

Summary

A census is the overall process of collecting, compiling, evaluating, analyzing and publishing demographic, economic and social data on all persons in a country at a given time. The purpose of Swedish censuses has been to produce statistics on the size and composition of the Swedish population, thus providing a basis for planning and research. In recent years, the concept of a census has also emerged in the political debate, and although census data were actually produced as late as 2021, the Swedish parliament and government decided during the same time that a large-scale national census should be prepared in Sweden.

In this report, we provide a comprehensive overview of censuses in Sweden, how they have been conducted historically, the challenges that have existed and still exist in organizing censuses, and the purpose and contents of different censuses. Our overview takes a historical perspective by describing how the situation of censuses in Sweden has changed over time, and an international perspective by providing a picture of the extent to which censuses have been carried out in other parts of Europe and the rest of the world and the ways in which the situation in Sweden differs from that in other countries. The report also provides an in-depth view of the challenges and opportunities associated with Sweden's existing system of register-based censuses. The latter includes an analysis of the extent of and various problems related to the so-called over- and under-coverages in Swedish register-based population statistics. Finally, we discuss the need for and the possibility of conducting new censuses in Sweden.

Censuses in Sweden

Sweden was a pioneer in establishing an efficient system for collecting high-quality and nationally comprehensive population data. A procedure of regular compilations of census data was established with the founding of the Tabulation Office in 1749. In the first centuries, the collection of census data was managed by compiling existing data from the parish registers of the Swedish State Church.

During the second half of the 20th century, census data were also collected via questionnaires addressed to the Swedish population, organized by Statistics Sweden (the national government authority responsible for official statistics). The last questionnaire-based census was conducted in 1990. At that time, the method was beset by several problems affecting the quality of data, including with response rates and a lack of cooperation from the population. In its final years, the census could not be used to validate other population statistics, instead data from population registers were used to validate whether the Population and Housing Census (FoB 90) was reasonably reliable.

In the aftermath of FoB 90, progress has been made towards collecting the required census data from existing and newly established administrative registers. The move towards register-based censuses was initiated in the Nordic countries and has also gone furthest in these countries. This development builds on a long tradition of efficient population registration and a system of personal identity numbers that allow data to be linked from different administrative registers. In recent decades, the scope and quality of various register data have broadened and deepened in such a way that virtually all data normally included in a census can be collected through registers. In Norway and Sweden, this was finally made possible by the establishment of national apartment registers, which make it possible to link registered residents to each other in unique apartments. This enables, among other things, the compilation of data on households and household structures. The latest census in Sweden was scheduled for 2021 in the form of a register-based compilation of population statistics for the EU Census programme, with the aim of creating internationally comparable census data.

Today's system

The comprehensive register-based system means that the collection of data on the composition, geographical distribution and size of the population is much more reliable in Sweden than in almost any other country. In addition to its higher quality, the register-based system allows census data to be collected at a lower cost than with previous methods. As the data are updated daily to reflect Sweden's population register, it also means that population data are available as continuously updated information. Nevertheless, there are several problems to consider also in a Swedish and Nordic context. The main problem is that population registers, despite their high quality, always have a certain degree of over- and under-coverage of the registered (*de jure*) population in relation to the population that *de facto* can be considered as living in the country or at a given address. The Swedish Tax Agency has developed statistical models with Statistics Sweden to estimate the size of these sources of error. For 2019, the total population registration error was estimated to be around 2.1 per cent of the Swedish population. For individual-based population statistics at the regional level and for population registration in general, the largest source of error is that people are sometimes registered at a different address than where they actually live.

Another challenge for the current system based on the registered population arises in the context of compiling data for Eurostat, the EU statistical authority, with the aim of making statistical comparisons between regions and countries within the union. Unlike Sweden's system, where population statistics are based exclusively on the legally registered population, the EU definition is based on counting as part of the country's population all persons who can *de facto* be considered as living in a country for a period of at least twelve months. Further adaptation of demographic statistics to the EU guidelines may therefore require Statistics Sweden to make additional estimates of the size of the *de facto* population of persons who can be considered to have resided in the country for a period of at least twelve months but who are not or should not be legally registered in the country.

Final comments

Our conclusion – based on how population statistics have evolved and are now produced in Sweden and internationally – is that the method of stand-alone cross-sectional censuses has largely outlived its usefulness. The analytical value of data from a census at a single point of measurement has diminished when the same type of data can instead be organized longitudinally to study processes and population compositions that evolve dynamically over time. It is above all the possibility of studying what happens to groups of individuals over time that offers extended possibilities for in-depth analysis and research, and that distinguishes Nordic register data in international contexts. At the same time, the comprehensive system of continuously updated population data provides more quality-assured population statistics than what questionnaire-based censuses could provide. Returning to the previous questionnaire-based population and housing censuses would lead to information collection of poorer quality at a considerably higher cost. The possibilities of detecting errors and census fraud with such a method must also be considered very limited. A census involving physical door-to-door searches would be even more costly and inefficient in terms of the quality of the information that could be collected. The most realistic approach to obtaining a continued improvement in population statistics appears at present to be that the Swedish Tax Agency and other Swedish authorities continue to be given increased powers to develop their work on quality assurance with the population register, including better possibilities to coordinate. Swedish authorities have already been given extended powers of this kind, most recently following decisions adopted in the Swedish Parliament in 2022. The effects of these changes should be evaluated, including any unintended negative consequences.