

Economics of Crime

Immigration and crime

1 Immigration and crime

1.1 Thought plan

Highly debated subject with the current (2015+) immigration wave. Immigrants are feared by the public as potential rapists and violent criminals. Anecdotal evidence is often used as a justification for drastic measures.

(Scientifically) Positive question: Does immigration increase crime?

Consider possible theoretical channels:

- Psychological I. - immigrants are more violent, more crime-prone because of their bring-up and values (that is, if placed in exactly the same economic conditions as the natives, would commit more crime).
- Psychological II. - stress, unknown/incomprehensible environment in their host countries, they are feeling lost and alienated.



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- Economic - they differ mainly in labor market opportunities:
 - A stylized fact about immigration: **the immigrants are either the highest skill or the low-skill**. Medium skill immigrants are most likely to stay in their home countries.
 - The low-skill immigrants may face very low wages, lower than the natives.
 - Fairly solid econometric evidence that poor local labor market conditions do lead to higher crime (though the magnitudes are not large, this effect could be related to difficulty of estimating the true labor market condition).
 - Language, discrimination, inadequate skills, wage premium for illegal work (think about public perception of illegal Ukraine workers in Czech Republic).
 - May receive less in benefits (entitlements, low take-up due to skill).
 - Prohibited from working (asylum seekers).
- Deterrence - do immigrants face a higher or lower probability and severity of punishment?
 - Greater contact with authorities (police raids targeted at illegal immigration, some offenses uncovered as by-products). Foreigners have to report to police in selected times, apply for VISA extensions .../
 - Less official status, more difficult investigation across borders (rather cross-border crime than immigrants crime). Law of one country may not reach into the other, can be easy to escape to homeland.
 - Possible discriminate treatment in the criminal justice system (fact: foreigners do tend to be over-represented in the population of arrested and imprisoned offenders).
 - Add-on punishment not facing local citizens: **risk of deportation**.
- Mechanical effect: \uparrow immigrants \Rightarrow \uparrow people around (total population) \Rightarrow \uparrow crime in absolute numbers, even if the immigrants have the same propensity to commit crimes as the natives (but crime rate remains the same).
- Immigrants more prone to be victimized (surprisingly, mostly by members of their own minorities).

The link between immigration and crime is ultimately an empirical question.

The natural starting point - a regression of the form

$$C_{it} = \alpha + \beta_1 M_{it} + \beta_2 X_{it} + \lambda_i + \lambda_t + \epsilon_{it} \quad (1)$$

where M_{it} is the stock of migrants explaining the number of crimes

Many challenges:

- Measuring M_{it} . How we deal with legal and illegal immigrants? Does illegality affect propensity to criminal behavior?
- Omitted variables. Do we know the personal characteristics? Are we able to compare to natives?
- Immigrants are still small in numbers - difficult to capture the effects in region-level data, high noise.
- Reverse causality - immigrants are poor, they tend to move to places with low housing prices, these are *ceteris paribus* places with higher crime.
- Trade-off at the level of analysis - the smaller the geographical unit, the greater the variation in the share of immigrants, but also the stronger is the reverse causality.
- What do we make of X_{it} ? If immigrants change X_{it} (because they are low-wage, less educated, unemployed etc.) we obtain economically correct estimates showing that it is low wages, low-education, unemployment etc that causes crime and that happens to be correlated with immigration. But that is not what the natives care about!

1.2 Ball, Fasani and Machin (2013 REStat)

Source of identification: Two large waves of immigrants into the UK:

- Asylum seekers from war regions (mainly Iraq, Afghanistan, Somalia), 1997-2002, about 70,000 per year, more than double the previous numbers.
- Workers from the 8 CEE countries after the accession to the EU in 2004 (A8), about 100,000 - 200,000 per year.

Characteristics of the two immigrant waves from the Household Survey (Table 1). Asylum seekers younger, poorly educated, much less employed. A8 immigrants even younger, less with children, more employed than natives.

Estimating the impacts on: local authority level (population of roughly 120,000), numbers of immigrants taken from administrative data (must simulate flows from the A8), geographically dispersed location, mainly the asylum. Regressions run on 2002-2009 years (fairly short sample!)

