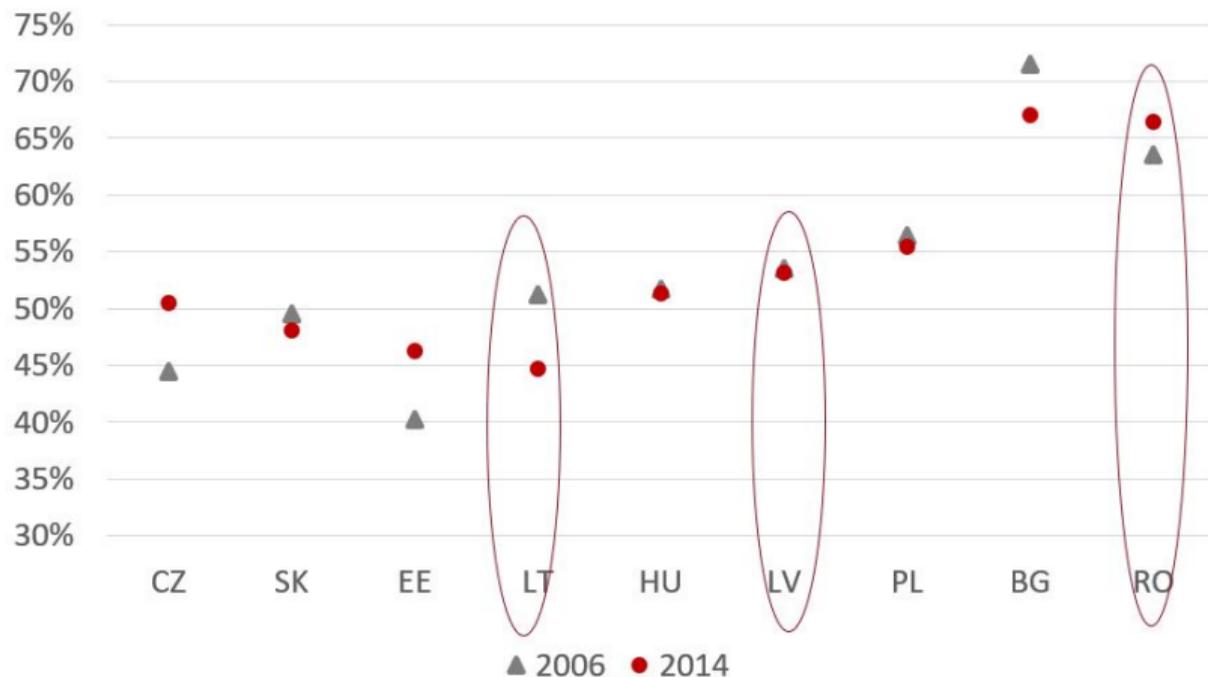
Between firm differentials drive wage inequality gaps



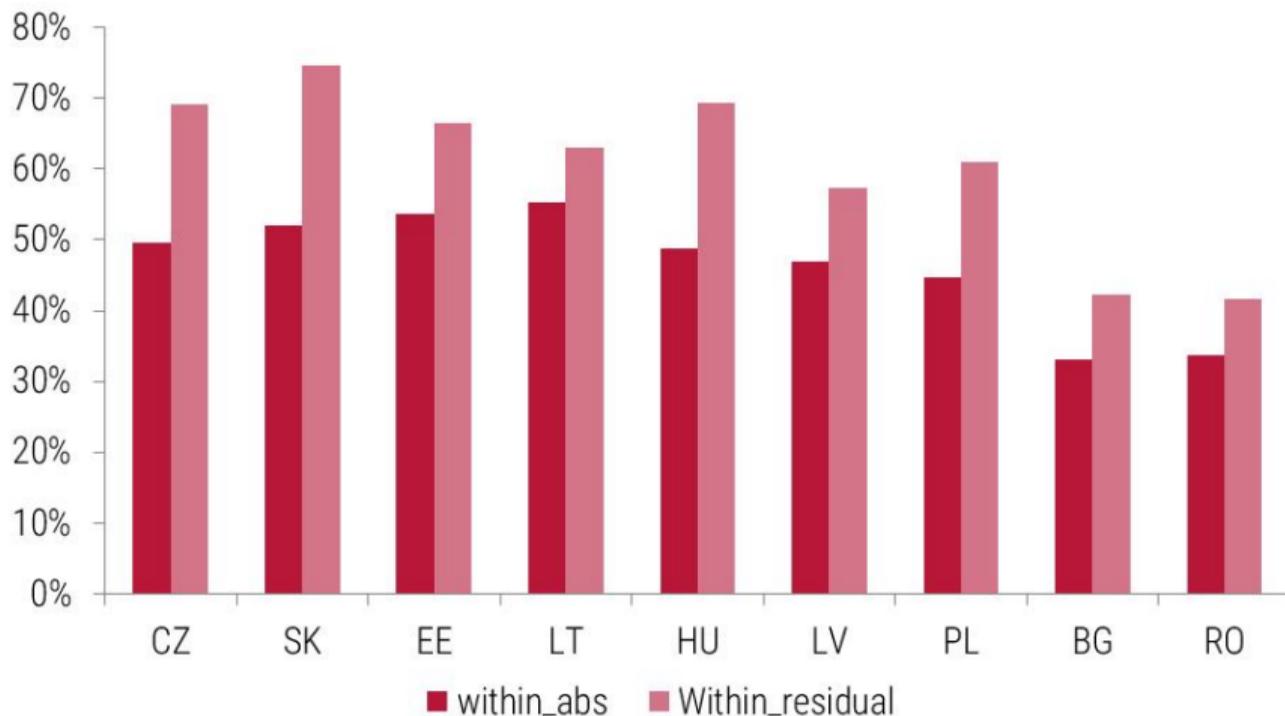
BG, RO : high between-firm shares of inequality



Changes over time? Share of between-firm inequality



Residual wage inequality - between component is lower



Micro determinants: RIF regression



- Method introduced by Firpo, Fortin, and Lemieux (2018)
- We calculate the recentered influence function value for each observation:

$$RIF(\hat{w}_{it}) = (\hat{w}_{it} - \hat{w}_t)^2 \quad (2)$$

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- Next, we estimate the following model by OLS (for each year and country separately):

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- where X_{it} is a set of individual characteristics (age, gender, education, occupation, type of contract), and X_{jt} is a set of firm characteristics (sector, public/private firm, share of female workers, share of workers with tertiary education, share of workers aged 50 years or more and share of workers with tenure of less than two years)

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- Interpretation: the partial effect of a small change in the distribution of a covariate on the distributional statistic of interest (in our case variance of normalized log wages)

What contributes to wage variance? (RIF regs)



	CZ	SK
tertiary education	0.084***	0.008***
secondary education	-0.066***	-0.094***
30-49 years old	0.098***	0.098***
50 years old or more	0.103***	0.101***
female	-0.057***	-0.055***
NACE D+E	0.055***	0.098***
NACE H+J	0.088***	0.092***
NACE I	0.072***	-0.006*
NACE K	0.169***	0.066***
NACE L+M+N	0.030***	0.041***
NACE P	-0.187***	-0.112***
ISCO 1	0.447***	0.411***
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ISCO 9	0.068***	0.061***
public ownership of a firm	-0.082***	-0.114***
fixed contract	-0.015***	0.004***
Tenure<2 years (share)	0.063***	0.022***
age: 50+ (share)	-0.111***	-0.142***
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secondary education	-0.021***	-0.013***
30-49 years old	0.091***	0.080***
50 years old or more	0.091***	0.099***
female	-0.081***	-0.051***
NACE B	0.280***	0.613***
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NACE G	-0.110***	-0.024***
NACE H+J	0.167***	0.122***
NACE I	-0.128***	0.024***
NACE O	-0.143***	0.039***
NACE P	0.260***	0.322***
ISCO 1	0.650***	0.673***
ISCO 2	0.215***	0.109***
ISCO 3	-0.048***	-0.126***
ISCO 4	-0.117***	-0.186***
ISCO 6	0.740***	-0.036
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ISCO 8	-0.134***	-0.148***
ISCO 9	0.014***	-0.034***
public ownership of a firm	-0.112***	-0.061***
age: 50 years or more (share)	-0.445***	-0.198***
tertiary education (share)	0.325***	0.533***

