WHAT DO WE KNOW ABOUT THE EFFECTS OF IMMIGRATION POLICIES?

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Barriers at the Border

- There are large economic incentives and large economic gains to international migrations (Clemens 2012,).

- But migration rates are low (only 3% of world population resident abroad). In large part because of policy barriers.

- What will happen to number of migrants if we remove or reduce the barriers? How many people will migrate and who? Where will they go?

Potential and Actual Emigration Rate in the world

Percentage points, relative to population in Origin	Non College educated	College Educated
Net migrants 2000-2010	0.4%	3.9%
Potential migrants (say they would migrate if given opportunity) (2000)	**8.9%**	**20.1%**
Stock of migrants as of 2000	1.8%	5.8%

Economists try to assess impact of immigration policies in Three ways

- 1) We build models of rational people choosing location in a world with costs (barriers) and economic benefits of moving. We target and match some features of the data (wages, current migrants) and simulate what happens removing barriers.

- Many assumption needed
- Massive flows are generated due to wage differentials
- Massive gains

Three ways Economists try to assess impact of immigration policies

- 2) We "measure" different migration policies between countries (and their changes). Correlate them with actual migration data in panel (or cross sectional) regressions controlling for other factors. Estimate coefficients and interpret them as "effects" of policies.

- Need to control for many other determinants of bilateral migration.
- Need to compare/quantify policies to obtain a coefficient.
- Panels better than cross sections.

Three ways Economists try to assess impact of immigration policies

- 3) We use information obtained via surveys on "willingness to migrate if one had an opportunity". Use it as revealing the willingness to migrate in absence of legal barriers.

- Hard to tell if "having an opportunity" means having a job, a permit to enter, having the skill.
- Very hard to have comparable data across countries.

I tried each of them in my past research

- With rather poor results. (With interesting findings but more puzzles than answers)

- Today I will focus on approach 2 and 3 which are more "empirically based".

- Moreover they can capture the impact of actual policies, rather than some parameterization of policies.

Panel regression and actual migrants (2)

- Ortega and Peri (Migration Studies, 2012) estimate a gravity equation on the total size of migration. Panel, controlling for other effects

$$ln(MIG_{o,d,t}) = \phi_{o,t} + \phi_d + \beta_1 y_{d,t} + \gamma Geo_{o,d} + \delta_1 Laws_{o,d,t} + \delta_2 Netw_{o,d,t} + \epsilon_{o,d,t}$$

- Origin-year effects capture origin specific factors.
- Destination fixed effects and GDP per person (y).
- "Laws" capture Immigration policies. They only capture change within destination.

Measures of Immigration Flows

- Gross Flows: International Migration Dataset (IMD) provided by the OECD. Based on Population registers and residence permits.

