

How did EU Eastern enlargement affect migrant labor supply in Austria?

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Introduction

- In 2004 EU admitted 8 new member countries in Central and Eastern Europe, 4 countries share common border with Austria
- What are the effects on the Austrian labor market?
- Labor market impacts were widely discussed before 2004
- Substantial wage differences raised concerns about labor supply shock
- → Austria and Germany opted for 7-year transition period with controlled immigration rules
- In recent years, rising numbers of immigrants from Eastern European countries have returned to public attention

Focus of this talk

- Development of labor supply from Central, Eastern and Southeastern European EU Member States in the Austrian labor market
 - ▶ Define labor supply as stock of employed workers
- Focus on period around EU entry and free labor market access to Austria
 - ① How did the transition rules affect trend in stock of immigrant workers?
 - ② What happened to the composition of immigrant workers?
 - ③ In which industry do immigrants work
 - ④ Where do immigrants locate?
- Exploit observed patterns to identify the effect of migration on Austrian labor market

EU 2004-2013 enlargement and labor market access

Group	EU accession date	Free movement of workers to Austria
EU-8	May 1 2004	May 1 2011
EU-2	January 1 2007	January 1 2014
Croatia	July 1 2013	No later than July 1 2020

- EU-8: Czech Rep., Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia
- EU-2: Romania, Bulgaria
- Option to restrict labor market access for workers from new member countries up to 7 years
- Austrian (and German) governments opted for restriction with maximum transition period

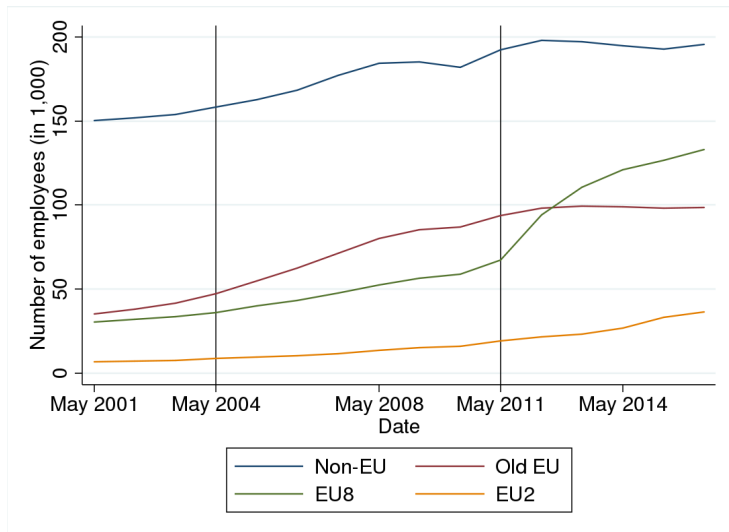
EU enlargement and labor market access

- ① Before EU entry
 - ▶ Work permit required
 - ▶ Public Employment Service need to confirm that no equally qualified Austrian worker available
 - ▶ Simplified application procedures for specific groups, mainly high-skilled or seasonal workers
- ② During transition period
 - ▶ Work permits still required for low-skilled workers, but now priority given over workers from non-EU countries
- ③ End of transition period
 - ▶ Unrestricted access to the Austrian labor market in line with the fundamental principle of free movement of workers in the EU

