

# Learning about Migration through experiments (and the data required to do so)

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# Outline

- Selection, selection, selection – or why we might need experiments
- Two types of experiments, their data collection implications, and the scope for further work
  - Policy experiments
  - Researcher-led experiments
- Conclusions

# Selection, selection, selection

- Selection is *fundamental* to the migration process:
  - Households and Individuals decide:
    - Whether or not to engage in migration?
    - Whether the whole household moves or just one member?
    - Where to move to?
    - Whether to return, and if so, how long to stay abroad for?
    - Whether to remit or not, and how much to remit?

⇒ Severe challenge for attempts to ascertain the impacts of migration and remittances

E.g. suppose we observe children in migrant households are more likely to attend school

- this could be causal impact due to remittances (and other channels like incentive effects)

- but could also be children in these households have higher quality parental education, or parents have better language skills, or it is the parents who care most about their kids' educations who migrate to earn money to pay for schooling, or that parents wait to see how well their kids do in school and only migrate to pay for future schooling if kids are doing well enough to continue in school, etc.

# How experiments help

- In a well-designed experiment, the only reason one person or household engages in migration and another does not is truly random, and not the result of all these other unobservables we worry about.

# Policy experiments

- Examples:
  - U.S. Green Card lottery – 13.6 million entered in 2010, with 102,800 winners (0.8% success rate)
  - Pacific Access Category and Samoan Quota lotteries – small lotteries New Zealand has for citizens of certain Pacific Islands (higher success rates)
  - H1-B (high-skilled visa) in the U.S. – admissions processed on first-come, first-served, but when oversubscribed on the first day, lottery was used
  - New Zealand still uses random ballot to fill residual places in its refugee support category.

# Data gathering approaches to these policy lotteries

- **Approach 1: use administrative data to identify lottery winners and losers, then interview winners in destination country and losers in home country**
  - Need to convince immigration department to allow access to the data (considerable work needed)
  - Need lottery application forms to contain sufficient detail to allow tracking of individuals
  - Need some other source of information to find the individuals who migrate
- Prospective vs Retrospective?
- Used in studies of Tongan migrants coming to NZ through Pacific Access Category
  - Permission obtained from NZ Dept. of Labour along with confidentiality agreements signed
  - Information on application forms not that good for tracking lottery losers several years later – but in small country could find people
  - Administrative data on arrival cards and visa forms used to help locate individuals who moved, along with social networks, tracking.
  - NZ data great in that also get entry & exit data.
- Surveying requirement: extensive.

# Data gathering approaches to these policy lotteries

- **Approach 1b (temporary migration lottery): use administrative data to identify lottery winners and losers and interview both in home country**
  - Need to convince government department to allow access to the data (may be less difficult to get from sending country than persuading e.g. Homeland Security in the U.S.)
- Example: Clingsmith et al. survey of Pakistanis who entered lottery to go to Mecca
  - List of all applicants obtained from Pakistan Govt. ministry
  - Interviewed 6-9 months after initial lottery, and people returned to same homes, so easier to locate
- Surveying requirement: moderate

# Data gathering approaches to these policy lotteries

- **Approach 2: attempt to locate households with lottery winners and losers in a survey in the migrant-sending country**
  - Need either lots of people to be applying, or to know at least where people are applying from
  - Miss entire households that move – so can be used to identify impacts on members left behind (provided you can identify who would move entirely among losers if they had won) or needs admin data to locate in receiving country.
- Where used: to study migrants coming to New Zealand through the Samoan quota lottery:
  - representative sample of 622 households (4395 individuals), of which 78 households had a successful applicant and 121 lottery loser.
  - Need to collect data on *which years* individuals applied.
- Surveying requirement: medium difficulty.

# Data gathering approaches to these policy lotteries

- **Approach 3: get data from firm that supplies large number of applicants**
  - Clemens (2010) – gets personnel records from large Indian IT/software firm that supplies large numbers of applicants to H1-B lottery
  - Firm administrative data supplies basic information on subsequent outcomes, so not additional surveying needed
  - More limited in range of questions can answer
- Surveying requirement: no surveying needed (although in principal could do on top of admin data).

