

Remittances and the Brain Drain Revisited:

The Microdata show that more
educated migrants remit more

David McKenzie, *World Bank*

(with Albert Bollard, Melanie Morten
and Hillel Rapoport)

Motivation

- Two trends over last two decades:
 - Large rise in remittances
 - Increasing flow of skilled migration
- Yet concerns that increasing skill-selective nature of immigration policies may hamper rise in remittances
 - Belief supported by cross-country macro studies by Faini (2007) and Niimi et al. (2008)
- But many reasons to not believe cross-country estimates nor find them useful for policy.
 - At best tell us whether countries which send a larger share of highly skilled migrants receive less remittances than countries which send relatively fewer skilled migrants.
 - May be a spurious relationship (e.g. due to poverty), by looking at shares assumes high and low skilled are substitutes.

What do we do?

- 1) Put together a new database of microdata on over 33,000 immigrants from 14 surveys in 11 OECD countries and use this to establish the factual relationship between education and remittances.
 - Explore both the extensive (do they remit) and intensive (how much) margins.
 - Use the microdata to explore the channels through which education may be operating.
- 2) Examine whether highly educated and less educated migrants are complements or substitutes.

How might education affect remittance behavior?

- Theoretical reasons why more educated might remit more:
 - Earn more
 - May be repaying education loans funded by family in home country
 - Less likely to be illegal and more likely to have bank accounts, lowering financial costs of remitting
 - Theoretical reasons why more educated might remit less
 - Might be more likely to migrate with whole household
 - May come from richer households who don't need remittances as much
 - May have less intention of returning to home country
- => Ultimately an empirical question.

New Database

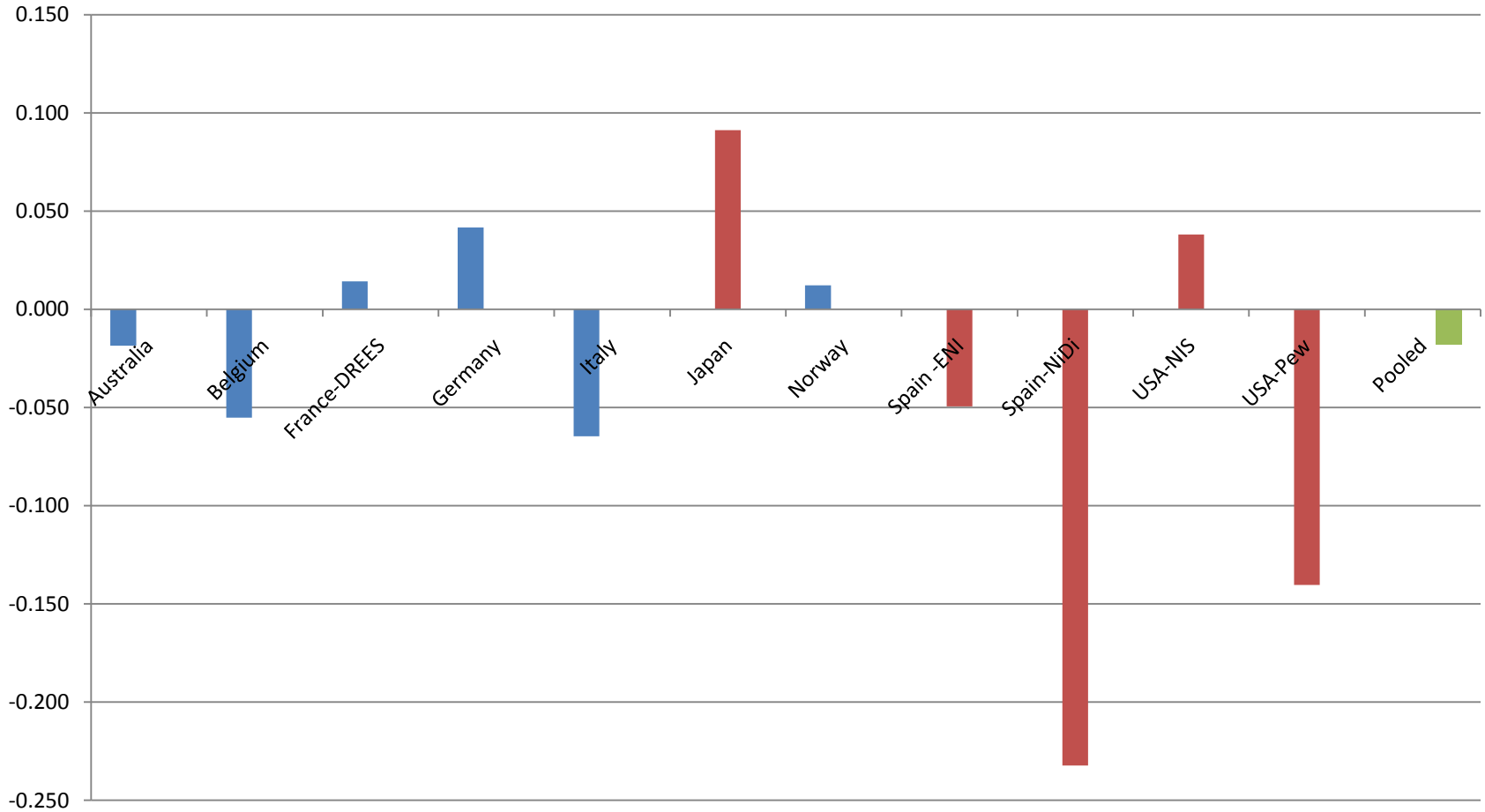
- Australia LSIA
- Belgium International Remittance Senders Household Survey
- France – 2MO and DREES surveys
- Germany – SOEP
- Italy – NiDi
- Japan – IADB survey of Brazilians and Peruvians
- Netherlands – CSR
- Norway – LKI
- Spain – National Survey of Immigrants + NiDi
- UK – BME
- USA – New Immigrant Survey + Pew National Survey