- Total inflow of foreign persons, independently of the reason. 15 receiving countries, 74 countries of origin. 1980-2005.
  - Limits: only documented and no re-migration
  - Gross flows
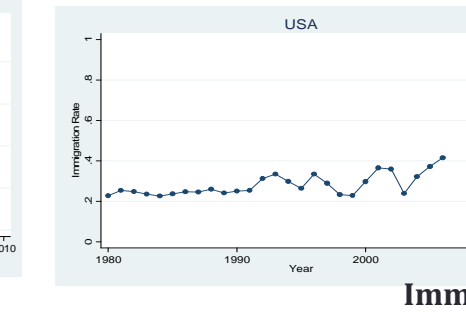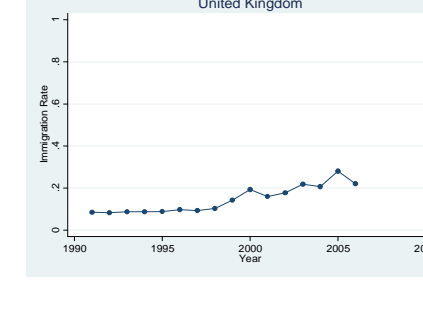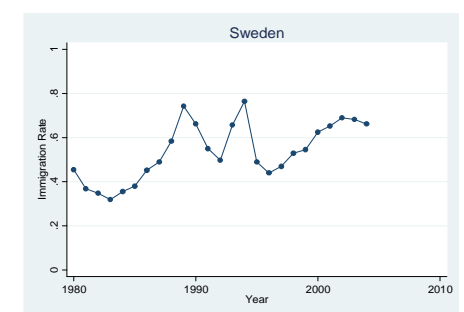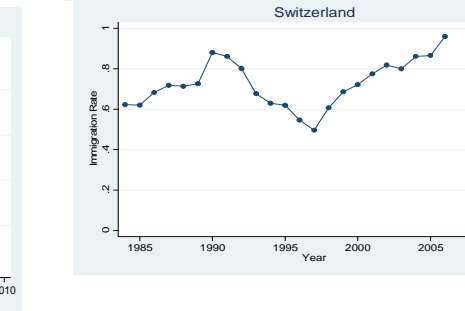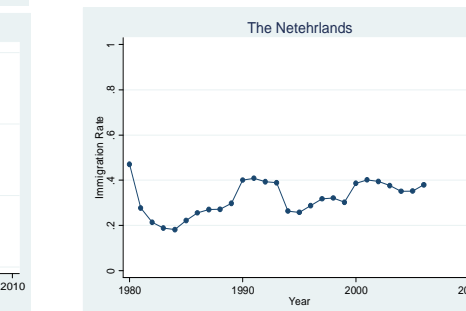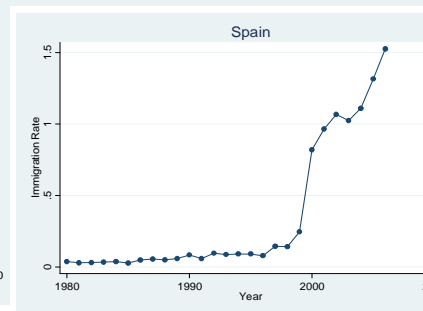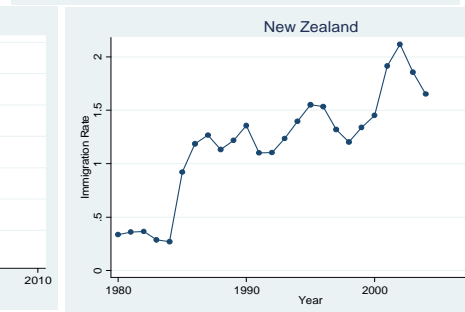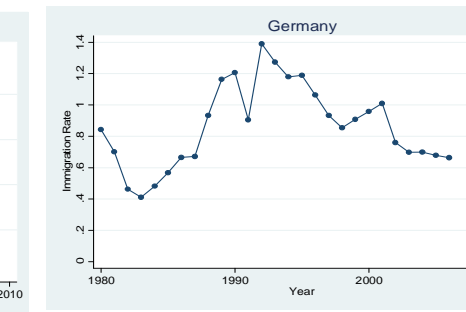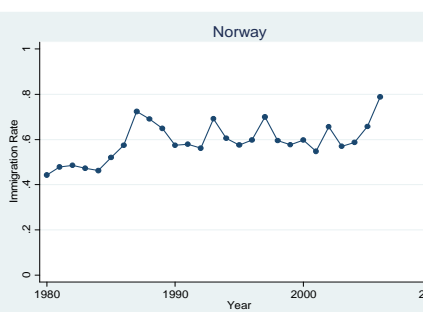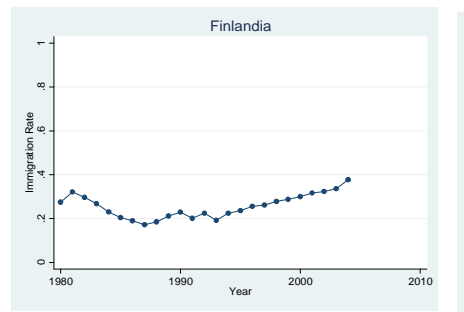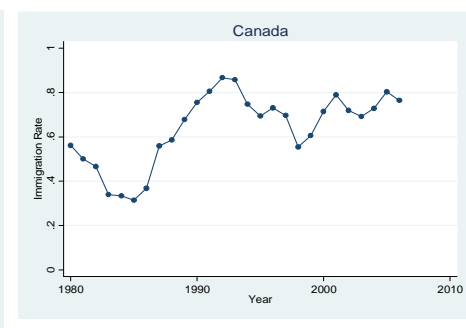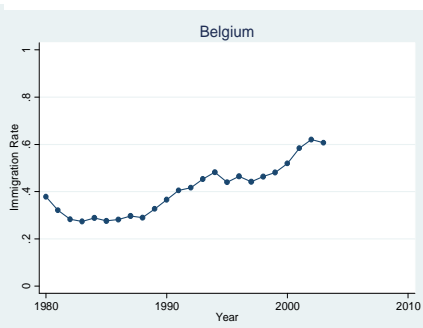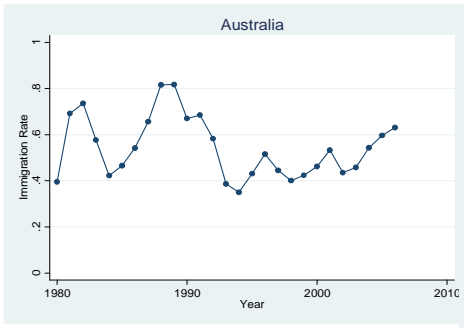
Immigration rates ; 15 OECD countries.