# What sorts of questions do these policy experiments help address?

- Impact of migration on the migrants themselves
  - Compare lottery winners who migrate to the losers who stay behind (and correct for selective compliance)
  - We find Tongans moving to NZ get 263% increase in income, also improve mental health.
- Impact of migration on household members left behind
  - Need to know who among lottery losers would leave members behind (migration policy rules help here)
  - We find in Tonga short-term effect of migration is to reduce resource availability for remaining members, with fall in income and change in diet
  - *Data gathering implication for future work*: need to try and measure better intra-household allocation of consumption – e.g. if we see per-capita consumption fall when migrants leave, is it because those left behind are worse off, or because the migrants were the hungry ones in the household?
- Using these lotteries to look at impacts of immigration???

# What do these policy lotteries identify?

- Typically not all who win the lottery migrate (and some who don't win the lottery may still manage to migrate through another channel)
- In this case lottery gives us the LATE – the impact of migration for the types of people who only migrate if they win the lottery
  - For policy purposes this seems precisely a parameter of interest – the impact for the types of people the policy changes the migration decisions of.
- Note though what it doesn't tell us:
  - The average impact of migrating for a randomly selected person from the population
  - What the impact would be for the marginal applicant if the policy were to change.

# Future efforts with migration policy randomizations

- Visa lotteries are rare, and the most famous one in the world has yet to be used for research
- Much more scope for Governments/policymakers to think about using experiments to learn about effectiveness of their policies:
  - Migration lotteries as fair way to decide among excess number of applicants for limited quotas
  - Refugee allocation to locations– Swedish and Danish systems were close to random anyway – why not make truly random?
  - In piloting new programs – e.g. how should governments select workers for seasonal programs; what sorts of policies aid assimilation of migrants, etc. - should consider randomly allocating to different pilot policy regimes.
  - Developing country governments interested in policies like pre-migration seminars – not clear what effects they have or what content is most needed – could experiment here.
  - With points systems – cutoffs are pretty arbitrary – could imagine randomizing among marginal applicants to fine-tune points system (like credit-scoring experiments have done).

# Researcher-led experiments

- Two uses:
  - Test particular theories of migration behavior by manipulating particular channels of interest
  - Test impact of particular policies by working with NGOs, private firms, or doing it yourself.

# Examples of Researcher-led experiments

- Ashraf et al. (2010) – Salvadoreans in DC offered different types of savings accounts in home country
- Chin et al. (2010) – provide matricula consular to Mexicans in a U.S. city – allows them to open bank accounts
- Bryan et al. (2010) – role of information, cash, and credit in inducing seasonal migration in famine-prone Bangladesh
- Aycinena et al. (2010) – randomize cost of sending remittances for Salvadoreans
- Batista and Narcisco (ongoing) – experiment to test role of communication in migrants in Ireland remittances and return decisions
- Beam et al. (ongoing) – experiment to examine barriers to migration in rural Philippines – testing roles of information, jobs website, passport help
- Gibson and McKenzie (ongoing) – experiment to test role of financial literacy for remitters in New Zealand and Australia.

# Data issues with researcher-led experiments

- Internal vs External validity
  - E.g. Ashraf et al.
    - Enrolled individuals at consulate, who remitted in last year, and who have family member back in El Salvador
    - Internally valid, and is a population of interest
    - But can't tell us whether impact at extensive margin, not clear whether generalizes to other Salvadorean migrants...
  - Depends on question of interest
    - Proof of concept/evidence for some group of interest
    - Vs generalizability
  - As long as you can tell us who the group is, and why it is of interest, ok I think.

# Data and field experiments

- Currently we are just scratching the surface – lots of exciting possibilities to do interesting experiments with *migrants* in the destination country
  - i.e. may only need to collect data in London, or D.C., or Paris – if main interest is on migrants.
  - If work with groups providing services to migrants, esp. financial institutions, possibility of getting administrative data to make basic analysis even cheaper
  - We know very little about impacts of diaspora type activities (e.g. trade facilitation) – would be great to do experiments with migrant organizations.
  - But ultimately may want to link to impacts on individuals in home countries – this is much more difficult, since collecting data on matched households is hard (but not impossible)

# Data and field experiments

- Also lots of possibilities to think about what can be done in *sending countries*
  - May be able to piggyback intervention on top of another survey already taking place
  - Big open policy questions as to what sending countries can do to make it easier and safer for their nationals to migrate – we have very little evidence as to what works here, so more experiments useful.

# Conclusions

- Massive growth in randomized experiments in development over last 5 years
- But still only handful of such studies which are centered around migration
- Given importance of migration for policymakers, and the importance of selection in determining migration decisions, should be plenty of policy and theoretical motivations to give more a shot.