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- job and firm level characteristics: occupations, NACE, private sector, co-workers
- managers working in market services (financial services primarily) with tertiary educated co-workers associated with higher contribution to wage inequality
- age matters as well - older workers associated with higher wage inequality (compared to young ones), but not at firm-level, higher share of older coworkers decreases wage inequality

Micro determinants: changes over time



- The positive effect of tertiary education on the variance of log wages has decreased in most countries

Micro determinants: changes over time



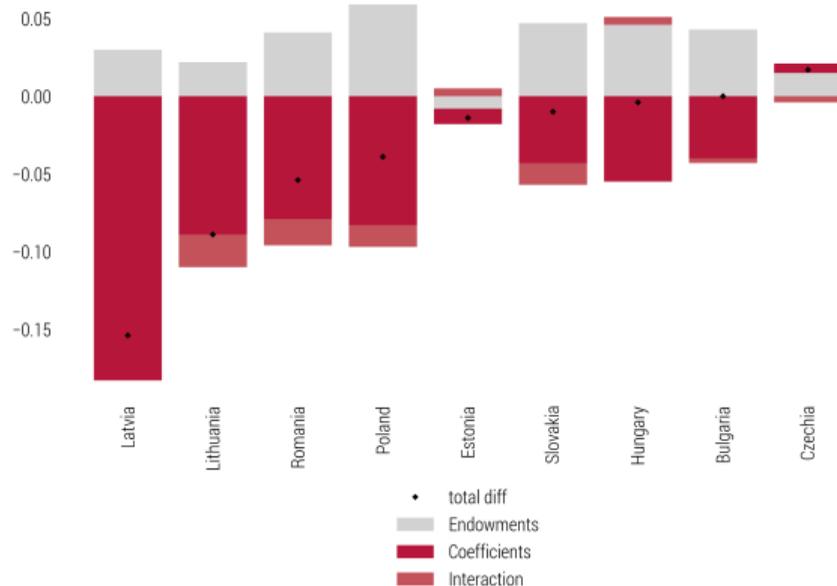
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- The effect of age of a worker has increased in most countries
- The correlation between managerial occupation and wage inequality has strengthened in most countries or remained strong (Latvia, Poland, Estonia)

- We use a standard Blinder-Oaxaca decomposition to distinguish the contribution of changes in endowments, coefficients and interaction to the change in the overall variance
- We decompose the change in the overall variance between 2006 and 2014 for each country, according to the formula:

$$\begin{aligned} \text{Var}(w_{i,\hat{2014}}) - \text{Var}(w_{i,\hat{2006}}) &= \beta_{2006}(\bar{X}_{2014} - \bar{X}_{2006}) \\ &\quad + (\beta_{2014} - \beta_{2006})\bar{X}_{2006} \\ &\quad + (\bar{X}_{2014} - \bar{X}_{2006}) * (\beta_{2014} - \beta_{2006}) \end{aligned} \tag{4}$$

Blinder-Oaxaca: 2006-2014 decomposition



Source: Own calculations based on European Structure of Earnings Survey

- The biggest part of the change in overall variance was explained by changes in coefficients, but most of this contribution is due to the changes in intercepts, in particular in the private sector (pointing to the likely role of institutional changes)
- Changes in the endowments were increasing wage inequality, while changes in the coefficients were acting as inequality - decreasing
- The decrease in wage inequality would likely have been stronger, if not changing workforce endowments, especially growing shares of employees with university diploma.

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Conclusions



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References



- Akerman, Anders, Elhanan Helpman, Oleg Itskhoki, Muendler Marc-Andreas, and Stephen Redding (2013). “Sources of wage inequality”. In: American Economic Review 103.3, pp. 214–219.
- Autor, David H., Lawrence F. Katz, and Melissa S. Kearney (May 2008). “Trends in U.S. Wage Inequality: Revising the Revisionists”. In: Review of Economics and Statistics 90.2, pp. 300–323.
- Barth, Erling, Alex Bryson, James C. Davis, and Richard Freeman (2016). “It is Where You Work: Increases in the Dispersion of Earnings across Establishments and Individuals in the United States”. In: Journal of Labor Economics 34.2, pp. 244–263.
- Firpo, Sergio P., Nicole M. Fortin, and Thomas Lemieux (2018). “Decomposing Wage Distributions Using Recentered Influence Function Regressions”. In: Econometrics 6.
- Helpman, Elhanan, Oleg Itskhoki, and Stephen Redding (2017). “Trade and inequality: From theory to estimation”. In: Review of Economic Studies 84.1, pp. 357–405.

THANK YOU

Iga Magda

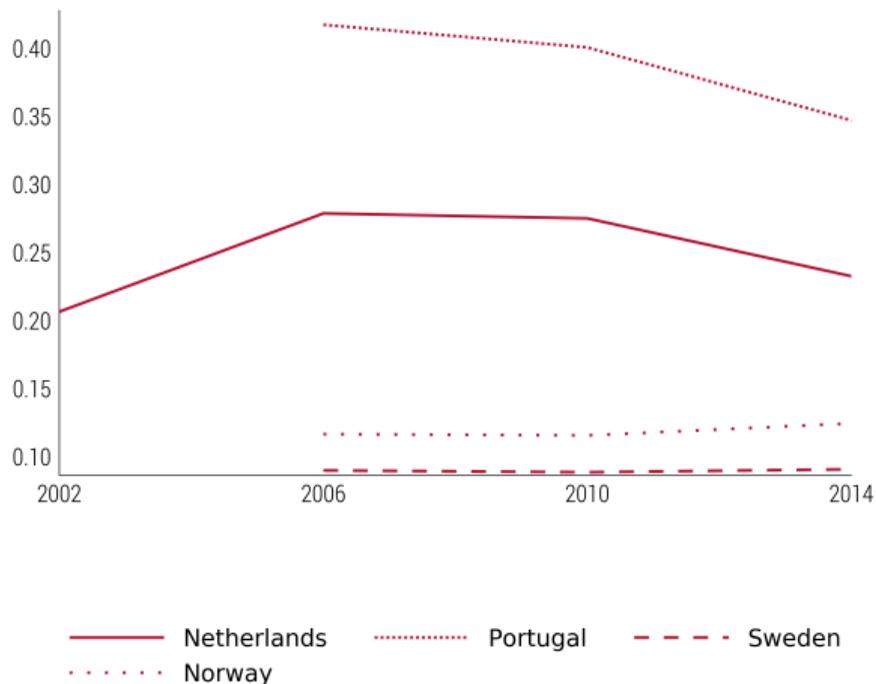
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Inequality is lower in Western Europe



Figure: Overall variance of log wages: 2002-2014



Between-firm component less important in Western Europe



Table: Contribution of the within component to level and change in variance of log wages

	Level 2006 (percent)	Change 2006-2014 (percent)
Netherlands	63	77
Norway	54	10
Sweden	66	39
Portugal	39	26

