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THE DIFFERENTIATION IN THE PERMANENCY OF THE JOBS AMONG THE EMPLOYED INDIVIDUALS IN SIX EU COUNTRIES: THE DISPARITIES ACROSS MIGRANTS AND NATIVE-BORN INDIVIDUALS

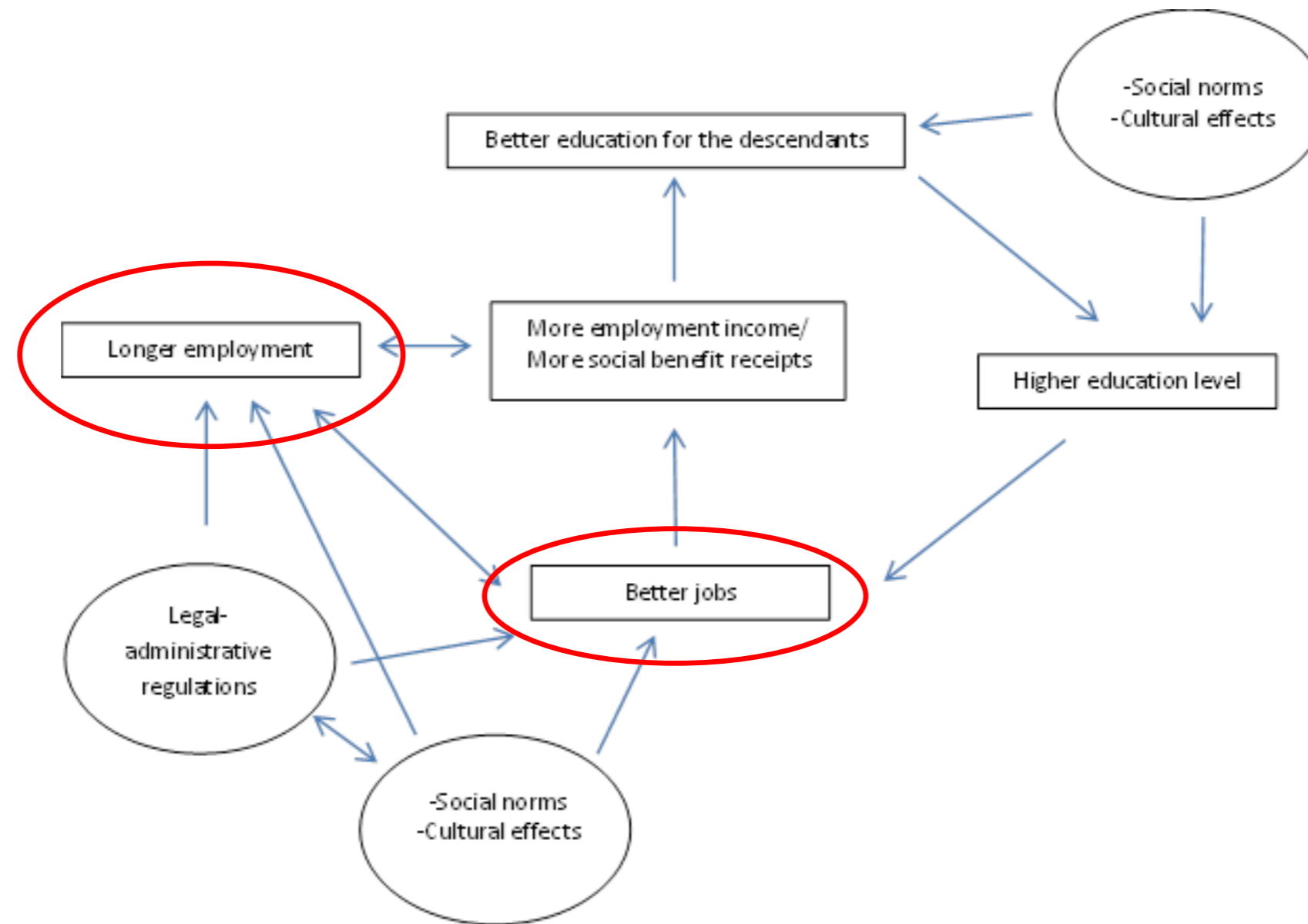
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European Microdata: 6th European User Conference for EU-Microdata, March 7-8, 2019

Purpose

- to examine the variation in the probability of becoming unemployed in the following year for the employed individuals with different migration background in Belgium, Germany, France, the Netherlands, Sweden and the United Kingdom.

Cycle of sustaining socio-economic inequalities across generations



Criteria for the selection of the study countries

- Labour market regulations
- Welfare state regimes
- Magnitude and composition of migrants
- Change in migration policies over time
- Availability of the comparable data

Discrimination against the migrants in the labour market of the host country (Kogan, 2007)

- monopsonistic discrimination (Madden, 1973)
- the error discrimination (England, 1992 and Cain 1976)
- statistical discrimination (Phelps, 1972; Arrow, 1972; Aigner and Cain, 1977)
- taste discrimination (Becker, 1971)
- temporary immigration programs workers (Bordvarson and Van den Berg, 2013)

Other factors affecting the disparities between native population and the migrants

- Welfare regimes (Morrisens, 2006; Kyyrä, et. al., 2013)
- Other social policies (Kesler, 2006)
- Differences in the non-employment incidence (Bratsber, et.al., 2010)

Hypothesis

- *Regardless of other socio-demographic background characteristics, the individuals with migrant background have higher risks of becoming unemployed between two consecutive years relative to their native counterparts.*

Data

- EU-LFS annual microdata sets between years 2004 and 2016
 - Individuals aged 25-59 at the time of the survey, who had been employed one year prior to the reference week and either employed or unemployed at the reference week; and who were not in education; and who had been residing in the host country for more than one year
 - Individual socio-demographic characteristics;
 - Household settings;
 - Labour market characteristics;
 - EU-LFS 2009-2016 special microdata files are used for the household analysis for SE.

Methodology

- Descriptive analyses
- Multivariate analysis: Multilevel mixed effects logistic regression

Migration Background

– For descriptive analysis: Broad categories for the country of birth

*Native-born

*EU-born

*Non-EU-born

– For multivariate analysis: The combination of broad categories for the country of birth and the nationality

