

# Register based census in Lithuania



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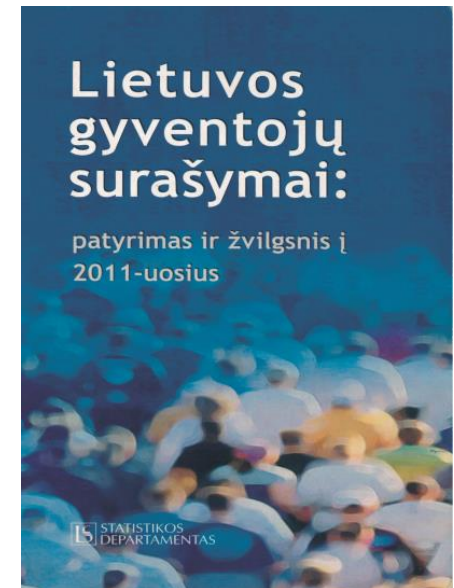
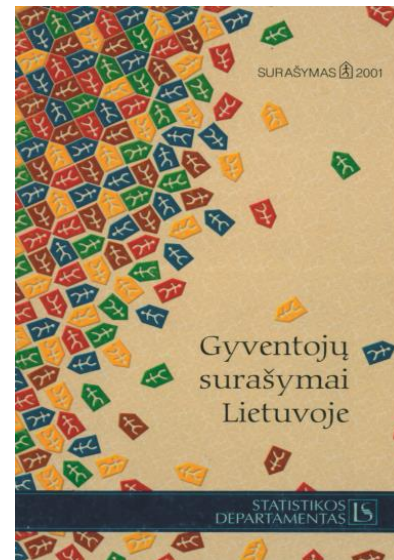
# Content

- Sources and methods
- Legislation of Census
- Communication, publicity and dissemination
- Key results 2021
- Quality issues

# Sources and methods

# Lithuanian Census

- 1528, 1790
- 1897
- 1923
- 1942
- 1959, 1970, 1979, 1989
- 2001, 2011, 2021



# Changing profile of census (1)

- 2001 – Traditional approach
- 2011 – Combined approach – administrative sources were extensively used:
  - Residents were able to fill-in electronic questionnaire (34%)
  - Some data were derived from administrative sources – for prefilling questionnaires and for editing purposes

# Changing profile of census (2)

- 2021 – Completely register-based, no field-work:
  - Pilot register-based censuses:
    - 2019 – testing the system;
    - 2020 – testing the algorithms and data
- After 2024 indicators will be produced annually

# History of administrative sources in SL

- Wider usage of administrative sources is one of the top priorities of Statistics Lithuania.
- 42% of results published by Statistics Lithuania are based on administrative sources. In Social Statistics - 52,3%
- In 2004, first administrative (social insurance) data were used for the production of official statistics at the estimation stage

## **Administrative sources in SL**

- 182 Administrative data sets at the micro level
- 155 Administrative data sets at the aggregated level

## **Administrative sources for census 2021**

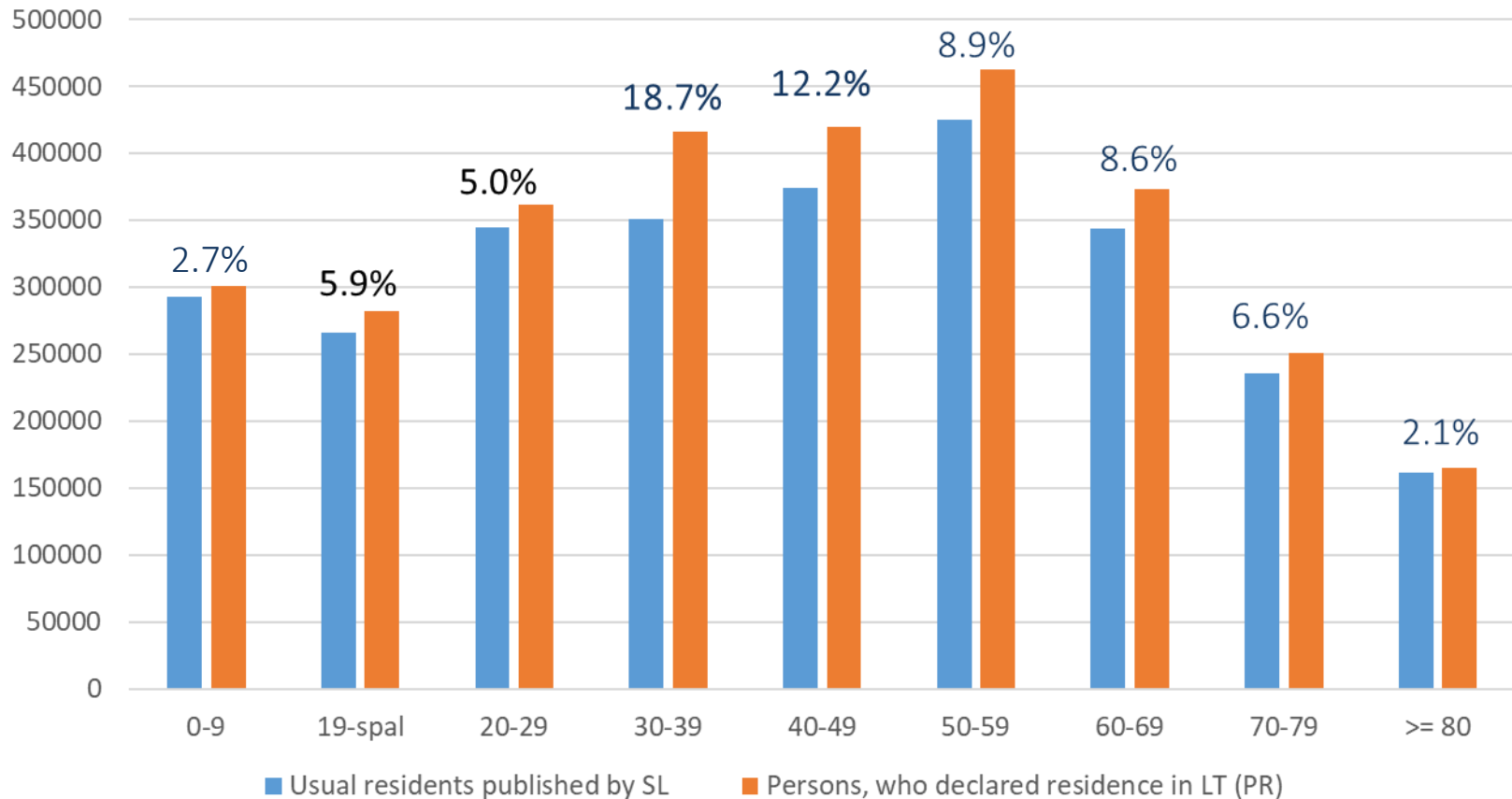
- 34 administrative sources analyzed
- 19 administrative sources were chosen for census 2021