OLS results (Table 3):

- **No effects on violent crime.**
- Asylum - an increase in property crime
- A8 - a small reduction in property crime.

Addressing endogeneity of crime:

- Asylum seekers allocated to local authorities - they had no choice where to settle and eventually commit crimes. A8 migrants: could settle anywhere.
- Cities willing to accommodate them were generally more economically deprived, many cities without such allocations.
- Crucial assumption - allocation of immigrants could not be correlated with growth rates in crime (verified).
- Instrument the number of immigrants by the number of these administrative allocations.
- Well-established fact: migrants go to places where the migrants of their own nationality already are.
- Instrument the number of migrants of each nationality in a given location by the number of migrants of that nationality in that location in 2001 plus added total inflows of that nationality allocated proportionately by the 2001 allocation.

Endogeneity is addressed using IV, Results (Table 4) are very similar to OLS. Finer results by gender: it is the male asylum seekers that increase property crime.

Victimization: Use data from victimization surveys. Estimate the likelihood of being a victim of a crime, as a fn of nationality and other factors. Both asylum and A8 migrants less likely to be victims. Hence increases in property crime unlikely to be driven by immigrants being more victimized.

1.3 Bianchi, Buonanno and Pinotti: Do immigrants cause crime? (2012 JEEA)

Link between immigration and crime, Italian provinces, 1990-2003. Dramatic increases in immigration driven by the turmoil in the vicinity (war in Yugoslavia).

Italian immigration: Immigrants also disproportionately young, low-skill, male, worse labor market outcomes. Greater risk of incarceration.

Data: All 95 Italian provinces, standard crime statistics. Immigration: number of residence permits circulating in the population. There is unofficial migration, too. But if that is proportional to the official migration, this is not a concern in panel regressions. Several rounds of legalization on unofficial migrants: The official immigration is essentially proportional to the full immigration. The number of residence permits rose 5-fold, from 436,000 in 1990 (less than 1% of the population) to 2.2 million (4% of the population). Unclear pattern in the aggregate data (Figure 3).

Same basic OLS regression. Result (Table 3). A positive effect of immigration on theft/robbery, hence property crimes in general. A 1-percent increase in the immigrant population is associated with a 0.1% increase in the total crimes.

Addressing endogeneity: IV based on the **supply-push** factors.

Supply-push: factors outside of the receiving country that pushes immigrants out (war, natural disasters, political turmoil, economic hardship). Measured by the total outflow of that country (towards the EU total, or Italy). Variation at the regional level - differences in the

dispersion of migrants by source country at the beginning of the period.

Change in immigrants/population in a province i :

$$\Delta migr_{it} = \sum_n \omega_{it-1}^n \times \Delta \ln MIGR_{it}^n \quad (2)$$

Change in immigrants/population in province i - accounting identity - sum over shares of immigrants from each source country n times the percentage (log) change in immigrants from that source country coming to province i . In IV, that is replaced by $\Delta \ln MIGR_t^n$, the change in immigrants from country n in countries other than Italy.

Estimate the IV regressions on 10-year differences (captures long-term trends plus data)

- OLS - positive effects
- IV - disappears

Numerous robustness checks (measuring illegal immigrants, by groups of source countries), same results. This and previous studies shows the importance of using IV approach to mitigate for endogeneity.

1.4 Mastrobuoni and Pinotti: Legal Status and Criminal Activity of Immigrants (AEJ: Applied Econ 2015)

In 2007, Romania and Bulgaria joined the EU. Hence the (numerous) illegal immigrants in Italy from these two countries became legal immigrants, while from other countries they remained illegal. So they compare the change in the recidivism rate between Bulgarians and Romanians (treatment group) and other EU candidate countries (control group). The sample is the prisoners that were released during the 2006 amnesty (there's good dataset tracking their recidivism). Overall 22,000 inmates released, so the final sample of these immigrants is small.

The hazard rate falls from 5.8 to 2.3 percent for the treatment group. Strongest effect for economically motivated offenders.

