Moving to segregation: evidence from 8 Italian cities

Tito Boeri[1]   Marta De Philippis[2]   Eleonora Patacchini[3]
Michele Pellizzari[4]

[1]IGIER-Bocconi University, CEPR, fRDB and IZA
[2]LSE and fRDB
[3]Universita' di Roma La Sapienza, CEPR, EIEF and IZA
[4]Bocconi University, IGIER and IZA

December 14, 2011

Sydney, ANU

Motivation

- ▶ Residential segregation is a key element of any process of economic and social integration (migrants or minorities). [Cutler and Glaeser, 1999]

- ▶ Previous studies: mixed results, both theoretically and empirically. [Munshi, 2003; Kling et al. 2007]

- ▶ We produce new evidence on the role of residential segregation in defining employment outcome of migrants:
  - ▶ new data that cover legal and illegal migrants; Illegal migrants
  - ▶ new data with very detailed geographical locations; [Bayer et al. 2008]
  - ▶ new identification strategy based on instrumental variables.
  - ▶ allowed non-linearities: identification of critical threshold in residential segregation.

Outline

- ▶ Introduction

- ▶ The survey

- ▶ Empirical model and identification

- ▶ Results

- ▶ Robustness and interpretation

- ▶ Conclusions

The fRDB-EBRD survey

- ▶ fRDB-EBRD funded project:
    - ▶ Carlo Erminero&Co. operative partner.

- ▶ Aimed at reaching legal as well as illegal migrants;

- ▶ Representative results for 4 population groups:
    - ▶ European New-Member States (NMS);
    - ▶ Western Balkans (WBS);
    - ▶ other countries of origin;
    - ▶ + natives.

- ▶ 8 non-randomly selected cities in the North of Italy where more than 60 per cent of the migrants to Italy are located
  Map City

Sampling frame

- ▶ Three stages within each city:
    1. **neighborhoods**: probabilistically selected according to share of (legal) resident migrants;
    2. **blocks**: one randomly selected block in each selected neighborhood (drawing from the continuous of map locations);
    3. **persons**: (up to) 4 randomly selected persons in the block for each of the 4 population groups (drawn from a census of residential units in the block).

- ▶ Additional sampling:
    - ▶ for blocks with high incidence of migrants, the adjacent block is also sampled;
    - ▶ snowball sample (not used here).

The questionnaire

- ▶ Interviewers accompanied by locals and speakers of the migrants' languages.

- ▶ Careful provision of information about confidentiality, especially with regard to legal status.

- ▶ Language test:
  - ▶ voluntary but incentivized (5 euros).

- ▶ Definition of legal status...

Definitions of illegal immigrants

- ▶ Broad definition:
  - ▶ NON EU citizen without a permit of stay or refusing to answer;
  - ▶ EU citizens non-employed (legally) without a permit of stay or refusing to answer (they cannot register to local authorities).

- ▶ Narrow definition:
  - ▶ NON EU citizen without a permit of stay.
  - ▶ EU citizens are all legal.

Definitions of illegal immigrants (ii)

- ▶ Broad definition (ii):
  - ▶ Same as broad definition;
  - ▶ Individuals answering "It is difficult to obtain medical care because I do not have access to Italian medical system" are illegal;
  - ▶ Individuals answering "I do not return to my country of origin more often because I do not have necessary ID or papers" are illegal.

	Broad definition	Broad definition (ii)	Narrow definition
illegal immigrants	11.2	16.2	4.6

Sample structure

City	Sampled blocks per district				Average obs
	Central	Mid-central	Peripheral	Total	per block
Alessandria	2	3	1	6 (23)	3.8 (140)
Bologna	2	5	7	14 (90)	6.2 (264)
Brescia	2	3	0	5 (30)	5.4 (242)
Lucca	2	2	6	10 (79)	4.6 (130)
Milano	4	8	19	31 (87)	6.5 (297)
Prato	0	2	4	6 (35)	2.8 (236)
Rimini	2	3	1	6 (57)	6.2 (242)
Verona	0	4	5	9 (23)	3.7 (225)
Total	14	30	43	87 (424)	5.4 (246)

