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"*The average cityhuman spends* **10,634 hours** *travelling to and from work.*
Yes. Exactly.
That's **more than a year** *of your entire life!*"
(City Mapper App)

Migration and commuting

- Although migration has been traditionally seen as a way of addressing labour mismatch, **inter-regional migration rates** are usually low even within the same country.
- On the contrary, **commuting rates** in Europe are generally higher and growing over time (Green et al., 1999; Renkow and Hoover, 2000).
- Many **factors** have contributed to this development, such as a lower migration propensity, the increased participation of women in the labour force, higher education levels and greater specialization among workers, improved infrastructure and the availability of faster travel modes .

Migration and commuting

- Moreover, important **changes in working and family lives**, the increase of dual-earner households and the great diffusion of more flexible labour contracts, have led to a trend towards longer, and more geographically diverse journey-to-work flows.
- The growth in **flexible working practices** and the diffusion of information technologies have meant that more work can be undertaken at home, a phenomenon known as “telecommuting”, reducing the need to travel to work on a daily basis.
- Therefore, commuting could represent an excellent instrument to improve the **functionality of labour markets**.

Commuting

- Evidence shows that **commuting distance increases daily** and weekly labour supply, particularly among females and that an increase in commuting facilitates labour market matching and stimulates employment in more disadvantaged areas (OECD Economic Surveys: Hungary 2014).
- In addition, commuting may serve as a mechanism to **overcome poor local access** to suitable jobs, reducing over-education and improving job satisfaction (van Ham et al., 2001)
- Finally, by offering a **chance to unemployed workers** who cannot find a job in the local area, commuting reduces underemployment and long-term unemployment (van Ham et al., 2001).
- However, in countries with large economic disparities, increased commuting may lead to an additional **loss of skilled labour** and associated human capital in regions with unhealthy markets with detrimental consequences for the local economies (Regional Australian Institute, 2013).

EU Single Market and Schengen agreement

- The free movement of goods, services, capital and people is the **pillar** of the European Union (EU) Single Market and it represents one of the greatest achievements of the EU.
- The Schengen agreement, by proposing the **gradual abolition of border checks at the signatories' common borders** and the harmonisation of visa policies is one of the most important measures adopted to promote internal mobility.
- The Schengen agreement represents an important **complement** to the Single Market, as it provides a tangible way to make the "four freedoms" set out in the Treaties a reality.

Schengen agreement

- The implementation of the Schengen Agreement, together with the "four freedoms", provides a greater individual freedom and allows for a **more efficient allocation** of resources within the EU.
- By warranting the right for people to travel, study and work in another Member State, the free movement of EU citizens is believed to promote **economic growth**, and by allowing employers to recruit from a larger pool, it has a positive impact on labour market efficiency (European Commission, 2016).

`https://www.youtube.com/watch?v=n_2zMQyn7VQ`

History of the Schengen agreement

- Initially signed in June 1985 between Belgium, France, Luxembourg, The Netherland and West Germany.
- Currently it counts 26 members (22 European countries + 4 Non-European).
- It is one of the most important measures adopted to promote **international mobility**.

The Schengen agreement in details

- It **abolishes border checks** at the signatories' common borders.
- It harmonizes **visa policies**.
- It allows vehicles to cross borders **without stopping**.
- It allows residents in border areas freedom to cross borders away from **fixed checkpoints**.

Benefits of the Schengen agreement

- **Cross-border commuters** are the group which benefits the most: "were the traditional individual checks in place, working across the border would involve spending **considerable extra time** during the daily commute, making such jobs less attractive" (Ademmer et al., 2015).
- By allowing vehicles to cross borders without stopping and residents in border areas freedom to cross borders away from fixed checkpoints, the agreement made the cross-country **travels to work journey shorter and easier**.
- "Taking advantage of the removal of mobility and labour market barriers between European countries, EU citizens are increasingly living in one EU country, working in another, shuttling back and forth between the two" (Centre for Future Studies, 2006).

The challenges of the Schengen area

- Despite the benefits of Schengen being evident, the Schengen area is currently facing **major challenges**.
- The combination of an increasing number of refugees, growing migratory pressure, security concerns and a rather week economic recovery has put the **Schengen area under stress**, and called into question its functioning.
- In particular, the significant increase in asylum seekers in several countries of the EU has created a lot of tension.

The challenges of the Schengen area (cont.)

- In response to the considerable **influx of refugees** into the EU in the past two years, and then across internal EU borders, a number of Member States have re-introduced temporary internal border controls at certain crossings.
- Even on a temporary basis, these border controls are already disrupting the flow of goods and services within the Single Market, with economic costs for business and citizens (Ademmer et al., 2015).
- Parallel to a clear, temporary, **limited suspension** of the Schengen Agreement, some parties have also discusse the possibility to permanently re-introduce border controls within the EU, and therefore in practice to terminate the Schengen agreement (Bertelsmann Foundation, 2016).

The cost of re-introducing border controls

- A number of studies (EPRS, 2016; France Strategie, 2013, 2016) have tried to quantify the potential cost of the re-establishment of border controls within the Schengen area.
- They identify three major implications:
  1. border controls itself within the Schengen area have **direct** and **immediate costs**;
  2. by introducing **significant obstacles** to intra-European trade and barriers to free movement of people, goods and services, they undermine the general progress of the past 20 years;
  3. they **weaken the police and judicial cooperation** on terrorism and organised crime.

