



Combined data sources to improve the coverage and quality of the Census dataset

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3rd Expert Group meeting on the revision of the UN Principles and Recommendations for the 2030 round of censuses.





2023 Census

Planning and Budget

Experimental Census

Pre-census of addresses

Web e-Census CAWI

Face-to-face Census CAPI

Recuperation 5

2020

2022 Nov/Dic

2023 Feb/Mar 2023 May

2023 Jun/Jul 2023 Aug











+738.000

web responses





60%

Web responses of total occupied dwellings





0,2%

Web questionnaires started without finishing

WEB QUESTIONNAIRE

2023 CENSUS - URUGUAY

Web Ouestionnaire Features



Primary data capture tool

+ INFO

98%

The access to the form was restricted to dwellings with electricity service.



Average web questionnaire filling time

Web responses were

georeferenced via the

electricity meter number



- Usability
- Accesibility
- Security
- Concurrence



High performance

To access it was necessary to enter with a electricity service meter and account #, the system verifies that the pair has not been used and then requests the information of the informant, Name, Surname, personal id number and a contact media (cell phone number or email) to send the entry code

⇔ VOLVER



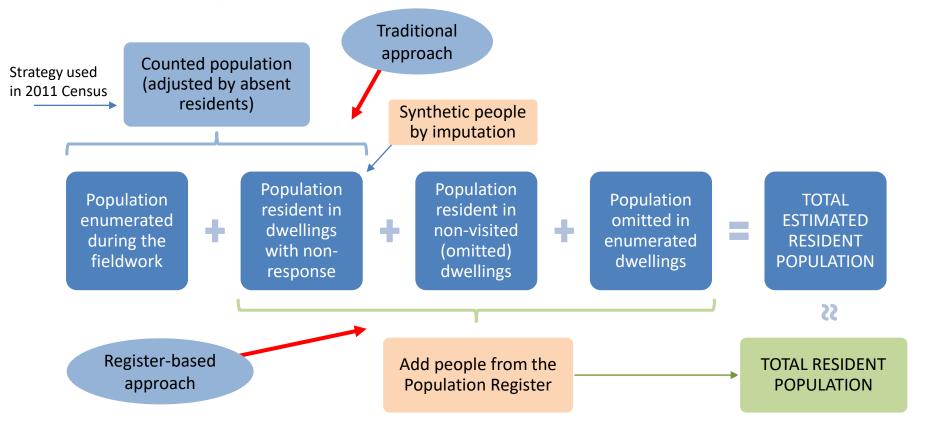






- De Jure Census (usual place of residence).
- Census day: May 31, 2023.
- Multi-modal: CAWI, CAPI, CATI (few cases), Admin registers of collective dwellings (prisons, hospitals, etc.).
- 1 month (May) CAWI, 3.5 months CAPI
- Estimated population (enumerated by Census + PES): 3.5 millions

Components of the total estimated resident population in a De Jure Census



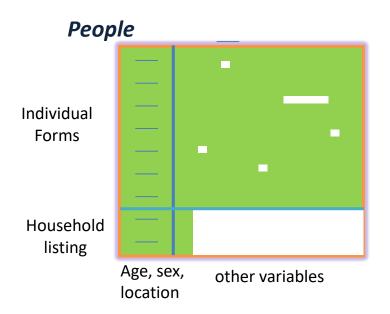
Use of the Population Register to "add people" to the Census dataset

- 1. People not listed in enumerated households in census. E.g.: Not counted children of enumerated mothers (Birth Certificates).
- 2. People not enumerated in households with non-response.
- 3. People not listed in not enumerated/visited dwellings.