Comparison with other data sources

Variable	Survey		
	fRDB-EBRD	LFS	ISMU
	[1]	[2]	[3]
Share of migrants	0.75	0.07	1.00
Share of migrants from NMS	0.25	0.17	0.13
Share of migrants from Western Balcans	0.25	0.19	0.17
Share of migrants other origins	0.25	0.63	0.70
1=illegal migrant	0.13	0.00	0.11
1=female migrants	0.47	0.51	0.51
1=no education	0.04	0.05	0.04
1=primary education	0.39	0.46	0.30
1=secondary education	0.46	0.39	0.45
1=tertiary education	0.11	0.10	0.21
1=employed	0.87	0.47	0.68

Descriptive statistics

Variable	Mean [1]	Std. Dev. [2]	N [3]
Socio-demographic characteristics:			
Area of origin:			
New Member States (NMS)	0.32	-	470
Western Balkans	0.32	-	470
Other countries	0.37	0.48	470
Age	37.45	8.94	470
1=female	0.47	-	470
years living in Italy	8.94	5.25	470
Education:			
none	0.04	-	470
primary	0.39	-	470
secondary	0.46	-	470
tertiary	0.11	-	470
1=illegal immigrant	0.12	-	470
1=refused test	0.14	-	470
Language test score	481.92	88.2	470
1=owns (at least) one car	0.54	-	470
1=owns (at least) one mobile phone	0.99	-	470
1=internet at home	0.6	-	470

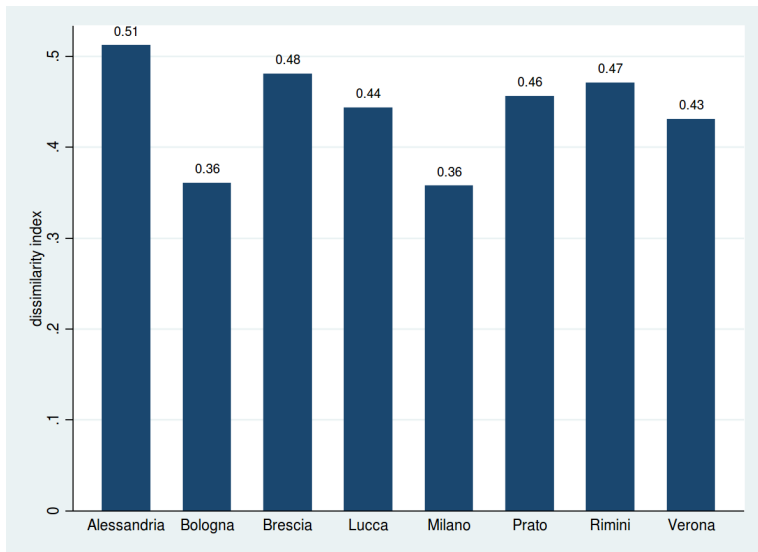# Descriptive statistics: LM status and segregation

Variable	Mean	Std. Dev.	N
	[1]	[2]	[3]
Labour market outcomes:			
1=employed	0.87	-	470
1=work on Sundays	0.31	-	397
1=found work through friends	0.59	-	398
Residential segregation (at the block level):			
% of non-Italians	16.58	10.37	470
% of immigrants from same origin	5.92	5.63	470

High and Low Segregated Immigrants

Variable	High segregation [1]	Low segregation [2]	Diff. [3]
Age	39.595	36.751	2.843
	(0.895)	(0.457)	(0.949)
1=female	0.465	0.466	-0.001
	(0.046)	(0.026)	(0.053)
Years since migration	8.207	9.184	-0.977
	(0.431)	(0.288)	(0.560)
1=secondary education or more	0.629	0.548	0.081
	(0.045)	(0.026)	(0.052)
1=illegal migrant	0.077	0.135	-0.058
	(0.025)	(0.018)	(0.031)
Language test score	471.165	481.801	-10.640
	(10.632)	(5.141)	(10.659)
1=refused test	0.069	0.164	-0.095
	(0.023)	(0.020)	(0.031)
1=owns (at least) one car	0.509	0.548	-0.039
	(0.046)	(0.026)	(0.053)
1=employed	0.905	0.861	0.044
	(0.027)	(0.018)	(0.032)
1=work on Sundays	0.365	0.296	0.068
	(0.047)	(0.027)	(0.054)
1=found work through friends	0.610	0.577	0.030
	(0.048)	(0.028)	(0.056)

The table reports means (standard deviations in partheses) of the indicated variable in the two samples. High- and low-segregated blocks are those where our measure of residential segregation lies in the top and bottom 25% of the observed distribution, respectively. The score of the test was normalized so that the average score is 500 with a standard deviation of 100.