## Administrative data for Census 2021

Name of the administrative data source	Holder of the administrative data
<b>Population Register</b>	State Enterprise "Centre of registers"
<b>Real Property Register</b>	
Address Register	
Statistical Business Register	Statistics Lithuania
Social Insurance Fund Board database	Social Insurance Fund Board
National Health Insurance Fund data	National Health Insurance Fund
Labour Exchange data	Labour exchange Office
Tax Payers Register	State Tax Inspectorate
Information system on the receipt of applications (Farmers Register)	State enterprise "Agricultural Information & Rural Development Centre"
Register of farm animals	
Students' Register	Ministry of Education & Science
Pupils' Register	
Pedagogues' Register	
Suspects, Accused & Convicted Persons Register	Information technology & communication department
Social Family Support Information System	Ministry of Social Security & Labour
Civil Servants Register	
Internal Affairs Officers Register	
Disability and Working Capacity Assessment Service Information system	
Shelters for homeless	

# Number of usual residents compared to persons who declared place of residence in LT (total difference – 8.5%)



# Defining usual residents from registers

No modeling are used for defining usual residents population  
– no reliable data are available for building the model

## **A person is counted as usual resident if he/she**

- declared the place of residence in Lithuania and
- shows signs of life in two different registers
- a number of exceptions are applied
  - Homeless people are considered as usual residents
  - Lithuanian citizenship treated differently from people without Lithuanian citizenship, also occupation is taken into account
  - Family situation; country of birth, employment status is taken into account

# Defining place of usual residence from registers

- Equal to declared place of residence, if housing unit is found at the declared address
- Spouses and their children are populated into one dwelling
- The tenant is assigned the address of the rental housing unit
- A student who has not been able to assign housing is assigned the address of a educational institution
- A homeless person is assigned to the address of the shelter for homeless people
- Convicted persons gets the address of the prison
- the person is assigned the property owned by him, the housing of his spouse, the housing of parents or children depending on age or marital status
- randomly assigned empty housing unit in the area where the person's declared place of residence is located

# Technical implementation

## Census 2021

- data warehouse, **Oracle Data Integrator (ODI)** – outsourced

## Census variables after 2024

- Implementation of Statistical Register, **Palantir** – developed by staff of Statistics Lithuania

# Legislation of Census

# Legal basis

- **EU population and housing censuses regulations - KEY legislation which would be enough**
  - Key regulation:
    - EUROPEAN PARLIAMENT AND COUNCIL REGULATION (EC) 763/2008 of the of 9 July 2008
  - 3 implementing regulations
    - Regulation covering topics and their breakdowns
    - Regulation establishing the table programme
    - Regulation covering quality and metadata
  - GRID regulation – since round 2020
    - COMMISSION IMPLEMENTING REGULATION (EU) 2018/1799 of 21 November 2018
- **The number of national measures introduced**
  - In order to facilitate procedures

# Lithuanian Law on Statistics

## Article 11. General censuses

1. Population, housing, agricultural and other general censuses **may be conducted in the Republic of Lithuania**
2. A general census and its purpose **shall be determined by a legal act of the European Union**, by a law or by a resolution of the Government of the Republic of Lithuania
3. A general census shall be organized and conducted **by Statistics Lithuania and/or other bodies** managing official statistics.
4. Statistics Lithuania or other bodies managing official statistics **may involve interviewers** to carry out the works related to a general census



# Resolution of the Government of Lithuania

## Prepared before census

- On Population and Housing Census 2021 of the republic of Lithuania, which sets:
  - Reference day
  - List of administrative data sources – with obligation for data holders to provide data to NSI
  - Set up a list of topics and indicators

# Law on reduction of administrative burden

- Ensures the monitoring of administrative burdens and reduction of unjustified administrative burdens
- Prohibits to collect data which is already collected by other institution

# Communication, publicity and dissemination

# Publication of first results

Census date: 2021-01-01

Publication date: 2021-12-21 (provisional)

