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Legal Status and Voluntary Abortions by Immigrants

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Outline

- Motivation
- Background
- Data
- Empirical Strategy
- Main results
- Alternative Stories and Robustness
- Conclusions



Motivation

- Consider Italy: migrant women undergoing abortion rose from about 9,000 in 1995 to 40,000 in 2007, declining to about 25,000 in 2017
- As a percentage of total VPT, from 7% in 1995 to 34% in 2007, down to 30% in 2017
- Abortion rate is 5.8 (per 1,000 women) for Italian nationals; 12 (per 1,000 women) for migrants
- Difference systematically higher at all ages
- Why?



Motivation

- One way to think about this difference, is to consider the choices migrant women face in terms of family formation, fertility, education and labour market participation (hence, unintended pregnancies)
- Clear evidence in the literature that legal status allows for significant improvements in all these dimensions
- What about VPT?



This paper

- Focus on Italy as a destination country
- As other papers in this literature, exploit 2007 EU enlargement as an exogenous shock to legal status for Bulgarian and Romanian women
- Preview of results:
 - large drop in VPT for new EU nationals compared to nationals from candidate countries
 - partly explained by those already present in Italy, partly driven by new flows of (somewhat) different women
 - Robust to a number of checks, alternative stories, placebo...



This paper

- We claim three contributions to the literature
 - New outcome in the literature on granting legal status to migrants
 - Adda et al.: women can take more independent decisions in terms of family formation; we add that they can also take more independent and conscious decisions in terms of fertility choices (hence, avoiding VPT)
 - New issue in the literature on abortion
 - small, and basically limited to changes in US regulation
 - Only one paper on Italy: Autorino et al.: regions with large #objectors impose women to move to other regions to get the treatment; we add that empowering women with legal status reduce the need for VPT
 - Methodological contribution: novel approach to separate «selection» and «citizenship» effects



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Background

- Migration policies and EU enlargement
- Access to VPT



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Background: Migration policies

- Some figures
 - # foreign born individuals **legally resident** in Italy rose from 1.4 mln 2000 to more than 5 mln 2020
 - **Romania** largest community (1.2 mln), followed by **Albania** and **Morocco**
 - Share of **illegal migrants** decreased sharply in recent years
- As for **legal status**, clear distinction between EU Member States and nationals of non-EU countries



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Background: Migration policies

- Migrants from **EU-countries**
 - can freely settle in other MS according to TFEU
 - simple procedure: need to register with the Registry Office of the municipality in which they reside to become legal residents in Italy



Background: Migration policies

- Migrants from **non-EU countries**
 - visa or a residence permit for work, study or family reunification
 - rigid quotas for work permits (type of contract and province)
 - rigid and very complex procedures
 - As a consequence, illegal migration and waves of regularisations
- **EU enlargement episodes** clear cut-offs when it comes to status of legal migrants



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Background: Migration policies

- Three EU enlargement episodes
- **2004:** Estonia, Latvia, Lithuania, Poland, Czech Republic, Slovakia, Slovenia, and Hungary; Malta and Cyprus
- **2007:** Bulgaria and Romania
- **2013:** Croatia
- **Here we focus on 2007**



Background: Access to VPT

- VPT regulated under Law 194/78
 - Provided free of charge by NHS (the tax funded insurance scheme, regionally managed), together with maternal and child care services
 - Allowed during first 90 days of pregnancy (e.g., if childbirth may compromise physical/mental health of the pregnant women)
 - Allowed after 90 days only to protect woman's health
 - Legal abortion only performed in hospitals
 - Procedure available also for migrants, legal or illegal



Background: Access to VPT

- In practice
 - difficulties in accessing the service because of the high presence of gynaecologists registered as conscientious objectors (71% of all gynaecologists)
 - Illegal migrants fear they will be reported to the police
 - Illegal abortions still an issue, despite decline over time (estimates by the MoH speak of about 10,000 cases per year out of more than 66,000 legal VPT, roughly 13%)
- These problems likely more important for illegal migrants for several reasons



- VPT survey conducted by ISTAT: all legal VPT performed by Italian hospitals
 - Socio-demographic characteristics of woman (age, marital status, education, employment status, type of work, economic activity)
 - Characteristics of VPT (gestational age, complications, urgency)
- Merge with demographic information on foreign population in Italy (ISTAT): gender, country of origin, province, year



- From 2002 to 2010
 - no information on country of origin before 2002
 - changes in estimates of immigrant population by province after 2010
- Final sample: 124,079 women
 - Treated group: women from Romania and Bulgaria
 - Control group: women from candidate countries
(Additional control group for robustness: women from non-EU countries)