Variable construction

- Create common variables across datasets as much as possible
- Remittances: 0/1 indicator, amount remitted conditional on remitting, total remitted
- Education – highest level of schooling achieved by any migrant adult in household – consider both tertiary status, and years
- Income, work status, household size and composition, time abroad, presence of spouse, children and parents in home country, intent to return home, legal status...

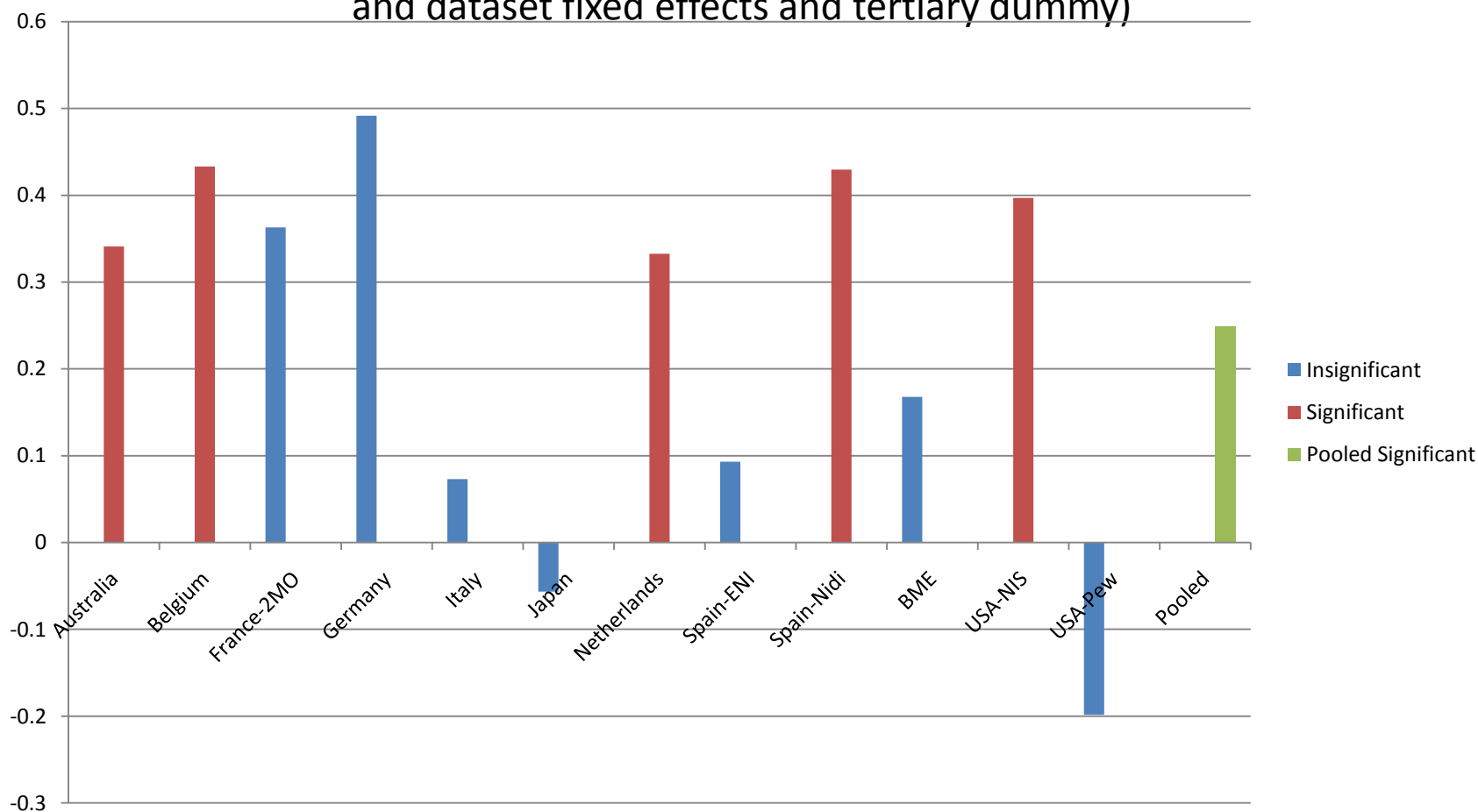
Extensive margin: are the more educated more or less likely to remit?

(Coefficient on Tertiary Educated in regression with country of birth and dataset fixed effects)