Dissimilarity Indices

Empirical model

We estimate the following equation:

$$y_{icdb} = \alpha_1 RS_{cdb} + \alpha_2 X_i + \alpha_3 B_{cdb} + \delta_d + \delta_c + \epsilon_{icdb}$$

- y_{icdb} is an employment dummy for migrant i in city c residing in district d and block b;
- RS_{cdb} is our indicator of residential segregation, i.e. the percentage of migrants residing in block b of district d and city c;
- X_i and B_{cdb} are sets of individual and block characteristics, respectively;
- δ_d is a district fixed effect; δ_c is a city fixed effect;
- ϵ_{icdb} is the error term.

The identification problem

- we think of the error term as:

$$\epsilon_{icdb} = \eta_i + \Lambda_{cdb} + u_{icdb}$$

- η_i (e.g. ability/skills) $\Rightarrow$ sorting;

- Λ_{cdb} (e.g. distance to jobs) $\Rightarrow$ spatial mismatch;

- RS_{cdb} is likely to be correlated with both η_i and Λ_{cdb};

- $\Rightarrow$ simple OLS estimate of α_1 is biased.

Our identification solution: IV

- Standard IV strategy:

$$RS_{cdb} = \beta_1 B_{cdb} + \beta_2 C_{cdb} + \beta_3 \overline{X}_{cdb} + \Lambda_{cdb} + \overline{\eta}_{cdb} + v_{cdb}$$

- C_{cdb} = physical characteristics of the buildings in the block (10 years earlier):
  - average housing density (total residential sq.mt. over number of residential buildings);
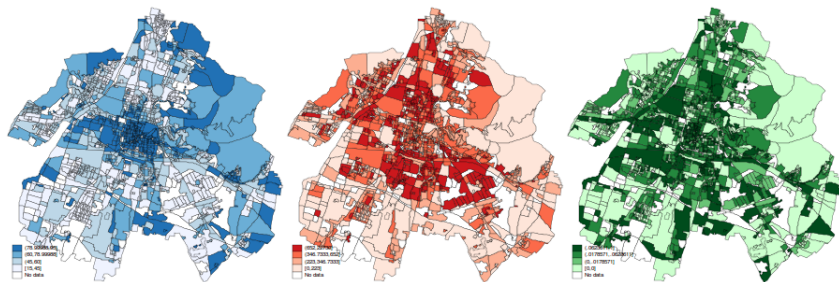 - average age of the buildings.

Comparing with other identification strategies

- ▶ Bayer et al., 2008:
    - ▶ similar level of disaggregation;
    - ▶ not exactly residential segregation;
    - ▶ *block-group* fixed-effects.

- ▶ Experiments (Munshi, 2007; Kling et al. 2007):
    - ▶ little external validity (Moffitt, 2001).

- ▶ Metropolitan area variation (Cutler and Glaeser, 1997; Card and Rothstein, 2007; Weinberg, 2000 and 2004):
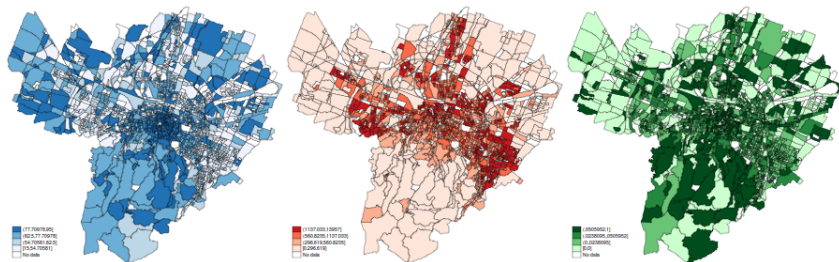   - ▶ aggregation problems (Rivkin, 2001).