*Native-born/national

*Native-born/EU citizen

*Native-born/Non-EU citizen

*EU-born/national

*EU-born/EU citizen

*EU-born/Non-EU citizen

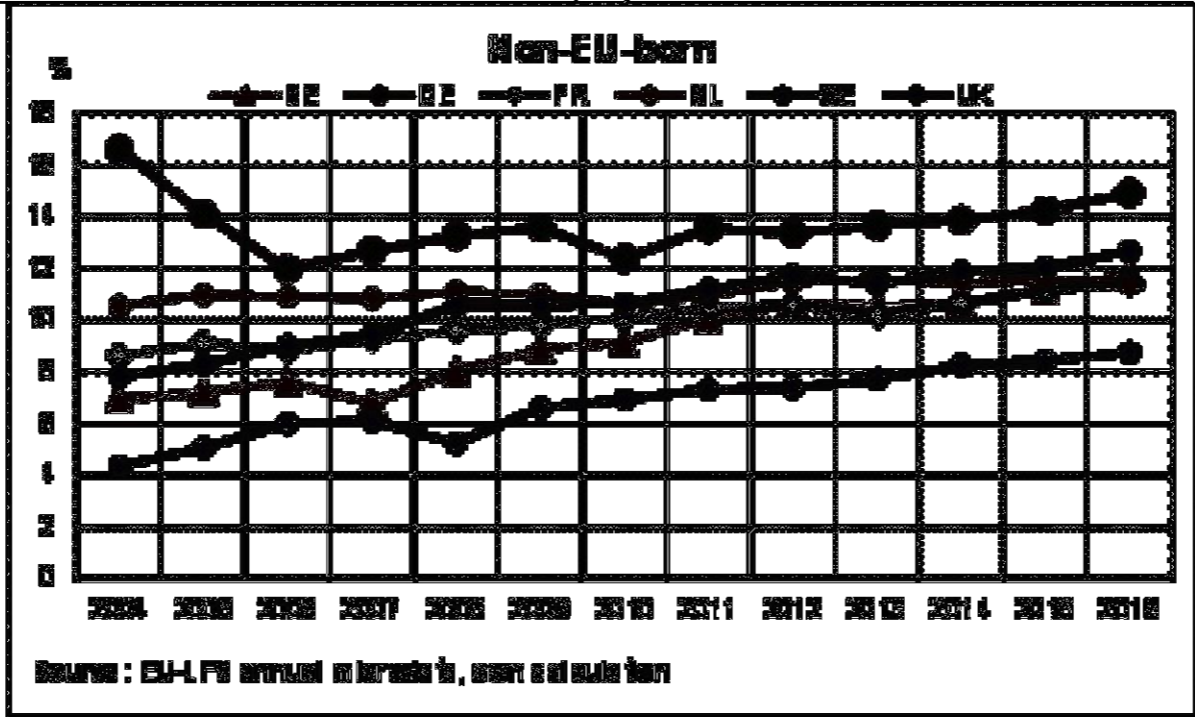
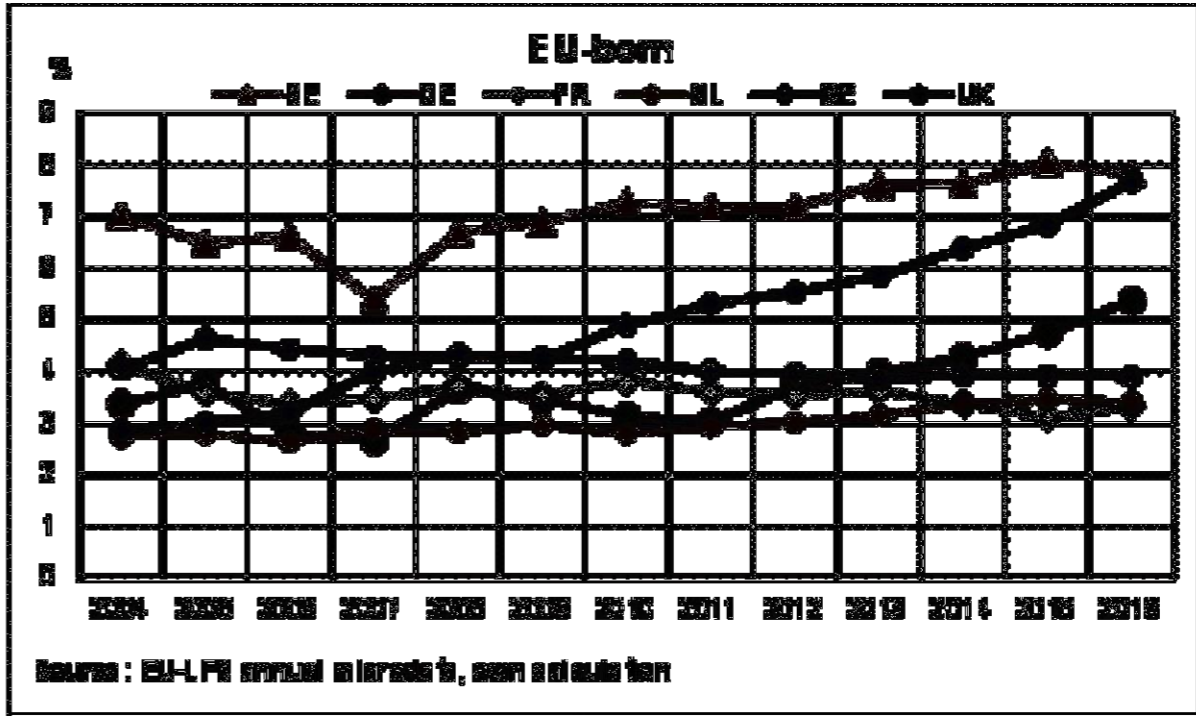
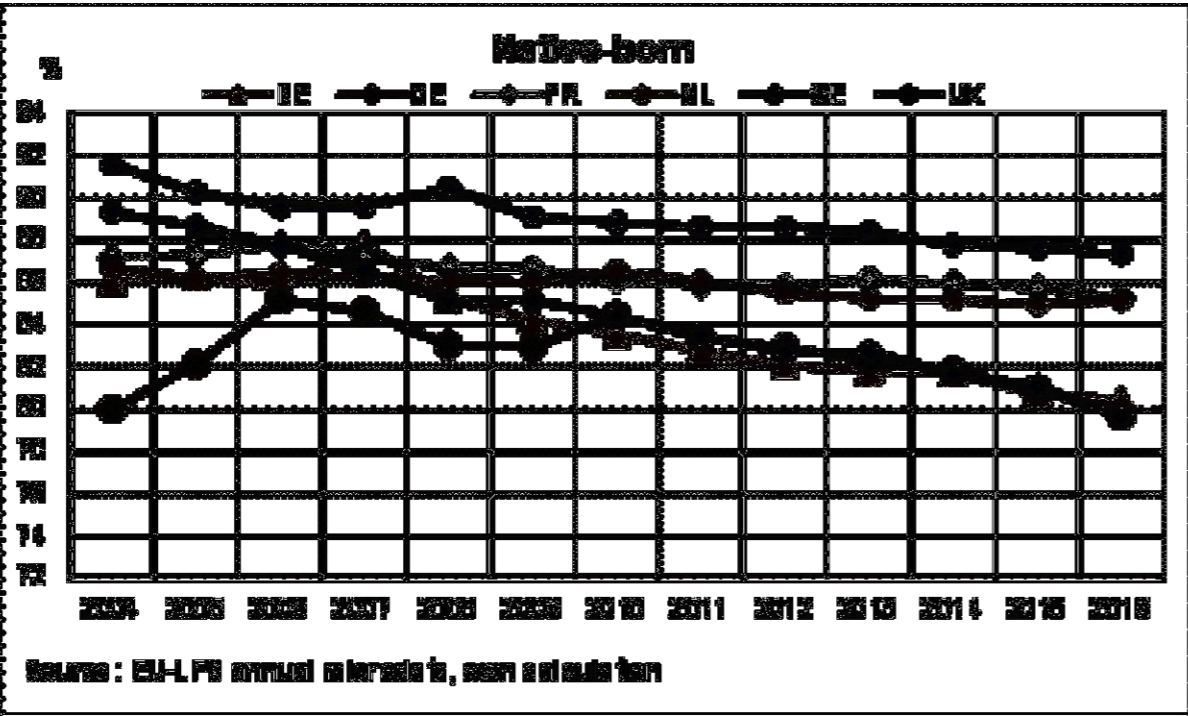
*Non-EU-born/national

