
International Migration and Development

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Motivation

- International migration is on the rise
 - Between 1990 and 2005, the stock of international migrants rose from 154m to 190m, reaching 3% of the world population
 - Latin America and Caribbean have largest outflows, with share of adults having emigrated rising sharply between 1990 and 2000:
 - | | |
|---------------------|--------------------|
| Jamaica: 30% to 35% | Haiti: 7% to 12% |
| El Salv: 14% to 20% | Honduras: 4% to 8% |
| Dom Rep: 8% to 13% | Ecuador: 2% to 6% |
| Mexico: 8% to 12% | |
 - Most emigrants go to high-income destinations, with the 12 largest hosting 51% of emigrants (and the US alone hosting 20%)

Motivation

- In theory, international migration enhances efficiency
 - Shifts labor from low-productivity to high-productivity economies
 - Yields large income gains for migrants and their families
- Yet, few policy makers endorse international migration as a means to promote development
 - There is no Washington Consensus on global migration policy (nor is there consensus among economists)
 - In sending countries, *emigration pessimists* suggest too many skilled individuals leave, causing brain drain and slowing growth
 - In destination countries, *immigration pessimists* claim too many unskilled immigrants try to get in, exacerbating fiscal distortions

Motivation

- Is pessimism on international migration warranted?
- Which types of individuals leave poor countries?
- How has emigration affected sending countries?
