

# IMMIGRATION AND CRIME



EVROPSKÁ UNIE  
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MINISTERSTVO ŠKOLSTVÍ,  
MLÁDEŽE A TĚLOVÝCHOVY



# Immigration

- Movement of people to the destination country in order to settle and reside here.
- Benefits of immigration, international trade, Schengen area.
- **Political decision:**
  - Should we allow immigration?
  - If so, from where or how?
- Two main concerns:
  - Labor market
  - Crime

# Opinions on immigration: job and crime concerns

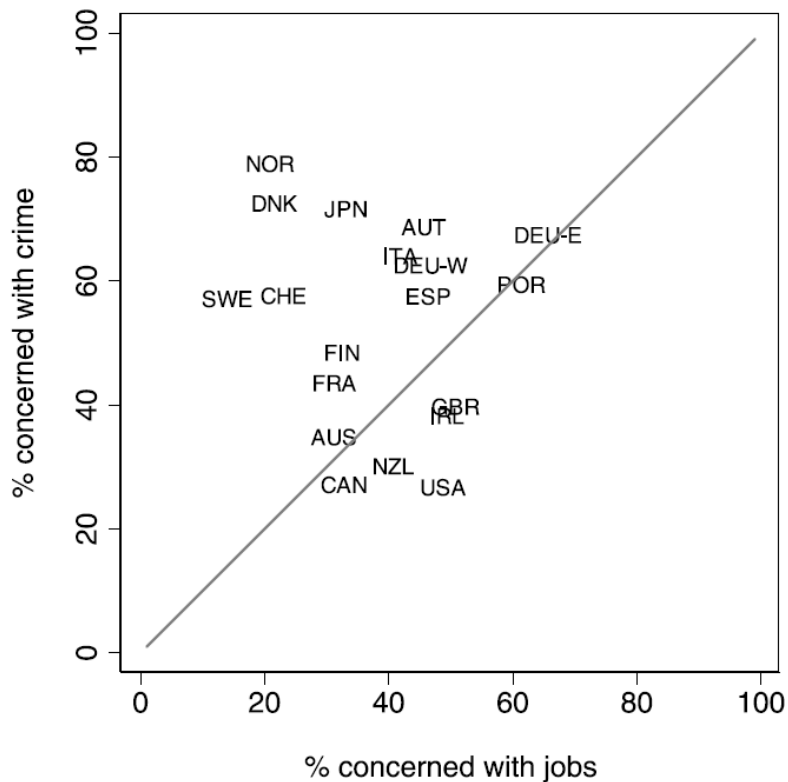


FIGURE 1. Opinions about immigrants: crime versus labor market concerns. This graph presents the results of the “National Identity” survey conducted in 1995 and 2003 by the International Social Survey Programme. It plots, for each country, the percentage of people who declared to “*Strongly Agree*” or “*Agree*” that “*Immigrants increase crime rates*” (on the vertical axis) against percentage of people who declared to “*Strongly Agree*” or “*Agree*” that “*Immigrants take jobs away from natives*” (on the horizontal axis), together with the 45-degree line.

# Immigration mechanism

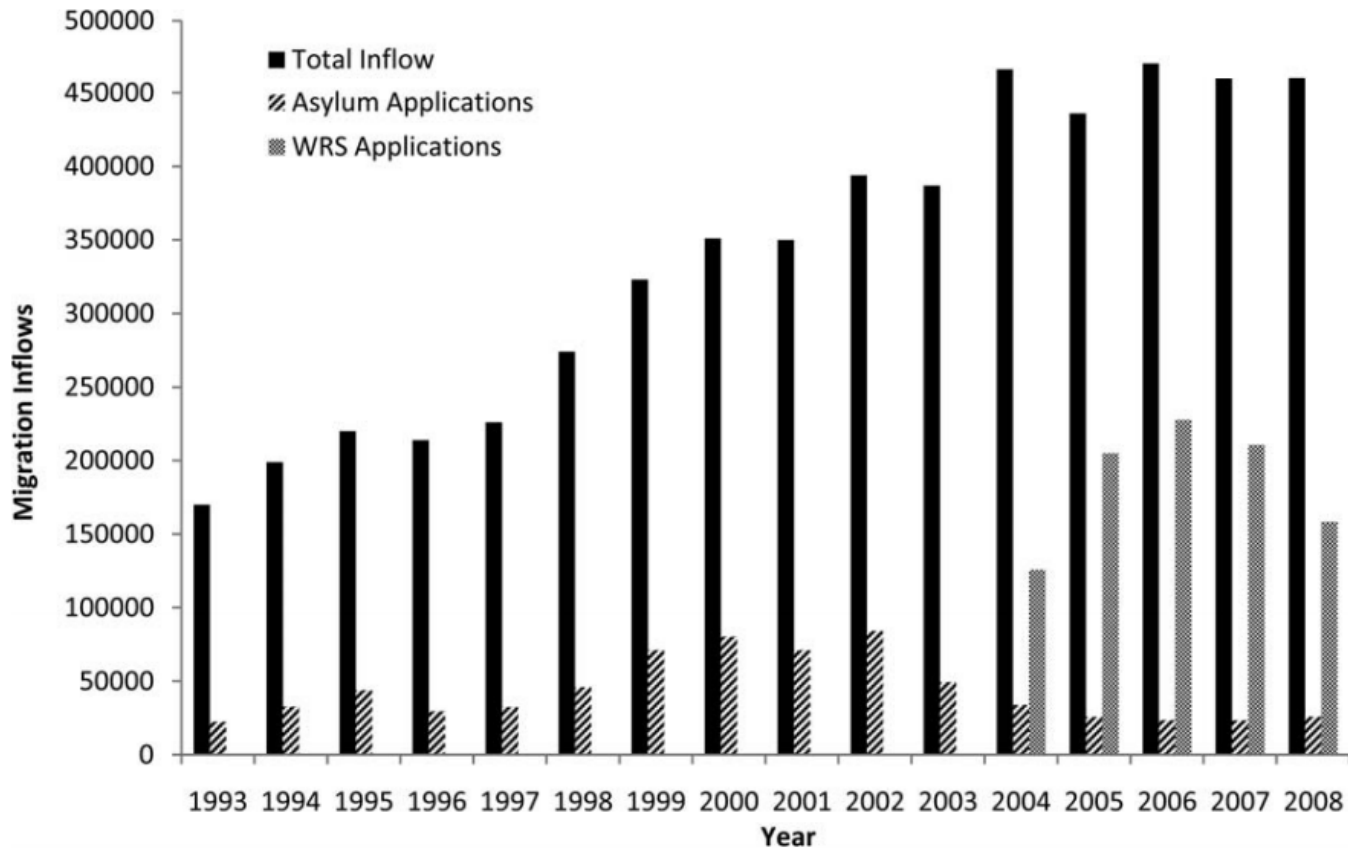
- General model of criminal behavior
  - Competition of legal and illegal actions,  $p$ ,  $f$  ...
- Immigrants: different crime propensities (age?), location of settlement
- Local population may change its criminal activity (labor market, crime competition response)
- Immigrant only offenses
- What happens with crime if immigration increases?
  - Increases?
  - Decreases?
  - or?

# Studies based on immigration waves

- Bell, B., Fasani, F. and Machin, S. (2013). Crime and Immigration: Evidence from Large Immigrant Waves, Review of Economics and Statistics.

*Abstract*—This paper focuses on empirical connections between crime and immigration, studying two large waves of recent U.K. immigration (the late 1990s/early 2000s asylum seekers and the post-2004 inflow from EU accession countries). The first wave led to a modest but significant rise in property crime, while the second wave had a small negative impact. There was no effect on violent crime; arrest rates were not different, and changes in crime cannot be ascribed to crimes against immigrants. The findings are consistent with the notion that differences in labor market opportunities of different migrant groups shape their potential impact on crime.