- From this final sample we compute our outcome variable

$$VPT\ rate_{pct} = \left(\frac{VPT_{pct}}{Pop_f_{pct}} \right) \times 1,000$$

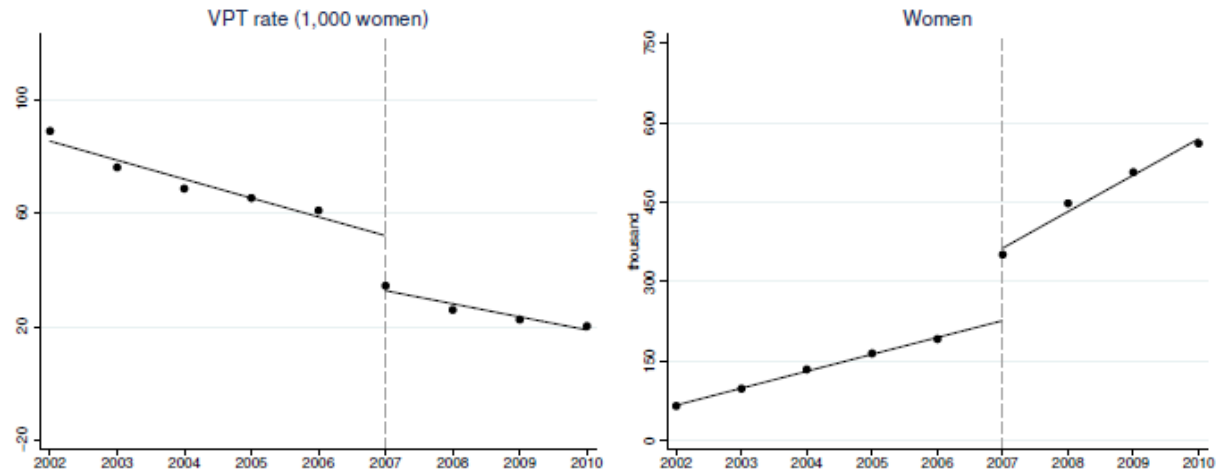
Province p

Country of origin c

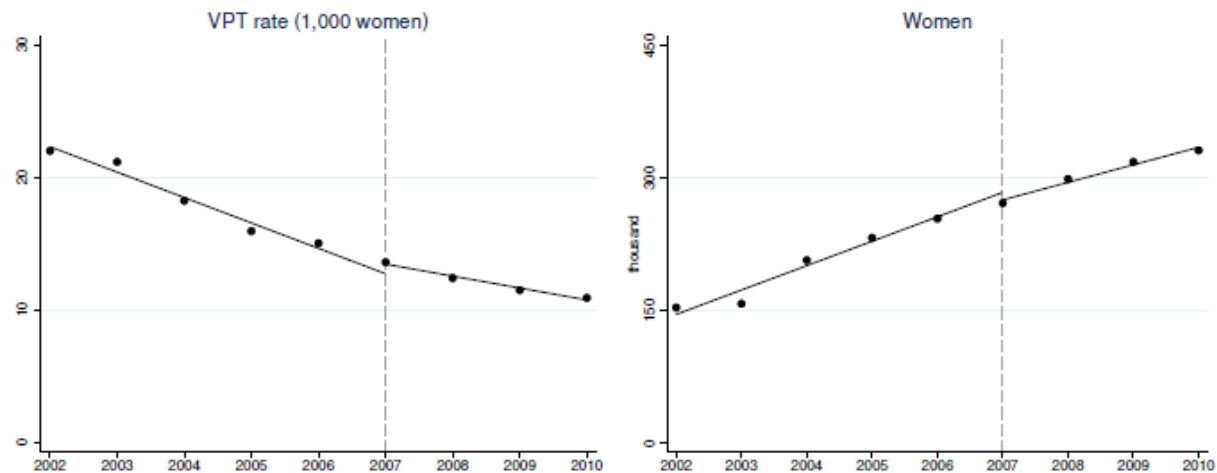
Year t



UE2



Candidates





- Diff-in-diff general specification

$$\begin{aligned} \ln(VPT\ rate_{pct}) &= \\ &= \alpha + \beta EU2_{pct} \times post_t + \delta_c + \lambda_t + \xi_p \\ &+ \sum_{i=1}^K \gamma_i X_{pct} + \epsilon_{pct} \end{aligned}$$

- Controls are averages at pct of all available information in the ISTAT survey
- SE clustered at provincial level



- Event study general specification

- $$\ln(VPT_{rate})_{pct} = \gamma + \sum_{j=-q}^{-1} \eta_j D_{pct} + \sum_{j=0}^m \mu_j D_{pct} + \lambda_c + \psi_t + \xi_{pct}$$

- One year prior to the reform omitted



Empirical strategy: challenges (I)

- Our estimates represent the weighted sum of two effects:
 - «citizenship» effect: change in VPT due to legal and illegal migrants already living in Italy before 2007
 - «selection» effect: change in VPT due to new migrants attracted by the enlargement
 - weights: share of those already present and those attracted by the enlargement
- For each lag estimated in the event-study model, develop an estimator to separate «citizenship» from «selection»



Empirical strategy: challenges (I)

- Start from *lag j*

$$\hat{\mu}_j = \Delta \ln(VPT_{ref,j}^{EU2}) - \Delta \ln(VPT_{ref,j}^{can})$$

- Rewrite as

$$\hat{\mu}_j = \left[\omega_j \times \Delta \ln \left(VPT_{ref,j}^{EU2,cit} \right) + (1 - \omega_j) \times \Delta \ln \left(VPT_{ref,j}^{EU2,sel} \right) \right] - \Delta \ln(VPT_{ref,j}^{can})$$



Empirical strategy: challenges (I)

- Hence, the estimator of selection effect

$$\hat{\mu}_j^{cit} = \hat{\mu}_j - (1 - \omega_j) \times \Delta \ln \left(VPT_{ref,j}^{EU2,sel} \right)$$

- Need estimates of
 - share of new EU2 immigrants
 - difference in VPT access between EU2 women already living in Italy and new entrants



Empirical strategy: challenges (I)

- To define «reasonable» bounds of the two effects, two alternative scenarios for each
- Share of new EU2 immigrants
 - All new entrants make up selection effect
 - Consider pre-enlargement trends to obtain an estimate of new entrants attracted by enlargement
- Difference in VPT access between EU2 women already living in Italy and new entrants
 - New entrants have same VPT as in the country of origin
 - New entrants do not use VPT services



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Empirical strategy: challenges (II)

- Differences in the composition of treated and control group (even more after the enlargement)
- Follow Mastrobuoni and Pinotti (2015): semi-parametric DD estimator developed in Abadie (2005) using propensity-scores weighting to improve comparability across the two groups
- Weights estimated using logistic regression on full set of observables