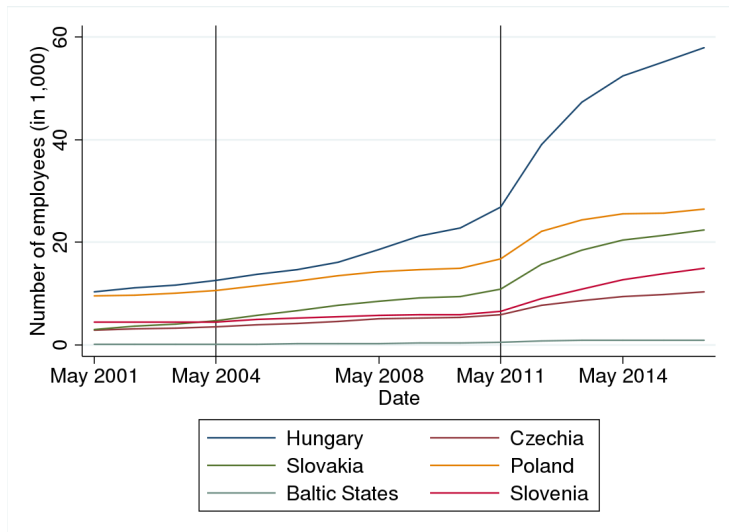
Data and Sample

- Austrian Social Security Database
- Registered employment in blue and white collar occupations
- Annual (quarterly) panel at the individual level
- Aggregate by nationality, industry, region
- Three periods
 - ▶ Period 0: before EU entry May 2001 – May 2004
 - ▶ Period 1: transition May 2004 – May 2011
 - ▶ Period 2: full labor market access May 2011 – May 2016

Number of foreign nationals employed in Austria, 2001-2016



Number of EU8 nationals employed in Austria, 2001-2016



Change in worker and job characteristics

	EU-8	Austrian
Female (%)	-0.2 [38.3]	0.6 [47.0]
Age in years	-1.03 [39.2]	0.83 [39.3]
Blue-Collar (%)	3.8 [73.8]	-1.7 [36.7]
Employment during 3-year time period (%)	-4.7 [72.3]	0.5 [87.5]
Real daily earnings EUR (year 2000 prices)		
Mean	-3.8 [56.6]	0.1 [71.2]
10th percentile	-2.6 [27.6]	-0.1 [30.9]
90th percentile	-7.6 [87.7]	0.1 [124.7]

Notes: Change from 3 years before to 3 years after May 2011, mean before May 2011 in brackets

Mean Age of Migrant Workers

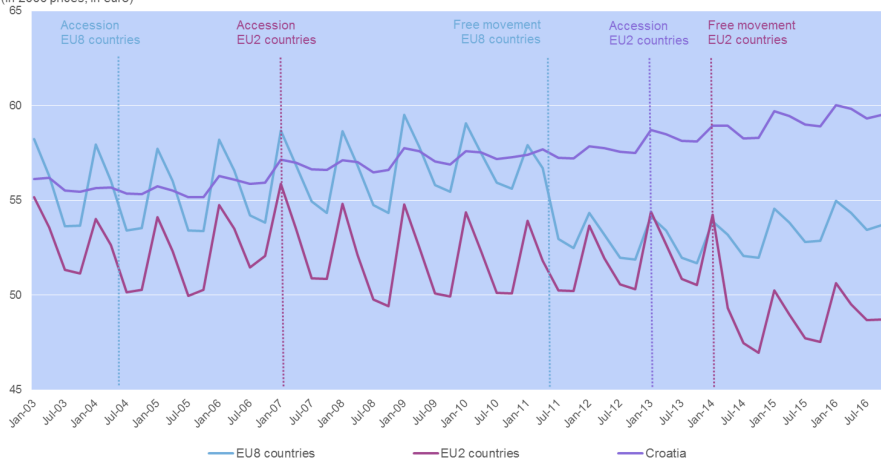
Mean age in years



Source: Austrian Social Security Data. Authors' own illustration.