Measures of Immigration Laws

- Collect immigration laws changes 1980-2005 in receiving countries (total 250 reforms)
- Define

  - Tightness of Entry laws
    - -1 (+1) if lower/increase requirement-documents-fee for entry.
    - +1 (-1) Decrease/increase the number/quota of visa, temporary entries.
    - +1 (-1) Increases/decreases the enforcement against undocumented

  - Tightness of Asylum
    - Same as Entry, for Asylum seekers

  - Maastricht (free labor mobility between EU members)
  - Schengen (Border agreement between some EU countries)

Examples

- **Australia**,1992
  - Immigration and Education Charge Act :
    This act outlines payment procedures for a new English education charge (not to exceed $4, 080) imposed on visa applicants.
  - +1 Entry

- **Canada**, 1993
  - Policy:
    With the change in the government, immigration policy abandoned quantitative goals such as quotas and became oriented around qualitative aspects (i.e. considering applications based on the individual's background and the needs for the country)
  - -1 Entry
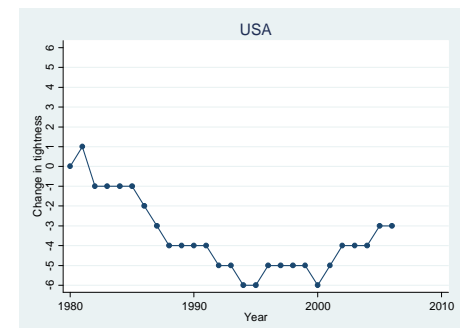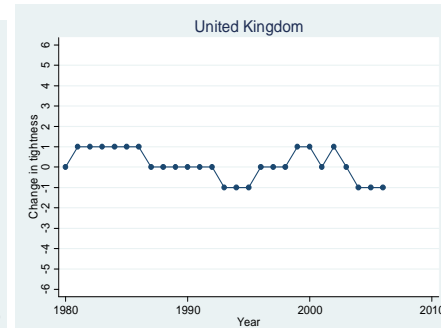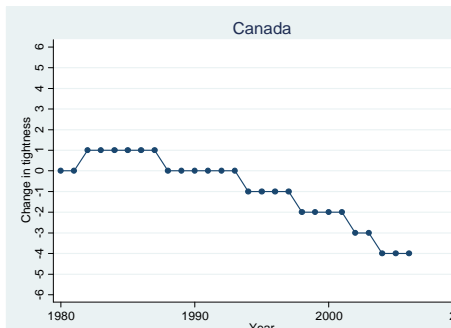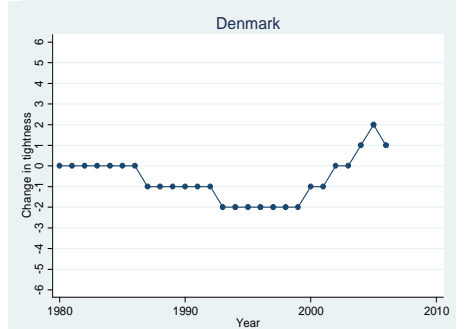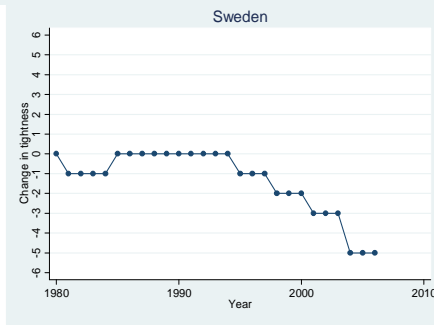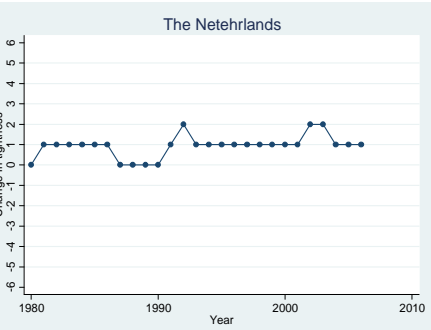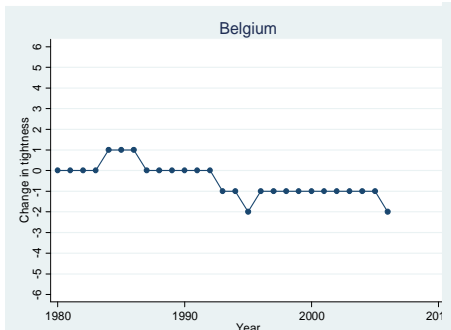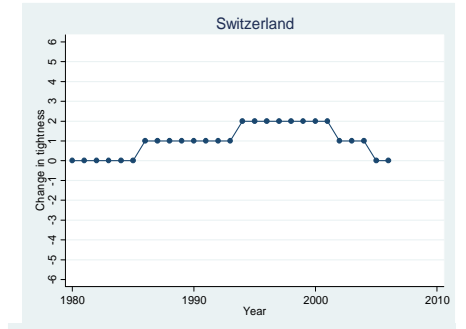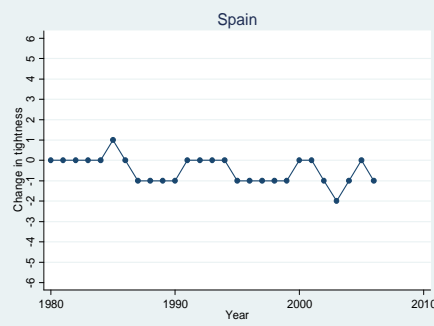
Changes in tightness of immigration entry laws over time; 12 OECD countries.

