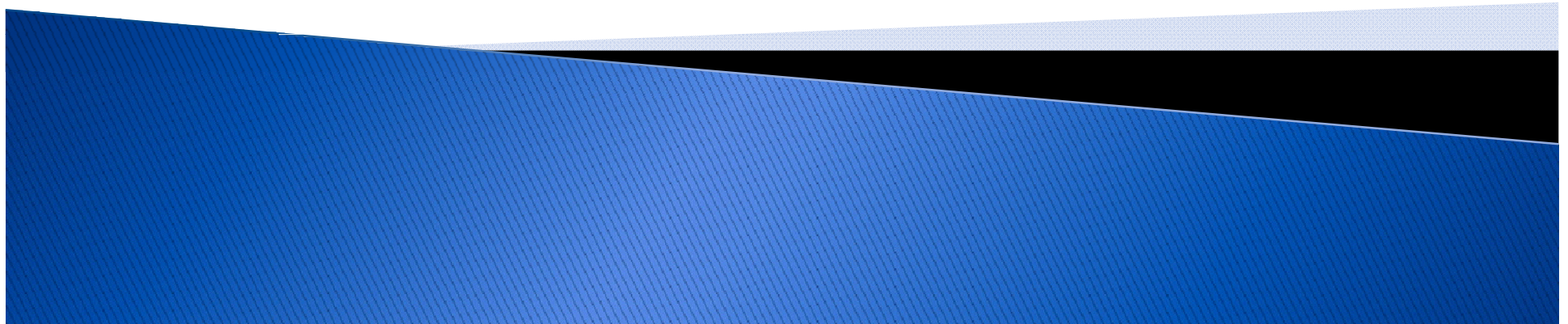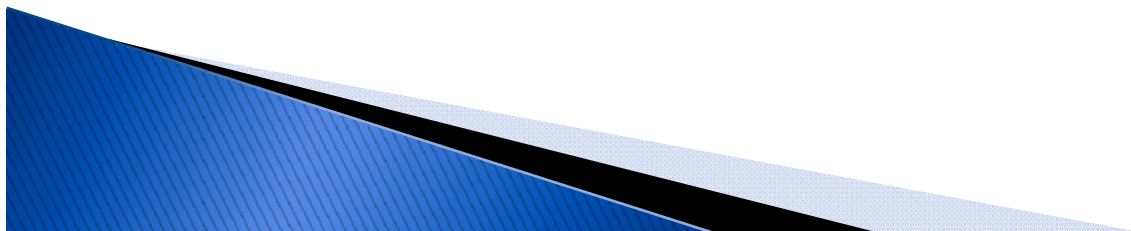# The Role of Interviewers in Collecting High Quality Survey Data

Stephanie Eckman
Ph. D. Candidate, JPSM
Academic Guest, ETH Zurich
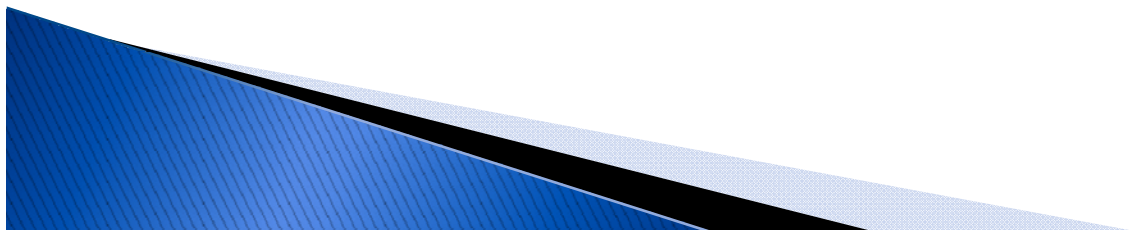
Role of Interviewers

- Create frame of HHs
- Select cases

- Approach households
- Roster members
- Select member

- Ask questions
- Record answers

Role of Interviewers

- Create frame of HHs   Coverage Error
- Select cases   Sampling Error

- Approach households   Nonresponse Error
- Roster members   Coverage Error
- Select member   Sampling Error

- Ask questions
- Record answers   Measurement Error

Interviewer Incentives

▸ Do we incentivize interviewers to collect good data at each stage?