Press conference held at premises of Statistics  
Lithuania

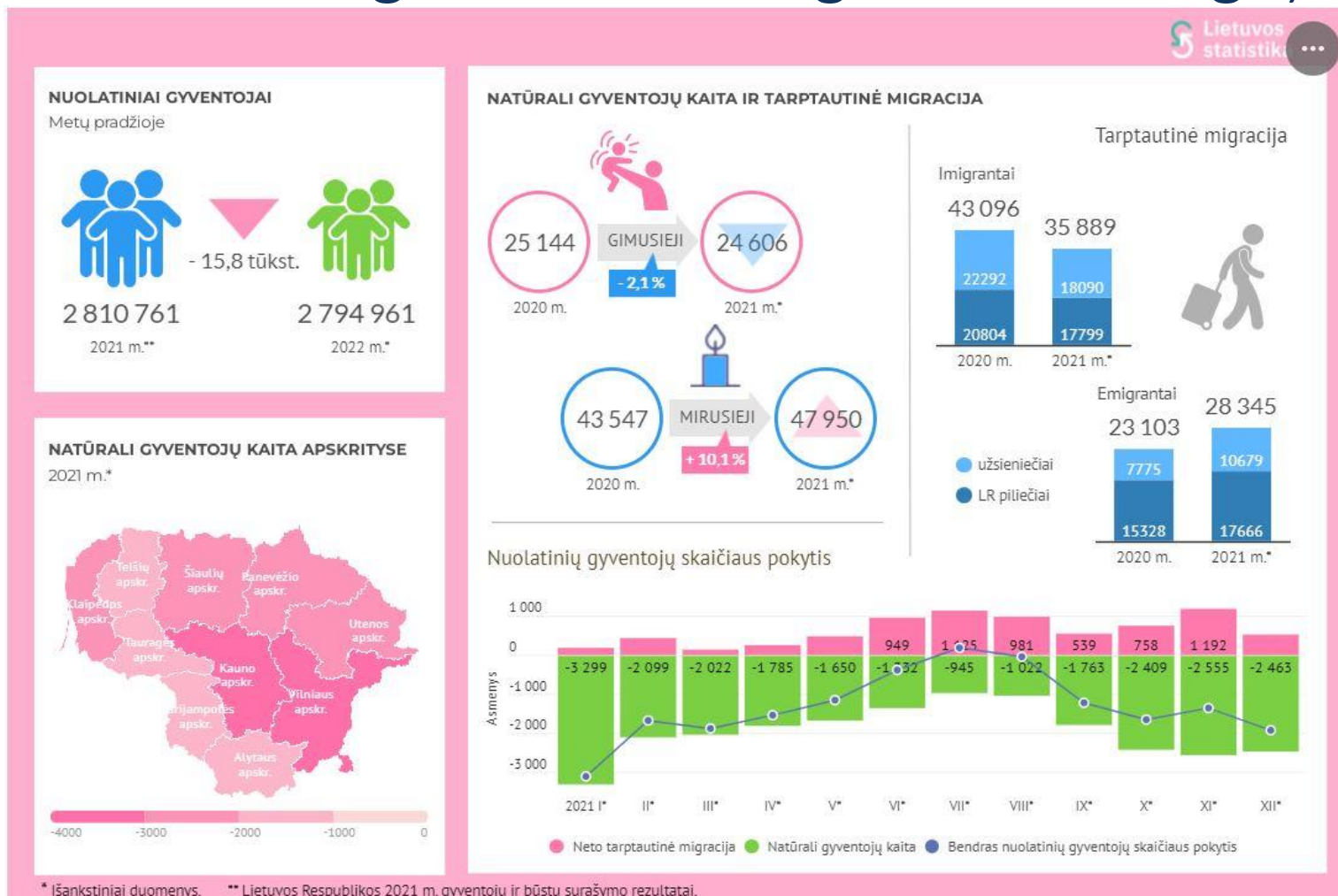
# Storymaps

- A story map is a **web map that has been thoughtfully created, given context**, and provided with supporting information so it becomes a stand-alone resource
- It integrates maps, legends, text, photos, and video and provides functionality, such as swipe, pop-ups, and time sliders, that helps users explore the content
- An important tool for presentation of the results interactively and interesting
  - Census results (only in LT):  
<https://storymaps.arcgis.com/stories/d7ac6efa3e99480992e956f440a1b3ec>

# The communication channels and approaches, how to reach everybody

- Press conference (December, 2021)
- Press releases
- Interview for the media
- Information in website
- Posts/stories in social media
- Infographics workshop with students from Vilnius College of Technologies and Design
- Visual identity (logo, brandbook)
- Electronic Publication (December, 2022)