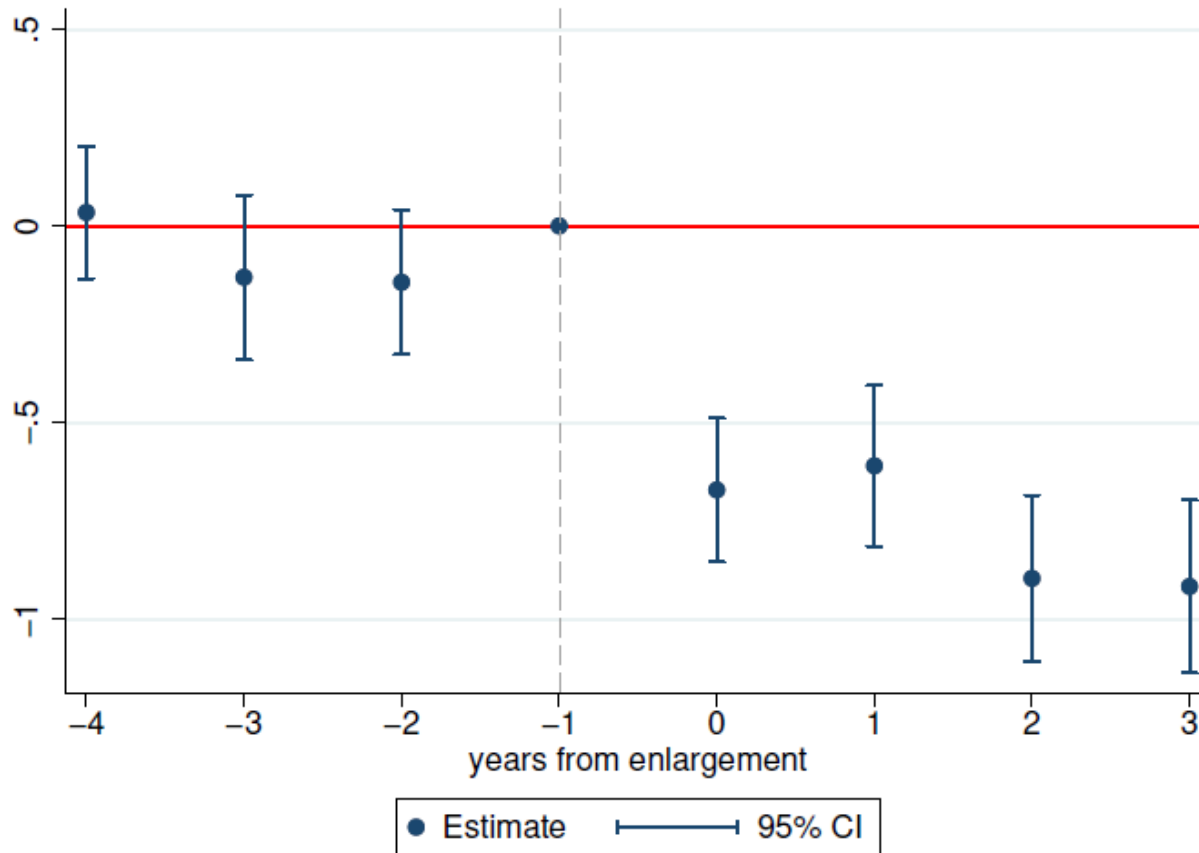


Results: baseline

VPT rate				
Weighted by the share of immigrant women				
	(1)	(2)	(3)	(4)
EU2 × post	-0.5679*** (0.075)	-0.6397*** (0.064)	-0.5870*** (0.063)	-0.6822*** (0.068)
Constant	0.6711*** (0.070)	0.9988*** (0.114)	-0.1381 (0.132)	0.7321 (1.193)
Observations	3,739	3,739	3,739	3,651
R-squared	0.5641	0.6902	0.7101	0.7108
Unweighted				
EU2 × post	-0.6468*** (0.053)	-0.6615*** (0.050)	-0.6745*** (0.050)	-0.7471*** (0.059)
Constant	0.5611*** (0.052)	0.6677*** (0.080)	-0.3353*** (0.068)	0.0573 (0.791)
Province FE	No	Yes	Yes	Yes
Province FE × linear trend	No	No	Yes	No
Post × covariates	No	No	No	Yes
Observations	3,739	3,739	3,739	3,651
R-squared	0.2792	0.4963	0.5171	0.5115



Results: event study





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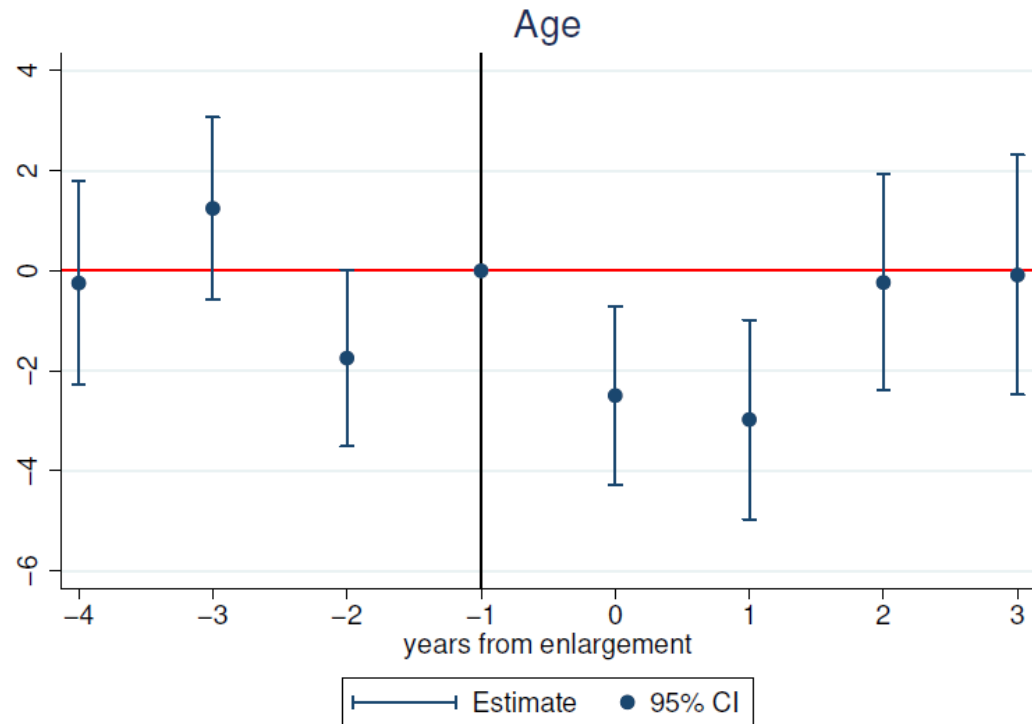
Results: citizenship vs selection effect

- Use event-study framework to understand whether new flows of migrants are different
- Apply previous estimator to obtain separate estimates of «citizenship» effect and «selection» effect