Basic Estimates

Dep. Variable: ln(1+Migration)	1 Basic	2 Lag(policy)	3 EU policies	4 Europe only	5 Non-Europe	6 With Interaction	7 1985-2000
Lagged Ln GDP/Pop Dest.	0.78***	0.79***	0.76***	1.90***	0.42***	0.76***	0.71***
	[0.07]	[0.07]	[0.08]	[0.22]	[0.14]	[0.08]	[0.09]
Entry Tightness	-0.02***	-0.03***	-0.02***	0.07***	-0.06***	-0.03***	-0.04***
	[0.01]	[0.01]	[0.01]	[0.02]	[0.01]	[0.01]	[0.01]
Entry Tightness *European Origin						0.04***	0.05***
						[0.01]	[0.01]
Maastricht			0.10***	0.29***		0.10***	0.14***
			[0.04]	[0.08]		[0.04]	[0.04]
Schengen			-0.11***	0.05		-0.11***	-0.11***
			[0.03]	[0.07]		[0.03]	[0.03]
Common currency	1.02***	1.02***	1.02***	0.10	1.04***	1.02***	0.96***
	[0.06]	[0.06]	[0.06]	[0.08]	[0.11]	[0.06]	[0.07]
Ln Distance	-0.98***	-0.98***	-0.98***	-0.64***	-1.52***	-0.98***	-0.98***
	[0.02]	[0.02]	[0.02]	[0.07]	[0.03]	[0.02]	[0.02]
Contiguous	-0.08	-0.08	-0.08	0.53***	-0.53***	-0.07	-0.09
	[0.06]	[0.06]	[0.06]	[0.07]	[0.17]	[0.06]	[0.06]
Common language	0.67***	0.66***	0.67***	-0.46***	1.06***	0.66***	0.67***
	[0.03]	[0.03]	[0.03]	[0.08]	[0.04]	[0.03]	[0.03]
Common Legislation	0.25***	0.25***	0.25***	0.84***		0.25***	0.25***
	[0.02]	[0.02]	[0.02]	[0.05]		[0.02]	[0.02]
Colony	1.42***	1.41***	1.42***	0.15	-0.17*	1.43***	1.51***
	[0.04]	[0.04]	[0.04]	[0.12]	[0.10]	[0.04]	[0.04]

Overall

- The entry-tightness measure works in the correct direction

- Quantitatively not too large

- Within Europe it does not apply (free mobility)

- Maastrict increased mobility within Europe. But far from large effects, only 10% more (so from emigration rate of 3 pp of population per decade to 3.3 pp of population per decade)

Where to go with this approach?

- More detailed measures of policies (IMPALA).

