



The Effects on the Labour market

Economics of Migration in Europe Lesson 6

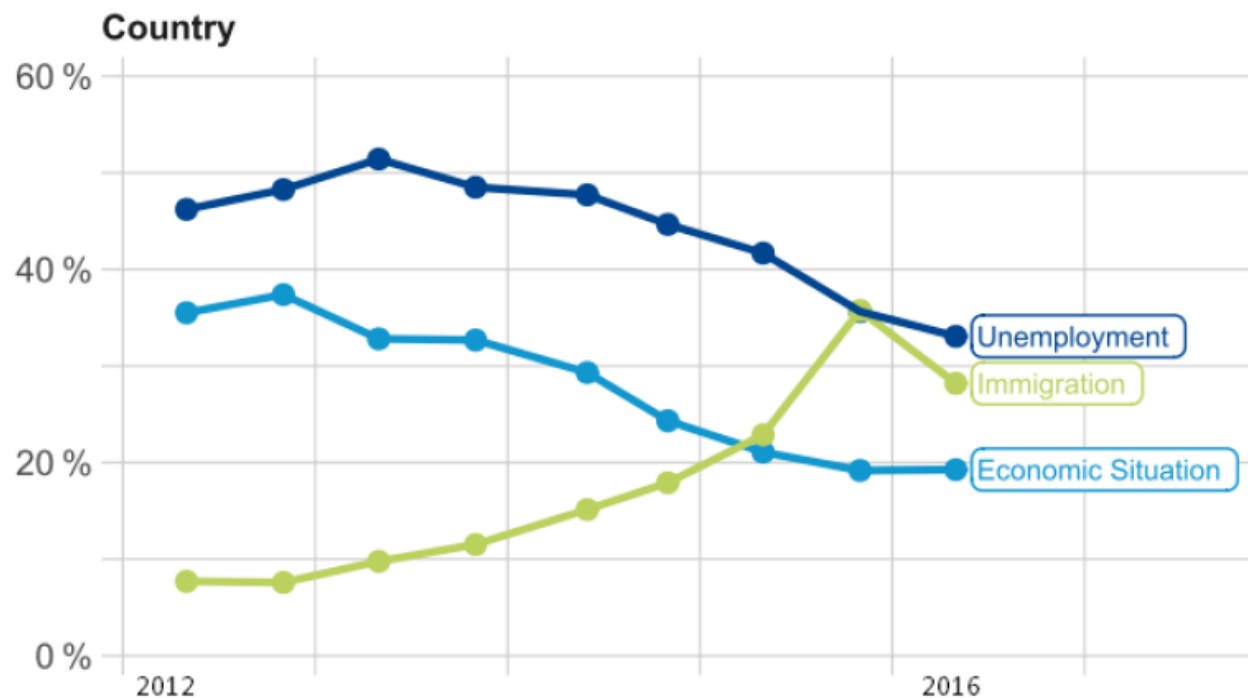
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What do EU citizens consider an important issue for their countries?



Source: Eurobarometer



Migration always has been an hot topic and migration policy is always under revision

One of the key argument used in the debate is the **positive or negative role played by foreigners in the labour market of destination country** and according to their effect migration policy and related policies are changed.

(Video): <https://www.youtube.com/watch?v=R2trsZfP10>



EU migrants in the UK: a snapshot

- [Video link](#), from May 16, 2016
- Imagine you are a UK-born resident of Boston. How would you vote during the Brexit referendum?
- Boston with 75.6% 'Leave' vote had the highest Brexit vote in Britain



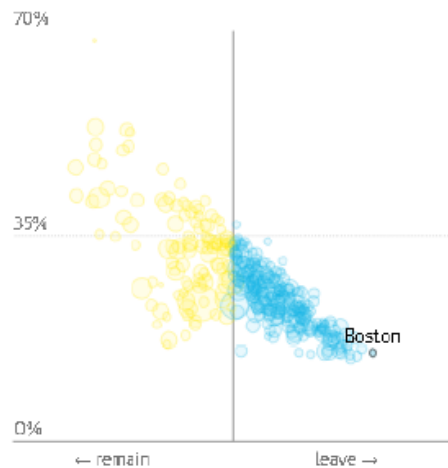
Video re-cap

- What is the share of immigrants living in Boston? Is it big?
- Who are the immigrants (origin, education)? Why did they come? How long do they stay in the UK?
- What are the effects on wages and unemployment in Boston?
- Which other immigration effects were mentioned?
 - Demography
 - Prices
 - Entrepreneurship
 - Education
 - Security
 - Identity

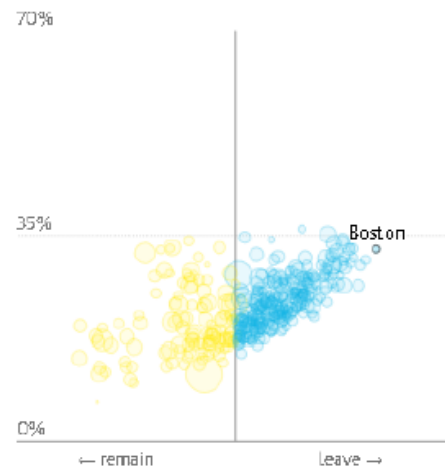


Is immigration to blame for Brexit?

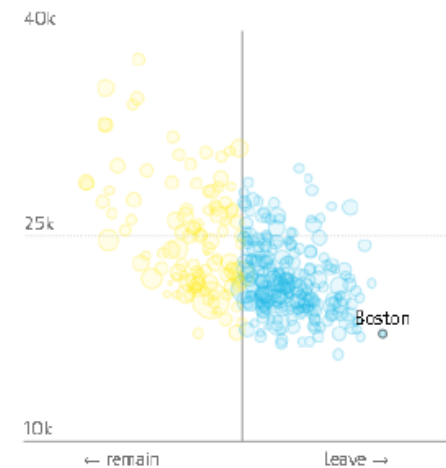
% residents with higher education



% residents with no formal qualifications



Median annual income of residents



Source: The Guardian



The debate on this theme is characterized by conflicting and emotional stances.

- Supporters of **competition** argue as if there were a given number of jobs in an economy and they **assume** that the foreigners cannot set off any growth in demand.
- The supporters of **complementarity**, instead, **assume** that there is a clear segmentation between foreigners and natives, thus no competition can arise.
- The impact of immigration can also be affected by changes in the business cycle; by periods of excess demand or excess supply and the contrasting effects of reduced wage growth but also of reduced inflation, which could be beneficial to the natives, too.
- The passionate discussion about hypothetical reactions of the labour market can go on for ever but economic theory is unequivocal on this point.



Types of Migration

- a) **Labour migration, family reunion, political refugee**

- b) **Temporary vs. permanent migration** (duration of the temporary migration, contracted migration)

- c) **Skilled vs. unskilled** (selection of the supply, selection of the demand and policy selectivity)



1. The effect of immigration at the aggregate economic level

Political issue

→ This is the main political issue but the answer to this question need to know the effect of immigration in all the following area and even more.

Policies to implement

⇨ Selective immigration policies and specific policies to contrast the negative effects of immigration



This is the field where **less empirical research** has been conducted. There is a large body of empirical evidence that immigration increases the aggregate GNP in destination country; but this is not enough to draw a positive conclusion. The idea that **foreign labour can act as an engine for economic growth** is based on studies carried out in the 1950s and 1960s. Lewis, Kindelberger, Lutz were there was a positive link between **population and growth** and the rate of accumulation and technological progress. The case of Switzerland, a country that has always exercised strict control over immigration, reveals that the output elasticity of labour is lower for foreigners (0.10) than for natives (0.46) (Butare, Favarger 1995), which means that foreigners have a positive impact on the growth of income but not on per-capita income.