Instrument descriptives

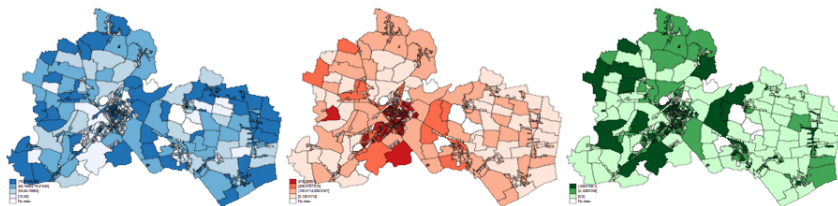| City	Correlation coefficients		
	Age of buildings vs. Housing density [1]	Residential segregation vs Age of buildings [2]	Residential segregation vs. Housing density [3]
Alessandria	-0.719	0.332	-0.330
	(0.000)	(0.121)	(0.124)
Bologna	-0.673	-0.254	0.140
	(0.000)	(0.017)	(0.195)
Brescia	-0.270	0.515	-0.133
	(0.172)	(0.006)	(0.507)
Lucca	0.333	0.359	0.214
	(0.024)	(0.014)	(0.154)
Milano	-0.551	0.198	-0.163
	(0.000)	(0.005)	(0.021)
Prato	-0.700	-0.111	-0.254
	(0.002)	(0.670)	(0.325)
Rimini	-0.909	0.254	-0.303
	(0.000)	(0.129)	(0.068)
Verona	-0.308	0.125	-0.334
	(0.081)	(0.488)	(0.058)

Housing age, density and immigrants in Brescia

Housing age, density and immigrants in Bologna

Housing age, density and immigrants in Alessandria

Interpreting the instruments

- ▶ Conditional exogeneity assumption:
  - ▶ B_{cdb} includes housing prices;
  - ▶ X_i includes proxies of income/wealth;
  - ▶ $\Rightarrow$ C_{cdb} does not capture differences in economic resources.

Interpreting the instruments

- ▶ Conditional exogeneity assumption:
    - ▶ B_{cdb} includes housing prices;
    - ▶ X_i includes proxies of income/wealth;
    - ▶ $\Rightarrow$ C_{cdb} does not capture differences in economic resources.

Interpreting the instruments

- Conditional exogeneity assumption:

    - B_{cdb} includes housing prices;
    - X_i includes proxies of income/wealth;
    - $\Rightarrow$ C_{cdb} does not capture differences in economic resources.

- Instrument validity:

    - **initial conditions**: first migrants located in urban areas with specific physical structures (for reasons unrelated to current labor market conditions);
    - Early migrants ($\geq$ 10 years): F-test =477 (N=165); Late migrants: F-test=119 (N=278).

Immigrants characteristics across types of blocks

Variables	Age		1=Secondary educ. or more		1=Owns (at least) one car		Years since migration	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
New buildings	0.154	0.243	0.012	0.027	-0.019	-0.029	0.649	0.666
	(0.84)	(0.84)	(0.06)	(0.06)	(0.05)	(0.03)	(0.41)	(0.53)
Dense housing	-0.095	-0.026	-0.010	-0.036	0.161**	0.127	0.337	-0.113
	(1.48)	(1.32)	(0.06)	(0.06)	(0.06)	(0.07)	(0.53)	(0.70)
City fixed effects	yes	yes	yes	yes	yes	yes	yes	yes
District fixed effects	yes	no	yes	no	yes	no	yes	no
Observations	470	470	470	470	470	470	470	470

Estimation: two-step procedure

Identification in non-linear models in the presence of endogeneity: two-step procedure Assuming joint normality of the error terms of the two equations, we write the error term of the main model as:

$$\epsilon_{icdb} = \theta v_{cbd} + \xi_{icdb} \tag{1}$$

where $\theta = \frac{Cov(v_{cbd}, \epsilon_{icdb})}{Var(v_{cbd})}$ and ξ_{icbd} is a purely random normal error. Then v_{cbd} is estimated with the OLS residuals of the first equation.

Advantages: computational simplicity, produces a simple test of exogeneity.

In the tables we report p-values based on both a simple bootstrapped (200 replications) robust variance covariance-matrix of the estimators and the pair cluster bootstrap-t procedure with clusters defined at the city level.

First stage regression

Variables	Segregation in the block:	
	% of non-Italians	% of migrants from same origin
	[1]	[2]
Housing age	-0.050	-0.155
	(0.827)	(0.014)
	(0.746)	(0.236)
Housing age x Bologna	-0.199**	-0.265***
	(0.064)	(0.038)
Housing age x Brescia	0.163*	-0.021
	(0.071)	(0.047)
Housing age x Lucca	0.045	-0.093**
	(0.109)	(0.039)
Housing age x Milano	0.022	-0.091
	(0.125)	(0.054)
Housing age x Prato	-0.984***	-0.727***
	(0.133)	(0.048)
Housing age x Rimini	0.237	-0.097
	(0.151)	(0.114)
Housing age x Verona	0.031	-0.118**
	(0.093)	(0.046)
...continued		

First stage regression (cont.)