▸ Principal-Agent problem
  ◦ Principal: survey researchers, central office
  ◦ Agent: interviewer
    • Private information about cases and neighborhoods
    • Not closely monitored
   • Paradata movement: capture private information
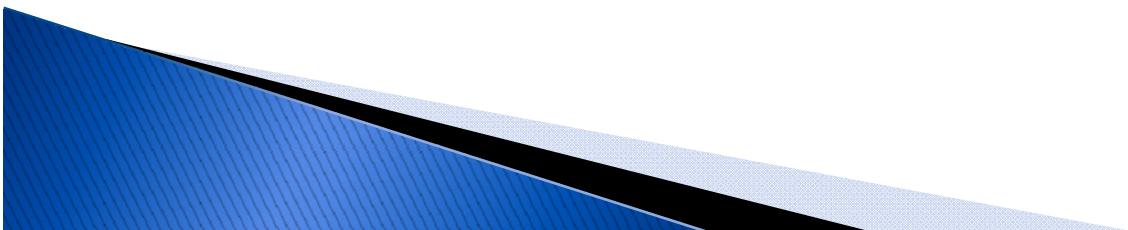
Interviewer Incentives

▸ Interviewer convenience
  ◦ Stay cool, warm, dry
  ◦ Safe in dangerous neighborhoods

▸ Response rates
  ◦ Pay-by-case (Germany)
  ◦ Pay-by-hour (US)

▸ How do these affect 3 error sources
 ◦ Nonresponse, Sampling and Coverage
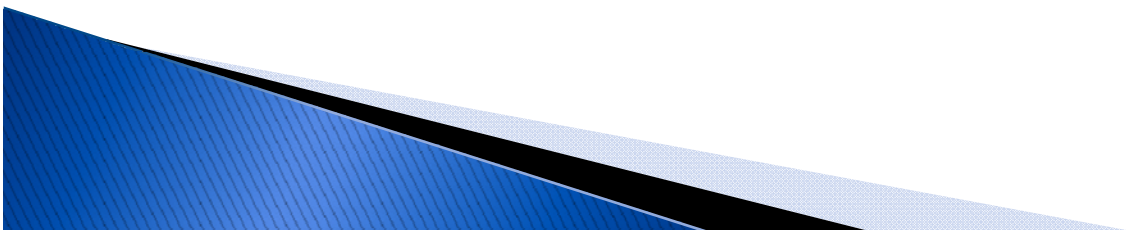
Interviewers & Nonresponse

▸ Interviewers in face-to-face surveys
  ◦ Not closely monitored
  ◦ When to approach cases
  ◦ Which cases to attempt

▸ Effect of incentives
  ◦ Earlier attempts in African-American areas
    • (Hawkins 1977)
 ◦ Pursue cases that look like previous respondents
    • (Kennickell 2005)
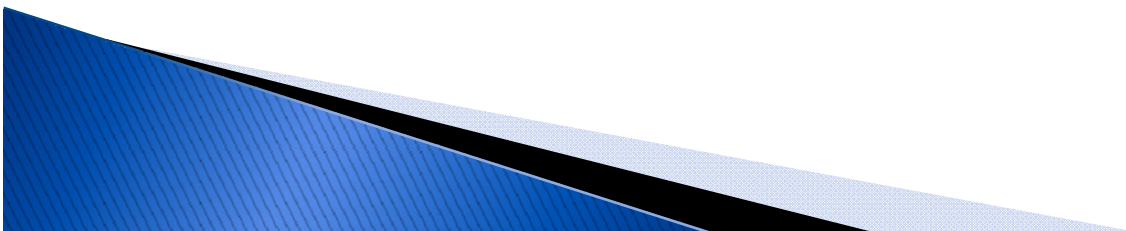
Interviewers & Sampling

- Random walk: select every *kth* HH
- HH member: select R from HH roster

- Interviewers select likely respondents
  - (Alt 1991, Eyerman et al 2001)