The paper also contributes to the picture: There is no such thing as *the* effect of immigration on crime, but it depends on the "treatment" that the immigrants receive: their employment prospects and restrictions, legal status etc.

1.5 Damm and Dustman: Does growing up in a high-crime neighborhood affect youth criminal behavior? (2014 AER)

General question: Social interaction and crime. Does contact with criminals *cause* the exposed person to be a criminal? Difficulties in isolating these peer effects: correlated personal characteristics, common social environment.

This paper uses the assignment of immigrants to municipalities in Denmark as a quasi-natural experiment. Between 1986-1998, Denmark was allocating immigrants who were granted asylum to municipalities in a semi-random fashion. Proportional to municipality size. Officials were making the allocation decision based on a paper application that listed a few individual factors (nationality, children) but omitted many important other factors (education, criminal record). Did not consider location wishes of the assailants. After the initial assignment, the immigrants could ask to move.

So the empirical strategy: Children's families are allocated to different places semi-randomly. Some are high/low crime places. Then, does the criminal behavior at later ages (15-21) depend on the crime environment of the place to which the person was placed as a child?

Data: rich collection from Danish administrative databases, tracking early location, education, and criminal record. Denmark has no special juvenile criminal system, all have the same criminal record, though more lenient sentences. The sample is restricted by ages of children at assignment and observations at ages 15-21: at the end, 4425 children (rather small).

Check: is the assignment really random? Are some families more likely to be located to high-crime places? (Table 1). Generally random, families with children allocated to lower crime places, authors argue that is an artifact of allocating large families to rural areas because of housing.

Key regression: eq 1. Most preferred measure of crime in the municipality at assignment: youth crime conviction rate

Results:

- No effect on women.
- Table 3: effect of youth crime convictions on later convictions.
- Tons of robustness checks.
- Table 5: Effects of youth convictions for different crimes - it is the violent crime that matters.

- Table 6: Effects of alternative measures of neighborhood crime: The youth conviction rate, not crime rate etc, has the effect. The authors claim this is a genuine social effect. No effect of conviction rate of old individuals. (Or were they just lucky with one indicator?)

Too bad they do not discuss overall economic significance, account how much of the youth crime is attributed by some children growing up among criminals. Overall, surprisingly strong results given the small sample and broadly measured social interaction.

1.6 Martens 1997: Immigrants, Crime, and Criminal Justice in Sweden

A criminology/sociology descriptive paper, but a lot of interesting facts. Draws on several databases in Sweden to construct a picture of the criminality of immigrants. The data-sources - some constructed by the state precisely to get a better picture of the immigrants' crime.

Common data issue in the official police/court/prison statistics: these record the citizenship of a person. Once an immigrant gains citizenship, he is recorded as local, even though we are interested in immigrants irrespective of current legal status. The data record the origin, and also the origin of children (born in Sweden but to immigrant parents; these are largely Swedish citizens). So can distinguish the crime of first- and second-generation immigrants.

Basic facts: about 10% of Swedish population are first-generation immigrants, of these 6% foreign nationals. 8 percent are second-generation immigrants. Gradual shifts in origins - 1950's and 1960's - other Nordic countries. 1970's - 90's communist countries, 1980's and on - Middle East, Africa. Higher unemployment among immigrants.

Broad results on the patterns of immigrant crimes:

- Similar patterns of offenses between immigrants and natives, immigrants relatively more committing violent and thefts.
- Immigrants hugely over-represented among offenders (factor 2-4), in all categories of crime, particularly violent and thefts.
- Large differences among country groups.
- The degree of over-risk rises with age, and more so for African and Latin American offenders.
- A list of possible explanations offered (p 217), any is possible.
- The share of immigrants among the convicted and incarcerated is the same as among the suspects - no discrimination against foreigners in those stages of the criminal justice process.

- The second generation has an over-risk as well, but about 30-40 percent lower than first generation. They appear to converge. This is different from several other countries that found the opposite.
- Over-risk by country - highest for North Africa, Middle East, USSR. Still, there is over-risk for *all* countries. The rate of convergence of the second generation is similar among countries.
- Self-report of the youth: Immigrant boys less likely to engage in illegal behavior than the Swedes, opposite for girls.
- Greater risk of (violent) victimization among immigrants.