Mean Wage of Migrant Workers

Average daily wage
(in 2000 prices, in euro)



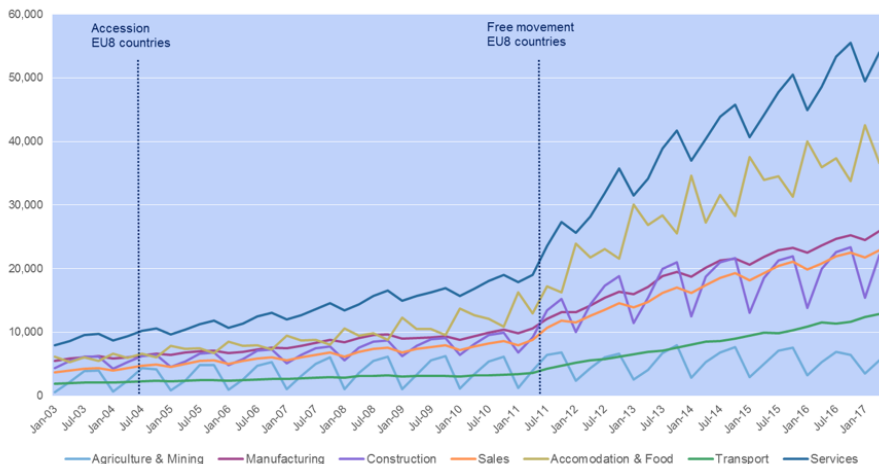
Source: Austrian Social Security Data. Authors' own illustration.

EU-8 employees across industries

Figure 4

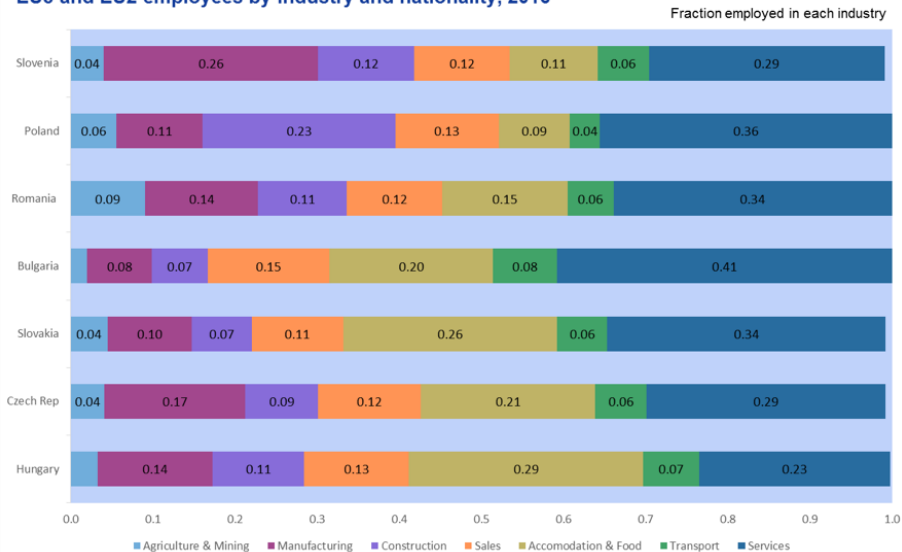
Number of employees in Austria from EU8 countries by industry, 2003-2017

Number of employees



Source: Austrian Social Security Data. Authors' own illustration.

EU8 and EU2 employees by industry and nationality, 2016



Source: Austrian Social Security Data. Authors' own illustration.

