

## **MODERN, BASED ON ADMINISTRATIVE DATA, RESOURCE SAVING POPULATION AND HOUSING CENSUS IN LATVIA**

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### **Chapter 1. Introduction**

In Latvia population censuses have a rich history and famous traditions. The first census was conducted in one part of Latvia - Kurzeme in 1863, and in 1867 in the towns of Vidzeme. The most complete population census during the 19th century was conducted in 1881, and covered Kurzeme and Vidzeme. The first population census covering the entire territory within its current boundaries was carried out in 1897.

Since the proclamation of the Republic of Latvia during the period between the First and the Second World War, four population censuses were conducted: in 1920, 1925, 1930 and 1935. At that time considerable attention was paid to the quality and accuracy of data.

After the Second World War, as in other Baltic states that had been incorporated into the USSR, four population censuses took place in 1959, 1970, 1979 and 1989. The programme and methodology of these censuses were formed and worked out by the Statistical Committee of the former USSR. The questionnaire for the 1989 Census, which was different from all previous censuses, contained seven questions concerning the living conditions of the resident population. Data from these censuses were used mainly for government planning, i.e. working out five-year plans for economic and social development. These results were not available to citizens and open publications, especially data from the 1979 Census.

Soviet period population censuses contained most of the questions recommended by the United Nations and other international organisations and authorities. Data from these censuses were very important for statisticians and researchers. They helped to show the dynamics of the demographic and socio-economic processes, and were used for international comparisons and publications. Unfortunately it is not possible to reach complete compatibility on this basis. The concept of the household was not applied in previous censuses in Latvia. Instead the concept of the family was used (different from the internationally used family nucleus concept). In addition researchers encounter problems related to data comparability in the fields of economic characteristics of the population - main sources of livelihood, social groups, employment, occupation, etc.

### **Chapter 2. 2000 Population and Housing Census in Latvia**

Since reinstatement of independence in 1991 the 2000 Census was the first population census in Latvia. The objective was to obtain all-round and unbiased information on the number, composition, occupation, and sources of income of the population. Information also had to be collected on dwellings and other indicators included in the Census Programme in each city and rural municipality under circumstances when the economic situation, population structure and demographic processes had drastically changed. The need to carry out the Census was also provoked by the fact that 11 years had elapsed since the previous one. The project

represented the traditional method of enumeration combined with data from administrative and statistical registers.

The preparatory work on the recent census was started immediately after the Cabinet of Ministers had issued Regulations No 31/1995, in compliance with this the Central Statistical Bureau (CSB) was commissioned to prepare and conduct the regular population census. Regulations No. 165/1999 of the Cabinet of Ministers specified the census date indicating that all information had to be collected and compiled pursuant to the situation on 31 March 2000.

On 16 December 1999, the Parliament of the Republic of Latvia adopted the Law on the Population Census. This law provided for a strong legal basis for the 2000 Population Census. Pursuant to the recommendations of international organisations and the experience of other European countries, the law foresaw that all resident population to be recorded by the census - natural persons registered in the Population Register, as well as those natural persons who were not, but should have been registered in the Population Register. The law indicated that information characterising the mentioned person's dwellings had to be collected and compiled by the census.

In compliance with the task set by the Cabinet of Ministers, a Government Commission was developed to administrate the preparatory work for the 2000 Census. It contributed much in solving different issues as to the preparation of the Census and gave much support to the CSB in organising and conducting the most important statistical activity in 2000.

The census methodology and the range of questions were developed in compliance with the recommendations of international organisations - UN ECE and Eurostat - as well as requirements of the State, local government and other data users.

Two pilot censuses were carried out - in 1997 in two towns and in two rural municipalities, and in 1999 - in Riga. Each of these pilot surveys involved around five thousand people and verified different methods of data collection, comprehensibility of the census questions, responsiveness of the population, and also tested data processing equipment, machinery and software for potential census data.

Before the start of the Census on 31 March 2000, the machinery necessary for data collection and processing and the corresponding software was purchased. This involved scanners for questionnaires, computers, and other equipment. Census maps were used to delineate enumeration districts and during the fieldwork stage of the Census.