*Non-EU-born/EU citizen

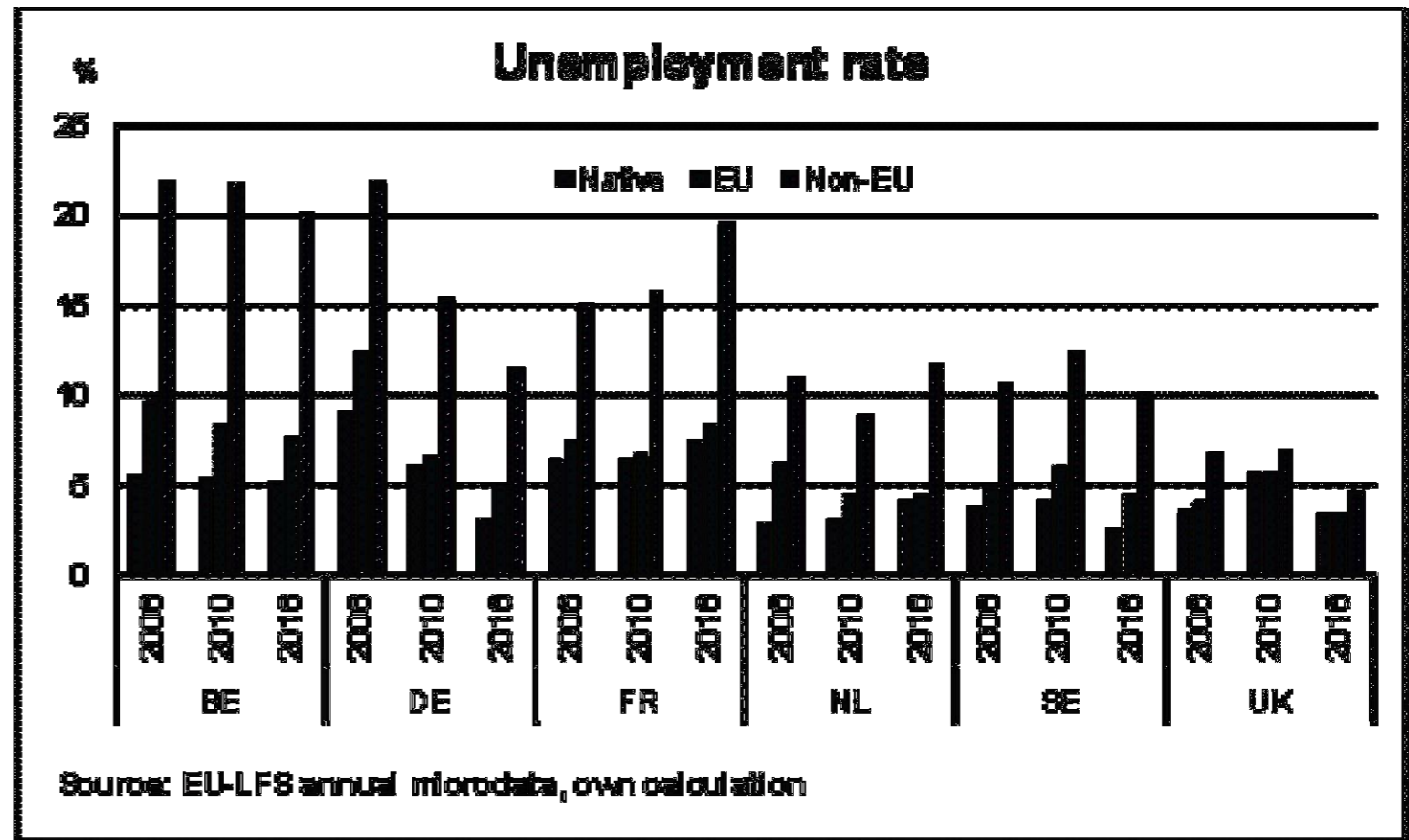
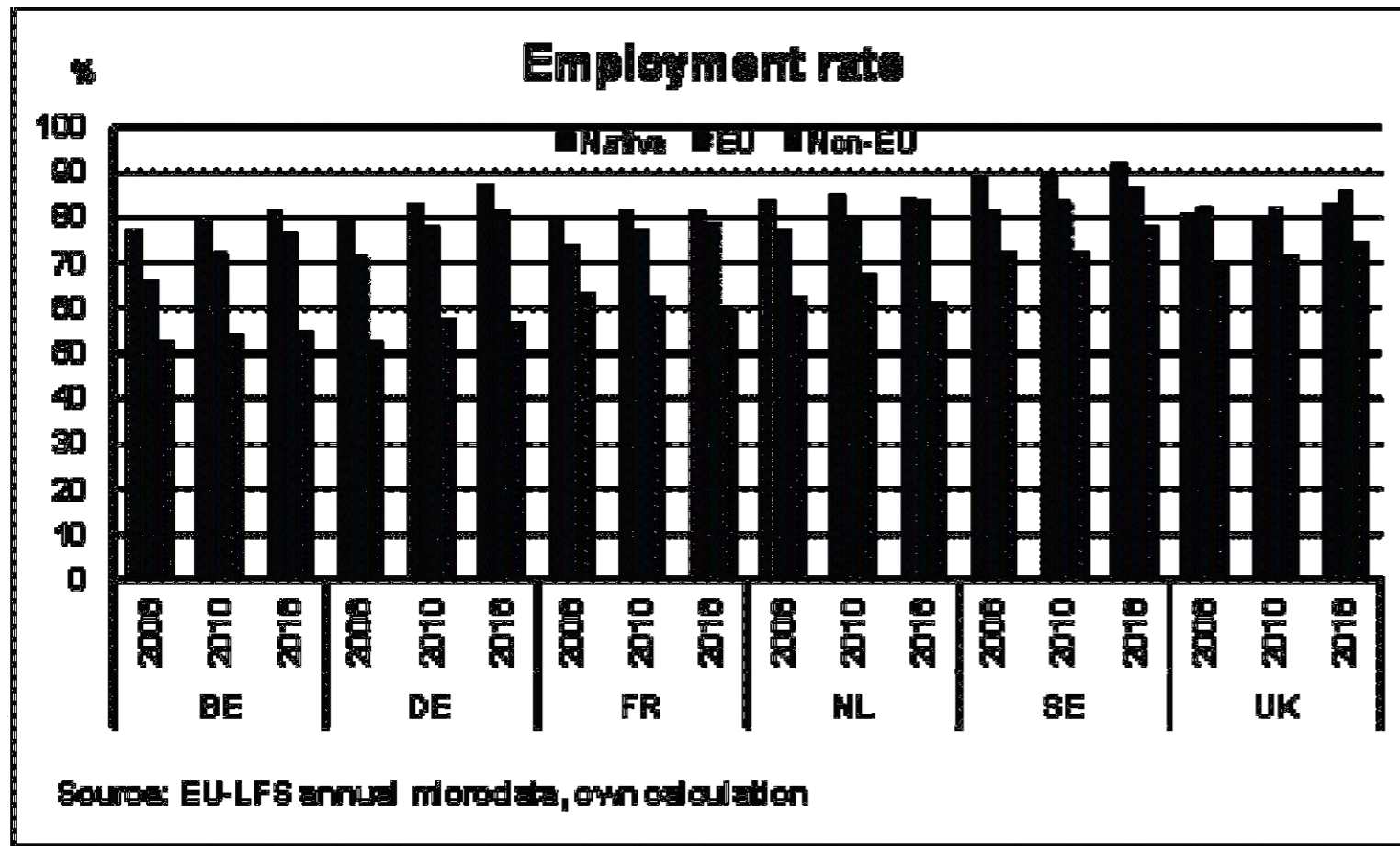
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Descriptive Findings

