

Central Statistical Bureau of Latvia

METHOD USED TO ESTIMATE POPULATION

Coauthors:

Ieva Aināre
Mārtiņš Liberts
Baiba Zukula
Sigita Purona-Sida
Jeļena Vaļkovska
Bruno Opermanis
Aleksis Jurševskis
Kristīne Lece
Ance Ceriņa
Juris Breidaks
Jānis Jukāms
Ruta Beināre
Sigita Meldere

**Riga
2025**

Abstract

The Population and Housing Census 2011 revealed that, at the beginning of 2011, Latvia had a usually resident population of 2 074.6 thousand – 7% fewer than recorded in the Register of Natural Persons¹ maintained by the Office of Citizenship and Migration Affairs (2 228.0 thousand). To address this discrepancy, Central Statistical Bureau of Latvia developed a new methodology for estimating population of Latvia more accurately.

The method relies on statistical classification and migration mirror statistics and divides the population recorded in the Register of Natural Persons into two groups: persons actually residing in Latvia and those living abroad. A logistic regression model, developed in 2013 and trained on data from the Population and Housing Census 2011, forms the core of the method. The approach has been applied in the production of population statistics since 2012 and was used until 2024.

As the Population and Housing Census 2021 was based entirely on administrative data, it was not possible to update the training dataset. Therefore, in 2021, work began on developing a new method using the SoL-logit model, which belongs to the class of unsupervised machine learning models – that is, the model is trained without labelled historical data on a person's status as a usual resident at the beginning of the year. Consequently, since 2025, the SoL-logit model has been used to determine whether a person is a usual resident of Latvia, and the data for 2023 and 2024 have been recalculated accordingly.

¹ Until 1 June 2021, the Register of Natural Persons was known as the Population Register.

Contents

1	Introduction.....	4
2	Definitions.....	5
3	Data sources	6
3.1	Office of Citizenship and Migration Affairs	6
3.2	Other administrative registers	7
3.3	CSB databases	8
3.4	Sample population surveys conducted by the CSB	10
4	Models and assumptions.....	10
4.1	SoL-logit model	10
4.2	Model selection criteria	13
4.3	Producing population and long-term international migration estimates	17
4.4	Determining registered place of residence	26
5	Producing population, natural population change, and migration statistics	27
5.1	Classifier precision compared to the Census 2011 data	27
5.2	Classifier precision compared to SOPA data and survey results	28
6	Conclusions and future improvements	31
7	References	32
	Annex 1. Tables: Model estimates and population coverage	34

1 Introduction

Before 2011, Central Statistical Bureau of Latvia (CSB) estimated population size and composition at the beginning of each year using information from the Register of Natural Persons maintained by the Office of Citizenship and Migration Affairs (OCMA). The estimates were based on individual-level data for each person. Data from the Register of Natural Persons were also used to calculate international long-term migration (according to Regulation (EC) No 862/2007 of the European Parliament and of the Council on Community statistics on migration and international protection [\(8\)](#), ‘emigration’ is defined as the action by which a person, having previously been a usual resident of a Member State, ceases to have his or her usual residence in that Member State for a period of at least 12 months; and ‘immigration’ refers to the action by which a person establishes his or her usual residence in the territory of a Member State for a period of at least 12 months, having previously been a usual resident of another Member State or of a third country). Natural population change during the year was estimated using information from civil status registers.

The Population and Housing Census 2011 (Census 2011) provided the information needed for the CSB to refine its estimates. It showed that on 1 January 2011 Latvia had a population of 2 074.6 thousand. Compared with previously published figures, the population had declined by about 155 thousand, or 7%. This confirmed that part of the population did not meet the requirements of the Law on the Register of Natural Persons [\(13\)](#) and that the Register’s information on the actual population was incomplete.

In accordance with Article 4 of the Regulation of the European Parliament and of the Council on demography statistics [\(10\)](#), Member States may estimate the total population from the legally resident or registered population using scientifically-based, well-documented, and publicly available statistical estimation methods. At present, there is no common method for population estimation across the European Union (EU), thus countries apply different approaches to estimating population and its composition, for example:

- based on information in the Register of Natural Persons (e.g. Finland [\(5\)](#));
- by compiling information from local governments (e.g. Germany [\(7\)](#));
- by using information from several administrative registers (e.g. the Netherlands [\(4\)](#));
- in countries without a personal identification code, by combining data from the Census, sample surveys, and other administrative or institutional sources (e.g. the United Kingdom [\(3\)](#), Ireland [\(2\)](#)).
- Statistics Estonia [\(1\)](#) estimates the population using a method based on recording *signs of life* of each person in administrative registers, resulting in a residence index estimate derived from mathematical methods. The index is used to determine each person’s usual place of residence – whether in Estonia or abroad.

The number of respondents in surveys conducted by the CSB is not sufficient to produce high-quality information in the breakdowns needed for national and international data users. Population statistics must be produced with breakdowns by sex, age, administrative territory (regions, municipalities, parishes and municipality towns, neighbourhoods of Riga and Valmiera, densely populated areas), among other characteristics. For this reason, CSB population estimation method is based on information from the Register of Natural Persons, as well as other administrative registers, and is used to determine the usual place of residence (in Latvia or abroad) of each person registered in Latvia at the beginning of the year.

Apart from using administrative data for population estimates, CSB also uses this information to specify the number of inhabitants and for quality control purposes. Such processing is carried out in

the public interest and is provided for in the Statistics Law (15) and the relevant Cabinet Regulations which set out measures for the protection of sensitive data. Data processing for these calculations is performed in accordance with the requirements of the Personal Data Processing Law (14) and the relevant EU regulatory acts (9).

Pursuant to Article 2(b) of the Commission Implementing Regulation (EU) No 205/2014 laying down uniformed conditions for the implementation of Regulation (EU) No 1260/2013 of the European Parliament and the Council on European demographic statistics (11), as regards breakdowns of data, deadlines and data revisions (13), the methodology used to calculate natural increase was also revised. The number of births now includes children born outside Latvia to mothers who are permanent residents of Latvia but temporarily (for less than one year) abroad.

With the broader use of administrative data, the Census 2021 was no longer conducted through face-to-face interviews. It was based on population statistics, supplemented by Census results compiled in accordance with Commission Implementing Regulation (EU) 2017/543 laying down rules for the application of Regulation (EC) No 763/2008 of the European Parliament and of the Council on population and housing censuses as regards the technical specifications of the topics and of their breakdowns.

2 Definitions

Usually resident population – resident population of the corresponding administrative territory only includes persons who have lived in their usual place of residence for at least 12 months as well as persons who have arrived at their usual place of residence with an intention to stay there for at least one year.

Emigrants of the respective administrative territory are the persons discontinuing their usual residence in the respective territory for a period lasting for or expected to last for at least 12 months.

Immigrants of the respective administrative territory are the persons moving to this territory for a permanent residence from another administrative territory for a period lasting for or expected to last for at least 12 months.

Actual residence – a place of residence defined based on the Census 2011 data and revised in line with the changes in OCMA Register of Natural Persons showing change of the registered place of residence and taking place after the critical moment of the Census 2011 as well as based on the information available in other administrative sources on people in institutional dwellings. Actual residence was used until 2019 (including).

Registered residence – place of residence in Latvia defined based on the address registered in the OCMA Register of Natural Persons and information available in other administrative sources on people in institutional dwellings as well as by revising registered address of certain population groups (children registered without parents; fathers registered with children only; persons not having address code).

Collective living quarters (institutional dwellings) – various organizations or institutions (hospitals, elderly care facilities, monasteries, barracks, prisons, etc.) accommodating people and providing them with the necessary shelter and provisions for a certain period as well as dormitories of educational institutions.

Institutional households – people the need for shelter and provisions whereof is fulfilled by an institution. Institution is a legal entity providing a group of persons with a short-term

accommodation and services. Institutions usually have facilities and premises that are shared by residents (bathrooms, lounges, dining rooms, sleeping quarters, etc.) (12).

3 Data sources

3.1 Office of Citizenship and Migration Affairs

Population estimates are produced using data files provided by OCMA from the Register of Natural Persons (sub-system of the Common Migration Information System). These files contain information on sex, date and country of birth, citizenship, ethnicity, legal marital status, and the administrative territorial code of the registered place of residence (in accordance with the Classification of Territories and Territorial Units (ATVK)) (18). The data also include the type of residence permit and other relevant characteristics.

Since January 2013, CSB annually receives information on civil status registrations (marriages, births, and deaths) from the Civil Status Registration Common Information System (CARIS), a sub-system of the OCMA Common Migration Information System. Previously, this information was obtained from local civil registry offices in paper form. Annual data on the number of births and deaths are compiled based on this information.

