



Evaluation of the quality of population register data in Slovenia by conducting a targeted survey on plausible emigration

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Content

- Methods for measuring over- / under-registration in the sample surveys
- Targeted survey on the quality of population register data
 - Sample
 - Methods used
 - Preliminary results
- Evaluation of the quality and lessons learned



Census data production in Slovenia

- Register-based statistics
 - The second complete RBC executed in 2015
- Complete mikrodata linkage using
 - PIN + PIN's of spouse / parents
 - Unique address identifier + dwelling number
 - Household identifier
- Quarterly demographic population = census population
 - Usual residence definition applied



Sample surveys (1)

- Samples prepared from usual population
 - Updated with last available CPR data
- Harmonized data collection in all social sample surveys about the residence status of selected respondent (addressee)
 - Internal redistribution (de facto : de iure)
 - Over-registration
 - Quality of field work

Sample surveys (2)

Survey	Total	Died	Unknown	Living elsewhere			
				Total	Slovenia	Abroad	No answer
				Interviewer non-response			
HBS 2012	5.3	0.2	0.5	4.6	3.6	1.0	0.0
HBS 2015	9.4	0.2	1.0	8.2	5.5	1.8	0.9
LFS 2014	8.8	0.1	1.4	7.3	5.8	1.5	0.0
SILC 2014	6.2	0.7	0.5	5.0	2.6	1.6	0.8
SILC 2015	8.4	0.9	0.5	7.0	4.2	1.9	0.9
ICT-HH 2014	7.9	0.3	0.8	6.8	4.9	1.3	0.6

Time
delay

Internal
redistribution

Over-
registration



Sample surveys (3)

- Opposite approach - the residence status of interviewed household members
 - Internal redistribution (de facto : de iure)
 - Under-registration



Sample surveys (4)

Type of administrative residence	SILC 2014		SILC 2015		HBS 2015	
	Number	Share (%)	Number	Share (%)	Number	Share (%)
Household members - total	28,176	100	26,571	100	8,525	100
Registered residence in the household	27,287	96.8	25,773	97.0	8,350	97.9
Residence registered in Slovenia	889	3.2	798	3.0	175	2.1
Belong to statistical population	877		780		171	
Outside statistical population	12		11		4	
Residence not registered in Slovenia	0		0		0	

Internal
redistribution

Under-
registration



Census labour force status data

LFS data available 6 months later

Over-
registration

Labour force status (para.503)	Nr. (1,000)	HQ (%)	LQ (%)	IMP 2014	IMP 2015
Working age pop.	1,760	85.5	13.2	1.29	1.17
Employed (1.1)	800	97.1	1.7	1.19	1.12
Unemployed (1.2)	126	96.2	2.7	1.12	0.89
Schooling (2.1)	173	53.1	45.8	1.09	0.97
Pensioner (2.2)	537	95.4	4.1	0.50	0.42
Others (2.4)	124	2.0	92.2	5.73	5.63



Target survey – sample (1)

- Criteria
 - Population (over-registration in CPR)
 - No data on LFS for 3 consecutive years
 - Foreign citizens without LFS data last year
 - Slovenian citizens with temporary residence only and without LFS data last year
 - Outside population (under-coverage in population statistics)
 - Slovenian citizens registered as living abroad (30,000) but having information on LFS in Slovenia



Target survey – sample (2)

- Total sample –1 January 2015 data
 - Over-registration group – 15,490
 - Outside population group – 2,703
- Final sample update (1 March 2016 data)
 - Common dwelling / household
 - Death or emigration
 - Expired residence permit
- Final sample - 14,219 (11,678 + 2,541)



Target survey – methods

- 2 methods applied using the same very short questionnaire – 2 pages (9 questions)
 - Postal method
 - Prepaid envelope enclosed
 - Field inquiry (non-response follow up)
 - Face to face interview using PAPI method
 - 7 interviewers
 - 5 different areas selected



Target survey – results (1)

- Postal survey results
 - Low response rate expected in advance

	<i>Nr. of respondents</i>	<i>Letters returned by Post Office</i>	<i>Filled-in questionnaires</i>	<i>Non-response</i>
Total	14,219	11.5	17.5	71.0
Over-registration	11,678	13.6	16.0	70.4
Under-coverage	2,541	1.6	24.6	73.8

Target survey – results (2)

- Postal and field survey results
– Four categories of responses

	<i>Total</i>		<i>Postal survey</i>		<i>Field survey</i>	
	<i>All persons</i>	<i>Population</i>	<i>All persons</i>	<i>Population</i>	<i>All persons</i>	<i>Population</i>
Total	6,037	5,009	4,122	3,457	1,915	1,552
Over-estimation	2,160	2,160	1,380	1,380	780	780
Living abroad	2,042	2,042	1,286	1,286	756	756
Administrative survivors	118	118	94	94	24	24
Under-coverage	719	-	522	-	197	-
Correctness	958	813	608	505	350	308
Not identifiable	2,200	2,036	1,612	1,572	588	464



CPR quality evaluation

- **CPR over-registration**
 - 0.7-0.8% on micro level
 - The most problematic – foreigners with permanent residence in Slovenia
 - Administrative survivors – improving quality
- **Population under-coverage**
 - 0.2-0.3% on micro level
- **Side effect of the survey**
 - 10% respondents deregister from CPR
 - 83% of them non-response



Statistical population data quality

- **Over-estimation on aggregate level – 0.5%**
 - Around 10,000 persons
- Last field 2002 Census
 - 1% double-counting (over-coverage)
 - 2% under-coverage



Conclusion

- There is still room for improvement CPR data by administrative authorities
 - But quality is better year by year
- Population (census) data based on register are more than satisfactory quality

Thank you for attention