# Infographics (workshop with students from Vilnius College of Technologies and Design)



# GRID data

Statistics Lithuania Home page

## Gyventojų ir būstų surašymas 2021— Gyventojai (GRID 1km)

Valstybės duomenys  
Private Organization

### Summary

Gyventojų ir būstų surašymas 2021. Gyventojų skaičius gardelės 1 km x 1 km

View Full Details

Download

### Details

Dataset  
Feature Layer

August 8, 2022  
Info Updated

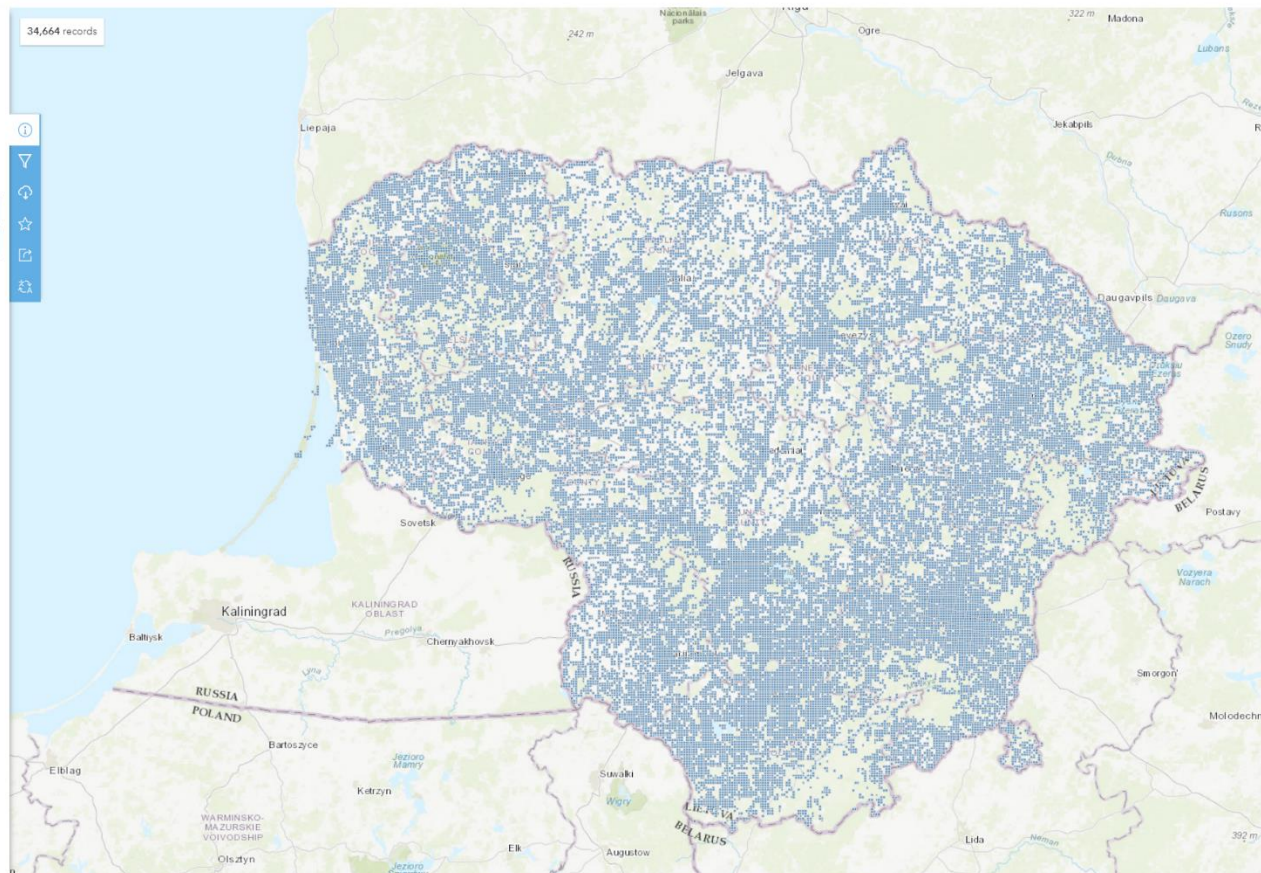
June 15, 2022  
Data Updated

December 17, 2021  
Published Date

34,664 Records  
View data table

Public  
Anyone can see this content

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View license details



<https://open-data-sets-ls-osp-sdg.hub.arcgis.com/search?categories=gyventoj%C5%B3%20ir%20b%C5%ABst%C5%B3%20sura%C5%A1ym%C5%B3%20duomenys&collection=Dataset&tags=sura%C5%A1ymas2021>