- Better/broader data on gross and net flows of migrants.

- Focus on some specific policy changes.

Type 3 Approach

- Based on Docquier, Peri and Ruyssen IMR (2014)

- How many people in the world are willing to migrate if they had "an opportunity"?

- Do policy affect willingness to migrate and then its realization?

Two Step Framework

Actual migrants

Step 1: Compare costs/ benefits

Step 2: Matching

Migration Opportunities

Population, 25 years and older

Potential migrants

Country o

POLICY SHOULD AFFECT THIS STEP
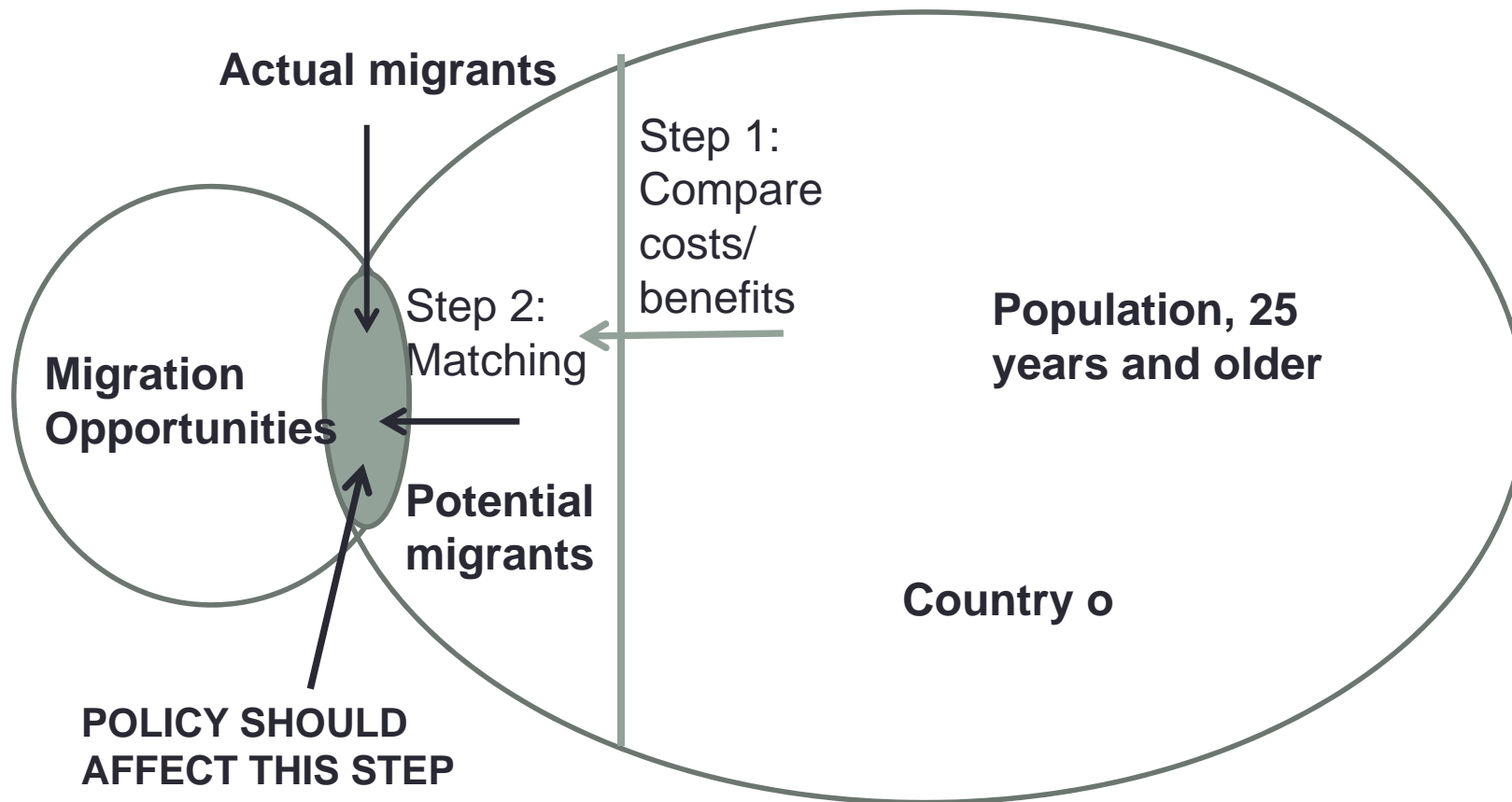
Selection: College and non-College

- Labor market and mobility outcomes are very different for college and non college educated

- We separate them in the analysis.