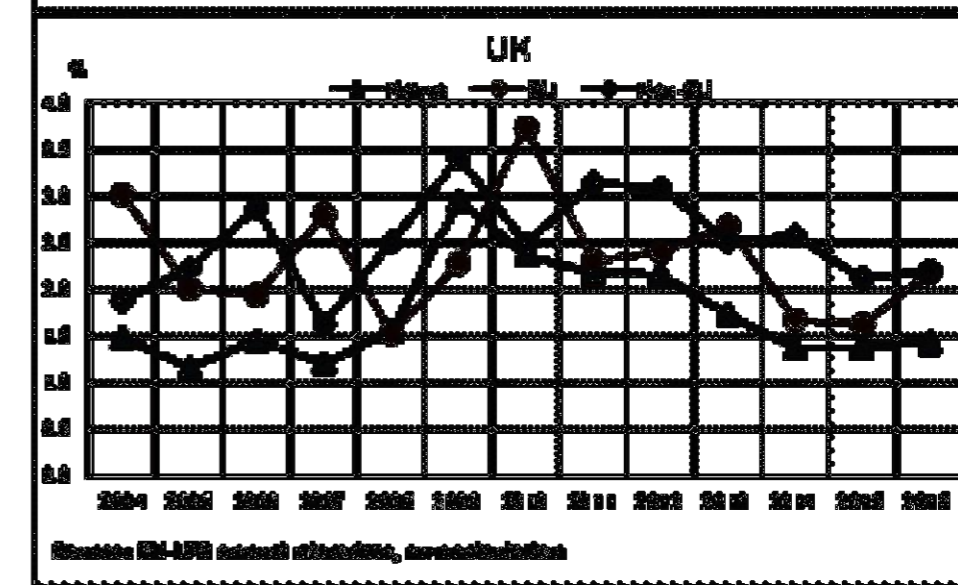
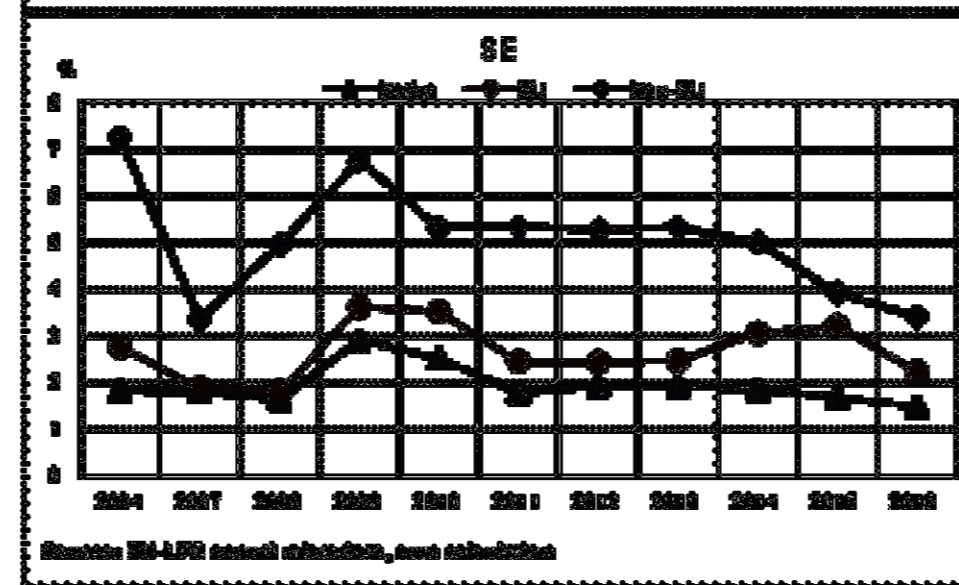
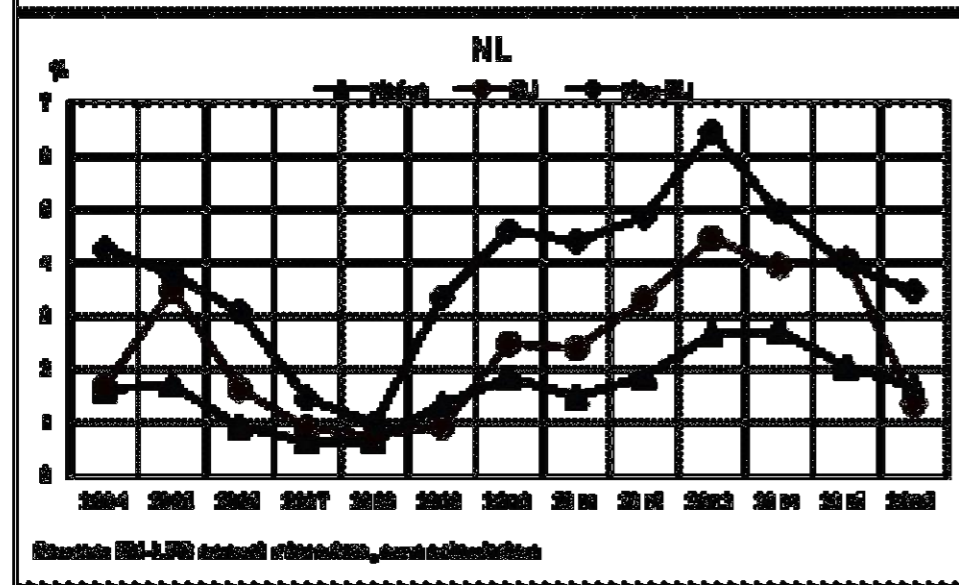
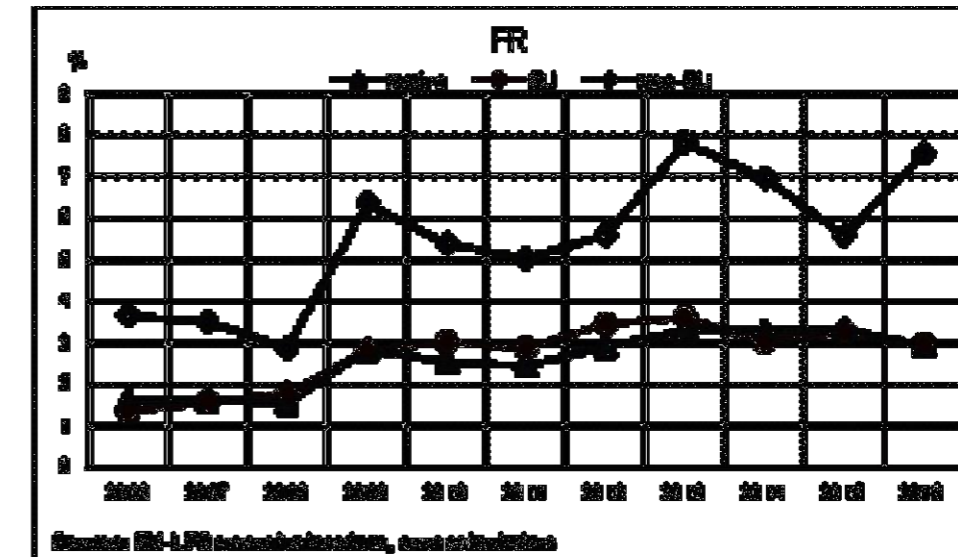
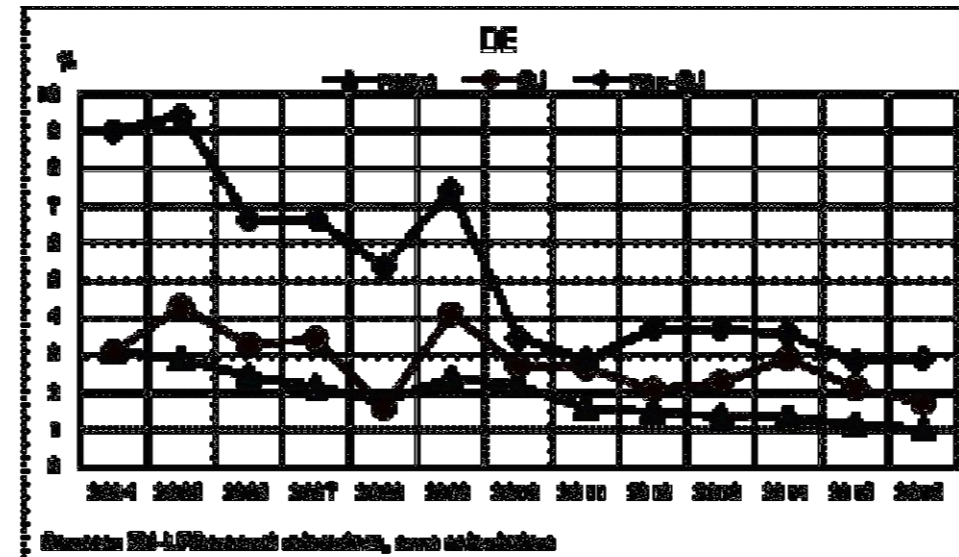
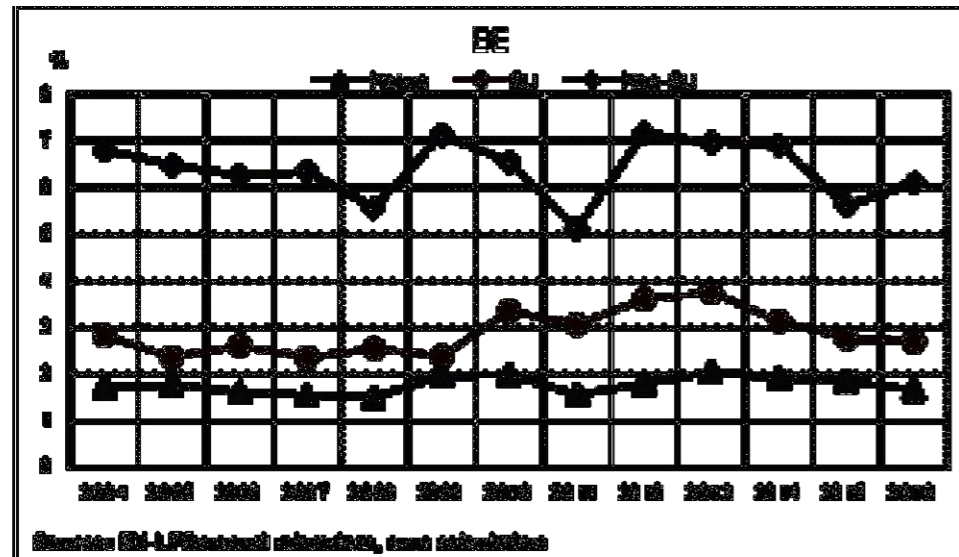
Share of native-born, EU-born and non-EU-born individuals in total population aged 25-59, 2004-16 (%)



Employment and unemployment rates at the time of the survey by country of birth, 2006-16 (%)



Proportion of employed individuals one year prior to the survey and unemployed at the time of the survey by country of birth, 2004-16 (%)



Proportion of employed individuals one year prior to the survey and unemployed at the time of the survey, who lost job because of the termination of the contract by country of birth, 2006-16 (%)

