Blood is thicker than bloodshed

Using genealogies to reconstruct populations after armed conflicts

Diego Alburez-Gutierrez
London School of Economics
alburezg@lse.ac.uk; alburez.me

BSPS - 07 Sept 2017

Setting the scene

The problem

- Armed conflicts help understand relationship between demographic processes, but
  - data are scarce;
  - in particular, data on same population before and after conflict.

Objectives

1. Present new data collection method
2. Discuss application in Guatemala
3. Evaluate the data

Data sources in the demography of armed conflict

1. National registration data
   - Discontinue data collection
   - Unreliable during/after conflict
2. National censuses
   - Long intervals
   - Politics
3. Household surveys
   - Low-quality baseline data
   - Logistical complexity
   - Limited access: non-representative samples

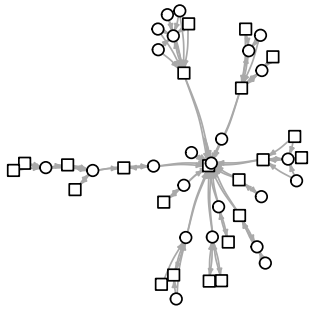
My proposal: The Extended Genealogy Method (EGM)

Description

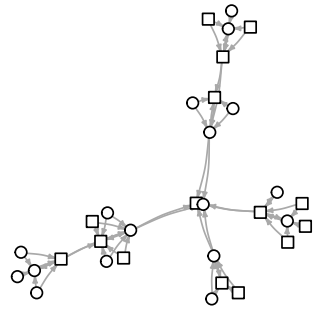
- The Extended Genealogiy Method is a new methodology
  - to reconstruct retrospective demographic data
  - using *complete* genealogical data based on
  - asking simple questions