Note: the first column shows the contribution of the within-firm component to the level of the variance of log wages in 2006 ($\frac{Var(w_{i,2006}^{within})}{Var(w_{i,2006})}$). The unreported between component is 100% minus the reported within component. The second column shows the contribution of the within component to the change of the variance ($\frac{|\Delta Var(w_{i,t})^{within}|}{(|\Delta Var(w_{i,t})^{within}| + |\Delta Var(w_{i,t})^{between}|)}$)

Data: European Structure of Earnings Survey

RIF results: BG and RO



	Bulgaria				Romania			
	2002	2006	2010	2014	2002	2006	2010	2014
<i>Individual effects</i>								
<i>reference: primary education</i>								
tertiary education	0.055***	0.028***	-0.004	-0.015**	0.297***	0.025***	0.029***	-0.018***
secondary education	-0.003	-0.025***	-0.043***	-0.021***	-0.026***	0.004	-0.031***	-0.013***
<i>reference: under 30 years old</i>								
30-49 years old	-0.000	0.018***	0.066***	0.091***	-0.002	0.034***	0.051***	0.080***
50 years old or more	0.022***	0.026***	0.067***	0.091***	0.084***	0.112***	0.078***	0.099***
<i>reference: male</i>								
female	-0.064***	-0.069***	-0.071***	-0.081***	-0.031***	-0.025***	-0.025***	-0.051***
<i>reference: tenure of less than a year</i>								
tenure: 1-4 years	-0.023***	0.015***	-0.004	-0.009**	-0.003	-0.013***	-0.001	-0.007**
tenure: 5-9 years	-0.013***	0.040***	0.013***	0.030**	-0.017***	-0.012***	-0.004	-0.010**
tenure: 10 years or more	0.013***	0.088***	0.037***	0.031***	0.013**	0.018***	0.016***	0.038***
<i>reference: ISCO 5</i>								
ISCO 1	0.411***	0.553***	0.558***	0.650***	0.480***	0.993***	0.635***	0.673***
ISCO 2	0.069***	0.183***	0.145***	0.215***	-0.216***	0.280***	-0.035***	0.109***
ISCO 3	-0.040***	-0.055***	-0.021***	-0.048***	-0.164***	-0.056***	-0.157***	-0.120***
ISCO 4	-0.092***	-0.102***	-0.123***	-0.123***	-0.121***	-0.173***	-0.251***	-0.186***
ISCO 6	-0.050**	-0.044*	0.011	0.740***	-0.133***	-0.049**	0.108***	-0.036
ISCO 7	-0.041***	-0.050***	-0.080***	-0.089***	-0.191***	-0.092***	-0.175***	-0.122***
ISCO 8	-0.062***	-0.083***	-0.100***	-0.134***	-0.242***	-0.109***	-0.190***	-0.148***
ISCO 9	0.002	-0.000	0.022***	0.014***	-0.081***	0.040***	-0.018***	-0.034***
<i>reference: permanent contract</i>								
fixed contract	0.003	0.068***	0.021***	0.054***	0.024***	-0.046***	-0.016**	-0.051***
<i>Firm effects</i>								
<i>reference: NACE C</i>								
NACE B	0.209***	0.268***	0.197***	0.280***	0.330***	0.307***	0.343***	0.613***
NACE D+E	0.194***	0.229***	0.163***	0.203***	0.206***	0.074***	0.098***	0.083***
NACE F	-0.082***	-0.111***	-0.059***	-0.039***	-0.025***	0.027***	-0.002	-0.029**
NACE G	0.004	-0.047***	-0.059***	-0.035***	-0.110***	-0.058***	-0.014**	-0.024***
NACE H+I	-0.007	0.008	0.129***	0.167***	0.208***	0.081***	0.118***	0.122***
NACE J	0.038***	-0.039***	-0.075***	-0.128***	0.049***	0.064***	-0.016**	0.024***
NACE K	0.267***	0.216***	0.071***	0.004	0.607***	0.703***	0.560***	0.344***
NACE L+M+N	-0.010***	0.055***	0.106***	0.068***	0.002	0.115***	0.011***	0.003
NACE O	-0.204***	-0.144***	-0.187***	-0.143***	0.029***	0.193***	0.029***	0.039**
NACE P	-0.310***	-0.396***	-0.298***	-0.268***	-0.321***	-0.187***	-0.360***	-0.322***
NACE Q	-0.208***	-0.111***	-0.151***	-0.107***	-0.066***	-0.067***	-0.116***	-0.103***
NACE R+S	-0.093***	-0.012*	-0.123***	-0.154***	0.032***	-0.004	-0.149***	-0.131***
<i>reference: private ownership of a firm</i>								
public ownership of a firm	-0.067***	-0.078***	-0.110***	-0.112***	-0.072***	-0.024***	-0.013***	-0.061***
tenure: less than 2 years (share)	0.117***	0.018***	0.071***	0.065***	0.138***	0.073***	0.026***	0.101***
age: 50 years or more (share)	-0.480***	-0.375***	-0.374***	-0.445***	-0.363**	-0.298***	-0.160***	-0.168***
tertiary education (share)	0.250***	0.378***	0.464***	0.325***	0.493***	0.245***	0.488***	0.513***
female (share)	-0.056***	-0.046***	0.003	-0.029***	0.073***	0.045***	-0.009	-0.027**
constant	0.488***	0.390***	0.326***	0.345***	0.429***	0.255***	0.333***	0.219***
Observations	150,392	162,838	175,575	168,345	220,284	241,708	262,983	270,582
R squared	0.175	0.187	0.198	0.217	0.221	0.260	0.227	0.250

Table shows the coefficients estimated by Recentered Influence Function regression (RIFGLS). The coefficients measure the impact of an individual shift to the right in the distribution of the regressors on variance of normalized log hourly wages in a given country in a given year. Truncated sample does not include the top 0.5% and the bottom 0.5% hourly wages. Dummy variables indicating 1-digit level occupational groups from International Standard Classification of Occupations (ISCO) are included. There was no inconsistency in 1-digit level occupational groups between ISCO-86 and ISCO-08. ISCO 1 - Managers, ISCO 2 - Professionals, ISCO 3 - Technicians and associate professionals, ISCO 4 - Clerical support workers, ISCO 5 - Service and sales workers, ISCO 6 - Skilled agricultural, forestry and fishery workers, ISCO 7 - Craft and related trades workers, ISCO 8 - Plant and machine operators, and assemblers, ISCO 9 - Elementary occupations. Dummy variables indicating NACE level 1 sectors were included (NACE Rev.2). Few level 1 sectors were pooled for the reason of inconsistencies between NACE Rev.1 and NACE Rev.2. NACE B - Mining and Quarrying, NACE C - Manufacturing, NACE D+E - Electricity, Gas, Steam and Air Conditioning Supply, Water Supply, Sewerage, Waste Management and Remediation Activities, NACE F - Construction, NACE G - Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles, NACE H+I - Transportation and Storage, Information and Communication, NACE J - Accommodation and Food Service Activities, NACE K - Financial and Insurance Activities, NACE L+M+N - Real Estate Activities, Professional, Scientific and Technical Activities, Administrative and Support Service Activities, NACE O - Public Administration and Defence, Compulsory Social Security, NACE P - Education, NACE Q - Human Health and Social Work Activities, NACE R - Arts, Entertainment and Recreation, Other Service Activities.

