

POPIS '21

Stvorimo zajedno sliku Hrvatske.
(Let's create an image of Croatia together)

Lessons learned from censuses of the 2020 round

Group of Experts on Population and Housing Censuses
Geneva, Switzerland, 21-23 September 2022



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General features of the 2021 Census

Methodes used, period of implementation, Pilot Census

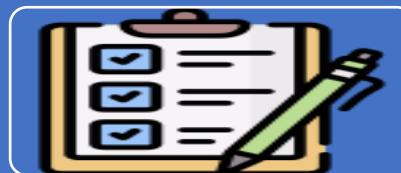


Challenges in the Census

Human resources, Census application, some methodological issues



Advantages and disadvantages of CAWI and CAPI methods



Conclusion

Lessons learned and directions for the next Census

General features of the 2021 Census (1/3)

Initially planned for April 2021

Carried out from 13 September to 14 November 2021

Reference day - August 31, 2021

Covid 19 pandemic and two earthquakes played a major role in determining the reference day

CAWI and CAPI methods were used

Costs: about 5 € per person

General features of the 2021 Census (2/3)

Implementation of the Census in the field:



The longest Implementation in the field since 1857

General features of the 2021 Census (3/3)

Pilot Census

- Postponed to March 2021

The aim was to:

- test new methods of data collection
- reveal possible shortcomings of the census application

Challenges in the Census



Human resources

- Recruitment and selection of enumerators and supervisors
- Relatively small number of applied candidates
- A large flow of enumerators



Census application

- How to determine the limit of complexity of the Census application
- Intensity of validation rules
- Possibility to add the addresses (house number) if necessary
- Online self-enumeration outside the borders, yes or no?

Challenges in the Census

Human resources - Recruitment and selection of enumerators and supervisors

Number of participants according to Censuses 2021, 2011 and 2001.

Participants	Census 2021	Census 2011	Census 2001
Enumerators	7 900	≈14 000	≈20 000
Supervisors	1 038	1 950	≈ 2 900
Extra hired processing workers	25	400-500	400-500

Source: Croatian Bureau of Statistics

Challenges in the Census

Human resources - Small number of applied candidates

Number of applied candidates, planned enumerators, enumerators participated in the Census and appointed enumerators who quit before the Census started, by counties

County	Applied candidates	Planned enumer.	Enumer. participated in Census	Enumer. quit before the Census starts	%
Zagreb county	1072	607	588	221	36,4
Primorje Gorski-Kotar	840	556	513	222	39,9
Osijek-Baranja	1369	541	538	237	43,8
Split-Dalmatia	1452	877	810	384	43,8
City of Zagreb	2391	1541	1402	514	33,4
Total (21) counties	14820	7941	7652	2868	36,1

Source: Croatian Bureau of Statistics

Challenges in the Census

Human resources - A large flow of enumerators caused by quitting



Challenges in the Census

Census application - complexity of the Census application

Application included:

- CAWI module
- CAPI module
- Census Management System module

CMS module

- Messaging system
- interactive maps
- reports generation
- finance reports
- log management system (monitoring changes of all data)
- rights management system-according to roles in Census
- many other functionalities

The more complex the application is

the more time it takes to create it

the longer it takes for users to fully master it

the more expensive it is

it takes more time to test it

Challenges in the Census

Census application - Intensity of validation rules (1/2)

Types of validation rules:

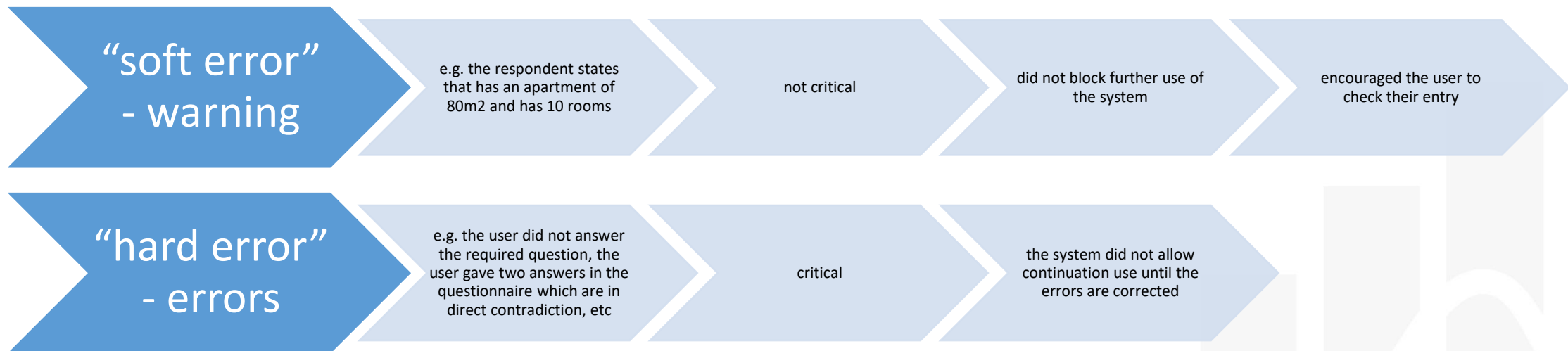
- Mandatory or optional questions
- Interdependence of questions or so-called skips - some questions were answered depending on previous answers
- interdependence of offered answers – questions offered answers depending on previous answers
- structural checks – e.g. number entry, letter entry, correct entry date of birth, entry of the correct OIB according to mod 11, 10 rules, etc.
- content checks – e.g. the person gave contradictory answers to two related questions

All validation rules were activated immediately after entering the answer

Challenges in the Census

Census application - Intensity of validation rules (2/2)

“soft” and “hard” errors were integrated in the answers on each question



Warnings and errors were displayed after entering and saving the answer

Challenges in the Census

Census application

option of manual entry the house number: Yes or No?

