

Advances in data collection methodologies: The Nordic perspective

Expert Group Meeting on Population Data for the 21st
century: Advances in data collection methodologies

IUSSP and UNFPA
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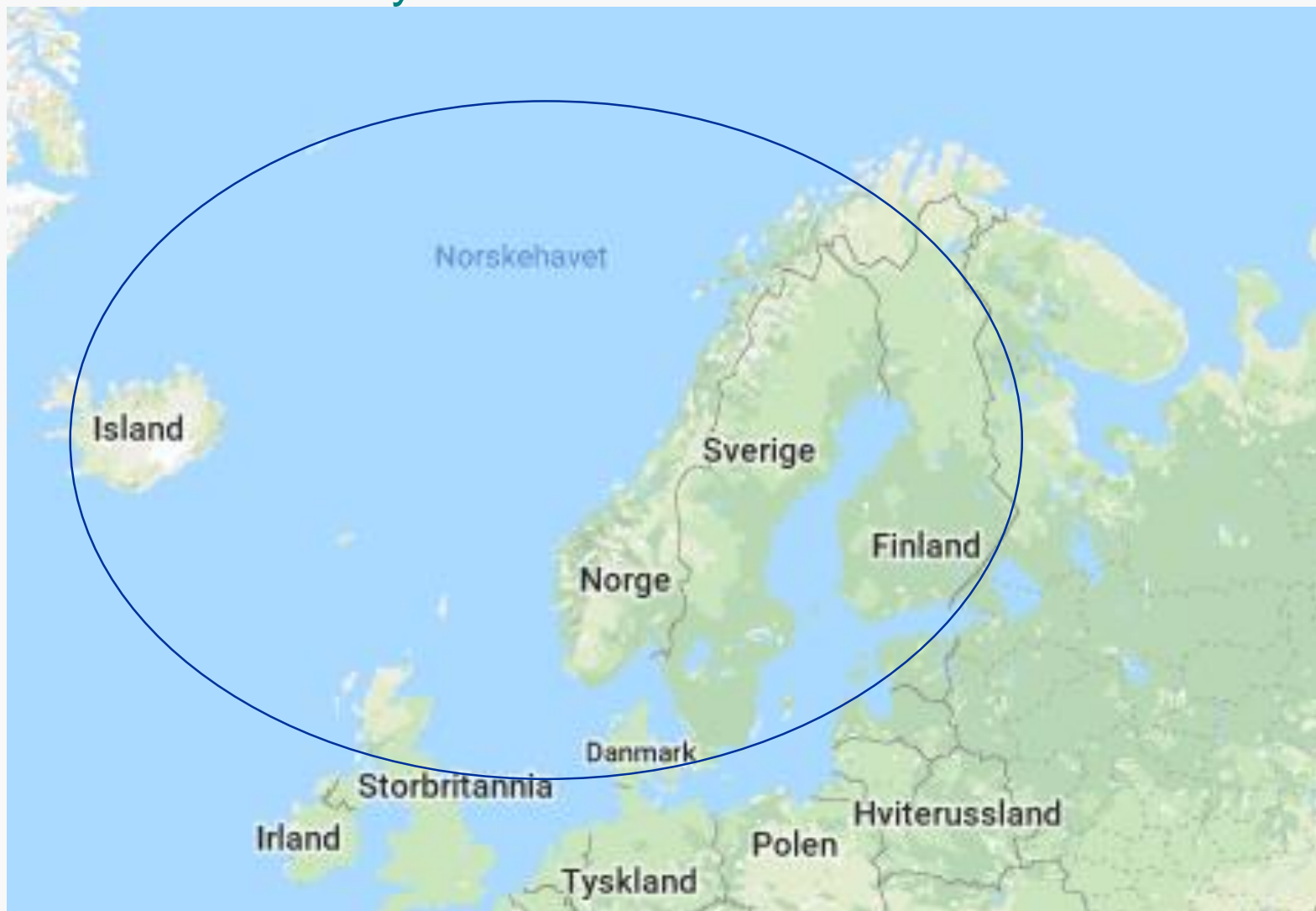
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The Nordic statistical system

