

Understanding the Effects of Legalizing Undocumented Immigrants

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Motivation

The number of undocumented immigrants is large:

- 11 million in the US, which represents 26 percent of total immigrants
- More than 1 million in Spain in 2004, i.e. 2.5 percent of Spanish population

Many governments considering various policy responses:

- Obama's Immigration reform
- Trump's talks about deportation policy
- Constant debates in multiple European countries

Yet, very little is known on the consequences of amnesty programs for the entire economy

This paper

Unique natural experiment:

- 1 Terrorist attacks of 11th March 2004 lead to a change of government
(Garcia-Montalvo, 2011)
- 2 Among first Zapatero policies: the legalization of 600 thousand immigrants
- 3 Between 7th February and 7th May 2005 affiliations to the social security increased by 3 pp
- 4 First Spanish amnesty directly targeted to the labor market

Combined with high quality administrative and survey data:

- Continuous Sample of Employment Histories (*Muestra Continua de Vidas Laborales*)
- Payroll tax revenues from the Ministry of Labor and Social Security
- Labor Force Survey (*Encuesta de la Población Activa*) – **includes formal and informal workers**
- Municipal Registry of Population (*Padrón Municipal*)

Preview of the results

1 Changes in payroll tax revenues

- Local increase in payroll tax revenues of 4,189 Euros per legalized immigrant
- This increase is .55 of what expected from the change in Social Security affiliation

Payroll taxes changes **increase labor costs by more than 30 percent** for affected workers

⇒ either newly *legalized immigrants negatively selected* and/or *labor market effects*

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2 Labor market consequences

- Negative employment effects on low-skilled workers
- Positive employment and wage effects on high-skilled workers
- Direct evidence of selection in low-skilled labor market
 - Low-skilled natives who lost their job were negatively selected
 - Low-skilled natives who entered the labor market were positively selected
 - No effect on wages of low-skilled natives always working
- Strong internal migration response of immigrants

⇒ implied change in payroll taxes from labor market changes is substantially lower

⇒ internal migration and selection substantially bias estimates on payroll tax revenues

Contribution

① First estimates on total payroll tax revenues from amnesty programs

- Each newly legalized immigrant increased payroll tax revenues by 4,801 Euros
- This estimate takes into account selection and internal migration
- **Methodological contribution:** Importance of *both* payroll tax *and* labor market data

② First account of potential gains and losses → amnesty programs may result in:

- Overall gains for the economy in terms of tax collection (though still not considering all dimensions of public finance)
- Important distributional consequences due to labor market effects

Related literature

Amnesty programs:

- Evaluation of amnesties on outcomes of newly legalized immigrants

Consumption behavior: Dustmann et al. (2017).

Labor market prospects: Devillanova et al. (Forthcoming), Amuedo-Dorantes and Bansak (2011), Amuedo-Dorantes et al. (2007), Kaushal (2006), Cobb-Clark et al. (1995).

- Evaluation of prospects of legal status of immigrants in other dimensions

Crime: Pinotti (2017), Mastrobuoni and Pinotti (2015)

Redistribution: Cascio and Lewis (2017)

Labor market consequences of immigration:

- Large literature on consequences of immigration for the labor market
- Large literature using spatial variation

Card (1990), Altonji and Card (1991), Borjas et al. (1997), Card (2005), Lewis (2012), Glitz (2012), Monras (2015), Borjas and Monras (2017), Llull (2017a) and Llull (2017b)

Outline

- 1 Background and data
- 2 Empirical evidence:
 - 1 Public finances
 - 2 Labor market
- 3 Discussion

Events leading to the policy change

From tougher regulation on immigration to an amnesty program:

- Late 90s early 00s:
 - Spanish immigration boom starts
 - Large number of undocumented immigrants
 - Around year 2000, Popular Party set tougher conditions for immigrants
- Forecast of the 2004 general election:
 - 42.2% for PP *versus* 35.5% for PSOE
- Terrorist attacks of March 11th 2004:
 - 3 days before the election terrorists attacked a commuter trains in Madrid
 - The government initially tried to blame ETA for the attacks over concerns on Spanish involvement in the Iraq war influence on the general election outcome
 - The handling of these 3 days likely caused the PP to lose the elections (Garcia-Montalvo, 2011)
- Election outcome and first Zapatero policies:
 - Zapatero won unexpectedly the election of March 14th 2004
 - One of the first policies was the amnesty program