‘Egocentric’ networks

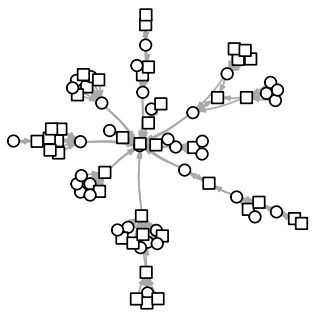
Family id: 37



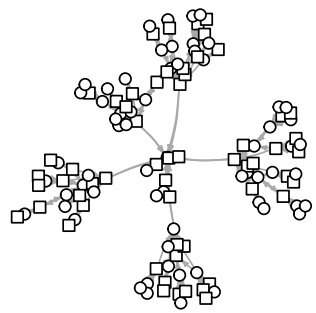
Family id: 74



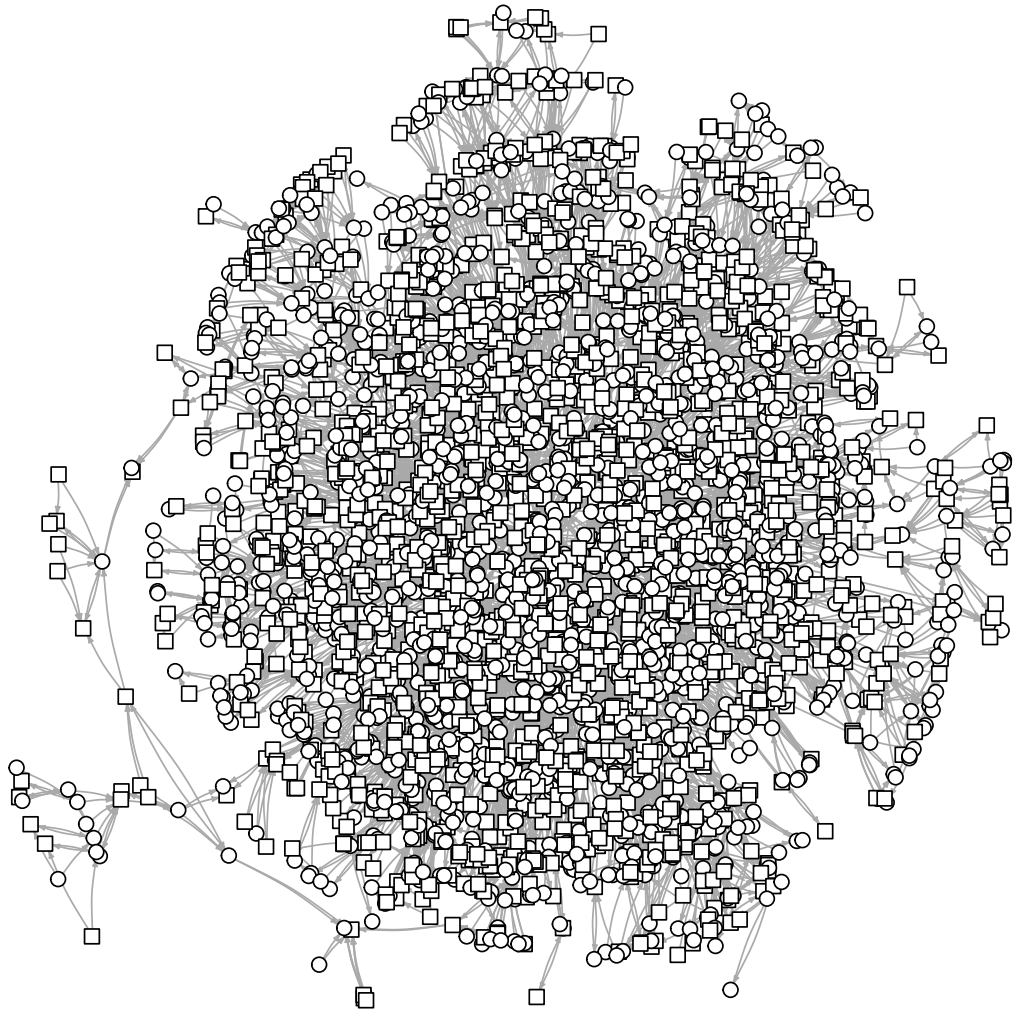
Family id: 111



Family id: 148



‘Complete network’ (whole population)



Sampling

- Non-probabilistic network sampling
- Participants selected iteratively
- Not necessary to sample every household

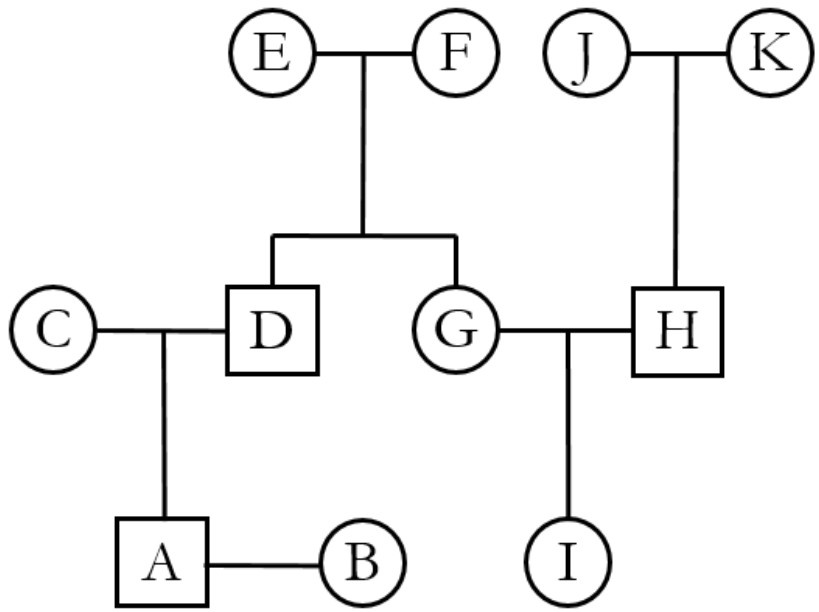


Figure 1: Sampling example. Squares are interviewed individuals.

Sampling

- Non-probabilistic network sampling
- Participants selected iteratively
- Not necessary to sample every household

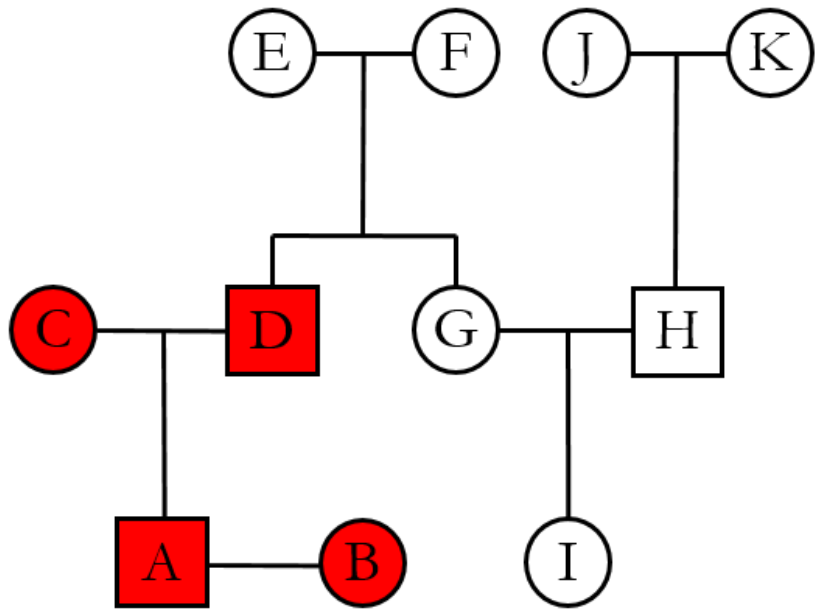


Figure 2: Sampling example. Squares are interviewed individuals.