- Production of statistics in the Nordic countries more and more based on administrative registers
- This development started when computerized central population registers and unique personal identification numbers were introduced in the 1960s
- The reliance on registers has spread from population to other areas such as companies and real property
- The registers are linked by unique personal identification numbers and addresses

Nordic model of population registration

Nordic countries: Norway, Denmark, Finland, Iceland and Sweden
Modern system established in the 1960s



Characteristics of the Nordic model of population registration

- Central Population Register (CPR) with links to local offices
- Unique Personal Identification Number (PIN) for *all* residents
- CPR continuously updated with data on births, deaths, migrations, address changes, citizenship ...
- CPR and PIN widely used for administrative purposes, by both public and *private* institutions
- Also widely used for statistics and research
- Close cooperation (and trust) between public institutions and between the public and the government
- CPR and other person registers safeguarded by legislation and a data inspector. Very strict rules for distributing and using microdata for statistics and research.

Statistical use of CPR and PINs

- CPR linked to other registers via the PIN: education, health, pensions, income, property ownership ...
- Population censuses based on registers
- Sample surveys:
 - CPR useful for drawing samples
 - Used to collect information about special topics
 - Many items collected from registers → no need to ask respondents:
 - ◆ Date of birth, marital status, place or country of birth, education, ...

What is a population register?

- A system for recording and using data on individuals
 - Should include *all* legal members of the resident population with at least:
 - ID number (PIN)
 - Name
 - Date of birth
 - Sex
- PREFERABLY ALSO:
- Address or place of usual residence
 - Place or country of birth
 - Marital status
 - Nationality/citizenship
 - PIN of parents and spouse

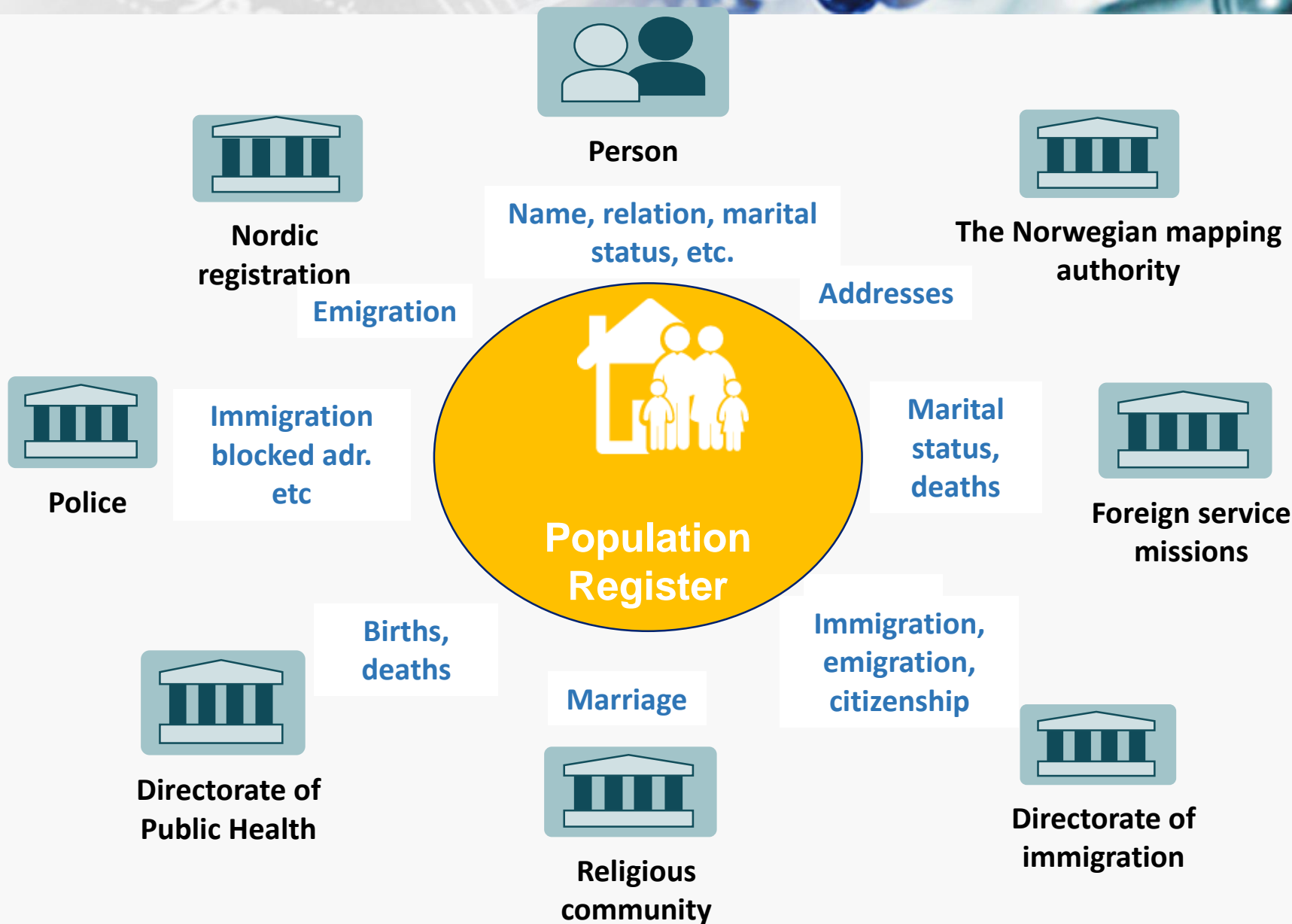
A register of national identity cards or ID numbers is a population register *only* if:

1. It is regularly updated with new births (at time of birth)
2. Records of dead persons are changed
3. New immigrants are registered
4. Records of emigrants are changed
5. Internal moves are registered if the register is used for local area administration and statistics, including censuses
6. Place of usual residence should be included, preferably also housing address (for making household statistics)

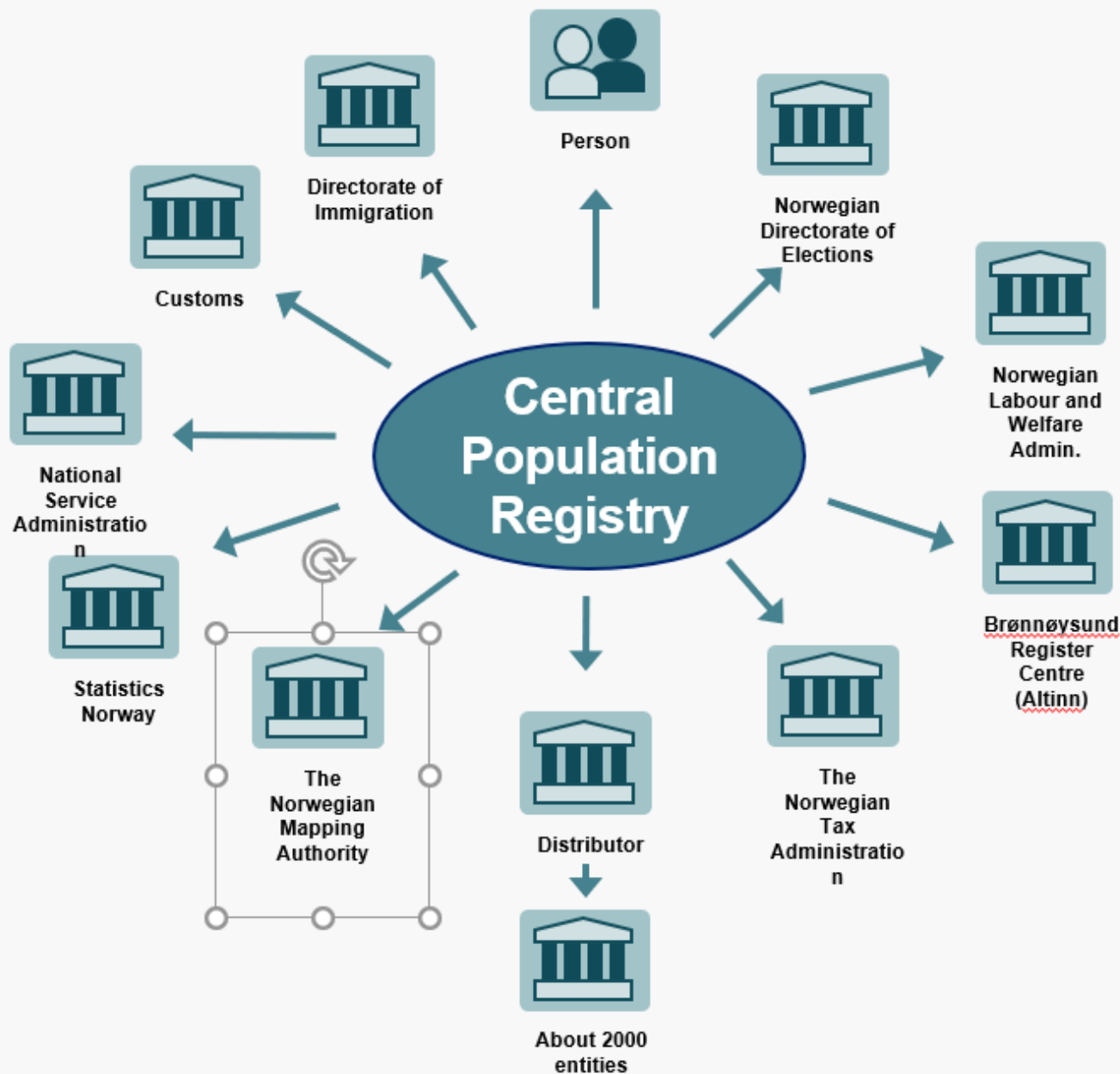
Why aren't migrations vital events?

- A migration important life event
- Migrations important for population development - nationally and locally
- But migrations not occurring at public institutions like births and deaths
- Often few incentives for people to register migrations
- Difficult but not impossible to register migration
- Example of international cooperation to improve migration statistics: Exchange of records between Nordic countries for migrants