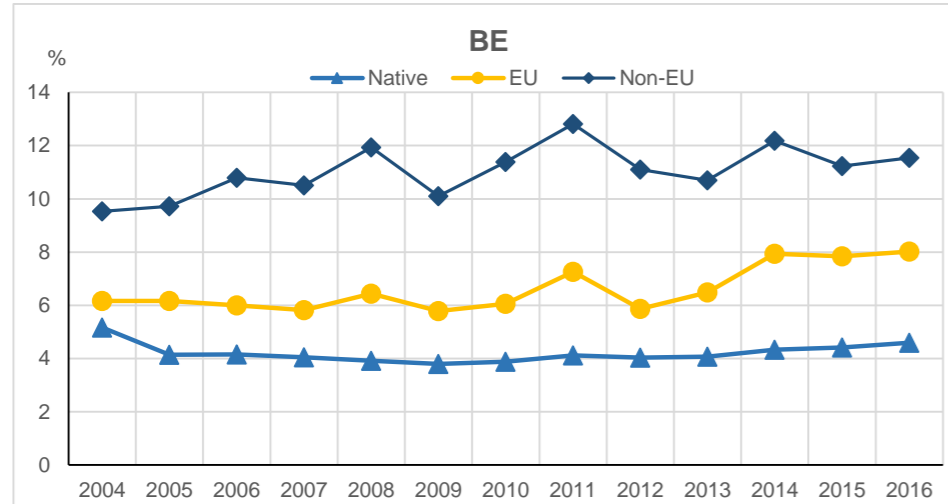
- Both EU-born and non-EU-born individuals were more likely to become unemployed because of the termination of the contract in some years.
- Not clear evidence for the differentiation between the native-born and foreign-born individuals

		Native	EU	Non-EU
BE	2006	34.6	26.6	31.9
	2010	29.2	16.7	31.4
	2016	38.0	34.5	48.9
DE	2006	23.2		
	2010	22.7		
	2016	19.7	24.7	17.3
FR	2006	44.6		49.6
	2010	40.9	31.8	41.8
	2016	47.5	48.5	53.4
NL	2006	78.4		
	2010	21.8	0.0	22.9
	2016	28.4	11.2	30.2
SE	2006			
	2010	40.2	39.9	42.9
	2016	37.9	51.7	44.8
UK	2006	14.7		19.7
	2010	19.3	24.3	23.8
	2016	19.3	30.7	12.1

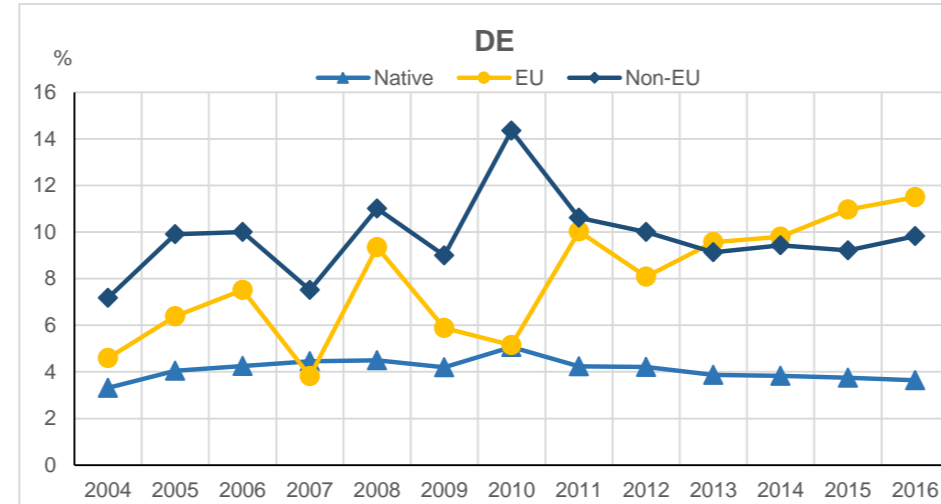
Note: Empty cells indicate the statistically unreliable findings because of insufficient number of observations. Cells with italic font indicate results with low statistical reliability due to small number of observations

Source: EU-LFS annual microdata, own calculation

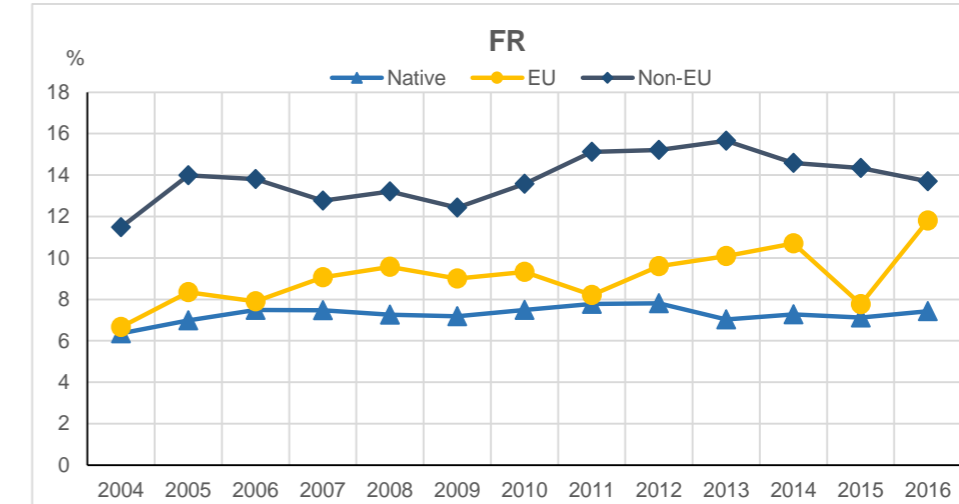
Proportion of employees at the time of the survey with temporary contracts with duration less than 12 months, 2004-16 (% of total employees)



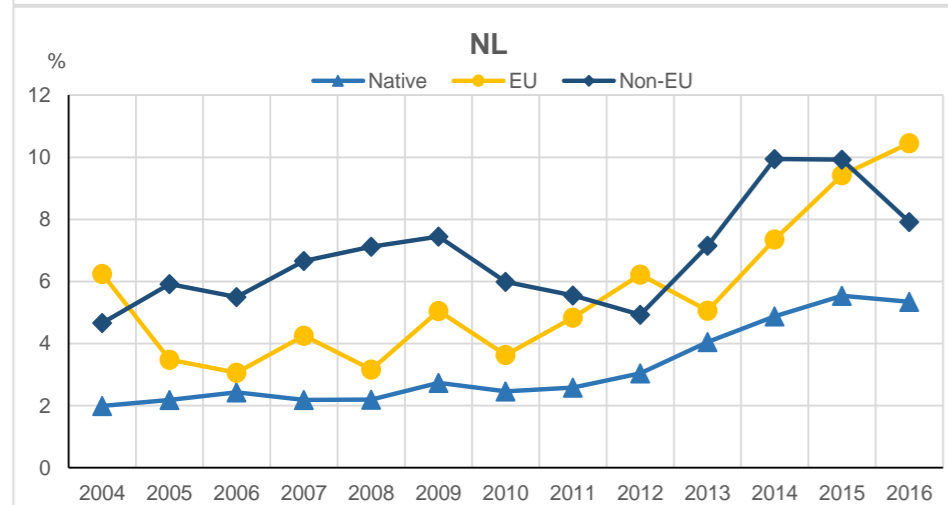
Source: EU-LFS annual microdata, own calculation



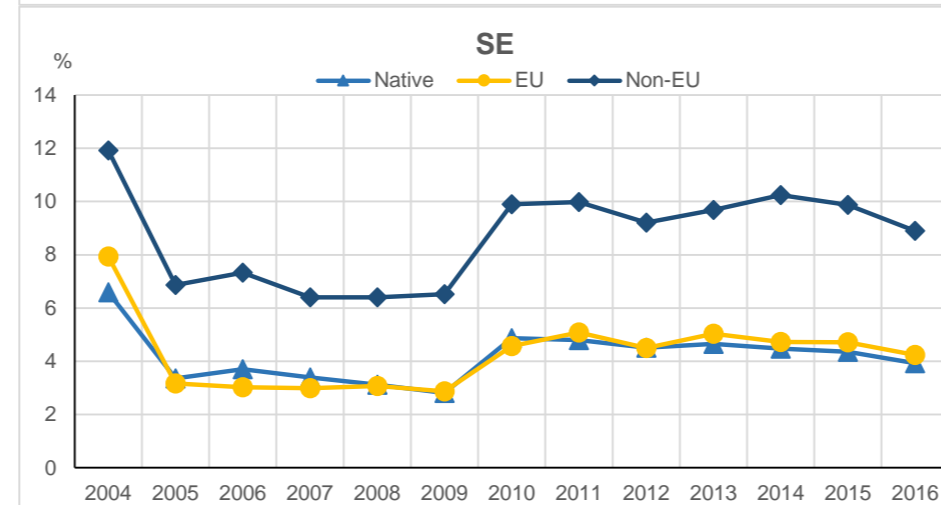
Source: EU-LFS annual microdata, own calculation