- Why is there a disconnect between sending and receiving-country perspectives on migration?

Outline

- Current trends in international migration
- The selection and sorting of emigrants
- Migration costs and migrant networks
- Impact of emigration on sending countries
- Directions for future work

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Data

- Until recently, there was little cross-country data available on international migration
 - New data sources on international migration
 - Carrington and Detragiache (1999)
 - Emigration rates for tertiary educated in 61 developing countries
 - Dumont and Lemaitre (2004)
 - Emigrant stocks by education in OECD for 104 sending countries
 - **Docquier and Marfouk (2006), Beine Docquier & Rapoport (2006)**
 - Emigrant stocks by education in OECD for 192 sending countries
 - Still little data on (now sizable) South to South flows
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1. Rising share of immigrants from low-income countries in the OECD

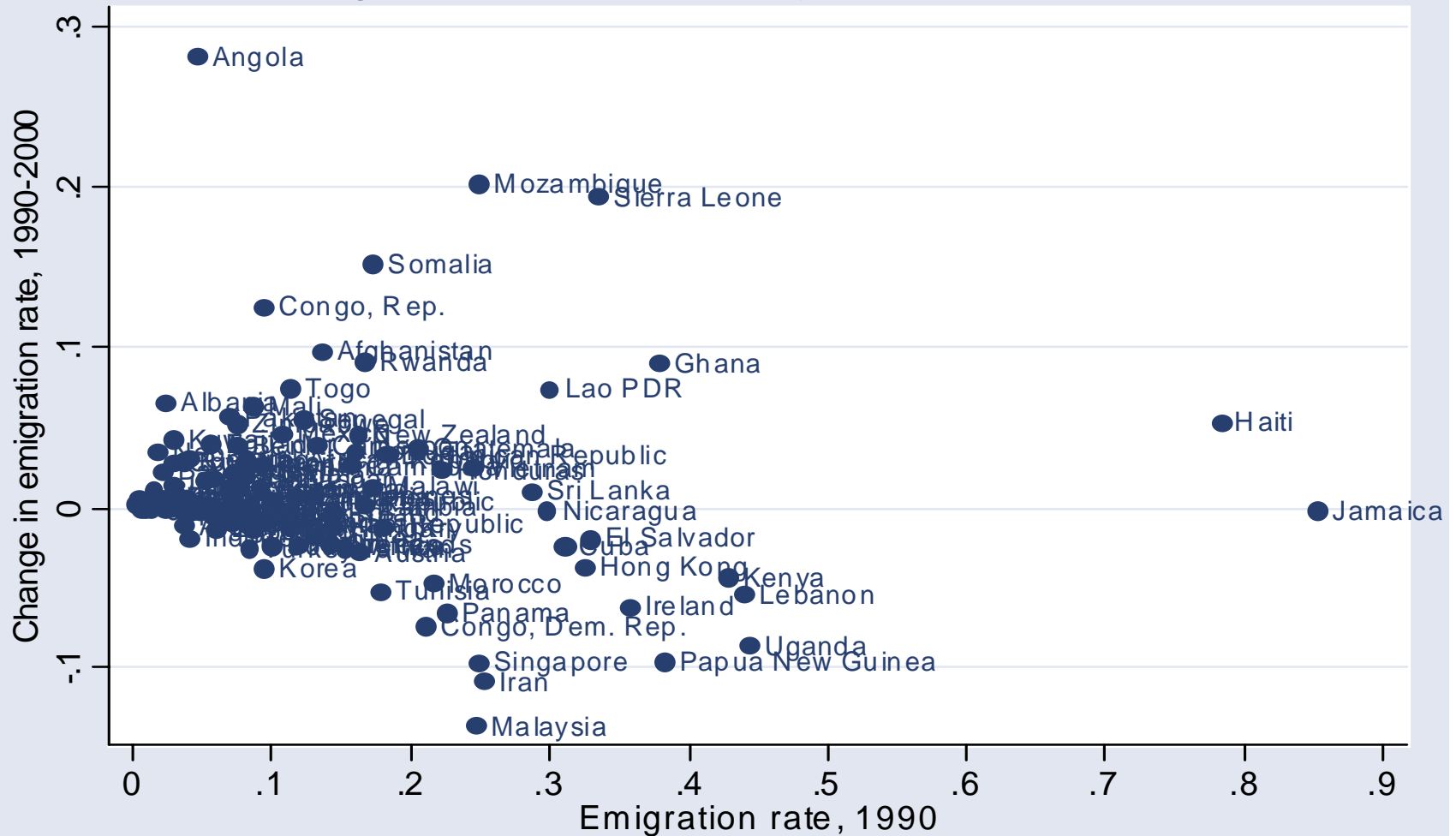
Low Income Sending Region	1990	2000	Change
Mexico, Central America, Caribbean	0.149	0.202	0.053
Southeast Asia	0.086	0.102	0.016
Eastern Europe	0.057	0.099	0.042
Middle East	0.062	0.063	0.001
South Asia	0.041	0.052	0.011
North Africa	0.050	0.044	-0.006
South America	0.031	0.041	0.010
Central, Southern Africa	0.029	0.036	0.007
Former Soviet Union	0.031	0.029	-0.002
Total	0.540	0.672	0.132
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High Income Sending Region			
Western Europe	0.355	0.244	-0.111
Asia, Oceania	0.065	0.055	-0.010
North America	0.040	0.029	-0.011
Total	0.460	0.328	-0.132