Based on NZ 2018 Combined Census experience

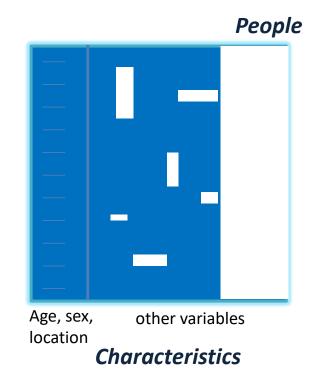


Census responses



Characteristics

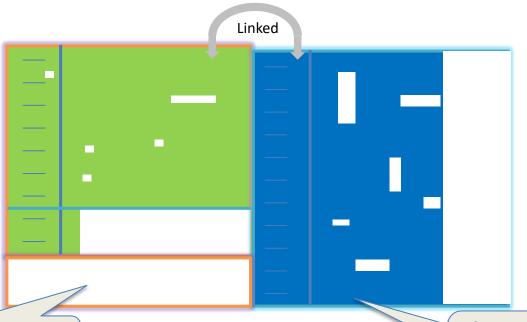
Admin resident population



Based on NZ 2018 Combined Census experience



Census responses Admin resident population

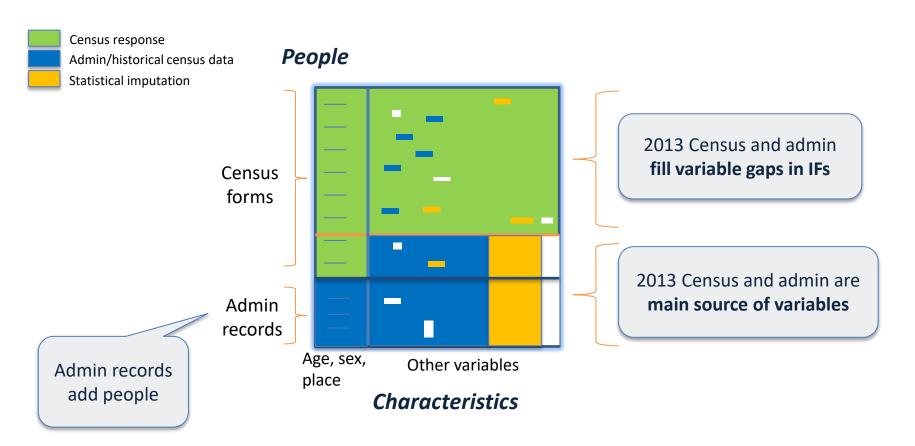


People missed by census

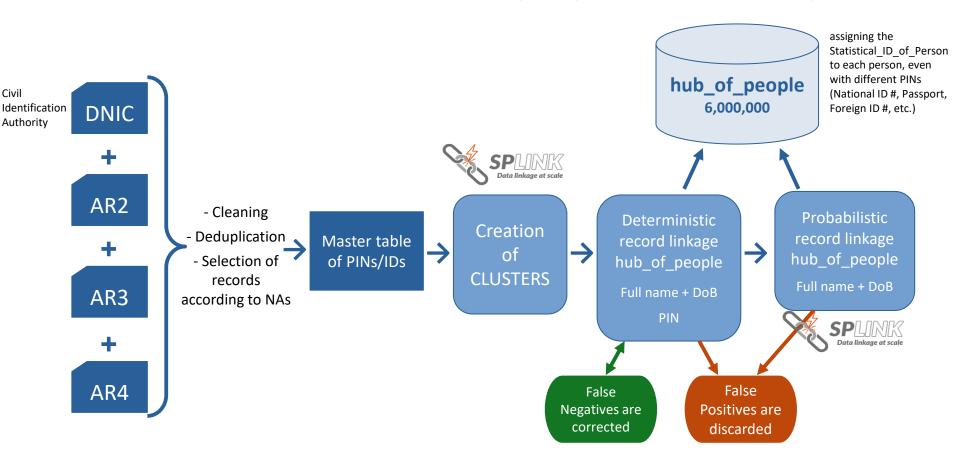
Some of these admin records are added to the census file to count people who were missed

Based on NZ 2018 Combined Census experience

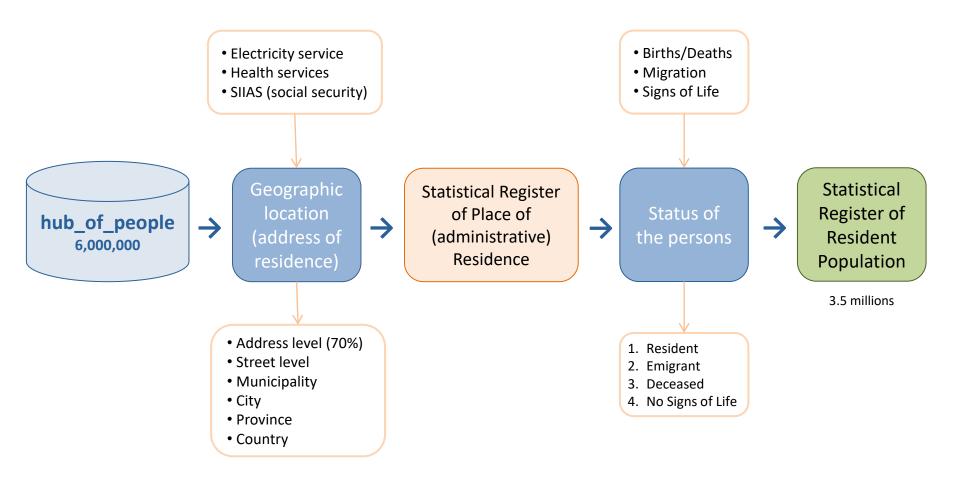




Creation of the Master table of people: HUB-of-People



Creation of the Statistical Register of Resident Population (SRRP)