* p<0.1 ** p<0.05 ***p<0.01

Data: European Structure of Earnings Survey

RIF results: CZ and SK



	Czechia				Slovakia			
	2002	2006	2010	2014	2002	2006	2010	2014
<i>Individual effects</i>								
<i>reference: primary education</i>								
tertiary education	0.163***	0.155***	0.141***	0.084***	0.066***	0.059***	0.049***	0.038***
secondary education	-0.043***	-0.054***	-0.054***	-0.066***	-0.070***	-0.111***	-0.091***	-0.094***
<i>reference: under 30 years old</i>								
30-40 years old	0.039***	0.078***	0.089***	0.098***	0.056***	0.069***	0.089***	0.098***
50 years old or more	0.050***	0.079***	0.093***	0.103***	0.068***	0.065***	0.094***	0.101***
<i>reference: male</i>								
female	-0.039***	-0.052***	-0.049***	-0.057***	-0.061***	-0.055***	-0.056***	-0.055***
<i>reference: tenure of less than a year</i>								
tenure: 1-4 years	-0.008***	-0.015***	-0.017***	-0.031***	-0.008***	0.004**	-0.003*	-0.018***
tenure: 5-9 years	-0.004***	0.001	-0.017***	-0.033***	0.008**	0.018***	0.008***	-0.016***
tenure: 10 years or more	-0.018***	-0.001	0.003***	-0.028***	-0.018***	0.020***	0.004**	-0.017***
<i>reference: ISCO 5</i>								
ISCO 1	0.274***	0.312***	0.366***	0.447***	0.150***	0.465***	0.474***	0.411***
ISCO 2	-0.139***	-0.124***	-0.052***	-0.029***	-0.126***	-0.081***	-0.051***	-0.030***
ISCO 3	-0.098***	-0.101***	-0.107***	-0.129***	-0.158***	-0.127***	-0.112***	-0.095***
ISCO 4	-0.097***	-0.135***	-0.164***	-0.173***	-0.054***	-0.125***	-0.131***	-0.108***
ISCO 6	-0.029	-0.022	-0.069***	-0.066***	0.038	0.038	-0.023**	0.011***
ISCO 7	-0.123***	-0.152***	-0.147***	-0.172***	-0.196***	-0.145***	-0.130***	-0.103***
ISCO 8	-0.128***	-0.161***	-0.157***	-0.171***	-0.193***	-0.163***	-0.153***	-0.114***
ISCO 9	0.005***	0.044***	0.058***	0.068***	-0.033***	0.005**	-0.002	0.061***
<i>reference: permanent contract</i>								
fixed contract	0.018***	0.023***	0.008***	-0.015***	0.031***	0.001	0.022***	0.004***
<i>Firm effects</i>								
<i>reference: NACE C</i>								
NACE B	-0.000	0.033***	0.036***	0.046***	-0.005	-0.061***	0.030***	0.061***
NACE D-E	0.002	0.094***	0.064***	0.055***	0.151***	0.157***	0.098***	0.098***
NACE F	-0.007***	-0.012***	-0.005***	-0.047***	-0.038***	-0.028***	-0.011***	-0.008***
NACE G	-0.018***	0.013***	-0.012***	-0.003***	0.054***	-0.025***	-0.022***	-0.025***
NACE H-I	-0.009***	0.069***	0.103***	0.088***	0.039***	0.029***	0.073***	0.092***
NACE J	0.028***	0.017***	0.156***	0.072***	-0.009	0.015***	0.010***	-0.006*
NACE K	0.053***	0.265***	0.200***	0.169***	0.077***	0.123***	0.078***	0.066***
NACE L-M+N	-0.013***	0.013***	0.046***	0.030***	0.122***	0.046***	0.020***	0.041***
NACE O	-0.182***	-0.024***	-0.031***	-0.071***	-0.033***	-0.041***	-0.031***	-0.038***
NACE P	-0.155***	-0.108***	-0.158***	-0.187***	-0.198***	-0.179***	-0.172***	-0.112***
NACE Q	-0.060***	-0.032***	-0.030***	-0.020***	0.006	-0.038***	-0.017***	0.012***
NACE R+S	-0.055***	-0.007***	-0.037***	-0.052***	-0.087***	-0.048***	-0.100***	-0.031***
<i>reference: private ownership of a firm</i>								
public ownership of a firm	-0.037***	-0.086***	-0.093***	-0.082***	-0.089***	-0.095***	-0.109***	-0.114***
tenure: less than 2 years (share)	0.053***	0.027***	0.090***	0.063***	0.010*	-0.053***	0.020***	0.022***
age: 50 years or more (share)	-0.157***	-0.203***	-0.117***	-0.111***	-0.369***	-0.274***	-0.183***	-0.142***
tertiary education (share)	0.137***	0.176***	0.116***	0.192***	0.283***	0.266	0.240***	0.193***
female (share)	0.036***	0.041***	0.021***	0.061	-0.014***	-0.021***	0.020***	0.036***
constant	0.286***	0.290***	0.255***	0.307***	0.440***	0.441***	0.313***	0.276***
Observations	978,110	1,914,027	1,948,513	2,148,818	391,714	670,603	767,368	861,864
R-squared	0.183	0.201	0.207	0.219	0.130	0.200	0.216	0.191

*Table shows the coefficients estimated by fixed-effects (within) function regressions (Pooled). The coefficients measure the impact of an individual shift in the right on the bottom 0.1% hourly wages. For the detailed explanation of ISCO and NACE codes see Table 7.

* p<0.1, ** p<0.05, *** p<0.01.
Data: European Structure of Earnings Survey

RIF results: EE and PL



	Estonia			Poland			
	2006	2010	2014	2002	2006	2010	2014
<i>Individual effects</i>							
reference: primary education							
tertiary education	0.070***	0.055***	0.078***	0.230***	0.215***	0.155***	0.130***
secondary education	-0.026***	-0.034***	-0.018***	-0.012***	-0.006***	-0.016***	-0.018***
reference: under 30 years old							
30-49 years old	0.077***	0.085***	0.090***	0.072***	0.114***	0.109***	0.103***
50 years old or more	0.065***	0.084***	0.084***	0.117***	0.159***	0.133***	0.125***
reference: male							
female	-0.080***	-0.072***	-0.089***	-0.037***	-0.046***	-0.055***	-0.068***
reference: tenure of less than a year							
tenure: 1-4 years	-0.005	-0.008**	0.000	-0.047***	-0.004*	-0.015***	-0.003*
tenure: 5-9 years	0.029***	-0.003	0.005	-0.043***	-0.010***	-0.020***	-0.015***
tenure: 10 years or more	-0.004	-0.004	-0.005	-0.050***	-0.015***	0.006***	0.026***
reference: ISCO 5							
ISCO 1	0.366***	0.370***	0.286***	0.383***	0.263***	0.285***	0.300***
ISCO 2	-0.018***	-0.045***	-0.048***	-0.021***	-0.099***	-0.027***	-0.023***
ISCO 3	-0.077***	-0.145***	-0.094***	-0.127***	-0.210***	-0.139***	-0.142***
ISCO 4	-0.123***	-0.166***	-0.147***	-0.184***	-0.220***	-0.180***	-0.170***
ISCO 6	0.257***	0.025	-0.064*	-0.061***	-0.142***	0.026	-0.062***
ISCO 7	-0.060***	-0.125***	-0.087***	-0.092***	-0.128***	-0.078***	-0.087***
ISCO 8	-0.096***	-0.129***	-0.132***	-0.150***	-0.190***	-0.121***	-0.122***
ISCO 9	0.209***	0.129***	0.097***	-0.006**	-0.048***	0.009***	-0.001
reference: permanent contract							
fixed contract	0.050***	0.045***	0.043***				
<i>Firm effects</i>							
reference: NACE C							
NACE B	-0.001	0.118***	0.077***	0.233***	0.207***	0.303***	0.213***
NACE D+E	-0.076***	0.030*	0.039***	0.028***	0.017***	0.010***	-0.010***
NACE F	0.044***	0.038***	0.019***	-0.015***	-0.022***	0.009***	0.015***
NACE G	0.037***	0.002	0.028***	-0.003	-0.023***	-0.008***	0.025***
NACE H+J	0.048***	0.112***	0.132***	0.010***	0.016***	0.041***	0.045***
NACE I	0.019**	-0.007	-0.015**	0.040***	0.013**	-0.006	0.028***
NACE K	0.240***	0.193***	0.235***	-0.026***	0.056***	0.050***	0.023***
NACE L+M+N	0.070***	0.014***	0.064***	0.008***	0.038***	0.056***	0.044***
NACE O	-0.092***	-0.044***	-0.030***	-0.104***	-0.076***	-0.138***	-0.113***
NACE P	-0.035***	-0.093***	-0.034***	-0.017***	0.010***	0.042***	0.070***
NACE Q	0.101***	0.090***	0.075***	-0.077***	-0.129***	-0.080***	-0.083***
NACE R+S	-0.004	-0.010	0.013*	-0.082***	-0.048***	-0.073***	-0.078***
reference: private ownership of a firm							
public ownership of a firm	-0.037***	-0.060***	-0.033***	-0.131***	-0.118***	-0.084***	-0.069***
tenure: less than 2 years (share)	-0.016**	0.036***	0.029***	0.109***	0.135***	0.081***	0.083***
age: 50 years or more (share)	-0.112***	-0.115***	-0.084***	-0.179***	-0.153***	-0.159***	-0.082***
tertiary education (share)	0.146***	0.152***	0.094***	0.304***	0.196***	0.166***	0.153***
female (share)	0.002	0.075***	0.067***	0.083***	0.084***	0.065***	0.027***
constant	0.251***	0.249***	0.211***	0.322***	0.285***	0.212***	0.194***
Observations	114,656	108,903	112,569	629,101	639,764	667,963	707,999
R-squared	0.161	0.183	0.134	0.199	0.183	0.185	0.170

