Use of Registers in the Traditional Censuses and in the 2008 Integrated Census

International Conference on Census methods
Washington, DC 2014

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It’s All in the Numbers
20th Century Traditional Censuses

The 2008 integrated census

- Defining needs
- Exploring availability
- Checking usefulness and quality
- Implementation

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20th century traditional census

- 1948 first census joint with the Central Population Register (CPR) creation including unique ID assigning
- 1961 – Traditional census, CPR used for imputing missing values in paper questionnaires.
- 1972 – Traditional census, CPR used for:
  - Preprinting HH information including ID’s on stickers to be attached to the questionnaires
  - Imputing missing values
- 1983 – Traditional census. CPR used as in the 1972 census
20th century traditional census

- 1995 extended use of admin. data
  - CPR
    - ODE questionnaires with pre-printed stickers from the CPR
    - Adding residents in areas with poor field work
    - Substituting questions – religion
    - Editing and imputing responses in questionnaires
  - Birth/death file - updating unreported births/deaths and deleting births occurring after the census date
  - Social security
    - Allowances and income for self employed
    - Editing income information for employees

2008 Census Strategy

- CPR - the backbone register
- Aim toward a register based census
- Computerize all procedures
- GIS - infrastructure for the census procedures
- Reduce burden “Don’t ask if you know the answer”
- Direct data collection to validate admin. data sources and correct flaws
- Improve quality of census data
- Timely outputs
CPR quality

- All persons ever receiving a residency status (permanent or temporary) are included
- Unique Personal Identification Number (PIN) for all residents
- Geocoded addresses
- Addresses – 20% incorrect (12% within same locality, 8% different locality)
- Household structure - only formal relations registered (about 87% correct)
- Usual residents – “active residents” leaving abroad for extended periods (emigrants)
- Excludes non-residents

First step toward a register based census

- Vast availability of registers, maintained by public organizations containing ID numbers
  - Ministries
  - Government organizations
  - Local Authorities
  - Commercial companies
Reduce burden
“Don’t ask if you know the answer”

- Public becoming reluctant to provide information maintained by government Organizations.
- Sample survey- for unavailable information and correcting flaws in the CPR

2008 integrated Census

- Defining need
- Exploring availability
- Checking compatibility with census definitions
- Checking quality
- Final Decision
- Record linkage
Defining needs

- Demographic data
- Household structure
- Housing
- Migration
- Labor force & Education
- Durable goods & communication and internet
- Income

Exploring Availability

- CPR – demographics, family ties, internal migration
- Border control authority – international migration
- Post office - updated addresses
- Municipal authorities tax files – addresses and housing
- Property register - housing
- Income Tax Authority – income from work or businesses
- Social Security – income from government allowances and residency status
- Ministry of Education - school enrolment and updated addresses
- Electricity customers and new connections – housing
- Ministry of Welfare – disabilities
- Ministry of Defense – disabilities
- Ministry of Transportation - car ownership
Admin. sources preference procedures

- Identifying potential bias
  - Addresses modified only if all HH members are registered in the same address
  - Population omissions added only if fully matched

- Validity checks
  - Control digit comply with formula
  - PIN exist in CPR

- Completeness
  - Number of records
  - Missing data

Quality rank

July 31, 2014, Pnina Zadka, CBS, Israel

Administrative sources used and hierarchy order for establishing census population

1. CPR “active”
2. Border control “usual residency = Israel”
3. Social Security – not eligible for health insurance “usual residency ≠ Israel”
4. School enrolment - “updated address”
Administrative households
an iterative procedure

- CPR – family ties
- Residing in the same address
- Adding family members registered in a non-residential address
- Adding single minors and single Muslim women residing in a different address
- Family reconstruction

Administrative sources
used to substitute questions

- Religion
- Visual and hearing impairment
- Income from work
- Income from allowances
What’s next

- Under construction new statistical registers
  - Education register
  - Dwelling register
- Expending the use of admin sources
  - Electricity company
  - Real estate register

Summary

- Administrative sources are an important affordable data source for censuses
- Sources should be evaluated and validated
- Verification of data sources with traditional enumeration methods
Thank You