3. Rising share of foreign born in total population in OECD countries

	1995	2004	Change
Australia	23.0	23.6	0.6
Switzerland	21.4	23.5	2.2
Canada	16.6	18.0	1.4
New Zealand	16.2	18.8	2.6
Germany	11.5	12.9	1.4
Sweden	10.5	12.2	1.7
United States	9.3	12.8	3.5
Netherlands	9.1	10.6	1.6
United Kingdom	6.9	9.3	2.3
Ireland	6.9	11.0	4.0
Norway	5.5	7.8	2.3
Portugal	5.4	6.7	1.3
Denmark	4.8	6.3	1.6
Finland	2.0	3.2	1.2

7. War-torn countries show largest increases skilled emigration, 1990-2000

Migrants with 13 plus years of education



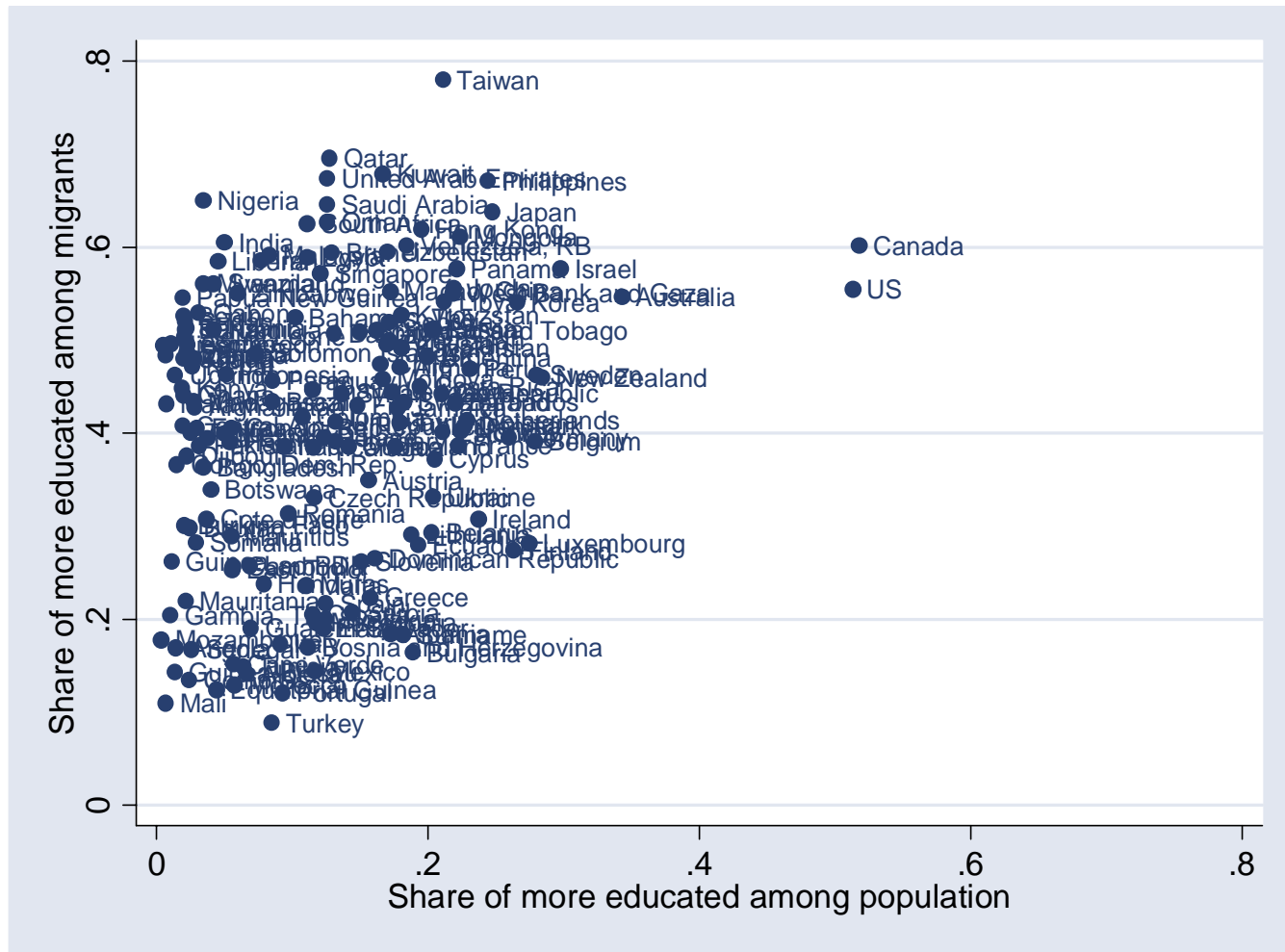
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Selection of Migrants out of Sending Countries

- Who leaves poor countries?
- Borjas (1987) suggests the less skilled will be more likely to emigrate from poor to rich countries, as long as
 - The return to skill is higher in poor countries
 - Raw labor productivity is higher in rich countries
 - Migration costs are fixed in units of time
- While claims of negative selection are still common, *positive selection of emigrants is nearly universal*
 - Emerging literature on positive selection (Docquier & Markfouk, Beine Docquier & Rapoport, Rosenzweig, Grogger & Hanson, McKenzie Gibson & Tillman)

In nearly all countries, the more educated are overrepresented among emigrants (relative to their presence in the population)



Causes of Positive Selection

- Skill-biased admission policies in receiving countries
 - Does illegal immigration undo this bias?
- Combination of large fixed migration costs and credit constraints on borrowing to finance migration
 - Are less skilled more subject to credit constraints (or more risk averse or more likely to have high discount rates)?
- Higher relative reward to skill in rich countries
 - In poor countries, low labor productivity contributes to skilled emigration, high (Mincerian) returns to skill works against it
 - Countries with lower labor productivity send more emigrants (especially skilled emigrants) to the US (Rosenzweig)

Inequality and Selection

- Positive selection requires

$$W_{\text{rich}}^{\text{sk}} - W_{\text{poor}}^{\text{sk}} > W_{\text{rich}}^{\text{unsk}} - W_{\text{poor}}^{\text{unsk}} \iff W_r^{\text{u}} \left(\frac{W_r^{\text{s}}}{W_r^{\text{u}}} - 1 \right) > W_p^{\text{u}} \left(\frac{W_p^{\text{s}}}{W_p^{\text{u}}} - 1 \right)$$

- where sk, s = skilled labor; unsk, u = unskilled labor
- The condition for positive selection is

$$\frac{W_r^{\text{u}}}{W_p^{\text{u}}} > \frac{\delta_p}{\delta_r}$$

Skilled workers will migrate in larger numbers as long as the boost in their base wage (from higher productivity) more than compensates for the loss in the return to skill (from lower δ)