1.7 Other papers in brief

Vavra (2017) Estimates the “foreigner gap” at various stages in the criminal justice process. Rich data: full universe of all police investigations, prosecutors, court cases, and prisoners. Important contribution: estimating the gap at each stage, using a consistent method. General results: There is a raw gap, but rather small, and it is largely explained away by case and other controls. Two exceptions: The foreigners are more likely to be sentenced to prison, after controlling other factors, and they are much less likely to be released from prison. These findings are possibly explained by legal reasons.

Butcher and Piehl (1998, 2005): current immigrants in the U.S. have lower incarceration rate than the natives (but that tells more about astronomically high incarceration rate of black U.S. citizens).

Butcher and Piehl (1998): sample of U.S. metropolitan areas in the 1980’s. New immigrant inflows had no significant impact on crime rates.

Borjas, Grogger and Hanson (2010): Find an increase in the criminal participation of black males in response to immigration inflows (were displaced from the labor markets).

1.8 Overall picture

Regressions find almost no effect of immigrants on crime at the regional level. If anything, a small increase in property crimes.

External validity for today: Somewhat different immigration groups than now (Middle East). Those countries do have the highest crime participation, at least in Sweden.

What happens to the immigrants inside the receiving country is crucial. Work. Not idle. Many of the bad outcomes associated with the impoverished immigrant suburbs in France are (probably) not a result of immigration as such but rather poor policies of integrating the immigrants into the mainstream society (compare with the U.S.).

Criminals are over-represented in the criminal justice system (figure for many countries - imprisonment). By most person-level measures, they are more likely to commit crime, be arrested, be incarcerated than the natives. Some of that could be purely explained by characteristics (young, low-wage men).

Puzzle: Why don't immigrants don't increase crime if they commit more crime?

Possible explanations (just for thought):

- The regressions are weak, measurement error, do not capture the true effect (diluted in the too high level of aggregation, too few immigrants...).
- Effects are bound to be weak because there are not that many immigrants. Say the crime rate (natives only) is 3,000/100,000. Even if we assume that immigrants commit twice as much crime (6,000/100,000), if you add 1% of the population of immigrants: The new crime rate is 3.03, or a 1-percent increase.
- Possible discrimination against foreigners in the criminal justice system - starting at arrest (but the disparity seems too large).
- Crowding-out in the criminal market. There are criminal opportunities, the immigrants take some of them from the locals.
- There's always some natural cross-border crime - wrong denominator, also some Swedes committing crime abroad.
- Cross-consistency: The Finns and Danes are over-represented among criminals in Sweden. How about the Swedes in Finland?.

Reading list for this chapter:

- Bell, B. and Machin S. (2013). Crime and Immigration: What Do We Know? In Cook., P., Machin, S.,
- Marie, O., and Mastrobuoni, G. (eds) (2013). Lessons from the Economics of Crime: What Reduces Offending? Chapter 7, MIT Press.
- Bell, B., Fasani, F. and Machin, S. (2013). Crime and Immigration: Evidence from Large Immigrant Waves, Review of Economics and Statistics.
- Bianchi, M., Buonanno, P., Pinotti, P. (2012). Do immigrants cause crime?. Journal of the European Economic Association, 10(6), 1318-1347.
- Damm AP and C.Dustmann (2014). Does Growing Up in a High Crime Neighborhood Affect Youth Criminal Behavior? American Economic Review.
- Mastrobuoni, G., and Pinotti, P. (2015). Legal status and the criminal activity of immigrants. American Economic Journal: Applied Economics, 7(2).
- Martens, P.L. (1997). Immigrants, Crime, and Criminal Justice in Sweden, Crime and Justice, Vol. 21, pp. 183-255.
- Vávra, J. (2016). Estimating disparities in the treatment of foreign nationals in the criminal justice process in the Czech Republic. Master thesis, VSE.



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