$\Rightarrow$ All this could result in an estimated **loss of more than €100 billions** for the EU economy.

The cost for commuting workers

- It is believed that after the impact on cross-border transport of goods, the second most important impact would be on commuting workers (France Strategie, 2016).
- There are currently **1.7 millions** workers in the EU who cross a border every day to go to work and who would see their quality of life significantly affected.
- According to the European Commission, border controls would cost commuters, as well as other travellers, between **€1.3 billions** and **€5.2 billions** in terms of **time lost**.

Consequences on the EU economy

- Increased commuting time would reduce cross-border job opportunities: for France, for instance, it could mean the **loss of 5,000 to 10,000 cross-border workers**, which could account for an **economic loss of €150-300 millions** annually.
- **Borders** may represent a strong obstacle to workers' mobility and to its equilibrating mechanisms.
- More generally, such a decision would lead to **greater disparities** in regional job markets and certainly more **uneven economic development** (Bertelsmann Foundation, 2016).

Quantifying the effect of joining the Schengen agreement (Parenti & Tealdi, 2017)

- We quantifying the effect of Switzerland joining the Schengen area in **December 2008** on **cross-border commuting**.
- We envision commuters to react positively to lower barriers to cross-border travelling and therefore we expect to observe an increase in the cross-border commuting flows.
- In particular, we quantify the effects of the abolition of Switzerlands regional borders on the **individual probability** to commute for work across borders.

Why Switzerland?

- It is located in the **centre of Europe**;
- It is a **destination** for many commuters from the EU: in 2013 **more than 270,000 Europeans** commuted across the border to work in Switzerland.
- **French** residents make up the largest group (143,000), followed by **Italians** (62,000), **Germans** (56,000) and **Austrians** (8,100).
- Together **French and Italian represent more than 75%** of cross-border commuters.
- It is one of the countries which implemented **the Schengen agreement after the freedom of movement** was already granted to all EU-15 and NAFTA citizens. This setup allows us to disentangle the effect of the two policies.

Previous agreements with the EU

- **21 June 1999**: the European Union and Switzerland signed the Agreement on the Free Movement of Persons (AFMP). The AFMP **lifts restrictions** on EU citizens wishing to live or work in Switzerland.
- The liberalization was officially approved by a national referendum in 2000 and came into force for citizens of the "old" EU member states (EU-15) as well as for citizens of EFTA member states in **2002**.
- This agreement represented an important step towards the **free movement of workers** in Switzerland, which came officially into place for the EU-15 citizens in **2007**.

Transition process towards full mobility

- **Before 1999**, Swiss firms were only allowed to hire cross-border commuters if the "priority requirement" was satisfied and cross-border commuters could **only work in the border regions** of Switzerland.
- **Between 1999 and 2004,** gradually cross-border commuters were allowed to commute to work weekly (instead of daily), and longer and easier permits were allowed.
- In **2004**, the second phase of the reform was implemented and the **labour market of border regions** municipalities became **fully open** to cross-border commuters, even though they were not allowed to work in non border regions.
- On **June 1, 2007**, **all regions** adopted **full liberalization** for cross-border commuters from the EU and citizens of EFTA member states.

Freedom of movement vs Schengen agreement

- Meanwhile in **2005**, by means of a national referendum Swiss citizens were asked to express their opinion about Switzerland signing the Schengen agreement.
- Swiss voters agreed, by a 55% majority, to join the Schengen area.
- On 27 **November 2008**, the interior and justice ministers of the EU announced Switzerland's accession to the Schengen passport-free zone **from 12 December 2008**.
- The land border checkpoints would have remained in place only for goods movements, but no controls could be ran on people.
- In practice, people entering the country, if they originated from a Schengen nation, had their passports checked **until 29 March 2009** (Swiss Federal Department of Finance, 2016).

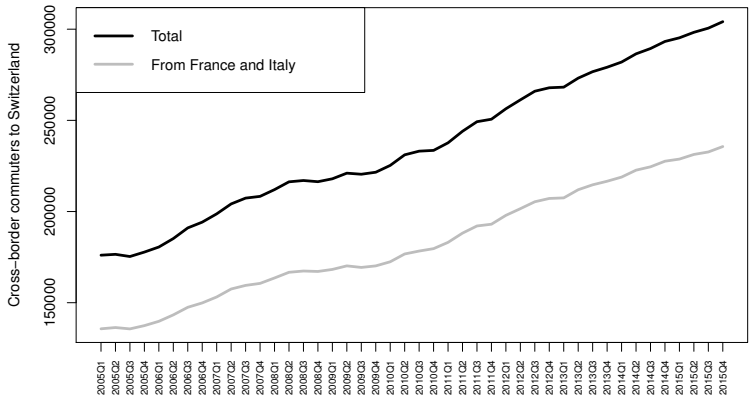
Data

1. The **ELFS** (European Labour Force Survey) provides *individual* level data on measures of mobility as well as socio-economic information:
   - **commuting**: place of work and place of residence being located in two different NUTS2 regions;
   - **individual characteristics** (age, marital status, gender, education, ...);
   - **job characteristics** (occupation, contract, flexibility, sector, firm characteristics, ...).
2. **Cambridge Econometrics**: information on regional compensation per employee, regional unemployment rate.
3. **Eurostat**: regional infrastructures (road network).
4. **OECD**: regional youth unemployment, share of employment by sector at regional level.
5. **Dyen et al. (1992)**: lexicostatical analysis on closeness of languages.