Sorting of Migrants across Destinations

- In theory, more skilled emigrants will tend to select destinations in which the reward to skill is higher
- Among OECD countries the reward to skill (the wage difference between high and low skilled labor) is higher in Anglophone countries (US, UK, Canada, Australia)
- Consistent with theory, Anglophone countries attract a more skilled mix of immigrants (Grogger & Hanson)

Post tax difference in average annual earnings, 1990-1997 (LIS)

	20th percentile	80th percentile	Difference
Australia	14,040	23,730	9,690
Austria	10,150	16,110	5,960
Canada	11,930	25,620	13,690
Denmark	16,260	26,060	9,800
France	7,860	14,500	6,640
Germany	13,290	21,320	8,030
Netherlands	16,880	26,440	9,560
Norway	15,160	27,840	12,680
Spain	8,050	15,370	7,330
Sweden	9,750	16,920	7,170
UK	16,500	31,970	15,470
US	17,220	40,980	23,760

More educated migrants tend to go to destination countries with higher rewards to skill

Share of OECD immigrants by destination region and education, 2000

	Education Group			
	All	Primary	Secondary	Tertiary
North America	0.51	0.35	0.54	0.66
Europe	0.38	0.56	0.35	0.24
Australia & Oceania	0.10	0.09	0.11	0.11
All OECD		0.36	0.29	0.35

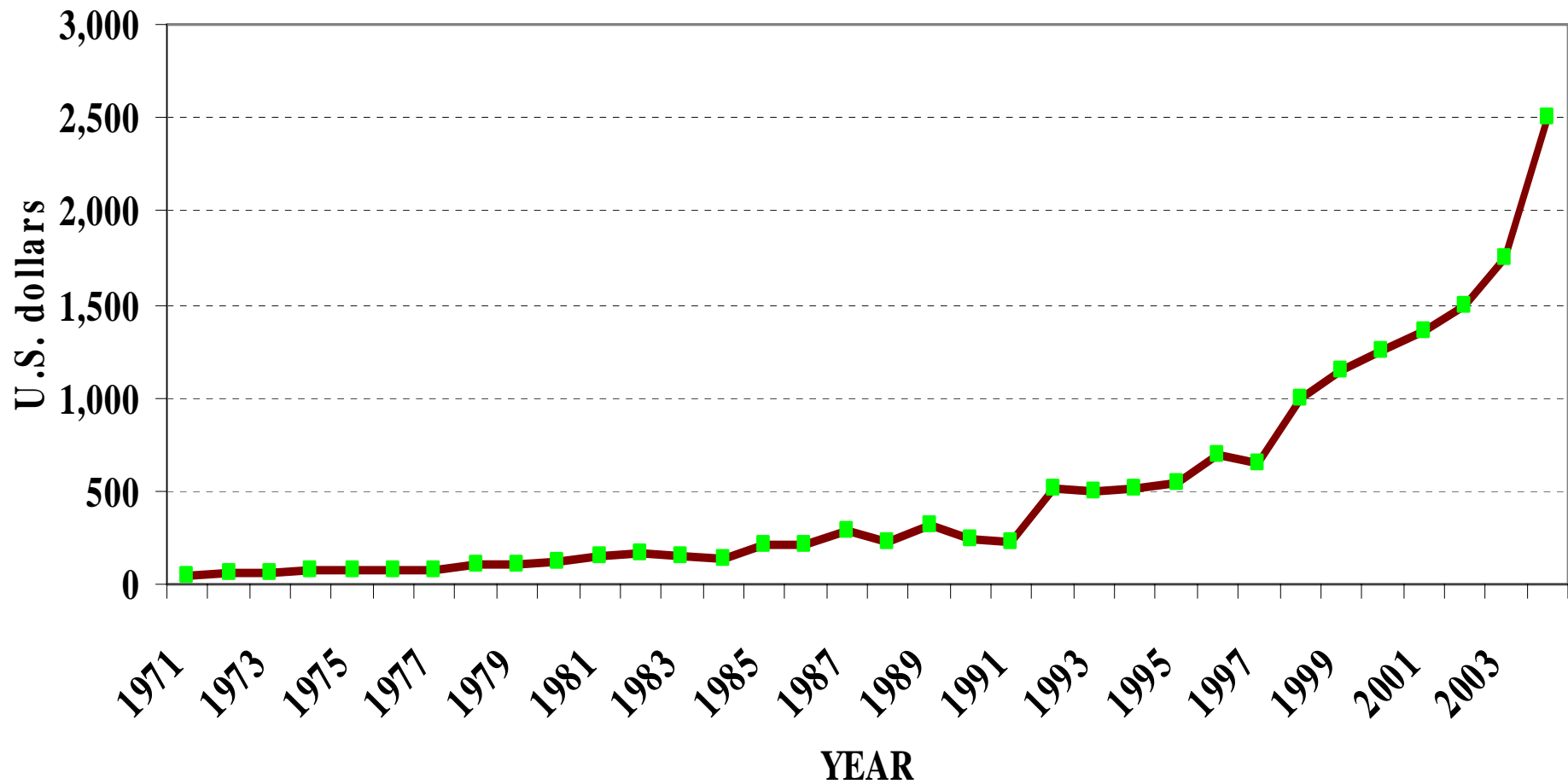
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Migration Costs