Change in firm characteristics

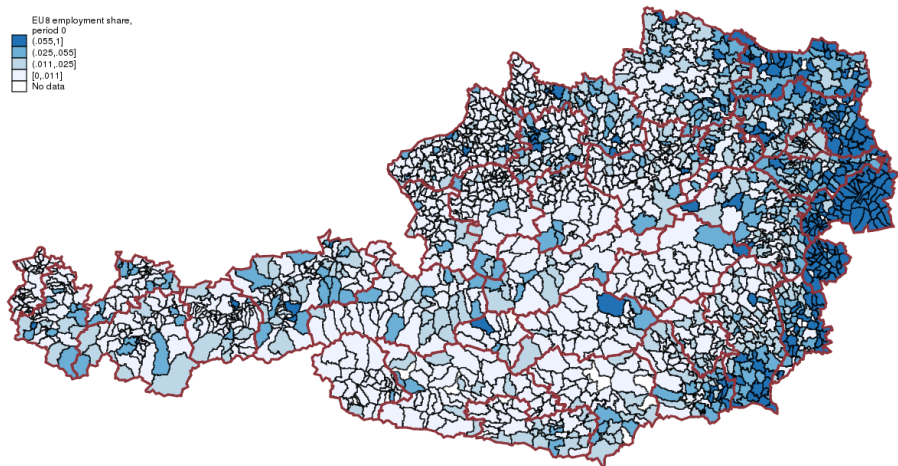
	EU-8	Austrian
Firm age in years	-0.4 [16.4]	1.5 [20.9]
Firm younger than 3 years (%)	0.9 [16.8]	1.9 [10.1]
Number of blue- and white-collar workers at firm	-111 [583]	57 [1,047]
Non-Austrian workers at firm (%)	6.1 [45.0]	1.2 [13.9]
Workers with same nationality at firm (%)	2.6 [24.2]	-0.7 [84.3]
Mean mthly. earnings at firm (EUR, year 2000 prices)	-67.7 [1,532]	-2.6 [1,812]

Notes: Change from 3 years before to after May 2011; mean before May 2011 in brackets

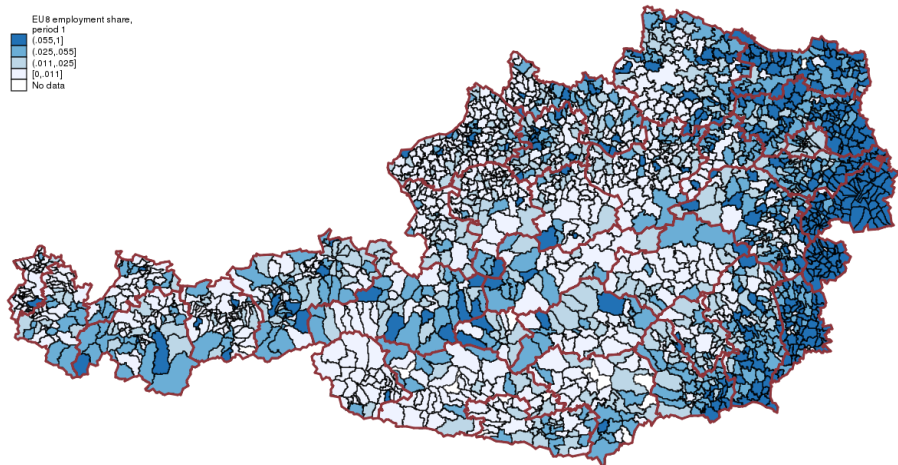
Identification at Regional Level

- Compute share of immigrant employees at the community level (GKZ)
- Show regional distribution of workers by country group and over time
- Exploit immigrant density by distance from national border
- Dustmann, Schönberg, Stuhler, QJE, 2017: commuters at the German Czech border
- Beerli, Peri, Siegenthaler, Ruffner: immigration restrictions at the Swiss border

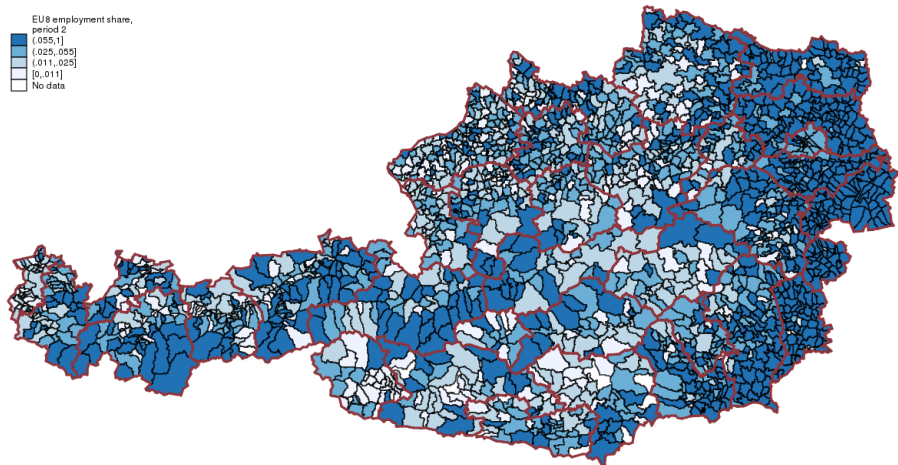
EU8 employment shares, period 0: 2001 - 2004



