

## Dealing with frame imperfections in the next register-based Italian Census Population

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Next 2021 Italian Census of Population round will be register-based according to the Istat Population Register (PR), which includes the list of the Italian residents. Several administrative archives such as administrative population register, tax register, social security data, etc. are used to cover the entire population. PR hides frame imperfections as missing population units, inclusion of non-population units and unrecognized duplicate listing, incorrect localization variables. Starting from PR, Istat is interested to count the living people, people that actually lives in a given place, for instance the municipalities, being different from PR because of the imperfections.

To deal with frame imperfections, Istat has planned a Population Coverage Survey (PCS). PCS will select a sample of municipalities and a sample of enumeration areas in each municipalities. Generally, these areas will be addresses selected from the Italian Address Register. However even this second register could suffer from imperfections and for some municipalities the design should select the standard enumeration areas defined for the 2011 Census criteria. The sampling design of PCS, is planned mainly: to be efficient for counting the living people: to control the household sample size that Istat expects to be around 400,000 and the household allocation at municipality level.