Migrants provide flexibility in very rigid labour markets

The conclusions reached in the literature (Dolado, Ichino, Goria 1994) agree in identifying a positive effect for the growth of per-capita income in the receiving country, if the foreigner's human capital is higher than that of the native, and vice versa if it is lower.



The debate is often based **on sociopolitical arguments** which are difficult to test: as, for example, in the case of Simon (1989) who argues that one of the many positive aspects of scattered migration is the positive impact that a multiethnic society has on technological innovation.

▫ ***Income distribution has negative effects.***



2. The effect of immigrants on the destination labour market

Political issues:

Immigrants should not damage native workers by reducing their wages or/and replacing natives in their jobs. This result will create conflict, increasing the burden of unemployment on the welfare state, and it is not economically and socially feasible.

Policies to implement:

The migration policy should be selective in order to reduce labour market competition which damages native workers. and passive labour market policies i.e. unemployment benefits should alleviate the negative employment effect, and active labour market policies should retrain native workers for future job offers.



The policy issue is frequently unclear.

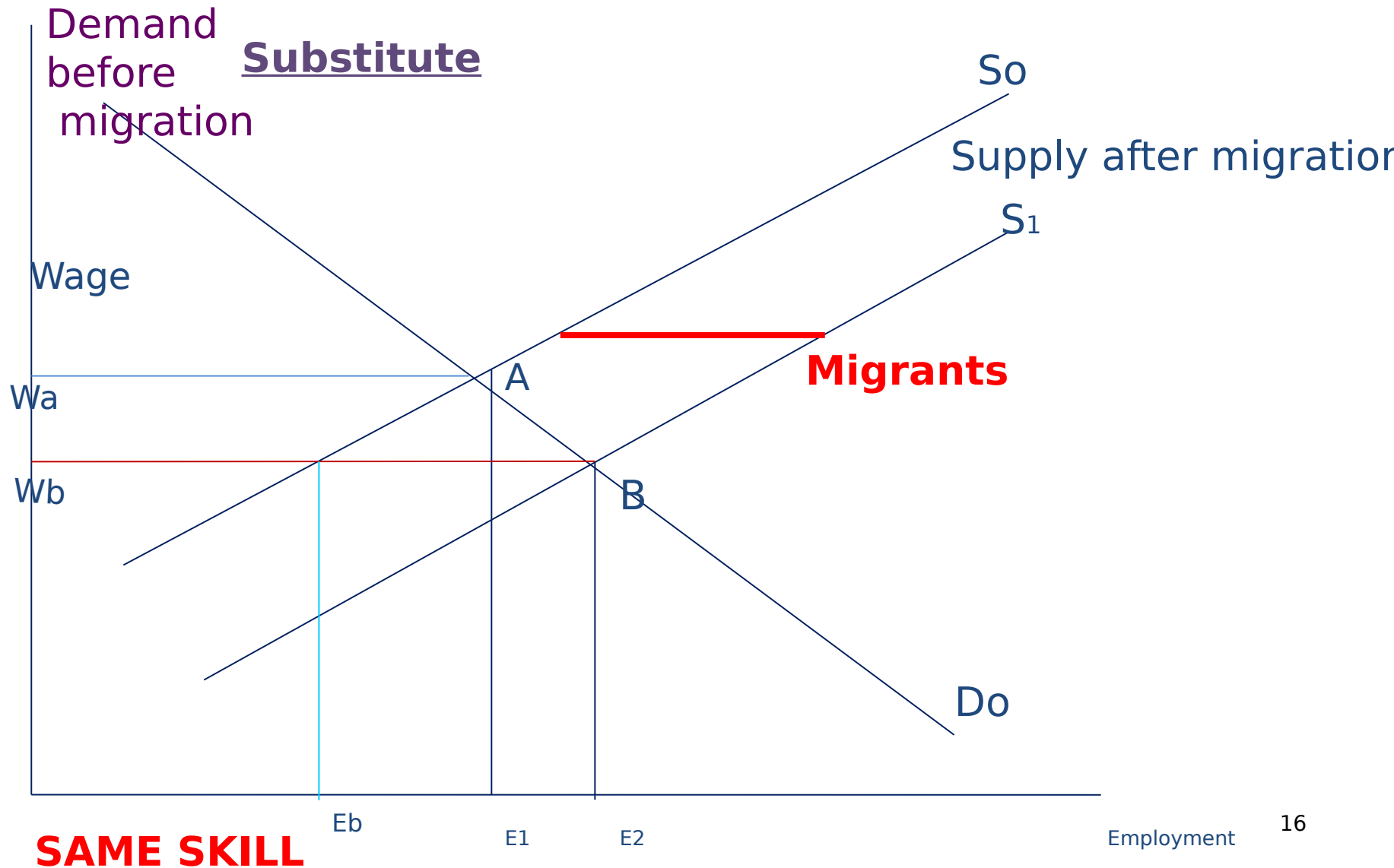
It is not clear if the policy issue is the **average native wage** (and employment) or only the wage of a single category of workers, said **blue collars**.

It is somewhat vague because it hides a distributive problem difficult to solve for policy makers.



