Surveys: Techniques and Technologies

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Measuring Violent Conflict in Micro-Level Surveys Workshop
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Framing the Session

Guiding question:

Survey data affords opportunity to provide incredibly nuanced information about conflict and how people experience it...

...but how do we go about actually collecting this data in the challenging environments posed by conflict and / or fragility?
Session Outline

1. Background to survey data
   • Survey sampling

2. Typical survey approaches
   • Panels
   • Repeated cross-sections
   • Pseudo—Panels

3. Survey collection methodologies
   • Face-to-face interviews
   • Phone interviews
   • Crowd-sourcing

4. Other collection methodologies
   • Remote sensing

5. Group work
Session Outcomes

• Development of understanding of basic sampling approaches
• Understanding of costs / benefits of different approaches to collecting dynamic survey data
• Knowledge on strengths / weaknesses of different data collection methods
• Consideration of non-survey and mixed data collection approaches
1. Sampling

A (n overly) simplistic proposition

*If we know how a society looks, it is easily to representatively sample it*
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- **Example:**
  - Take most recent census roll
  - Stratify census by groups of interest
  - Randomly select households from each stratum for survey
1. Sampling

A (n overly) simplistic proposition

*If we know how a society looks, it is easily to representatively sample it*

*...but what do we do if we don’t know how a society looks?*
1. Sampling

• Lebanon – an example:
  • Last official census of Lebanon: 1932

<table>
<thead>
<tr>
<th>1932 Census:</th>
<th>2012 Statistics Lebanon Study:</th>
<th>CIA World Factbook:</th>
</tr>
</thead>
<tbody>
<tr>
<td>~ 51% Christian</td>
<td>~ 40.5% Christian</td>
<td>~ 39% Christian</td>
</tr>
<tr>
<td>~ 49% Muslim</td>
<td>~ 59.5% Muslim</td>
<td>~ 59.7% Muslim</td>
</tr>
</tbody>
</table>

...and this excludes displaced Palestinians; “double-displaced” Palestinians; and displaced Syrian
1. Sampling

...what do we do if we don’t know how a society looks?

• An example – geographic sampling:
  • Split country into disaggregated geographic / administrative units
  • Within each geographic unit, randomly select towns and villages for enumeration
  • Within each randomly selected town and / or village, households further randomly selected for
    • General rule: fewer households in more locations preferable to more households in fewer locations but in this situation, some risks involved with this rule of thumb
    • More knowledge = higher stratification capacity = more accurate sampling

• Note: no perfect way to verify that sampling is, in fact, correct!
2. Typical Survey Approaches

• Two basic forms of data:
  • Time-series → multiple observations of one place in time
  • Cross-section → snapshot of multiple places at one time

• In context of conflict (as well as many other situations), desirable to have information on multiple places across time
  • E.g. Comparison of conflict-affected and non-conflict-affected locations; pre-, during- and post-conflict period

• Requirement → “Longitudinal Data”
  • Multiple time observations (time-series)
  • Multiple location observations (cross-section)
2. Typical Survey Approaches

• Longitudinal data:

“...a dataset that tracks information on the same variables, from the same populations, at multiple points in time..."
2. Typical Survey Approaches

• Three main types of longitudinal data:

1. Repeated cross-sections
   • Representative survey conducted at time t;
   • Survey entirely resampled at time t+1;
   • Representative survey collected from entirely new sample at time t+2
   • Survey resampled at time t+n...
   • Individuals / households should appear in one wave only

2. Panel surveys

3. “Pseudo-panels”
2. Typical Survey Approaches

• Three main types of longitudinal data:

1. Repeated cross-sections

2. Panel surveys
   • Representative survey conducted at time t;
   • Survey designed for follow-up (e.g. collection of contact information);
   • Representative sample at time t resurveyed at time t+1
   • Potential “top up” sample also surveyed at t+1
   • All traceable observations from original sample and t+1 “top up” surveyed at time t+2 etc.

3. “Pseudo-panels”
2. Typical Survey Approaches

• Three main types of longitudinal data:
  1. Repeated cross-sections
  2. Panel surveys
  3. “Pseudo-panels”
     • Special analytical technique for repeated cross-sections
     • Individual / HH observations aggregated and averaged at regional level
     • Panel data analyses conducted on these averaged (regional) outcomes
3. Data Collection Methods

• Focus on three methods

1. Face-to-face surveys
   • Personal contact can build trust
   • Enumerators can observe situation as well as participant response
   • Face-to-face contact increases or decreases willingness to answer sensitive questions?
   • Enumerator effects Expensive and complicated to collect
   • Long planning lags?
   • Physical safety of enumerators
   • Physical collection methodology – paper versus tablets, for example

2. Telephone surveys

3. Crowd-sourced surveys
3. Data Collection Methods

• Focus on three methods
  1. Face-to-face surveys
  2. Telephone surveys
     • Relatively easy to administer
     • Cheaper and “safer” than face-to-face surveys
     • Increases or decreases willingness to answer sensitive questions?
     • Selection biases – required participants to have mobile phone
     • Reporting biases?
     • Accessibility – how well do lines of communication function in conflict scenarios?
  3. Crowd-sourced surveys
3. Data Collection Methods

• Focus on three methods
  1. Face-to-face surveys
  2. Telephone surveys
  3. Crowd-sourced surveys
    • Doesn’t (explicitly) require a “sample” in traditional sense
    • Rather, people report information they think is relevant
    • Potentially, same concerns as phone surveys
    • Plus further selection biases – on who reports, what they report, and when
    • More flexible – can collect data in “real time” – might capture flight and onset
    • Requires a “platform” – e.g. Ushahidi; Voix des Kivus
4. Non-Survey Approaches
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- Desire, often, to understand response / behaviour towards conflict
- Open question:

  *Can we capture (some of) these behaviours and responses without asking people about it directly?*
4. Non-Survey Approaches

- The case of fallow fields:
  - Does the location of fallow fields correlate with conflict?
  - Can we link decision to left fields lie fallow with violence?
4. Non-Survey Approaches

- Some potential for the use of satellite imagery
- Process behind what is observed from a distance still not fully understood
- ...but more general behavioural responses to conflict can probably be captured in this way
- Suggestion:
  - Household surveys and satellite imagery can be used together
  - Understand at HH level decisions behind what is observed in satellite imagery
  - In turn, use this learning to understand (from satellite imagery) what is happening in places “too dangerous” to visit
5. Key Takeaways

• There is (probably) no perfect survey method – each approach comes with benefits and costs

• The best way to conduct a survey is (probably) case specific
  • Desired outcome and context must be considered in the design

• What one wishes to measure plays a role in which approach is desirable
  • ...but this must also be traded off against what is practical, feasible and affordable
6. Group Work

• Setup:
  • You have been asked to evaluate the peacebuilding impact of community workshops in north eastern Nigeria.
  • You will collect data from a “treatment” group and a “control” group.

• Task:
  • Design the data collection methodology to capture pertinent information relating to the intervention.

• Considerations:
  • How will you sample the treatment and control groups?
  • How many times will you interview each group? When?
  • How will you collect the data?
  • What are the strengths and weaknesses of your approach?