

# Field Methods

Why and how to collect data to design public policies?

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# Objectives

- 1 Why field methods and data matter for public policy designers
- 2 Quantitative method: the questionnaire
- 3 Qualitative method: the interview
- 4 Other methods
- 5 What do you do with data?
- 6 How do you get a job in the Bogota's labor market?

# Data collection is crucial for public policies

- International institutions affirm that data are crucial
- The last *World Development Report* of the World Bank

**The need to strengthen incentives to gather development data**

*WDR 2017, p.7*

- ① To built public policies on real facts
- ② To develop a specific public policy with a good targeting population
- ③ To evaluate the impact of public policies

# Facts matter to make a good decisions

- To make good decision, data matter
- Data vs. beliefs and faiths
- It is necessary to discuss the questions, the data collection, the tools or the methods
  - ▶ Example: In the U.S. and the E.U. politics would restrict immigration (Trump's Muslim Ban, British and Hungarian Immigrant Ban...)
    - ★ Immigrants steal native jobs **WRONG!** ([Forged and Peri 2016](#))
    - ★ They don't pay national taxes but they benefit from state programs **WRONG!** ([Dustmann and Frattini 2014](#))
    - ★ They reduce scholar outcomes of the native people **WRONG!** ([Hunt 2016](#))
    - ★ They can't integrate within the national culture and norms, they have strange behaviors and they create animosity **WRONG!** ([Akay et al. 2014](#))

## Targeting problems: data matter

- Public policy makers would design a program to empower poor people
- But, the “poor” people are heterogeneous (absolute, relative or multidimensional poverty)!
- Public policy designers can lose the right population target
- Finally, the efficiency of the program decreases
  - ▶ Example: We design a Conditional Cash Transfers (CCT) to improve education and health conditions of the rural vulnerable households (like *Familias en Accion, Oportunidades...*)
  - ▶ How can we increase the efficiency of the CCT? Giving cash to women or men?
    - ★ Exogenous transfers to women are more likely to be spent on their children’s health, nutrition, and education **RIGHT!** (Thomas 1990; Doss 1996; Gitter and Barham 2008)
    - ★ More household resources are devoted to children when women are more powerful **RIGHT!** (Gitter and Barham 2008)
    - ★ The reservation of a women council seat affects the types of public goods provided **RIGHT!** (Chattopadhyay and Duflo 2004)

# Public policies work? Data matter for the impact evaluations

- Driving restrictions

- ▶ In 2016, The mayor of Bogota wants to eliminate progressively the *Pico y placa*. He would like to start in 2 steps:

**BOGOTÁ BOGOTÁ**  
Peñalosa propone pagar por el  
pico y placa en Bogotá  
Abr 29, 2016 | 2:07 Pm | Top | Libro | Noticias | Más | Datos

COLOMBIA

COLOMBIA 10:54 PM · 5 DE AGOSTO DE 2016

Propuesta de Peñalosa de quitar pico  
y placa a taxis abre polémica en  
Bogotá

RCN (April 29, 2016) and Noticias Caracol (August 5, 2016)

- ★ Driving restrictions doesn't improve air quality **WRONG!** (Viard and Fu 2015)
- ★ *Pico y Placa* reduces significantly ambient concentrations of carbon monoxide (CO), a pollutant primarily emitted by vehicles during peak traffic hours **RIGHT!** (Carillo *et al.* 2016)

# Public policies work? Data matter for the impact evaluations

- Soda taxes

- ▶ In 2016, very strong debate on the sugar drinks taxes in Colombia. Some politics and journalists say that the soft drinks are crucial for poor people, and taxes don't generate significant results on obesity and fiscal revenue.
- ▶ Is that right? What is the effect of soda taxes on obesity and fiscal revenue?
  - ★ Sugar-Sweetened Beverages consumption have a positive relation with weight gain and obesity **RIGHT!** 30 international studies say that! (Malik *et al.* 2006)
  - ★ Soda taxes decrease the consumption and have larger effect on overweight and obesity for low-socioeconomic populations, for those at-risk and children **RIGHT!** (Sturm *et al.* 2006; Powell *et al.* 2012; Powell *et al.* 2009)
  - ★ Soda taxes generate large fiscal resources to support medicine research and innovations **RIGHT!** (Lin *et al.* 2011; Andreyeva *et al.* 2011)

Now...

How do you collect data?



