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Experiences with census users: who they are, what they need, how they are involved**Using the Swiss and French census systems in the context of cross-border statistics****Note by the Rhône-Alpes Regional Directorate of the National Institute for Statistics and Economic Studies (INSEE, France) and the Cantonal Statistical Office of the Canton of Geneva (Switzerland)***Summary*

Created at the initiative of the Franco-Genevan Regional Committee, the Cross-border Statistical Observatory of the Geneva-border Area (OST) studies since 2001 the territory corresponding to the departments of Ain and Haute-Savoie, on the French side, and cantons of Geneva and Vaud, on the Swiss side. The OST is operated by the Cantonal Statistical Office of the Canton of Geneva (OCSTAT) and INSEE Rhône-Alpes. In this joint communication, the way French and Swiss census systems are used in the studies of the OST is presented. The issue of comparability of data from national censuses is discussed. The contributions of these data for a better understanding of "local" issues, such as the number of cross-border workers or the number of secondary residences are also mentioned. In the conclusions, some proposals for improvement of the two census systems in the context of the production of cross-border statistics are presented.

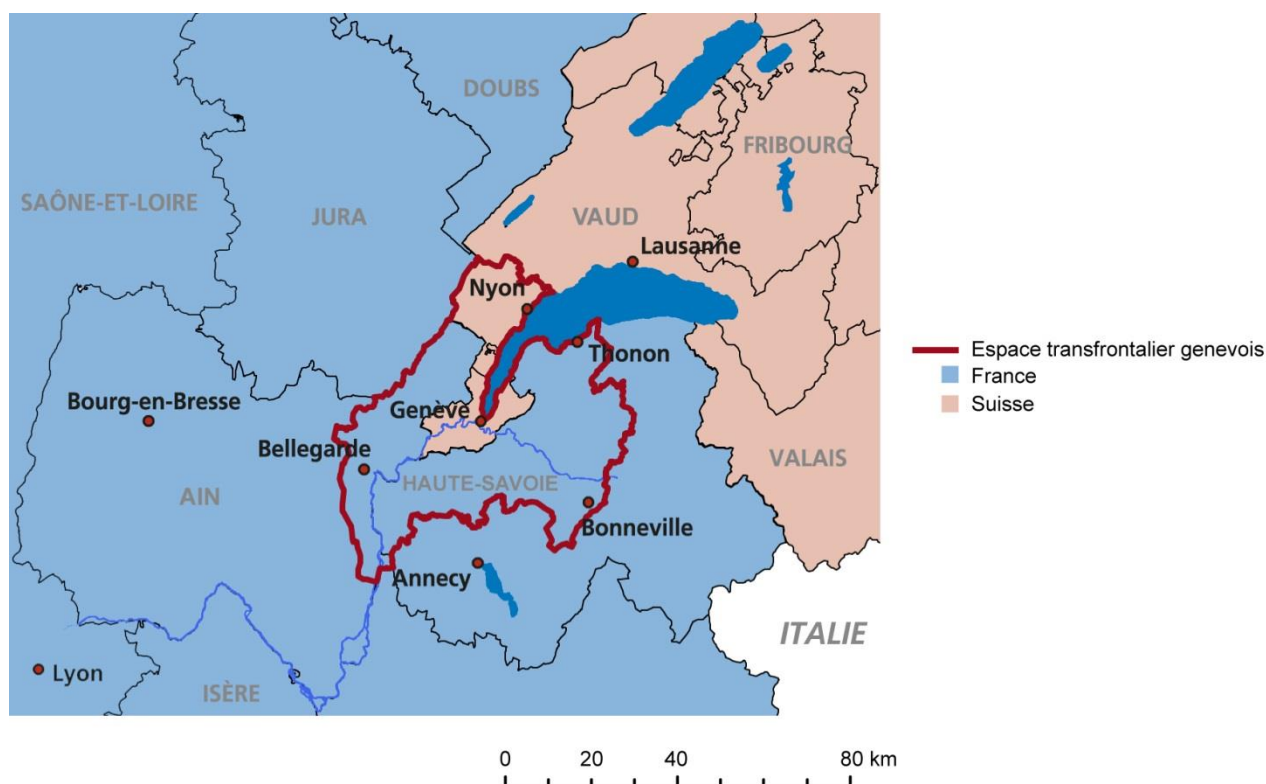
¹ This document presents an unofficial English translation of the original document, submitted in French.