Publicity was addressed to all population groups in Latvia. Special attention was devoted to the youth and people living in rural areas. Newspapers and national radio and television were the means mostly used for publicity and informative communication. A toll-free phone centre was established at the CSB and its Internet site was involved. Information was provided through the CSB press releases on the implementation of the project's different phases.

Information was collected by specially chosen and trained enumerators who visited and interviewed the population at their place of residence from 31 March to 29 April 2000. Friday 31 March, at 00.00 o'clock was set as the critical census moment. People were able to visit statistical offices or 34 additional enumeration sections in Riga and answer the census questions. Over 5 000 people were involved in the project, 4260 of whom worked as field enumerators.

A part of the information pursuant to the Census Programme - answers to 10 of 33 questions - were obtained from the Population Register and from the information system of the State Revenue Service. A total of 14 questions were requested on each person residing in the dwelling and 9 questions were asked on

characteristics of the dwelling. Individual questionnaires were completed for each person aged 7 years and over. Finally, the branch of economic activity was checked with data from the Business Register available at the CSB.

Except 4 ECE countries that in the 2000 round carried out fully register-based censuses Latvia was among 5 other countries that used a combined method in the 2000 Census<sup>1</sup>.

The use of the personal identity code allowed combination of information on the person existing in different registers, increased the accuracy of the census data, and decreased the number of questions asked and the census costs.

A post-enumeration evaluation survey was conducted, from 11 May to 10 June 2000, to ensure the quality of the population census. Using mathematical methods, 1 % of all census enumeration areas were selected, where this work was carried out.

In order to accelerate processing of census data as compared with traditional methods (as carried out during the previous population censuses), an up-to-date data entry and processing system and software were developed with the support of the Latvian and Swedish governments; it was based on optical character recognition technology. Using high-capacity, fast-acting scanners, information from 820 000 household forms and over 2.1 million personal questionnaires were entered into the computing system over three months.

First provisional results of the 2000 Census were published in November 2000. Afterwards, in April 2001 a special statistical bulletin containing provisional results was printed and distributed to all public libraries, municipalities, governmental and other institutions.

The CSB published the final results in April 2002. They included the most important and exhaustive publications - Census data collection including analysis, maps, statistical tables and methodology in paper format and on CD-ROM with more detailed data and additional tools for users. All 578 municipalities of Latvia have received a standardised set of more than 40 tables each containing the census data for their municipality. Most of municipalities opted for electronic transmission of data.

Preparation of the 2000 Latvian Census summary data tables according to the Eurostat Census Tabulation Programme was completed during the first half of 2003. In April 2004 the set of tables was provided at disposal of the Statistical Division of the United Nations.

Population figures and demographic indicators have been revised back to 1989 based on the final results of the Census. The results of the 2000 Census are used widely by other departments and subdivisions of the CSB for calculation per capita indicators, as a sampling base for the Household Budget Survey, the Labour Force Survey and other surveys.

Throughout the world, population censuses are highly necessary but expensive activities. The costs of the last census came to LVL 2 900 000 (Latvian lats), i.e. € 5 095 000. Census costs per capita were LVL 1.22 (€ 2.14). 41 % of the total census budget was used for enumeration and training, 30 % for equipment and 19 % for general preparation as main items. About 11% of total expenses were external funding for equipment and publication/ dissemination. The data processing system developed within the framework of the 2000 Census was used also to process data from other statistical surveys, and shall therefore be regarded as a lasting, secure investment. In addition, the Government and the Statistical Office of Finland contributed to the successful implementation of the project.

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<sup>1</sup> UN ECE publication "National Practices of UN ECE Countries in the 2000 Round of Population and Housing Censuses".

### Chapter 3. The 2010/2011 Population and Housing Census in Latvia - a new challenge for statisticians

Law on the Population Census prescribes that the Population and Housing censuses in Latvia have to be carried-out every decade. Following this provision the coming Census will be organised in the year 2010. But we need to consider a possibility to carry out our next Census in the year 2011 because the European census takers, particularly EU traditions recommend collection of the census-type data in the years ending with the figure "1". If we look in the statistics of the organisation of the censuses in the previous round we can see that in 23 European countries from 49 the regular population and housing census was organised in the year 2001.

The Conference of European Statisticians on its Fifty-first plenary session (Geneva, 10-12 June 2003) has asked ECE and Eurostat to work on a new ECE set of Recommendations for the 2010 Round of Population and Housing Censuses. A Steering Group was established, with the task of driving the process of producing such Recommendations.