- Different response to perceived benefits/costs? different opportunities?

Database

- From 143 countries of origin to 30 destinations

  - For effective migration source is Docquier et al 2013. It covers:
    - *64.6% of the UN worldwide migration stock in 2010*
    - *82.5% of college-educated stock 25+ in 2000*
    - *57.8% of low-skilled stock 25+ in 2000*

  - For desired migration source is Gallup global polls
    - *85.7% of college-educated, would-be migrants in 2010*
    - *83.9% of non-college educated, would-be migrantsin 2010*

Desired Migrants

- Those answering yes to the question : "*Ideally, if you had the opportunity, would you like to move permanently to another country, or would you prefer to continue living in this country?*".

- Then allocated to a potential destination if they indicated a preferred country in the follow-up question "*To which country would you like to move?*".

Measures

- Native population in country o, in year 2000 is the total pool.

- The **actual migration rate $m_{o,d}$** is net migration form o to d between 2000 and 2010 (from Census data) relative to residents in 2000.

- The **desired migration rates, $w_{o,d}$** are individuals who revealed to be willing to migrate to Gallup (2007-13) but were still in o. Divided by population in 2000.

- The **potential migration rate** is $p_{o,d} = m_{o,d} + w_{o,d}$

- Separately for college and non college educated.

Some interesting Stylized facts

Actual, Desired, Potential immigrants relative to Destination, average rates

Percentage points, relative to population in destination	Non College	College
Net Actual 2000-2010	2.4%	6.0%
Desired (2000-2010)	42%	26%
Potential (2000)	**44.4%**	**32%**
Stock as of 2000	9%	11%

Potential ratio Non-College College: 1.3
Actual ratio, non-college-college: 0.4

Actual and Potential

- 1) Much larger difference in actual than in potential migration rates between college and non college, on average.

- 2) Potential migration looks very different from actual relative to receiving country population: much larger and more biased towards unskilled. Because there are so many more unskilled in the non-rich world.

Is potential migration a predictor of actual?

- The following graphs show clear positive correlation, stronger for College educated

Actual vs Potential Emigration rates

Correlation, country of origin perspective

College
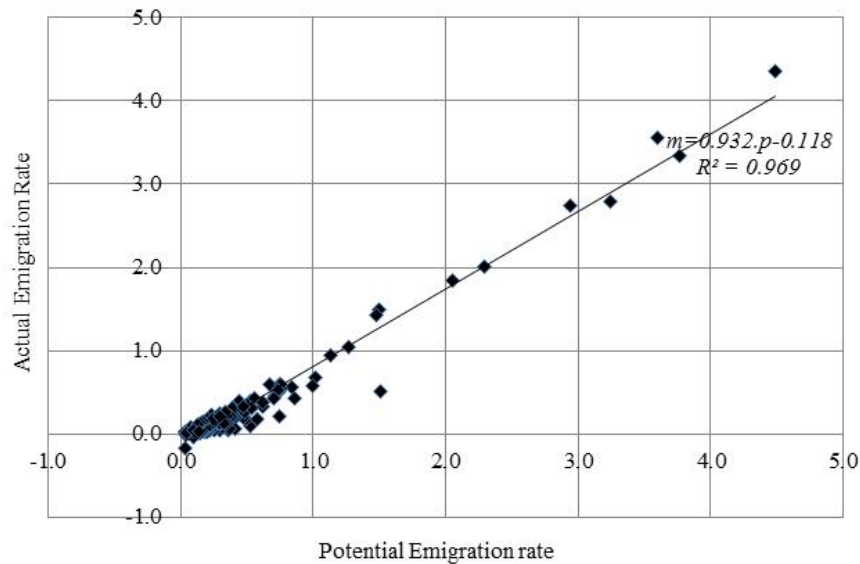
Non College
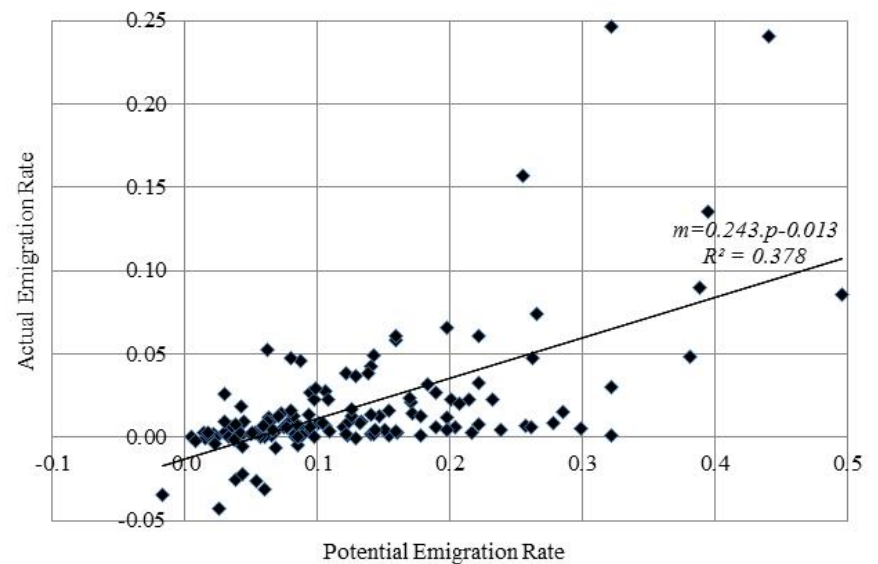
Econometric Analysis