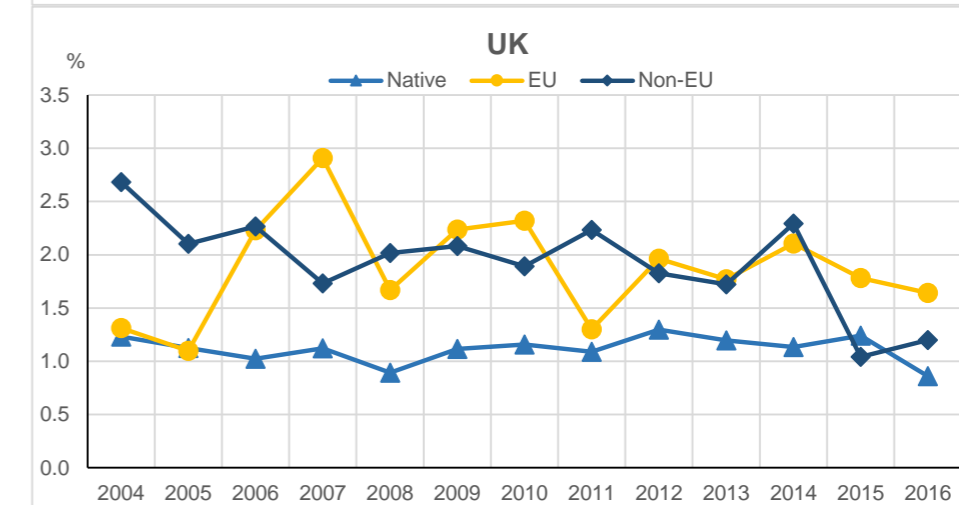
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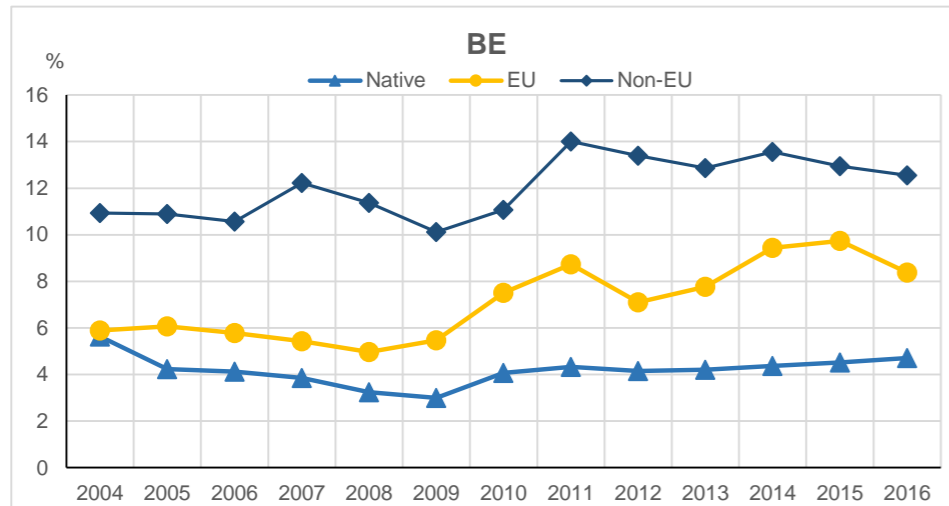


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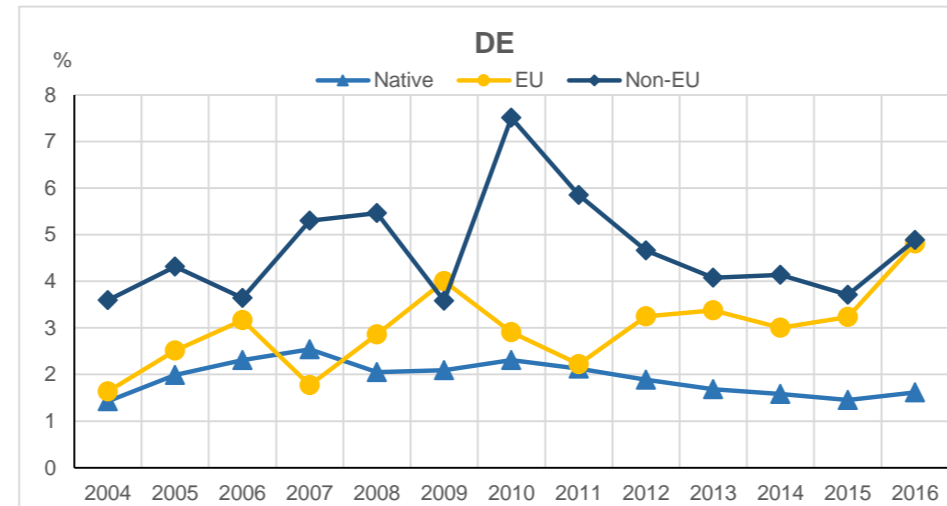


Source: EU-LFS annual microdata, own calculation

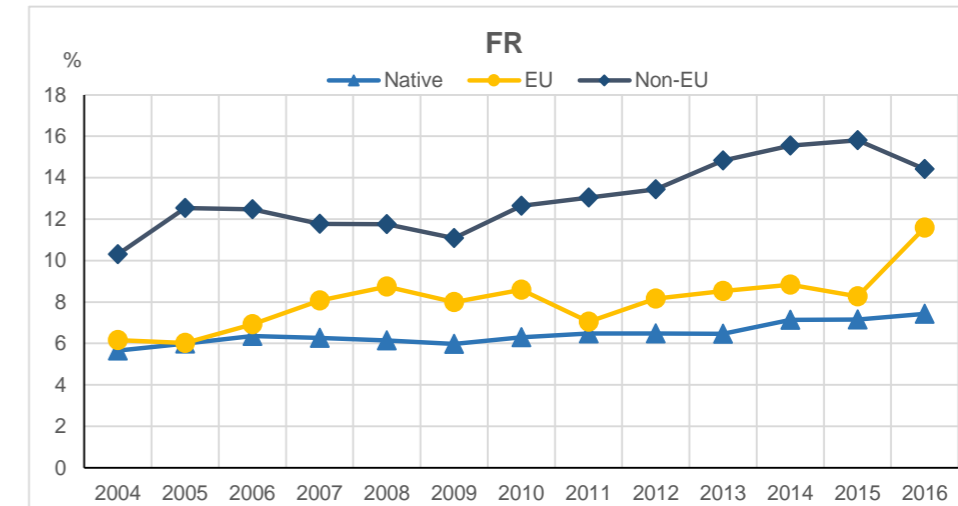
Proportion of employees with temporary contracts at the time of the survey, who had temporary contract because of being unable to find permanent jobs by country of birth, 2004-16 (% of total employees)



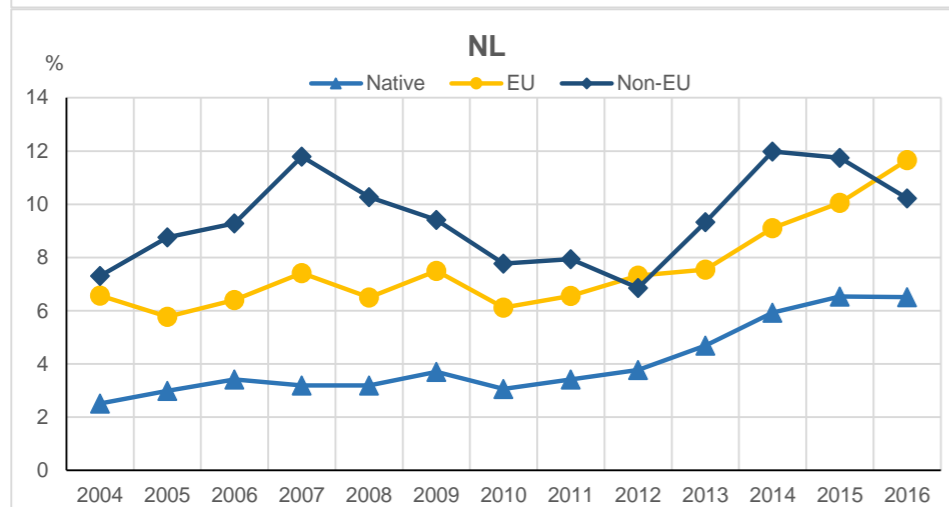
Source: EU-LFS annual microdata, own calculation