FIGURE 2.—ASYLUM APPLICATIONS AND WORKER REGISTRATION SCHEME REGISTRATIONS, 1993–2008



## A. Asylum Wave Statistics

|                        | British | Immigrant<br>Non-Asylum | Immigrant<br>Asylum |
|------------------------|---------|-------------------------|---------------------|
| % Male                 | 49.6    | 53.9                    | 60.4                |
| Age                    | 40.9    | 37.7                    | 35.2                |
| % with Children        | 40.4    | 43.5                    | 52.7                |
| % Single Person        | 21.9    | 15.9                    | 18.4                |
| % No Qual              | 38.4    | 32.2                    | 51.7                |
| % Degree               | 3.6     | 6.5                     | 4.1                 |
| % Poor English         | -       | 9.8                     | 32.3                |
| Participation rate     | 60.4    | 62.3                    | 48.6                |
| Unemployment rate      | 14.7    | 17.7                    | 32.7                |
| Annual Mean wage (£)   | 16,267  | 15,543                  | 12,672              |
| Annual Median wage (£) | 14,300  | 13,000                  | 10,400              |
| Sample size            | 8,063   | 3,385                   | 514                 |

## B. A8 Wave Statistics

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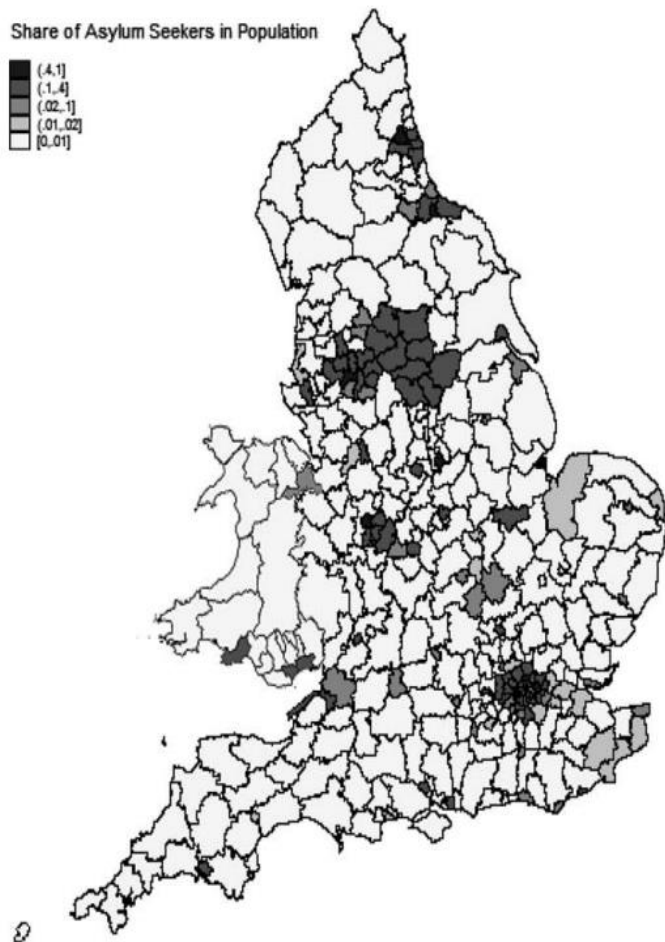
|                    | British | Immigrant<br>Non-A8 Wave | Immigrant<br>A8 Wave |
|--------------------|---------|--------------------------|----------------------|
| % Male             | 49.6    | 49.3                     | 54.6                 |
| Age                | 41.3    | 38.0                     | 28.7                 |
| % White            | 93.1    | 65.0                     | 93.7                 |
| % Married          | 52.3    | 53.2                     | 35.7                 |
| % No Children      | 59.7    | 59.3                     | 70.5                 |
| % Degree           | 15.3    | 16.1                     | 7.2                  |
| Years of School    | 12.5    | 13.8                     | 14.8                 |
| Participation rate | 77.6    | 71.9                     | 89.0                 |
| Employment rate    | 73.9    | 66.8                     | 83.5                 |
| Mean weekly wage   | £423    | £432                     | £268                 |
| Median weekly wage | £350    | £346                     | £242                 |
| Sample size        | 398,113 | 42,551                   | 2,045                |

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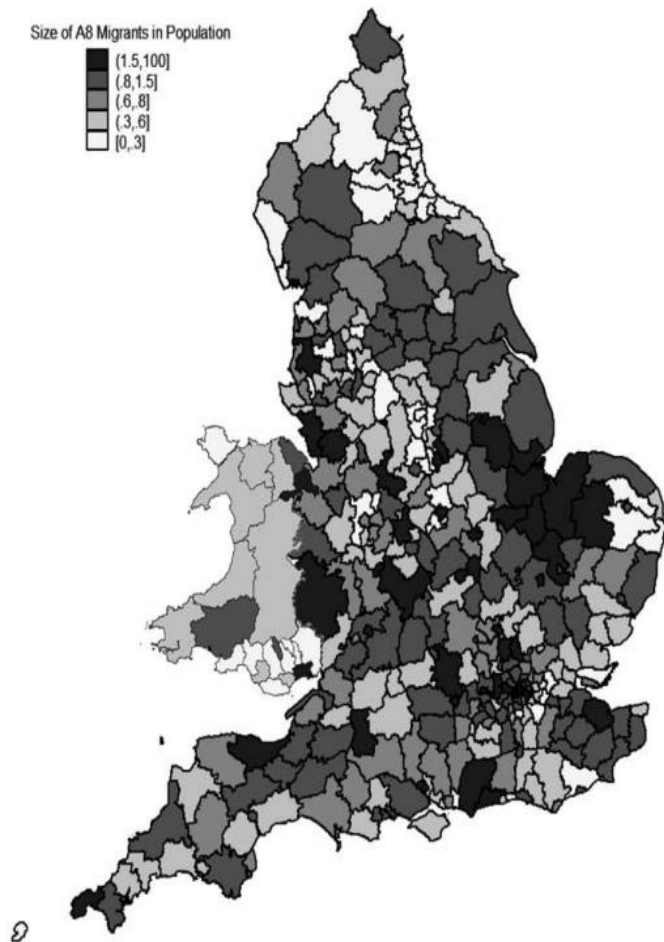


FIGURE 3.—DISTRIBUTION OF MIGRANTS ACROSS ENGLAND AND WALES

A. Asylum Migrants



B. A8 Migrants



$$\Delta(\text{Crime}/\text{Pop})_{it} = \beta_1 \Delta(\text{Migrants}/\text{Pop})_{it} + \beta_2 \Delta \ln(\text{Pop})_{it} + \beta_3 \Delta X_{it} + T_t + \varepsilon_{it}, \quad (1)$$

TABLE 2.—PANEL REGRESSIONS FOR IMMIGRANT WAVES

|                                    | Violent<br>(1)    | Violent<br>(2)       | Violent<br>(3)       | Property<br>(4)     | Property<br>(5)      | Property<br>(6)      |
|------------------------------------|-------------------|----------------------|----------------------|---------------------|----------------------|----------------------|
| $\Delta(\text{Asylum}/\text{Pop})$ | 0.027<br>(0.162)  | 0.029<br>(0.164)     | -0.090<br>(0.191)    | 1.141***<br>(0.330) | 1.221***<br>(0.302)  | 0.930***<br>(0.325)  |
| $\Delta(\text{A8}/\text{Pop})$     | -0.010<br>(0.014) | -0.003<br>(0.012)    | -0.007<br>(0.015)    | -0.034<br>(0.025)   | -0.043<br>(0.025)    | -0.061**<br>(0.025)  |
| $\Delta \ln(\text{Pop})$           |                   | -0.019***<br>(0.006) | -0.029***<br>(0.007) |                     | -0.029***<br>(0.011) | -0.032***<br>(0.011) |
| $\Delta(\text{Benefit Rate})$      |                   | -0.004<br>(0.025)    | -0.054<br>(0.029)    |                     | 0.141***<br>(0.035)  | 0.131***<br>(0.036)  |
| $\Delta(\text{Young Share})$       |                   | 0.026<br>(0.020)     | 0.035<br>(0.021)     |                     | -0.112***<br>(0.039) | -0.062<br>(0.033)    |
| Year dummies                       | x                 | x                    | x                    | x                   | x                    | x                    |
| PFA dummies                        |                   |                      | x                    |                     |                      | x                    |
| Sample size                        | 2,591             | 2,591                | 2,591                | 2,591               | 2,591                | 2,591                |
| $p(\text{Asylum} = \text{A8})$     | 0.817             | 0.84                 | 0.660                | 0.001               | 0.000                | 0.003                |
| $R^2$                              | 0.239             | 0.242                | 0.276                | 0.179               | 0.209                | 0.288                |

Regressions are run over the period 2002–2009. The dependent variable is  $\Delta(\text{Number of Crimes Recorded}/\text{Adult Population})$ . All regressions are weighted by adult population. Standard errors in parentheses are clustered at the local authority level. Significant at \*\*5% and \*\*\*1%.