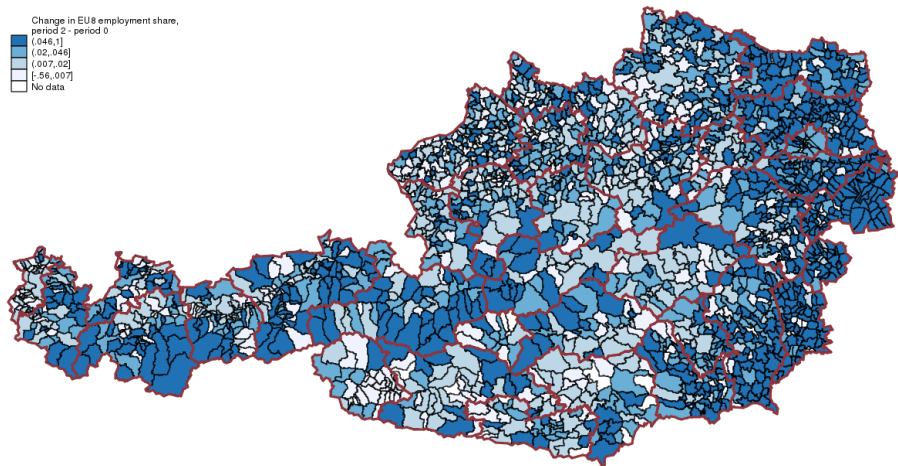
EU8 employment shares, period 1: 2004 - 2011



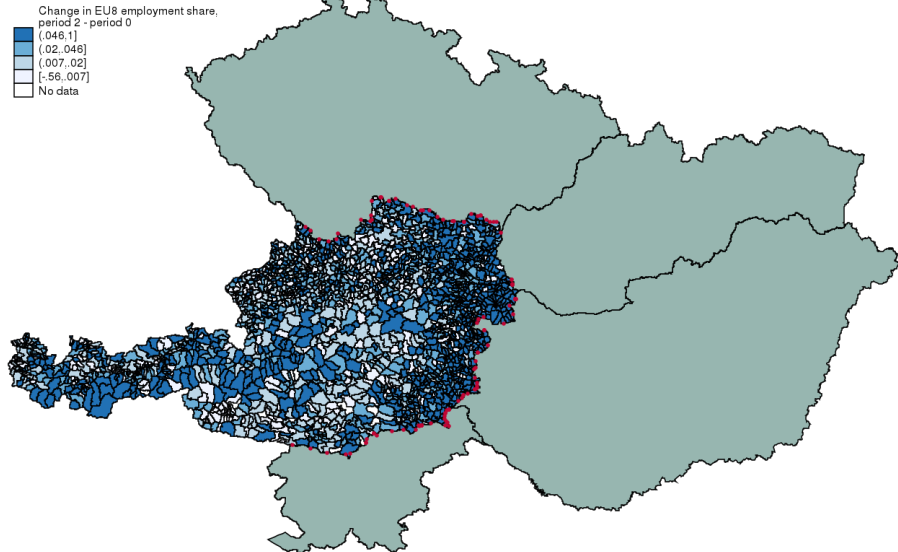
EU8 employment shares, period 2: 2011 - 2016