Table shows the coefficients estimated by fixed-effects regression (FE). The coefficients measure the impact of an individual shift to the right in the distribution of the regressor on variance of normalized log hourly wages in a given country in a given year. Truncated sample does not include the top 0.1% and the bottom 0.1% hourly wages. For the detailed explanation of ISCO and NACE codes see Table T7.

* p<0.1, ** p<0.05, *** p<0.01.

Data: European Structure of Earnings Survey

RIF results: LT and LV



	2002	Lithuania 2006	2010	2014	2006	Latvia 2010	2014
<i>Individual effects</i>							
<i>reference: primary education</i>							
tertiary education	0.139***	0.132***	0.061***	0.015	0.077***	0.033***	0.000
secondary education	-0.010**	-0.001	-0.043***	-0.020*	-0.028***	-0.029***	-0.032***
<i>reference: under 30 years old</i>							
30-49 years old	0.035***	0.066***	0.080***	0.091***	0.079***	0.084***	0.103***
50 years old or more	0.046***	0.074***	0.098***	0.104***	0.070***	0.067***	0.095***
<i>reference: male</i>							
female	-0.058***	-0.069***	-0.075***	-0.085***	-0.073***	-0.079***	-0.067***
<i>reference: tenure of less than a year</i>							
tenure: 1-4 years	0.002	0.016***	-0.028***	-0.005	0.018***	-0.001	0.018***
tenure: 5-9 years	0.018***	0.054***	-0.015	-0.019**	0.052***	0.015***	0.021***
tenure: 10 years or more	0.028***	0.048***	0.008	0.003	0.038***	0.006*	0.004
<i>reference: ISCO 5</i>							
ISCO 1	0.310***	0.274***	0.243***	0.457***	0.320***	0.331***	0.322***
ISCO 2	-0.039***	-0.069***	-0.136***	-0.048***	0.007	-0.007*	0.017***
ISCO 3	-0.041***	-0.060***	-0.134***	-0.102***	-0.100***	-0.100***	-0.104***
ISCO 4	-0.110***	-0.129***	-0.155***	-0.127***	-0.121***	-0.121***	-0.152***
ISCO 6	0.028	0.159***	0.107	-0.236	0.103***	0.038	0.081***
ISCO 7	-0.026***	-0.013**	-0.095***	-0.069***	-0.034***	-0.059***	-0.047***
ISCO 8	-0.031***	-0.058***	-0.157***	-0.110***	-0.038***	-0.063***	-0.067***
ISCO 9	0.085***	0.118***	0.150***	0.091***	0.124***	0.086***	0.086***
<i>reference: permanent contract</i>							
fixed contract	-0.029***	0.052***	0.046***	-0.000	0.187***	0.064***	0.047***
<i>Firm effects</i>							
<i>reference: NACE C</i>							
NACE B	0.067***	0.030	-0.060	-0.074*	-0.100***	-0.111***	-0.027
NACE D+E	0.081***	0.072***	0.033**	0.049***	0.130***	-0.013*	0.003
NACE F	0.012**	0.074***	-0.027**	-0.033***	-0.003	-0.032***	-0.050***
NACE G	0.012**	0.010**	-0.014	0.005	0.029***	-0.029***	-0.027***
NACE H+J	0.086***	0.084***	0.101***	0.081***	0.072***	0.072***	0.092***
NACE I	0.072***	0.064***	-0.030	0.020	0.067***	0.014*	-0.034***
NACE K	0.260***	0.300***	0.212***	0.217***	0.286***	0.281***	0.322***
NACE L+M+N	-0.022***	-0.007	0.033***	0.031***	0.063***	-0.023***	0.008
NACE O	0.026***	0.059***	-0.022	-0.038***	-0.081***	-0.186***	-0.191***
NACE P	-0.012*	0.010	0.131***	0.038***	0.002	-0.113***	-0.146***
NACE Q	-0.052***	0.074***	0.107***	0.094***	0.068***	-0.008	0.036***
NACE R+S	-0.055***	-0.022***	-0.009	-0.062***	0.002	-0.101***	-0.089***
<i>reference: private ownership of a firm</i>							
public ownership of a firm	-0.083***	-0.119***	-0.120***	-0.108***	-0.147***	-0.061***	-0.075***
tenure: less than 2 years (share)	0.052***	0.063***	0.048***	0.001	0.077***	0.059***	0.020***
age: 50 years or more (share)	-0.205***	-0.096***	-0.111***	-0.070***	-0.183***	-0.171***	-0.158***
tertiary education (share)	0.359***	0.231***	0.155***	0.167***	0.349***	0.367***	0.402***
female (share)	-0.026***	0.014**	-0.003	0.042***	-0.022***	-0.019***	-0.031***
constant	0.284***	0.195***	0.323***	0.213***	0.341***	0.277***	0.226***
Observations	135,978	114,892	26,093	31,079	271,872	198,862	153,540
R-squared	0.159	0.132	0.176	0.190	0.117	0.166	0.157

Table shows the coefficients estimated by fixed-effects regression (FE) on the distribution of the regression on variance of normalized log hourly wages in a given country in a given year. Truncated sample does not include the top 0.1% and the bottom 0.1% hourly wages. For the detailed explanation of ISCO and NACE codes see Table 7.

* p<0.1, ** p<0.05, *** p<0.01.