In accordance with Section 24 of the Civil Status Registration Law (16), the civil status registry office (including consular representation abroad) must be notified of a child's birth within one month after the event. Therefore, the data of the Register of Natural Persons received from the OCMA at the beginning of the year are revised by including children born in December of the previous year but registered in January or February of the current year.

In line with Section 38 of the same law, deaths must be reported to the civil status registry office no later than six working days after the event or after a person has been found dead. Under Section 28 of this law, a medical institution or specialist must notify the civil status registry office of a stillbirth or a child's death during delivery within eight days. Consequently, the Register of Natural Persons data received from the OCMA at the beginning of the year are revised by excluding persons whose deaths were registered early in the current year but who actually died at the end of the previous year.

To also include children born outside Latvia to mothers who are usually resident in Latvia but temporarily living abroad (for less than one year), information from the Register of Natural Persons on children born abroad and having Latvia as their country of residence is used. Before including a child in the number of births, the mother's place of residence in the previous year is verified, and this information is compared with data from the State Health Service on whether the infant has received state-funded health care services (in compliance with the paragraphs 1.1.2–1.1.3 of Annex 1 *Procedure for Health Care Organisation and Funding* (17) to Cabinet Regulation No 55 of 2018, a child must undergo a preventive examination once a month until the age of six months and twice between seven and eleven months; if no examination takes place, a nurse or doctor's assistant makes a home visit). If the records for a child born abroad and subsequently registered in Latvia are insufficient to determine that the child is a usual resident of Latvia, the child is excluded from the number of births. The birth statistics also exclude children born abroad to mothers whose place of residence was not registered in Latvia, as well as children whose both parents are foreign citizens (without a personal identification code).

Using data files received from the OCMA in January, February, and March of the current year, as well as in November and December of the previous year, the frame of the Register of Natural Persons – representing the population of Latvia registered on 1 January of the respective year – is built and serves as the basis for the population estimate. By evaluating each person's activities (information

about the individual in various administrative registers), part of the persons included in the Register of Natural Persons frame is classified as residents of Latvia, while those showing no activity are considered to be living abroad.

The Register of Natural Persons frame is revised using information on births and deaths, changes in personal identification codes, and persons living in collective living quarters. The frame is also supplemented with persons temporarily excluded from the OCMA register files because they are undergoing process of changing citizenship or have registered their place of residence abroad for one to three months and are expected to return in February or March.

The military offensive launched by Russia in February 2022 forced many Ukrainians to flee their country. In the host countries, refugees were granted temporary protection status, giving them rights similar to those of usual residents; therefore, they are included in the population frame as well.

As of 1 January 2024, the population frame was supplemented with Russian citizens who had lost their residence permits since September 2023 but were most likely still living in Latvia. After evaluating their activity across various registers, some of these persons were included in the number of usually resident population of Latvia.

3.2 Other administrative registers

Apart from data obtained from the OCMA, the population estimation model also uses information from other administrative registers available to the CSB.

State Revenue Service (SRS)

- data on employees for whom the employer has made state social security compulsory payments from employee income, who paid personal income tax or business risk state duty during the reference month;
- data on self-employed persons, domestic employees working for foreign employers, and foreign employees working for foreign employers, for whom state social security compulsory payments have been made;
- information on employees (for example, acquisition or loss of employee or microenterprise employee status, granting of leave, or change of occupation/profession);
- data on persons who have paid seasonal agricultural worker income tax;
- data on persons who have submitted a microenterprise employee declaration.

National Health Service (NHS)

- data on persons who have received state-funded health care services during the previous calendar year (payments cover inpatient and outpatient health care services, medicines included in the list of state-compensated pharmaceuticals, and state-funded dental services for children under 18 years of age).

State Social Insurance Agency (SSIA)

- data from the Social Insurance Information System on social insurance benefits and state social allowances paid to persons or transferred to accounts in Latvia during the previous calendar year.

Road Traffic Safety Directorate (CSDD)

- data on persons to whom a driving licence (for motor vehicles, recreational vessels, or bicycles) was issued in Latvia during the previous calendar year.
- data on persons who changed their motor vehicle or recreational vessel driving licence in Latvia during the previous calendar year.
- data on persons whose motor vehicle or recreational vessel driving licence was annulled (revoked due to an offence) in Latvia during the previous calendar year.
- data on persons whose penalties were recorded in the National Register of Vehicles and Drivers during the previous calendar year.

Rīgas satiksme (RS)

- data on users of personalised smart cards (electronic tickets or *e-talons*) who registered their cards during the period from 1 August of the previous calendar year to 31 January of the current year;
- data on users of personalised smart cards (electronic tickets or *e-talons*) who registered their cards during the period from 1 February to 31 July of the current calendar year.

Maintenance Guarantee Fund (MGF)

- data on persons who submitted an application to the Maintenance Guarantee Fund for maintenance payments and who received such payments from the Fund during the previous calendar year.

Rural Support Service (RSS)

- data on persons registered in the Integrated Administration and Control System (IACS) EU Direct Payments database as recipients of area-based support payments;
- data on persons who keep livestock.

Social Services Administration Information system (SOPA)

- data from the Social Assistance Administration Information System (SOPA application) on persons who received a social benefit or social service from local governments during the previous year.

3.3 CSB databases

The population estimate is also based on several CSB databases, which are used both to filter persons and to ensure that the data are mutually harmonised.

Data required for creating specified population data file include:

- the birth database;
- the death database;
- the marriage database;

- the institutional dwelling database.

The **data used for determining the place of residence** are drawn from a transition table linking the State Land Service Address Register (VARIS) addressing object code with the ATVK code.

Additional to the CARIS data, the **birth database** also includes:

- children born abroad to mothers whose place of residence was registered in Latvia in the previous year (either at the beginning or the end) and who, according to the population estimation method, are included in the usually resident population of Latvia;
- children of foreign citizens born in Latvia whose birth certificates were issued not by the OCMA but by the consular service of their parents' country of citizenship, and who are therefore not included in the CARIS data but, according to the population estimation method, are included in the usually resident population of Latvia.

The **death database** is based on the CARIS data. In the personal browser, information is also specified for persons who are not included in the CARIS database but may have died.

If a person:

- is citizen or non-citizen of Latvia;
- was included in the OCMA register at the beginning of the previous year; and
- is no longer included in the OCMA register at the beginning of the current year,

it is verified whether the person has died abroad. If it is established that the person should be included in the death database, the date of death is recorded.

The **marriage database** is used to assign the correct family status code to persons who were married or divorced at the end of the year, as well as to those who were married or divorced abroad.

The **institutional dwelling database** consists of two parts:

- persons who are definitely to be included in the estimate – refugees, prisoners, social care clients (approximately 17 thousand people);
- persons living in collective living quarters who may not be included in the estimate (depending on their activities) – persons living in student hostels, monasteries, social shelters (approximately 10 thousand people).

Each part has its own set of addressing object codes, which do not overlap.

To determine the place of registered residence, **an addressing object code–ATVK transition table** is used. The table is updated based on information from the State Land Service and includes, for each apartment in a building or house, the addressing object code, the CATTU code, the reason for the change (such as boundary adjustments or correction of an error in the register), and a flag indicating institutional housing.

Databases for specifying addressing object codes

Persons may be assigned only the addressing object code of their registered place of residence which, based on the State Land Service information, to their actual place of residence. However, a comparison of the addressing object codes recorded in the OCMA register with those in the Address Register showed that some persons are:

- registered in an apartment but actually living in a house, as the house is not divided into apartments;

- registered in a house but actually living in an apartment, as the house contains several apartments;
- recorded with a village code as their residence addressing object code.

To correct these inaccuracies and assign each person the addressing object code corresponding to the most credible place of residence, the following databases are prepared:

- databases of these persons and dwellings;
- a database containing housing area information.

3.4 Sample population surveys conducted by the CSB

The accuracy of the population estimate is evaluated using the results from various CSB surveys that include the personal identification codes of respondents. Those are:

- Labour Force Survey (LFS) (from 2011);
- EU Statistics on Income and Living Conditions (EU-SILC) (from 2011);
- European Health and Social Integration Survey (EHIS) (1 September 2012);
- European Health Interview Survey (EHIS) (end of 2014–beginning of 2015 and end of 2019–beginning of 2020);
- Community Survey on ICT Usage in Households and by Individuals (ICT) (2017–2020, 2021);
- Adult Education Survey (AES) (2016 and 2022);
- Mobility Survey of Latvia Population (MOBA) (2017);
- External Migration Survey (EMS) (2017 and 2018);
- Statistics on the Careers of Doctorate Holders (CDH) survey (2019).

While preparing for the Census 2021, CSB carried out a Population Microcensus in 2015. The Microcensus data were used to estimate the total international immigration to Latvia in 2015 and will also be used to evaluate the accuracy of the produced population statistics.