Zapatero's reform

The amnesty program:

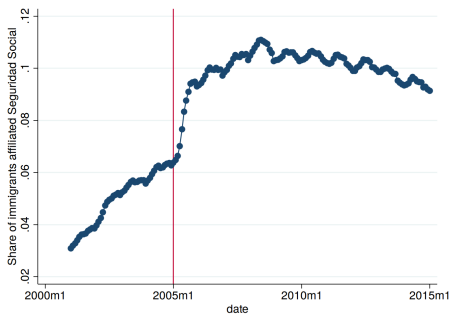
- Legalization of working status of almost 600,000 immigrants already in Spain
- The policy offered a period of 3 months to give work permits to workers who:
 - 1 were in the Municipal Register at least 6 months prior to Feb. 7th 2005
 - 2 were employed and employer guaranteed 6 months of employment
- The administration did an important effort to make sure that the policy was implemented:
 - Work inspections increased by 132% inspections
- First amnesty in Spain focused on the labor market:
 - Previous amnesties focused mainly on family reunification
 - Much smaller in total numbers, and given that many legalized were not at working age, even smaller for the labor market

What did the amnesty program mean for the labor market?

- 1 Increase in the cost of low skilled labor: Payroll taxes are around 36 percent of wages.
- 2 Immigrant workers became much closer substitutes to native workers

Affiliation to Social Security

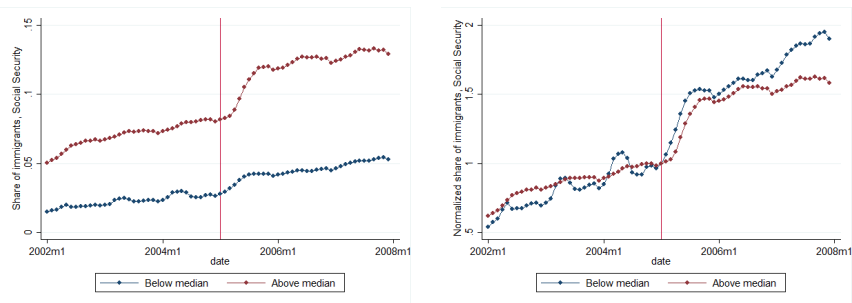
Figure: Social security affiliation and the immigration reform



Notes: This figure shows the share immigrants who are affiliated to the social security.

Affiliation to Social Security, two regions

Figure: Social security affiliation and the immigration reform



Notes: The left figure shows the share immigrants who are affiliated to the social security above and below the median level of immigration (in 2002). The vertical axes indicates the last period before the reform (2005m1). The right figure normalises the values in the left one using the last observation before the policy intervention.

Keys to identification

Two dimensions of variation:

- **Policy change:** Within 3 months a sharp increase in social security affiliations
- **Spatial variation:** Large differences in initial share of immigrants across provinces

⇒ Continuous difference in difference estimator

Three steps:

- 1 Remove linear-province specific time trends before the policy change
- 2 Compute difference between pre- and post- periods
- 3 Explain difference between pre- and post- periods by the differential change in immigrants social security affiliation resulting from the amnesty program

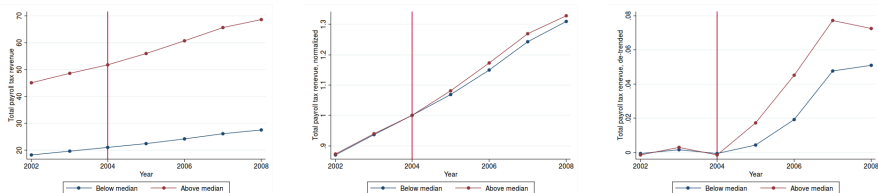
Note:

- Pre-period is defined as 2002-04
- Post-period is defined as 2005-07

Payroll tax revenues

Illustration of the identification

Figure: Payroll taxes and the immigration reform



Notes: The left figure shows the payroll tax revenue in Spanish provinces above and below the median level of immigration (in 2002). The vertical axes indicates the last period before the reform (2004). The central figure normalizes the values in the left one using the last observation before the policy intervention. The figure on the right removes linear region specific pre-shock trends.