- newly added addresses were not recognized by the program
- in a large number of cases, newly assigned addresses by e-respondents were wrong
- in processing phase, were assigned to the right address

online self-enumeration outside the borders: Yes or No?

- country in which the person was self-enumerated is located according to the IP address
- special attention were dedicated to these persons in order to determine their real place of usual residence.

Advantages and disadvantages of CAWI and CAPI methods (1/2)



CAPI advantages

- enumerators can clarify questions that may be unclear to respondents
- can reach all enumeration units



CAWI advantages

- do not require trained enumerators
- safer environment in the circumstances of COVID-19
- reduce costs
- Self-enumeration at the time of their choice



CAPI disadvantages

- requires well-trained interviewers
- costly
- coverage error is possible
- takes time to collect data



CAWI disadvantages

- coverage limitation
- rely on the respondent to fill in a survey accurately without the guidance of an interviewer

Advantages and disadvantages of CAWI and CAPI methods (2/2)

	CAWI	CAPI
Population Coverage	Low-medium	High
Initial investment	Low	High
Cost per interview	Low	Medium-high
Reliability of collected data	Low-medium	Medium-high
Rate of dropout	Low-medium	Very low
Good for long questionnaire	Low-medium	High
Good for complex questionnaire	Very low	High

Source: Croatian Bureau of Statistics

Conclusion, lessons learned and directions for the next Census

planned to:

- improve and modernize the data collection process,
- improve the accuracy and quality of collected data,
- improve the efficiency of fieldwork management and
- improve data processing

SUCCESS

FAIL

Conclusion, lessons learned and directions for the next Census

The pandemic had a significant impact on the preparation and implementation of census

- changes in the legal framework
- changes in education
- overall reorganization of the Census (additional costs of transport, testing, protective equipment, loss of enumerators due to quitting...)

Earthquakes caused an introduction of new questions and modalities

- get information about people who had left their homes because of the earthquake

An online education was prepared and implemented

- had certain benefits, it also showed to have certain drawbacks

CBS created a quite complex census application

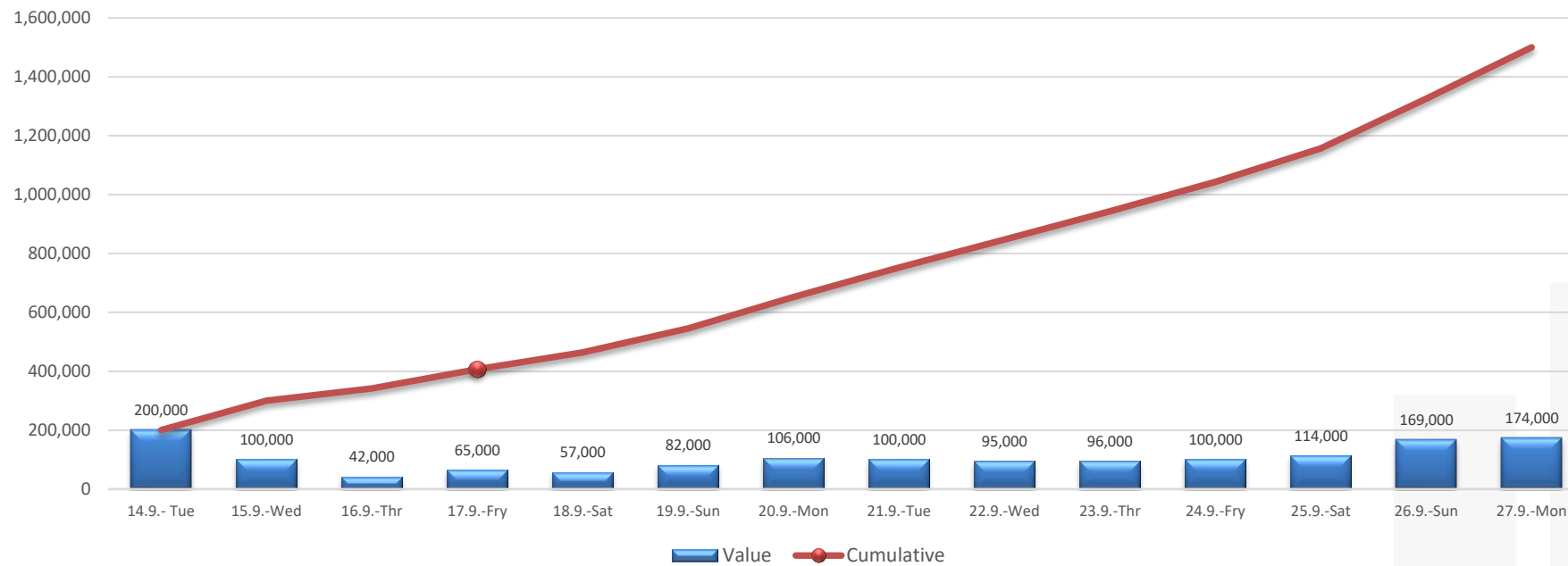
- A line has to be drawn

The questionnaire has been designed to be user friendly and simple

- The understanding of the methodology and definitions by ordinary people was sometimes questionable

Conclusion, lessons learned and directions for the next Census

Number of self-enumerated persons per day



Conclusion, lessons learned and directions for the next Census

Census 2031

- Traditional?
- Register based?
- Combined?



No answer at least until 2025

