

The use of annual Swiss census data for longitudinal data analysis

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With the introduction in 2010 of the annual census in Switzerland, the use of data from administrative registers for statistical purposes and the systematic use of the new social security number as a unique person identifier in the data, the potential of longitudinal analyses in the population domain has become enormous.

Until now, the production of population and household statistics (STATPOP) has been limited to the production of quarterly and annual headcounts and movements, without taking into account data from previous years. As part of scientific projects, the research community has the possibility, since 2014, to make requests for data linkages and thus obtain the linked STATPOP micro-data over several years, possibly in addition to other data.

In 2019, the Federal Statistical Office (FSO) started developing a new longitudinal statistical product based on annual and quarterly STATPOP data. These statistics will be recalculated each year with new STATPOP data. This new product will enable the FSO to easily calculate and update longitudinal indicators in the population domain, but above all it will make it possible to offer researchers and FSO data users harmonized data at a reference date and consistent over time. Cohort monitoring and biographical analyses will thus be directly possible, without lengthy prior data preparation.

The approach followed for the development of this longitudinal statistic is of a modular type: a basic product, containing immigrations, emigrations, births and deaths as well as the corresponding variables and demographic variables (such as date of birth and sex, for example) is developed in a first step. Each additional topic (e.g. nationalities and residence permits, marital status, households, moves within Switzerland) is developed semi-independently and integrated into the system as it becomes available.

The presentation will show this modular approach as well as examples of longitudinal indicators calculated from these longitudinal data.