Also five experts representing the Central Statistical Bureau of Latvia took part in the activities of the Task Forces in preparation of the draft Recommendations in the fields of demographic characteristics, migration and ethno-cultural characteristics, economic characteristics, educational characteristics, families and households, on Housing Census recommendations. This participation of our experts fully was based on the enthusiasm without any remuneration. Mainly e-mail was used for communication and exchange of ideas and opinions.

Under the guidance of the Steering Group, with the active participation of the UN ECE and corresponding subdivisions of Eurostat draft recommendations were formed. This draft was carefully in detail discussed at the joint ECE-Eurostat Work Session on Population and Housing Censuses in Geneva in November 2004 and in December 2005. All this resulted in the adoption of the new set of Recommendations for the 2010 Population and Housing Censuses by the Conference of European Statisticians (CES) in June 2006.

If we compare lists of topics included in the 2000 Round of Census Recommendations and in the CES 2010 Round Census Recommendations we can see that the number of core topics remained the same - 29 but the number of non-core core topics increased from 52 to 60 (except derived topics). The proportion of core and non-core topics varies rather widely in different groups of topics. It is seen in the following table.

	Core topics		Non-core topics	
	Number	Per cent	Number	Per cent
Population to be enumerated	1	100	0	0
Geographic characteristics	1	17	5	83
Demographic characteristics	3	43	4	57
Economic characteristics	4	27	11	73
Educational characteristics	1	17	5	83
International and internal migration	4	40	6	60
Ethno-cultural characteristics	0	0	3	100
Disability	0	0	1	100
Household and family characteristics	2	25	6	75
Agriculture	0	0	2	100
Living quarters, dwellings and housing arrangements	13	43	17	57

Taking into account the fact that core topics are meant for collecting and publishing internationally comparable data by every participating country but non-core topics are offered for free choice of every country in accordance with its specific needs and users' requirements, in our view the proportion between these two groups is rather correct.

Within the framework of preparation of the Joint UNECE-Eurostat Work Session on Population and Housing Censuses organized in cooperation with UNFPA (Geneva, November 2004) the ECE Questionnaire on Population and Housing Censuses was sent to the ECE member countries in spring 2004 to collect information on the extent to which they complied with the 2000 Recommendations and on plans for the 2010 censuses.

The collected data showed a shift away from the traditional census approach that was adopted by the clear majority of countries in the 2000 round towards the increasing use of administrative registers, either exclusively or supplemented with information from questionnaires or surveys. Though the majority of countries still intend to do so, ten other countries report that they are planning for a conventional population census in the 2010 round. Thus, despite this shift towards the use of administrative registers, a clear majority of countries still envisage to use of traditional methods in carrying out their censuses.

We have to take into account that this questionnaire was sent out in a rather early stage of planning the 2010 Round of Censuses. Due to that replies of countries about the methods foreseen for use and topics intended to be covered were very provisional and in the further steps of the census planning will be updated and corrected. To great extent it refers also to the 2010 Census in Latvia.

The following table reflects core and non-core topics taken from the CES 2010 Census Recommendations foreseen for including in the Latvian 2010/2011 Census Programme together with potential data sources.

Variables	Will be included or not?	Data source (planned)
<b><u>Core topics</u></b>		
<b>Population</b>		
1. Place of usual residence	Yes	PR
2. Location of place of work	Yes	Q
3. Sex	Yes	PR
4. Age	Yes	PR
5. Legal marital status	Yes	PR
6. Current activity status	Yes	Q
7. Occupation	Yes	Q
8. Industry (branch of economic activity)	Yes	SRS
9. Status in employment	Yes	Q
10. Educational attainment	Yes	Q
11. Country/place of birth	Yes	PR
12. Country of citizenship	Yes	PR
13. Ever resided abroad and year of arrival in the country	Yes	Q
14. Previous place of usual residence and date of arrival in the current place	Yes	Q
15. Relationships between household members	Yes	Q
16. Tenure status of households	Yes	Q
<b>Housing</b>		
17. Housing arrangements	Yes	BDR