# The Questionnaire: conception and process

- The questionnaire is an instrument to collect informations and data
- We need a questionnaire to answer some hypothesis
- Think about the final analysis of your data (statistical treatment)
  - ① Characterize the problem
  - ② 3 types of questionnaire:
    - ★ Exploratory questionnaire
    - ★ Descriptive questionnaire
    - ★ Explanatory questionnaire
  - ③ Define the informations needed
    - ★ Define the nature of the informations: people behaviors, people thinking and representations, social or demographic status
    - ★ Make a list!
  - ④ Aggregate these informations in blocks (modules)
  - ⑤ Verify that each element is very important for you, otherwise delete it!
  - ⑥ Prepare the future statistical analysis: what will you do with your data?

# The Questionnaire: conception and process

- Define how to administrate your questionnaire
- Very important step!
  1. By “face to face” (or cellphone)
    - ★ General criteria:
      - ★ Neutrality
      - ★ Don't be rigid
      - ★ Don't demonstrate your opinion
    - ★ Advantages:
      - ★ High response rate
      - ★ People normally answer because the questions are closed
      - ★ The polster can help people
    - ★ Limits:
      - ★ Expensive process (time, money...)
      - ★ The polster can influence the people answers
      - ★ Attention with your body–language (facial expressions...)
      - ★ The place matters

# The Questionnaire: conception and process

## 2. Self-administred survey (internet)

- ★ Advantages:
  - ★ Work with a large sample
- ★ Limits:
  - ★ Partial answers
  - ★ Low response rate
  - ★ We can not know if the targeting people answered

# The Questionnaire: Sampling problems

- Define precisely the statistical population (*hogares debajo de la linea de pobreza en un municipio de sexta categoria...*)
- How do you take a sample within the population?
  1. Representative sample: Random sample (ideal method)
    - ★ Each individual has the same probability to participate in the sample
    - ★ Have complete data on the statistical population (*exhaustive list: personal address...*)
    - ★ Sample size depends on your money
    - ★ Survey all of people in your sample
  2. Representative sample: Stratified sample (intermediary method)
    - ★ Randomize selection of some areas (*Algunas calles en un distrito en Bogota...*)
    - ★ Survey all people in these areas (control ex-post)
  3. Non-representative sample: Quota sampling (pragmatic method)
    - ★ Define some criteria within a representative database (*strata, gender, geographical location, education level...*)
    - ★ Size your sample with the percentage of each category in the population
    - ★ Survey some people and respect the quota

# The Questionnaire: Designing questions

1. The closed questions (categorical, scales and Likert scaling)
  - ▶ Criteria:
    - ▶ Determine every categories (complete, exclusive, homogeneous, structured)
  - ▶ Advantages:
    - ▶ Easier than open questions and consistent
    - ▶ Immediate coding process
    - ▶ Standardized informations
    - ▶ People are more honest
  - ▶ Limits:
    - ▶ Don't understand the complexity of facts
    - ▶ Comprehensive bias
    - ▶ Weariness

# The Questionnaire: Designing questions

## 2. The open questions (categorical, numeric and textual)

- ▶ Advantages:
  - ▶ Good questions to explore some thematics (what do people think about...)
  - ▶ “Top of mind”
  - ▶ Better interactions
  - ▶ Post-coding (*DANE asks: What do you do in your job?*)
- ▶ Limits:
  - ▶ Sometimes superficial responses
  - ▶ Coding problems

# The Questionnaire: Designing questions

## 3. The mixed questions: the magical category “other, explain”

- ▶ Advantages:
  - ▶ Cover all of possibilities
  - ▶ Capture each specific response
- ▶ Limits:
  - ▶ Post-coding problems

# The Questionnaire: Validity

- Make a test of your questionnaire (Do your survey work?)
  - ▶ Make an analysis of the test results
  - ▶ Evaluate the time to administrate the questionnaire
  - ▶ Each question is essential?
  - ▶ Does each question produce a good information?
  - ▶ Measure the percentage of incomplete questionnaires



# The Interview: Structured method

## 1. Structured interview

- ▶ Explanatory method (social behaviors and practices)
- ▶ Used to confirm some hypothesis and to control some factors
- ▶ Complement very well the questionnaire method (after)
- ▶ The interviewer asks precise questions
- ▶ People are free to answer (no time limit)

# The Interview: Structured method

1. Before interviewing people: The protocol
  - ▶ Make a list of all informations (what do you need to know?)
  - ▶ Define the social context (very precisely)
  - ▶ Define the social contract (social roles during the interview, objectives...)
  - ▶ Duration
  - ▶ Interviewer guidelines (very detailed file)
2. What do you say before starting the interview?
  - ▶ Explain the protocol and give some instructions (presentation, social role, themes... )
3. During the interview process
  - ▶ To understand: recording and taking notes (ask permission before each interview)
  - ▶ To encourage: be nice!
4. After interviewing people
  - ▶ What do you think about the interview?
  - ▶ Save the most important information