The External Migration Survey was conducted in 20 thousand households, with respondents interviewed twice – at the end of 2017 and again at the end of 2018 – to obtain information for the years 2016, 2017 and 2018. Each survey wave provided information from more than 35 thousand households.

4 Models and assumptions

4.1 SoL-logit model

The methodology for estimating usually resident population and international long-term migration is based on integrated administrative data and applies a mathematical model – the SoL-logit model, which is an unsupervised machine learning model trained without using labelled historical data on a person's residence status at the beginning of the year. The name of the model, SoL-logit, reflects its two components – *SoL* (signs of life) and *logit* (logistic regression function).

The model is based on the assumption that the population consists of two independent and distinct groups, or clusters: residents who are and who are not usual residents of Latvia. These groups are

characterised by different behavioural patterns, reflected in activity recorded in administrative registers during the previous year.

These behavioural patterns are described using signs-of-life factors, denoted as y . In the model, these factors represent whether a person showed activity in a particular register during the reference year (for example, received state-funded healthcare services or social benefits) or whether a specific status applies to the person in a register (for instance, being recorded as a Latvian resident in the Register of Natural Persons, registered as a pupil in a general education institution, or as a student). This status is recorded as of a specific date, depending on the administrative register.

In addition to the SoL factors, the model includes independent explanatory variables (x) used to estimate the probability (P) of a person belonging to a given group (z).

The full probability function of the SoL-logit model is described by equation (1):

$$P(y, z|x; \theta, \beta) = P(y|z; \theta)P(z|x; \beta) \quad (1)$$

- y – a random vector containing information on a person's SoL across various registers, $y_{ij} \in \mathbb{N}$. For most SoL factors, this is a binary variable, i.e. $y_{ij} \in \{0, 1\}$, where 1 indicates that person i showed activity in register j , and 0 otherwise;
- Z – a random variable describing the person's status as a usual resident, $z_i \in \{0, 1\}$, where 1 indicates that person i was a usual resident of Latvia at the beginning of the year, and 0 otherwise;
- x – a vector containing information on various covariates or independent regressors for person i , $x_{ik} \in \{0, 1\}$, where 1 indicates that person i has the value of regressor k , and 0 otherwise;
- θ, β – vectors of model parameters.

To estimate the SoL-logit model parameters θ, β , the maximum likelihood estimation (MLE) approach is used. The value of the SoL-logit model likelihood function (2) is maximised globally to obtain the $\theta_{MLE}, \beta_{MLE}$ estimates of the parameters θ, β MLE.

$$L(\theta, \beta|y, x) = \prod_{i=1}^N \sum_{z=0}^1 \left(\frac{e^{\beta_0 + \sum_{k=1}^n \beta_k x_{ik}}}{1 + e^{\beta_0 + \sum_{k=1}^n \beta_k x_{ik}}} \right)^z \left(\frac{1}{1 + e^{\beta_0 + \sum_{k=1}^n \beta_k x_{ik}}} \right)^{(1-z)} \prod_{j=1}^J \prod_{r_j=0}^{R_j} \theta_{j,r_j|z}^{I(y_{ij}=r_j)} \quad (2)$$

In the likelihood function (2), J denotes the number of SoL factors, and R_j – the number of possible values of the j -th SoL factor. For most SoL factors, $R_j = 1$, i.e., the variable is binary, where 1 indicates that the person has shown activity in the register, and 0 otherwise. $I(y_{ij} = r_j)$ is an indicator function that takes the value 1 if the value of the j -th SoL factor for i -th person equals r_j , and 0 otherwise.

$$I(y_{ij} = r_j) = \begin{cases} 1, & y_{ij} = r_j \\ 0, & y_{ij} \neq r_j \end{cases}$$

To simplify the structure and estimation of the model, it is assumed that the SoL are independent:

$$P(y_i|z_i; \theta) = \prod_{j=1}^J \prod_{r_j=0}^{R_j} \theta_{j,r_j|z}^{I(y_{ij}=r_j)}. \quad (3)$$

The model was evaluated for 22 sex and age group combinations (see Tables 1 and 2). Such division is necessary because, first, not all administrative registers apply to all persons in the population – activity in a register depends on the register’s purpose and functions, as well as on individual characteristics (such as age, sex, and place of residence). For example, information from the State Revenue Service on employees does not apply to persons younger than 15, and data from the Ministry of Education and Science on pupils enrolled in general education programmes do not apply to persons older than 19, since the proportion of persons with activity in the relevant registers in these age groups is either zero or too small (see Figures 1 and 2).

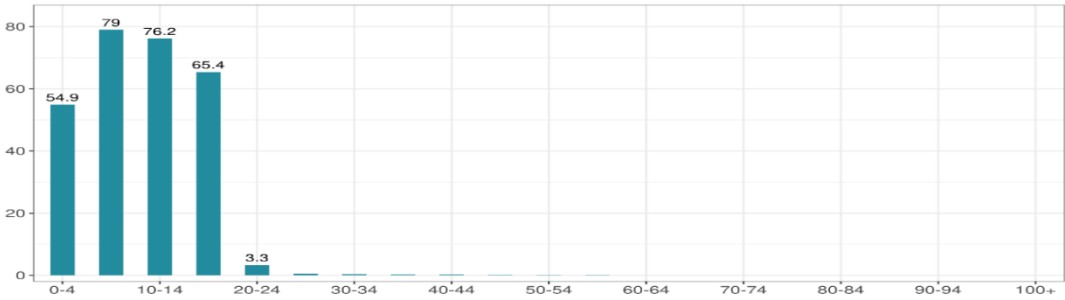


Figure 1. Proportion of persons in the Ministry of Education and Science data by age group; 2024

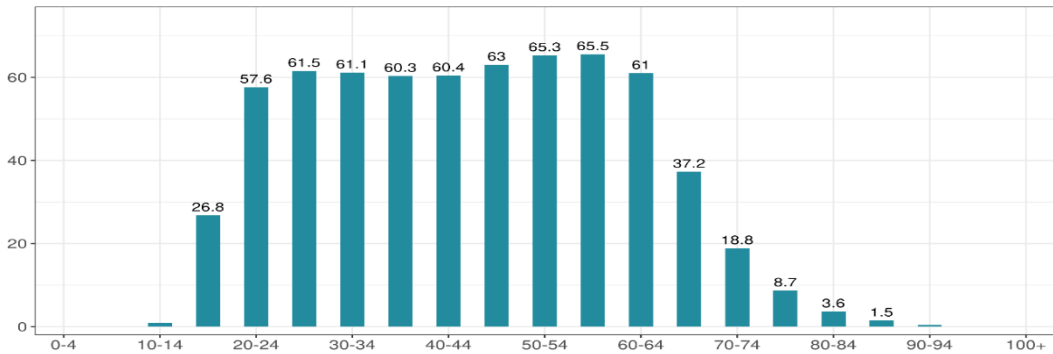


Figure 2. Proportion of persons in the State Revenue Service data by age group; 2024 (%)

Secondly, such an approach to model evaluation – applying it separately to sex and age groups – allows indirect control of heterogeneity in the conditional probabilities $\theta_{j,r_j|z}$, when no additional parameters (regressors) are used to estimate these conditional probabilities. For example, women receive state-funded outpatient services or social benefits and pensions paid by the State Social Insurance Agency more frequently than men (see Figures 3 and 4).

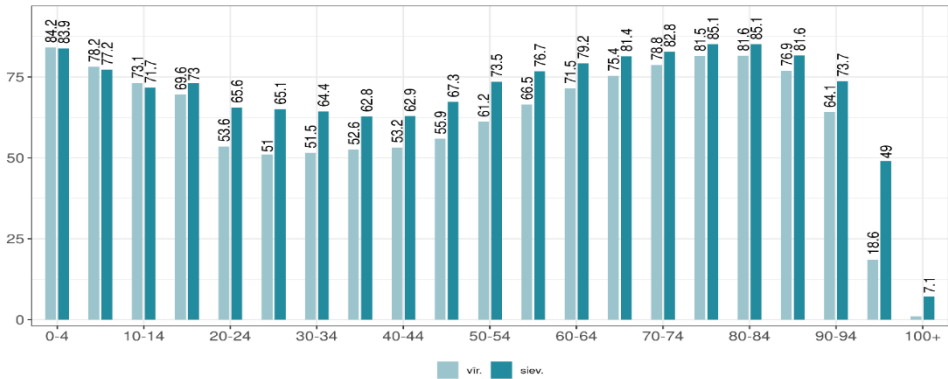


Figure 3. Persons who received state-funded outpatient services by age group;