- Bias due to interviewer selection
  - Higher income, more home ownership, more adults
  - (Manheimer & Hyman 1949)
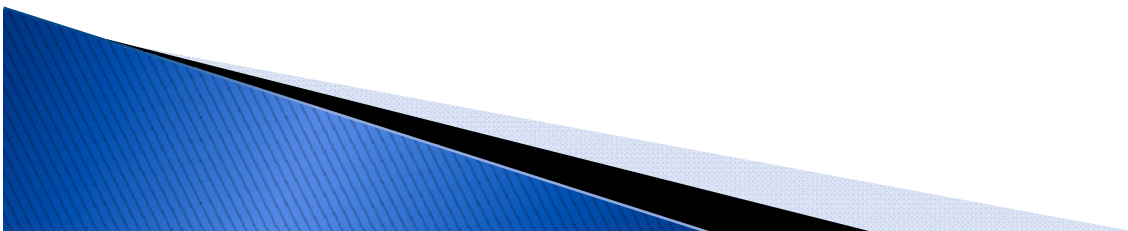
# Interviewers & Coverage

▶ **Interviewers create frames**
- ◦ Housing units, household members
- ◦ Under- and overcoverage can lead to bias

▶ **My research is about housing unit listing**
- ◦ Interviewer (lister) goes to selected blocks
- ◦ Records address of every housing unit
  - • Description where address unclear or does not exist
- ◦ Frames returned to office for selection
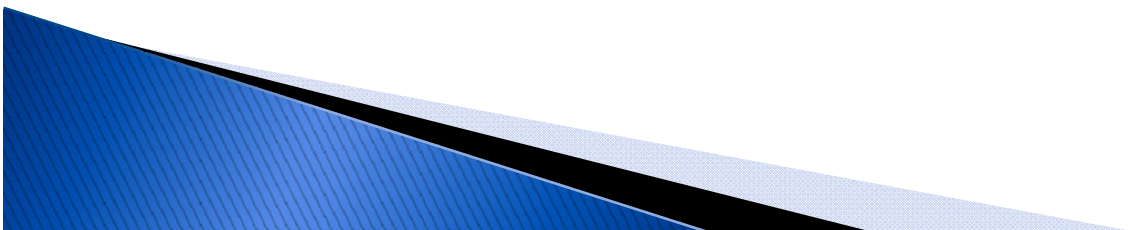
Listing Example
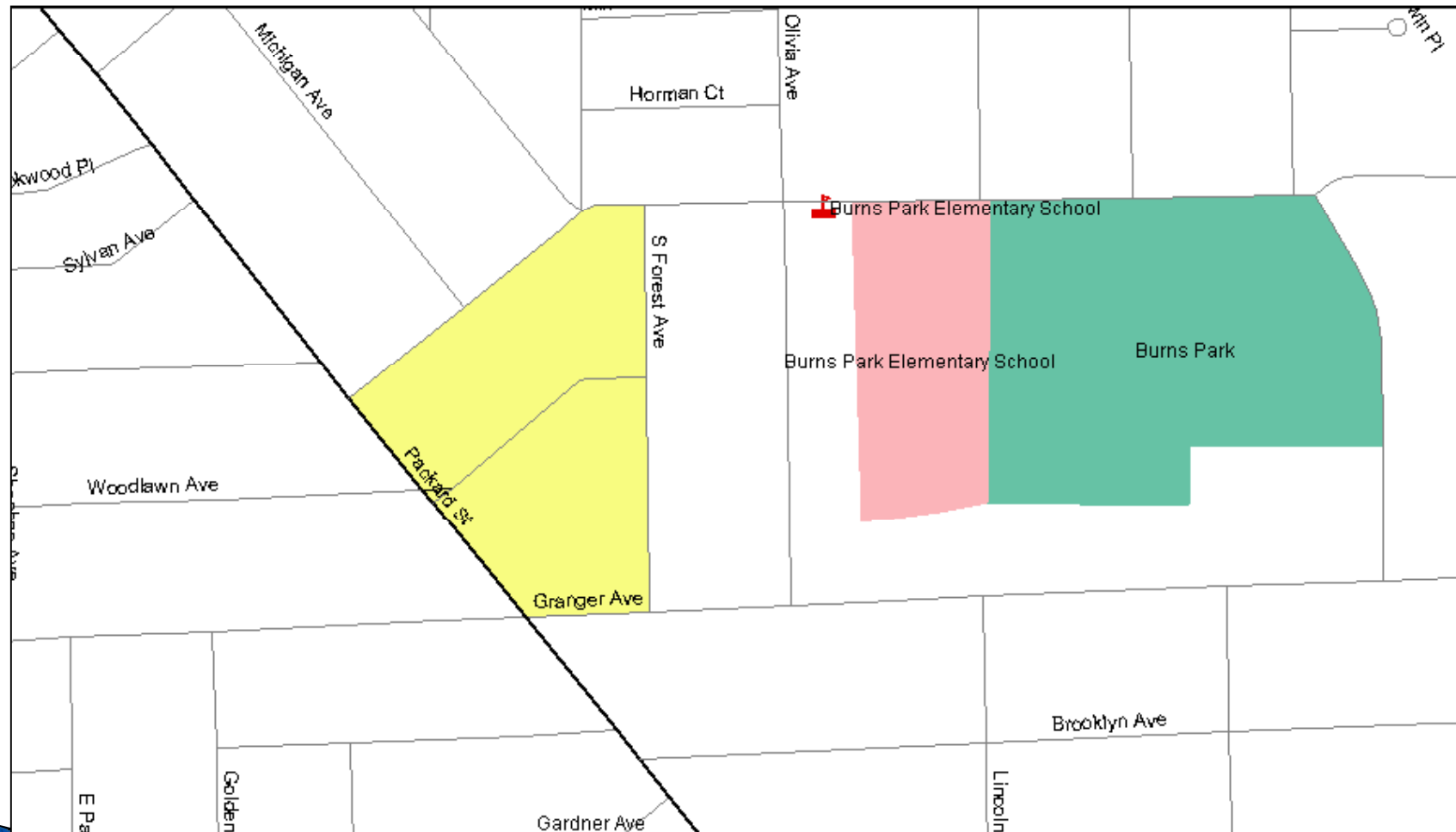
Two Listing Methods