TABLE 4.—IV PANEL REGRESSIONS FOR IMMIGRANT WAVES

|                               | Violent<br>(1)       | Property<br>(2)      | Property<br>(3)      | Violent<br>(4)      | Property<br>(5)      | Property<br>(6)      |
|-------------------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|
| $\Delta(\text{Asylum/Pop})$   | 0.026<br>(0.263)     | 1.776***<br>(0.454)  | 1.089**<br>(0.459)   |                     |                      |                      |
| $\Delta(\text{A8/Pop})$       |                      |                      |                      | -0.074<br>(0.096)   | -0.215**<br>(0.102)  | -0.386***<br>(0.081) |
| $\Delta \ln(\text{Pop})$      | -0.019***<br>(0.006) | -0.032***<br>(0.011) | -0.033***<br>(0.012) | -0.015**<br>(0.006) | -0.038***<br>(0.011) | -0.049***<br>(0.010) |
| $\Delta(\text{Benefit Rate})$ | -0.004<br>(0.024)    | 0.133***<br>(0.034)  | 0.130***<br>(0.036)  | -0.002<br>(0.028)   | 0.048<br>(0.037)     | 0.020<br>(0.033)     |
| $\Delta(\text{Young Share})$  | 0.026<br>(0.020)     | -0.116***<br>(0.039) | -0.060<br>(0.033)    | -0.021<br>(0.018)   | -0.040<br>(0.024)    | -0.021<br>(0.024)    |
| Year dummies                  | x                    | x                    | x                    | x                   | x                    | x                    |
| PFA dummies                   |                      |                      | x                    |                     |                      | x                    |
| Sample size                   | 2,591                | 2,591                | 2,591                | 1,849               | 1,849                | 1,849                |
| $R^2$                         | 0.242                | 0.203                | 0.286                | 0.073               | 0.068                | 0.093                |

# Studies based on immigration waves

- Bianchi, M., Buonanno, P., & Pinotti, P. (2012). Do immigrants cause crime?. Journal of the European Economic Association, 10(6), 1318-1347.

## Abstract

We examine the empirical relationship between immigration and crime across Italian provinces during the period 1990-2003. Drawing on police administrative records, we first document that the size of the immigrant population is positively correlated with the incidence of property crimes and with the overall crime rate. Then, we use instrumental variables based on immigration toward destination countries other than Italy to identify the causal impact of exogenous changes in Italy's immigrant population. According to these estimates, immigration increases only the incidence of robberies, while leaving unaffected all other types of crime. Since robberies represent a very minor fraction of all criminal offenses, the effect on the overall crime rate is not significantly different from zero.

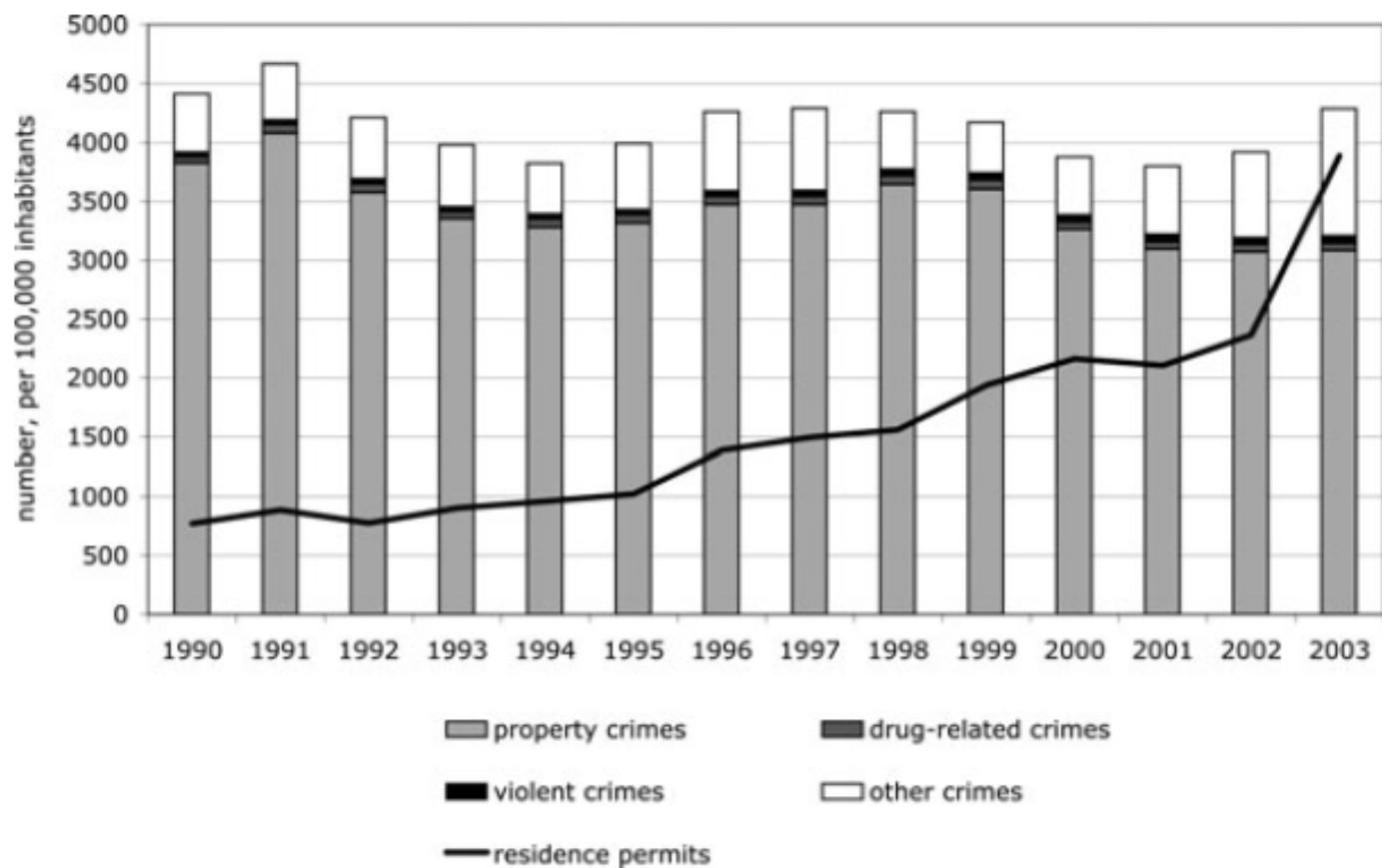


TABLE 3. Panel regressions: baseline.

$$\widehat{\Delta migr}_{it} = \sum_n \omega_{it-1}^n \times \Delta \ln MIGR_t^n.$$

|                 | (1)<br><i>total</i> | (2)<br><i>violent</i> | (3)<br><i>property</i> | (4)<br><i>drug</i>   | (5)<br><i>robbery</i> | (6)<br><i>theft</i>  | (7)<br><i>car theft</i> |
|-----------------|---------------------|-----------------------|------------------------|----------------------|-----------------------|----------------------|-------------------------|
| <i>migr</i>     | 0.102***<br>(0.039) | 0.003<br>(0.084)      | 0.084***<br>(0.028)    | -0.103<br>(0.074)    | 0.092*<br>(0.05)      | 0.093***<br>(0.03)   | 0.057<br>(0.041)        |
| <i>pop</i>      | 0.028<br>(0.641)    | -0.338<br>(1.660)     | 0.96<br>(0.718)        | -2.550<br>(1.552)    | 4.285***<br>(1.026)   | 1.155*<br>(0.686)    | 0.365<br>(0.958)        |
| <i>urban</i>    | 0.003*<br>(0.002)   | -0.003<br>(0.003)     | 0.003<br>(0.003)       | -0.010***<br>(0.002) | 0.0007<br>(0.004)     | 0.004<br>(0.002)     | 0.004**<br>(0.002)      |
| <i>male1539</i> | 0.131***<br>(0.045) | 0.236**<br>(0.11)     | 0.041<br>(0.053)       | 0.325***<br>(0.108)  | -0.145*<br>(0.084)    | 0.052<br>(0.053)     | 0.1<br>(0.072)          |
| <i>gdp</i>      | 0.15<br>(0.14)      | -0.116<br>(0.319)     | 0.171<br>(0.166)       | 0.423<br>(0.378)     | -0.155<br>(0.267)     | 0.113<br>(0.164)     | 0.611***<br>(0.232)     |
| <i>unemp</i>    | -0.004<br>(0.007)   | 0.011<br>(0.003)      | -0.007*<br>(0.005)     | 0.019*<br>(0.004)    | -0.022***<br>(0.01)   | -0.006*<br>(0.003)   | -0.003<br>(0.01)        |
| <i>clear-up</i> | -0.004<br>(0.003)   | -0.008***<br>(0.002)  | -0.030***<br>(0.006)   | 0.0003<br>(0.003)    | -0.005***<br>(0.001)  | -0.030***<br>(0.006) | -0.005**<br>(0.003)     |
| <i>partisan</i> | 0.007<br>(0.01)     | 0.045**<br>(0.019)    | 0.007<br>(0.009)       | 0.023<br>(0.015)     | 0.006<br>(0.013)      | 0.007<br>(0.009)     | -0.003<br>(0.011)       |
| Obs.            | 1,045               | 1,045                 | 1,045                  | 1,045                | 1,045                 | 1,045                | 1,045                   |
| Provinces       | 95                  | 95                    | 95                     | 95                   | 95                    | 95                   | 95                      |
| Prov. FE        | yes                 | yes                   | yes                    | yes                  | yes                   | yes                  | yes                     |
| Year FE         | yes                 | yes                   | yes                    | yes                  | yes                   | yes                  | yes                     |
| $R^2$           | 0.220               | 0.321                 | 0.302                  | 0.189                | 0.241                 | 0.28                 | 0.323                   |