I. Introduction

1. Created at the initiative of the Franco-Genevan Regional Committee, the Cross-border Statistical Observatory (OST), which covers the French departments of Ain and Haute-Savoie and the Swiss cantons of Geneva and Vaud, is operated by the territorial statistical institutions concerned: the Cantonal Statistical Office of the Canton of Geneva (OCSTAT) and INSEE Rhône-Alpes. Statistics Vaud (STATVD) which, originally, was party to the Cross-border Statistical Observatory, had to withdraw on 1 January 2007.

2. The OST is an official statistics institution, which applies the fundamental principles of statistics. It guarantees the public nature of the statistical information produced (availability, clarity of concepts and methods, etc.). It enjoys scientific independence and ensures impartiality in the preparation and presentation of information. It respects dissemination rules, such as accessibility, simultaneity, etc. It ensures the quality of statistical information (implementation of professional standards, scientific methods and professional ethics). It ensures the protection of privacy, in particular by respecting statistical confidentiality.

3. The OST regularly publishes statistical studies on the territory, based on the supply of official statistics from both countries. On the French side, the population census (RPF) is the main source of data on population and housing. On the Swiss side, the data of structural survey (RS), a sample survey which is one of the components of the new Swiss census system, are an indispensable source for describing the Swiss population. However, the annual sample size does not allow producing reliable results at the level of communes, except for the largest ones. The aggregation of several years of record ("pooling") will partly address this problem.



II. Existing uses of the French population census and the new Swiss census system in cross-border statistical activities

4. The first results of the new French population census system were published in 2009, with 1 January 2006 as statistical reference date, while those from the new Swiss system are only available since 2013 (results as of 31 December 2010). This explains the comparatively low use of Swiss data against the French data in the following review of the work of the OST.

5. Each year, the OST publishes an "Yearly Review" [OST - 2008-2014] that provides the key figures in the Territory France-Vaud-Geneva (canton of Geneva, Nyon district, departments of Ain and Haute-Savoie) and the Geneva cross-border Area (canton of Geneva, Nyon district, and employment area of "French Genevois"). Since 2009, the population census figures are used annually to describe the evolution and structure of the population in the French departments and the employment area of the French Genevois. The municipal census data also allow mapping the evolution of the population at a detailed level across the territory. Since 2013, the results of the Swiss structural survey provide a better description of the population of the canton of Geneva and the Nyon district, for example in terms of professional activity and education level.

6. The data of the 2006 French census were used to analyse residential migrations from Switzerland to the Rhône-Alpes region, by studying the persons who were living in Switzerland five years before the census [OST - 2010a].

7. As part of the "Urban Audit" project, Eurostat centralizes data on over 300 European urban agglomerations, including Geneva. Data is provided by national statistical offices, and come largely from censuses. Two publications by the OST [OST - 2010b; OST - 2013a] use these data to describe the Geneva agglomeration in European comparison.

8. The French census data, combined with statistics on the Swiss population, form the basis of demographic projections of the cross-border area. These projections were produced for two periods: 2005-2030 [OST - 2008] and 2010-2040 [OST - 2012]. The next exercise will cover the period 2015-2040.

9. A count of the employed persons working in Switzerland is an important contribution of the French census to the knowledge of the territory: their description, for example in terms of age and socio-professional category, was the subject of two specific studies [OST - 2013b; OST - 2013c] almost exclusively based on census data.

10. In 2014, two studies, one on the housing and building stock and the other on the housing conditions, were published by the OST [OST - 2014A; OST - 2014b]. On the French side, both for the description of the state of the stock for the housing conditions, the main source of data is the population census. On the Swiss side, the Geneva cantonal statistics on constructions is the main source of information about the buildings and housing stock. With regard to housing conditions, the data of the structural survey were used.

11. To identify the flows of cross-border or inter-cantonal commuters working in the canton of Geneva, OCSTAT used data from the French census jointly with data from the Swiss structural survey [OCSTAT - 2013]. The combined use of French and Swiss sources allowed in particular estimating the number of persons of Swiss nationality residing in France but working in Geneva. This subject will be discussed later.

12. The census data have also been used twice by INSEE as part of an analysis of cross-border workers at national level [INSEE - 2011; INSEE - 2015].

13. Also at a national level, the French census data were used by the Swiss Federal Statistical Office in its new definition of urban type space [OFS - 2015] to define the borders of cross-border agglomerations (Basel and Geneva).