Payroll tax revenue estimates

Table: Estimates of the change in payroll-tax revenues per newly legalized immigrant

	General Reg.	Self. emp.	Agricult.	Sea	Coal	Housekeeping	Accident	Unemp.	Total
Δ Immigrants in social security/pop.	3,983*** (1,348)	65.7 (43.05)	146.4*** (50.92)	-11.4 (18.91)	46.4 (38.93)	233.8*** (75.00)	-44.2 (28.37)	-230.7 (456.0)	4,189*** (1,051)
Observations	50	50	50	50	50	50	50	50	50
R-squared	0.411	0.032	0.276	0.012	0.019	0.519	0.053	0.018	0.515

Note: This table estimates the contribution per regularized immigrant in each regime/payroll-tax of the social security in Euros. To do so, we used variation across 50 provinces. Regressions are weighted by population. Robust standard errors reported.

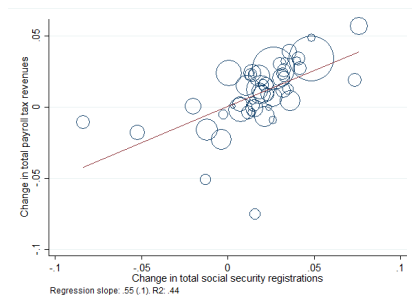
Alternative specifications

- Is this a large increase?

Quantifying immigrant's contribution

$$\Delta \ln \text{Total Payroll Revenue}_c = \alpha + \beta \Delta \ln \text{Total affiliates to social security}_c + \varepsilon_c$$

Figure: Payroll taxes revenues and social security affiliation



Notes: This figure plots the detrended change in total payroll tax revenues against the change in total affiliation to the social security, between the years 2002-2004, and 2005-2007. The size of the dots is the population size of each province.

- $\beta = 0.55 \Rightarrow$ half of what we might expect from previous payers to the SS

Summary of the results on the payroll tax revenues

Two results:

- 1 **Increases in the Payroll tax revenues:**
 - 4,189 extra Euros per newly legalized immigrant
 - General, agrarian, and housekeeping services particularly important
- 2 **Smaller than predicted by the mean:**
 - An increase of 1% in affiliations translates only to .55% in extra revenues

Summary of the results on the payroll tax revenues

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Two possible explanations:

- 1 **Unintended labor market effects** (most important factor)
- 2 **Newly legalized immigrants earned less**

We will see that both matter.

The importance of the labor market

We can decompose:

$$\frac{\Delta \text{Total Payroll Tax Revenue}_c}{\Delta \text{Documented Immigrant}_c} \approx \underbrace{\tau W_{c,imm}}_{\text{Direct contribution}} + \underbrace{\sum_{i,s} \tau \left(\frac{\Delta E_{isc}}{\Delta DI_c} w_{isc} + E_{isc} \frac{\Delta w_{isc}}{\Delta DI_c} + \frac{\Delta L_{isc}}{\Delta DI_c} \frac{E_{isc}}{L_{isc}} w_{isc} \right)}_{\text{Labor market effects}}$$

And estimate each of the parts.

Note that:

- The difference between the two expressions has to be differential **selection on unobservables** across periods

Labor market

Main estimating equation:

$$\Delta \frac{\widehat{y}}{\text{Pop}_c} = \alpha + \beta \Delta \frac{\widehat{\text{Imm Soc Sec}}}{\text{Pop}_c} + \varepsilon_c$$

- where the hat indicates that province specific linear time trends have been removed.
- y indicates outcome variables in levels.