# The Interview: Semi-structured method

## 2. Semi-structured interview

- ▶ Exploratory method (social behaviors and practices)
- ▶ Used to explore a specific social or institutional context
- ▶ You don't have precise questions
- ▶ Complement very well the questionnaire method (before)
- ▶ The interviewer asks large questions
- ▶ People are free to answer (no time limit)

# The Interview: Semi-structured method

1. Before interviewing people: The protocol
  - ▶ Make a list of all themes (what do you need to understand?)
  - ▶ Define the context (very precisely)
  - ▶ Define the social contract (social roles, objectives of the interview...)
  - ▶ Duration
  - ▶ Interviewer guidelines (Only themes and huge questions)
2. What do you say before starting the interview?
  - ▶ Explain the protocol and give some instructions (Presentation, themes... )
3. During the interview process
  - ▶ To understand: notes and record (ask before each interview)
  - ▶ To encourage: be very nice!
4. After interviewing people
  - ▶ What do you think about the interview?
  - ▶ Save the most important information

# The Interview: What is the “good” number of interviews?

- This question is crucial
  - ▶ You don't search a representative sample (quota method or focus on a specific population)
  - ▶ Normally, the probability to find new information decreases with the number of interviews
  - ▶ In other words, the marginal effect of new information decreases
  - ▶ You can stop when the new interview doesn't produce any new information ( $> 10$ )

# Other methods

## 1. Focus Groups (common references, social norms influence...)

- ▶ Organization process:
  - ▶ Select people (between 4 and 8, with replications)
  - ▶ Minimum: 1 relator and 1 facilitator
  - ▶ Cut the process in two or three times (themes)
  - ▶ The facilitator presents the focus group process
  - ▶ The facilitator asks large questions to the group
  - ▶ If one person doesn't speak, the facilitator asks her precisely
  - ▶ The relator notes everything
  - ▶ Recording the discussion
- ▶ Advantages:
  - ▶ Minimize the time survey (low-costs)
  - ▶ People are more likely to answer (if same socioeconomic status)
- ▶ Limits:
  - ▶ Dominant discourses
  - ▶ Limited speech time (not personal informations)
  - ▶ Problem of the leaders in the group

# Other methods

2. Narrative interviews (historical dynamics, evolution of social behavior and practices, influence of interactions...)
  - ▶ Principle and objective:
    - ▶ Same process than the semi-structured interviews
    - ▶ People talk about their life (on a specific theme)
    - ▶ You need people to assume their narrative roles
  - ▶ Advantages:
    - ▶ Capture the narrative dynamics
    - ▶ Valorisation of people discourses
  - ▶ Limits:
    - ▶ Expensive costs (time, money, treatment)
    - ▶ Hard to treat the information
    - ▶ Problem of the narrative position

# Other methods

3. Observations (organizational dynamics and interactions, power and social group relations...)
  - ▶ Principle and objective:
    - ▶ Exploratory method to understand how does the organization work
    - ▶ Observations: long time with each specific social group
  - ▶ Advantages:
    - ▶ Capture very well the actors' interactions and the dynamics of the organization
    - ▶ People are in their social environment (theoretically: low Hawthorne effect)
  - ▶ Limits:
    - ▶ Expensive costs (time, analysis)
    - ▶ Hard to treat information
    - ▶ Problem of your social position in the institution



## Quizz (15 minutes)

Look your email!

# Data analysis: How do you analyze your data?

## 1. Descriptive analysis: The questionnaire

### ▶ Statistical analysis

- ★ Institutional and social regularities:
- ★ Descriptive statistics
- ★ Cross-tab analysis
- ★ Correlation between variables
- ★ Inferential statistics
  
- ★ Limits:
- ★ You cannot explain what you observe
- ★ Depending on your coding process

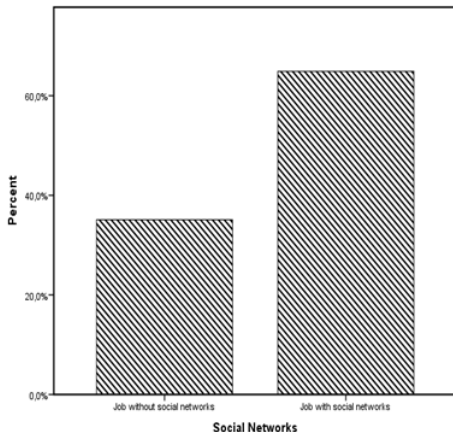
# Data analysis: How do you analyze your data?