Step 0. Update and Review of the SRRP (REPR)

- 1. Update of the <u>Statistical Register of Resident Population (SRRP)</u> with Signs of Life (SDV). Census date 31/May/2023
 - a. SIIAS system (+60 admin registers). System of Integrated Information on Social Area.
 - b. Health: RUCAF (affiliates), Covid Vaccinated and Covid+
 - c. Education (public): ANEP, UDELAR (kinder, primary, high school, University).
 - d. Active workers, retired and pensioners (BPS).
 - e. Active services of electricity (UTE).
 - f. Migrations, I/O border controls (more than 180 days in UY, in the last 12 months).
- 2. SRRP 2.0 Review: Conceptual Area + Expert demographer
 - a. Distribution of the population by age, sex and geographic area

Step 1. Census - HUB_of_People Linkage

Census Enumeration (3,139,000) Deterministic record linkage by PIN and other variables are verified (Names, DoB)

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Probabilistic record linkage in the rest of the cases.

Cases with unique PINs: 2,854,168
99.55% matching by PIN

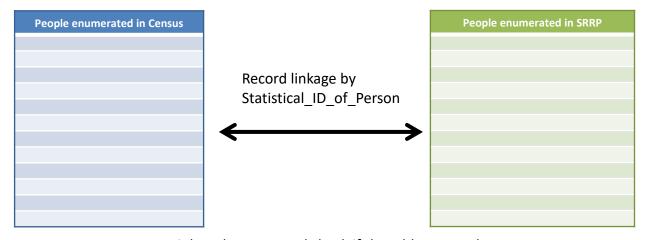
It links

Statistical_ID_of_Person & DoB

HUB-of-People

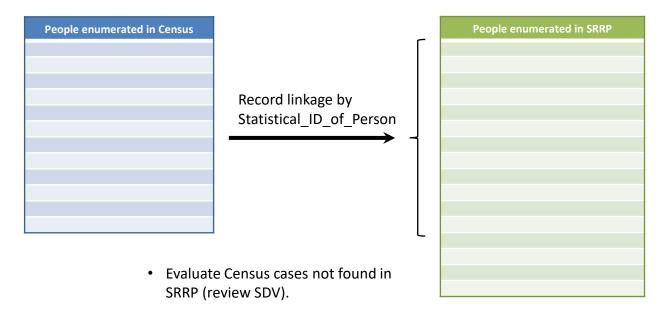
(Master table of people, 6,000,000 cases)

Step 2. Compare Census-SRRP addresses



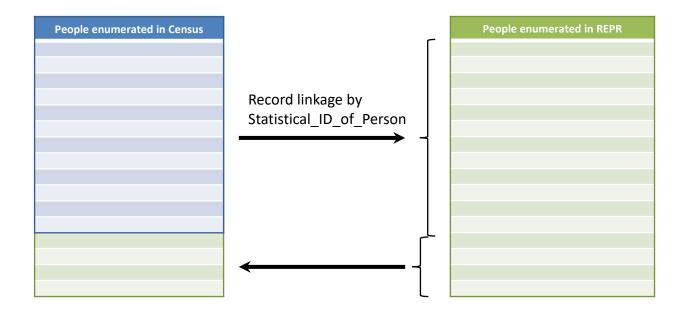
- Link each person and check if the address matches.
- If it matches, assign a higher "weight" to the source of that address in the SRRP.
- Once the address sources have been recalibrated, rerun the SRRP address assignment based on this recalibration.
- Compare addresses again with Census.

Step 3. Census-SRRP Linkage



 The cases not linked from the SRRP to the Census are the "administrative enumeration" cases to be added to the census microdata (350,000 approx.)

Step 4. Add people from the SRRP to the Census



 The cases not linked from the SRRP to the Census are the "administrative enumeration" cases that are added to the census microdata (approximately 350,000).

Step 4.1 Add people from the SRRP to the Census

- Children under 14 years old who are not enumerated are added to the census household where the mother where enumerated. The Birth Certificate is used to obtain the PINs of the child and his/her mother.
- "Households" or members of the same dwelling are formed from the SRRP (address of "administrative residence" and relationships).
 - First, they are assigned to census addresses with "non-response" status.
 - The rest are assigned at the level of geographic areas ("blocks", municipalities, towns or provinces).

Source of information of the combined census