- Traditional
  - Lister has only map of selected area
 - Travel around each selected block
  - List all housing units

- Dependent
  - Lister has map and initial frame
    - From previous listing
    - Or commercial database (postal list)
  - Update frame in the field
  - Used in IAB survey PASS

Census Bureau Listing

- US Census Bureau
  - Survey research as well as Decennial Census
    - Lots of listing
  - Highest response rates in US

- Two listings of 215 blocks
  - Identical methods

Block Agreement Rates
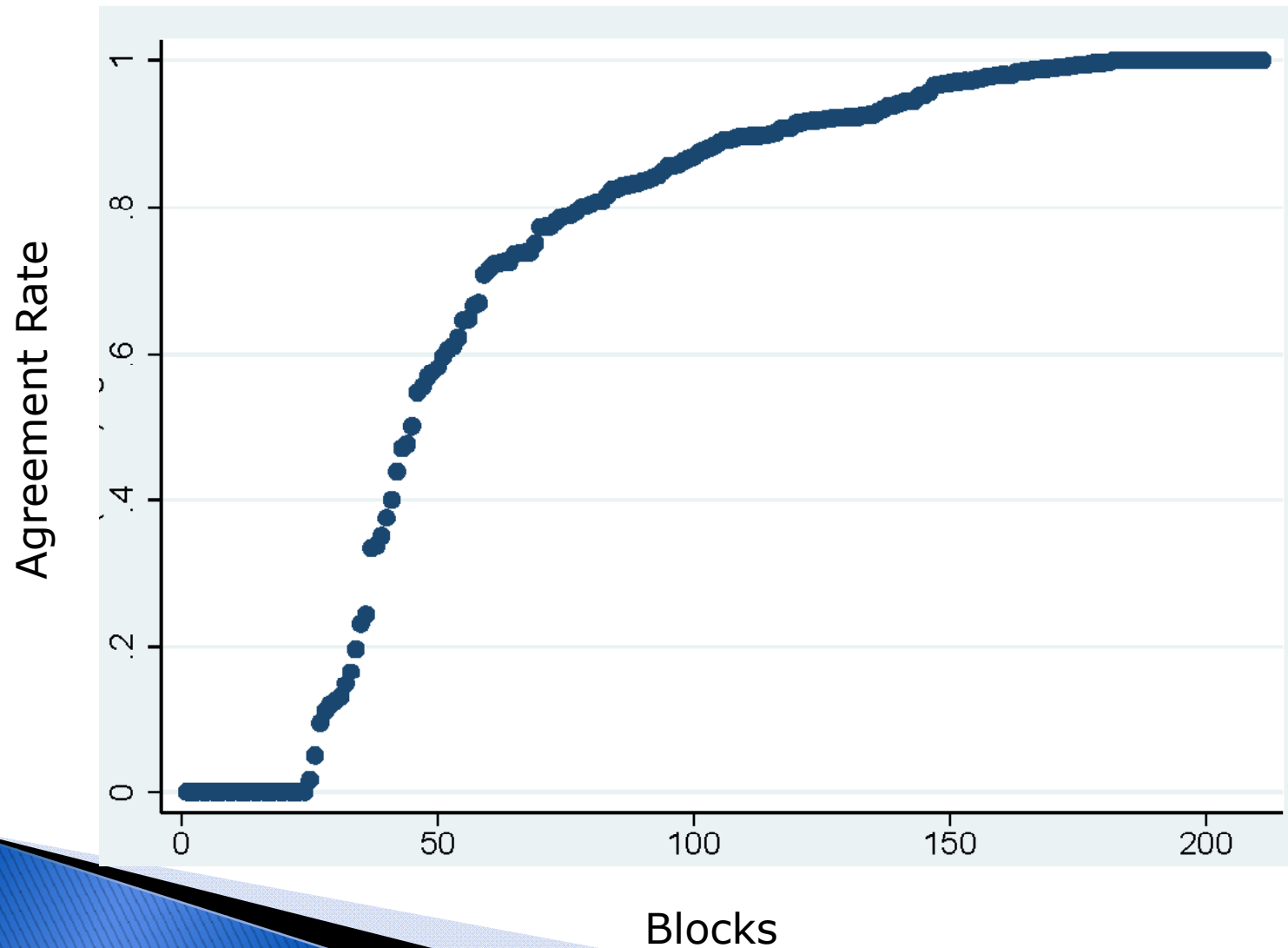
Hypotheses on Mechanisms