Variables	Segregation in the block:	
	Share of non-Italians [1]	Share of migrants from same origin [2]
...continued		
Housing density	0.005	0.000
	(0.003)	(0.001)
Housing density x Bologna	-0.003	-0.001
	(0.002)	(0.001)
Housing density x Brescia	-0.005**	0.001
	(0.002)	(0.001)
Housing density x Lucca	-0.004	0.009
	(0.013)	(0.007)
Housing density x Milano	-0.006*	-0.001
	(0.003)	(0.002)
Housing density x Prato	-0.048***	-0.024***
	(0.005)	(0.003)
Housing density x Rimini	-0.022*	-0.014
	(0.009)	(0.008)
Housing density x Verona	-0.012***	-0.004***
	(0.002)	(0.001)
Average housing price	0.007	0.002
	(0.004)	(0.001)
City fixed effects	yes	yes
District fixed effects	yes	yes
Observations	470	470

Robust standard errors in parentheses clustered at the city level. Additional controls: age, age squared, gender, education, legal status, language test score, car ownership, mobile ownership, internet at home, time to travel to city center, years since migration in Italy, dummy for non taking the language test, dummies for origin.

Main empirical results

Variables	Dependent variable: 1=employed			
	Probit [1]	Probit [2]	IV-Probit [3]	IV-Probit [4]
% of non-Italians in the block	-0.013 (0.238) (0.264)	-	-0.053 (0.033) (0.044)	-
% of immigrants from same origin in the block	-	-0.002 (0.921) (0.832)	-	-0.057 (0.338) (0.202)
1=illegal immigrant	-0.634 (0.010) (0.044)	-0.621 (0.012) (0.038)	-0.650 (0.122) (0.068)	-0.646 (0.037) (0.042)
Average housing price	0.001 (0.006) (0.246)	0.001 (0.011) (0.308)	0.001 (0.005) (0.120)	0.001 (0.046) (0.266)
City fixed effects	yes	yes	yes	yes
District fixed effects	yes	yes	yes	yes
Observations	472	472	472	472

Two versions of the p-values of the estimated coefficients are reported in parentheses. The first version is based from a standard robust variance-covariance matrix. The second version is based on a *pair cluster bootstrap-t procedure* with 500 replications and clustering at the city level. Additional controls: years since migration in Italy, dummy for non taking the language test, dummies for area of origin. Segregation is instrumented with the average age and average housing density of building in the block, both interacted with city dummies.

Robustness

1. Alternative instruments.

2. Legal status of immigrants.
3. Non-linearities

Robustness: alternative instruments

Variables	Dependent variable: 1=employed			
Instruments:	Only housing density (2001) [1]	Only housing age (2001) [2]	Only housing age (1991) [3]	Residential segregation in 2001 [4]
Share of non-Italians	-0.099 (0.001) (0.058)	-0.008 (0.782) (0.764)	-0.005 (0.817) (0.908)	-0.065 (0.138) (0.168)
R&V residuals	0.096 (0.010) (0.048)	-0.005 (0.867) (0.828)	-0.008 (0.796) (0.812)	0.061 (0.177) (0.194)
N	472.000	472.000	466.000	472.000

Two versions of the p-values of the estimated coefficients are reported in parentheses. The first version is based from a standard robust variance-covariance matrix. The second version is based on a *pair cluster bootstrap-t procedure* with 500 replications and clustering at the city level. Additional controls: age, age squared, gender, education, language test score, car ownership, mobile ownership, internet at home, time to travel to city center, years since migration in Italy, dummy for non taking the language test, dummies for origin (New member countries, Western Balkans, other origins)