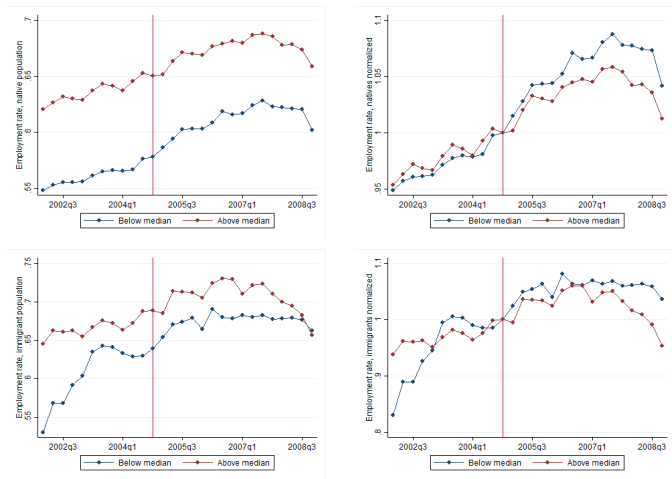
Exercises can be done in the labor market for:

- 1 Employment
- 2 Wages
- 3 Internal migration

For high- and low-skilled workers, both for natives and immigrants

Employment

Figure: Employment



Employment

Table: Estimates of the effect of the immigration reform on employment

	Δ Total Emp.	Δ Employment					
		Natives	Immigrants	Nat. LS	Nat. HS	Imm. LS	Imm. HS
Δ Immigrants in social security/pop.	-0.544*** (0.175)	-0.382 (0.252)	-0.163 (0.162)	-0.467** (0.224)	0.085 (0.246)	-0.339** (0.164)	0.176* (0.0937)
Observations	50	50	50	50	50	50	50
R-squared	0.087	0.034	0.010	0.077	0.003	0.059	0.062

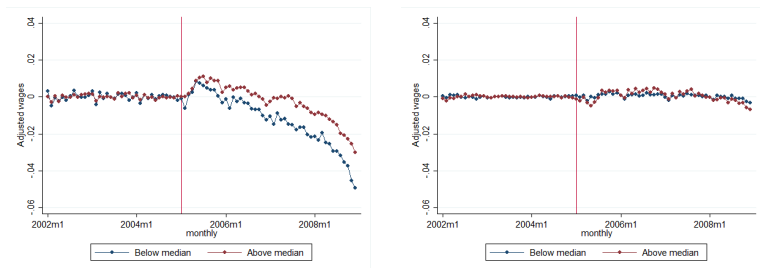
Note: This table estimates the effect of immigrant regularization on employment. Regressions are weighted by population. Robust standard errors reported.

Alternative specifications

Employment results by sector

Wages

Figure: Composition-adjusted wages



Note: The figure on the left shows the average composition-adjusted native wage in Spanish provinces above and below the median level of immigration (in 2002). The vertical red line indicates the last period before the reform (2005m1). The figure on the right shows the same series for immigrant workers. Source: Own elaboration based on MCVL.

Wages

Table: Estimates of the effect of the immigration reform on wages

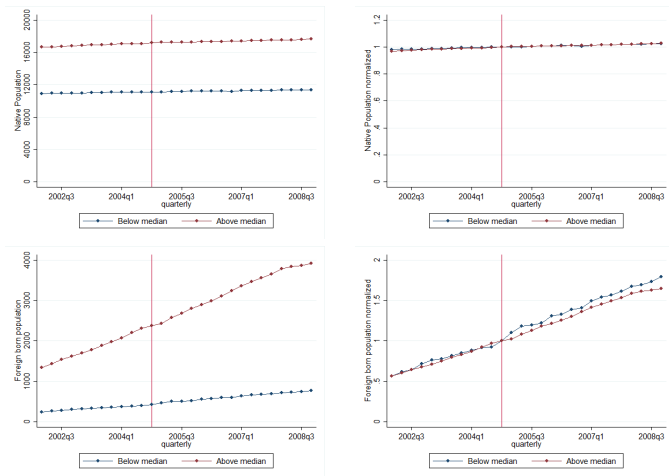
	Δ Total log wages	Δ log wages					
		Natives	Immigrants	Nat. LS	Nat. HS	Imm. LS	Imm. HS
Δ Immigrants in social security/pop.	0.244** (0.106)	0.310*** (0.113)	-0.052 (0.278)	0.275*** (0.093)	0.428* (0.223)	-0.118 (0.285)	0.998* (0.587)
Observations	50	50	50	50	50	50	50
R-squared	0.143	0.217	0.001	0.191	0.079	0.004	0.023

Note: This table estimates the effect of immigrant regularization on *log* wages. Robust standard errors reported.