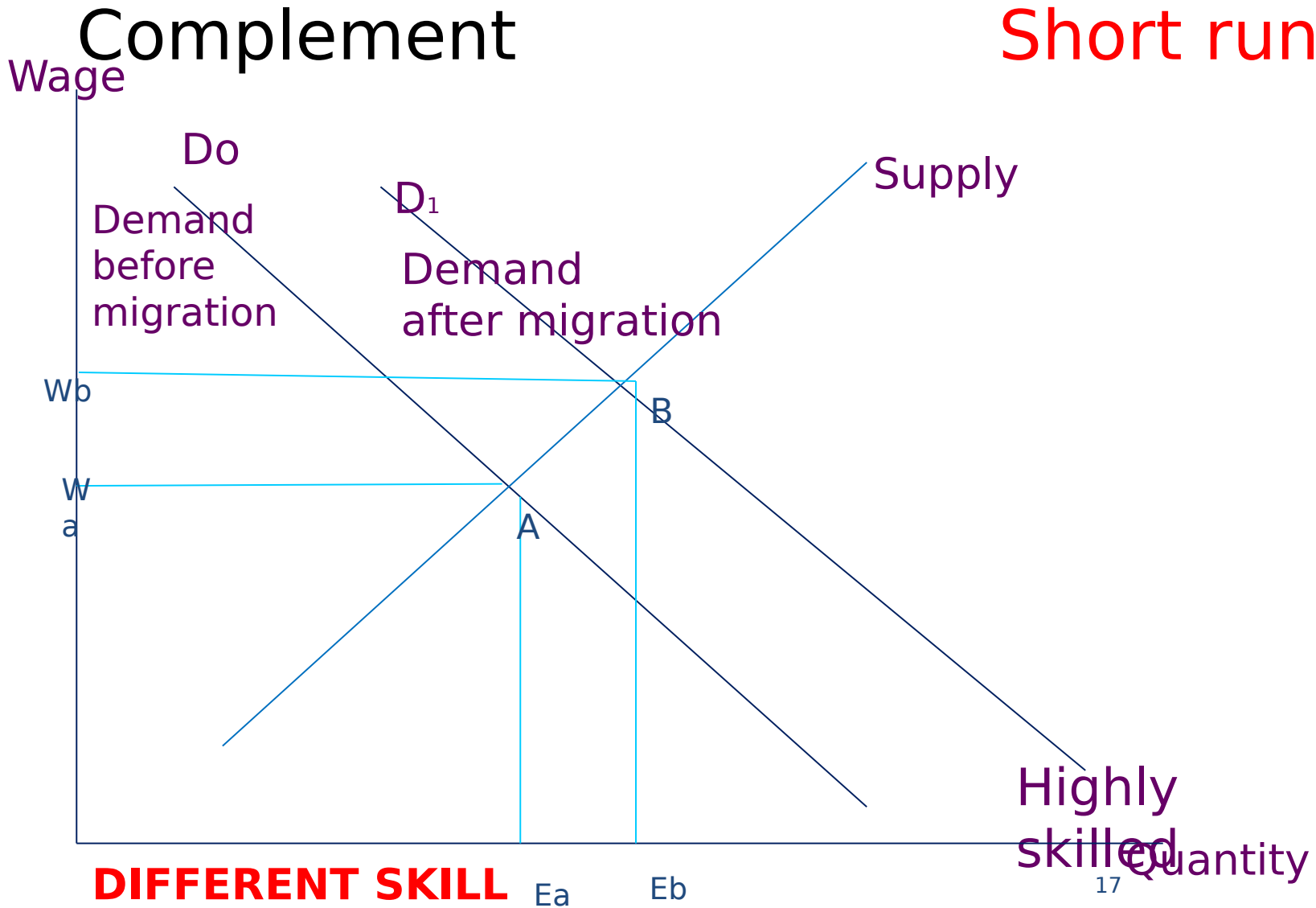
The economic theory is very clear

Immigrant workers are defined as being **competitive** or **substitutes** when they have a negative effect on wages and/or native employment levels, and they are defined as **complementary** when the effect is positive.





Short run





Competition or Complementarity by Categories

- A. Regular immigrants and natives of equal skill level**
- B. Regular immigrants and natives of different skill level**
- C. Regular natives and irregular immigrants**
- D. Irregular natives and irregular immigrants**
- E. Internal mobility (USA, EU, South Europe)**
- F. Production decentralization**



The political debate is imbued with ideas derived from the simplest model.

But the effects of immigration depend upon the flexibility of the capital market, the size of the country – small and therefore a price taker or big and therefore a price maker – the flexibility of the equilibrium wage in the labour market, and the available technology mix, which conditions the options available to firms.



a) Traditional approach



Domestic labour supply can be elastic or rigid, usually men have a more inelastic labour supply while women have a more elastic labour supply.

For a moment we imagine that the demand is given in a close labour market where nothing else changes,

thus the effect of the inflow of immigrants will be only a wage reduction in the case of a rigid supply

or a wage reduction and a voluntary unemployment increase in the case of an elastic supply.



IN THE **MEDIUM RUN** THE DEMAND CHANGE

SAME SKILL

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The conclusion changes if there are two sectors and two types of labour and migrants are only unskilled. Reduction of unskilled wages and increase of skilled wages in the short run and average wage remain constant. Wage reduction in the unskilled sector can attract capital and displace skilled labour.



Empirical tests use spatial correlation

The tests use individual earnings data explained by individual characteristics (X_i at time t) and many other variables at regional or sector level (D_a at time t), among which the variable of interest is the share of foreign workers

$$\log W_{i,a,t} = a + b X_{i,a,t} + \gamma D_{a,t} + e$$



But the model just refers to a close labour market

i.e. Card (2001)

◇ Fixed effects

The allocation of immigrants is not independent of permanent conditions in the various areas. Amenities may be more abundant?

◇ **Simultaneity** Imagine that migrants can choose where they settle. They will tend to move where wages are, *ceteris paribus*, higher.

Bartel (1989): Instruments



Labour market effects: Mixed evidence of wage effects in the US)

	Country	Sample	Specification	Group	Coefficient	S.E.
Borjas (2003)	United States	Census and CPS, 1960–2001	OLS, weighted, decadal	natives, men	-0.57	(0.16)
Borjas (2014)	United States	Census and ACS 1960–2011	OLS, weighted, decadal	natives, men	-0.53	(0.10)
Card and Peri (2016)	United States	Census and ACS 1960–2011	OLS, weighted, decadal	natives, men	-0.12	(0.13)
Card (1996)	United States	Census and CPS, 1979–1985, 4 MSAs	OLS, 3-year difference	natives, white ^a	-0.14	–
Alonji and Card (1991)	United States	Census, 1970–1980, 120 MSAs	IV, weighted decadal	natives, low education	-1.21	(0.54)
				natives, white dropouts	-1.10	(0.64)
Card (2007)	United States	Census, 1980–2000, 100 MSAs	IV, weighted, cross-section	natives	0.06	(0.01)
Boustan, Fishback, and Kantor (2010)	United States	Census, 1940, 60 MSAs	IV, weighted, cross-section	men	0.01	(0.54)
Borjas (2015)	United States	Census and CPS, 1977–1992, 44 MSAs	OLS, weighted, 3-year difference	natives, dropouts ^c	-2.63	(1.08)
Peri and Yasenov (2016)	United States	Census and CPS, 1977–1992, 44 MSAs	OLS, weighted, 3-year difference	natives, dropouts ^d	0.56	(0.73)
LaLonde and Topel (1991)	United States	Census, 1970 and 1980, MSA × arrival cohort	OLS, weighted, decadal	immigrants, recent (≤5yrs.) arrivals	-0.09	(0.03)
Card (2001)	United States	Census, 1990, MSA × occupation	IV, weighted, cross-section	natives, men	-0.10	(0.03)
Borjas (2006)	United States	Census, 1960–2000, MSA × education × experience	OLS, weighted, decadal	natives	-0.06	(0.02)
Card and Lewis (2007)	United States	Census, 1980–2000, MSA × education	IV, weighted, decadal	natives, men	-0.04	(0.06)
Card (2009)	United States	Census and ACS, 1980–2006, MSA × education	IV, weighted, decadal	natives, men	-0.42	(0.28)
Lewis (2011)	United States	Census, 1980–2000, MSA × education	IV, weighted, decadal	natives, manufacturing	-0.14	(0.04)

Source: Dustmann et al (2016)



b- Skilled versus unskilled

Selection of the supply, selection of the demand and policy selectivity

i.e. USA, UK, Australia, Germany, Italy etc.

Migration in Europe

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1. Selection by the Supply

- Roy model:
- Wage dispersion in the destination country larger than wage dispersion in the origin one; thus the emigration is more rewarding for the skilled



2. Selection of the demand

- The destination country is specialized in high skill products – has for instance fiscal incentive in upgrading the production - and need additional skilled labour.



3. Policy incentives

- Quota for skilled labour
- And point system
- I.e. Australia, Canada, USA



Unemployment rates native-born and foreign-born (age 15–64, 2009–2010)

	Men		Women	
	Native	Foreign	Native	Foreign
Denmark	7.7	15.1	6.9	12.1
France	8.4	13.6	8.7	15.8
Germany	7.0	12.6	6.0	10.7
Italy	7.3	9.7	9.1	13.2
Netherlands	3.8	8.5	3.8	7.7
Spain	17.3	31.3	19.1	26.7
UK	8.8	9.2	6.6	9.0
US	10.9	10.0	8.7	9.5