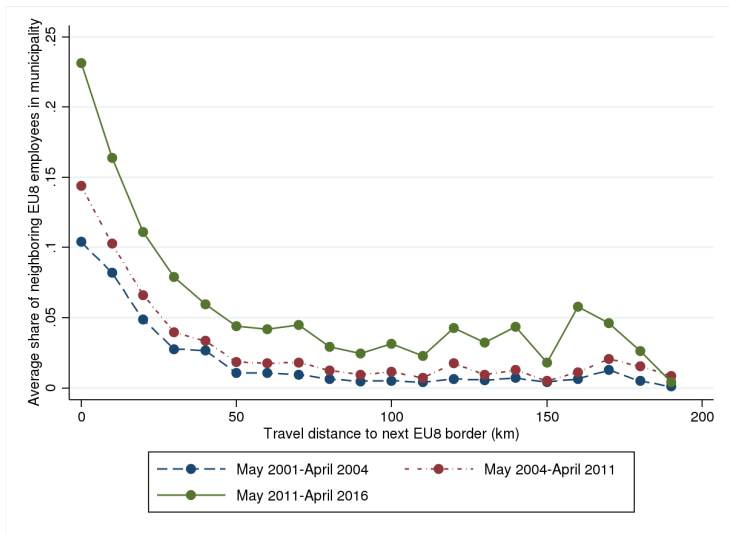
Difference 2001-2004 and 2011 - 2016



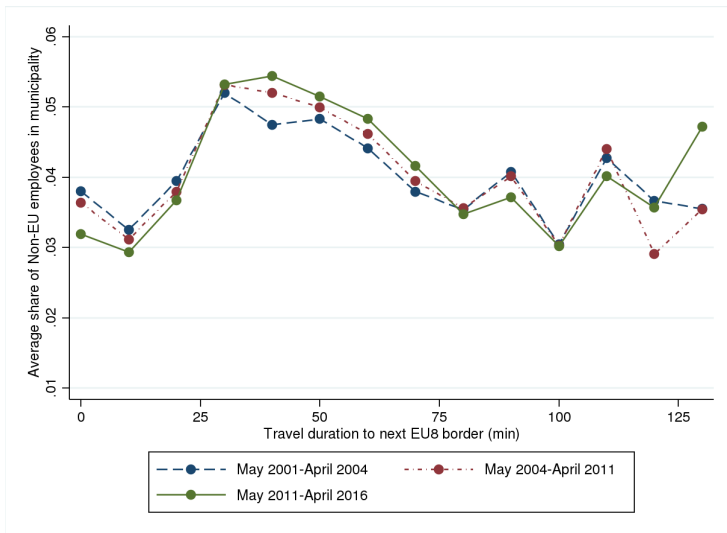
Distance from EU8 border crossings



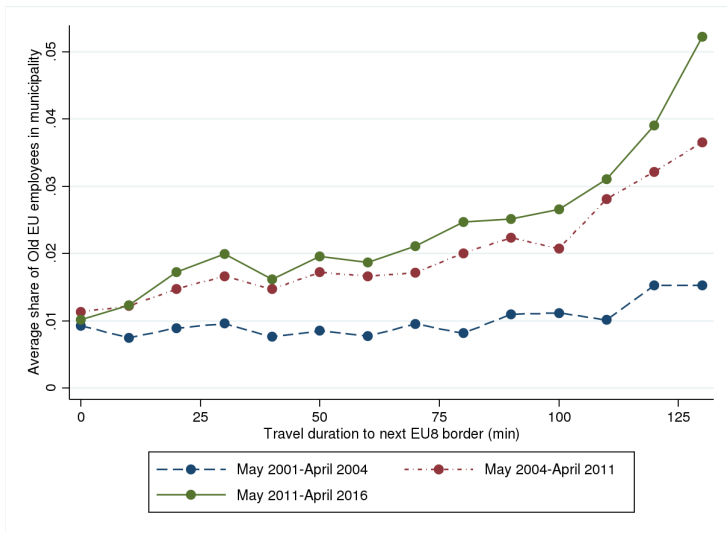
Share of EU8 employees from neighbor countries by distance