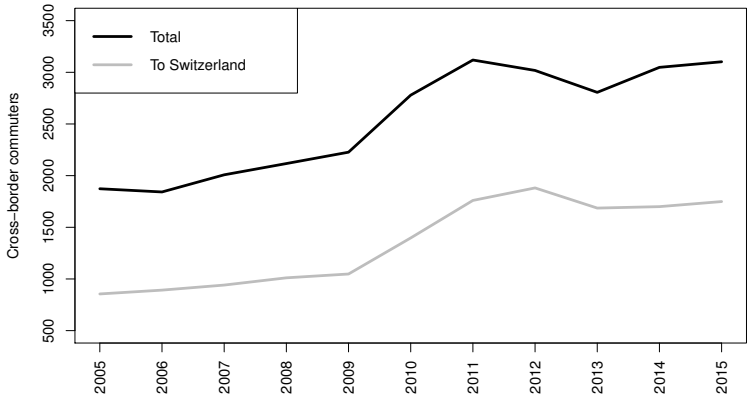
Sample

- All employed individuals who are currently commuting for working reasons either internally **across regions or across borders**.
- Individuals living in France and Italy (for Germany and Austria only information at NUTS1 level macro-regions is available).
- Repeated cross-sections over the years 2005-2015: **83,432 commuters**.

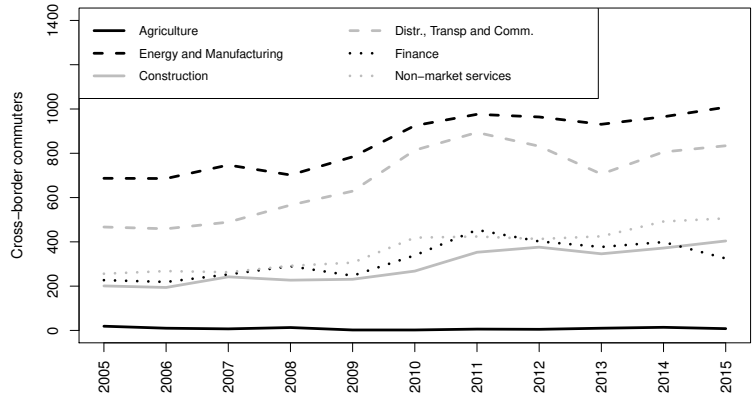
Cross-border commuters.



To Switzerland. Source: Swiss Federal Statistical Office.



Total and to Switzerland. Source: ELFS.



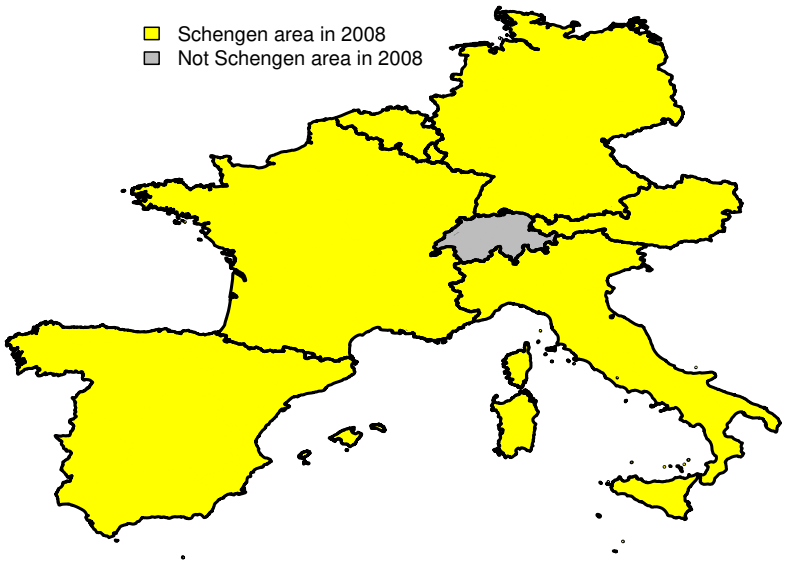
By sector. Source: ELFS.

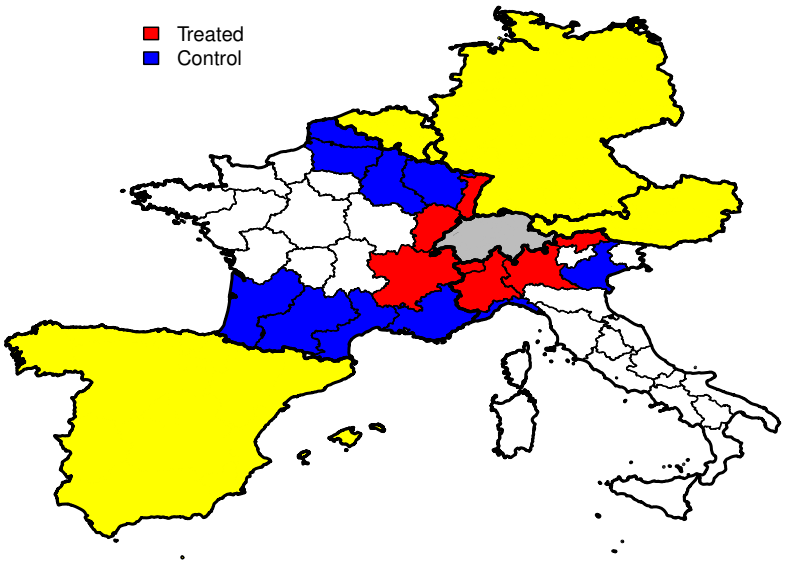
Identification and empirical strategy

We quantify the effect of Switzerland joining the Schengen area on cross border commuting using a **Diff-in-Diffs approach**.