Even after controlling for other determinants of crime and for fixed effects, the distribution of the immigrant population across provinces could be correlated with the error term for several reasons. First, our set of controls could neglect some time-varying, possibly unobserved demand-pull factors that are also correlated with crime. For instance, improvements in labor market conditions that are not adequately captured by changes in official unemployment and income could increase immigration and decrease crime, which would bias OLS estimates downward. On the other hand, economic decline could attract immigrants to some areas (e.g. because of lower housing prices) where crime is on the rise, which would bias OLS estimates upward. Finally, changes in crime rates across provinces could themselves have a direct effect on immigrants' location.

In order to take these concerns into account, we adopt an instrumental variable approach that uses the (exogenous) supply-push component of migration by nationality as an instrument for shifts in the immigrant population across Italian provinces. Supply-push factors are all

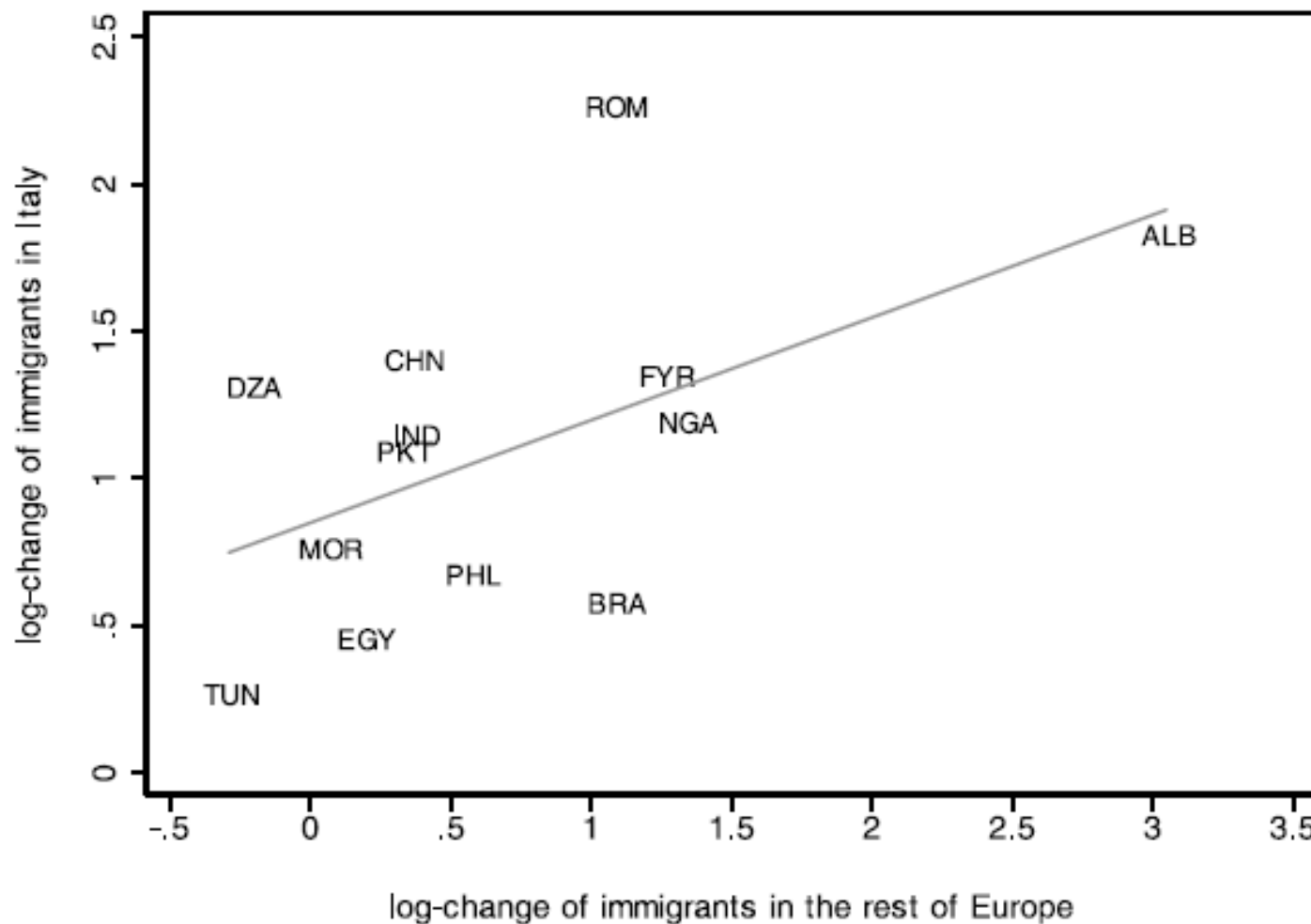




TABLE 4. Ten-year difference regressions: total crimes.

|                           | (1)<br>OLS        | (2)<br>OLS     | (3)<br>IV      | (4)<br>IV      | (5)<br>OLS        | (6)<br>IV      | (7)<br>IV       |
|---------------------------|-------------------|----------------|----------------|----------------|-------------------|----------------|-----------------|
| $\Delta migr$             | .156***<br>(.049) |                | .105<br>(.187) | .029<br>(.125) |                   | .055<br>(.244) | -.029<br>(.175) |
| $\widehat{\Delta migr}$   |                   | .055<br>(.104) |                |                |                   |                |                 |
| $\widetilde{\Delta migr}$ |                   |                |                |                | .137***<br>(.039) |                |                 |
| Obs.                      | 95                | 95             | 95             | 95             | 95                | 95             | 95              |
| $F$ statistic             | 5.401             | 3.095          | 3.395          | 3.243          | 6.399             | 3.283          | 3.001           |
| $R^2$                     | .241              | .182           |                |                | .249              |                |                 |

TABLE 5. Ten-year difference regressions: property crimes (disaggregated).

|                     | <i>theft</i>      |                |                | <i>robbery</i>    |                    |                   | <i>car theft</i> |                 |                 |
|---------------------|-------------------|----------------|----------------|-------------------|--------------------|-------------------|------------------|-----------------|-----------------|
|                     | (1)<br>OLS        | (2)<br>IV      | (3)<br>IV      | (4)<br>OLS        | (5)<br>IV          | (6)<br>IV         | (7)<br>OLS       | (8)<br>IV       | (9)<br>IV       |
| $\Delta migr$       | .156***<br>(.045) | .144<br>(.151) | .069<br>(.120) | .351***<br>(.089) | 1.023***<br>(.360) | .872***<br>(.256) | -.033<br>(.081)  | -.204<br>(.266) | -.053<br>(.159) |
| Obs.                | 95                | 95             | 95             | 95                | 95                 | 95                | 95               | 95              | 95              |
| <i>F</i> -statistic | 7.866             | 6.963          | 6.458          | 4.144             | 2.028              | 2.682             | 2.361            | 2.229           | 2.341           |
| $R^2$               | .308              |                |                | .193              |                    |                   | .124             |                 |                 |

# Legal/social status of immigrants

- Damm A.P. and C.Dustmann (2014). Does Growing Up in a High Crime Neighborhood Affect Youth Criminal Behavior? American Economic Review

**Abstract:** This paper investigates the effect of early exposure to neighborhood crime on subsequent criminal behavior of youth exploiting a unique natural experiment between 1986 and 1998 when refugee immigrants to Denmark were assigned to neighborhoods quasi-randomly. We find strong evidence that the share of young people convicted for crimes, in particular violent crimes, in the neighborhood increases convictions of male assignees later in life. No such effects are found for other measures of neighborhood crime including the rate of committed crimes. Our findings suggest social interaction as a key channel through which neighborhood crime is linked to individual criminal behavior.

