



הלשכה המרכזית לסטטיסטיקה
Central Bureau of Statistics
دائرة الإحصاء المركزية

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

*International Conference on Census methods
Washington, DC 2014*

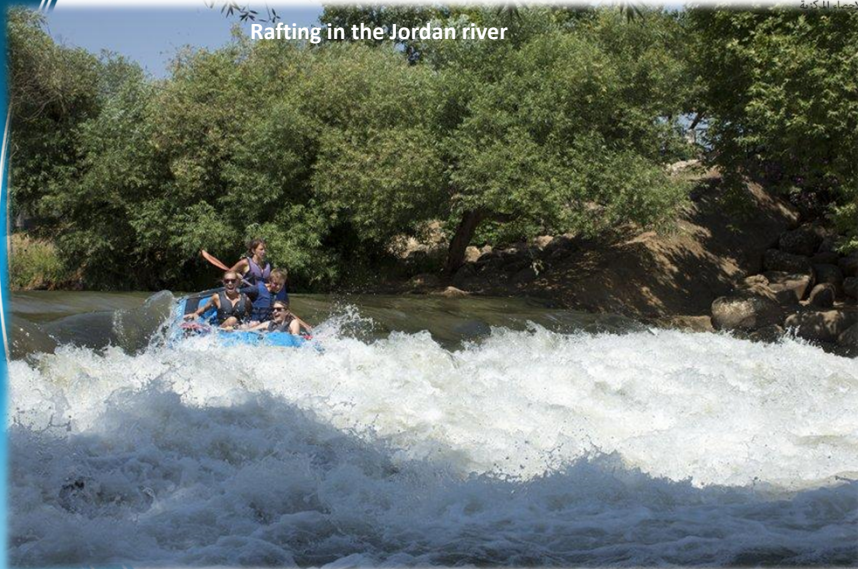
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It's All in the Numbers



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Rafting in the Jordan river



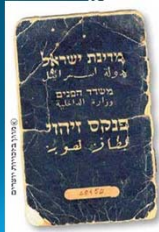
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Content

- 20th Century Traditional Censuses
- The 2008 integrated census
 - Defining needs
 - Exploring availability
 - Checking usefulness and quality
 - Implementation

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

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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



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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



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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



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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



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2008 integrated Census



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

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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

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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 \neq Israel”
4. School enrolment - “updated address”

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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

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Administrative sources used to substitute questions



- Religion
- Visual and hearing impairment
- Income from work
- Income from allowances

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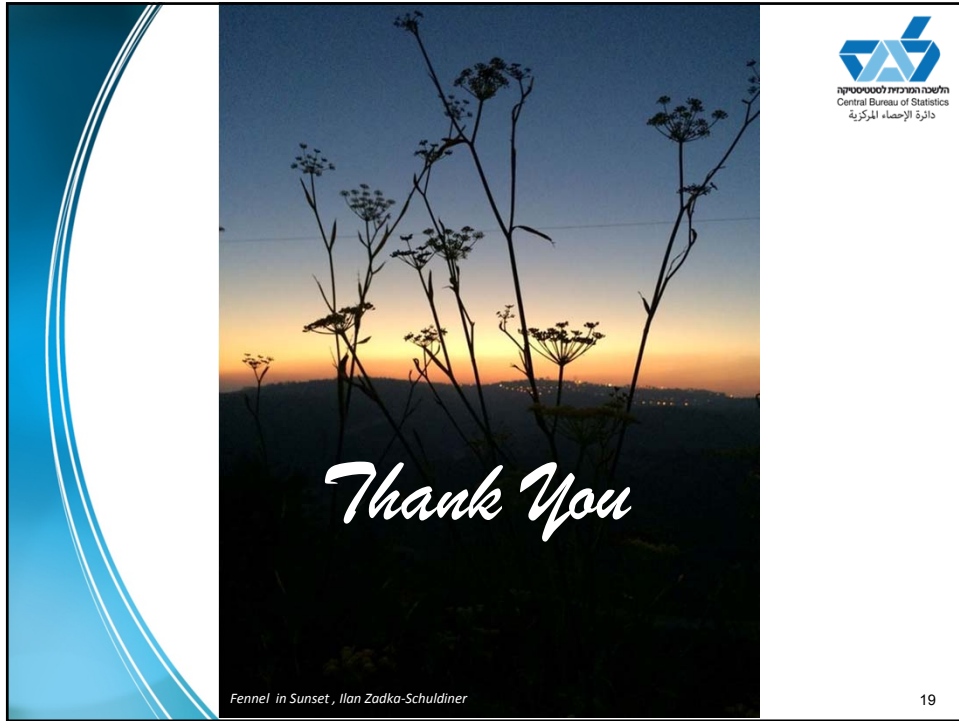
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What's next

- Under construction new **statistical** registers
 - Education register
 - Dwelling register
- Expanding 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

Fennel in Sunset, Ilan Zadka-Schuldiner