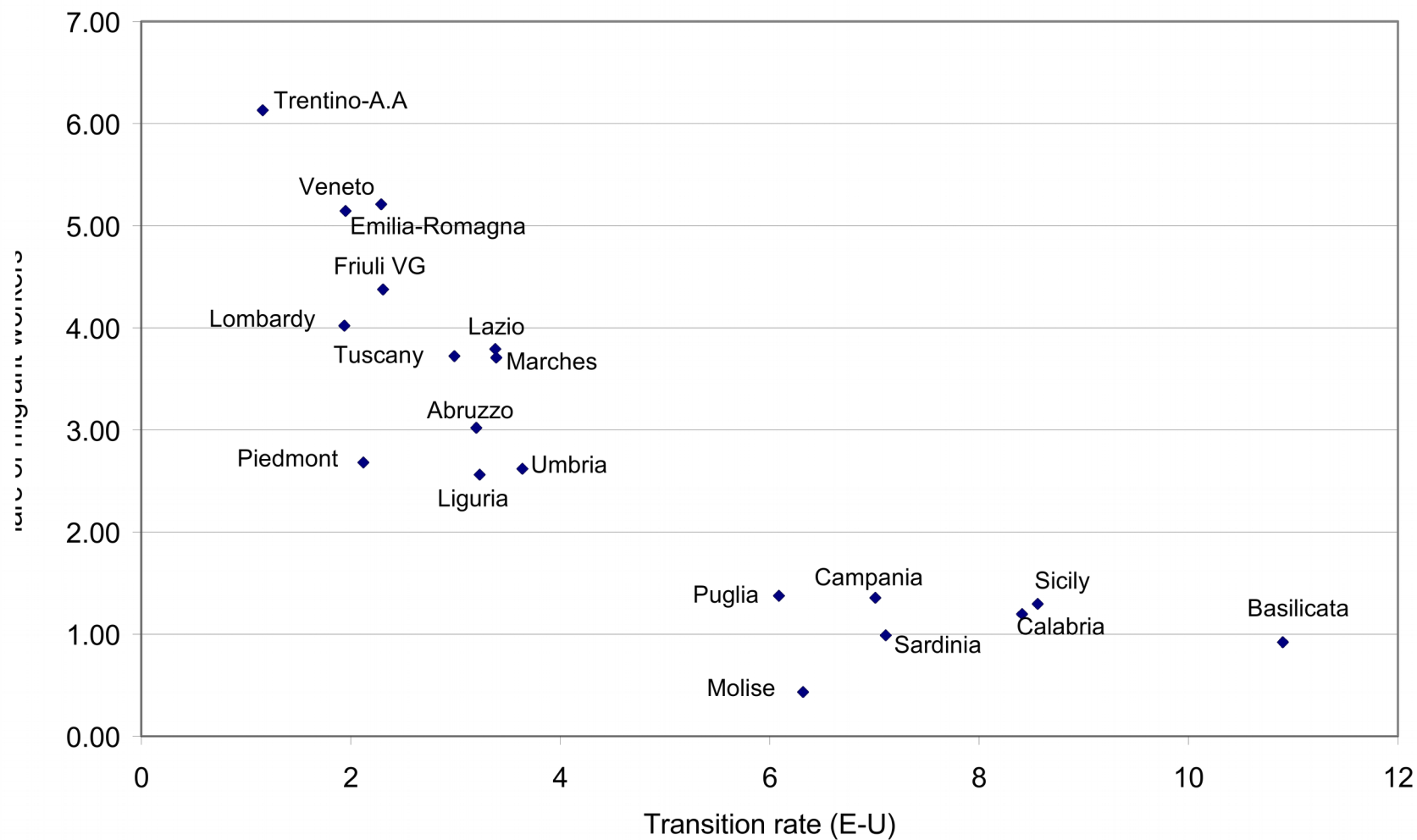
Job Displacement

- Unemployment duration of natives
- Probability of transition from unemployment to employment of natives
- Probability of transition from employment to unemployment of natives
- Turnover rate

Migration in Europe

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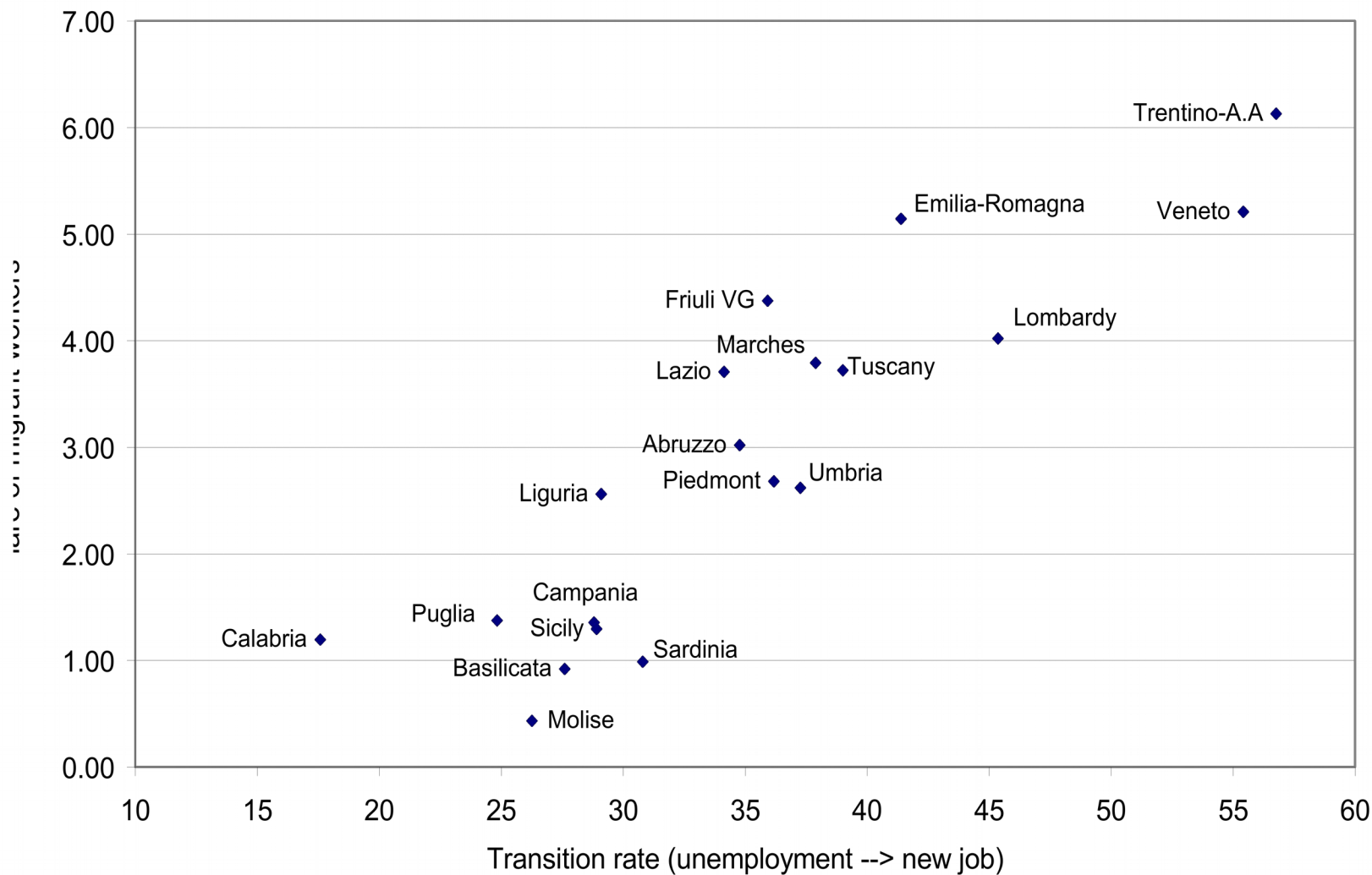
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Migration in Europe