TABLE 1—ASSIGNMENT LOCATION ATTRIBUTES AND INDIVIDUAL CHARACTERISTICS OF ASSIGNEES

|   | Different measures of crime in municipality of assignment |   |                                   |   |  |  |
|---|---|---|-----------------------------------|---|--|--|
|   | Youth crime conviction rate (%)                           | Youth violent crime conviction rate (%) | Overall crime conviction rate (%) | Overall violent crime conviction rate (%) | Number of reported crimes per capita (%) | Number of reported violent crimes per 10,000 inhabitants |
|   | (1)   | (2)                                     | (3)                               | (4)                                       | (5)                                      | (6)  |
| <i>Panel A</i>  |   |   |                                   |   |  |  |
| Years of education household head<br>(ref. category: 0–9 years):  |   |   |                                   |   |  |  |
| 10–12 years   | –0.002<br>(0.044)   | 0.003<br>(0.008)                        | –0.007<br>(0.019)                 | –0.000<br>(0.002)                         | –0.128<br>(0.248)                        | 0.130<br>(0.499)   |
| More than 12 years  | –0.019<br>(0.049)   | 0.003<br>(0.009)                        | –0.017<br>(0.021)                 | 0.001<br>(0.002)                          | –0.192<br>(0.277)                        | 0.013<br>(0.558)   |
| Unknown   | 0.006<br>(0.045)  | 0.002<br>(0.008)                        | 0.001<br>(0.020)                  | 0.001<br>(0.002)                          | 0.127<br>(0.256)                         | 0.557<br>(0.515)   |
| Age   | 0.002<br>(0.002)  | –0.001**<br>(0.000)                     | 0.001<br>(0.001)                  | –0.000<br>(0.000)                         | 0.021**<br>(0.009)                       | 0.020<br>(0.019)   |
| Children  | –0.012<br>(0.008)   | –0.002<br>(0.001)                       | –0.008**<br>(0.004)               | –0.001<br>(0.000)                         | –0.127***<br>(0.046)                     | –0.208**<br>(0.092)                                      |
| Married   | 0.050<br>(0.048)  | 0.007<br>(0.009)                        | 0.019<br>(0.021)                  | 0.002<br>(0.002)                          | 0.207<br>(0.269)                         | 0.340<br>(0.541)   |
| Country of origin FE  | Yes   | Yes                                     | Yes                               | Yes                                       | Yes                                      | Yes  |
| Year of immigration FE  | Yes   | Yes                                     | Yes                               | Yes                                       | Yes                                      | Yes  |
| Observations  | 2,396   |   |                                   |   |  |  |
| <i>Test of joint insignificance of educational attainment categories in linear regressions above</i>  |   |   |                                   |   |  |  |
| <i>F</i> (3,2370)   | 0.12  | 0.04                                    | 0.38                              | 0.15                                      | 0.79                                     | 0.65   |
| <i>Pr</i> > <i>F</i>  | 0.95  | 0.9891                                  | 0.7686                            | 0.9287                                    | 0.4999                                   | 0.5844   |
| <i>Test of joint insignificance of educational attainment dummies, age, number of children, and married dummy in linear regressions above</i> |   |   |                                   |   |  |  |
| <i>F</i> (6,2370)   | 1.06  | 1.06                                    | 1.82                              | 0.60                                      | 3.23                                     | 1.73   |
| <i>Pr</i> > <i>F</i>  | 0.3840  | 0.3873                                  | 0.0905                            | 0.7308                                    | 0.0036                                   | 0.1095   |

TABLE 3—EFFECT OF A STANDARD DEVIATION INCREASE IN THE YOUTH CRIME CONVICTION RATE IN THE MUNICIPALITY OF ASSIGNMENT IN YEAR OF ASSIGNMENT ON CONVICTIONS

|  | (1)                | (2)                | (3)                | (4)                | (5)                |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|
| <i>Panel A. Men</i>  |                    |                    |                    |                    |                    |
| Convicted in age range   |                    |                    |                    |                    |                    |
| 15–21  | 0.019<br>(0.013)   | 0.017<br>(0.012)   | 0.023*<br>(0.012)  | 0.023*<br>(0.012)  | 0.043**<br>(0.022) |
| 15–17  | 0.017<br>(0.013)   | 0.015<br>(0.012)   | 0.014<br>(0.013)   | 0.014<br>(0.013)   | 0.027<br>(0.019)   |
| 18–21  | 0.020*<br>(0.010)  | 0.019**<br>(0.010) | 0.025**<br>(0.012) | 0.023**<br>(0.012) | 0.031<br>(0.020)   |
| Convictions in age range   |                    |                    |                    |                    |                    |
| 15–21  | 0.122**<br>(0.058) | 0.113**<br>(0.052) | 0.118*<br>(0.062)  | 0.106*<br>(0.063)  | 0.169*<br>(0.097)  |
| 15–17  | 0.068**<br>(0.027) | 0.061**<br>(0.025) | 0.055*<br>(0.033)  | 0.050<br>(0.034)   | 0.098*<br>(0.051)  |
| 18–21  | 0.054<br>(0.035)   | 0.052<br>(0.032)   | 0.063*<br>(0.036)  | 0.056<br>(0.037)   | 0.071<br>(0.056)   |
| Country of origin, year, and age at assignment FE; family background, ln(size ethnic group DK) | No                 | Yes                | Yes                | Yes                | Yes                |
| Poverty rate, immigrant share, pop. size, number of teacher hours/pupil, pupils/teacher ratio  | No                 | No                 | Yes                | Yes                | Yes                |
| Crime detection rate, police officers/1,000 inhabitants  | No                 | No                 | No                 | Yes                | Yes                |
| Municipality of assignment FE  | No                 | No                 | No                 | No                 | Yes                |

TABLE 5—EFFECT OF A STANDARD DEVIATION INCREASE IN TYPE-SPECIFIC YOUTH CRIME CONVICTION RATES IN THE MUNICIPALITY OF ASSIGNMENT IN YEAR OF ASSIGNMENT ON CONVICTIONS: MEN

|   | Convicted in age range |                     |                     |                     |                    |                   |
|---|------------------------|---------------------|---------------------|---------------------|--------------------|-------------------|
|   | 15–21                  |                     | 15–17               |                     | 18–21              |                   |
|   | (1)                    | (2)                 | (3)                 | (4)                 | (5)                | (6)               |
| <i>Panel A</i>                          |                        |                     |                     |                     |                    |                   |
| Youth violent crime conviction rate     | 0.034***<br>(0.011)    | 0.045***<br>(0.014) | 0.035***<br>(0.011) | 0.046***<br>(0.013) | 0.021**<br>(0.010) | 0.024*<br>(0.012) |
| <i>Panel B</i>                          |                        |                     |                     |                     |                    |                   |
| Youth property crime conviction rate    | 0.016<br>(0.012)       | 0.029<br>(0.021)    | 0.008<br>(0.013)    | 0.009<br>(0.019)    | 0.017<br>(0.011)   | 0.019<br>(0.019)  |
| <i>Panel C</i>                          |                        |                     |                     |                     |                    |                   |
| Youth drugs crime conviction rate       | -0.011<br>(0.013)      | -0.006<br>(0.018)   | -0.015<br>(0.012)   | 0.005<br>(0.016)    | 0.003<br>(0.013)   | 0.002<br>(0.017)  |
| <i>Panel D</i>                          |                        |                     |                     |                     |                    |                   |
| Youth conviction rate of other offenses | 0.021*<br>(0.012)      | 0.011<br>(0.016)    | 0.017<br>(0.011)    | 0.005<br>(0.015)    | 0.022*<br>(0.011)  | 0.017<br>(0.015)  |

TABLE 6—EFFECT OF A STANDARD DEVIATION INCREASE IN DIFFERENT CRIME MEASURES IN THE MUNICIPALITY OF ASSIGNMENT ON THE CONVICTION PROBABILITY: MEN

|  | Convicted in 15–21 age range |                     |
|--|------------------------------|---------------------|
|  | (1)                          | (2)                 |
| <i>Panel A</i>   |                              |                     |
| Youth crime conviction rate                              | 0.023*<br>(0.012)            | 0.043**<br>(0.022)  |
| <i>Panel B</i>   |                              |                     |
| Youth violent crime conviction rate                      | 0.034***<br>(0.011)          | 0.045***<br>(0.014) |
| <i>Panel C</i>   |                              |                     |
| Number of reported crimes per capita                     | 0.011<br>(0.016)             | –0.002<br>(0.021)   |
| <i>Panel D</i>   |                              |                     |
| Number of reported violent crimes per 10,000 inhabitants | 0.027*<br>(0.014)            | –0.000<br>(0.018)   |
| <i>Panel E</i>   |                              |                     |
| Youth crime conviction rate                              | 0.022<br>(0.014)             | 0.045**<br>(0.022)  |
| Number of reported crimes per capita                     | –0.000<br>(0.017)            | –0.008<br>(0.022)   |

# Legal/social status of immigrants

Mastrobuoni, G., and Pinotti, P. (2015). Legal status and the criminal activity of immigrants. *American Economic Journal: Applied Economics*, 7(2).