Treated and control groups

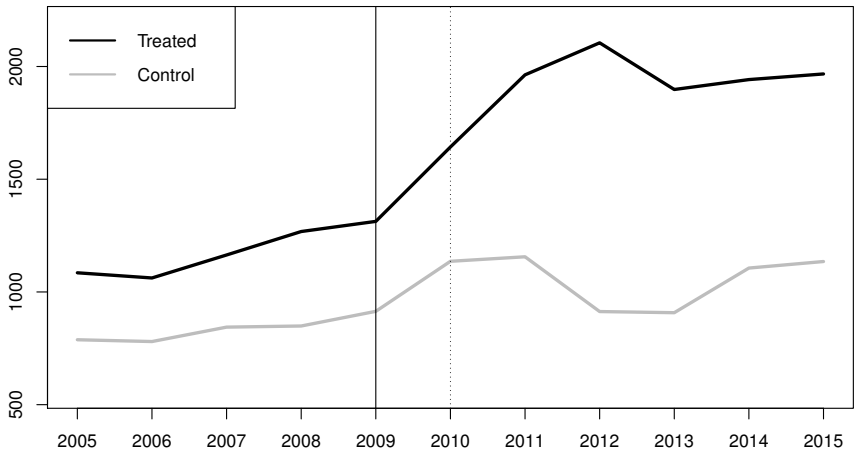
- The **treated** group (directly affected by Switzerland joining the Schengen area): commuters who live in regions sharing their borders with Switzerland;
- a **control** group (for which the implementation of the Schengen agreement in Switzerland has been irrelevant): commuters who live in regions sharing their borders with any other Schengen country (not Switzerland).


Schengen area in 2008
Not Schengen area in 2008

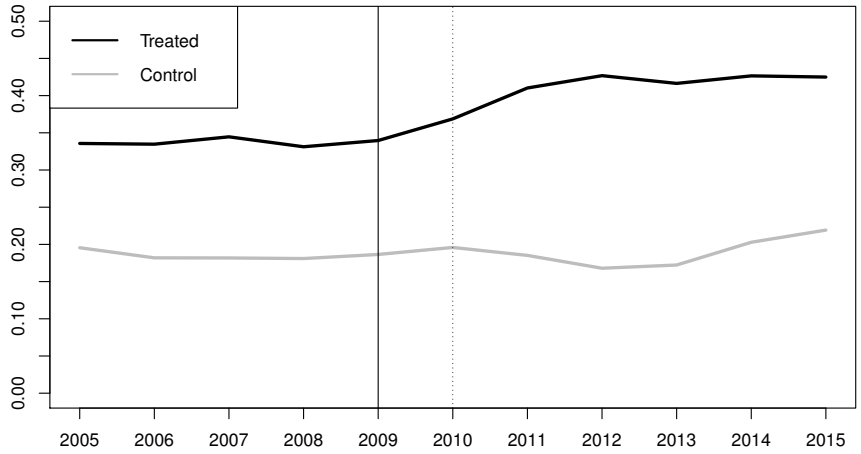

Treated
Control

Cross-border commuters in treated and control regions

The **key assumption** for any Difference-in-Differences strategy is that the outcome in treated and control groups would follow **the same time trend in the absence of the treatment**.



Absolute numbers.

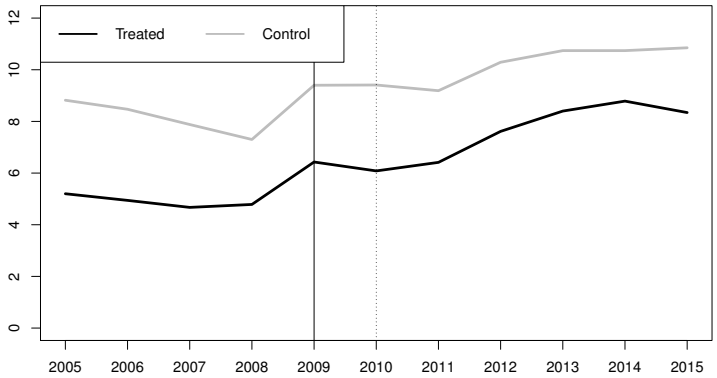


Percentage.