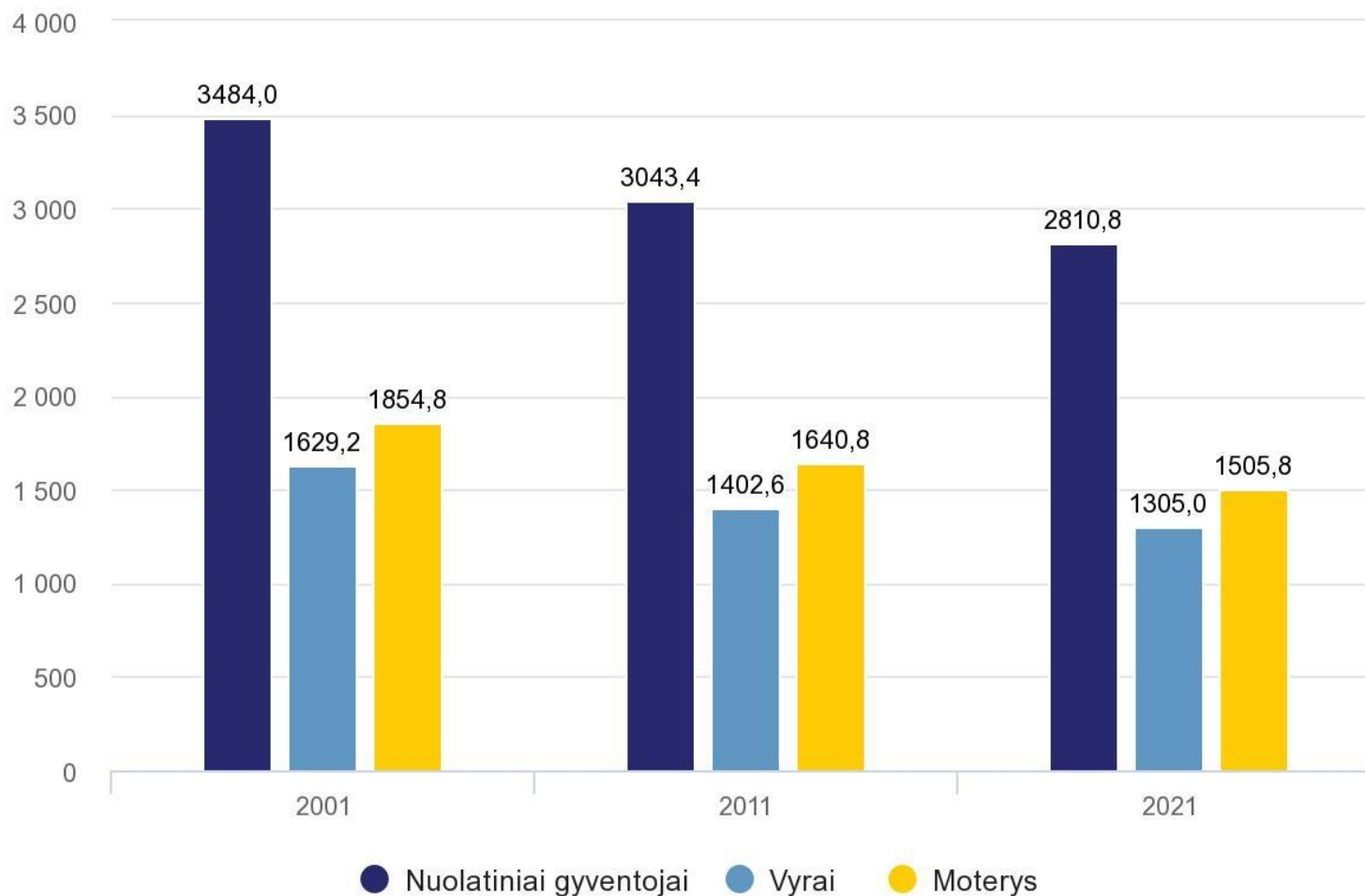
# GRID level of detail

- 10 km<sup>2</sup>
- 5 km<sup>2</sup>
- 2,5 km<sup>2</sup>
- 1 km<sup>2</sup>
- 500 m<sup>2</sup>
- 250 m<sup>2</sup>
- 100 m<sup>2</sup>