Alternative specifications

Internal migration

Figure: Spanish and foreign-born population and the immigration reform



Internal migration

Table: Estimates of the effect of the immigration reform on internal migration

	Δ Immigrant population share			Δ Share of LS
	Total	Low Skilled	High Skilled	Population
Δ Immigrants in social security/pop.	-0.359* (0.201)	-0.432** (0.206)	0.073 (0.0862)	-0.370 (0.360)
Observations	50	50	50	50
R-squared	0.029	0.055	0.012	0.042

Note: This table estimates the effect of immigrant regularization on the share of foreign-born population and total low skilled population. Regressions are weighted by population. Robust standard errors reported.

Alternative specifications

Summary of the results on the labor market

In the 2 years following the policy change:

Employment - For every 10 newly legalized immigrant:

- 1 4.7 low skilled natives *lost* their jobs
- 2 0.9 high skilled native *gained* a job
- 3 3.4 low skilled immigrants *lost* their job
- 4 1.8 high skilled immigrants *gained* a job

Size of estimates consistent with a local labor demand elasticity of around -1.

Wages - For every 1 p.p. increase in the share of immigrants:

- 1 Wages of employed low skilled natives *increased* by 0.28 percent
- 2 Wages of employed high skilled natives *increased* by 0.43 percent
- 3 Wages of employed low skilled immigrants *decreased* by 0.12 percent
- 4 Wages of employed high skilled immigrants *increased* by 1.0 percent

Migration:

- Substantial relocation of immigrants from high to low immigrants locations.

Summary of the results on the labor market

Two points:

- 1 Evidence consistent with:
 - 1 increase in cost of low-skilled workers, substitution in production towards more skilled factor inputs
 - 2 low-skilled immigrants and natives became closer substitutes with the policy change (Ottaviano and Peri (2012) and Manacorda et al. (2012))
- 2 (Potentially) important role for **selection** (e.g. wage of low-skilled natives who lost their job as a consequence of the policy vs. average wages of other low-skilled workers)

Do these labor market effects coincide with pay-roll tax revenue data?

Decomposition of the effects

From the decomposition previous introduced we have:

$$\frac{\Delta \text{Total Payroll-Tax Revenue}_c}{\Delta \text{Documented Immigrant}_c} \approx \underbrace{\tau W_{c,imm}}_{\text{Direct contribution}} + \underbrace{\sum_{i,s} \tau W_{isc} \left(\beta^{Mig} \frac{E_{isc}}{L_{isc}} + \beta^{Emp} + \frac{E_{isc}}{L_c} \beta^{wage} \right)}_{\text{Labor market effects}}$$

- We have estimated each element of the labor market effects
- We need to estimate the direct contribution of newly legalized immigrants:
 - For this we use data on new entrants to social security in these months

Table: Evaluation of immigrant reform, raw estimates

	Natives LS	Natives HS	Immigrants LS	Immigrants HS
Assumed distribution of newly legalized immigrants				
Δ Documented immigrants	0	0	0.93	0.07
Estimates of the labor market effects				
Δ Migration (β^{Mig})	0	0	-0.432	0.073
Δ Employment (β^{Emp})	-0.467	0.085	-0.339	0.176
Δ (log) Wages (β^{wage})	0.275	0.428	-0.118	0.998
Summary statistics				
Employment rates	0.62	0.83	0.69	0.73
Average wages	17,131	23,759	14,082	19,892
Av. wages of new legalized immigrants	-	-	12,893	15,061
Employment distribution	0.46	0.14	0.05	0.02
Estimates on payroll taxes by skill				
Labor Change	-2,113	1,231	-3,283	1,764
Total Change	-2,113	1,231	1,054	2,157
Contribution per skill	-91%	53%	45%	93%
Estimates of the effect on payroll taxes				
Direct estimates payroll taxes			4,189 Euros	
Estimates of total effects, labor market			2,330 Euros	
Difference in estimates			- 1,859 Euros	