## 2. Comprehensive and qualitative approaches: [The interview](#)

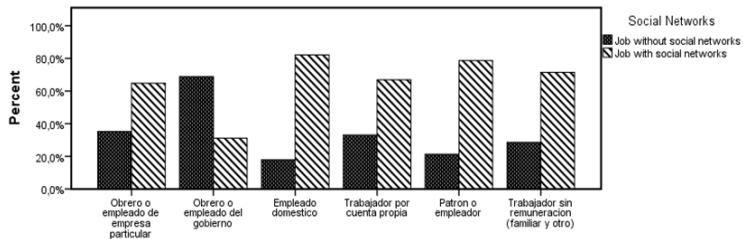
### ▶ Qualitative Content Analysis (QCA)

- ★ Step by step:
  - ★ [Extended summary](#)
  - ★ [At first reading \(themes\)](#)
  - ★ [At second reading \(regularities\)](#)
- ★ Methods:
  - ★ [Interview analysis \(singularities matter\)](#)
  - ★ [Topic analysis \(themes matter\)](#)
  - ★ [Textual analysis \(regularities in the discourse matter\)](#)
- ★ Limits:
  - ★ [Long process](#)
  - ★ [Depending on your initial questions](#)

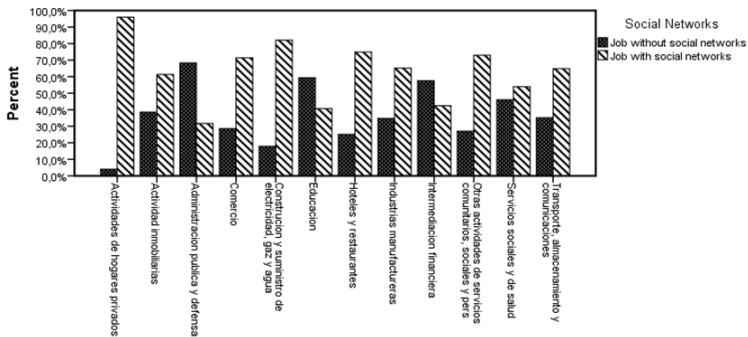
## How to get a job in Bogota? Questionnaire analysis



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## How to get a job in Bogota? Questionnaire analysis

	A utilisé son réseau pour son emploi actuel (SNW)	N'a pas utilisé son réseau pour son emploi actuel (SNW)
<i>AGE* (young)</i>	,66	,34
<i>AGE* (middle-age)</i>	,65	,35
<i>AGE* (Middle-old)</i>	,65	,35
<i>AGE* (old)</i>	,64	,36
<i>GEN* (M)</i>	,65	,35
<i>GEN* (F)</i>	,64	,36
<i>STRAT (1)</i>	,67	,33
<i>STRAT (2)</i>	,67	,33
<i>STRAT (3)</i>	,63	,37
<i>STRAT (4)<sup>b</sup></i>	,61	,39
<i>EDU (Basic)</i>	,72	,28
<i>EDU (ICFES)<sup>c</sup></i>	,65	,35
<i>EDU (technologic)</i>	,55	,45
<i>EDU (University)</i>	,54	,46
<b>Income/month Average (COP)</b>	<b>1089898,17</b>	<b>1493951,39</b>
Std. Dev.	(23429,902)	(42812,977)
N	2052	3794
(%)	(,65)	(,35)

## How to get a job in Bogota? Questionnaire analysis

	A utilisé son réseau pour son emploi actuel (SNW)	N'a pas utilisé son réseau pour son emploi actuel (SNW)
<i>Formal</i>	,61	,39
<i>Informal</i>	,89	,11
<i>Employed</i>	,63	,37
<i>Independent</i>	,70	,30
<i>Social security (Contribute)</i>	,63	,37
<i>Social security (Special statute)<sup>b</sup></i>	,41	,59
<i>Social security (subside)</i>	,77	,23
<i>Without Social security</i>	,77	,23
<i>Without minimum wage (&lt; MVV)<sup>c</sup></i>	,76	,25
<i>Between 1 MVV and 2 MVV</i>	,69	,31
<i>Between 2 MVV and 4 MVV</i>	,54	,46
<i>Over than 4 MVV</i>	,52	,48
<i>Sub-employment (hours per week &lt; 24)</i>	,88	,12
<i>Legal labor time (between 24 and 48)</i>	,61	,39
<i>Hours extra</i>	,67	,33
<i>Workplace (hard local)</i>	,60	,40
<i>Workplace (in his o in other household)</i>	,96	,04
<i>Workplace (others - street)</i>	,74	,26
<b>Income/month Average (COP)</b>	<b>1089898,17</b>	<b>1493951,39</b>
Std. Dev.	(23429,902)	(42812,977)
N	2052	3794
(%)	(,65)	(,35)



## How to get a job in Bogota? Focus groups

- Vulnerable people don't know the institutional processes to get a job
- They can't stop working (necessity)
- They don't understand these processes
- They trust more their relations

Now...

Getting out!