14. This overview of the use of census data in the context of cross-border statistics highlights the more frequent use of French census data compared to the structural survey data in cross-border statistics. Two explanations are presented:

(1) The first results of the French census at the municipal level were published in 2009, while the first results at the cantonal level of the structural survey were published only in 2013. It will certainly be necessary to wait for a "pooling "of five years of the structural survey to obtain results for small municipalities, in 2017.

(2) The structural survey is an annual survey which is part of the new Swiss census system. This system is based on data from registers, complemented by the structural survey and five-year thematic surveys. Unlike France, Switzerland can rely on a population register that allows producing population statistics (STATPOP). It is the same for buildings and dwellings, which are recorded in a register from which statistics are derived (STATBL). These statistics provide reliable results at municipal level, and are supplemented by the structural survey for a number of variables that are not available in the registers (occupation, education level, household composition, tenure of housing, rent, etc.). The structural survey is therefore not the reference source when it comes to producing accurate counts of population or dwellings.

15. Furthermore, several Swiss cantons, including Geneva and Vaud, have their own population and construction statistics. So far, it is mainly these figures that were used in the publications of the OST, often because the results of federal statistics were not available, or for reasons of comparability over time. The use of cantonal statistics, however, raises problems of comparability between them, which could be avoided in the future through the use of federal statistics.

III. Comparability of Swiss and French census data

16. In France as in Switzerland, there were major changes in census systems during the last decade. In both countries, the "exhaustive" census mode was dropped in favour of two different methods. In a very simplified way, the French census is based on a collection that lasts five years: during this period, all municipalities with fewer than 10,000 inhabitants are exhaustively surveyed, while a sample of 40% of households in municipalities with more than 10,000 people are surveyed (8% per year). After five years, the results for municipalities with fewer than 10,000 inhabitants are produced by extrapolating data in order to get results with a corresponding reference date of January 1 of the middle year. To obtain results for municipalities with over 10,000 inhabitants, the average number of persons per dwelling, calculated from the five annual samples, is multiplied by the number of existing dwellings on 1 January of the middle year. Because of the non-independent samples of two consecutive years of reference, annual comparisons are strongly discouraged in favour of five-year comparisons. This census mode induces a relatively frequent confusion for users between the reference year and the year of census production. In addition, a change introduced into the census questionnaire will be visible in principle only after a complete cycle, that is to say after five years.

17. In Switzerland, as part of the structural survey, a sample of the population is interviewed each year (200,000 people). From one year to another, the samples are considered independent, and annual comparisons are possible. Furthermore, the sample weights are calculated so that the margins of main subtotals match with population statistics derived from registers. However, a single year of survey does not produce reliable results at

the sub-cantonal level. To increase the accuracy of results, it is possible to aggregate the results of three or five years of surveys to produce average results for three or five years ("pooling"). This raises the problem of the comparability of the results over time: while in France they have a unique reference date, the results from the pooling are averages. The quality of population statistics, to which the structural survey is matched, was analysed by the Federal Statistical Office as part of a quality survey on the new census system conducted in 2013 [OFS - 2014]. The results show that, in general, the contents of registers are very good and that the statistics derived from it are reliable.

IV. Contribution of census data to cross-border analysis

A. Cross-border workers

18. In Geneva conurbation, cross-border workers are mostly people living in France and working in Switzerland. Their enumeration and identification is a key challenge of the analysis of cross-border territories.

19. On the Swiss side, there are two sources of statistics on cross-border workers ("frontaliers"): the cantonal statistics on border work permits ("permis frontaliers") and Federal Statistics on cross-border workers (STAF). These two statistics have a very fast pace of production and are therefore useful for the conjuncture analysis. However, they suffer from two weaknesses: they concern only workers with cross-border work permit (G permit, mandatory for foreign residents who do not have Swiss nationality), and the information on cross-border workers are very limited. On the French side, the census allows, thanks to the localization of their workplace, to identify cross-border workers and define their socio-demographic profile (see on this subject the OST documents [OST - 2013b] and [OST - 2013c]).

20. If the French census is the only source that can enumerate exhaustively cross-border workers (including international civil servants), the results arrive relatively late (about 3 ½ years after the reference date) considering the importance of this issue in the Geneva area.

21. Moreover, the French census does not allow declaring a second citizenship. But the Franco-Swiss dual citizenship is relatively common: in 2012, the Swiss nationals registered in the Swiss Consulate General in Lyon who have a second citizenship are 17,499 in Ain and 46,977 in Haute-Savoie. Given the uncertainty on the citizenship that the surveyed person states when he/she has two citizenships, the census does not allow, by itself, estimating the number of Swiss nationals working in France. However, as it has been done in a publication of the OCSTAT [OCSTAT - 2013], by crossing the Swiss sources on foreign cross-border workers and international civil servants residing in France with the census, it is possible to have an order of magnitude for the number of Swiss (including dual nationals) residing in France and working in Geneva.