▸ Purposeful undercoverage to avoid nonresponse
  ◦ If later interviewing in same area

  ◦ *If I see a house with a big fence and a sign that says "Dangerous Dog," should I even list it?*
  ◦ CPS: Hainer (1987)

▸ Difficult to test

Hypotheses on Mechanisms

▸ What makes listing easier or more comfortable for the lister?
  ◦ Race, language match
  ◦ Crime rates
  ◦ Driving

▸ Confirmation bias in dependent listing
  ◦ *Failure to add* HUs missing from list
  ◦ *Failure to delete* inappropriate units on list

Michigan Listing Study

- 2 listings of 14 segments

- Failure-to-add confirmation bias
  - Deleted 53 housing units
  - 13% point decrease in inclusion

- Failure-to-delete confirmation bias
  - Added 24 housing units
  - 11% point increase in inclusion

Eckman & Kreuter (submitted)

Dissertation Data Collection

▸ National Survey of Family Growth (NSFG)

▸ Three listings of 49 selected segments
  ◦ Vary listing method
  ◦ Manipulation: add and delete units

▸ Interviewer characteristics
 ◦ Experience, attitudes, languages

▸ Interview data

Next Steps

▸ Match 3 listings
  ◦ What kinds of HUs are listed by only 1 or 2?

▸ Test hypotheses
  ◦ High crime areas
  ◦ Interaction of area, interviewer characteristics
    • Race
    • Language

▸ Do lister errors lead to bias?

Larger Framework

- Dissertation research is part of research project into interviewer incentives
  - Mechanisms of interviewer error
  - How sensitive are interviewers to incentives?
  - 2 sessions at ESRA 2009 on interviewers as agents

- Interviewers impact data quality
  - Need better understanding of their role
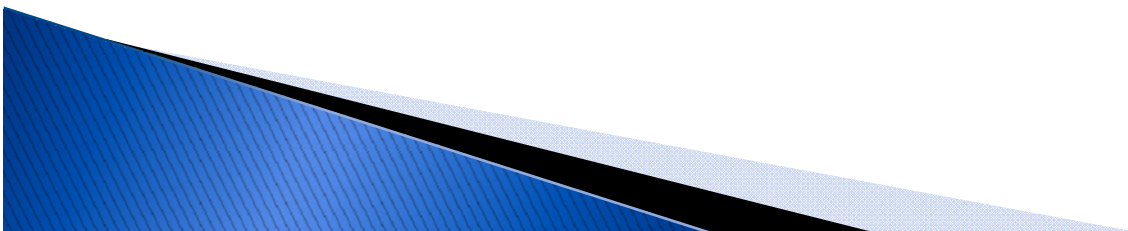
Thank You

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