*We exploit exogenous variation in legal status following the January 2007 European Union enlargement to estimate its effect on immigrant crime. We difference out unobserved time-varying factors by (i) comparing recidivism rates of immigrants from the “new” and “candidate” member countries; and (ii) using arrest data on foreign detainees released upon a mass clemency that occurred in Italy in August 2006. The timing of the two events allows us to setup a difference-in-differences strategy. Legal status leads to a 50 percent reduction in recidivism, and explains one-half to two-thirds of the observed differences in crime rates between legal and illegal immigrants. (JEL F22, K42, C41)*



TABLE 1—LEGAL AND ILLEGAL IMMIGRANTS: INDIVIDUAL CHARACTERISTICS  
AND LABOR MARKET OUTCOMES

| Variable                    | Illegals |                 | Legals |                 | Diff.              |
|-----------------------------|----------|-----------------|--------|-----------------|--------------------|
|                             | Obs      | Mean            | Obs    | Mean            |                    |
| Age                         | 1,280    | 31.29<br>(8.94) | 7,343  | 34.63<br>(9.36) | -3.34***<br>(0.28) |
| Female                      | 1,281    | 0.39<br>(0.49)  | 7,353  | 0.44<br>(0.50)  | -0.05***<br>(0.01) |
| Married                     | 1,281    | 0.34<br>(0.47)  | 7,353  | 0.59<br>(0.49)  | -0.26***<br>(0.01) |
| Number of children          | 1,279    | 0.76<br>(1.19)  | 7,339  | 1.18<br>(1.28)  | -0.41***<br>(0.04) |
| College                     | 1,281    | 0.14<br>(0.34)  | 7,353  | 0.16<br>(0.37)  | -0.02***<br>(0.01) |
| Low-skilled                 | 1,281    | 0.12<br>(0.33)  | 7,353  | 0.09<br>(0.28)  | 0.04**<br>(0.01)   |
| Income<br>(euros per month) | 949      | 824<br>(371)    | 5,339  | 1,130<br>(652)  | -306***<br>(22)    |
| College premium             | 949      | 9<br>(35)       | 5,339  | 112<br>(25)     | -103*<br>(62)      |

TABLE 4—COX MODEL FOR THE HAZARD RATE OF REINCARCERATION

|   | Baseline             |                     | Econ<br>(3)         | Nonecon<br>(4)    | North<br>(5)        | South<br>(6)      |
|---|----------------------|---------------------|---------------------|-------------------|---------------------|-------------------|
|   | (1)                  | (2)                 |                     |                   |                     |                   |
| <i>new EU</i>                                       | -0.016<br>(0.219)    | -0.027<br>(0.216)   | 0.002<br>(0.208)    | -0.215<br>(0.987) | 0.234<br>(0.245)    | -0.256<br>(0.307) |
| <i>post</i>   | -0.149<br>(0.336)    | -0.171<br>(0.338)   | -0.277<br>(0.392)   | 0.493<br>(0.863)  | -0.343<br>(0.560)   | -0.154<br>(0.566) |
| <i>new EU</i> × <i>post</i>                         | -0.563***<br>(0.215) | -0.557**<br>(0.217) | -0.668**<br>(0.286) | 0.243<br>(1.129)  | -0.923**<br>(0.427) | -0.331<br>(0.310) |
| $\exp(\beta) \approx \frac{h(C L = 1)}{E(C L = 0)}$ | 56.9%                | 57.3%               | 51.2%               | 127.5%            | 39.7%               | 71.8%             |
| Observations  | 4,177                | 4,177               | 3,653               | 524               | 2,013               | 1,640             |
| Controls  | No                   | Yes                 | Yes                 | Yes               | Yes                 | Yes               |
| $\chi^2$  | 10.55                | 30.23               | 32.78               | 3.67              | 29.34               | 11.60             |

# Foreigners in the criminal justice system

- Martens, P.L. (1997). Immigrants, Crime, and Criminal Justice in Sweden, *Crime and Justice*, Vol. 21, pp. 183-255

Immigrants generally have higher crime rates than do indigenous Swedes, particularly for violence and theft, and are likelier to be victims of violence. Both first- and second-generation immigrants have higher crime rates than indigenous Swedes, but second-generation immigrants have lower rates than first-generation immigrants—a finding contradicting results in other countries. These lower rates may be a consequence of Swedish social welfare policy. The offending pattern of second-generation immigrants is similar to the pattern of native Swedes. Groups with a high total crime rate in the first generation tend to have a relatively high total crime rate in the second generation and vice versa.

Percentage of Foreign Citizens among Persons Suspected of  
Different Types of Offenses, Residents, 1994

| Type of Offense                                | Foreign<br>Citizens | Overrepresentation |
|--|---------------------|--------------------|
| Violent Offenses:                              |                     |                    |
| Rape, aggravated rape                          | 27.1                | 4.7                |
| Assault of children:                           |                     |                    |
| 7-14 years                                     | 27.6                | 4.7                |
| 0-6 years                                      | 25.2                | 4.3                |
| Attempt to murder/manslaughter                 | 23.4                | 4.0                |
| Murder/manslaughter                            | 21.7                | 3.7                |
| Aggravated assault:                            |                     |                    |
| Against women                                  | 22.2                | 3.8                |
| Against men                                    | 18.6                | 3.2                |
| Unlawful threat                                | 19.4                | 3.3                |
| Violence to public servant                     | 17.7                | 3.0                |
| Violent resistance                             | 17.8                | 3.0                |
| Offenses of stealing:                          |                     |                    |
| Theft, petty theft in shop or department store | 21.2                | 3.6                |
| Pickpocketing                                  | 28.1                | 4.8                |
| Aggravated robbery                             | 18.0                | 3.1                |
| Goods Smuggling Act                            | 23.2                | 4.0                |

## Crime participation by nationality group

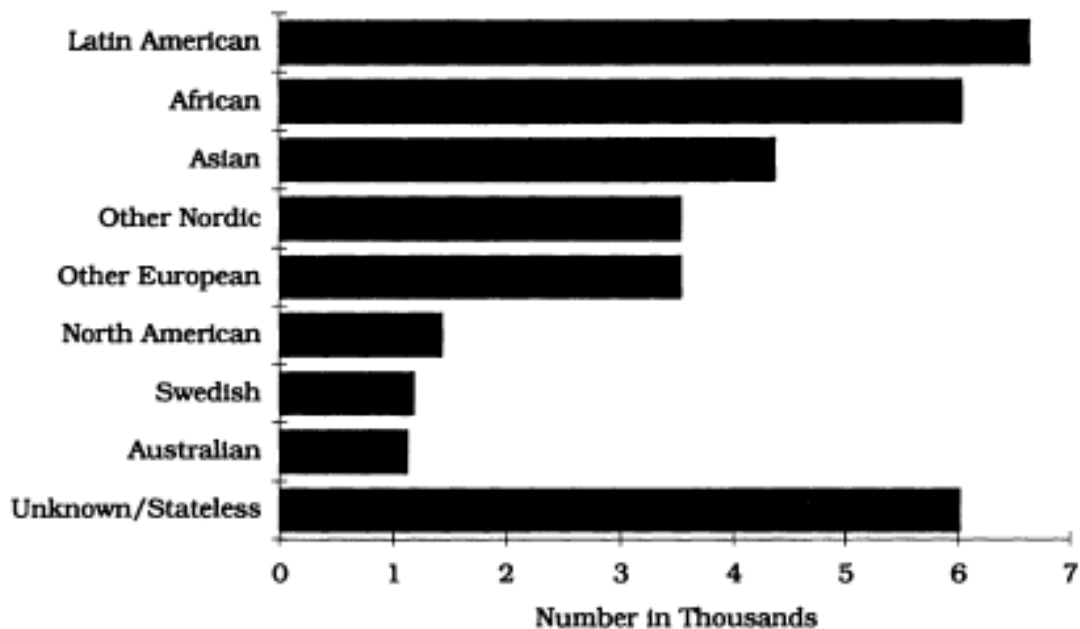


FIG. 2.—Number of suspects per 100,000 inhabitants over 14 years old, by nationality group; mean values are for 1987–93. “Asian” excludes Turkey; “Other European”