Results: citizenship vs selection effect

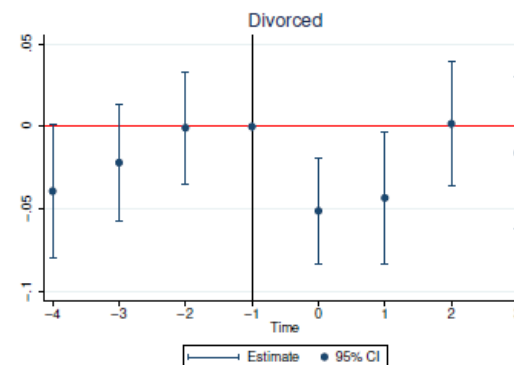
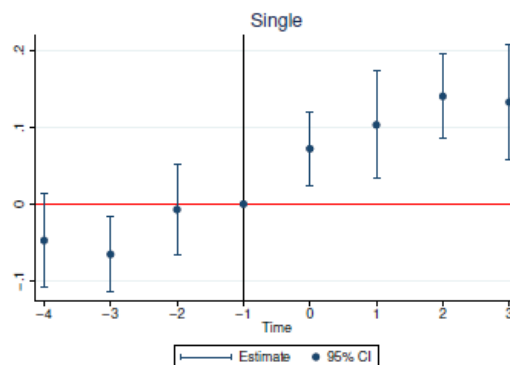
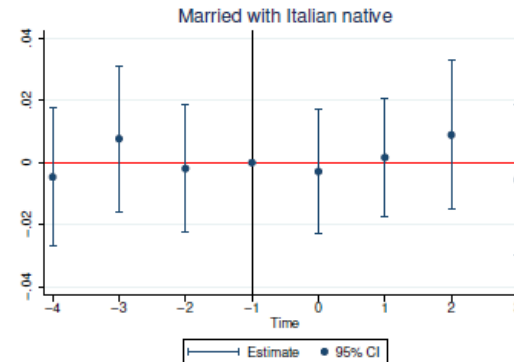
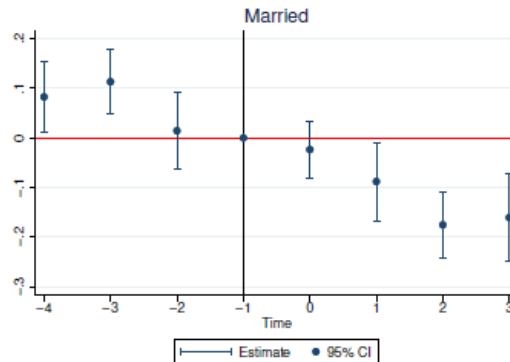
- Most of the leads insignificant
- Evidence of «selection» with respect only to some characteristics → **age**