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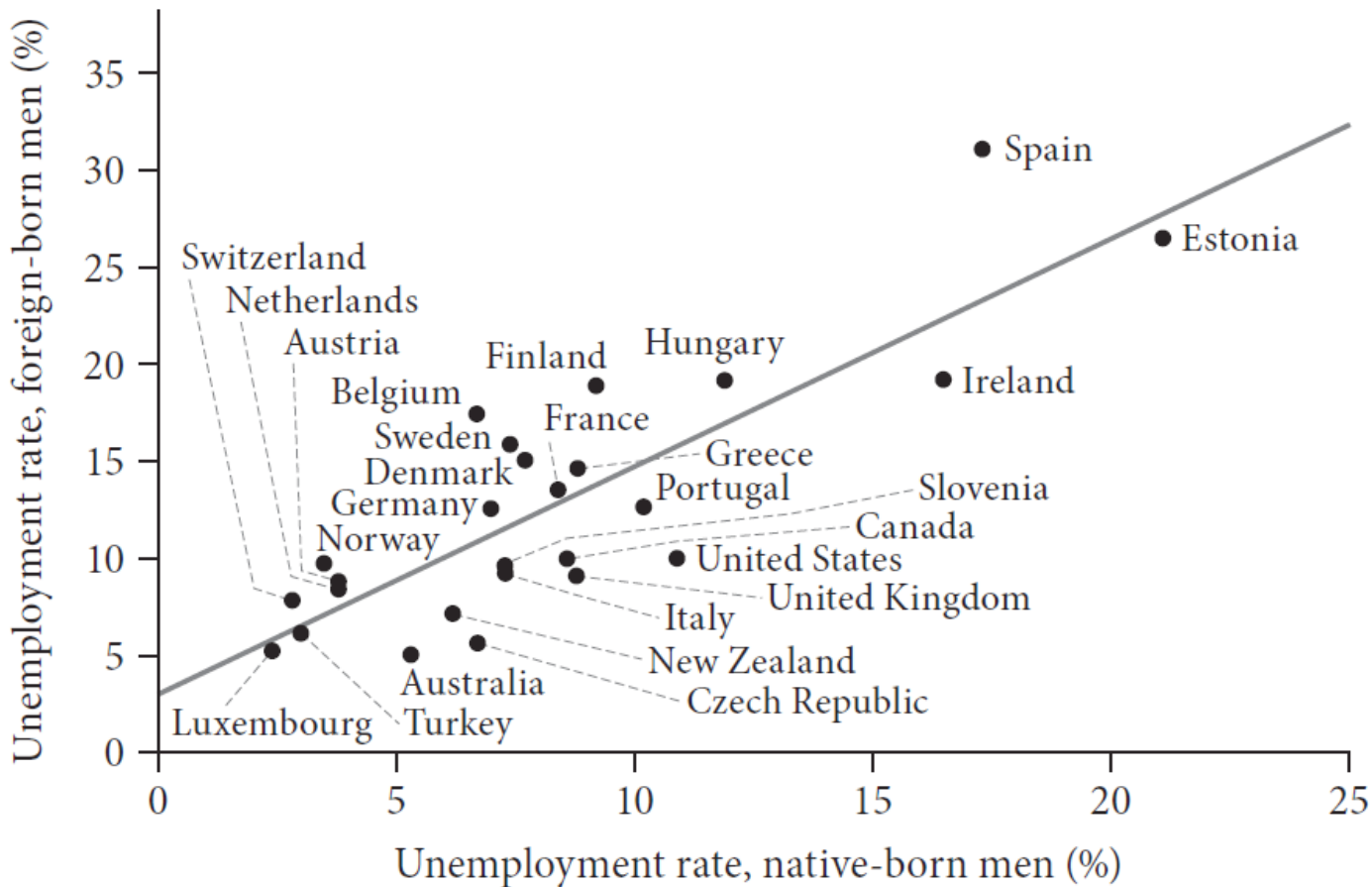


Percentage foreign-born & unemployment rates





Unemployment rates foreign-born and natives





- **Skill Cell Approach**
- We slice the countries in regional areas



An important case: Mariel Boatlift

- April 1980 Fide Castro: Cuban nationals wishing to move to the US could leave freely from the port of Mariel
- By September 1980 about 125,000 mostly unskilled Cubans left - mainly to Miami
- Almost overnight Miami's labor force had grown by 7 percent
- In terms of wage and unemployment Miami similar to comparable cities such as Atlanta, Houston and Los

Unemployment rate blacks	
	After
Miami	9.6
Comparison cities	12.6
Dif-in-dif	-1.0



THE MARIEL BOATLIFT

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Table 1. Characteristics of 16–61-Year-Olds in Miami, 1979.

Characteristic	Whites	Blacks	Cubans	Hispanics	All
<i>Characteristics of Population Age 16–61</i>					
1. Estimated Number (1000's)	319.3	244.1	252.4	102.9	928.4
2. Mean Education	12.8	11.4	11.0	11.6	11.8
3. Percent in Labor Force	75.6	68.3	77.2	68.8	73.1
<i>Characteristics of Those in Labor Force</i>					
4. Estimated Number (1000's)	241.3	166.6	194.7	70.8	678.2
5. Mean Education	13.1	11.8	11.3	11.9	12.1
6. Percent Age 16–24	21.1	24.1	22.0	26.0	22.8
<i>Occupation Distribution (Percent of Employed)</i>					
7. Professional and Technical	19.1	10.9	9.5	10.1	13.2
8. Managers	15.7	2.8	8.6	8.1	9.4
9. Sales	6.2	4.4	7.8	7.6	6.5
10. Clerical	21.9	21.0	19.1	20.9	20.9
11. Craftsmen	13.3	9.4	15.1	12.7	12.8
12. Operatives	4.4	8.4	19.4	16.7	11.1
13. Transportation Operatives	2.6	8.1	5.4	5.9	5.2
14. Laborers	5.1	10.5	4.7	4.0	6.3
15. Farm Workers	1.1	0.1	0.4	0.8	0.6
16. Less-Skilled Service Workers	5.0	13.3	6.1	10.2	8.0
17. More-Skilled Service Workers	5.7	10.9	4.0	3.0	6.2

Notes: White and black groups exclude hispanics. Hispanic group includes all hispanics other than Cubans. Less-skilled service workers include cleaning and food service workers. More-skilled service workers include health service, personal service, and protective service workers.

Source: Based on samples of employed workers in the outgoing rotation groups of the Current Population Survey in 1979.



Table 3. Logarithms of Real Hourly Earnings of Workers Age 16–61 in Miami and Four Comparison Cities, 1979–85.

Group	1979	1980	1981	1982	1983	1984	1985
<i>Miami:</i>							
Whites	1.85 (.03)	1.83 (.03)	1.85 (.03)	1.82 (.03)	1.82 (.03)	1.82 (.03)	1.82 (.05)
Blacks	1.59 (.03)	1.55 (.02)	1.61 (.03)	1.48 (.03)	1.48 (.03)	1.57 (.03)	1.60 (.04)
Cubans	1.58 (.02)	1.54 (.02)	1.51 (.02)	1.49 (.02)	1.49 (.02)	1.53 (.03)	1.49 (.04)
Hispanics	1.52 (.04)	1.54 (.04)	1.54 (.05)	1.53 (.05)	1.48 (.04)	1.59 (.04)	1.54 (.06)
<i>Comparison Cities:</i>							
Whites	1.93 (.01)	1.90 (.01)	1.91 (.01)	1.91 (.01)	1.90 (.01)	1.91 (.01)	1.92 (.01)
Blacks	1.74 (.01)	1.70 (.02)	1.72 (.02)	1.71 (.01)	1.69 (.02)	1.67 (.02)	1.65 (.03)
Hispanics	1.65 (.01)	1.63 (.01)	1.61 (.01)	1.61 (.01)	1.58 (.01)	1.60 (.01)	1.58 (.02)

Note: Entries represent means of log hourly earnings (deflated by the Consumer Price Index—1980 = 100) for workers age 16–61 in Miami and four comparison cities: Atlanta, Houston, Los Angeles, and Tampa–St. Petersburg. See note to Table 1 for definitions of groups.

Source: Based on samples of employed workers in the outgoing rotation groups of the Current Population Survey in 1979–85. Due to a change in SMSA coding procedures in 1985, the 1985 sample is based on individuals in outgoing rotation groups for January–June of 1985 only.