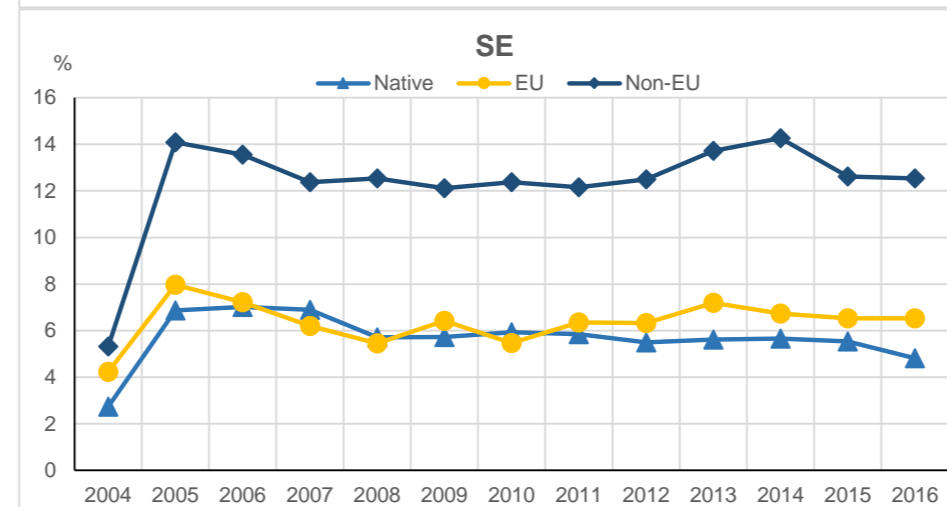
Source: EU-LFS annual microdata, own calculation



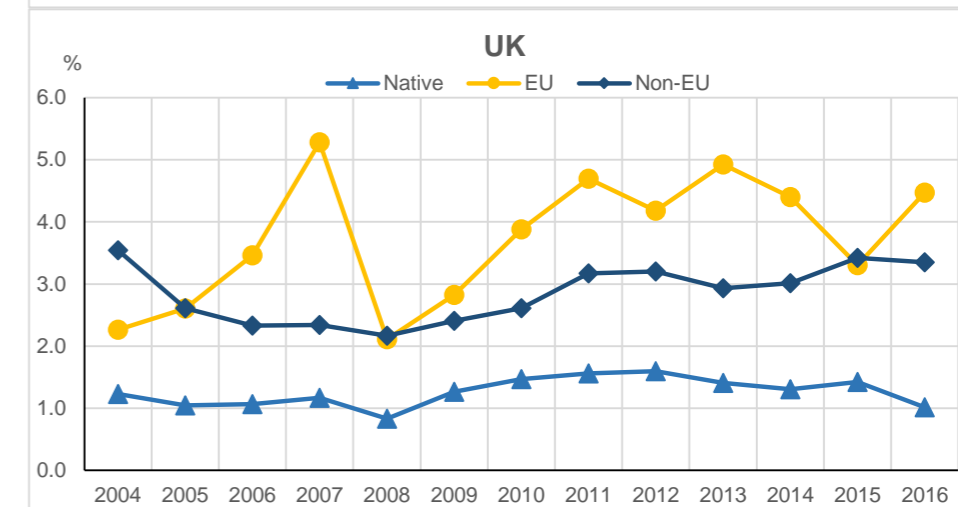
Source: EU-LFS annual microdata, own calculation



Source: EU-LFS annual microdata, own calculation



Source: EU-LFS annual microdata, own calculation



Source: EU-LFS annual microdata, own calculation

Proportion of employed individuals one year prior to the survey and unemployed at the time of the survey, who were living in households with zero-household work intensity by country of birth, 2006-16 (%)

- Non-EU-born individuals, who had become unemployed were more likely to live in the households, in which no adult was employed at the time of the survey in all study countries.
- The patterns differ for EU-born individuals; similar figures with the native-born population in BE and UK, while they have higher proportions in SE

		Native	EU	Non-EU
BE	2006	73.4	72.7	87.9
	2010	62.5	64.7	80.3
	2016	64.8	54.8	80.7
DE	2006	69.6		
	2010	63.8		
	2016	67.7	54.8	63.8
FR	2006	60.6		
	2010	58.4		59.5
	2016	67.5		75.8
NL	2006	57.5		83.3
	2010	59.9	69.0	73.3
	2016	50.8		71.8
SE	2006			
	2010	59.8	66.9	73.4
	2016	57.7	65.3	78.0
UK	2006	53.5		60.7
	2010	59.9	61.3	56.4
	2016	50.7	52.5	74.1

Note: Empty cells indicate the statistically unreliable findings because of insufficient number of observations. Cells with italic font indicate results with low statistical reliability due to small number of observations

Source: EU-LFS annual microdata, own calculation

Multivariate Analysis:

Multilevel mixed effects logistic regression

Methodology

- It aims to analyse the effects in the whole period-not in individual years by controlling the random effect of each year
- Although the number of units in the upper level (i.e. years) is limited, it is not totally rejected (Bell, Morgan, Schoeneberger, Kromrey, & Ferron, 2014; Huang, 2016, 2018b; McNeish & Stapleton, 2016)

$$\text{Logit}(\text{odds}) = B_{00} + (B_{10} + u_{1j}) + x_{ij} + u_{0j}$$

Dependent and independent variables

- **Dependent variable:**

- *Employment status in the reference week for the ones who were employed one year prior to the survey (0=Employed, 1=Unemployed)

- **Fixed effects:**

- *Gender (*men ref.*)

- *5-year age groups (*55-59 ref.*)

- *Marital status (*single ref.*)

- *Household work intensity of other adults in the household (*1.00 ref.*)

- *Highest educational attainment level (*tertiary education ref.*)

- *Status at work last year (*self-employed ref.*)

- *Occupation last year (*ISCO-01 ref.*)

- *Field of economic activity last year (*NACE O-U ref.*)

- *Years lived in the current country of residence (*10+ years ref.*)

- *Migration background (*native-born/national ref.*)

- **Random effects:**

- *Year

- *GDP per head change relative to the previous year

The period of the analysis

- **For BE, DE and UK:** all years between 2004 and 2016; all independent variables are included
- **For FR and NL:** all years between 2006 and 2016; no ISCO information in job during previous year before 2006; full logistic regression model with pooled data for FR 2012-16 and for NL 2008-16 to measure the effect of occupation
- **For SE:** 2004 and all years between 2007 and 2016; ISCO, NACE and STAPRO in job during previous year are missing in 2005 and 2006. Household variables are excluded from the model; related variables are missing in SE special files.

Variance and ICC for random effects (Level 1=Year)

- The variance of the Level 1 variable is very small in BE
- The biggest variance is observed in SE
- ICC alters significantly only in SE after involving annual GDP per head change since last year

		BE	DE	FR	NL	SE	UK
Empty model	var(cons)	0.008	0.105	0.087	0.111	0.403	0.057
	ICC	0.002	0.031	0.026	0.033	0.109	0.017
Model with only fixed effects	var(cons)	0.009	0.112	0.095	0.122	0.176	0.057
	ICC	0.003	0.033	0.028	0.036	0.108	0.017
Full model with $\Delta_{GDP_{ph}}$	var(cons)	0.008	0.095	0.104	0.094	0.072	0.059
	cov(gdpphch,_cons)	-0.007	-0.036	-0.084	-0.040	-0.064	-0.046
	ICC	0.002	0.028	0.031	0.028	0.021	0.018
N		225,434	589,775	308,957	144,286	455,616	179,186

Fixed effects odds ratios for the mixed effects logistic regression models (full model)

	BE	DE	FR	NL	SE	UK
Female	0.988	0.836***	1.063**	1.027	0.912*	0.693***
Male (ref.)						
25-29	4.556***	1.610***	3.027***	0.583***	1.394**	1.487***
30-34	3.671***	1.374***	2.425***	0.744**	0.965	1.256**
35-39	2.822***	1.158***	1.955***	0.798*	0.830	1.078
40-44	2.349***	1.136***	1.590***	0.824*	0.910	1.087
45-49	1.932***	1.039	1.210***	0.850*	1.127	1.081
50-54	1.460***	0.998	1.038	0.890	0.872	0.986
55-59 (ref.)						
Widowed/divorced/separated	0.917*	1.075*	1.018	0.918	0.871	1.033
Married	0.890**	0.824***	0.739***	0.723***	0.568***	0.647***
Single (ref.)						
Single parent	1.091	1.322***	1.190***	0.948		1.005
Couple without child	0.765**	0.853**	1.016	0.785		0.762**
Couple with child(ren)	0.597***	0.649***	0.870	0.648*		0.785
Other with children	0.819	0.839	1.276**	1.000		0.832
Other	0.832**	0.895**	1.279***	1.016		1.012
Single adult (ref.)						
Ind. is the only 20-64 in the HH	2.021***	1.484***	1.424***	1.084		1.262**
0.00	1.955***	2.023***	1.602***	1.066		2.068***
0.01-0.34	1.273***	1.084*	1.129*	0.767***		1.366***
0.35-0.64	1.231**	1.097	1.087	0.803		1.204*
0.65-0.99	0.939	0.615***	0.989	0.473**		1.091
1.00 (ref.)						
Low	1.874***	1.890***	1.905***	1.655***	1.758***	1.202**
Medium	1.238***	1.394***	1.451***	1.382***	0.954	1.100*
High (ref.)						