Data: European Structure of Earnings Survey

RIF results: HU



	2006	2010	Hungary	2014
<i>Individual effects</i>				
<i>reference: primary education</i>				
tertiary education	0.217***	0.205***		0.095***
secondary education	-0.028***	-0.032***		-0.085***
<i>reference: under 30 years old</i>				
30-49 years old	0.080***	0.091***		0.096***
50 years old or more	0.106***	0.106***		0.120***
<i>reference: male</i>				
female	-0.064***	-0.077***		-0.069***
<i>reference: tenure of less than a year</i>				
tenure: 1-4 years	-0.014***	-0.048***		-0.113***
tenure: 5-9 years	-0.005***	-0.049***		-0.091***
tenure: 10 years or more	-0.021***	-0.041***		-0.103***
<i>reference: ISCO 5</i>				
ISCO 1	0.341***	0.351***		0.428***
ISCO 2	-0.051***	-0.044***		0.010***
ISCO 3	-0.101***	-0.112***		-0.080***
ISCO 4	-0.124***	-0.117***		-0.089***
ISCO 6	0.045***	0.034***		0.117***
ISCO 7	-0.109***	-0.122***		-0.090***
ISCO 8	-0.151***	-0.133***		-0.152***
ISCO 9	0.025***	0.143***		0.082***
<i>reference: permanent contract</i>				
fixed contract	0.015***	-0.024***		-0.056***
<i>Firm effects</i>				
<i>reference: NACE C</i>				
NACE B	0.037***	0.011		-0.012
NACE D+E	0.074***	0.020***		-0.016***
NACE F	0.028***	-0.070***		-0.108***
NACE G	0.024***	-0.084***		-0.035***
NACE H+J	0.048***	0.046***		0.044***
NACE I	-0.017***	-0.101***		-0.100***
NACE K	0.223***	0.271***		0.267***
NACE L+M+N	0.001	-0.024***		-0.071***
NACE O	-0.027***	-0.081***		0.044***
NACE P	-0.320***	-0.379***		-0.223***
NACE Q	-0.094***	-0.123***		-0.049***
NACE R+S	-0.087***	-0.188***		-0.114***
<i>reference: private ownership of a firm</i>				
public ownership of a firm	-0.085***	-0.058***		-0.040***
tenure: less than 2 years (share)	0.079***	0.100***		0.148***
age: 50 years or more (share)	-0.163***	-0.164***		-0.194***
tertiary education (share)	0.316***	0.362***		0.220***
female (share)	-0.054***	-0.026***		-0.099***
constant	0.322***	0.312***		0.379***
Observations	676,050	761,240		770,148
R-squared	0.252	0.244		0.248

Table shows the coefficients estimated by fixed-effects influence function regression (FEIF). The coefficients measure the impact of an infinitesimal shift to the right in the distribution of the regressor on variance of normalized log hourly wages in a given country in a given year. Trimmed sample does not include the top 0.1% and the bottom 0.1% hourly wages. For the detailed explanation of ISCO and NACE codes see Table T7.

* p<0.1, ** p<0.05, *** p<0.01.

Data: European Structure of Earnings Survey

Blinder-Oaxaca results: BG and RO



	Bulgaria			Romania		
	Endowments	Coefficients	Interaction	Endowments	Coefficients	Interaction
<i>Individual effects</i>						
<i>reference: primary education</i>						
tertiary education	0.002***	-0.013***	-0.003***	0.000***	-0.013***	-0.000***
secondary education	0.000***	0.002	-0.000	0.000	-0.010***	-0.001***
<i>reference: under 30 years old</i>						
30-49 years old	-0.000***	0.039***	-0.002***	-0.000	0.028***	-0.000
50 years old or more	0.001***	0.020***	0.003***	0.004***	-0.003**	-0.001**
<i>reference: male</i>						
female	-0.001***	-0.006***	-0.000***	-0.000***	-0.012***	-0.000**
<i>reference: tenure of less than a year</i>						
tenure: 1-4 years	-0.000***	-0.009***	0.001***	0.001***	0.002	-0.000
tenure: 5-9 years	0.002***	-0.005***	-0.002***	-0.001***	0.000	0.000
tenure: 10 years or more	-0.001***	-0.013***	0.000***	0.000**	0.005***	0.000***
<i>reference: ISCO 5</i>						
ISCO 1	0.003***	0.005***	0.001***	0.012***	-0.015***	-0.004***
ISCO 2	0.011***	0.005***	0.002***	0.023***	-0.025***	-0.014***
ISCO 3	0.000***	0.001	-0.000	0.002***	-0.008***	0.003***
ISCO 4	0.001***	-0.001*	0.000*	0.001***	-0.001	0.000
ISCO 6	-0.000	0.002***	0.001***	0.000**	0.000	-0.000
ISCO 7	0.001***	-0.006***	0.001***	0.004***	-0.006***	0.001***
ISCO 8	0.002***	-0.008***	0.001***	0.005***	-0.007***	0.002***
ISCO 9	0.000	0.002**	-0.000**	0.001***	-0.009***	-0.001***
<i>reference: permanent contract</i>						
fixed contract	-0.003***	-0.005***	0.001***	-0.001***	-0.000	-0.000
<i>Firm effects</i>						
<i>reference: NACE C</i>						
NACE B	-0.001***	0.000	-0.000	-0.004***	0.007***	-0.004***
NACE D+E	0.001***	-0.001**	-0.000**	0.000***	0.000	0.000
NACE F	0.002***	0.006***	-0.002***	-0.000***	-0.005***	0.000***
NACE G	-0.001***	-0.007	-0.002***	0.001***	-0.008***	-0.001***
NACE H+J	0.000	0.012***	0.003***	0.002***	0.003***	0.001***
NACE I	-0.000***	-0.003***	-0.001***	0.001***	-0.001***	-0.000***
NACE K	0.002***	-0.004***	-0.002***	0.001***	-0.005***	-0.001***
NACE L+M+N	0.001***	0.002***	0.001***	0.004***	-0.007***	-0.004***
NACE O	0.001***	0.000	-0.000	-0.001***	-0.011***	0.001***
NACE P	0.003***	0.012***	-0.001***	0.001***	-0.013***	0.001***
NACE Q	-0.001***	0.000	0.000	-0.000**	-0.002***	-0.000***
NACE R+S	0.000*	-0.007***	0.004***	-0.000	-0.003***	-0.000**
<i>reference: private ownership of a firm</i>						
public ownership of a firm	0.005***	-0.012***	0.002***	0.001***	-0.013***	0.001***
tenure: less than 2 years (share)	-0.001***	0.023***	-0.003***	-0.005***	0.011***	-0.002***
age: 50 years or more (share)	-0.016***	-0.022***	-0.003***	-0.011***	0.019***	0.003***
tertiary education (share)	0.027***	-0.016***	-0.004***	0.002***	0.091***	0.002***
female (share)	-0.001***	0.008**	0.000*	0.000***	-0.034***	-0.000***
constant		-0.044***			-0.079***	
total	0.043***	-0.040***	-0.003**	0.041***	-0.079***	-0.017***
Observations		331,183			512,290	

Table represent the results of the Blinder-Oaxaca decomposition of changes in variance of normalized log hourly wages between 2006 and 2014 based on the RE regression results from Table 77. Trimmed sample does not include the top 0.1% and the bottom 0.1% hourly wages. For the detailed explanation of ISCO and NACE codes see Table 77.