Results: citizenship vs selection effect

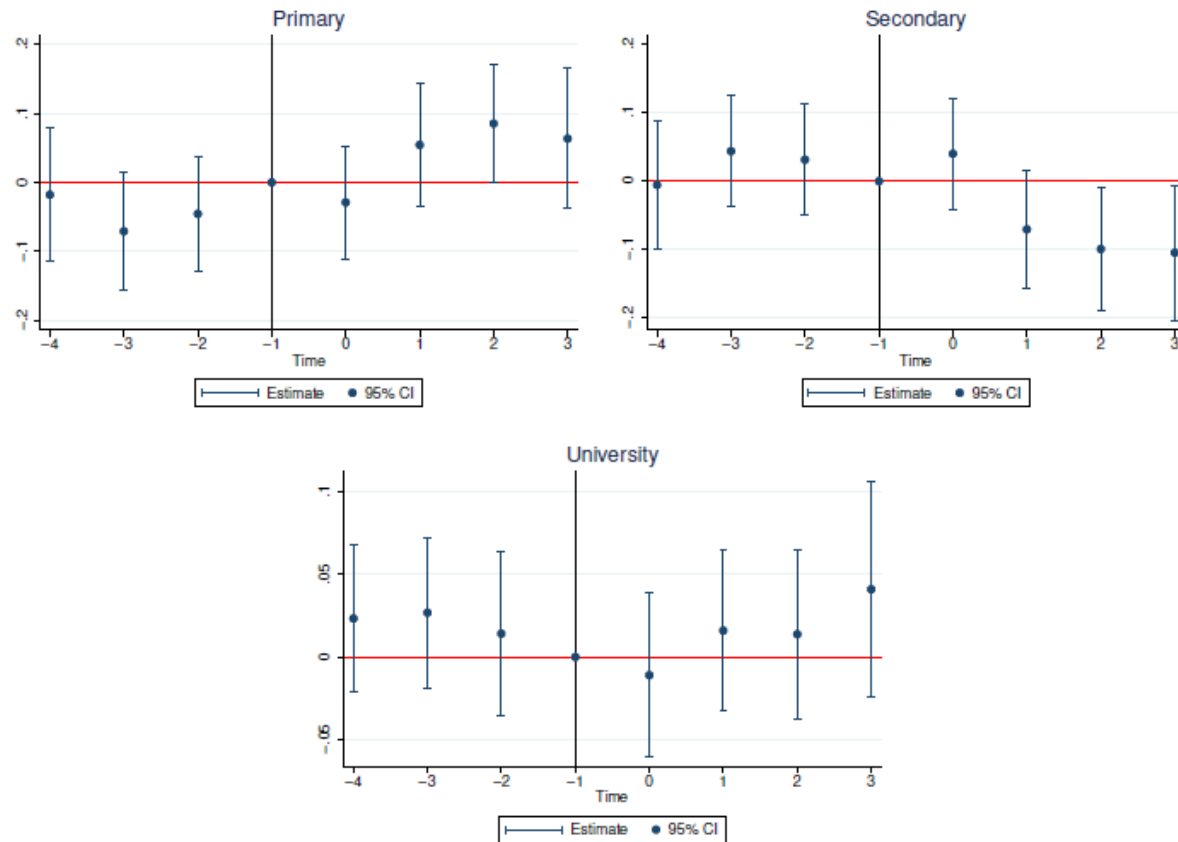
→ marital status at arrival





Results: citizenship vs selection effect

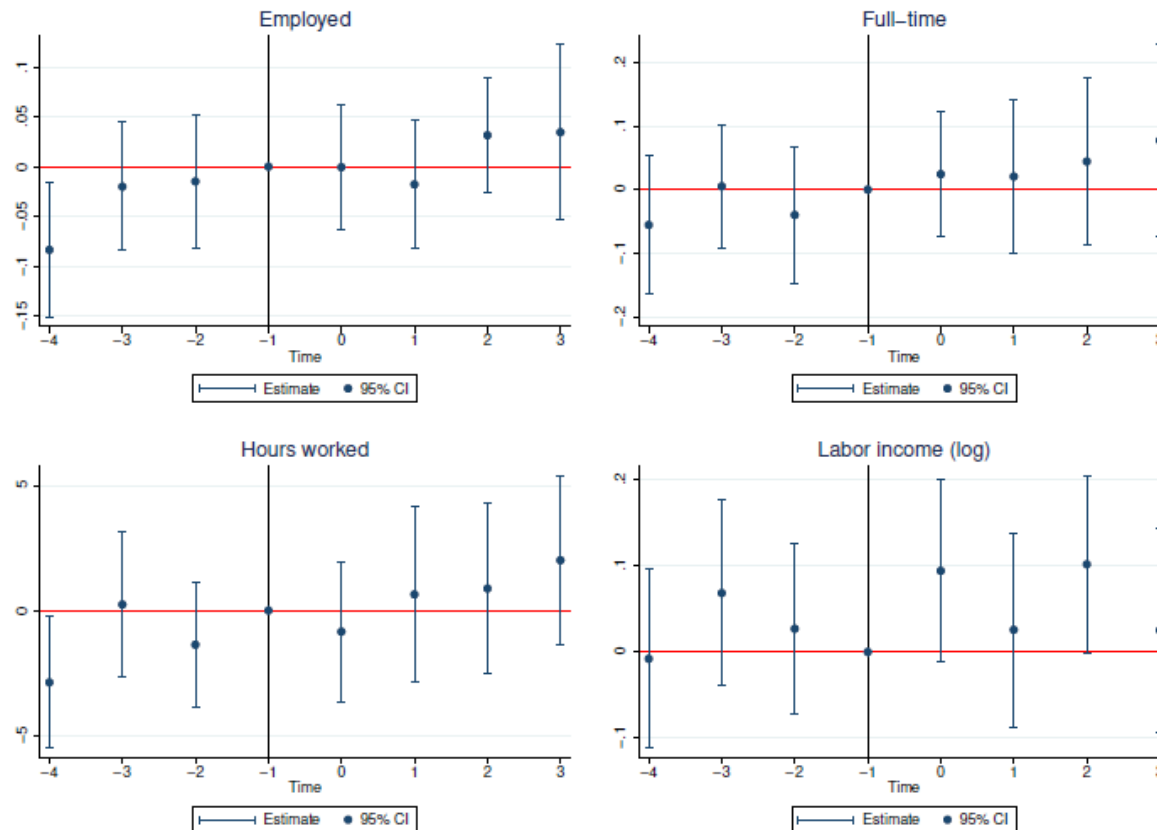
No evidence of «selection» in terms of **education**





Results: citizenship vs selection effect

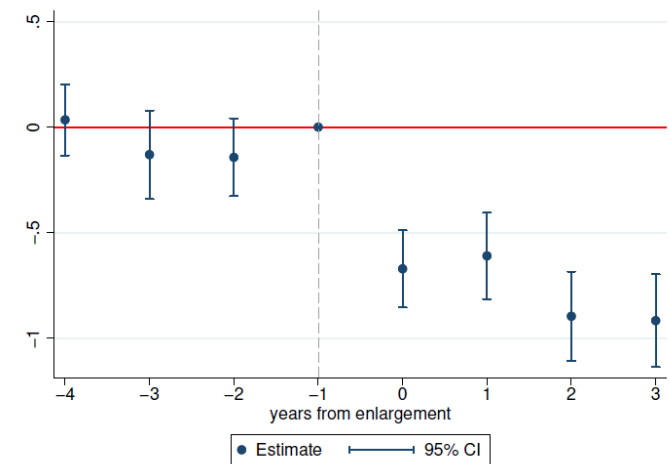
No evidence of «selection» in terms of **employment status**





Results: citizenship vs selection effect

k (year)	$\hat{\mu}_j$	Citizenship effect with selection estimated by:		Citizenship effect % of the total effect
		all new EU2	pre-enlargement trend	
	(1)	(2)	(3)	(4)
1 (2007)	-0.67	[-0.22 ; -0.42]	[-0.27 ; -0.45]	32.83% - 62.68%
2 (2008)	-0.61	[-0.04 ; -0.30]	[-0.11 ; -0.33]	6.55% - 49.18%
3 (2009)	-0.89	[-0.27 ; -0.55]	[-0.35 ; -0.60]	30.33% - 61.79%
4 (2010)	-0.92	[-0.26 ; -0.55]	[-0.32 ; -0.59]	28.26% - 59.78%





Takeaway

- We document a significant drop in voluntary abortion for Bulgarian and Romanian women after obtaining the legal status
- The effect is driven by both a «citizenship» effect (for legal and illegal migrants already in Italy) and a «selection» effect (new flows of «different» women)
- An empowerment story: legal status allows women to choose for their life
 - Differently from men, illegal women subject to abuse and violence
 - Legal status is even more important for them



Appendix

- We document a significant drop in voluntary abortion for Bulgarian and Romanian women after obtaining the legal status
- The effect is driven by both a «citizenship» effect (for legal and illegal migrants already in Italy) and a «selection» effect (new flows of «different» women)
- An empowerment story: legal status allows women to choose for their life
 - Differently from men, illegal women subject to abuse and violence
 - Legal status is even more important for them



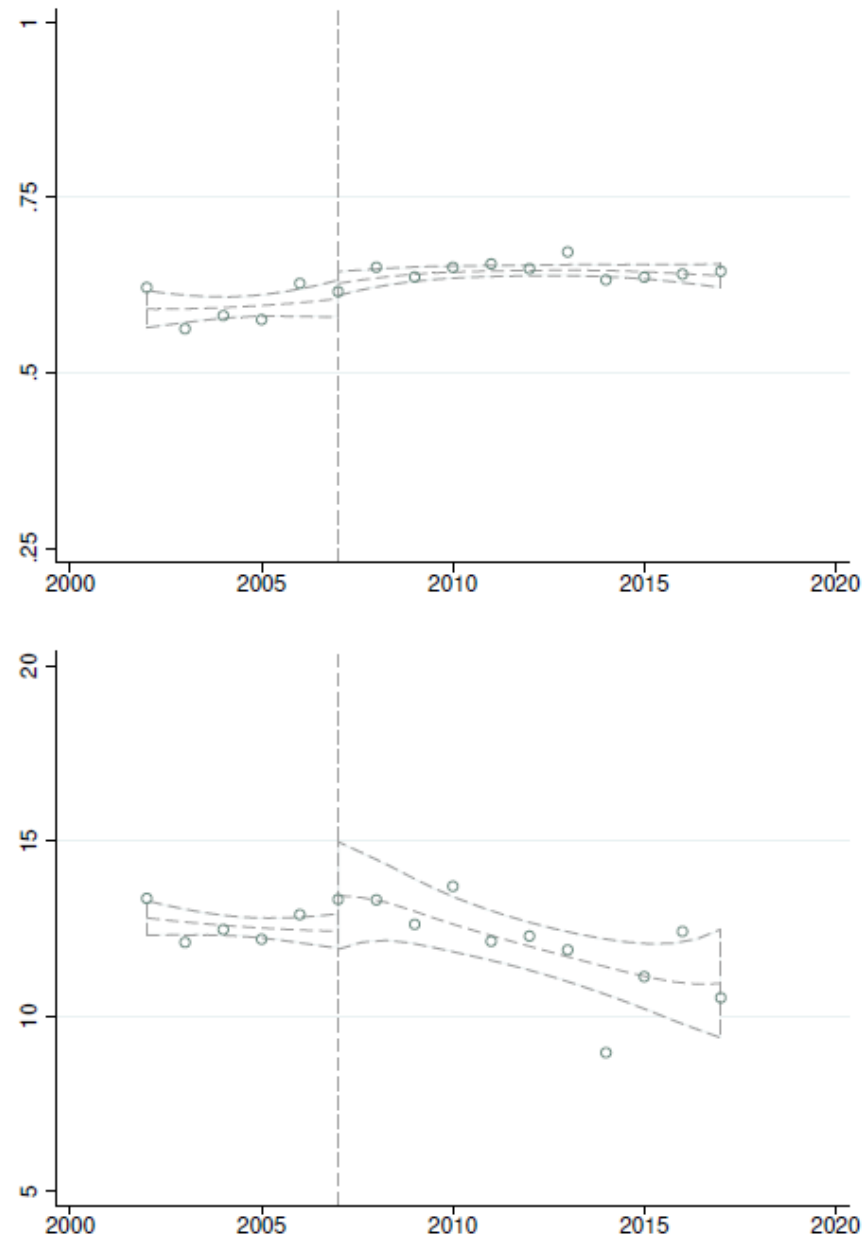
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Alternative explanations (I)