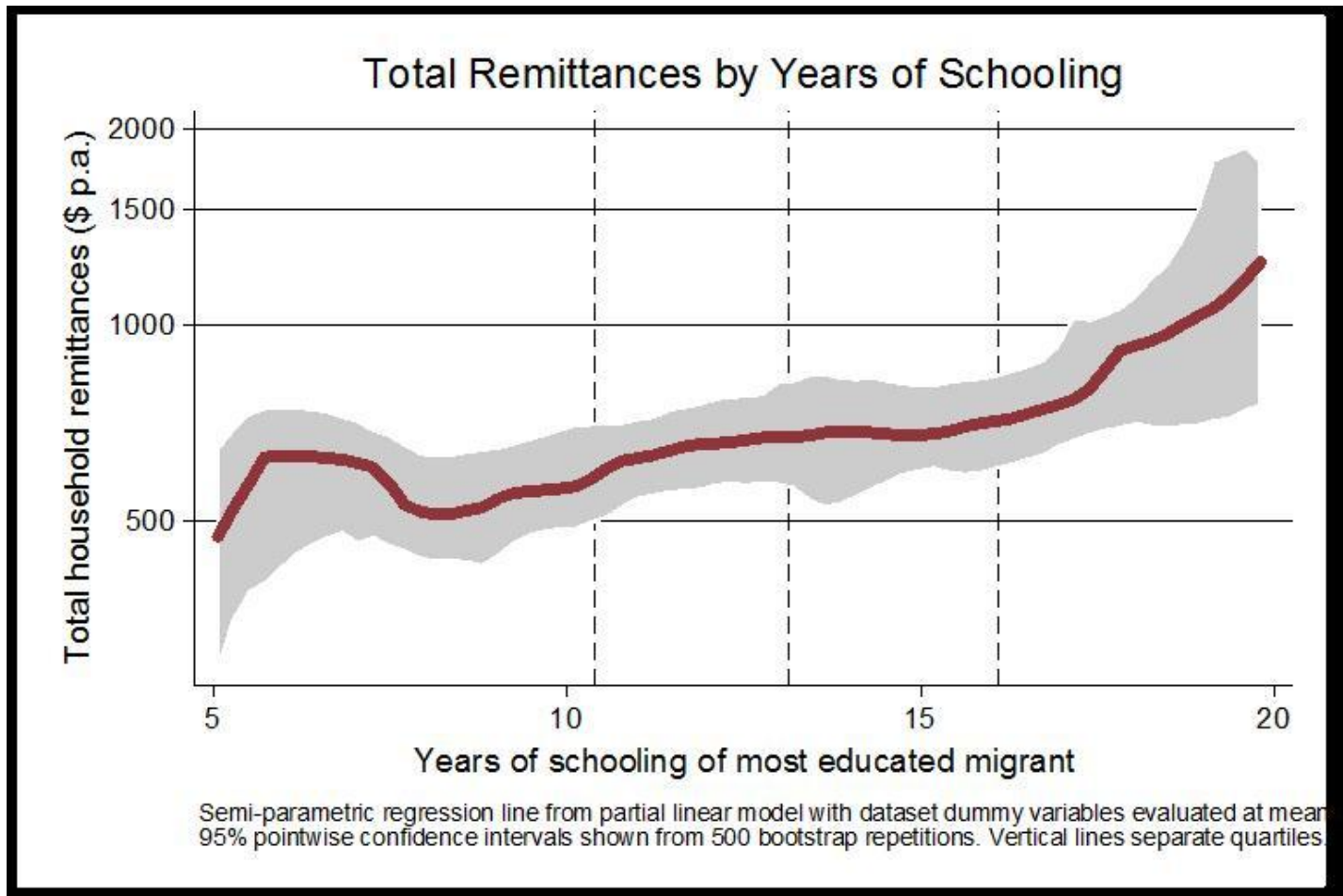


Intensive margin: If they remit, do the more educated remit more?

(Coefficient on Tertiary Education when regressing log remittances on country of birth and dataset fixed effects and tertiary dummy)



Putting it all together



How much more?

- Migrants with a university degree remit \$US298 more per year, when mean annual remittances for all migrants is \$734.
- Overall effect due to small negative (and insignificant) effect at the extensive margin and large positive significant effect at intensive margin.

What explains why the more educated remit more?

- Channels operate as theory would predict:
 - Households with more income and where more adults work more likely to remit – 10% increase in income associated with \$38 more remittances per year
 - Spouse outside the country => remit \$1120 more per year; child and parent outside associated with \$340 and \$180 more per year
 - Legal immigrants remit more
 - Migrants who plan to return home more likely to remit