* p<0.1, ** p<0.05, ***p<0.01

Data: European Structure of Earnings Survey

Blinder-Oaxaca results: CZ and SK



	Czechia			Slovakia		
	Endowments	Coefficients	Interaction	Endowments	Coefficients	Interaction
<i>Individual effects</i>						
<i>reference: primary education</i>						
tertiary education	0.006***	-0.012***	-0.003***	0.005***	-0.011***	-0.005***
secondary education	0.001***	-0.009***	0.000***	0.009***	0.012***	-0.001***
<i>reference: under 30 years old</i>						
30-49 years old	0.002***	0.010***	0.001***	-0.001***	0.016***	-0.000***
50 years old or more	-0.001***	0.007***	-0.009***	0.003***	0.010***	0.001***
<i>reference: male</i>						
female	-0.001***	-0.002***	-0.000***	-0.000***	0.000	0.000
<i>reference: tenure of less than a year</i>						
tenure: 1-4 years	0.000***	-0.005***	0.001***	-0.000**	-0.009***	0.002***
tenure: 5-9 years	0.000	-0.007***	-0.000***	0.001***	-0.007***	-0.001***
tenure: 10 years or more	-0.000	-0.008***	-0.000***	0.001***	-0.010***	-0.002***
<i>reference: ISCO 5</i>						
ISCO 1	-0.006***	0.009***	-0.003***	0.003***	-0.003***	-0.000***
ISCO 2	-0.003***	0.012***	0.002***	-0.005***	0.007***	0.003***
ISCO 3	0.002***	-0.006***	0.001***	0.007***	0.007***	-0.002***
ISCO 4	-0.001***	-0.003***	-0.000***	-0.002***	0.001***	0.000***
ISCO 6	-0.000	-0.008***	-0.000	-0.000	0.000	-0.000
ISCO 7	0.006***	-0.004***	0.001***	0.010***	0.008***	-0.003***
ISCO 8	-0.001***	-0.002***	-0.000***	-0.000***	0.008***	0.000***
ISCO 9	-0.000***	0.002***	-0.000***	-0.000**	0.005***	-0.001***
<i>reference: permanent contract</i>						
fixed contract	0.001***	-0.007***	-0.002***	0.000	0.000*	0.000*
<i>Firm effects</i>						
<i>reference: NACE C</i>						
NACE B	-0.000***	0.000***	-0.000***	0.000***	0.001***	-0.000***
NACE D+E	0.001***	-0.001***	-0.000***	0.001***	-0.001***	-0.000***
NACE F	0.000***	-0.002***	0.000***	0.001***	0.002***	-0.001***
NACE G	-0.000	-0.002	0.000***	-0.000***	0.000	0.000
NACE H+J	0.001***	0.001***	0.000***	0.001***	0.005***	0.002***
NACE I	0.000***	0.001***	0.000***	-0.000***	-0.000***	0.000***
NACE K	0.001***	-0.002***	-0.000***	0.001***	-0.001***	-0.000***
NACE L+M+N	0.000***	0.001***	0.000***	0.001***	-0.000*	-0.000*
NACE O	-0.000***	-0.003***	-0.000***	-0.001***	0.000	0.000
NACE P	-0.000	-0.006***	-0.000	-0.003***	0.007***	0.001***
NACE Q	-0.000***	0.001***	0.000***	0.000**	0.004***	-0.001***
NACE R+S	0.000***	-0.001***	0.000***	0.001***	0.001***	-0.000***
<i>reference: private ownership of a firm</i>						
public ownership of a firm	-0.001***	0.001***	0.000***	-0.001***	-0.006***	-0.000***
tenure: less than 2 years (share)	-0.000***	0.013***	-0.001***	0.004***	0.028***	-0.006***
age: 50 years or more (share)	0.002***	0.027***	-0.001***	-0.011***	0.036***	0.005***
tertiary education (share)	0.006***	0.009***	0.001***	0.024**	-0.016***	-0.006***
female (share)	0.001***	-0.018***	-0.001***	-0.000***	0.028***	0.000***
constant		0.017***			-0.165***	
total	0.015***	0.006***	-0.004***	0.047***	-0.043***	-0.014***
Observations		4,062,845			1,534,467	

Table represent the results of the Blinder-Oaxaca decomposition of changes in variance of normalized log hourly wages between 2006 and 2014 based on the BIF regression results from Table 77. Trimmed sample does not include the top 0.1% and the bottom 0.1% hourly wages. For the detailed explanation of ISCO and NACE codes see Table 77.

* p<0.1, ** p<0.05, ***p<0.01

Data: European Structure of Earnings Survey

Blinder-Oaxaca results: EE and PL



	Estonia			Poland		
	Endowments	Coefficients	Interaction	Endowments	Coefficients	Interaction
<i>Individual effects</i>						
<i>reference: primary education</i>						
tertiary education	-0.002***	-0.000	0.000	0.020***	-0.028***	-0.009***
secondary education	-0.000***	0.005	0.000	0.000***	-0.008***	0.001***
<i>reference: under 30 years old</i>						
30-49 years old	-0.001***	0.006***	-0.000***	-0.001***	-0.006***	0.000***
50 years old or more	0.003***	0.006***	0.001***	0.007***	-0.008***	-0.002***
<i>reference: male</i>						
female	0.001***	-0.005**	0.000*	-0.000***	-0.011***	-0.000***
<i>reference: tenure of less than a year</i>						
tenure: 1-4 years	0.001	0.002	-0.001	0.000*	0.000	-0.000
tenure: 5-9 years	-0.000	-0.005***	0.000	-0.000***	-0.001	-0.000
tenure: 10 years or more	-0.000	-0.000	-0.000	-0.000***	0.015***	0.000***
<i>reference: ISCO 5</i>						
ISCO 1	-0.001*	-0.005***	0.000*	0.004***	0.003***	0.001***
ISCO 2	-0.001***	-0.005***	-0.001***	-0.003***	0.018***	0.002***
ISCO 3	0.001***	-0.003***	0.000**	0.003***	0.009***	-0.001***
ISCO 4	0.000***	-0.002***	0.000**	0.002***	0.005***	-0.000***
ISCO 6	0.000***	-0.000***	-0.000***	-0.000***	0.000***	0.000***
ISCO 7	0.001***	-0.004***	0.000***	0.002***	0.007***	-0.001***
ISCO 8	0.003***	-0.005***	0.001***	0.000***	0.008***	-0.000***
ISCO 9	0.001***	-0.012***	-0.000***	0.001***	0.005***	-0.001***
<i>reference: permanent contract</i>						
fixed contract	-0.001***	-0.000	0.000			
<i>Firm effects</i>						
<i>reference: NACE C</i>						
NACE B	0.000	0.001***	-0.000***	-0.000***	0.000	-0.000
NACE D+E	0.000***	0.003***	-0.000***	0.000***	-0.001***	-0.000***
NACE F	0.000***	-0.001***	-0.000***	-0.000***	0.002***	0.000***
NACE G	0.001***	-0.001	-0.000	-0.000***	0.006***	0.000***
NACE H+J	0.001***	0.007***	0.001***	0.000***	0.002***	0.001***
NACE I	0.000**	-0.001***	-0.000***	0.000**	0.000**	0.000**
NACE K	-0.002***	-0.000	0.000	0.000***	-0.001***	-0.000***
NACE L+M+N	0.000***	-0.000	-0.000	0.000***	0.000	0.000
NACE O	0.001***	0.006***	-0.001***	-0.000***	-0.002***	-0.000***
NACE P	-0.000***	0.000	0.000	-0.000***	0.008***	-0.000***
NACE Q	-0.000**	-0.002***	0.000*	0.002***	0.004***	-0.001***
NACE R+S	0.000	0.001	-0.000	0.000***	-0.001***	0.000***
<i>reference: private ownership of a firm</i>						
public ownership of a firm	0.001***	0.001	-0.000	0.008***	0.020***	-0.003***
tenure: less than 2 years (share)	-0.000**	0.016***	0.001***	-0.001***	-0.015***	0.000***
age: 50 years or more (share)	-0.005***	0.009**	0.001**	-0.007***	0.016***	0.003***
tertiary education (share)	-0.010***	-0.018***	0.004***	0.018***	-0.013***	-0.004***
female (share)	0.000	0.036***	0.000	0.000***	-0.027***	-0.000***
constant		-0.040***			-0.091***	
total	-0.008***	-0.010***	0.005***	0.059***	-0.083***	-0.014***
Observations		227,225			1,347,783	

Table represent the results of the Blinder-Oaxaca decomposition of changes in variance of normalized log hourly wages between 2006 and 2014 based on the RE regression results from Table 77. Truncated sample does not include the top 0.1% and the bottom 0.1% hourly wages. For the detailed explanation of ISCO and NACE codes see Table 77.