Interpretation of the results

Note that:

- Important gap between estimates from the labor market and from payroll tax data

Next steps:

- Mismatch between estimates → indicative of selection. Do we have direct evidence?
- Once selection is taken into account, we can deal with internal migration

Selection in entries/exits to the labor market

Table: Native selection

	Δ (ln) wages low skilled natives		
	Always working	Enter 2005 vs. Enter 2004 (1)	Lost job 2005 vs. Lost job 2004 (2)
Δ Immigrants in social security/pop.	-0.064 (0.102)	0.655* (0.336)	-0.563 (0.445)
Observations	50	50	50
R-squared	0.011	0.052	0.048

- Low-skilled workers who entered in the market after the reform were *positively* selected
- Low-skilled workers who exited the market after the reform were *negatively* selected
- No change in wages for those always working

Alternative specifications

Accounting for selection

Table: Evaluation of immigrant reform, accounting for selection

	Natives LS	Natives HS	Immigrants LS	Immigrants HS
	Estimates on payroll taxes by skill			
Labor Change	-1,385	1,231	-2,152	1,764
Total Change	-1,385	1,231	2,185	2,157
Contribution per skill	-33%	29%	52%	51%
	Estimates of the effect on payroll taxes			
Direct estimates payroll taxes			4,189 euros	
Estimates of total effects, labor market			4,189 euros	
Difference in estimates			0 euros	

Note that:

- This table estimates that low-skilled workers who lost their job earned 34 percent less than the average low-skilled worker.
- Using these estimates we can shut down internal migration.

Accounting for migration

Table: Evaluation of immigrant reform, accounting for selection and migration

	Natives LS	Natives HS	Immigrants LS	Immigrants HS
Estimates on payroll taxes by skill				
Labor Change	-1,385	1,231	-1,153	1,377
Total Change	-1,385	1,231	3,184	1,770
Contribution per skill	-29%	26%	66%	37%
Estimates of the effect on payroll taxes				
Direct estimates payroll taxes			4,189 euros	
Estimates of total effects, labor market			4,801 euros	
Difference in estimates			612 euros	

Conclusion

- 1 **First causal estimates of payroll tax revenues changes following amnesty programs**
 - Direct effects on tax collection
 - Indirect effect through the labor market
- 2 **Important to account for selection and internal migration**
 - Provides direct evidence of selection in both observables and unobservables in the employment effects following the reform.
 - Data on *both* tax revenues *and* labor market outcomes is needed to quantify its importance.
- 3 **For each newly legalized immigrant payroll tax revenues increased by 4,801 Euros**
 - Overall gains (though still not considering all dimensions of public finance)
 - Important distributional consequences between different types of workers

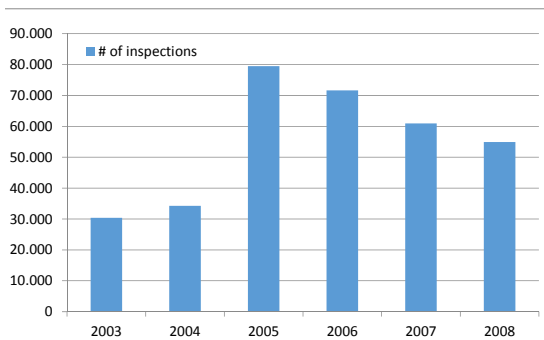
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- Monras, Vázquez-Grenno, and Elias** Legalizing Undocumented Immigrants March 2018 34 / 40

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Inspections

reform

Figure: Number of inspections related to foreign workers



Source: Ministry of Labor and Social Security.