Sampling

- Non-probabilistic network sampling
- Participants selected iteratively
- Not necessary to sample every household

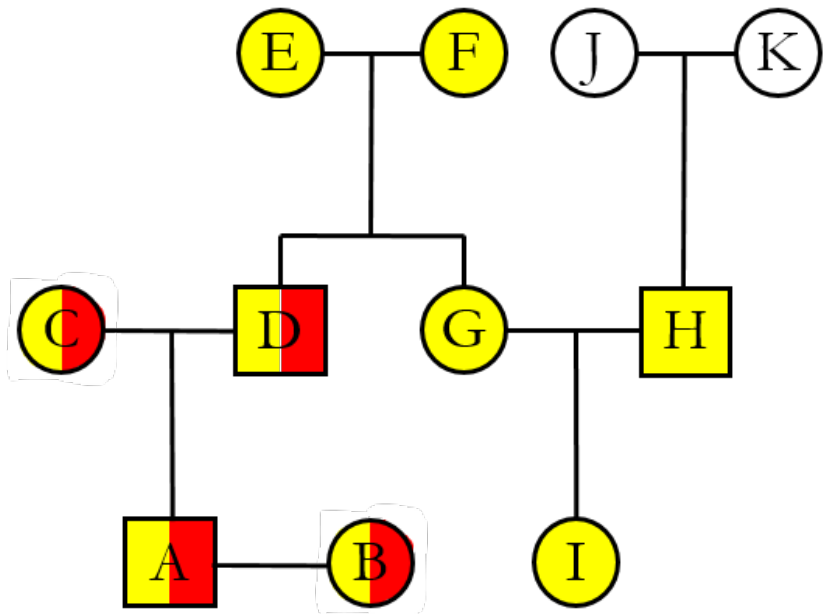


Figure 3: Sampling example. Squares are interviewed individuals.

Sampling

- Non-probabilistic network sampling
- Participants selected iteratively
- Not necessary to sample every household

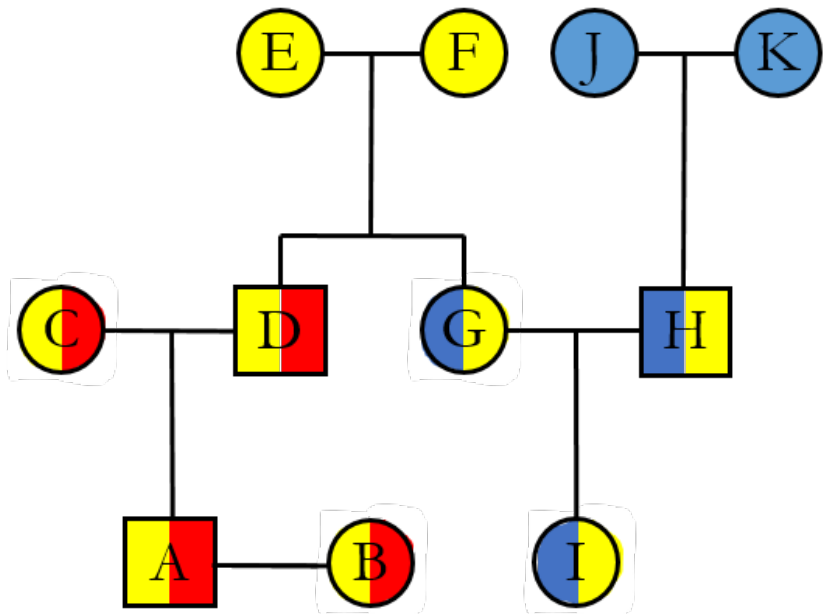


Figure 4: Sampling example. Squares are interviewed individuals.