Table 4. Unemployment Rates of Individuals Age 16–61 in Miami and Four Comparison Cities, 1979–85. (Standard Errors in Parentheses)

<i>Group</i>	<i>1979</i>	<i>1980</i>	<i>1981</i>	<i>1982</i>	<i>1983</i>	<i>1984</i>	<i>1985</i>
<i>Miami:</i>							
Whites	5.1 (1.1)	2.5 (0.8)	3.9 (0.9)	5.2 (1.1)	6.7 (1.1)	3.6 (0.9)	4.9 (1.4)
Blacks	8.3 (1.7)	5.6 (1.3)	9.6 (1.8)	16.0 (2.3)	18.4 (2.5)	14.2 (2.3)	7.8 (2.3)
Cubans	5.9 (1.2)	7.2 (1.3)	10.1 (1.5)	10.8 (1.5)	13.1 (1.6)	7.7 (1.4)	5.5 (1.7)
Hispanics	6.5 (2.3)	7.7 (2.2)	11.8 (3.0)	9.1 (2.5)	7.5 (2.1)	12.1 (2.4)	3.7 (1.9)
<i>Comparison Cities:</i>							
Whites	4.4 (0.3)	4.4 (0.3)	4.3 (0.3)	6.8 (0.3)	6.9 (0.3)	5.4 (0.3)	4.9 (0.4)
Blacks	10.3 (0.8)	12.6 (0.9)	12.6 (0.9)	12.7 (0.9)	18.4 (1.1)	12.1 (0.9)	13.3 (1.3)
Hispanics	6.3 (0.6)	8.7 (0.6)	8.3 (0.6)	12.1 (0.7)	11.8 (0.7)	9.8 (0.6)	9.3 (0.8)

Note: Entries represent means of unemployment indicator variable for individuals age 16–61 in Miami and four comparison cities: Atlanta, Houston, Los Angeles, and Tampa–St. Petersburg. Samples are based on individuals in the labor force. See notes to Table 3 for definitions of groups and data sources.



Table 5. Means of Log Wages of Non-Cubans in Miami by Quartile of Predicted Wages, 1979–85.
(Standard Errors in Parentheses)

Year	Mean of Log Wage by Quartile of Predicted Wage				Difference of Means: 4th – 1st
	1st Quart.	2nd Quart.	3rd Quart.	4th Quart.	
1979	1.31 (.03)	1.61 (.03)	1.71 (.03)	2.15 (.04)	.84 (.05)
1980	1.31 (.03)	1.52 (.03)	1.74 (.03)	2.09 (.04)	.77 (.05)
1981	1.40 (.03)	1.57 (.03)	1.79 (.03)	2.06 (.04)	.66 (.05)
1982	1.24 (.03)	1.57 (.03)	1.77 (.03)	2.04 (.04)	.80 (.05)
1983	1.27 (.03)	1.53 (.04)	1.76 (.03)	2.11 (.05)	.84 (.06)
1984	1.33 (.03)	1.59 (.04)	1.80 (.04)	2.12 (.04)	.79 (.05)
1985	1.27 (.04)	1.57 (.04)	1.81 (.04)	2.14 (.05)	.87 (.06)

Note: Predicted wage is based on a linear prediction equation for the log wage fitted to individuals in four comparison cities; see text. The sample consists of non-Cubans (male and female, white, black, and Hispanic) between the ages of 16 and 61 with valid wage data in the earnings supplement of the Current Population Survey. Wages are deflated by the Consumer Price Index (1980 = 100).



Table 6. Comparison of Wages, Unemployment Rates, and Employment Rates for Blacks in Miami and Comparison Cities.
(Standard Errors in Parentheses)

Year	<i>All Blacks</i>				<i>Low-Education Blacks</i>			
	<i>Difference in Log Wages,</i>		<i>Difference in Emp./Unemp.,</i>		<i>Difference in Log Wages,</i>		<i>Difference in Emp./Unemp.,</i>	
	<i>Miami – Comparison</i>		<i>Miami – Comparison</i>		<i>Miami – Comparison</i>		<i>Miami – Comparison</i>	
	<i>Actual</i>	<i>Adjusted</i>	<i>Emp. – Pop. Rate</i>	<i>Unemp. Rate</i>	<i>Actual</i>	<i>Adjusted</i>	<i>Emp. – Pop. Rate</i>	<i>Unemp. Rate</i>
1979	-.15 (.03)	-.12 (.03)	.00 (.03)	-2.0 (1.9)	-.13 (.05)	-.15 (.05)	.03 (.04)	-.8 (3.8)
1980	-.16 (.03)	-.12 (.03)	.05 (.03)	-7.1 (1.6)	-.07 (.05)	-.07 (.05)	.03 (.04)	-8.2 (3.5)
1981	-.11 (.03)	-.10 (.03)	.02 (.03)	-3.0 (2.0)	-.05 (.05)	-.11 (.05)	.04 (.04)	-7.7 (4.2)
1982	-.24 (.03)	-.20 (.03)	-.06 (.03)	3.3 (2.4)	-.17 (.05)	-.20 (.05)	-.04 (.04)	.6 (4.7)
1983	-.21 (.03)	-.15 (.03)	-.02 (.03)	.1 (2.7)	-.13 (.06)	-.11 (.05)	.04 (.04)	-3.3 (4.7)
1984	-.10 (.03)	-.05 (.03)	-.04 (.03)	2.1 (2.4)	-.04 (.06)	-.03 (.05)	.05 (.04)	.1 (4.7)
1985	-.05 (.04)	-.01 (.04)	-.06 (.04)	-5.5 (2.6)	.18 (.07)	.09 (.07)	.00 (.06)	-4.7 (5.6)

Notes: Low-education blacks are those with less than 12 years of completed education. Adjusted differences in log wages between blacks in Miami and comparison cities are obtained from a linear regression model that includes education, potential experience, and other control variables; see text. Wages are deflated by the Consumer Price Index (1980=100). "Emp.-Pop. Rate" refers to the employment:population ratio. "Unemp. Rate" refers to the unemployment rate among those in the labor force.



Maribel Boatlift that didn't happen

1994: expectation of a new boatlift due to bad economical conditions

Thousands left illegally

US Navy redirected refugees to

Guantanamo. Result: few migrants were able to migrate to Miami Non-event.

	Unemployment rate blacks	
	Before	After
Miami	10.1	13.7
Comparison cities	11.5	8.8
Dif-in-dif		6.3