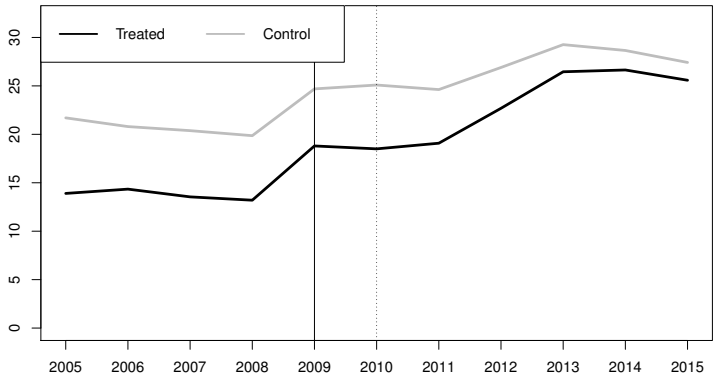
A potential confounding effect: the 2008-2009 crisis

- It had a strong **asymmetric impact** across European regions and sectors;
- It may have **boosted** the flow of cross-border commuters to Switzerland;
- It would have had a major impact on cross-border commuting if:
  - we would observe a **different trend in unemployment** in treated and control regions;
  - we would observe a **different trend in share of employment by sector** across countries as well as in treated and control regions;
- We provide supportive empirical evidence to **rule out the hypothesis that the crisis played a major role** in determining the observed increase in cross-border commuting to Switzerland.

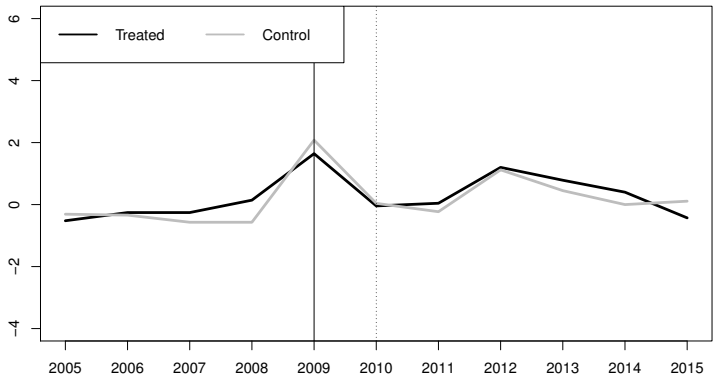
A potential confounding effect: the 2008-2009 crisis (Cont.)



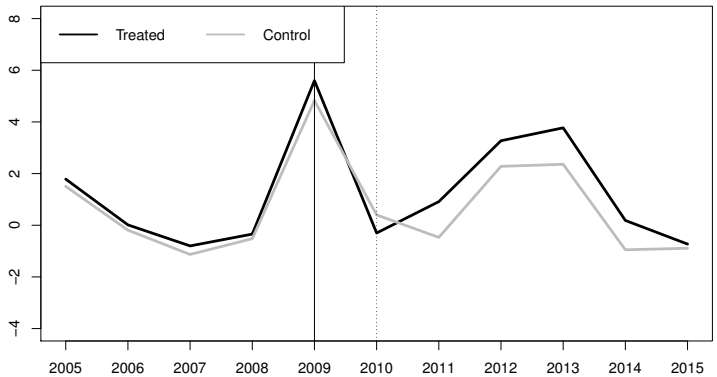
Total unemployment rate.



Youth unemployment rate.

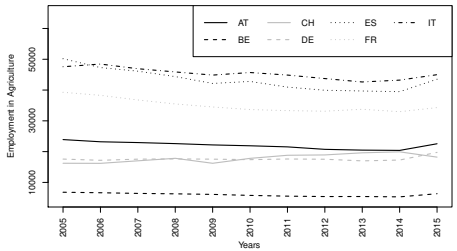


Pp changes in total unemployment.

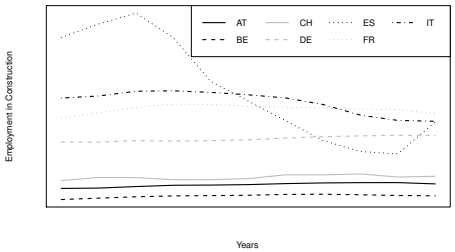


Pp changes in youth unemployment.

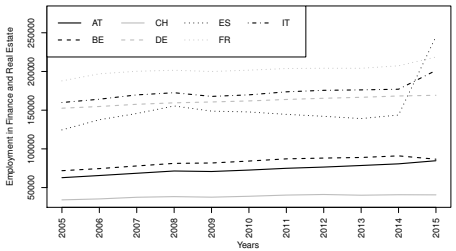
A potential confounding effect: the 2008-2009 crisis (Cont.)



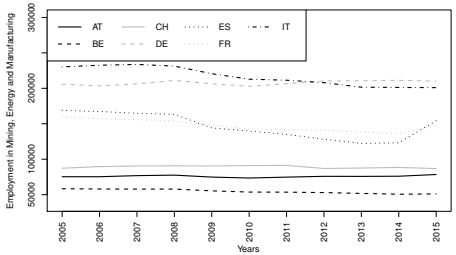
(a) Agriculture.



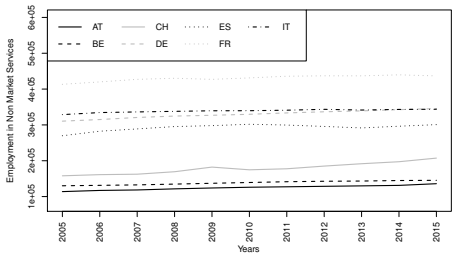
(b) Construction.