Applying the EGM to reconstruct 60 years of Rio Negro's demographic history

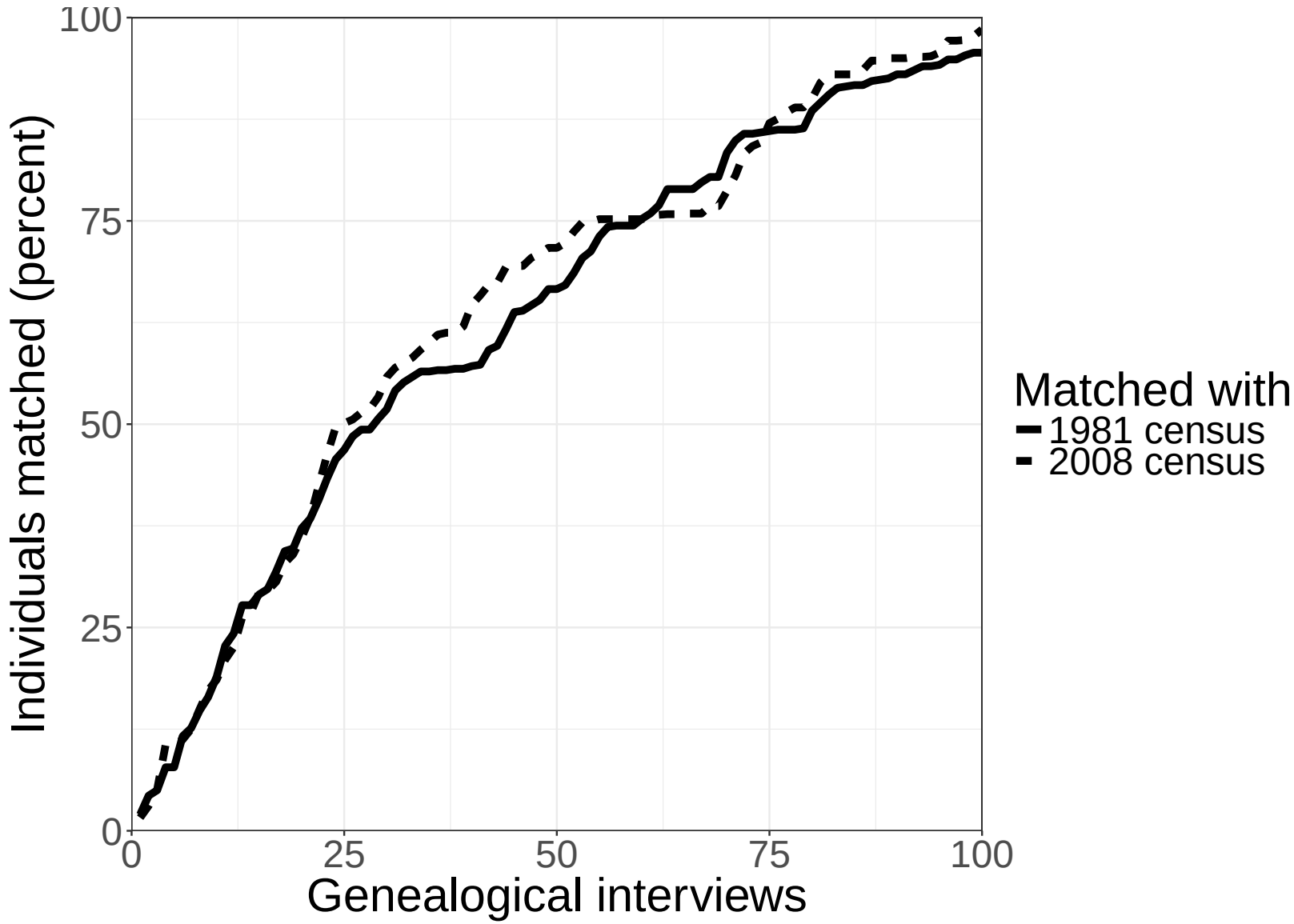
The case: Rio Negro

- Guatemalan civil war (1960-1996)
- Rio Negro, an indigenous community (~1000 inhabitants)
- 44% population killed in mass killings in 1982
- Possible genocide

Data collection

- Fieldwork Nov 2015 - Nov 2016
- 100 paper-based EGM interviews
- Individuals reported per interview: 58
- Median interview length: 1.5 h (range: 0.5-4h)
- Each individual reported 2.7 times

Network saturation: whom did we miss?



Multiple reporting to address non-response

Variable..percent.	Original	Merged	Improvement
Overall	75	89	14
Date of birth	44	84	40
Date of death	67	79	12
Non-conflict date of death	38	56	18
Place of birth	89	92	3
Current location	64	69	5
Death cause	83	93	10

Limitations

1. Data quality
   - Ideal for small population with low degrees of out migration
   - Recall bias (cf. multiple reporting)
   - Useful for recent history: 'living memory' (60 years in RN)
2. Analysis
   - Limited statistical generalisability

Potential applications

- Standard demographic analysis
  - Mortality, fertility, nuptiality
- Social Network Analysis
  - Longitudinal network data on the same population

Thank you!

- Find out more online and download the questionnaires: www.alburez.me