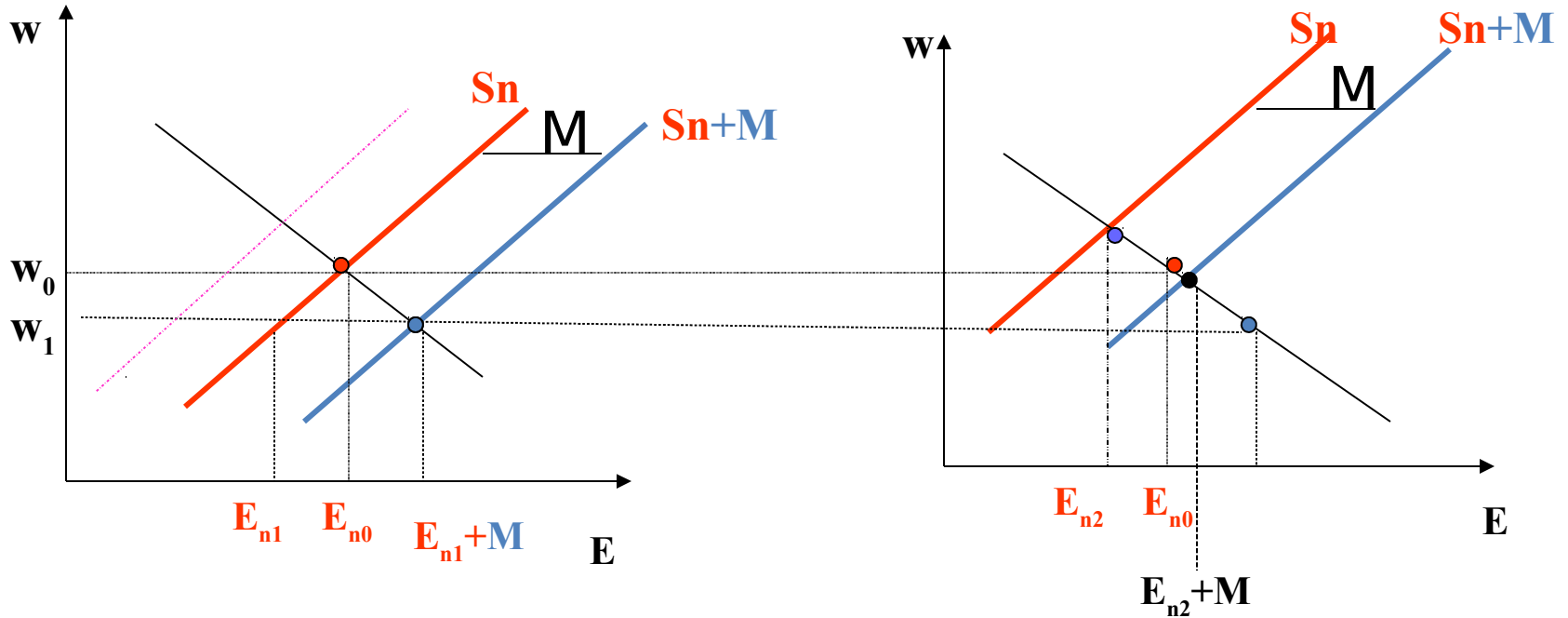
TABLE 5-1 Immigration and the Miami Labor Market

	The Mariel Flow		The Mariel Flow That Did Not Happen	
	<i>Before 1979</i>	<i>After 1981</i>	<i>Before 1993</i>	<i>After 1995</i>
Unemployment rate of blacks in:				
Miami	8.3	9.6	10.1	13.7
Comparison cities	10.3	12.6	11.5	8.8
Difference-in-differences	-1.0	+6.3		

Sources: The 1979–1981 data are drawn from David Card, “The Impact of the Mariel Boatlift on the Miami Labor Market,” *Industrial and Labor Relations Review* 43 (January 1990): 251. The 1993–1995 data are drawn from Joshua D. Angrist and Alan B. Krueger, “Empirical Strategies in Labor Economics,” in Orley Ashenfelter and David Card, editors, *Handbook of Labor Economics*, Volume 3A. Amsterdam: North-Holland, 1999, Table 7. The comparison cities are Atlanta, Houston, Los Angeles, and Tampa–St. Petersburg.



b- Critics to the traditional approach- mouvement of the domestic supply





Are natives moving? From California to New England. **American debate**

- Filer R. (1992). **“The impact of immigrant arrivals on migratory patterns of native workers”**, in G.J.Borjas and R.B. Freeman *Immigration and the Work Force*, Univeristy of Chicago press.
- Card D. (2001). **«Immigrant Inflows, native Outflows and the Local labor Market Impacts of Immigration»**, *Journal of labour Economics*, 19, pp.22-64
- Borjas G. (2003). **“The demand curve is downward sloping: re-examining the impact of immigration on the labor market”**, *Quarterly Journal of Economics*, 118, n.4, pp.1335-1374.
- Card D. (2005). **“Is the New Migration Really So Bad?”**, *Economic Journal*

Are natives moving? **European Debate**



c. Skill cell correlation approach

- National data, with pre assigned experience-education cells
- Borjas (2003). **“The demand curve is downward sloping: re-examining the impact of immigration on the labour market”**, *Quarterly Journal of Economics*, 118, n.4, pp.1335-1374.
- **Peri (2006)** has introduced in a similar approach the hypothesis **of imperfect substitution** between natives and foreigners in the same skill cell in the USA, and **Manacorda, Manning and Wadsworth (2006)** have done so in the British case, but the skill cell pre-allocation remains.
- To avoid the explicit pre-allocation of immigrants to particular skill groups **Dustmann, Frattini and Preston (2008)** based on their observable characteristics by slicing the labour market into percentiles of the wage distribution



Grossman's (1982) pioneering study conjectured that it should be possible to measure the wage impact of immigration by comparing the evolution of wages in labor markets that are affected differentially by these labor flows. The wages of substitutable workers, for instance, should decline more in those markets that had a larger immigrant influx. Grossman operationalized this insight by introducing a modeling assumption that greatly influenced subsequent work. She defined the labor market in terms of a specific geographic region. Specifically, she assumed that a labor market is delineated by the boundaries of a metropolitan area. Her empirical analysis, therefore, consisted of comparing wage outcomes in local labor markets that received many immigrants to the outcomes in localities that received few.



Let $M_{exr}(t)$ give the total number of hours worked by immigrants in education group e , experience group x , living in region r , in calendar year t ; and $N_{exr}(t)$ give the corresponding labor supply of natives. The immigrant share in the workforce in cell (e, x, r, t) is:

$$p_{exr}(t) = \frac{M_{exr}(t)}{M_{exr}(t) + N_{exr}(t)}, \quad (4.1)$$



I begin by estimating the spatial correlation in each cross-section. Consider the following regression model:

$$\log w_{exr}(t) = \phi_H + \phi_R + \alpha_t p_{exr}(t) + \varepsilon, \quad (4.2)$$

where $\log w_{exr}(t)$ gives the mean log weekly wage of *natives* in cell (e, x, r, t) ; ϕ_H is a vector of skill fixed effects indicating all possible education-experience permutations; and ϕ_R is a vector of metropolitan area fixed effects.⁶ The coefficient α_t measures the spatial correlation between wages and immigration in cross-section t . I calculate the mean log weekly wage separately in samples of only men and of both men and women. The wage is obviously a more precise measure of the price of a skill unit in the male sample; the inclusion of working women in the analysis introduces selection issues that are difficult to address and resolve.



Table 4.1 Cross-section spatial correlations across metropolitan areas (MSAs)

Sample	1970	1980	1990	2000	2010
1. Men	0.028 (0.127)	-0.037 (0.079)	-0.063 (0.044)	-0.159 (0.046)	-0.145 (0.042)
2. Men and women	0.102 (0.099)	-0.025 (0.053)	-0.069 (0.033)	-0.158 (0.045)	-0.113 (0.040)

Sources: U.S. Census PUMS 1970–2010; see Appendix B for details.

Notes: The sample consists of workers aged 18–64, who are classified into five education groups and eight experience groups. The unit of observation is a skill-MSA cell, where a skill group represents an education-experience pairing. Standard errors are reported in parentheses, and are clustered at the skill-MSA level. The dependent variable is the mean log weekly wage of natives in a skill-MSA cell, while the independent variable is the respective immigrant share. The log weekly wage is calculated in the sample of natives (men in row 1; men and women in row 2) employed in the wage-and-salary sector who are not enrolled in school; the immigrant share is defined as the fraction of work hours supplied by all foreign-born workers (including men and women). Each cross-section regression includes vectors of skill fixed effects and MSA fixed effects. The regressions are weighted by the number of observations used to calculate the dependent variable. The male regressions have 4,684 observations in 1970; 10,191 observations in 1980; 9,954 observations in 1990; 11,315 observations in 2000; and 11,310 observations in 2010.