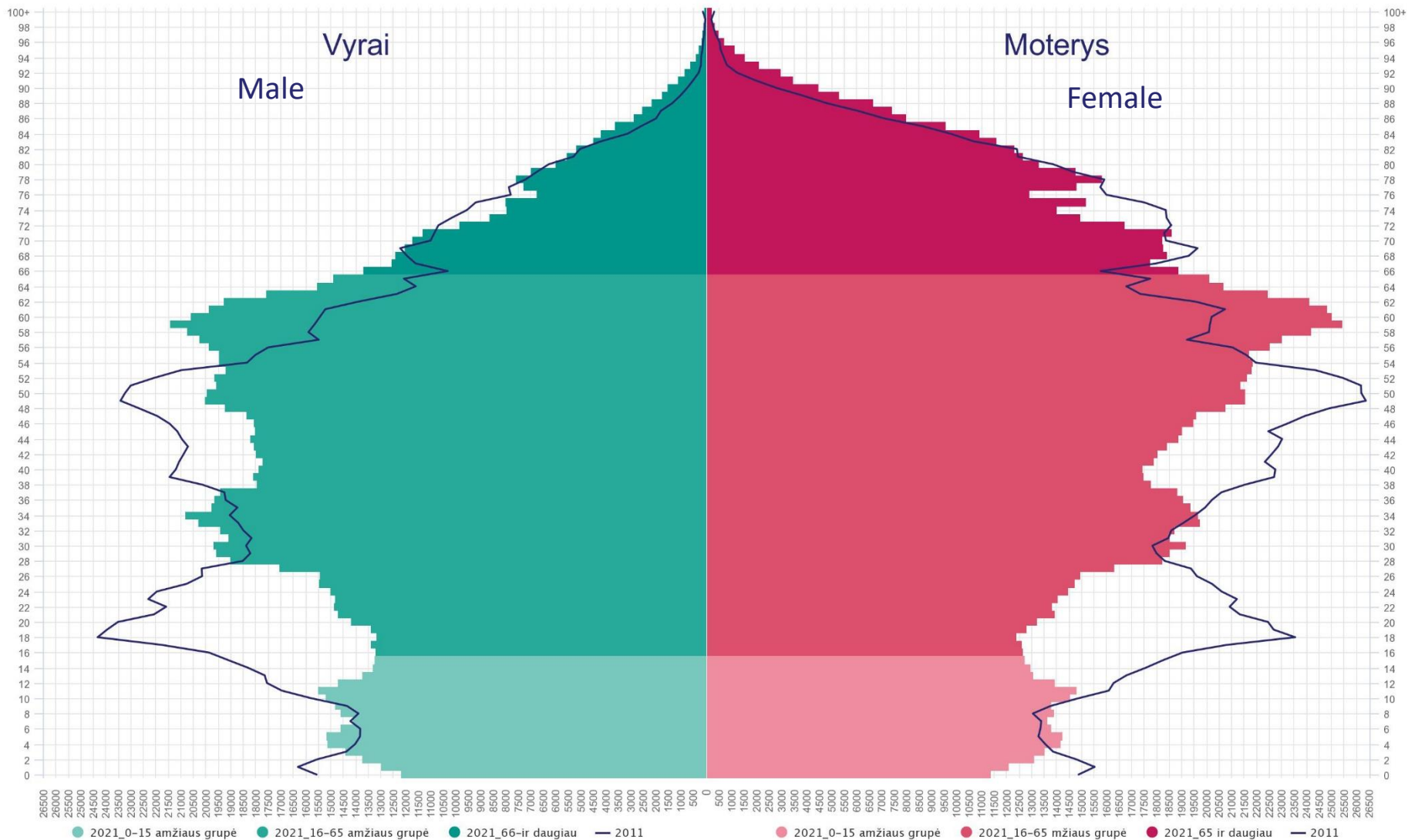
# Results

# Number of usual residents

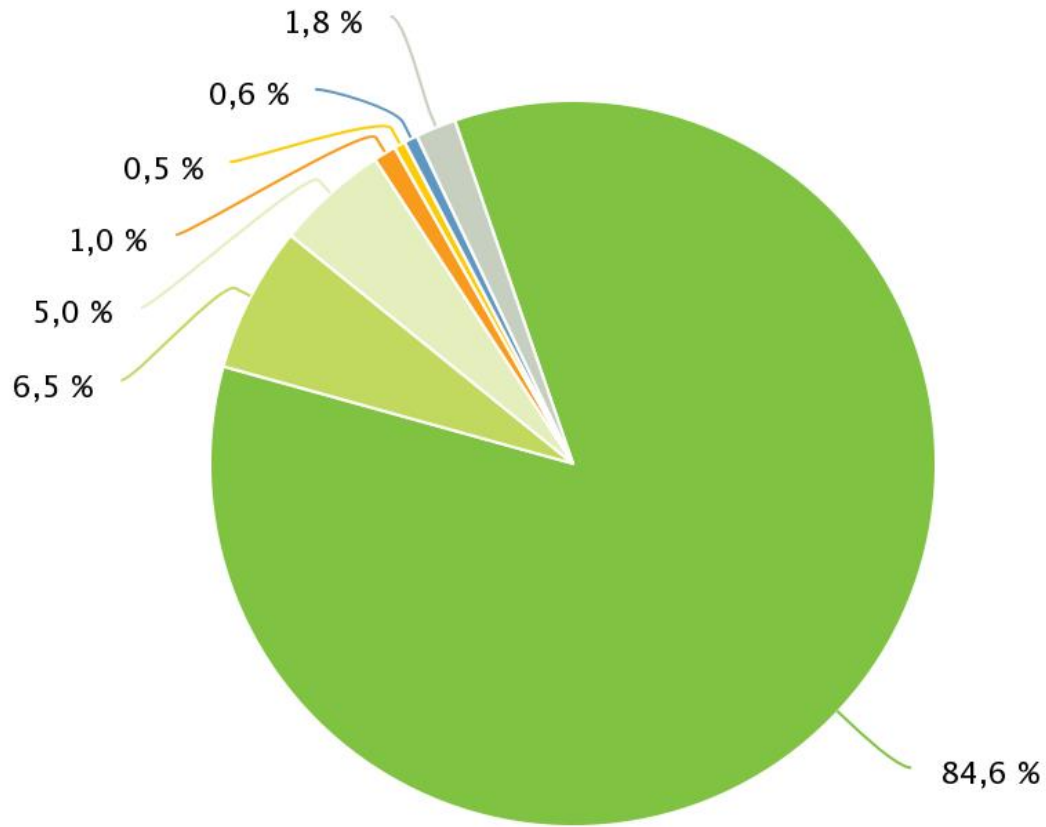
There were 2,810,761 usual residents in Lithuania on 1 January 2021, in thousands