* p<0.1, ** p<0.05, ***p<0.01

Data: European Structure of Earnings Survey

Blinder-Oaxaca results: LT and LV



	Lithuania			Latvia		
	Endowments	Coefficients	Interaction	Endowments	Coefficients	Interaction
<i>Individual effects</i>						
<i>reference: primary education</i>						
tertiary education	0.019***	-0.037***	-0.017***	0.007***	-0.026***	-0.007***
secondary education	0.000	-0.012	0.002	0.003***	-0.003	0.001
<i>reference: under 30 years old</i>						
30-49 years old	-0.005***	0.013***	-0.002***	-0.002***	0.012***	-0.001***
50 years old or more	0.007***	0.008***	0.003***	0.003***	0.008***	0.001***
<i>reference: male</i>						
female	-0.002***	-0.009***	-0.001***	-0.001***	0.003	0.000
<i>reference: tenure of less than a year</i>						
tenure: 1-4 years	-0.001***	-0.007***	0.001***	-0.001***	0.000	-0.000
tenure: 5-9 years	0.002***	-0.012***	-0.002***	0.000***	-0.006***	-0.000***
tenure: 10 years or more	0.003***	-0.012***	-0.003***	0.002***	-0.007***	-0.002***
<i>reference: ISCO 5</i>						
ISCO 1	-0.012***	0.020***	-0.008***	-0.003***	0.000	-0.000
ISCO 2	-0.004***	0.003	0.001	0.000	0.002	0.000
ISCO 3	0.000	-0.004***	0.000	0.001***	-0.001	0.000
ISCO 4	0.001***	0.000	-0.000	0.002***	-0.002***	0.000***
ISCO 6	-0.000***	-0.000**	0.000*	-0.000***	-0.000	0.000
ISCO 7	0.001**	-0.010***	0.003**	0.001***	-0.002*	0.000*
ISCO 8	-0.000**	-0.006***	-0.000**	0.000**	-0.003***	0.000***
ISCO 9	0.000	-0.003**	-0.000	0.001***	-0.005***	-0.000***
<i>reference: permanent contract</i>						
fixed contract	0.001***	-0.002***	-0.002***	0.001***	-0.007***	-0.001***
<i>Firm effects</i>						
<i>reference: NACE C</i>						
NACE B	-0.000	-0.000**	0.000	-0.000***	0.000***	0.000**
NACE D+E	0.001***	-0.001	-0.000	0.001***	-0.002***	-0.001***
NACE F	-0.002***	-0.011***	0.003***	0.000	-0.004***	0.000***
NACE G	-0.000**	-0.001	0.000	-0.000***	-0.008***	0.001***
NACE H+J	0.002***	-0.000	-0.000	0.002***	0.002***	0.001***
NACE I	-0.001***	-0.001**	0.001**	0.000	-0.003***	-0.000
NACE K	-0.000	-0.001***	0.000	-0.001***	0.001***	-0.000***
NACE L+M+N	-0.000	0.002***	0.000***	-0.000***	-0.005***	0.000***
NACE O	0.002***	-0.007***	-0.003***	0.001***	-0.011***	0.002***
NACE P	0.000	0.004**	0.000*	0.000	-0.021***	-0.008***
NACE Q	0.003***	0.002	0.001	0.001***	-0.002***	-0.000***
NACE R+S	0.000***	-0.002**	0.001**	-0.000	-0.004***	0.002***
<i>reference: private ownership of a firm</i>						
public ownership of a firm	-0.010***	0.004	0.001	-0.004***	0.031***	0.002***
tenure: less than 2 years (share)	-0.005***	-0.028***	0.005***	-0.005***	-0.026***	0.004***
age: 50 years or more (share)	-0.009***	0.007	0.002	-0.009***	0.008**	0.001**
tertiary education (share)	0.033***	-0.020***	-0.009**	0.030***	0.018***	0.005***
female (share)	0.000**	0.014**	0.001**	-0.000***	-0.005	-0.000
constant		0.018			-0.115***	
total	0.022***	-0.089***	-0.021***	0.030***	-0.183***	0.000
Observations		145,971			425,412	

Table represent the results of the Blinder-Oaxaca decomposition of changes in variance of normalized log hourly wages between 2006 and 2014 based on the RE regression results from Table 77. Truncated sample does not include the top 0.1% and the bottom 0.1% hourly wages. For the detailed explanation of ISCO and NACE codes see Table 77.

* p<0.1, ** p<0.05, ***p<0.01

Data: European Structure of Earnings Survey

Blinder-Oaxaca results: HU



	Endowments	Coefficients	Hungary	Interaction
<i>Individual effects</i>				
<i>reference: primary education</i>				
tertiary education	0.011***	-0.031***		-0.006***
secondary education	0.001***	-0.033***		0.001***
<i>reference: under 30 years old</i>				
30-49 years old	0.002***	0.009***		0.001***
50 years old or more	-0.001***	0.004***		-0.000***
<i>reference: male</i>				
female	0.002***	-0.003***		0.000***
<i>reference: tenure of less than a year</i>				
tenure: 1-4 years	-0.000	-0.032***		-0.000
tenure: 5-9 years	0.000***	-0.018***		0.002***
tenure: 10 years or more	0.001***	-0.025***		0.003***
<i>reference: ISCO 5</i>				
ISCO 1	-0.005***	0.007***		-0.001***
ISCO 2	-0.001***	0.010***		0.002***
ISCO 3	-0.001***	0.004***		0.000***
ISCO 4	0.004***	0.003***		-0.001***
ISCO 6	-0.000	0.000***		-0.000
ISCO 7	-0.001***	0.003***		0.000***
ISCO 8	-0.002***	-0.000		-0.000
ISCO 9	0.001***	0.006***		0.003***
<i>reference: permanent contract</i>				
fixed contract	-0.000***	-0.004***		0.001***
<i>Firm effects</i>				
<i>reference: NACE C</i>				
NACE B	0.000***	-0.000***		-0.000***
NACE D+E	-0.000***	-0.003***		0.000***
NACE F	-0.000***	-0.006***		0.001***
NACE G	0.000	-0.006***		-0.000
NACE H+J	0.001***	-0.000		-0.000
NACE I	0.000***	-0.002***		0.000***
NACE K	0.002***	0.001***		0.000***
NACE L+M+N	0.000	-0.004***		-0.001***
NACE O	-0.000***	0.010***		0.001***
NACE P	0.006***	0.014***		-0.002***
NACE Q	0.000***	0.004***		-0.000***
NACE R+S	0.002***	-0.001***		0.001***
<i>reference: private ownership of a firm</i>				
public ownership of a firm	0.003***	0.017***		-0.001***
tenure: less than 2 years (share)	0.006***	0.024***		0.005***
age: 50 years or more (share)	0.001***	-0.010***		0.000***
tertiary education (share)	0.015***	-0.026***		-0.005***
female (share)	0.001***	-0.024***		0.001***
constant		0.057***		
total	0.046***	-0.055***		0.005***
Observations			1,446,198	

Table represent the results of the Blinder-Oaxaca decomposition of changes in variance of normalized log hourly wages between 2006 and 2014 based on the RF regression results from Table 77. Trimmed sample does not include the top 0.1% and the bottom 0.1% hourly wages. For the detailed explanation of ISCO and NACE codes see Table 77.

* p<0.1, ** p<0.05, ***p<0.01

Data: European Structure of Earnings Survey