Step 1: What predicts potential migration?

Use a basic gravity-like equation to describe bilateral flows

$$p_{o,d}^s = \phi_o + \beta_1 y_{d,2000} + \beta_2 e_{d,2000} + \gamma Dist_{o,d} + \delta_1 \ln Pop_d + \delta_2 Netw_{o,d} + \epsilon_{o,d}$$

Economic factors: GDP per person in 2000 US $ PPP
Employment rates (growth last 10 years)

Network: Measures of presence of past migrants

Geography/History: Geography, cultural, genetic distance, religious distance, common language, border, colonial ties, landlocked

Policies

- Simpler approach, use dummies only for clear and potentially strong bilateral policies.

- Free-labor movement (EU and EU-others)

- Visa Waiver agreement (among rich countries)

- We have a cross-section

Quantitative effects on Potential Migrants

- The average potential bilateral migration rate is:

  - for College: 0.71%
  - For non-College: 0.49%

- Estimated Effects
- Additional10,000 US $ at destination:
  - for College: +0.30%
  - For non-College: +0.20%

- No Effects of the two policies

- Network (increase size by 1 standard deviation)
  - for College +2%
  - For non-college +1%

Step 2: What factors predict migration rate, given potential migrants?

$$m_{o,d}^s = \alpha + \phi_o + \beta p_{o,d}^s + \delta_1(gy_d^{00-10}) + \delta_2(ge_d^{00-10}) + \delta_3(Policy_{o,d}) + \varepsilon_{o,d}$$

Linear specification of matching. Main factors are:

Potential migration rate

Economics: growth of GDP per person and employment rate at destination

Policy variables: Dummy for visa waiver, Dummy for free labor mobility

Controls: bilateral factors, Geography, Culture, income level

Table 7: Determinants of net migration rates (m x100) of the non college
All sending countries to OECD countries, 2000-2010

Explanatory Variable:	(1) Basic	(2) Control for levels	(3) Include network	(4) Add Free labor mobility 2000 and visa waiver	(5) Free labor, geography and culture	(6) As (4) using desire to migrate permanently
POTENTIAL						
Potential Emigration rates, Low Skilled	0.046*** (0.009)	0.046*** (0.009)	0.038*** (0.0009)	0.046*** (0.009)	0.047*** (0.0102)	0.058** (0.012)
GDP growth, destination 2000-2010	0.0002* (0.0001)	0.0002* (0.0001)	0.0002* (0.0001)	0.0003** (0.0001)	0.0002** (0.0001)	0.0002** (0.0001)
(Empl/Pop 15+) growth, destination 2000-2010	0.0005 (0.0003)	0.0005 (0.0003)	0.0005 (0.0003)	0.0004 (0.0003)	0.0006* (0.0003)	0.006 (0.005)
Stock people with family abroad/population			0.036** (0.017)			
POLICIES						
Free labor movement dummy				0.0106** (0.0051)	-0.0114* (0.0060)	0.012** (0.004)
Visa waiver dummy				0.0108** (0.0047)	0.0076* (0.0042)	0.006 (0.005)
Real GDP per person (1,000 $ PPP), destination in 2000		-0.00004 (0.00007)				
Employment/Population working age destination in 2000		-0.0002 (0.0002)				
Standard controls	Origin FE	Origin FE	Origin FE	Origin FE	Origin FE	Origin FE
Geographical and cultural controls	None	None	None	None	ln(distance), border, common lang., colony, legal origin, currency, landlocked, religious prox., genetic distance	None