Robustness check: illegal immigrants

Variables	Dependent variable: 1=employed			
	full sample	full sample no illegal imm control	only legal broad definition	only legal narrow definition
	[1]	[2]	[3]	[4]
PANEL A: Probit models				
Share of non-Italians	-0.013	-0.011	-0.012	-0.012
	(0.238)	(0.301)	(0.311)	(0.323)
		(0.376)	(0.264)	(0.408)
N	472.000	472.000	383.000	368.000
PANEL B: IV Probit models				
Share of non-Italians	-0.055	-0.055	-0.072	-0.082
	(0.176)	(0.012)	(0.668)	(0.137)
		(0.040)	(0.142)	(0.046)
Residuals	0.052	0.052	0.068	0.079
		(0.030)	(0.142)	(0.038)
N	472.000	472.000	383.000	368.000

Two versions of the p-values of the estimated coefficients are reported in parentheses. The first version is based from a standard robust variance-covariance matrix. The second version is based on a *pair cluster bootstrap-t procedure* with 500 replications and clustering at the city level. Additional controls: age, age squared, gender, education, language test score, car ownership, mobile ownership, internet at home, time to travel to city center, years since migration in Italy, dummy for non taking the language test, dummies for origin. Segregation is instrumented with the average age and average housing density of building in the block, both interacted with city dummies.

Probit regressions for employment with non-linearities

Variables	Dependent variable: 1=employed	
	Probit	IV-Probit
	[1]	[2]
% of non-Italians	0.029	-0.015
	(0.459)	(0.795)
	(0.268)	(0.452)
% of non-Italians squared	-0.001	-0.001
	(0.263)	(0.580)
	(0.080)	(0.082)
City fixed effects	yes	yes
District fixed effects	yes	yes
Observations	472	472

Two versions of the p-values of the estimated coefficients are reported in parentheses. The first version is based from a standard robust variance-covariance matrix. The second version is based on a *pair cluster bootstrap-t procedure* with 500 replications and clustering at the city level. Additional controls: age, age squared, gender, education, language test score, car ownership, mobile ownership, internet at home, time to travel to city center, years since migration in Italy, dummy for non taking the language test, dummies for origin (New member countries, Western Balkans, other origins). Segregation is instrumented with the average age and average housing density of building in the block, both interacted with city dummies.
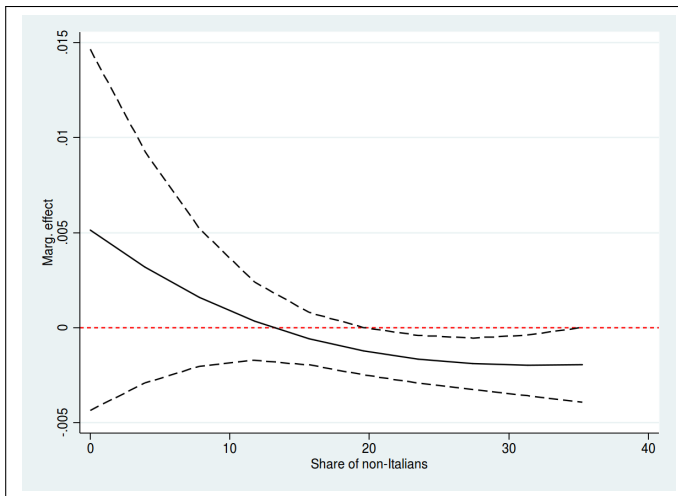
Non-linearities

Figure: Quadratic effect of segregation on employment

Summary of empirical results

- ▶ IV estimates suggest that:
    - ▶ residential segregation is bad for employment...
    - ▶ ...conditional on selection and neighborhood (unobservable) effects.
    - ▶ discontinuity at 20 per cent segregation.

    Important to understand the mechanism. Standard interpretations:

- ▶ Spatial mismatch (commuting and informational costs)
- ▶ Sorting by skill (low-skilled in segregated areas)
- ▶ Discrimination (pure or statistical) by native employers
- ▶ Relevant for policy, e.g., policies improving public transport or PES networks, relocation or randomization of new locations, etc.