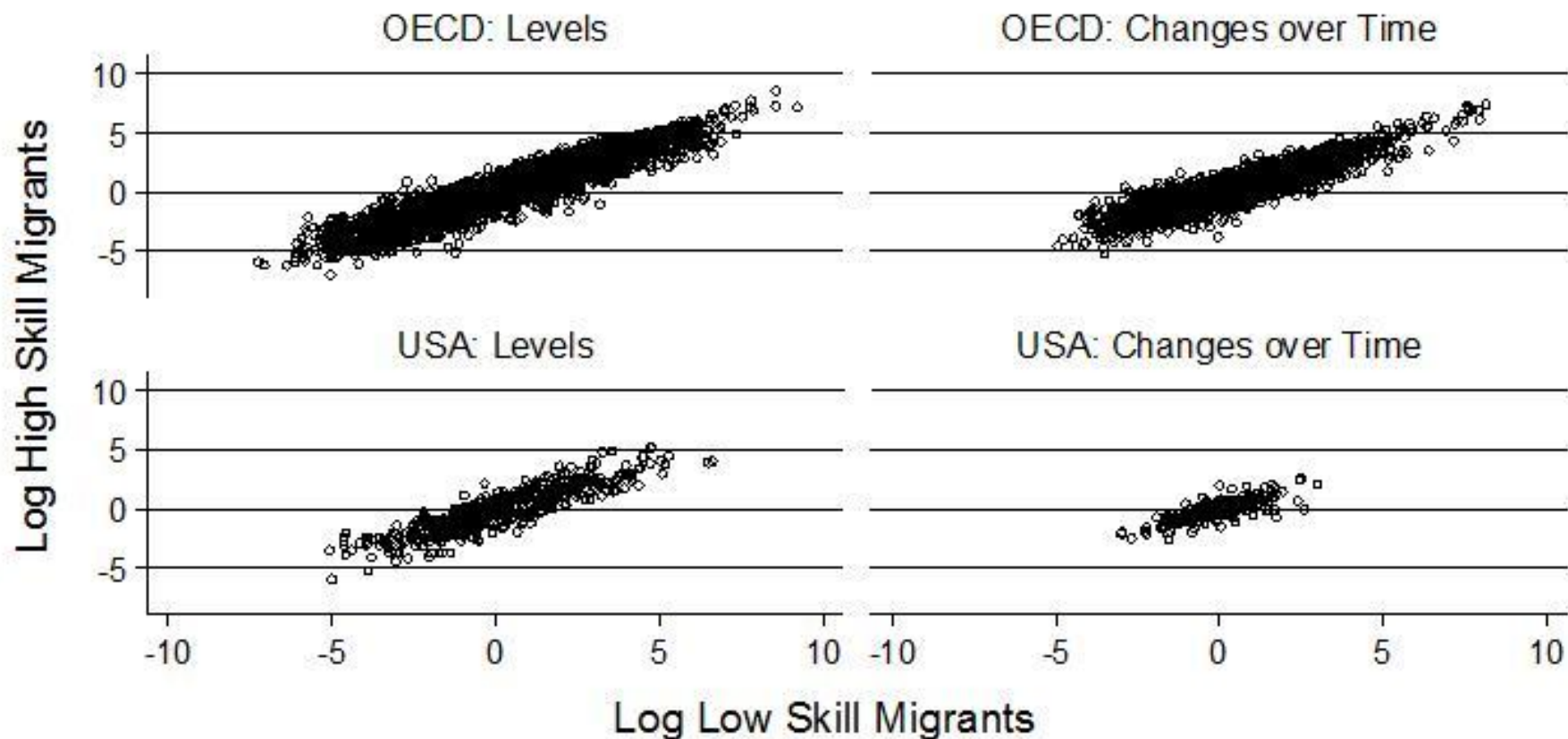
What explains why they remit more?

- Coefficient on tertiary education:
 - With country of birth and dataset fixed effects only: \$298
 - Adding income and work status: \$102
 - Adding family composition: \$228
 - Adding both + years abroad, legality, intent to return: \$100
- => Effect is through income, not family – while less educated have more family abroad, they also have more family with them in destination country – so share of family abroad is similar.

Substitutes or Complements?

- Even though more educated migrants remit more, a move to more skill-selective migration policies could still reduce total remittances if the increase in skilled migration is more than offset by a reduction in unskilled migration.
- But several features of migration systems may cause high and low skilled migrants to be complements:
 - E.g. many highly educated migrants bring in a less educated migrant as a spouse, sponsor other family members through family categories, etc.

Relationship Between High and Low Skilled Migration from Developing Countries to OECD Countries and to the USA



Source: Brain Drain Database (OECD), IPUMS (USA)
Each observation is a year-sending/receiving country pair
The level graph removes constant and time FE, the difference graph removes level, time, and country of birth FE
Receiving country FE removed in both graphs

Granger causality tests

- Evidence of complementarity: the number of high-skilled migrants 10 years ago helps predict the number of low-skilled migrants today, even conditional on the number of low-skilled migrants 10 years ago.

Conclusions

- Do the more educated remit more?
 - Micro data say yes – they remit more because they earn more
 - Although low skilled migrants are more likely to have relatives in home country, they also have larger families in the destination country – so differences in family composition don't explain education differences
- No evidence that increases in educated migration come at the expense of less educated – complements, not substitutes.

Implications

- Much concern about brain drain and its effects on developing countries.
- Our results show one benefit of high-skilled migration – high-skilled migrants work in better jobs and earn more money, and send more money home in remittance flows.