Payroll tax revenue

Table: Payroll tax revenue estimates

payroll tax revenue

	General Reg.	Self. emp.	Agricult.	Sea	Coal	Housekeeping	Accident	Unemp.	Total
Panel A: Baseline									
Δ Immigrants	3,983***	65.7	146.4***	-11.4	46.4	233.8***	-44.2	-230.7	4,189***
in social security/pop.	(1,348)	(43.05)	(50.92)	(18.91)	(38.93)	(75.00)	(28.37)	(456.0)	(1,051)
Observations	50	50	50	50	50	50	50	50	50
R-squared	0.411	0.032	0.276	0.012	0.019	0.519	0.053	0.018	0.515
Panel B: Without 4 main provinces (Mad., Bcn., Val., Sev)									
Δ Immigrants	3,093***	73.42*	155.9***	-0.230	45.03	190.1***	-38.39	-46.29	3,472***
in social security/pop.	(947.0)	(43.53)	(56.24)	(19.29)	(35.76)	(62.00)	(33.24)	(327.8)	(819.0)
Observations	50	50	50	50	50	50	50	50	50
R-squared	0.596	0.035	0.287	0.115	0.019	0.682	0.062	0.118	0.650
Panel C: All controls (pol. alignment; coastal dummies; construction sector pre-reform)									
Δ Immigrants	3,932***	94.87*	184.6***	-5.113	11.10	188.9***	-15.09	-454.1	3,937***
in social security/pop.	(1,243)	(52.81)	(46.15)	(17.77)	(21.12)	(62.67)	(32.87)	(317.1)	(1,026)
Observations	50	50	50	50	50	50	50	50	50
R-squared	0.537	0.193	0.394	0.161	0.088	0.662	0.171	0.488	0.598
Panel D: 2SLS all controls (pol. alignment; coastal dummies; construction sector pre-reform)									
Δ Immigrants	6,820***	74.87	99.78*	14.97	11.19	430.6***	-35.63	-1,750***	5,666***
in social security/pop.	(1,146)	(110.0)	(59.70)	(39.27)	(43.29)	(67.19)	(63.40)	(462.7)	(974.6)
Observations	50	50	50	50	50	50	50	50	50
F-test of excluded instruments	21.290	21.290	21.290	21.290	21.290	21.290	21.290	21.290	21.290

Employment

Table: Estimates of the effect of the reform on employment

employment

	Δ Total Emp.	Δ Employment					
		Natives	Immigrants	Nat. LS	Nat. HS	Imm. LS	Imm. HS
Panel A: Baseline							
Δ Immigrants	-0.544***	-0.382	-0.163	-0.467**	0.085	-0.339**	0.176*
in social security/pop.	(0.175)	(0.252)	(0.162)	(0.224)	(0.246)	(0.164)	(0.0937)
Observations	50	50	50	50	50	50	50
R-squared	0.087	0.034	0.010	0.077	0.003	0.059	0.062
Panel B: Without 4 main provinces (Mad., Bcn., Val., Sev)							
Δ Immigrants	-0.581***	-0.407	-0.174	-0.366	-0.041	-0.271	0.097
in social security/pop.	(0.184)	(0.255)	(0.158)	(0.248)	(0.220)	(0.164)	(0.134)
Observations	46	46	46	46	46	46	46
R-squared	0.083	0.035	0.011	0.045	0.001	0.036	0.026
Panel C: All controls (pol. alignment; coastal dummies; construction sector pre-reform)							
Δ Immigrants	-0.602***	-0.494**	-0.109	-0.678***	0.185	-0.366*	0.257**
in social security/pop.	(0.193)	(0.237)	(0.157)	(0.219)	(0.291)	(0.187)	(0.120)
Observations	50	50	50	50	50	50	50
R-squared	0.173	0.172	0.044	0.296	0.063	0.137	0.284
Panel D: 2SLS all controls (pol. alignment; coastal dummies; construction sector pre-reform)							
Δ Immigrants	-0.775*	-0.693	-0.082	-0.954***	0.261	-0.231	0.149
in social security/pop.	(0.429)	(0.520)	(0.324)	(0.361)	(0.437)	(0.320)	(0.154)
Observations	50	50	50	50	50	50	50
F-test of excluded instruments	21.290	21.290	21.290	21.290	21.290	21.290	21.290

