

**FINAL REPORT**  
(24 August 2012)

**I. INTRODUCTION**

1. The workshop was organized in Geneva at the Palais des Nations, back-to-back with the Joint UNECE/Eurostat Expert Meetings on Censuses Using Registers (22-23 May 2012) and on Population and Housing Censuses (24-25 May 2012).
2. The main purpose of the workshop was to increase the knowledge of census managers and experts from participating countries on various methods with which register-based information could be used to produce census data or facilitate conducting a census.
3. The workshops was attended by census experts and managers representing the following countries and organizations: Albania, Armenia, Belarus, Croatia, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Mexico, Netherlands, Norway, Poland, Republic of Korea, Republic of Moldova, Romania, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey, Turkmenistan, Ukraine, Uzbekistan, Statistical Office of the European Union, United Nations Population Fund, Statistical Office of Kosovo, United Nations Economic Commission for Europe.
4. UNFPA financially supported the attendance of a number of participants.

**II. ORGANIZATION OF THE WORKSHOP**

5. The workshop was organized as a combination of lectures, national presentations and discussion sessions. The main facilitators of the workshop were Mr. Eric Schulte Nordholt (Statistics Netherlands) and Mr. Harald Utne (Statistics Norway).
6. All presentations used at the workshop are available on the UNECE website at:  
<http://www.unece.org/stats/documents/2012.05.census3.html>
7. The summary of the main items discussed in the substantive sessions – complementing the presentations available on the above mentioned web page - is presented in the next section.

**III. SUMMARY OF THE MAIN ITEMS DISCUSSED IN THE SUBSTANTIVE SESSIONS:**

**A. WHY REGISTER-BASED STATISTICS?**

8. For register-based censuses, the reference time is more difficult to define compared to the traditional census. In fact, the time limit depends on the source of data. For some variables, data can be published the same year (such as population), while for others data can be published only the following year.
9. Some participants asked how to enumerate persons who are not in the population registers. In the Netherlands it is assumed that most people are registered, otherwise they could not access basic services

or receive any benefits. For example, births must be registered within 3 working days to claim benefits, and immigrants also have an incentive to register to claim benefits. Doctors record deaths very efficiently (within days).

10. A more difficult group is that of emigrants, as they do not always notify authorities that they have left. It can take longer for the register to be updated in this case. It is often the next tenant of the property the emigrant lived in who has to notify the authorities. Account of this is taken for the census via the Central Population Register.

11. In the Netherlands the central population register is the basis for the system, and about 60 additional sources (stored in the so-called Social Statistical Database system) are used, including social security, tax, education, and other registers.

12. In some cases, people may live in a different place from the one where they are registered. Municipalities share information to update their records. Students are a problematic group from this point of view, as they may live at more than one address, with university towns having a higher population than it might be indicated by census records.

## **B. GENERAL PRECONDITIONS - REQUIREMENTS TO DATA FROM ADMINISTRATIVE SOURCES**

13. The homeless and immigrants are categories that could potentially include persons not registered. In Norway, as in the Netherlands, incentives exist for immigrants and other people to register with authorities. Advanced statistical methods are also used to estimate uncounted populations. Homeless people are counted in the register at the municipality level. Some homeless people do not de-register their previous address, so at the time of the census they will be counted at the place of last address.

14. Over-coverage is a greater problem than under-coverage, due to emigration. For this, the registers are examined for whether there is recent activity or not. Since it may take several years to formally de-register someone, some records are flagged as statistically de-registered.

15. Cooperation between the National Statistical Office and the register keepers is a key issue. In most cases, data go only “one way” from the administrative registers to the statistical institute. In some countries, however, census data are used to update population registers. It depends on the legal situation and cultural sensitivities in different countries.

## **C. NATIONAL PRESENTATIONS (BY BELARUS, REPUBLIC OF MOLDOVA, CROATIA & SERBIA)**

16. In this session, four countries reported on the availability of registers, their possible use for the census, and in some cases on concrete plans for the future.

17. In the discussion that followed the national presentations, some countries reported that registers can be out of date, some census variables would be missing (such as knowledge of other languages) and may not cover all units. Kazakhstan has started to use administrative registers, but these are not yet mature since not everyone is registered (e.g. those with no addresses).

18. It was noted that there is no perfect method for undertaking a census. The register-based census may not be for everyone. Some countries may be happy with the traditional method, while others may consider other approaches, such as the combined census. The choice depends on the national context.

## **D. POPULATION AND HOUSING CENSUSES IN THE NORDIC COUNTRIES**

19. A number of countries asked how the costs of a register-based census compare with those for a traditional census. There is a UNSD paper on census costs, but it is not based on data from the last census round. In general few countries have actual data for 2011 for comparison.

20. It was noted that in Norway it took 50 years to fully move from a traditional census to a register-based census, with very significant costs to setup IT and for ongoing maintenance. However, new technology is now available that wasn't available when Norway started its journey toward a register-based census, and Norway also did not have anyone else to learn from. The cost of creating and maintaining the population register in Norway were borne by other parts of the authorities, as the register was not primarily created for statistical purposes.

21. The Netherlands expects a 95 per cent saving, mainly due to the fact that there was no field data collection. In Norway, the budget is about 10 per cent (approximately 1.7million euros) of what it was for the last census, including some investments. However, these costs do not include costs for setting up registers. When a combined census approach with full enumeration is used, relatively very little savings can be expected from using registers.

22. In Norway, population data are updated every year, and for census years extra detail and additional variables are produced.

## **E. THE DUTCH VIRTUAL CENSUS BASED ON REGISTERS AND EXISTING SAMPLE SURVEYS**

23. In the Netherlands, data across registers and surveys are linked on the basis of multiple variables, like date of birth and sex, and then linked to unique reference numbers.

24. Identifying households – particularly when there are multiple households in the same dwelling – can be complex when censuses are based on registers. In the Netherlands, this can be done in different ways. From register data, parents living with children and married couples can be identified, which identifies more than 90 per cent of households. For the rest, households can be identified from fiscal records, if the household submits a group tax return (the so-called fiscal partnership). Benefit payments (e.g. for health care or housing) are also based on household income, which is another way of identifying households. Imputation from survey data is the final possibility.

25. For variables extracted from surveys, when a person is in the population register but not in a survey, weighting techniques are used. For example, where a variable is extracted from the Labour Force Survey (around 1 per cent of the population of the Netherlands per year), the values are weighted to the population totals in the census, using weights based on individuals characteristics.

26. In the Netherlands, unregistered illegal migrants are not included in census tables. Their number is estimated separately, but no information is available on their characteristics.

27. With regard to dissemination, data are published at the municipality level, but figures are not published when the 95 per cent confidence interval is wider than 40 per cent of the cell value.

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