22. The possibility of declaring a second citizenship in the French census will be discussed in the "Possible improvements" section.

B. Very partial response to a local problem "false secondary residences" in France

23. The French residents working in the Canton of Geneva are taxed at source. Under the terms of the agreement signed by the Swiss Confederation and the French Republic in 1973, the Canton of Geneva pays annually to the French State a financial compensation corresponding to 3.5% of the sum of gross salaries of French residents working in Geneva.

This financial compensation is then paid back to the departments of Ain (24% of total) and Haute-Savoie (76%). The General Councils of the departments are responsible for the redistribution of these amounts to their municipalities.

24. Moreover, like all French communes, those of the French Genevois receive from the French state an annual global operating grant (DGF) largely determined by the number of occupants of primary residences. The counting of cross-border workers is therefore a significant financial issue for municipalities and departments of Ain and Haute-Savoie. But for several years, some mayors of French municipalities near the Franco-Geneva border denounce a practice that consists in occupying permanently a residence in France, while being officially domiciled in Switzerland (see [LE TEMPS - 2014]). These residences, though they are occupied throughout the year, are reported as secondary residences, and their occupants cannot, therefore, be regarded as cross-border workers resident in the municipality. An estimate of 20,000 "false secondary residences" was suggested. In a publication on the housing stock in the Geneva border region, the OST used the French census to shed some light, albeit incomplete, on this issue [OST - 2014A].

25. As mentioned above, the French population census gives a picture of the entire housing stock, including secondary residences. It is thus possible to observe that in the French part of Geneva's border area, the proportion of secondary residences in the entire stock fell from 12.2% in 1999 to 9.4% in 2010, partly due to a strong construction activity of primary residences. The number of secondary residences in 2010 is 20,200, and it is known through another source based on tax data (Filocom), that only 27.2% of the owners of these secondary residences live outside France.

26. The crossing of this information leads to the conclusion that the figure of 20,000 "false secondary residences" is probably highly overestimated. However, the French census does not collect characteristics of secondary residences and their owners.

V. Possible improvements

27. Given the wide overhaul of census systems that took place since the early 2000s, the first improvement is to wait for a "natural" improvement due to the maturation of these systems. In France, a major milestone was achieved with the release of the results of the 2011 census, which for the first time allowed a chronological comparison with the results obtained with the same census mode, that is to say the 2006 census.

28. On the Swiss side, improving the accuracy of the results via the "pooling" of three consecutive years is possible from 2015. The next step will be reached in 2017 with the "pooling" of five consecutive years.

29. The Federal Statistical Office and INSEE participated in joint work on the censuses conducted by Eurostat. It is therefore natural that, for most of them, censuses should be readily comparable. However, whether in the context of cross-border statistics, or more generally the national comparison, there are some possible improvement points.

30. The following proposals mainly concern the French census and are based in part on the report of the working group of the CNIS "Evolution of the questionnaire of the population census" [CNIS - 2012].

(a) Although the census includes secondary residences in its housing stock, it would be useful to have additional information on the owners. For now, some basic information is available through the operation of a statistical source based on tax data (Filocom).

(b) The possibility for the respondent to declare a second citizenship in the questionnaire would allow counting more easily and accurately the Swiss nationals residing

in France. An adaptation of the questionnaire, which would allow a person with two nationalities to declare that it is French citizen, while indicating his second citizenship in the box intended for foreign citizenships would be a natural way to gather this information.

(c) The coding of the professional category according to the ISCO international classification in the French census would greatly facilitate comparisons with the structural survey, which is already using ISCO.

(d) In the local public debate, the issue of health care access conditions occupies a more important place than the health status of the population. It would be useful to introduce, as suggested by the CNIS working group in its proposal no. 8, the questions Q1 to Q3 of the European mini-module on health, concerning health status in general. The Swiss health survey, which is one of the five-year thematic surveys of the new Swiss census system, already includes such questions.

(e) The categories of the question about the mode of transportation to work, group together motorcycles and bicycles, which poses a problem of comparability with the structural survey, which separates these categories. This change has already been made in the questionnaire.

For the reasons mentioned above, the structural survey data have been little used so far in the context of cross-border statistical work. Therefore, the necessary perspective to suggest improvements is still missing.

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