Exploring the Mechanism

Variables	Dependent variable: 1=employed			
	Probit	Probit	IV-Probit	IV-Probit
	[1]	[2]	[3]	[4]
% of non-Italians	-0.010	-0.012	-0.047	-0.042
	(0.364)	(0.269)	(0.124)	(0.000)
	(0.336)	(0.206)	(0.13)	(0.164)
1=illegal immigrant	-0.643	-0.602	-0.655	-0.610
	(0.009)	(0.015)	(0.018)	(0.184)
	(0.066)	(0.082)	(0.086)	(0.11)
Average housing price	0.001	0.001	0.001	0.001
	(0.035)	(0.031)	(0.016)	(0.082)
	(0.308)	(0.158)	(0.158)	(0.162)
Time to travel to city center	-0.010	-0.009	-0.002	-0.004
	(0.361)	(0.387)	(0.796)	(0.730)
	(0.26)	(0.356)	(0.832)	(0.748)
1=refused test	-	-0.354	-	-0.443
		(0.148)		(0.142)
		(0.542)		(0.538)
Language test score	-	0.002	-	0.002
		(0.100)		(0.214)
		(0.304)		(0.304)
City fixed effects	yes	yes	yes	yes
District fixed effects	yes	yes	yes	yes
Observations	470	470	470	470

Two versions of the p-values of the estimated coefficients are reported in parentheses. The first version is based
from a standard robust variance-covariance matrix. The second version is based on a *pair cluster bootstrap-t
procedure* with 500 replications and clustering at the city level. Additional controls: years since migration in Italy,
dummy for non taking the language test, dummies for origin. Segregation is instrumented with the average age and
average housing density of building in the block, both interacted with city dummies.

Employment and segregation for natives

Variables	Dependent variable: 1=employed		
	Probit [1]	Probit [2]	IV-Probit [3]
% of non-Italians in the block	-0.022	-0.019	-0.034
	(0.016)	(0.020)	(0.031)
% of non-Italians squared	-	-0.000	-
		(0.001)	
Age	0.473***	0.473***	0.476***
	(0.098)	(0.100)	(0.096)
Age squared	-0.006***	-0.006***	-0.006***
	(0.001)	(0.001)	(0.001)
1=female	-0.931***	-0.928***	-0.881***
	(0.283)	(0.277)	(0.284)
1=primary education	2.513***	2.504***	2.516***
	(0.742)	(0.753)	(0.658)
1=secondary education	2.136**	2.126**	2.083**
	(0.906)	(0.903)	(0.824)
1=tertiary education	2.837**	2.826**	2.827**
	(1.172)	(1.193)	(1.105)
1=owns (at least) one car	0.827***	0.828***	0.603***
	(0.298)	(0.300)	(0.164)

Informal networks: Probit for jobs found through friends

Variables	Dependent variable: 1=jobs found through friends			
	Probit	Probit	IV-Probit	IV-Probit
	[1]	[2]	[3]	[4]
% of non-Italians in the block	0.022***	-	0.005	-
	(0.007)		(0.026)	
% of immigrants from same	-	0.021	-	-0.019
origin in the block		(0.016)		(0.031)
City fixed effects	yes	yes	yes	yes
District fixed effects	yes	yes	yes	yes
Observations	398	398	398	398

The sample is restricted to employed persons. Robust standard errors in parentheses clustered at the city level.

Additional controls: age, age squared, gender, education, legal status, language test score, car ownership, mobile ownership, internet at home, time to travel to city center, years since migration in Italy, dummy for non taking the language test, dummies for origin (New member countries, Western Balkans, other origins). Segregation is instrumented with the average age and average housing density of building in the block, both interacted with city dummies.

Estimates with neighborhood effects

Variables	Dependent variable: 1=employed		
	all sample	adjacent blocks	
	[1]	[2]	[3]
PANEL A: Probit models			
% of non-Italians	-0.002	-0.020	-0.013
	(0.010)	(0.033)	(0.040)
	(0.724)	(0.996)	(0.998)
Block-pair fixed effects	no	no	yes
Observations	470	155	82
PANEL A: Logit models			
% of non-Italians	-0.015	-0.031	-0.010
	(0.024)	(0.064)	(0.072)
	(0.432)	(0.622)	(0.408)
Block-pair effects	random	random	fixed
Observations	470	155	82