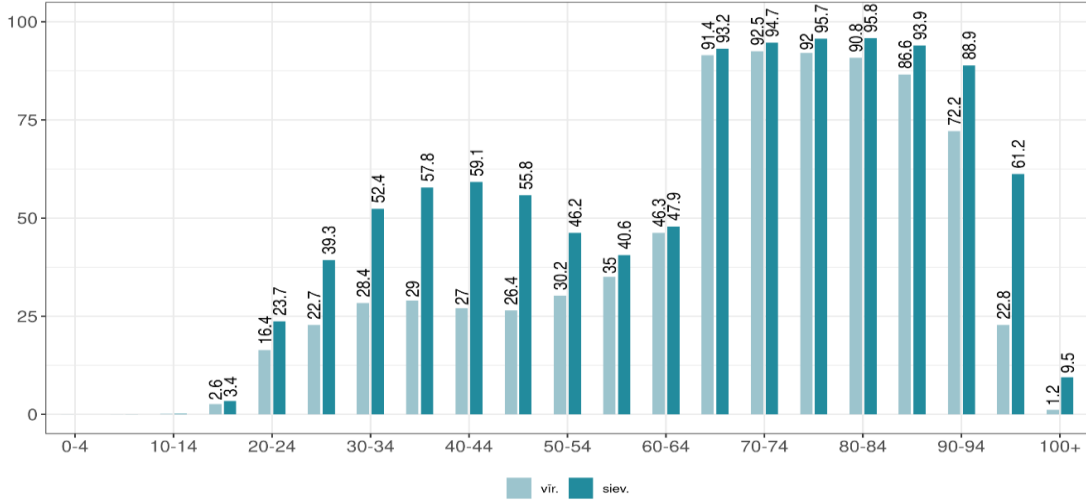


Figure 4. Persons who received social benefits or pensions paid by the State Social Insurance Agency by age group; 2024 (%)

The model parameters were evaluated by maximising the value of the likelihood function (2) using the Expectation–Maximisation (EM) algorithm². To avoid local solutions of the likelihood function, 20 independent replications of the EM algorithm were performed, with the initial parameter values generated according to the uniform distribution law.

The probability of a person belonging to group $z \in \{0, 1\}$ was calculated using Bayes' theorem (4).

$$\begin{aligned}
 P(z_i | y_i, x_i; \theta_{MLE}, \beta_{MLE}) &= \frac{P(y|z; \theta_{MLE})P(z|x; \beta_{MLE})}{P(y|x; \theta_{MLE}, \beta_{MLE})} = \\
 &= \frac{\left(\frac{e^{\beta_0 + \sum_{k=1}^n \beta_k x_{ik}}}{1 + e^{\beta_0 + \sum_{k=1}^n \beta_k x_{ik}}} \right)^z \left(\frac{1}{1 + e^{\beta_0 + \sum_{k=1}^n \beta_k x_{ik}}} \right)^{(1-z)} \prod_{j=1}^J \prod_{r_j=0}^{R_j} \theta_{j,r_j|z}^{I(y_{ij}=r_j)}}{\sum_{z=0}^1 \left(\frac{e^{\beta_0 + \sum_{k=1}^n \beta_k x_{ik}}}{1 + e^{\beta_0 + \sum_{k=1}^n \beta_k x_{ik}}} \right)^z \left(\frac{1}{1 + e^{\beta_0 + \sum_{k=1}^n \beta_k x_{ik}}} \right)^{(1-z)} \prod_{j=1}^J \prod_{r_j=0}^{R_j} \theta_{j,r_j|z}^{I(y_{ij}=r_j)}} \quad (4)
 \end{aligned}$$

A person is classified into the group $z \in \{0, 1\}$ that has the highest probability (4).

4.2 Model selection criteria

As the SoL-logit is an unsupervised model, no labelled training, validation, or test datasets are used for its training. Therefore, the accuracy of the model classifier cannot be measured using traditional methods typically applied to supervised machine learning models – for example, precision, accuracy, recall, or specificity metrics, which are calculated using a confusion matrix³.

² Dempster, A.P.; Laird, N.M.; Rubin, D.B. (1977), *Maximum Likelihood from Incomplete Data via the EM Algorithm*. Journal of the Royal Statistical Society, Series B. 39 (1): 1–38. doi:10.1111/j.2517-6161.1977.tb01600.x. JSTOR 2984875. MR 0501537

³ G. James, D. Witten, T. Hastie, and R. Tibshirani, *An Introduction to Statistical Learning: With Applications in R*, 2nd ed. New York, NY: Springer, 2023.

The best SoL-logit model – that is, the selection of SoL factors and explanatory variables to be included in the model for each sex and age group – was determined based on the Akaike (AIC) or Bayesian (BIC) information criteria.

$$AIC = 2k - 2\ln(\hat{L}), \quad (5)$$

$$BIC = k\ln(n) - 2\ln(\hat{L}) \quad (6)$$

where k – number of parameters in the model, $\hat{L}$ – maximum value of the likelihood function, n – number of data points. The smaller the AIC or BIC value, the better the model performs compared with one having a higher value. The SoL factors and explanatory variables included in the model are listed below (see Tables 1 and 2); their description is provided in the annex.

Such an approach does not necessarily ensure good classification accuracy. Therefore, when selecting the best model, the parameter $\theta_{j,r_j|z}$ values were also qualitatively assessed, and consistency was evaluated by comparing SoL-logit results with population statistics obtained using the logistic regression model ⁴ (see annex).

Table 1. Signs-of-life factors included in the SoL-logit model by sex and age group
(+ included, – not included)

Signs of life	0-1_vīr	0-1_siev	2-6_vīr	2-6_siev	7-18_vīr	7-18_siev	19_vīr	19_siev	20-24_vīr	20-24_siev	25-29_vīr	25-29_siev	30-34_vīr	30-34_siev	35-39_vīr	35-39_siev	40-44_vīr	40-44_siev	45-64_vīr	45-64_siev	65+_vīr	65+_siev
aris_sol	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
csdd_sol	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-
iaks_sol	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	-	-
izm_sol	-	-	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
lad_sol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-
nua_sol	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
nva_sol	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-
nvd_ap_sol	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
nvd_bm_sol	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
nvd_sp_sol	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
nvd_zp_sol	-	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
vec_nvd_sol	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
vec_rest_sol	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
vec_vid_sol	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pi_sol	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
pmlp_sol	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
rs_sol	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
sopa_sol	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
ugf_sol	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	-	+	-	-	-	-
uni_sol	-	-	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
vid_sol	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-

⁴ J. Vaļkovska, M. Liberts, A. Jurševskis, J. Jukāms, A. Ceriņa, K. Lece, B. Zukula *et al*, *Method used to produce population statistics*, Riga, 2023.