- Conscientious objection
 - Increase of objectors after enlargement?
 - New flows of migrants settling in regions with the highest share of objectors?



- No changes in either the share (Panel a) or the number (x 100k) (Panel b) of objectors after enlargement

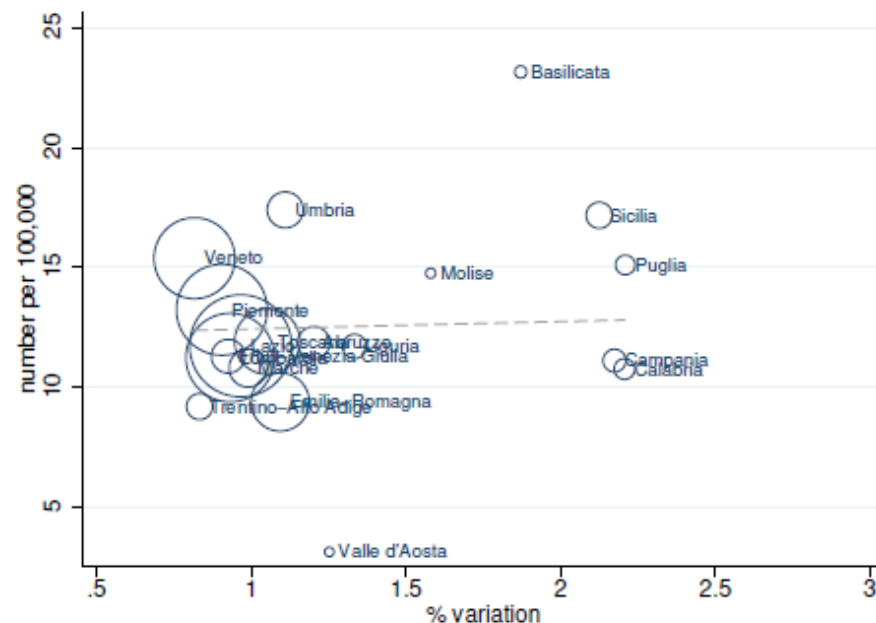
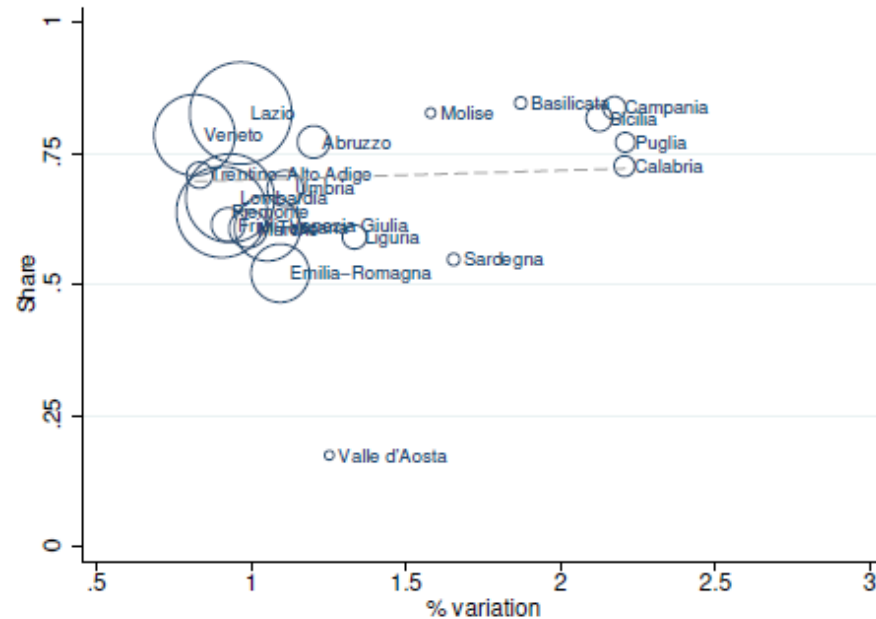


Notes: This Figure shows the time trend for the share (panel A) and the number per 100,000 people (panel B) of gynaecologists against practising abortions in the period 2002-2018.