# Population by age and sex, census 2021



# Population by nationality



Lietuviai  
Kiti

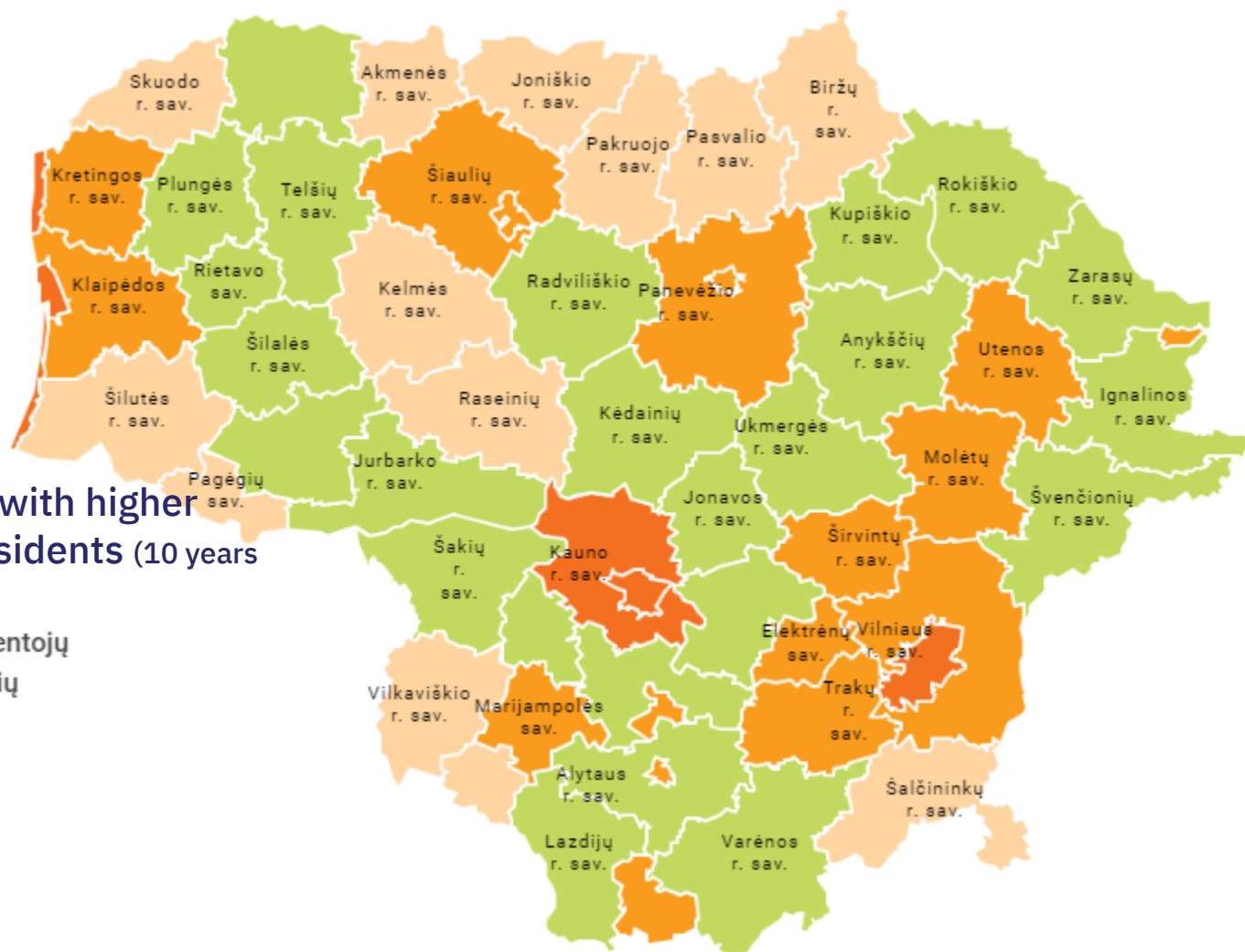
Lenkai  
Nenurodė

Rusai

Baltarusiai

Ukrainiečiai

# Population with higher education in municipalities



Number of population with higher education per 1000 residents (10 years old and older)

1 tūkst. 10 metų ir vyresnių gyventojų teko aukštąjį išsilavinimą turinčių asmenų

- ≤ 160
- 161–190
- 191–300
- > 300

# Quality issues

# Quality issues

- Input data quality
  - Quality guidelines for administrative data
  - prepared and approved in 2021, still needs improvements
- Output data quality
  - Quality indicators for statistics produces on the basis of administrative data sources
  - under development
- Post-enumeration survey?