(c) Finance and Real Estate.

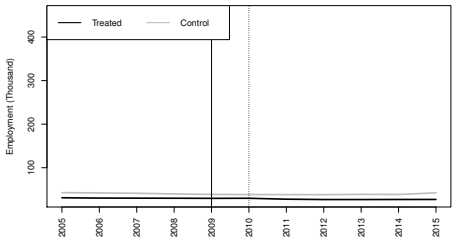


(d) Mining, Energy and Manufacturing.

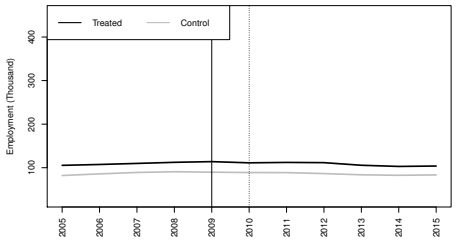


(e) Non-market services.

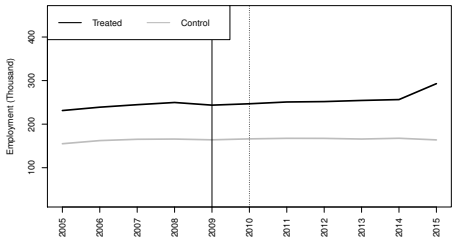
A potential confounding effect: the 2008-2009 crisis (Cont.)



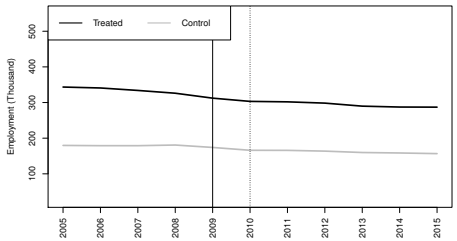
(a) Agriculture.



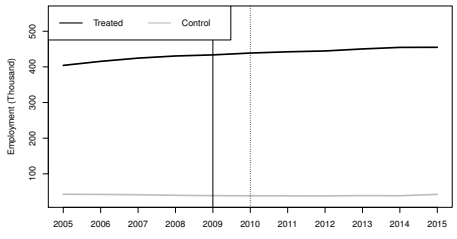
(b) Construction.



(c) Fin/ Real Estate.



(d) Mining, Energy and Manufacturing.



(e) Non-market services.

Econometric model

We estimate the following model:

$$P(\text{CB-Commuting} = 1|X)_{i,r,t} = \alpha + \beta \text{Treatment}_{i,r} + \gamma \text{Treated}_t + \delta \text{Treatment}_{i,r} * \text{Treated}_t + \lambda X_{i,r,t} + \epsilon_{i,r,t}$$

where:

$$\text{Treatment} = \begin{cases} 0 & \text{ifor the period 2005-2009} \\ 1 & \text{for the period 2010-2015} \end{cases}$$

Probability of commuting towards a Schengen region

	(1)	(2)	(3)	(4)	(5)	(6)
Year 2010	0.010	0.010	0.010	0.010	0.009	0.021***
	(0.070)	(0.006)	(0.006)	(0.006)	(0.006)	(0.005)
Treated	0.285***	0.374***	0.379***	0.378***	0.378***	0.296***
	(0.061)	(0.028)	(0.031)	(0.030)	(0.026)	(0.027)
Treated 2010	**0.023**	**0.036****	**0.036****	**0.035****	**0.035****	**0.032****
	(0.078)	(0.015)	(0.015)	(0.014)	(0.015)	(0.014)
Unemployment diff			0.00002			
			(0.0001)			
Youth unem diff*Age 16-24				0.001***		
				(0.0003)		
Road network (km)			−0.042	−0.038		
			(0.127)	(0.128)		
Reg.empl.A*Agriculture					−0.107*	
					(0.057)	
Reg.empl.MEM*MEM					−0.071***	
					(0.009)	
Reg. empl.C*Construction					−0.054***	
					(0.016)	
Reg. empl.F*Finance					−0.011*	
					(0.006)	
Reg. empl.NMS*NMS					−0.004	
					(0.006)	
Closeness of languages						−0.005***
						(0.0004)
Country fixed effect	YES	NO	NO	NO	NO	NO
Regional fixed effect	NO	YES	YES	YES	YES	YES
Sector dummies	YES	YES	YES	YES	YES	YES
Observations	83,432	83,432	83,432	83,432	83,432	83,432
Adjusted R^2	0.170	0.387	0.387	0.387	0.390	0.410