Table 8: Determinants of net migration rates (m x 100) of college graduates
All sending countries to OECD countries, 2000-2010

Explanatory Variable:	(1) Basic	(2) Control for levels	(3) Include network	(4) Add Free labor mobility 2000 and visa waiver	(5) Free labor, geography and culture	(6) As (4) using desire to migrate permanently
Potential Emigration rates, High Skilled	0.13*** (0.03)	0.13*** (0.03)	0.12*** (0.03)	0.13*** (0.02)	0.13*** (0.03)	0.17*** (0.03)
GDP growth, destination 2000-2010	0.0008*** (0.0003)	0.0009*** (0.0003)	0.0008*** (0.0003)	0.0006 (0.0004)	0.0006 (0.0003)	0.0002 (0.0003)
(Empl/Pop 15+) growth, destination 2000-2010	-0.002* (0.001)	-0.003** (0.0015)	-0.002 (0.001)	-0.0023* (0.0013)	-0.0024* (0.001)	-0.0027** (0.0012)
Stock people with family abroad/population			0.06 (0.11)			
Free labor movement dummy				0.0056 (0.0145)	0.0235 (0.0216)	0.002 (0.01)
Visa waiver dummy				-0.0338 (0.0208)	-0.0351 (0.0236)	-0.04 (0.024)
Real GDP per person (1,000 $ PPP), destination in 2000		0.0001 (0.0002)				
Employment/Population working age destination in 2000		-0.0006 (0.0006)				
Standard controls	Origin FE	Origin FE	Origin FE	Origin FE	Origin FE	Origin FE
Geographical and cultural controls	None	None	None	None	ln(distance), border, common lang., colony, legal origin, currency, landlocked, religious prox., genetic distance	None

Interactions policy-potential migrants

- Does the impact of policy (or other factors) at destination interact with the size of potential migrants, in determining the effect on actual migrants?

- Test it by including interactions

- (potential)*growth
- **(potential)*policy**
- (potential)*network

- Only interaction with growth at destination has small positive effect, for less educated (see next table).

Table 10: Effects of interactions opportunity-potential on migration rates (p x 100)
All sending countries to OECD countries, 2000-2010

Explanatory Variable:	Less educated			College graduates		
	(1)	(2)	(3)	(4)	(5)	(6)
	Potential-growth	Potential-policy	Potential-network	Potential-growth	Potential-policy	Potential-network
Potential Emigration rates	0.04***	0.0464**	0.039***	0.13***	0.3080***	0.12***
	(0.015)	(0.0229)	(0.011)	(0.03)	(0.1115)	(0.03)
GDP growth, destination 2000-2010	0.00018	0.0003**	0.0002	0.0008***	0.0008*	0.008***
	(0.00013)	(0.0001)	(0.0001)	(0.0002)	(0.0004)	(0.003)
(Empl/Pop 15+) growth, destination 2000-2010	0.001***	0.0004	0.0004	-0.004***	-0.0022*	-0.002
	(0.0004)	(0.0003)	(0.0003)	(0.001)	(0.0012)	(0.001)
Stock people with family abroad/population			0.015			0.08
			(0.051)			(0.07)
Free labor movement dummy		0.0038			-0.0348	
		(0.0061)			(0.0372)	
Visa waiver dummy		0.0110**			-0.0019	
		(0.0045)			(0.0233)	
Interaction (Potential) x (GDP growth)	0.027**			0.017	INTERACTION	
	(0.013)			(0.016)		
Interaction (Potential) x (free)		0.0145			0.0597	
		(0.0151)			(0.0447)	
Interaction (Potential) x (visa waiver)		-0.0003			-0.0716*	
		(0.0078)			(0.0404)	
Interaction (Potential) x (network)			0.004			-0.01
			(0.013)			(0.07)
Controls	Origin FE	Origin FE	Origin FE	Origin FE	Origin FE	Origin FE

Conclusion

- Promising: focus on the effect of one policy at the time.

- I showed the aggregate method to estimate the effects. Micro-studies are useful too.

- Puzzle: free mobility seems to have very small effects (at most 10% of actual rate, which is increase in migration rate around 0.01 pp of population per year).

- Desired migration, driven by economic and network factor has much larger impact on migration for college educated. Not clear why.