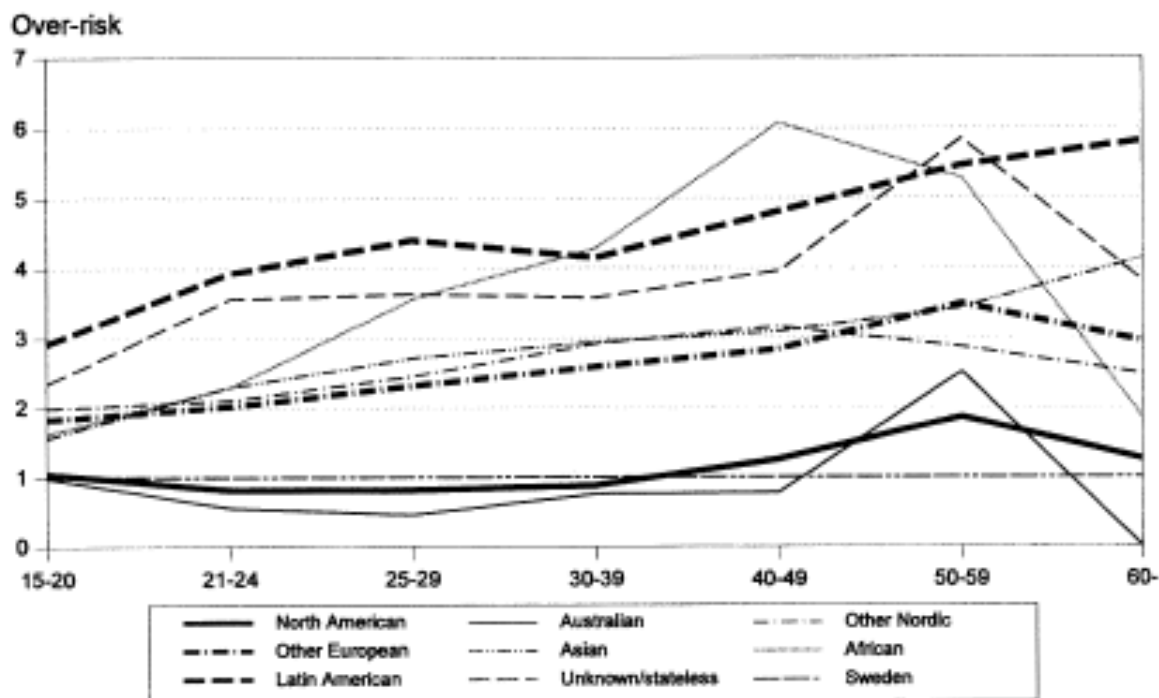


FIG. 4.—Overrisk of being suspected of an offense, by age-group and nationality, 1987-93. Sources: Statistics Sweden (1988*a*-93*a*), table 3.2.9; National Council for

Annual Percentage of Foreign Citizens  
among Persons Suspected of an Offense,  
Convicted of an Offense, and Registered  
in the Prisons, 1983–94 (Residents and  
Nonresidents Included)

|      | Suspected<br>of a Crime | Found<br>Guilty of<br>a Criminal<br>Offense | Registered<br>in Prison |
|------|-------------------------|---|-------------------------|
| 1984 | 15                      | 13  | 17                      |
| 1985 | 16                      | 14  | 17                      |
| 1986 | 15                      | 14  | 16                      |
| 1987 | 16                      | 14  | 16                      |
| 1988 | 17                      | 15  | 17                      |
| 1989 | 18                      | 16  | 17                      |
| 1990 | 20                      | 17  | 18                      |
| 1991 | 21                      | 18  | 20                      |
| 1992 | 22                      | 19  | 21                      |
| 1993 | 22                      | 20  | 21                      |
| 1994 | 20                      | 19  | 20                      |

Crime Participation Rates in Different Types of Offenses for First- and Second-Generation Immigrants  
and Native Swedes, 1985–89

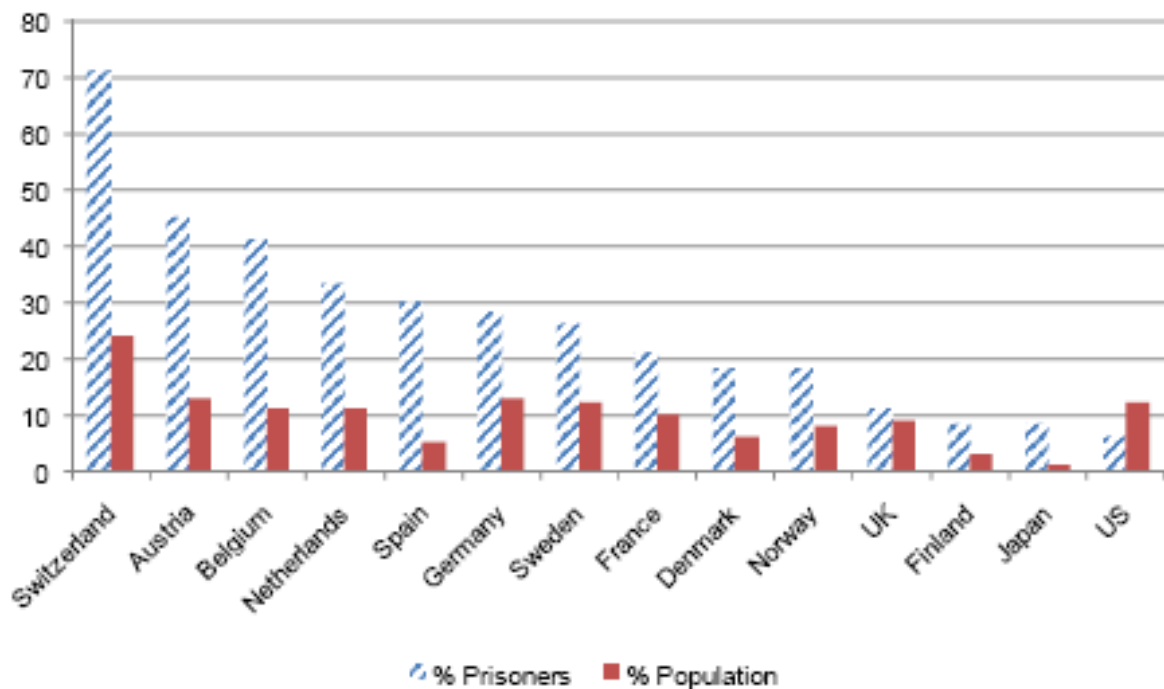
|   | First<br>Generation | Second<br>Generation | Native<br>Swedes | Overrepresentation  |                      |
|---|---------------------|----------------------|------------------|---------------------|----------------------|
|   |                     |                      |                  | First<br>Generation | Second<br>Generation |
| <i>N</i>  | 308,581             | 315,423              | 2,920,700        | ...                 | ...                  |
| All kinds of offenses                               | 12.50               | 7.90                 | 5.80             | 2.2                 | 1.4                  |
| Offenses against the penal code                     | 9.80                | 5.90                 | 4.20             | 2.3                 | 1.4                  |
| Violent crimes                                      | 3.10                | 1.80                 | 1.20             | 2.7                 | 1.5                  |
| Offenses of stealing                                | 5.20                | 3.30                 | 2.20             | 2.5                 | 1.5                  |
| Assault, aggravated assault:                        |                     |                      |                  |                     |                      |
| Against unknown women                               | .19                 | .10                  | .05              | 3.8                 | 2.0                  |
| Against acquainted women                            | .76                 | .32                  | ...              | ...                 | ...                  |
| Against acquainted men                              | .61                 | .38                  | .24              | 2.9                 | 1.6                  |
| Against unknown men                                 | .94                 | .54                  | .20              | 4.7                 | 2.7                  |
| Rape, aggravated rape                               | .08                 | .03                  | .02              | 4.0                 | 1.5                  |
| Unauthorized takings and thefts of motorcar         | .84                 | .68                  | .41              | 2.0                 | 1.6                  |
| Thefts from a motorcar                              | .66                 | .57                  | .35              | 1.9                 | 1.6                  |
| Robbery, aggravated robbery                         | .23                 | .12                  | .07              | 3.3                 | 1.7                  |
| Theft, petty theft in shop, department store        | 3.54                | 1.50                 | 1.00             | 3.4                 | 1.5                  |
| Fraud   | 1.46                | .91                  | .69              | 2.1                 | 1.3                  |
| Offenses inflicting damage                          | 1.65                | 1.30                 | .82              | 2.0                 | 1.5                  |
| Road Traffic Offenses Act                           | 2.83                | 1.80                 | 1.30             | 2.2                 | 1.3                  |
| Driving under the influence of alcohol              | 2.32                | 1.60                 | 1.20             | 1.9                 | 1.3                  |
| Narcotics Drug Law                                  | .75                 | .77                  | .47              | 1.6                 | 1.6                  |
| Murder, manslaughter                                | .07                 | .03                  | .02              | 3.5                 | 1.3                  |
| Offenses against liberty and peace                  | 1.30                | .80                  | 1.00             | 1.3                 | .8                   |
| Burglary, aggravated burglary in apartment or house | .27                 | .21                  | .12              | 2.3                 | 1.8                  |