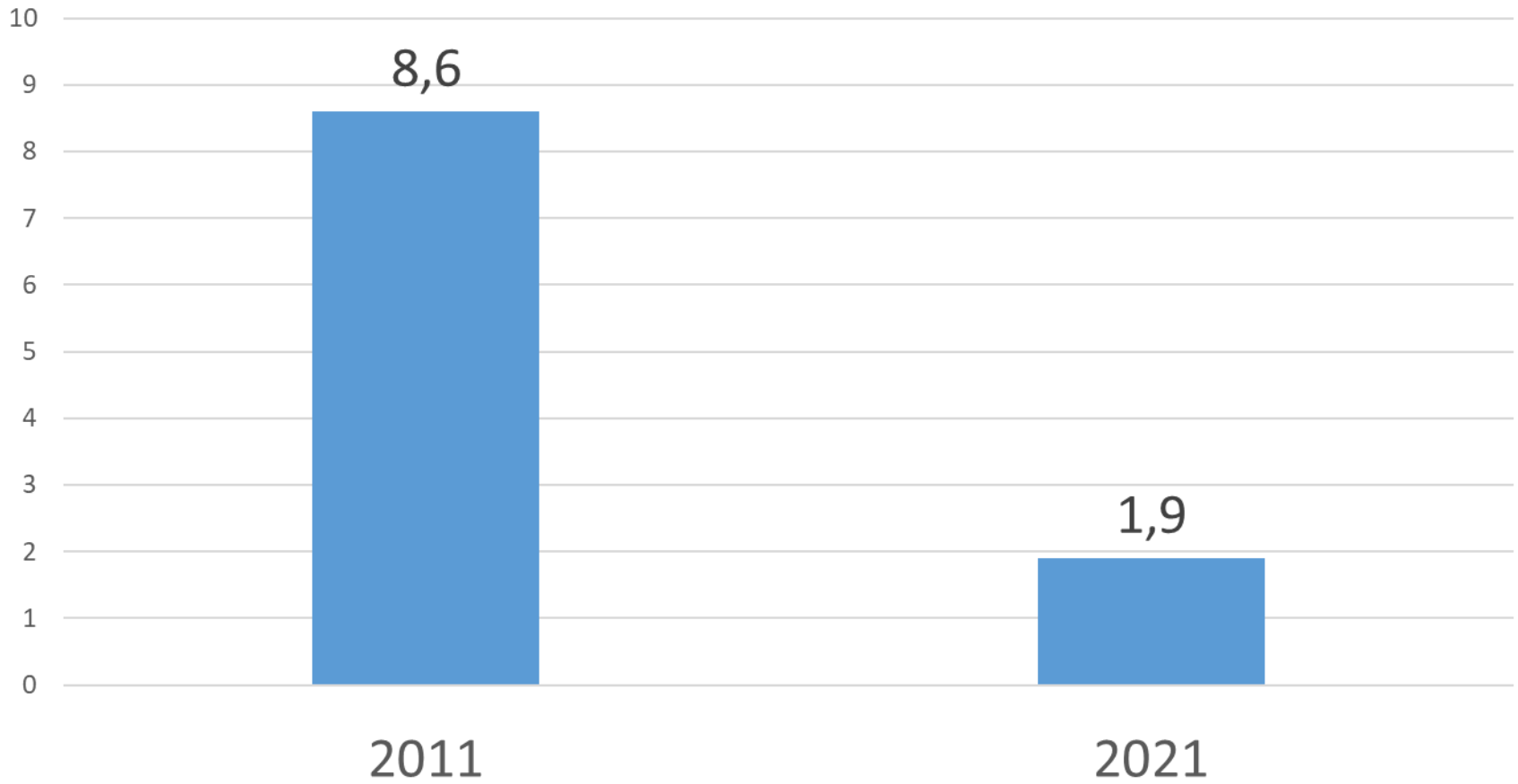
# Coherence with other statistics

## Improvements foreseen:

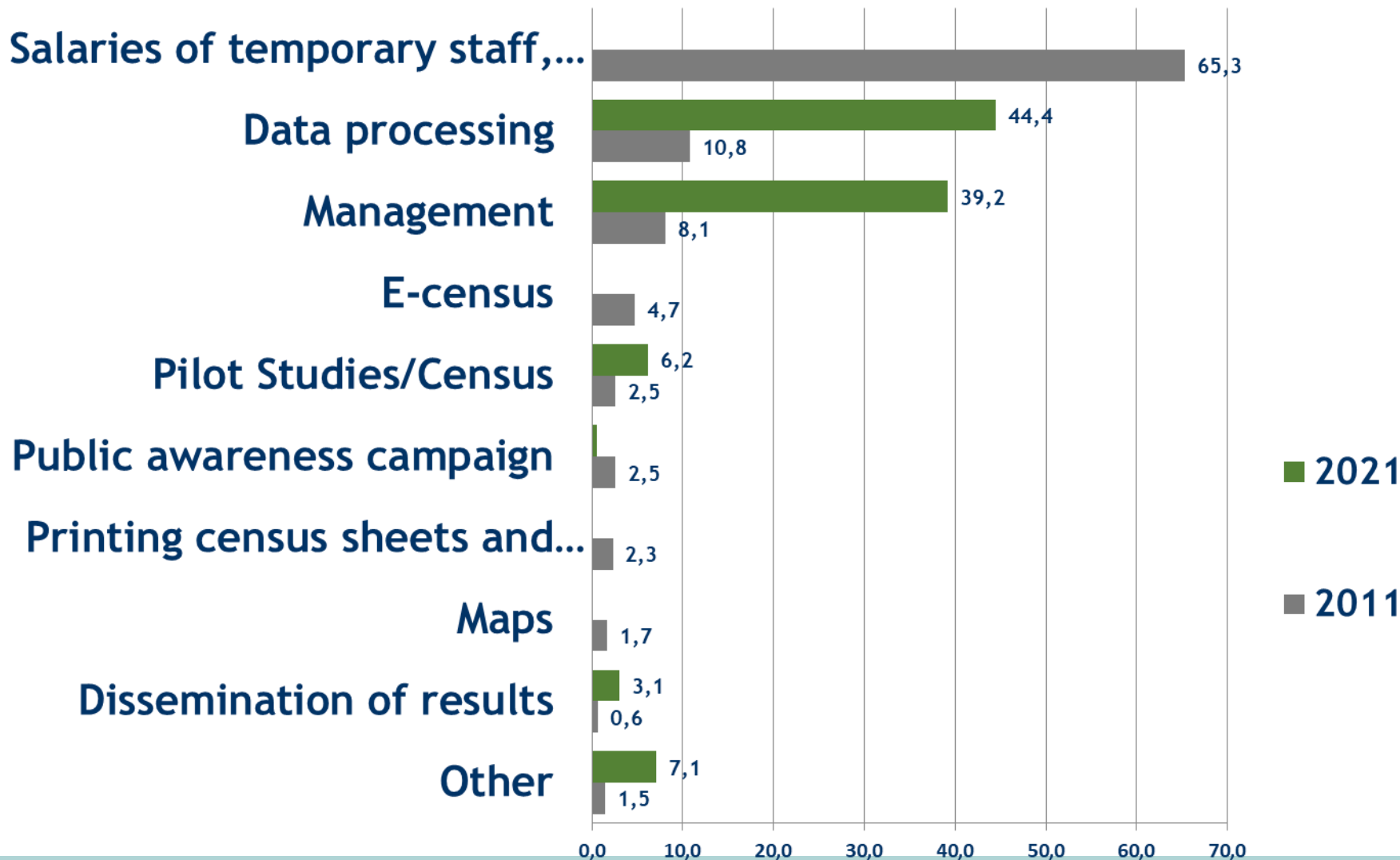
- **Statistical register of population** is under development
- Census **population = population** of other surveys (same algorithm used)
- All samples are drawn from the same sampling frame (which is equal to census population)
- A variable for different survey comes from the same source using the same algorithm for estimation

# Concluding remarks

# Census Budget 2011 and 2021, in mln. euros



# Structure of Census budget (2011 and 2021)



# More information

<https://osp.stat.gov.lt/gyventoju-ir-bustu-surasymai1>



Official Statistics Portal



All indicators

News

Services

Classifications

E-library



Database news



News releases for this week



Home > All indicators > Censuses > Population and Housing Census

Census 2021



Census 2011



Census 2001