- Why are emigrants only 3% of the world population?
 - Rosenzweig estimates a gross annual gain from Mexico-to-US legal migration of \$20k (Hanson estimates a gain of \$12k including illegals)
 - Why is only 10% of Mexico's population in the US?
- While there are few estimates of migration costs, flows are sensitive to presence of migrant networks
 - For Mexico, access to networks is associated with
 - Higher likelihood of emigrating (Orrenius & Zavodny), especially for the less wealthy and less educated (McKenzie & Rapoport)
 - Higher likelihood of finding a job in the US (Munshi)
 - Lower prices for smuggler services (Gathmann)

Average smuggler's fee for crossing U.S.-Mexico border



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Impact of Emigration on Wages

- Does the exodus of labor due to emigration drive up wages in sending countries?
 - Estimated elasticity of wages with respect to emigration for Mexico:
 - Using nat'l data, 0.4-0.6 (Mishra, Aydemir & Borjas)
 - Using regional data, 0.7 (Hanson)
 - Problems in estimating the wage elasticity of emigration (all of which would appear *to bias estimate toward zero*):
 - Estimate is reduced form, net of effect of capital adjustment
 - Emigration may be negatively correlated with local wage shocks

Emigration and Remittances

Workers' Remittances as % of GDP

Region	1992	2000	2005
East Asia & Pacific	0.6	1.0	1.5
Europe & Central Asia		1.4	1.4
Latin America & Caribbean	0.7	1.0	2.0
Middle East & North Africa	8.3	3.1	4.1
South Asia	1.8	2.9	3.5
Sub-Saharan Africa	0.8	1.5	1.6

Emigration and Remittances

- Emigrants share income gains with family members through remittances
 - Fulfillment of migration contract (Lucas & Stark) and/or consumption smoothing across borders (Rosenzweig & Stark)
 - Positive income shock in emigrant's country is associated with larger remittances to sending country (Yang)
 - Remittances support both consumption and investment spending (Yang) and may deepen financial markets (Woodruff et al.)
 - But there is no reason to believe primary motivation of remittances is investment in the sending country
- Impediments to remittances
 - Service fees on money transfers average 11% and elasticity of remittances w.r.t. services fees is -0.15 (Freund & Spatafora)

Other Impacts of Emigration

- Does brain drain cause drop in net tax revenues?
 - Impact appears to be small in India (Desai, Kapur & McHale)
- Does emigration affect international trade?
 - Bilateral migration is positively correlated with bilateral trade, though causality is unclear (Gould, Head & Reis)
 - Countries with larger bilateral Chinese populations do trade more, especially in differentiated products (Rauch & Trindade)
- Does emigration affect international knowledge flows?
 - Chinese and Indian engineers in Silicon Valley have contributed to FDI and business formation in their home countries (Saxenian)
 - Countries that send students to democratic countries for university have stronger democratic leanings later on (Spilimbergo)

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Summary of Results

- ❑ Migration flows are negatively affected by geographic or linguistic distance, the absence of migration networks, and border enforcement
- ❑ Emigration rates are highest for developing countries at middle income levels and with high population densities
- ❑ In most developing countries, it is the more educated who have the highest likelihood of emigrating
- ❑ More educated emigrants sort themselves across destinations according to the reward for skill
- ❑ There is some evidence that emigration puts upward pressure on wages in sending countries
- ❑ Migrant remittances are positively correlated with household spending on consumption, education and entrepreneurial activities

What We Don't Know

- The impact of emigration on wages and net tax revenues
 - Do results for Mexico and India generalize?

 - The impact of skilled emigration on the stock of human capital
 - What is the primary cause of skilled emigration?
 - Does skilled emigration cause a brain drain or a brain gain?

 - The relative contribution of labor productivity, returns to skill, and migration costs to migration flows
 - Are migration costs large enough to explain small migration flows?
 - Is there a skill bias in receiving country immigration policies?
 - How do sending-country policies affect emigration?

 - How does migration interact with trade and capital flows?
 - Are trade and migration substitutes or complements?
 - Do remittances help deepen financial markets?
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