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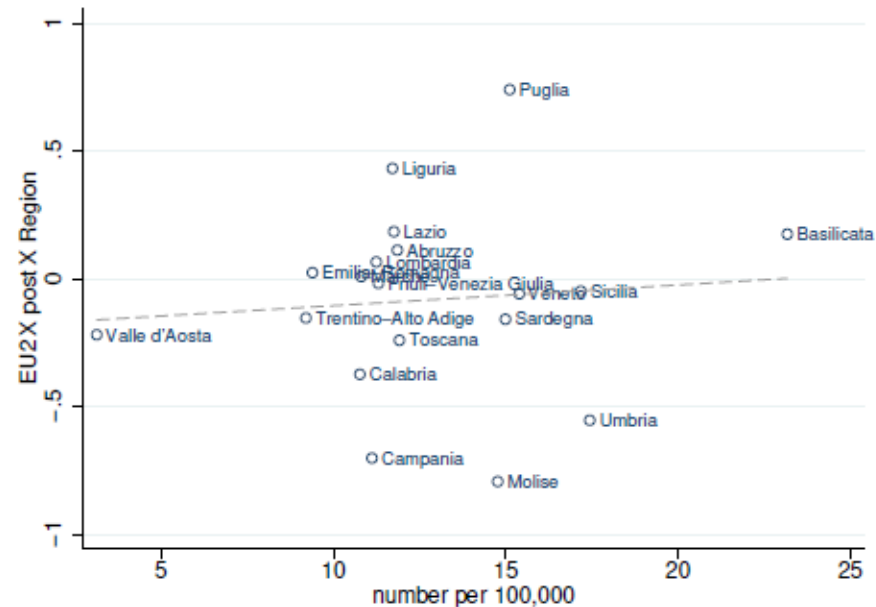
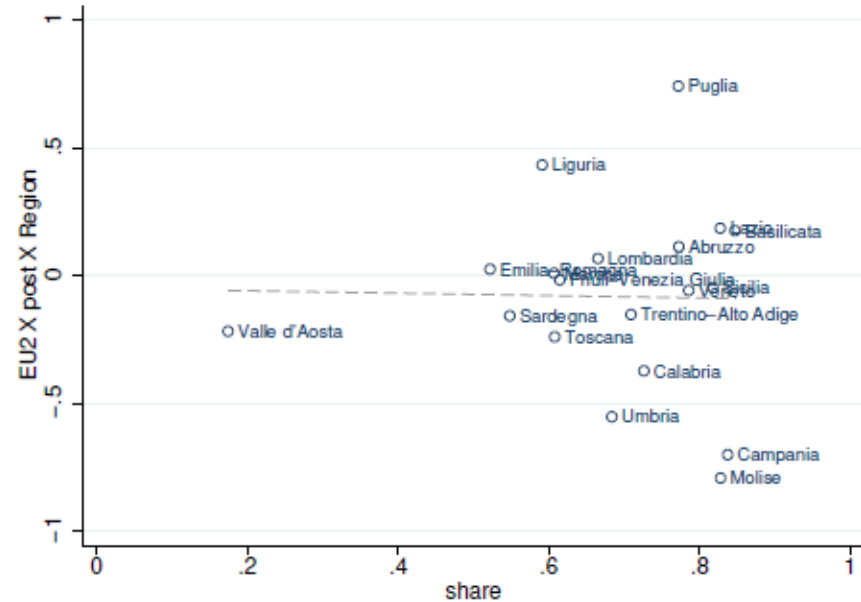
- No association in either the share (Panel a) or the number (x 100k) (Panel b) of objectors and increase in EU2 migrants after enlargement





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- No association in either the share (Panel a) or the number (x 100k) (Panel b) of objectors and heterogeneous effect on VPT across regions





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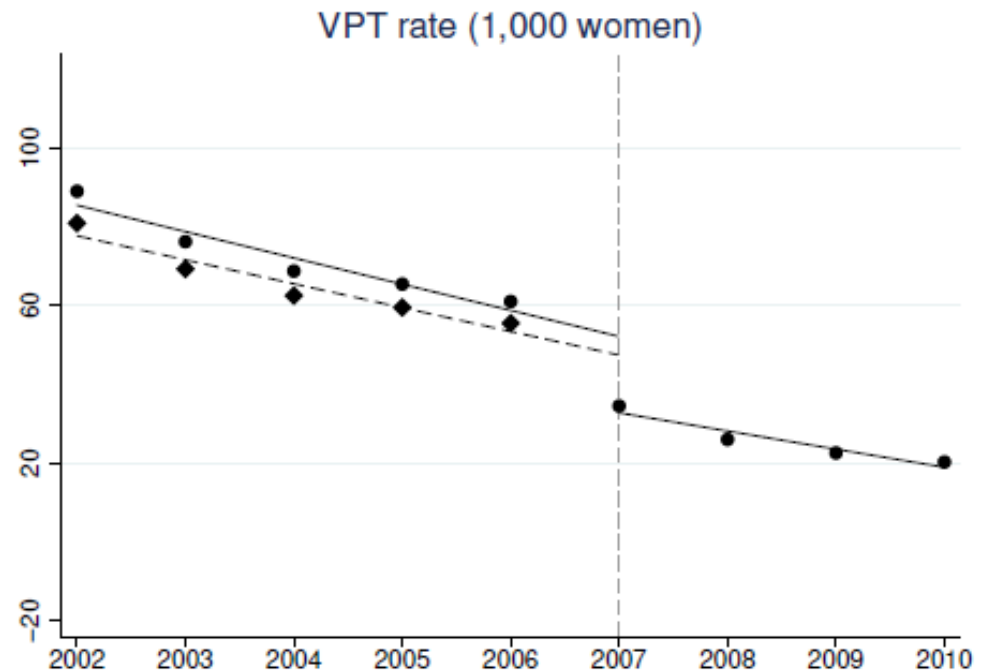
Alternative explanations (II)

- Illegal migration and illegal abortion
 - Correct our estimates by using estimates of illegal migration
 - Discuss role of illegal abortion after enlargement



Alternative explanations (II)

- Illegal migrants not taken into account before the enlargement; hence, VPT overestimated
- They explain at most 15% of the unadjusted drop
- Likely lower: Decreto Flussi 2006, plus illegal abortions turning legal after enlargement





Alternative explanations (II)

- Illegal abortion after enlargement not driven by preferences (citizenship allows for legal VPT)
- Still, legal abortion might not be available due to «capacity constraints»
- Back-of-the-envelope calculations: #VPT declined by 18,000 units between 2002 and 2010, #objectors constant; potential additional demand by new flows of migrants much lower