Main data sources of Population Register



Distribution of data from the CPR



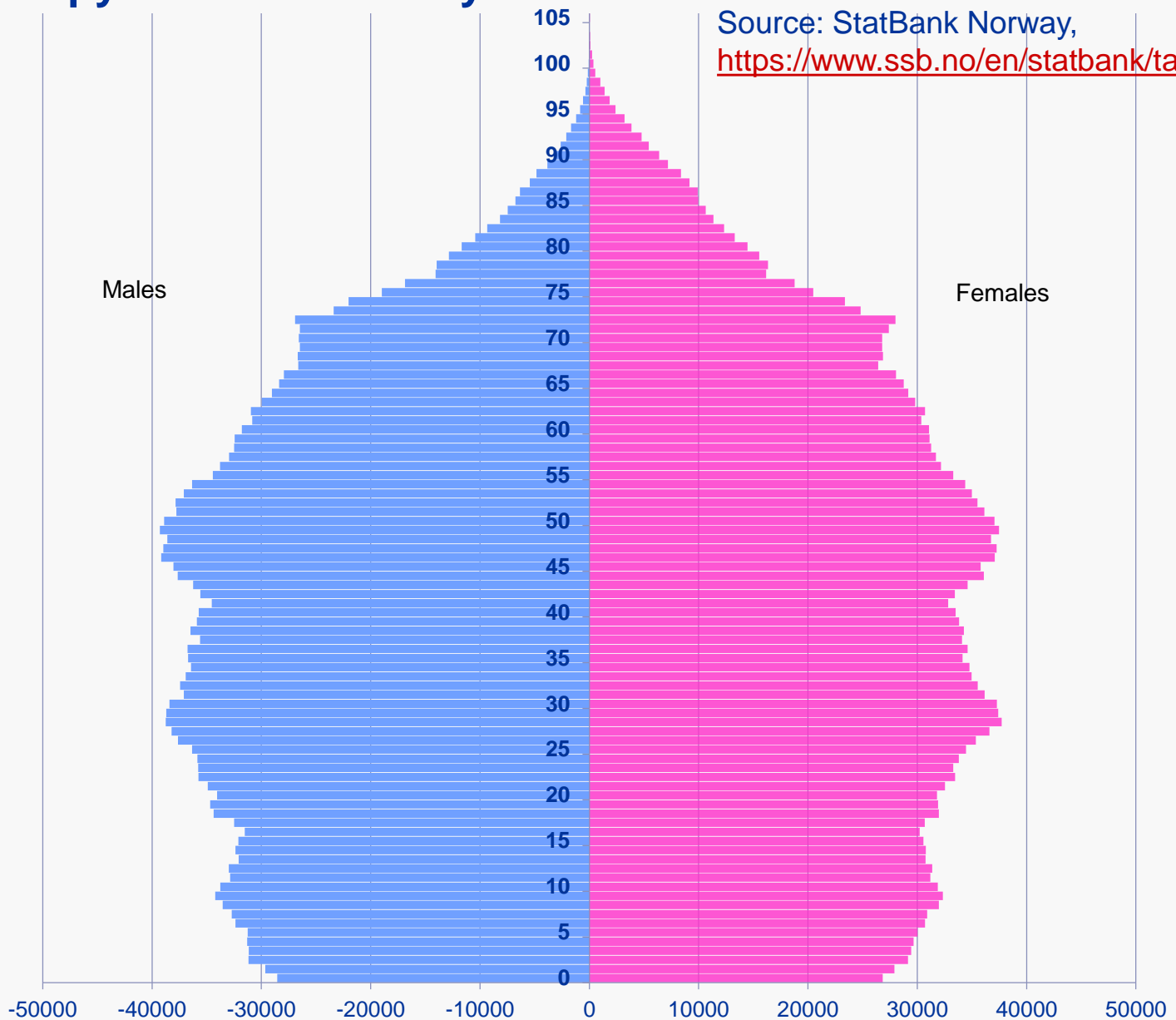
All individual historical data in the CPR are kept

- Number of **residents**: 5.4 million
- Persons in the CPR: More than 8 million
- Nobody (no record) is deleted physically
 - but status (resident, dead, emigrated) may be changed
- Official date of *registration* and date of *entry* are recorded for every data entry

Population statistics

- Population statistics made by Statistics Norway from a *statistical* population register, which is a copy of the CPR.
- This register is updated from the CPR every night, five times a week
- Includes additional variables derived by SSB
- Otherwise identical to the CPR

Example of population statistics made from a population register: Population pyramid for Norway 1.1.2019