Wages

wages

Table: Estimates of the effect of the reform on wages

	Δ Total log wages	Δ log wages					
		Natives	Immigrants	Nat. LS	Nat. HS	Imm. LS	Imm. HS
Panel A: Baseline							
Δ Immigrants	0.244**	0.310***	-0.052	0.275***	0.428*	-0.118	0.998*
in social security/pop.	(0.106)	(0.113)	(0.278)	(0.093)	(0.223)	(0.285)	(0.587)
Observations	50	50	50	50	50	50	50
R-squared	0.143	0.217	0.001	0.191	0.079	0.004	0.023
Panel B: Including women							
Δ Immigrants	0.213*	0.262**	-0.167	0.224**	0.328*	-0.295	0.941
in social security/pop.	(0.112)	(0.123)	(0.304)	(0.110)	(0.190)	(0.297)	(0.627)
Observations	50	50	50	50	50	50	50
R-squared	0.097	0.133	0.008	0.112	0.054	0.025	0.031
Panel C: Without 4 main provinces (Mad., Bcn., Val., Sev)							
Δ Immigrants	0.0758	0.128*	-0.129	0.144*	-0.034	-0.189	1.210
in social security/pop.	(0.0758)	(0.0751)	(0.283)	(0.0730)	(0.230)	(0.293)	(0.922)
Observations	46	46	46	46	46	46	46
R-squared	0.017	0.050	0.005	0.059	0.000	0.011	0.024
Panel D: All controls (pol. alignment; coastal dummies; construction sector pre-reform)							
Δ Immigrants	0.231**	0.313***	-0.383	0.279***	0.501*	-0.527	1.749
in social security/pop.	(0.0983)	(0.106)	(0.306)	(0.0971)	(0.259)	(0.325)	(1.117)
Observations	50	50	50	50	50	50	50
R-squared	0.259	0.342	0.105	0.283	0.179	0.127	0.083
Panel E: 2SLS all controls (pol. alignment; coastal dummies; construction sector pre-reform)							
Δ Immigrants	0.291*	0.400**	-0.311	0.288*	1.094***	-0.429	-0.420
in social security/pop.	(0.171)	(0.162)	(0.609)	(0.155)	(0.305)	(0.617)	(1.773)
Observations	50	50	50	50	50	50	50
F-test of excluded instruments	21.290	21.290	21.290	21.290	21.290	21.290	21.290

Internal migration

migration

Table: Estimates of the effect of the reform on internal migration

	Δ Immigrant population share			Δ Share of LS
	Total	Low Skilled	High Skilled	Population
Panel A: Baseline				
Δ Immigrants	-0.359*	-0.432**	0.073	-0.370
in social security/pop.	(0.201)	(0.206)	(0.0862)	(0.360)
Observations	50	50	50	50
R-squared	0.029	0.055	0.012	0.042
Panel B: Without 4 main provinces (Mad., Bcn., Val., Sev)				
Δ Immigrants	-0.290	-0.322	0.032	-0.022
in social security/pop.	(0.184)	(0.205)	(0.112)	(0.180)
Observations	46	46	46	46
R-squared	0.017	0.030	0.002	0.000
Panel C: All controls (pol. alignment; coastal dummies; construction sector pre-reform)				
Δ Immigrants	-0.265	-0.410*	0.145	-0.496
in social security/pop.	(0.204)	(0.237)	(0.109)	(0.354)
Observations	50	50	50	50
R-squared	0.059	0.101	0.160	0.202
Panel D: 2SLS all controls (pol. alignment; coastal dummies; construction sector pre-reform)				
Δ Immigrants	-0.227	-0.255	0.028	-0.904*
in social security/pop.	(0.404)	(0.404)	(0.141)	(0.517)
Observations	50	50	50	50
F-test of excluded instruments	21.290	21.290	21.290	21.290

Employment by sectors

labor market

Table: Estimates of the effect of the immigration reform on employment by sectors

	Δ Employment Native Low Skilled		
	High-immigrant sectors	Low-immigrant sectors	Public administration
Δ Immigrants in social security/pop.	-0.349* (0.181)	-0.274 (0.188)	0.163 (0.118)
Observations	50	50	50
R-squared	0.046	0.035	0.035
	Share in sector		
Immigrants	0.740	0.231	0.029
Natives	0.511	0.365	0.123