Continued

Variables	Will be included or not?	Data source (planned)
18. Type of living quarters	Yes	BDR
19. Location of living quarters	Yes	BDR
20. Occupancy status of conventional dwellings	Yes	BDR
21. Type of ownership	Yes	BDR
22. Number of occupants	Yes	PR
23. Useful floor space and/or number of rooms of housing units	Yes	BDR
24. Water supply system	Yes	BDR
25. Toilet facilities	Yes	BDR
26. Bathing facilities	Yes	BDR
27. Type of heating	Yes	BDR
28. Dwellings by type of building	Yes	BDR
29. Dwellings by period of construction	Yes	BDR

### **Non-core topics**

#### **Population**

30. Total number of children born alive	Yes	Q
31. Type of place of work	UC	Q
32. Time usually worked	UC	Q
33. Main source of livelihood	Yes	Q
34. School attendance	UC	Q
35. Literacy	UC	Q
36. Ethnicity	Yes	PR
37. Language	Yes	PR, Q

#### **Housing**

38. Occupancy by number of private households	UC	BDR
39. Hot water	Yes	BDR
40. Type of sewage disposal system	Yes	BDR
41. Kitchen	Yes	BDR
42. Cooking facilities	UC	BDR
43. Main type of energy used for heating	UC	BDR
44. Electricity	Yes	BDR
45. Piped gas	Yes	BDR
46. Position of dwelling in the building	UC	BDR
47. Accessibility to dwelling	UC	BDR
48. Lift	UC	BDR
49. Dwellings by number of floors in the building	UC	BDR
50. Dwellings by materials of which specified parts of the building are constructed	Yes	BDR
51. Dwellings by state of repair of the building	UC	BDR

#### **Abbreviations:**

PR - Population Register  
Q - Questionnaire  
SRS - State Revenue Service database  
BDR - Building and Dwelling Register  
UC - Under consideration.

The table shows that the CSB of Latvia is planning to include in the 2010/2011 Census Programme all core topics and only few non-core topics. More than 10 non-

core topics are under consideration and decision about inclusion a part of them into the forthcoming Latvian Census Programme will be taken when the users' needs and the Census budgeting will be known.

The CSB of Latvia in its Census preparation plans continues to move forward from the traditional Population and Housing Census to the fully register-based Census. Near to 70 % of all core topics in the coming census will be covered by administrative registers' data. For comparison it is worthwhile to mention that in the 2000 Census only one third of all topics included in the Census Programme were covered by administrative registers' data. In the next Latvian Census practically all housing topics will be covered by the Building and Dwelling Register that was not possible during our previous 2000 Census.

#### **Chapter 4. Conclusions**

The CSB of Latvia received essential support and assistance in the 2010/2011 Census planning as a transfer of knowledge and experience by Statistics Finland and Statistics Denmark within the Twinning Project "The Central Statistical Bureau of Latvia strengthening capacity in particular subject matter divisions" in 2004 supported by the European Union. Very useful was knowledge received from Statistics Finland as regards organisation and conduction of Population Census 2000 in Finland, especially on use of registers.

There is a subcomponent on methodological and technological preparation of the Population Census 2011 under the 2005 Transition Facility Programme for Statistical Integration.

CSB of Latvia follows carefully the Census preparation and carrying out in other European countries. The CSB of Latvia has a special interest about the results of the 2006 Population and Housing Census in Ireland that is the most recent Census in Europe.

Very important and useful is also the co-operation of statistical offices of the three Baltic States in the field of preparation and conducting Population and Housing Censuses. This year the Tenth Baltic Census seminar will be organised. With this seminar a new wave of co-operation in the census preparation will start. CSB of Latvia have a strong determination to continue and intensify this co-operation year by year to the final stage of the 2010 Census Project.

Unfortunately it will not be possible for Latvia to conduct fully register-based Census in 2011 like some of our neighbours will do in the Northern Europe. The CSB of Latvia is planning to use a combined method for data collection - partly register-based and supplemented by questionnaire filled-in by the Census enumerators.

The proportion of data taken from administrative registers will increase in comparison with the 2000 Census due to the fact that characteristics of dwellings and buildings will be taken from the corresponding administrative register.

A method of self-completing census questionnaires should be also considered taking into account the educational level of the Latvian population.

Experience and findings of other countries concerning data collection and processing methods, data dissemination, relations of the census takers with the general public should be widely introduced.