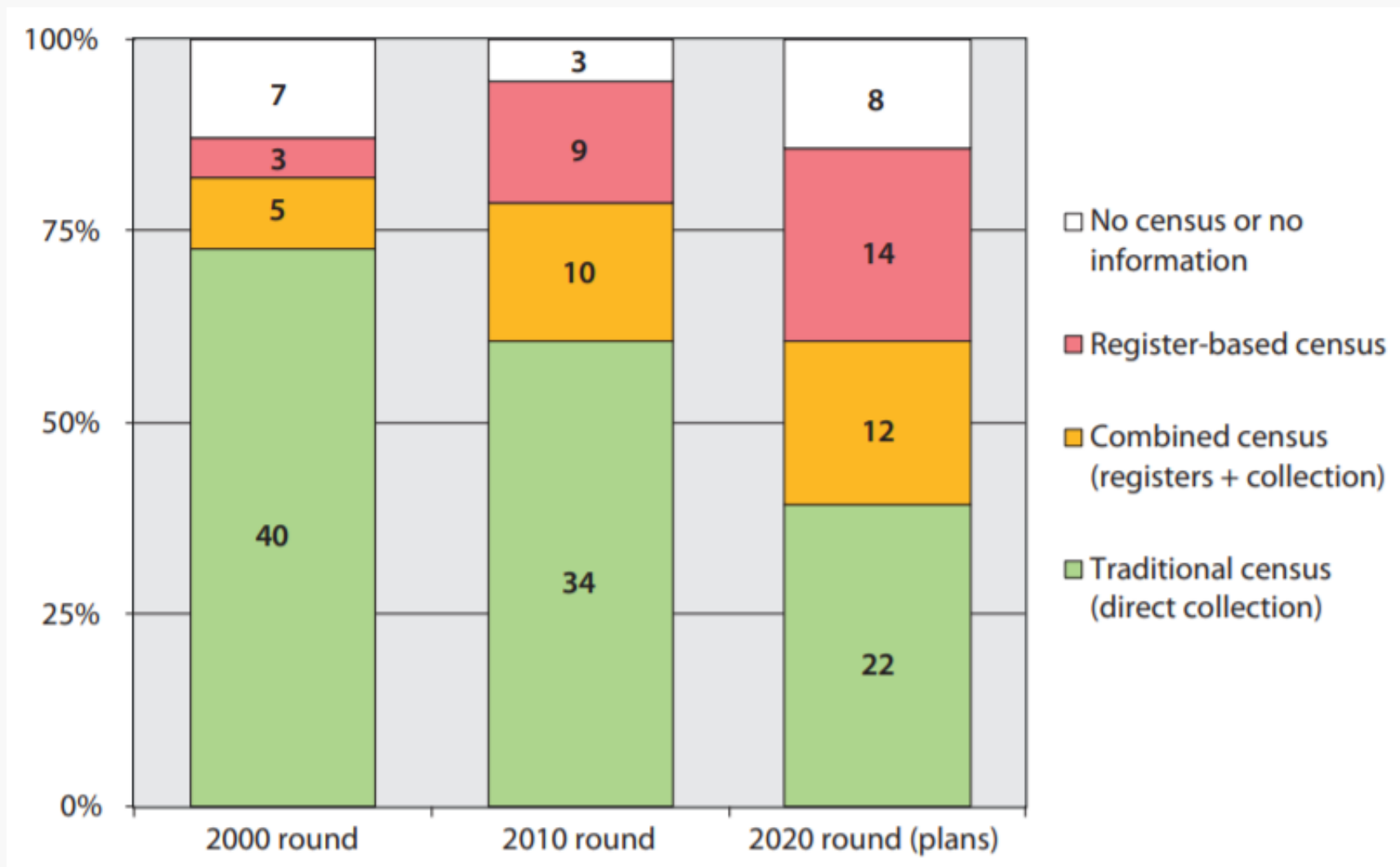


Source: StatBank Norway,
<https://www.ssb.no/en/statbank/table/07459/>

Cooperation between a Civil Registration Agency and the National Statistical Office

- CRA should transfer *microdata* to the NSO
- Statistical use important for quality control
- Statistics Norway may report identified errors to the register owner, including the PIN

Figure 1. Number of UNECE countries by census method in the 2000-2020 census round





UNECE REGION

Source: UNECE (2018)



Conclusions

- Administrative registers: valuable source of demographic and other microdata
- Challenge: updating population register regularly with data on births, deaths, migrations - and correcting errors
- Cooperation and use improves an administrative register
- Migration: a “vital” event that should be registered
- A register-based census requires a comprehensive system of good registers which can be linked by PINs