

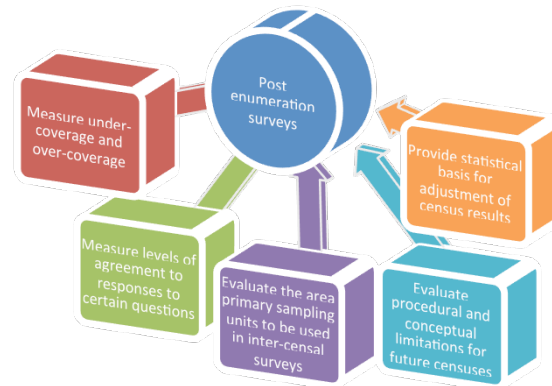
Development and Analysis of Data Quality Indicators for Population Data

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Why are census evaluations important?

Methods of census evaluations such as the post-enumeration survey (PES) allow users of census data to better interpret census results. By measuring content error, census evaluations can also help improve the design and implementation of future censuses.



What is a post-enumeration survey?

The post enumeration survey is a complete re-numeration of a representative sample of a census population and matching each individual in this re-numeration with information in the original census. This measures coverage and content errors.

Illustration of use of PES: Kosovo's 2011 census

The sample size was restricted by law to be 0.5% of the total population. One weakness of this PES was that only 20 enumeration areas could be used.

The purpose of the PES questionnaire was to:

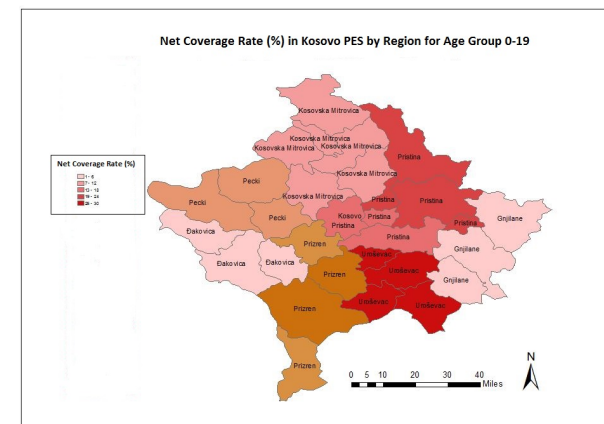
- Ask each re-interviewed person if he/she belongs to the census target population
- Confirm the census address of each individual
- Enable later on a successful record linkage at the address level and individual level of PES records with the original census records
- Allowing the content errors estimates for certain characteristics of the individuals

Three categories of census errors:

1. Coverage errors
 - a. Omissions
 - b. Duplications
 - c. Erroneous inclusions
 - d. Gross coverage error
 - e. Net coverage error
2. Content errors
3. Operational errors

Table 10 - Coverage errors and their rates at national, urban and rural levels

		Urban	Rural	National
DSE	Persons	689621	1086492	1774784
	CI 95%	678526;700715	1022434;1150550	1658209;1891358
Census counts	Persons	663218	1070979	1734197
	Rate	26403	15513	40587
Net coverage Error	CI 95%	(17081; 35714)	(-5009;36035)	(38427;42447)
	Rate	3.83	1.43	2.30
Census omission	CI 95%	(2.48; 5.2)	(-0.49;3.3)	(2.2; 2.4)
	Rate	33205	42585	76109
Census erroneous inclusion	CI 95%	(19968; 46442)	(-6084; 91254)	(74288;77931)
	Rate	4.75	3.6	4.3
Census erroneous inclusion	CI 95%	(2.8; 6.6)	(-2.1; 9.3)	(4.2; 4.4)
	Rate	6803	27073	35223
Census erroneous inclusion	CI 95%	(2417; 11188)	(6531; 47613)	(19367; 51678)
	Rate	0.99	2.5	2.0
Census erroneous inclusion	CI 95%	(-3.7; 5.6)	(-4.4; 9.4)	(-0.2; 4.2)



Use of post-enumeration surveys in developing countries

Many developing countries lack basic data to carry out census evaluation. For example, many developing countries don't have a comprehensive vital registration system so demographic analysis cannot be conducted. For many countries there is not a well developed survey program whose results can be used to evaluate the census in the household survey method and the interpenetrating studies method. Therefore, PESs are usually used in evaluating coverage and content error in censuses in developing countries. PESs can be supplemented by demographic analyses where the requisite data are available.

References

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