vsaa_sol

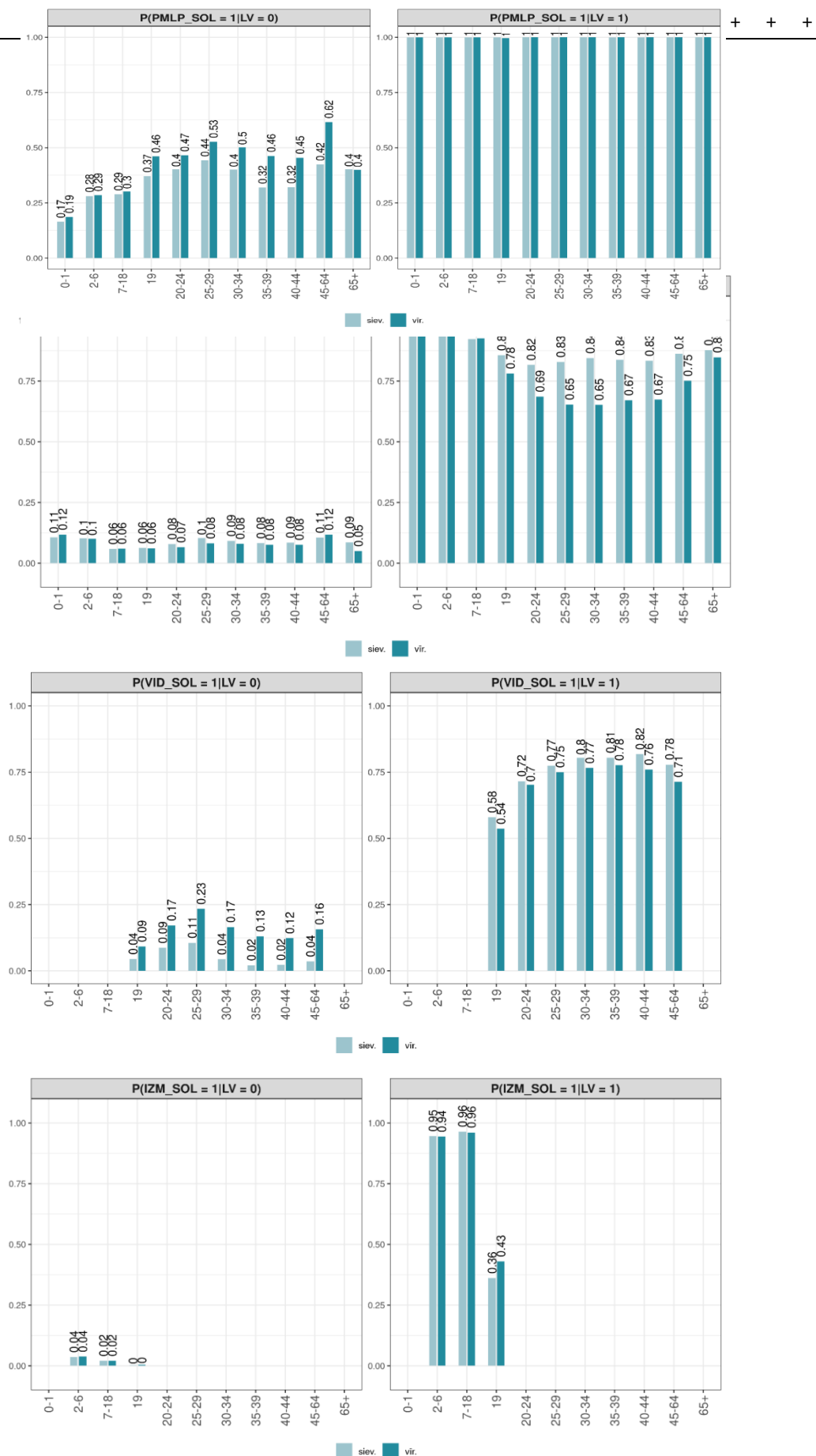


Figure 5. Estimated conditional probabilities $\theta_{j,1|0}^{MLE}$ un $\theta_{j,1|1}^{MLE}$ by administrative register (OCMA, SRS, NHS, MES)

Table 2. *Regressors included in the SoL-logit model by sex and age group*
(+ included, – not included)

Regressor	0-1_vīr	0-1_siev	2-6_vīr	2-6_siev	7-18_vīr	7-18_siev	19_vīr	19_siev	20-24_vīr	20-24_siev	25-29_vīr	25-29_siev	30-34_vīr	30-34_siev	35-39_vīr	35-39_siev	40-44_vīr	40-44_siev	45-64_vīr	45-64_siev	65+_vīr	65+_siev
constant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
age	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
collect. l. q.	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+
xcob_eu	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xcob_lva	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xcob_rus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xctz_arzp	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xctz_lvan	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xctz_lvap	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xedu_0	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xedu_1	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xedu_2	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xedu_3	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xedu_4	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xedu_5	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xedu_67	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xedu_8	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+
xfst_1	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xfst_2	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xfst_3	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xnat_1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xnat_13	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xnat_17	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xnat_2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xnat_21	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xnat_211	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xnat_3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xnat_45	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xnat_68	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xnat_8	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xnat_na	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_0001000	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_0002000	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_0003000	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_0004000	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_0005000	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_0006000	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_0007000	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_0031010	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_0040010	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_0054010	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Regressor	0-1_vīr	0-1_siev	2-6_vīr	2-6_siev	7-18_vīr	7-18_siev	19_vīr	19_siev	20-24_vīr	20-24_siev	25-29_vīr	25-29_siev	30-34_vīr	30-34_siev	35-39_vīr	35-39_siev	40-44_vīr	40-44_siev	45-64_vīr	45-64_siev	65+_vīr	65+_siev
xter_K4	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_K5	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_L4	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_L5	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_R4	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_R5	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_V4	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_V5	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_Z4	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
xter_Z5	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

4.3 Producing population and long-term international migration estimates

Population statistics are produced by defining several variables for each person in the frame (see Table 3), which are then used to estimate the total population and migration.

The usually resident population of Latvia, both as a total and within any population domain (e.g. by sex, age, or administrative territory), is calculated by summing the SoL-logit model classifier values c_i for all persons in the frame who are classified as usual residents of Latvia at the beginning of the year. This approach ensures consistency across all published demographic statistics tables, as they are derived from classifier values calculated for each person in the frame.

To obtain migration estimates, SoL-logit model classifier results for two consecutive years – the current year and the previous year – are used, along with datasets on births and deaths for the previous year. In this way, each person's migration status – whether they emigrated from or immigrated to Latvia during the previous year – is determined by comparing their classifier values between the two years. The resulting information, together with data on births and deaths, is then used to produce migration statistics. For example, to estimate long-term international migration for 2024, classifier results for both 2024 and 2025 are required, as well as the list of persons who died or were born during 2024.

Table 3. Variables used for producing population statistics

Variable	Name	Value	Description
R_i	Registration status at the beginning and at the end of the year	11	Person i is registered as a usual resident both at the beginning and at the end of the year.
		10	Person i is registered as a usual resident only at the beginning of the year.
		01	Person i is registered as a usual resident only at the end of the year.
		00	Person i is registered as a usual resident neither at the beginning nor at the end of the year.

Variable	Name	Value	Description
C_i	Classification status at the beginning of the year	1	Person i is classified as a usual resident at the beginning of the year.
		0	Person i is not classified as a usual resident at the beginning of the year.
C_i	Classification status at the beginning and at the end of the year	11	Person i is classified as a usual resident both at the beginning and at the end of the year.
		10	Person i is classified as a usual resident only at the beginning of the year.
		01	Person i is classified as a usual resident only at the end of the year.
		00	Person i is classified as a usual resident neither at the beginning nor at the end of the year.
MI_i	Death factor	1	Person i died during the given year.
		0	Person i did not die during the given year.
DZ_i	Birth factor	1	Person i was born during the given year.
		0	Person i was not born during the given year.
d_i	Binary variable indicating a person's affiliation to the domain d	1	Person i belongs to domain d .
		0	Person i does not belong to domain d .

To calculate the number of registered emigrants (total and in domain d):

$$REM = \sum_{R_i=10 \& C_i=10 \& MI_i=0} 1, \quad (7)$$

$$REM_d = \sum_{R_i=10 \& C_i=10 \& MI_i=0} d_i. \quad (8)$$

To calculate the number of registered immigrants (total and in domain d):

$$RIM = \sum_{R_i=01 \& C_i=01 \& DZ_i=0} 1, \quad (9)$$

$$RIM_d = \sum_{R_i=01 \& C_i=01 \& DZ_i=0} d_i. \quad (10)$$

To calculate the number of non-registered emigrants (total and in domain d):

$$NEM = \sum_{R_i=11 \& C_i=10} 1, \quad (11)$$

$$NEM_d = \sum_{R_i=11 \& C_i=10} d_i. \quad (12)$$

To calculate the number of non-registered immigrants (total and in domain d):

$$NIM = \sum_{R_i=11 \text{ \& } C_i=01} 1, \quad (13)$$

$$NIM_d = \sum_{R_i=11 \text{ \& } C_i=01} d_i. \quad (14)$$

To produce data on long-term international migration:

- persons with $C_i = 01$ are included in immigration;
- persons with $C_i = 10$ are included in emigration;
- persons with $C_i = 00$ who died in Latvia during the year are included in immigration;
- persons with $C_i = 00$ who were born in Latvia during the year are included in emigration.

Figure 6 schematically illustrates the classification of persons based on variable values.

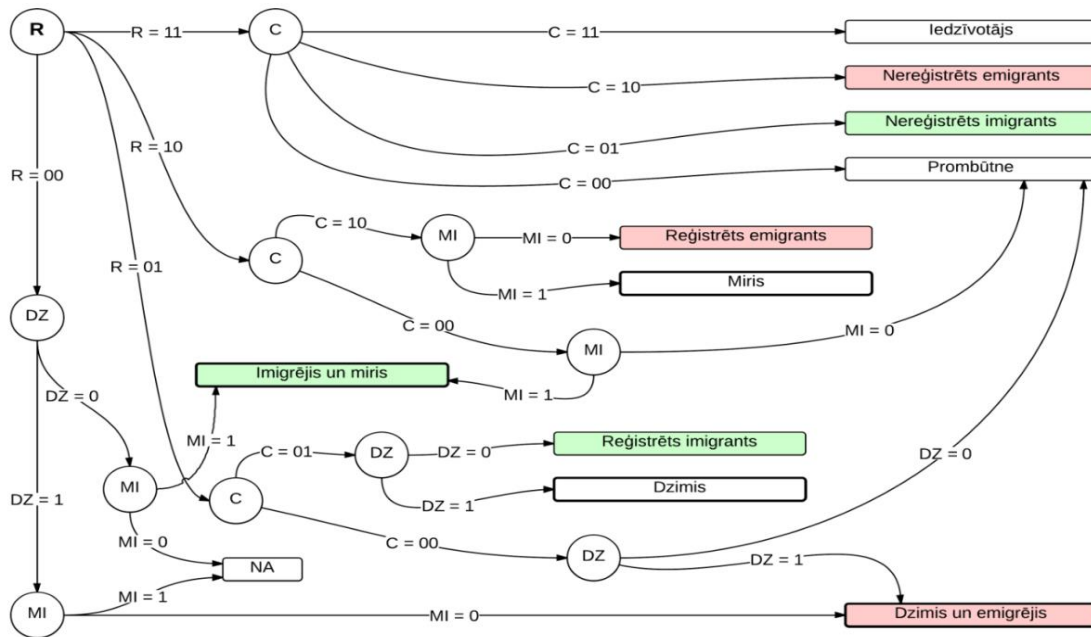


Figure 6. Population classification scheme

SoL-logit (comparison with logistic regression results)