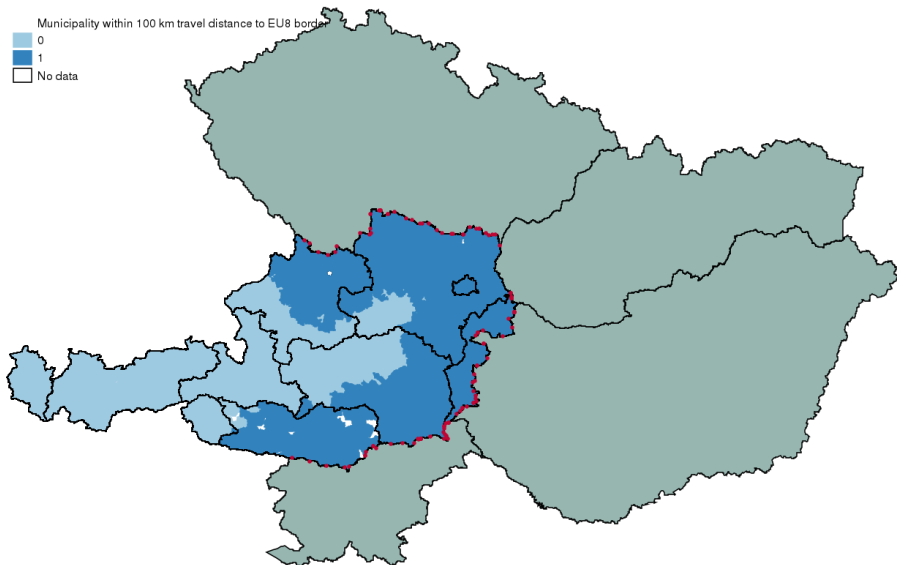
Share of Non-EU employees from neighbor countries by distance



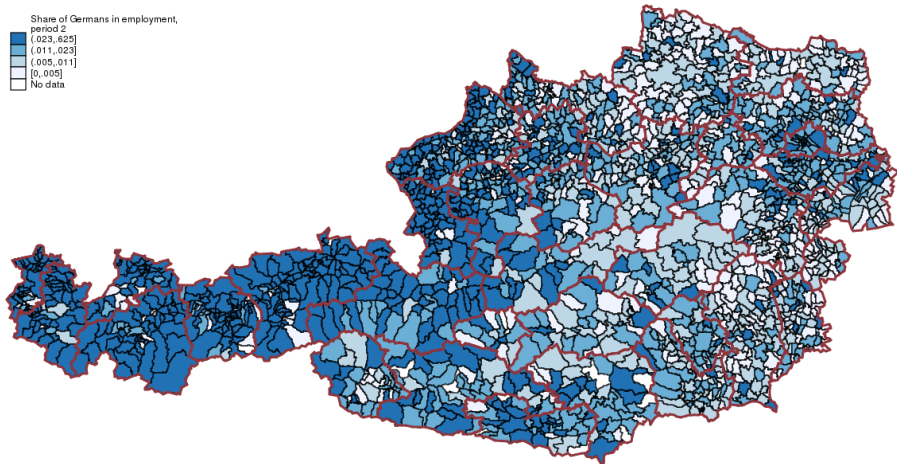
Share of Old-EU employees from neighbor countries by distance



100 km distance from nearest border crossing



German employment shares, 2011 - 2016



Outlook

- Diff-in-Diff
- Compare communities close to the border (<50 km) and farther from the border (>50 km) before and after 2011
- Outcomes:
 - ▶ wages and employment of native workers, immigrant groups
 - ▶ inflows and outflows to regions
 - ▶ firm responses: e.g. new entries, expansions, hiring