Treatment in 2009

	(1)	(2)	(3)	(4)	(5)	(6)
Year 2009	0.009	0.010***	0.010***	0.010***	0.010***	0.020***
	(0.007)	(0.003)	(0.004)	(0.004)	(0.003)	(0.004)
Treated	0.289***	0.379***	0.386***	0.386***	0.384***	0.302***
	(0.006)	(0.024)	(0.030)	(0.031)	(0.022)	(0.022)
Treated 2009	**0.015**	**0.025***	**0.025***	**0.024***	**0.024***	**0.020**
	(0.012)	(0.014)	(0.014)	(0.013)	(0.013)	(0.013)
Unemployment diff			0.00000			
			(0.00005)			
Youth unem*Age 16-24				0.001***		
				(0.0003)		
Road network (km)			−0.061	−0.056		
			(0.101)	(0.101)		
Reg.empl.A*Agriculture					−0.108**	
					(0.052)	
Reg.empl.MEM*MEM					−0.071***	
					(0.004)	
Reg.empl.C*Construction					−0.055***	
					(0.014)	
Reg.empl.finance*Finance					−0.011***	
					(0.003)	
Reg.empl.NMS*NMS					−0.004	
					(0.006)	
Closeness of languages						−0.005***
						(0.0002)
Country fixed effect	YES	NO	NO	NO	NO	NO
Regional fixed effect	NO	YES	YES	YES	YES	YES
Sector dummies	YES	YES	YES	YES	YES	YES
Observations	83,432	83,432	83,432	83,432	83,432	83,432
Adjusted R^2	0.169	0.386	0.386	0.386	0.389	0.409

Test for freedom of movement and placebo - 2007

	(1)	(2)	(3)	(4)	(5)	(6)
Year 2007	0.004	0.007*	0.004	0.004	0.007*	0.016***
	(0.014)	(0.004)	(0.005)	(0.005)	(0.004)	(0.005)
Treated	0.291***	0.387***	0.410***	0.410***	0.393***	0.314***
	(0.014)	(0.029)	(0.040)	(0.040)	(0.028)	(0.028)
Treated 2007	**0.011**	**0.010**	**0.010**	**0.009**	**0.008**	**0.003**
	(0.017)	(0.013)	(0.013)	(0.013)	(0.012)	(0.012)
Unemployment diff			−0.0001			
			(0.0001)			
Youth unem diff*Age 16-24				0.001***		
				(0.0003)		
Road network (km)			−0.206*	−0.199*		
			(0.118)	(0.115)		
Reg.empl.A*Agriculture					−0.108**	
					(0.052)	
Reg.empl.MEM*MEM					−0.072***	
					(0.004)	
Reg.empl.C*Construction					−0.056***	
					(0.014)	
Reg.empl.finance*Finance					−0.012***	
					(0.003)	
Reg.empl.NMS*NMS					−0.005	
					(0.006)	
Closeness of languages						−0.005***
						(0.0002)
Country fixed effect	YES	NO	NO	NO	NO	NO
Regional fixed effect	NO	YES	YES	YES	YES	YES
Sector dummies	YES	YES	YES	YES	YES	YES
Observations	83,432	83,432	83,432	83,432	83,432	83,432
Adjusted R^2	0.169	0.386	0.386	0.386	0.389	0.409

Test for freedom of movement and placebo - 2008

	(1)	(2)	(3)	(4)	(5)	(6)
Year 2008	0.009	0.009***	0.008**	0.008**	0.009***	0.018***
	(0.008)	(0.003)	(0.004)	(0.004)	(0.003)	(0.004)
Treated	0.294***	0.385***	0.402***	0.402***	0.390***	0.309***
	(0.007)	(0.027)	(0.038)	(0.038)	(0.026)	(0.026)
Treated 2008	**0.009**	**0.015**	**0.013**	**0.012**	**0.013**	**0.009**
	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)	(0.012)
Unemployment diff			−0.0001*			
			(0.0001)			
Youth unem diff*Age 16-24				0.001***		
				(0.0003)		
Road network (km)			−0.154	−0.148		
			(0.116)	(0.114)		
Reg.empl.A*Agriculture					−0.108**	
					(0.052)	
Reg.empl.MEM*MEM					−0.071***	
					(0.004)	
Reg.empl.C*Construction					−0.055***	
					(0.014)	
Reg.empl.finance*Finance					−0.011***	
					(0.003)	
Reg.empl.NMS*NMS					−0.004	
					(0.006)	
Closeness of languages						−0.005***
						(0.0002)
Country fixed effect	YES	NO	NO	NO	NO	NO
Regional fixed effect	NO	YES	YES	YES	YES	YES
Sector dummies	YES	YES	YES	YES	YES	YES
Observations	83,432	83,432	83,432	83,432	83,432	83,432

Robustness I - Commuting to a contiguous region

	(1)	(2)	(3)	(4)	(5)	(6)
Year 2010	−0.005	−0.002	−0.001	0.001	−0.002	0.012**
	(0.009)	(0.006)	(0.007)	(0.007)	(0.006)	(0.005)
Treated	0.049**	−0.028*	0.129*	0.132	−0.025	−0.030*
	(0.024)	(0.016)	(0.077)	(0.080)	(0.017)	(0.017)
Treated 2010	**0.067***	**0.070****	**0.068****	**0.067****	**0.070****	**0.070****
	(0.038)	(0.030)	(0.029)	(0.030)	(0.030)	(0.032)
Unemployment diff			0.0002			
			(0.0001)			
Youth unem diff*Age 16-24				0.0001		
				(0.0001)		
Road network (km)			−0.246**	−0.249**		
			(0.120)	(0.124)		
Reg.empl.A*Agriculture					−0.068	
					(0.048)	
Reg.empl.MEM*MEM					−0.023***	
					(0.003)	
Reg.empl.C*Construction					−0.009	
					(0.006)	
Reg.empl. finance*Finance					−0.007***	
					(0.002)	
Reg.empl.NMS*NMS					0.005	
					(0.003)	
Closeness of languages						−0.004***
						(0.0004)
Country fixed effect	YES	NO	NO	NO	NO	NO
Regional fixed effect	NO	YES	YES	YES	YES	YES
Sector dummies	YES	YES	YES	YES	YES	YES
Observations	52,693	52,693	52,693	52,693	52,693	52,693
Adjusted R^2	0.190	0.638	0.638	0.638	0.638	0.658