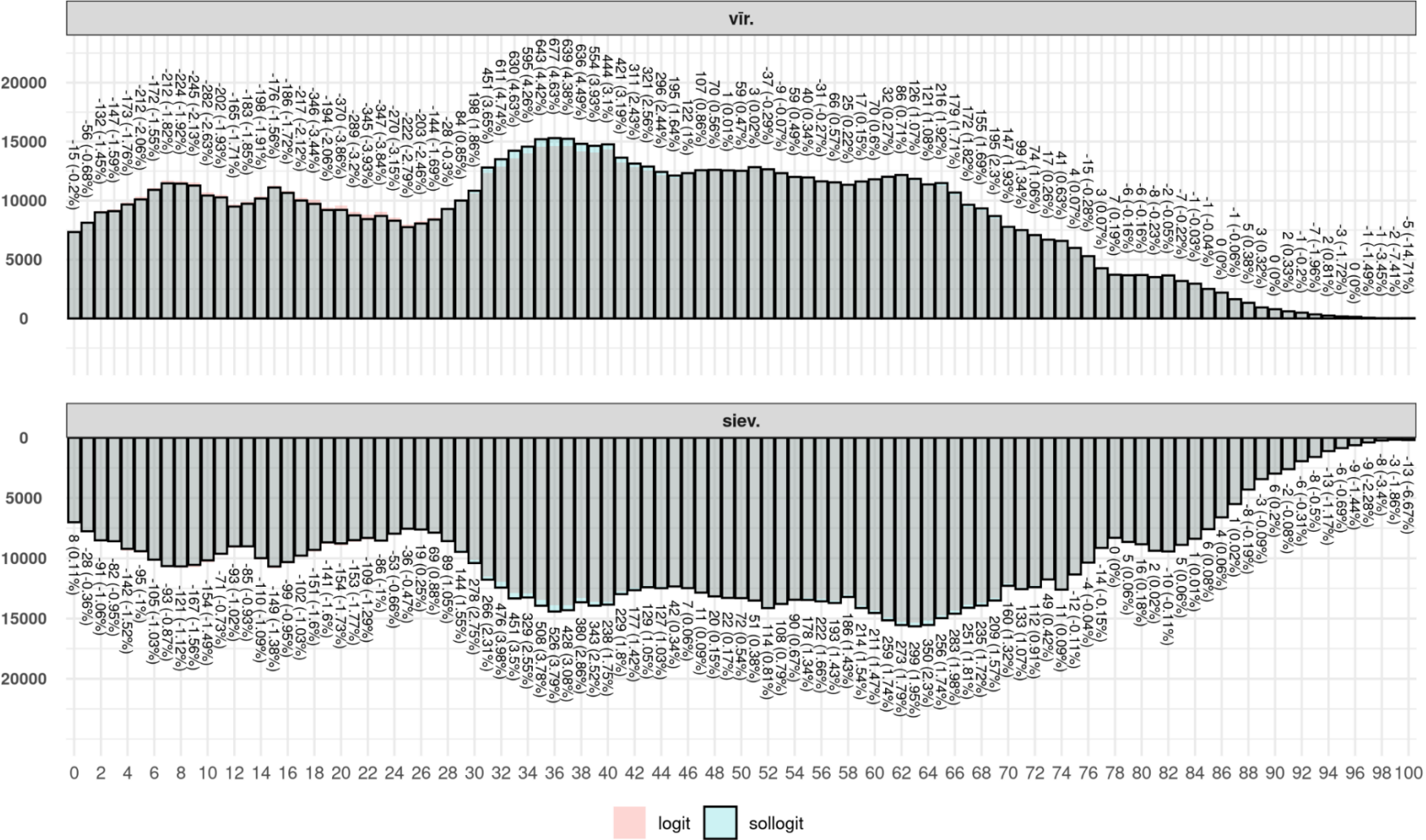


Figure 7. Differences in the usually resident population by sex and age; 1 January 2024

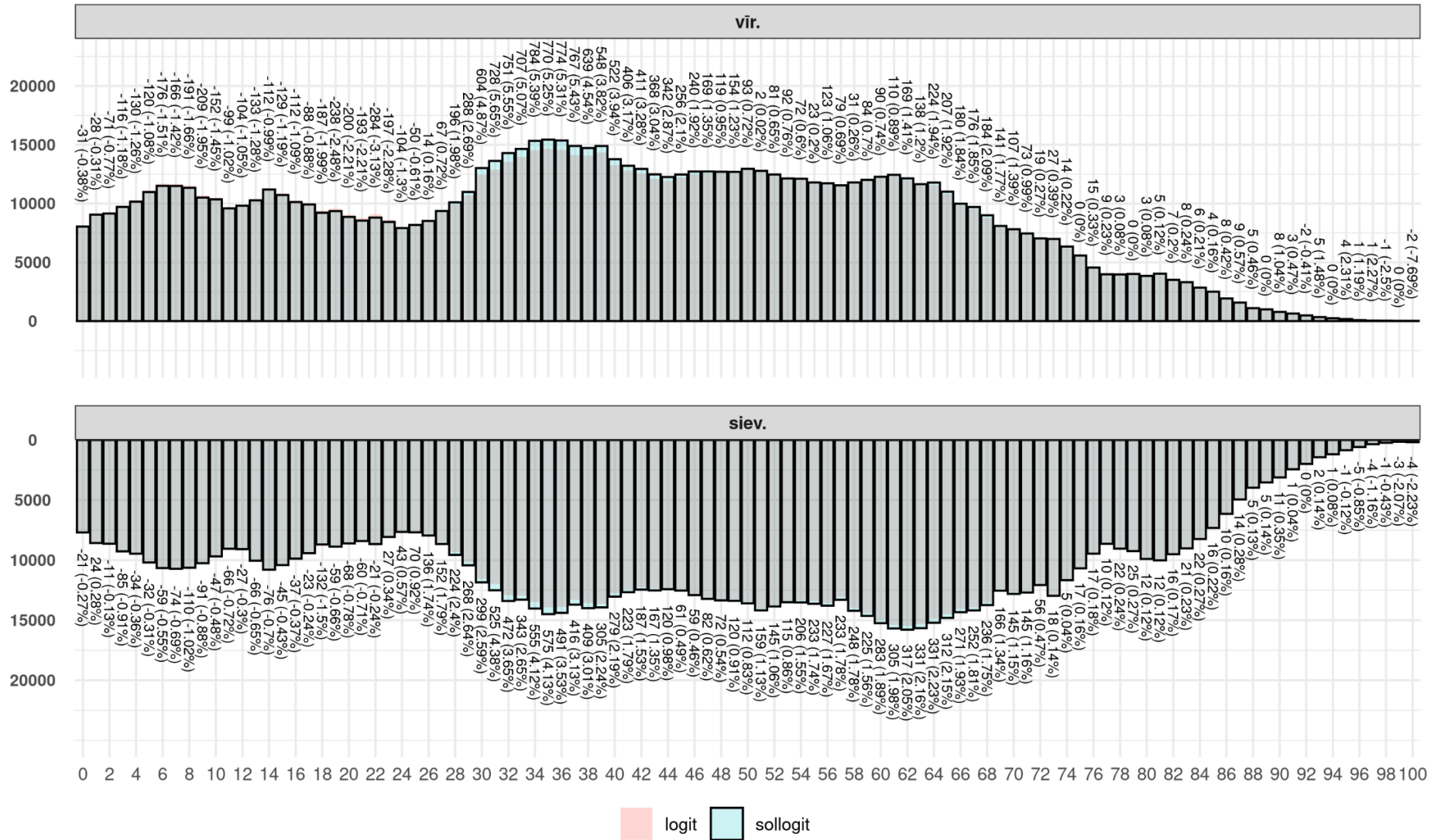


Figure 7. Differences in the usually resident population by sex and age; 1 January 2023