Standard errors in parentheses. Additional controls: age, gender, a dummy for education above primary school, legal status, quintiles of language test scores, car ownership, time to travel to city center, year of arrival in Italy (linear), dummy for non taking the language test. The sample is limited to individual residing in neighborhoods where two blocks have been sampled.
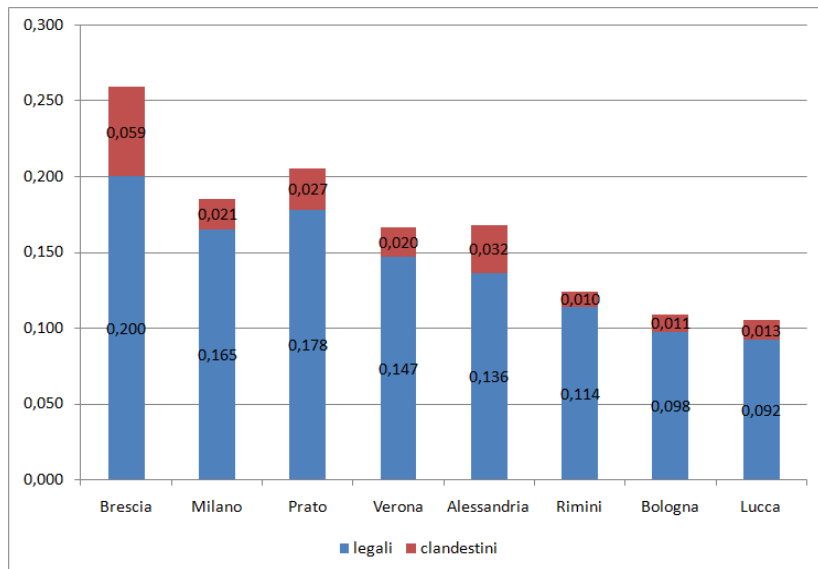
Conclusions

- ▶ Residential segregation is bad for employment:
- ▶ controlling for endogenous sorting;
- ▶ Non-linear effect
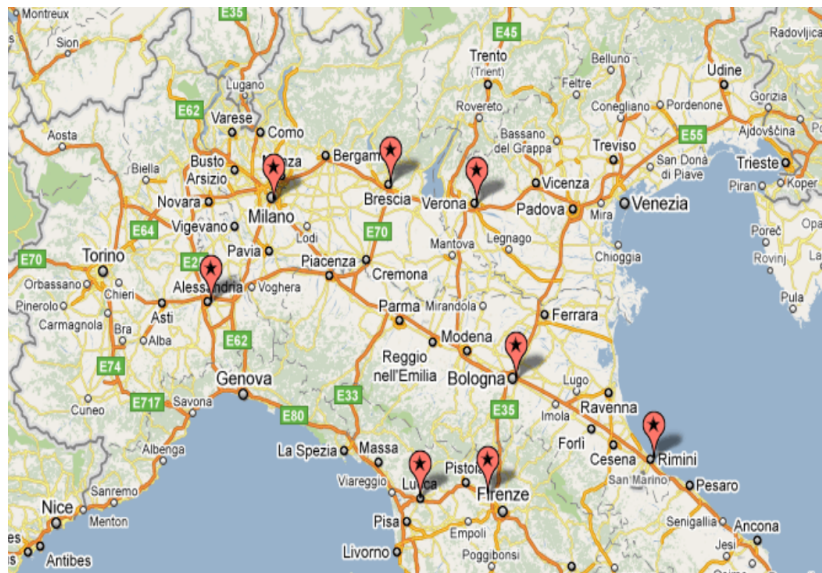- ▶ Holds for legal and illegal **migrants**

Policy implications

- ▶ No evidence that it is due to spatial mismatch
- ▶ Nor to sorting by skill
- ▶ It seems employment segmentation-discrimination of migrants rather than residential segregation per se;
- ▶ improving information about job opportunities in segregated areas unlikely to be effective
- ▶ reducing commuting costs from segregated to non-segregated areas also could not work
- ▶ better to rely on community networks, offering good jobs to segregated migrants
- ▶ relocation is risky: below the critical threshold, positive network effects on job finding may dominate

Legal and illegal migrants in Italy

The 8 surveyed cities

The 8 surveyed cities

City	Size	Income per capita	Average age	Unemployment rate	Employment rate
	[1]	[2]	[3]	[4]	[5]
Alessandria	93,676	13,648	46	0.065	0.45
Bologna	374,944	18,771	47	0.044	0.48
Brescia	190,844	15,812	45	0.048	0.48
Lucca	89,640	14,920	45	0.065	0.46
Milano	1,295,705	21,358	45	0.044	0.49
Prato	185,091	12,446	43	0.057	0.51
Rimini	140,137	12,059	45	0.070	0.46
Verona	265,368	15,220	44	0.049	0.48
Italy	60,045,068	12,953	43	0.112	0.43
Northern Italy	27,390,496	15,529	44	0.049	0.49