Robustness II - Sectors no crisis (agriculture, mining, energy and non-market services)

	(1)	(2)	(3)	(4)	(5)	(6)
Year 2010	0.001	0.001	0.0004	0.0004	−0.004	0.008
	(0.010)	(0.007)	(0.007)	(0.007)	(0.007)	(0.008)
Treated	0.271***	0.418***	0.422***	0.421***	0.441***	0.253***
	(0.008)	(0.036)	(0.040)	(0.040)	(0.034)	(0.031)
Treated 2010	**0.025****	**0.030****	**0.030****	**0.030****	**0.033****	**0.038*****
	(0.013)	(0.013)	(0.014)	(0.013)	(0.013)	(0.012)
Unemployment diff			0.00001			
			(0.0001)			
Youth unem diff*Age 16-24				0.001**		
				(0.0004)		
Road network (km)			−0.036	−0.036		
			(0.063)	(0.063)		
Reg.empl.A*Agriculture					−0.153***	
					(0.046)	
Reg.empl.MEM*MEM					−0.029***	
					(0.011)	
Reg. empl.NMS*NMS					−0.047***	
					(0.007)	
Closeness of languages						−0.007***
						(0.0005)
Country fixed effect	YES	NO	NO	NO	NO	NO
Regional fixed effect	NO	YES	YES	YES	YES	YES
Sector dummies	YES	YES	YES	YES	YES	YES
Observations	17,957	17,957	17,957	17,957	17,957	17,957
Adjusted R^2	0.195	0.361	0.361	0.361	0.362	0.397

Robustness III - Sectors with crisis (manufacturing, construction and finance)

	(1)	(2)	(3)	(4)	(5)	(6)
Year 2010	0.015	0.004	0.005	0.005	−0.001	0.019***
	(0.010)	(0.006)	(0.006)	(0.006)	(0.005)	(0.006)
Treated	0.270***	0.310***	0.349***	0.349***	0.364***	0.280***
	(0.005)	(0.019)	(0.033)	(0.033)	(0.020)	(0.019)
Treated 2010	**0.036*****	**0.065*****	**0.060*****	**0.059*****	**0.063*****	**0.055*****
	(0.014)	(0.018)	(0.018)	(0.018)	(0.017)	(0.015)
Unemployment diff			0.00000			
			(0.00004)			
Youth unem diff*Age 16-24				0.002***		
				(0.0004)		
Road network (km)			−0.342*	−0.329*		
			(0.183)	(0.182)		
Reg.empl.MEM*MEM					−0.106***	
					(0.008)	
Reg.empl.C*Construction					−0.103***	
					(0.017)	
Reg.empl.finance*Finance					−0.052***	
					(0.009)	
Closeness of languages						−0.004***
						(0.0001)
Country fixed effect	YES	NO	NO	NO	NO	NO
Regional fixed effect	NO	YES	YES	YES	YES	YES
Sector dummies	YES	YES	YES	YES	YES	YES
Observations	37,608	37,608	37,608	37,608	37,608	37,608
Adjusted R^2	0.186	0.411	0.411	0.411	0.416	0.429

Robustness IV - Dummy same language

	(1)
Year 2010	0.022***
	(0.004)
Treated	0.287***
	(0.022)
Treated 2010	**0.031****
	(0.013)
Dummy same languages	−0.428***
	(0.013)
Country fixed effect	NO
Regional fixed effect	YES
Sector dummies	YES
Observations	83,432
Adjusted R^2	0.421

Summarizing

- We find that the effect of **Switzerland joining the Schengen area has a significant positive effect on cross-border commuting**.
- Specifically, we find that the probability of cross-border commuting is approximately **3.5% higher after Switzerland joined the Schengen area**;
- When considering only cross-border commuting to contiguous regions, the effect is **higher and approximately equal to 6.8%**;
- These results are robust to several specifications and robustness tests.

Policy implication

- Combining our results with the recent findings of Beerli and Peri (2016) we find that the vast majority of cross-border commuters work in regions which are **contiguous** to the region of residence.
- Therefore, policies which directly affect cross-border labour mobility to border regions are the **most effective** in increasing cross-border commuting.
- Specifically, it seems that both the implementation of the free movement of labour for cross-border workers in border regions (2004) and the opening of the borders through the implementation of Schengen (2009) were effective policies to increase cross-border commuting.
- This confirms the idea that the free movement of labour and the border openings are **two fundamental arrangements**, which are particularly effective when implemented together.

Policy implication (cont.)

- Commuting appears to be **more responsive** than migration to cross-regional differences in labour market indicators (Erbenova, 1995).
- This is because a significant and stable positive relation emerges at individual level between being inactive or unemployed in one country or region and commuting in the following.
- Thus, commuting appears to have a **higher potential** as a means of facilitating transitions out of joblessness.
- Policy actions which aim at encouraging commuting have therefore the potential to effectively address the issue of regional disparities, especially in European countries, where such disparities are rather large.

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