Fixed effects odds ratios for the mixed effects logistic regression models (cont.)

	BE	DE	FR	NL	SE	UK
Employee	2.483***	2.544***	2.028***	13.158***	2.627***	1.711***
Family worker	0.262**	0.629	1.194	1.484	1.000	4.959***
Self-employed (ref.)						
ISCO-9	1.411***	2.453***			2.399***	2.167***
ISCO-8	1.254**	1.541***			2.644***	1.699***
ISCO-7	1.121	1.535***			1.973***	1.133
ISCO-6	1.409*	1.518***			3.633***	0.882
ISCO-5	1.408***	1.658***			1.990***	1.561***
ISCO-4	1.198**	1.329***			1.831***	1.362***
ISCO-3	0.969	0.916			1.163	1.124
ISCO-2	0.788**	0.889			1.081	0.859*
ISCO-1 (ref.)						
A/A-B	1.512*	2.760***	2.585***	1.705*	0.992	0.834
B+E/C-E	1.836***	1.711***	3.015***	2.622***	1.295	2.325***
F/F	2.478***	3.732***	4.188***	3.348***	1.246	2.833***
G/G	2.412***	2.358***	3.305***	3.034***	1.531**	1.962***
I/H	3.170***	3.520***	5.001***	3.141***	2.605***	3.285***
H-J/I	1.735***	2.193***	2.371***	2.765***	1.120	1.818***
K/J	1.282*	1.129	1.335**	3.654***	0.905	2.007***
L-N/K	2.164***	3.384***	3.177***	2.919***	1.712***	2.392***
P/M	1.709***	1.856***	2.281***	1.274	1.161	1.161
Q/N	1.341***	1.726***	1.716***	1.313*	0.796*	1.332**
R-U/O-P	2.438***	2.626***	3.722***	2.039***	2.213***	1.979***
O-U/L-Q (ref.)						

Fixed effects odds ratios for the mixed effects logistic regression models (cont.)

	BE	DE	FR	NL	SE	UK
0-4	0.955	1.349**	1.371**	2.123	1.537	0.800
5-9	1.022	1.620***	1.169	1.171	2.174***	0.686**
10+ years (ref.)						
Native/EU	1.707***	1.188	0.883	2.140	1.105	0.979
Native/non-EU	2.954***	2.058***	2.453*	2.047	1.807	1.086
EU/citizen	1.556***		1.187	1.614*	1.272	1.840***
EU/EU	1.403***		0.890	0.872	1.152	1.299*
EU/non-EU	1.621		1.252	1.000	1.000	0.586
Non-EU/citizen	2.400***	1.329***	1.549***	1.674***	2.054***	1.448***
Non-EU/EU	2.897***	1.026	2.649***	0.683	3.167	3.006***
Non-EU/non-EU	3.065***	1.619***	1.855***	2.230***	1.729**	1.726***
Native/citizen (ref.)						
Constant	0.001***	0.002***	0.002***	0.001***	0.001***	0.006***

Note: Significant at *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

No detailed country of birth data for DE; "Non-EU" before the slash refers all foreign born individuals. No household level data in the core SE data sets. The analyses cover 2006-16 period in FR and NL. No data for years 2005 and 2006 in SE.

The order of independent variables: Sex; 5-year age groups; marital status; type of household; household work intensity; any retired member in the household; highest educational level attained; status at work; occupation (ISCO-1 digit); field of economic activity (NACE Rev1 and NACE Rev 2 1-digit); years lived in the country; migration background.

Source: Eurostat EU-LFS annual microdata, author's own calculation.

Odds ratios for the migration background variables for the logistic regression models by pooled data

	BE	DE	FR	NL	SE	UK
0-4	0.992	1.241	1.031	1.639	1.412	0.772
5-9	0.997	1.544***	1.083	0.875	2.057***	0.607**
10+ years (ref.)						
Native/EU	1.827***	1.127	1.150	1.929	0.937	0.547
Native/non-EU	3.223***	2.196***	3.673*	3.795	1.622	1.022
EU/citizen	1.695***		1.021	1.665*	1.262	1.742***
EU/EU	1.450***		0.903	1.067	1.284	1.368*
EU/non-EU	1.507		1.000	1.000	1.000	0.704
Non-EU/citizen	2.425***	1.360***	1.559***	1.777***	2.107***	1.420***
Non-EU/EU	2.939***	0.985	2.641*	1.210	3.157	2.941***
Non-EU/non-EU	3.094***	1.649***	1.770***	2.541***	1.900**	1.835***
Native/citizen (ref.)						
Constant	0.001***	0.001***	0.002***	0.000***	0.001***	0.005***

*Note: Significant at *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$*

No detailed country of birth data for DE; "Non-EU" before the slash refers all foreign

The order of independent variables: Sex; 5-year age groups; marital status; type of

Source: Eurostat EU-LFS annual microdata, author's own calculation.

Odds ratios of the occupation one year prior to the survey for the logistic regression models, FR and NL

Note: The logistic regression models for these two countries have been applied by using all other independent variables for multilevel mixed effects logistic regression models. In this table only the odds ratios for the occupation in job during previous year variable is presented.

	FR	NL
ISCO-9	1.447*	1.067
ISCO-8	1.796***	0.827
ISCO-7	0.997	1.133
ISCO-6	1.750*	0.666
ISCO-5	1.459**	1.060
ISCO-4	1.199	1.326*
ISCO-3	1.041	0.835
ISCO-2	0.654**	0.571***
ISCO-1 (ref.)		
2008		0.652**
2009		1.263
2010		1.564**
2011		0.885
2012	0.303***	1.309*
2013	1.123	1.606***
2014	1.059	1.768***
2015	1.080	1.329*
2016 (ref.)		
Constant	0.004***	0.000***

*Note: Significant at *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$*

Source: Eurostat EU-LFS annual microdata, author's own calculation.

Conclusion and Discussion

- A significant variation in becoming unemployed between native-born employed people and their foreign-born counterparts even after controlling all other labour-market, socio-demographic and household characteristics
- Foreign-born employees are more likely to have fixed-term contracts; and they are more likely to have temporary jobs because of being unable to find permanent jobs.
- Further segregation between the EU-born and non-EU-born immigrants, the latter group emerges as the least advantageous population in having the job security.
- Having the nationality of the host country has a minor role in being more likely to remain employed compared to other immigrants
- Native-born individuals with other countries' citizenship are also disadvantageous
- Combination of various labour market and socio-demographic characteristics increases the vulnerability of migrants in becoming unemployed

Conclusion and Discussion (cont.)

- Household work intensity has been found as one of the important factors in becoming unemployed in these countries
- The effects of gender, age groups and years lived in the host country change across countries
- Household composition and marital status have certain impact on becoming unemployed in the year after

Conclusion and Discussion (cont.)

- More detailed data for the previous job/the job one year prior to the survey (type of contract, full-time/part-time, years spent in that job, etc.) is necessary
- Country of birth of parents will allow the analysis of the trends for the second generation
- Further analysis on the effects of household dynamics
- The effect of return migrants (especially for the EU citizens who are commuting/working in temporary jobs/unregistered jobs) is not feasible to measure by using EU-LFS, if they left the country after losing their jobs. It is likely to increase the gap between the native-born population and migrants
- The effect of informal sector, household income level and social benefits systems are missing
- Better categorisation for the reason for leaving the job (the share of “Other” category is too large)

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Thank You

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