Table 5.3 Estimates of inverse elasticity of substitution between equally skilled immigrants and natives ($-1/\sigma_{MN}$)

	Specification			
	(1)	(2)	(3)	(4)
A. Log of the mean wage (Ottaviano-Peri, 2012)				
Men	-0.053 (0.008)	—	-0.033 (0.013)	—
Men and women	-0.032 (0.008)	—	-0.024 (0.015)	—
B. Mean of the log wage (Borjas et al. 2012)				
Men	-0.008 (0.017)	0.008 (0.021)	0.008 (0.013)	0.009 (0.034)
Men and women	-0.002 (0.015)	0.004 (0.018)	0.001 (0.012)	-0.034 (0.036)
C. Mean of the log wage, updated to 2010				
Men	-0.018 (0.007)	0.005 (0.009)	-0.003 (0.009)	0.029 (0.019)
Men and women	-0.036 (0.006)	-0.011 (0.006)	-0.017 (0.015)	0.016 (0.017)
Fixed effects included				
Year	No	Yes	Yes	Yes
Education × experience	No	No	Yes	Yes
Education × year	No	No	No	Yes
Experience × year	No	No	No	Yes

Sources: Adapted from Borjas et al. (2012, p. 202). The inverse elasticities reported in Panel A are drawn from Ottaviano and Peri (2012, p. 171, columns 1 and 2).

Notes: Robust standard errors reported in parentheses. The unit of observation is an education-experience-year cell. The dependent variable is the difference in the log weekly wage between immigrants and natives in the cell, and the independent variable is the corresponding difference in the log total hours supplied. Panel A defines the log wage of a group as the log of the mean wage across workers in that group; Panels B and C define it as the mean of the log wage across workers. The regressions reported in Panel A use total employment in the skill group as the weight; in all other panels, the weight is the inverse of the sampling variance of the dependent variable. The regressions in Panel C use the same data employed in the regressions reported in row 1 of Table 5.1 (with the mean log wage for an education-experience group being calculated separately for natives and immigrants).



Conclusion

The results are, in general, very similar in Europe. **No strong competition emerges, and it is limited to the specific occupation where the migrants are concentrated, whilst a complementarity prevails with positive wages increases for the skilled.**

If competition is visible it is more present in the employment than on wage market. i.e.

Germany construction sector

And also some important sectors as for instances the family services and the professions which hold a degree of irregularity as construction and restaurant workers are understudies and possible competitive effects not disclosed.



Effects on Employment and Wages

- **Empirical finding:** Negligible effects of migration on wages and employment among natives
- This finding can be reconciled with economic theory when account is taken of
 - 1 Self-selection of migrants in high-wage regions (“greasing the wheels” effect)
 - 2 Changes in migration patterns of native workers
 - 3 Changes in the regional output mix: product specialization



Authors / Year	Country/ Period/ Data	Dependent variable		Variable used to measure immigrants	Analysis dimension	Instrumental variables (if any)	Results
Hunt, 1992, <i>Ind. and Labour Relations Review</i>	France, Census 1962- 68	Unemploy- ment rate among natives, and wages		Share of repatriated from Algeria (skilled labour)	Cross- depart- ments	Temperatu- re and early repatriates	1% increase in the number of emigrants returning from Algeria causes a 1.3% decrease in wages, in the Var Department -5.7% (where they were concentrated 7.5%), an aggregate increase in unemployment 0.3 and in Var 1.4%.
Garson, Moulier- Boutang ., Silberman., Magnac. 1987, <i>EEC Report</i>	France, Employ- ment Survey, 1985	individual wage		North Africans, South Europe, and other immigrants		Employed in each group	1% increase in Algerians, Tunisians and Moroccans increases natives wages by 0.03; 1% increase in Spaniards, Turks, Portuguese and Yugoslaves by 0.09, while competition exists between groups of immigrants and elasticities are -0.01,-0.04.
Gross J., 1999, <i>IMF W.P. 124</i>	France Quarterly data 1974- 94	Native unemploy- ment rate		1.Immigration rate (IR), 2.IR adjusted by the foreigners regularized in 1981 (IRA), 3. immigration rate of family members	40 observ- ations	no	Unemployment falls with immigration in the long run. Family reunified immigrants reinforces the negative impact because they reinforce the additional demand effect. In the short run by raising aggregate wages (namely low skill immigrants are complement to high skill natives) an increase in the labour force produces an increase in temporary unemployment.

Carrington de Lima 1996, <i>Ind. and labour Relations Review</i>	Portugal mid-70s Aggregate data, district data.	1.aggregate wage 2.aggregate wage and unemployment 3.district wage in the construction sector		Returnados from Angola and Mozambique in 3 years, more skilled than domestic labour force	18 years and 18 districts	no	1.wage trend is similar to France and Spanish ones 2.small effect on unemployment 3.district with the highest population growth show the lower construction wage growth
Dolado, Jimeno and Duce 1996 <i>CEPR Discussion Paper n.1476</i>	Spain 1990-'92 Administrative register of work permits	$\Delta \ln w_u$ (wage of unskilled) $\Delta \ln w_s$ (wage of skilled) $\Delta \ln N_u$ (employment of unskilled) $\Delta \ln N$ (total employment)		Change in the proportion of immigrants in each province (out of total employment)	50 provinces and two groups of natives: skilled and unskilled	Lagged immigration rate and its square to instrument the immigration rate change; lagged unemployment change to instrument current unemployment change	- The effect of immigration on wages of unskilled workers is small but positive (between 0.024 and 0.036), not significant on the wages of skilled workers - The effect of immigration on employment of unskilled workers is negative but not significant The effect of immigration on total employment is positive (elasticity of 0.05)
Gavosto, Venturini, Villosio 1999 <i>Labour</i>	Italy 1990-'95 Administrative data on dependent employees (INPS)	1° stage: $\Delta \log$ indiv. real wages 2° stage: Coefficients of the joint regional and branch dummies for 5 years from the 1° stage		1. Rate of inflow of immigrants into employment (difference in the share of employed immigrants to natives between two periods) 2. Cumulative inflow of immigrants into employment starting in 1989 divided by the amount of native employment and its square	Branch (20) and region (20) jointly	No (Lagged foreign share, share of women and blue collars workers in the workforce)	Inflow of immigrants raises the wages of native manual workers; larger effect in small firms and in the North (overall elasticity +0.01). The cumulated inflow of immigrants is positive but non-linear (it increases at a decreasing rate). The threshold is reached when the share of immigrants reaches 7.7% of total employment, 10% in small firms and 12.2% in the North.



<p>Venturini, Villosio 2008 ILR</p>	<p>Italy 1993-'97 Individual data from the Labour Force Survey</p>	<p>1. Probability to find a job (transition from unemployment to employment) 2. Probability to lose a job (transition from employment to unemployment)</p>		<p>Foreign share by branch and region in the dependent employment</p>	<p>1. Region (19) 2. Branch and Region (19 x 5)</p>	<p>Lagged foreign share, share of women and blue collars workers in the workforce, mean wage of immigrants at regional and branch levels</p>	<p>The share of immigrants has no effect on the <i>native transition from employment to unemployment</i> and on the transition from <i>unemployment to employment for workers looking for a new job</i>; for <i>people looking for a first job</i> (the young) the negative effect is limited in amount, restricted to the first year and to the South, while the effect is positive in the most recent periods and in the North</p>
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Immigrants

- Not only are not competitive with the domestic unskilled labour in the area where they go,
- but are twice complement to the skilled labour in the area where they work, because they allow the persistence of traditional production no more competitive in the goods market,
- and discourage the outsourcing of capital.
- They could be twice competitive with the natives of less favoured areas because they discourage internal mobility and delocalization of production where labour is abundant.



Irregular immigration

The effects for the labour market are similar but much stronger because the irregular labour market are more flexible



Extension

Barone e Mocetti (2013). «With a little help from Abroad»

→ Foreign female in the domestic sector on the native female labour supply

Romiti e Rossi (2013)

▫ Foreign female in the care sector on the native female participation rate.