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Additional robustness

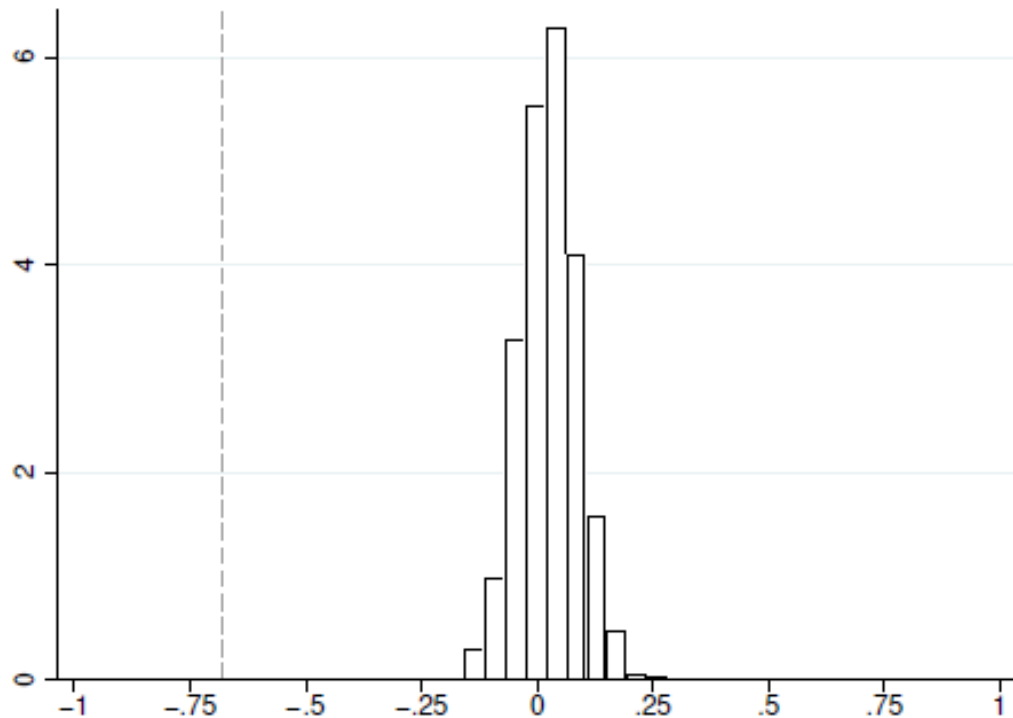
- Results robust
 - To the choice of the control group (using non-EU countries, magnitudes higher; candidates more similar)
 - Across the two EU countries (Romania and Bulgaria)
 - To excluding VPT performed after 90 days



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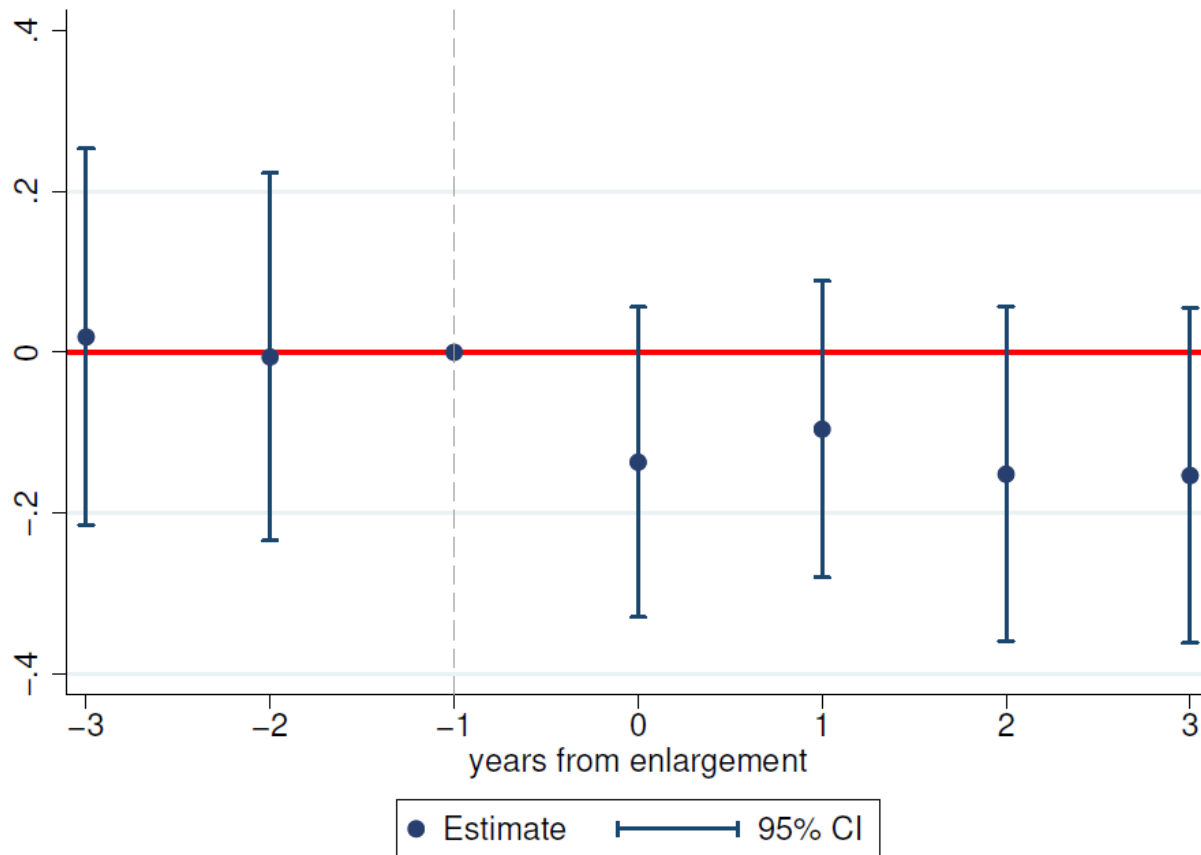
Placebo

- Substitute treated EU2 women with 1,000 random samples of non-EU women





Birth rates





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Results: PSM

- Use logistic regression to compare VPT users between EU2 and candidate countries
- Apply weighting based on PSM



Results: PSM

	Unweighted	Weighted by propensity score
	(1)	(2)
Age	-0.6818*** (0.1707)	-0.2441 (0.4287)
Not married	-0.2301*** (0.0118)	0.0755 (0.0557)
Low educated	-0.1097*** (0.0092)	0.0424 (0.0432)
Unemployed	-0.1323*** (0.0108)	0.0101 (0.0259)
Manager	0.0076*** (0.0034)	0.0021 (0.0034)
Blue collar	0.0577*** (0.0085)	0.0194 (0.0148)
Self-employed	0.0000 (0.001)	0.0003 (0.001)
Urgent	0.0031 (0.0055)	-0.01645 (0.01549)
No complications	0.0024*** (0.0011)	0.0004 (0.0011)
Observations	3,739	3,739



Results: PSM

	Unweighted	Weighted by		
		propensity score	% of foreign population	propensity score and % of foreign population
	(1)	(2)	(3)	(4)
EU2 × post	-0.7471*** (0.059)	-0.6790*** (0.063)	-0.6822*** (0.068)	-0.7002*** (0.067)
Constant	0.0573 (0.791)	-0.1381 (0.132)	0.7321 (1.193)	0.0500 (0.091)
Province FE	Yes	Yes	Yes	Yes
Province FE × linear trend	No	No	No	No
Post × covariates	Yes	Yes	Yes	Yes
Observations	3,739	3,739	3,650	3,651
R-squared	0.5171	0.7101	0.8359	0.5646