Total Crime Participation Rates in Percentages by  
Country of Birth, 1985–89

| Country of Birth                 | Participation | Overrisk |
|----------------------------------|---------------|----------|
| Algeria, Libya, Tunisia, Morocco | 20.6          | 3.6      |
| Chile                            | 20.0          | 3.4      |
| Iraq                             | 18.2          | 3.1      |
| Jordan, Palestine, Syria         | 17.4          | 3.0      |
| Iran                             | 17.2          | 3.0      |
| Soviet Union                     | 17.0          | 2.9      |
| Poland                           | 16.8          | 2.9      |
| Lebanon                          | 15.7          | 2.7      |
| Bolivia, Peru, Equador           | 15.4          | 2.7      |
| Romania                          | 15.1          | 2.6      |
| Ethiopia                         | 14.7          | 2.5      |
| Turkey                           | 14.2          | 2.4      |
| Yugoslavia                       | 14.1          | 2.4      |
| Colombia                         | 14.0          | 2.4      |
| Czechoslovakia                   | 13.6          | 2.3      |
| Italy                            | 13.5          | 2.3      |
| Finland                          | 13.2          | 2.3      |
| Hungary                          | 12.4          | 2.1      |
| Argentina, Uruguay               | 12.2          | 2.1      |
| Portugal, Spain                  | 10.9          | 1.9      |
| Thailand                         | 10.6          | 1.8      |
| Denmark                          | 10.5          | 1.8      |
| Norway                           | 10.5          | 1.8      |
| Austria                          | 10.3          | 1.8      |
| Bangladesh/Pakistan              | 10.1          | 1.7      |
| Germany (West)                   | 9.1           | 1.6      |
| Greece                           | 9.1           | 1.6      |
| Korea                            | 8.7           | 1.5      |
| India                            | 8.2           | 1.4      |
| Great Britain                    | 6.9           | 1.2      |
| Vietnam                          | 6.6           | 1.1      |
| United States                    | 6.5           | 1.1      |
| Taiwan, China, Japan             | 6.4           | 1.1      |
| Sweden                           | 5.8           | 1.0      |
| Remaining countries in:          |               |          |

Figure 1:  
Foreign Population in Prison

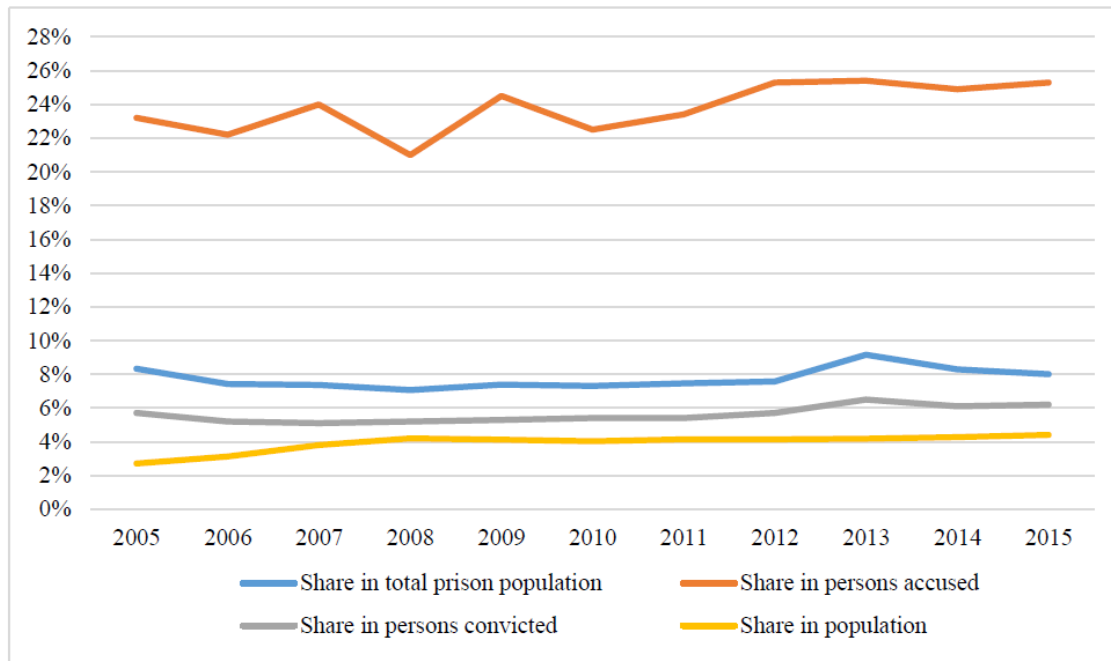


# Foreigners in the criminal justice system

- Vávra, Jan (2016). Estimating disparities in the treatment of foreign nationals in the criminal justice process in the Czech Republic. Master thesis, VSE.

## Foreigners in the Czech criminal justice system: Shares among convicted, imprisoned, and in pre-trial detention

Figure 3: Shares of foreigners in prison population, 2005 - 2015



Source: Directorate of Prison Guards, own calculations

# Disentangling the foreigner gap in different stages

## Probability of charge by the prosecutor

|                     | Raw gap                    | Added case controls        | Added personal controls    | Added fixed effects        |
|---------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| (1) Foreign citizen | <b>0.025***</b><br>(0.001) | <b>0.012***</b><br>(0.001) | <b>0.013***</b><br>(0.001) | <b>0.009***</b><br>(0.001) |

## Probability of conviction

|                     |                            |                  |                            |                            |
|---------------------|----------------------------|------------------|----------------------------|----------------------------|
| (1) Foreign citizen | <b>0.026***</b><br>(0.001) | 0.002<br>(0.001) | <b>0.013***</b><br>(0.001) | <b>0.014***</b><br>(0.001) |
|---------------------|----------------------------|------------------|----------------------------|----------------------------|

## Probability of prison sentence

|                     |                             |                          |                          |                          |
|---------------------|-----------------------------|--------------------------|--------------------------|--------------------------|
| (1) Foreign citizen | <b>-0.024***</b><br>(0.001) | <b>0.021***</b><br>0.001 | <b>0.024***</b><br>0.001 | <b>0.020***</b><br>0.001 |
|---------------------|-----------------------------|--------------------------|--------------------------|--------------------------|

## Length of sentence

|                     |                            |                            |                   |                  |
|---------------------|----------------------------|----------------------------|-------------------|------------------|
| (1) Foreign citizen | <b>0.165***</b><br>(0.012) | <b>0.071***</b><br>(0.010) | 0.024*<br>(0.011) | 0.003<br>(0.009) |
|---------------------|----------------------------|----------------------------|-------------------|------------------|

## Probability of release from prison on parole

|                     |                             |                              |                             |                             |
|---------------------|-----------------------------|------------------------------|-----------------------------|-----------------------------|
| (1) Foreign citizen | <b>-0.049***</b><br>(0.010) | <b>-0.133***</b><br>-(0.013) | <b>-0.143***</b><br>(0.013) | <b>-0.133***</b><br>(0.013) |
|---------------------|-----------------------------|------------------------------|-----------------------------|-----------------------------|

# Key points

- Many potential channels linking immigration and crime, ambiguous signs
- Empirical studies find small or no effect of immigrants on crime, if so, on property crime
- Criminals are over-represented in the criminal justice system – to large extent an unexplained puzzle
- The effect of immigration on crime clearly depends on the labor market, legal, social status



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