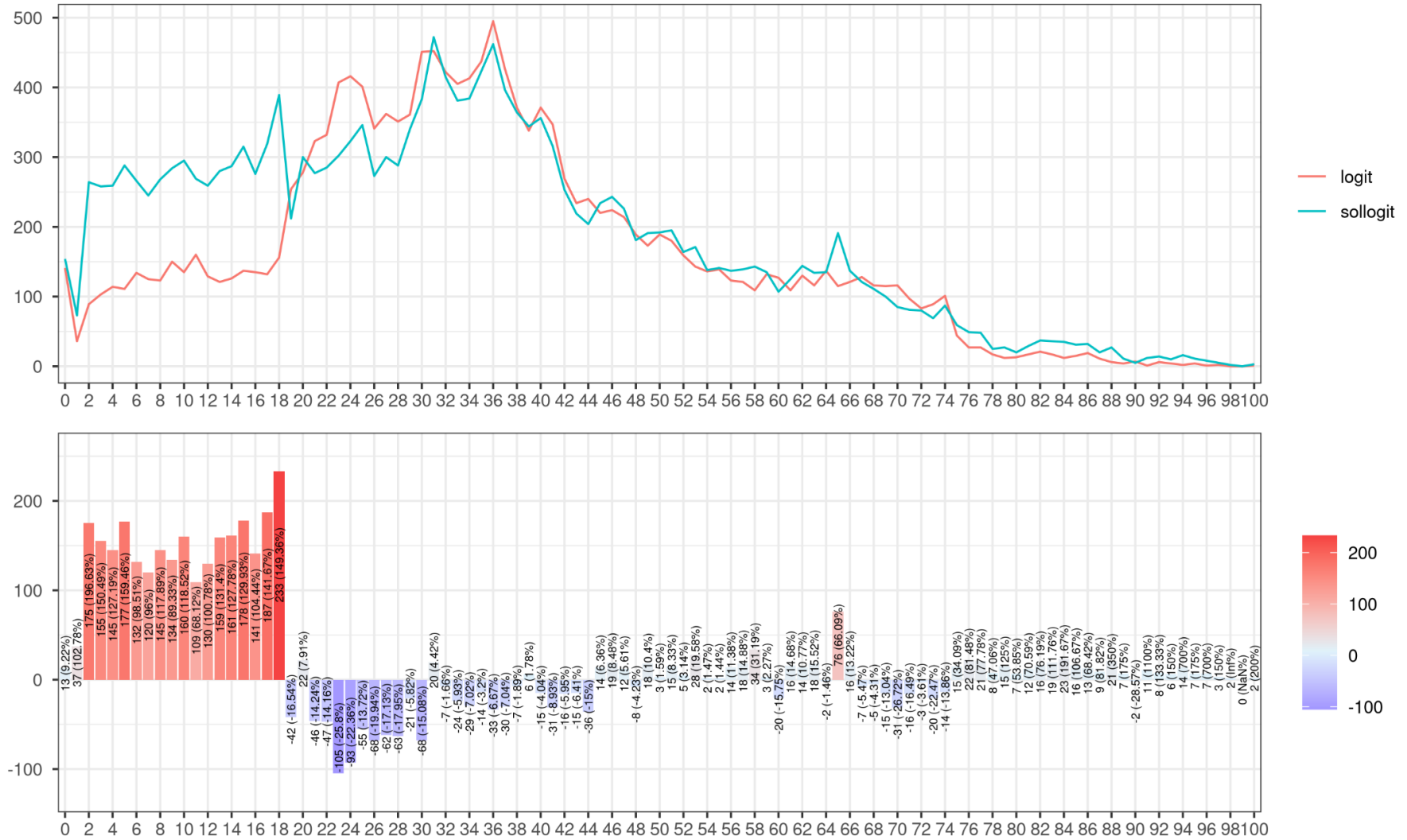


Figure 8. Differences in international long-term emigration by age group; 2023

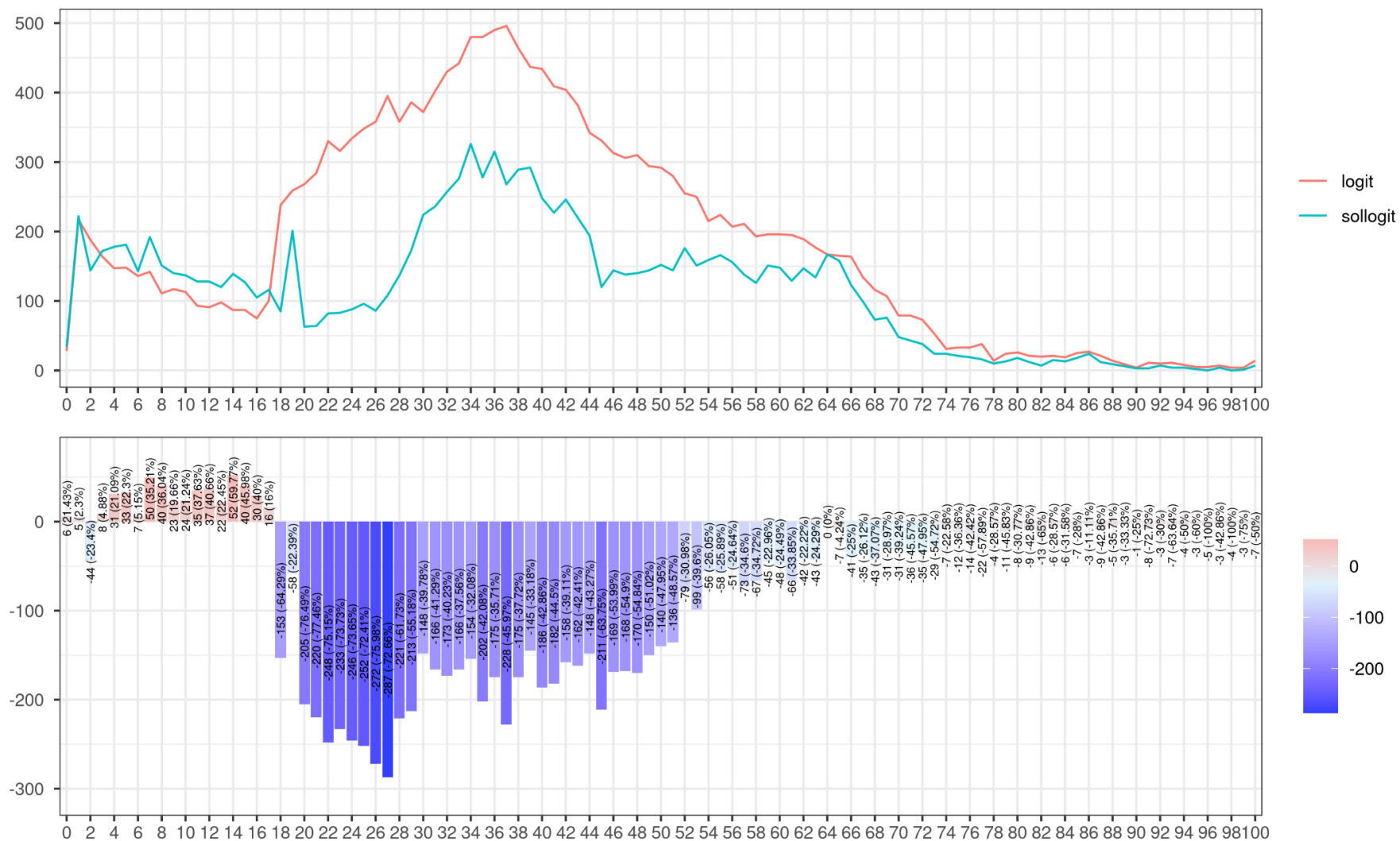


Figure 9. Differences in international long-term immigration by age group; 2023

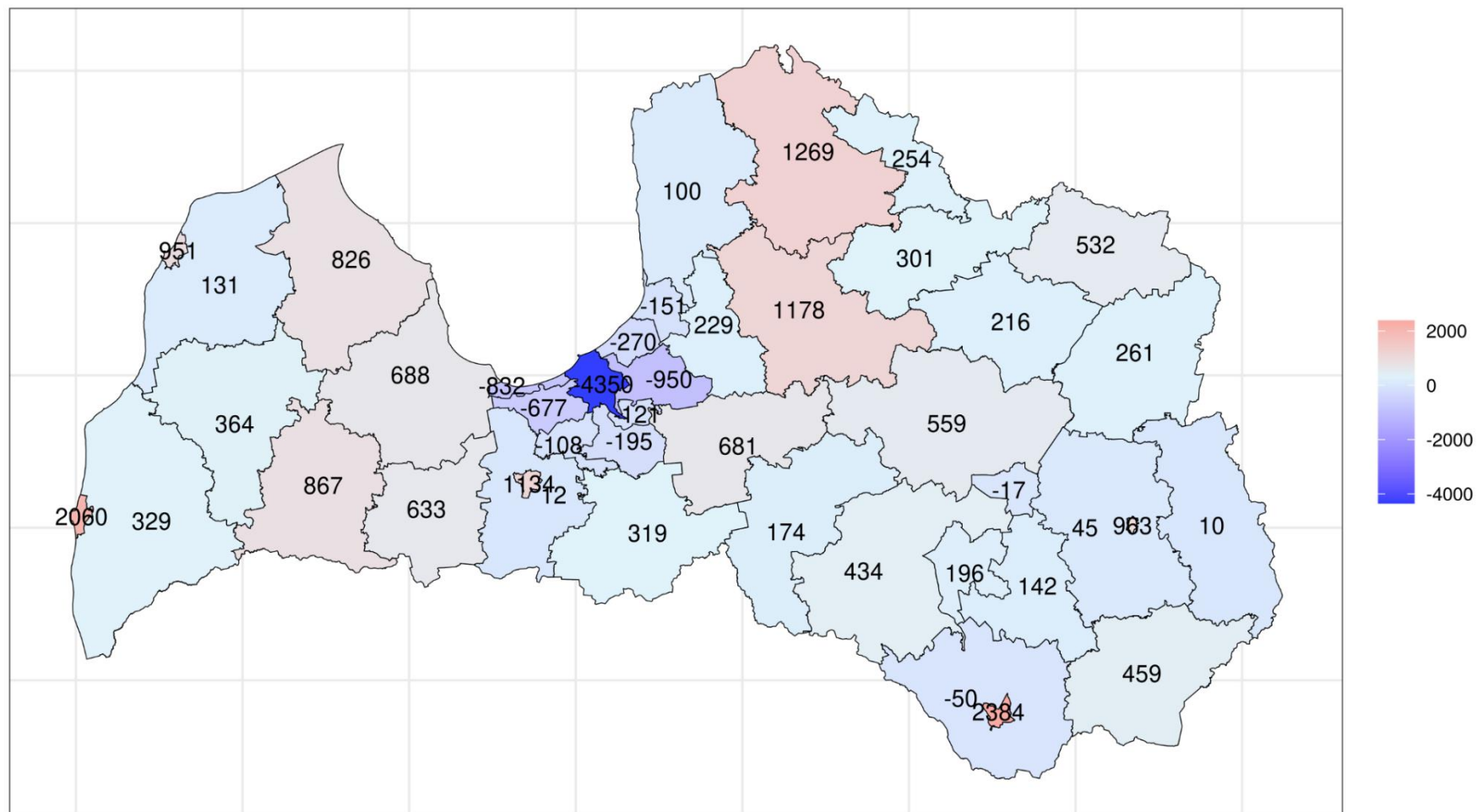


Figure 10. Differences in the estimated population by municipality; 2024

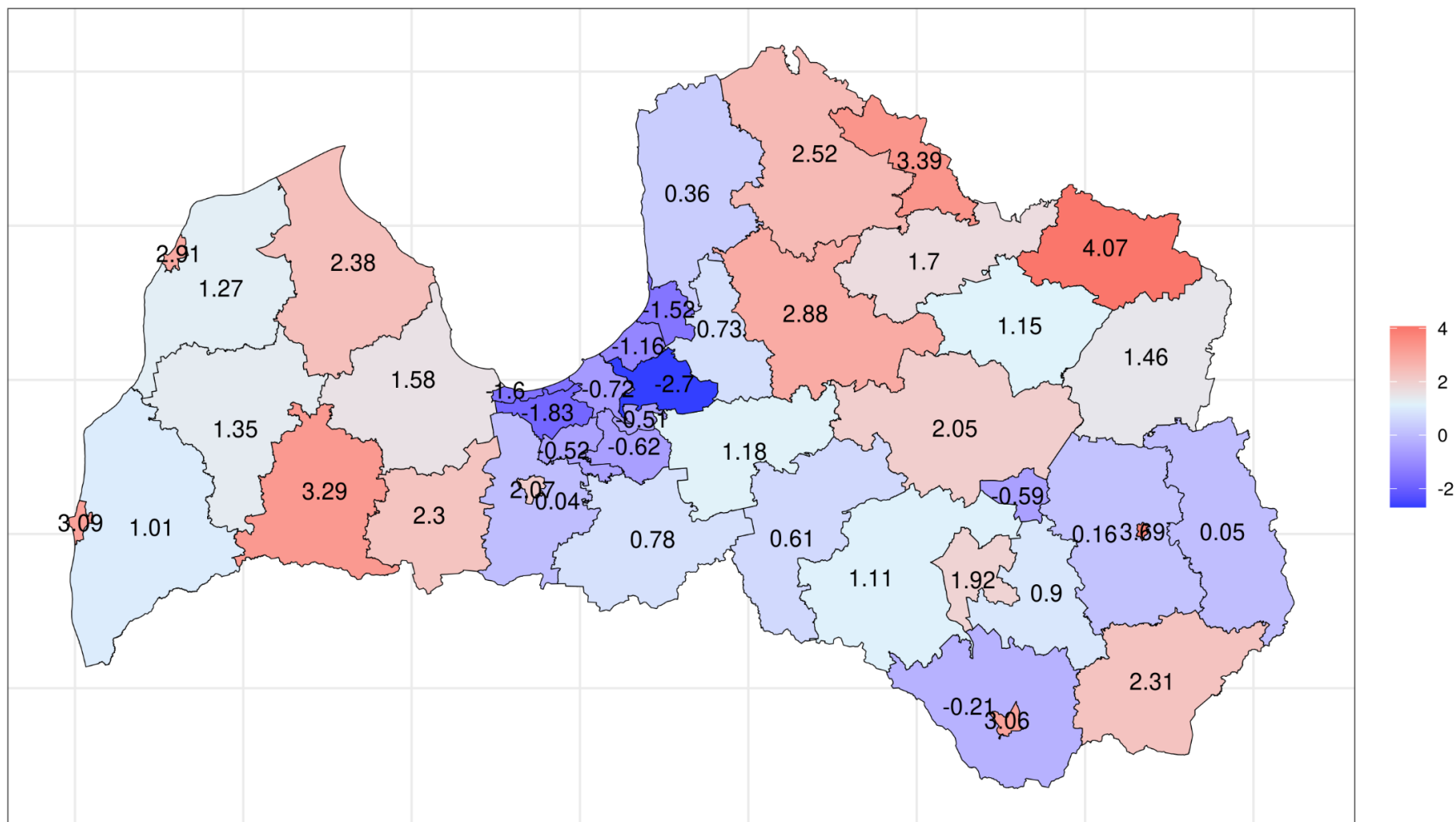


Figure 11. Relative differences by municipality; 2024 (%)

4.4 Determining registered place of residence

Until 2020 (inclusive), both actual and registered places of residence were identified for all persons. Since 2020, only the registered place of residence has been considered.

The actual place of residence was determined based on the residence specified in the Census 2011 and subsequent changes recorded in the Register of Natural Persons. However, over time, it became increasingly difficult to determine it, as changes in the Register of Natural Persons were often made not only when people moved but also for other reasons – for example, to avoid higher real estate tax, to register at an address where they do not actually live, or to enrol a child in a preferred kindergarten. In many cases, when people emigrate abroad, their registered place of residence remains unchanged or is updated only after several years. Therefore, in the Census 2021, which was based solely on administrative registers ([19](#)), only the registered place of residence was used, and it was decided to discontinue identifying the actual place of residence.

The registered place of residence is determined in several stages:

- identifying the initial addressing object code;
- grouping persons into families using the family structure algorithm;
- adjusting addressing object codes by changing the code of a woman living separately to that of the dwelling where her husband resides together with their common children aged 0–15. This approach was adopted because, when assessing family structures recorded in the Census 2011, it was concluded that such an adjustment reflects the actual situation more accurately.

The initial addressing object code is defined using the codes included in the January datafile of the Register of Natural Persons. For persons who cannot be assigned an addressing object code in this way, the code and corresponding date are taken from the data files for December and November of the previous year and for February and March of the current year, ensuring that the addressing object code does not correspond to an institutional dwelling. Such codes are excluded to ensure that the dates align and that institutional dwellings include only persons residing there on 1 January.

For persons without an addressing object code, the codes of their relatives are added in the following order: spouse, mother, father, and child (the youngest child with an addressing object code). In other words, if a person is not married, the mother's addressing object code is used, and so on. The relatives' codes are added regardless of the person's initial ATVK code or whether the relative is included in the population estimate for the respective year, except in specific cases where the child's address is changed to that of the mother or father (see explanation below).

None of the individual addressing object codes is replaced with an institutional dwelling code; in other words, the addressing object code of a relative living in an institutional dwelling is not assigned.

For children aged 15 and under (except those living in collective living quarters), it is verified whether at least one parent is also registered in the same dwelling. If a child is registered alone (without either parent), their addressing object code is changed to that of the mother, or to that of the father if the mother does not have one. The child's address is also changed to the parents' residence address if the child is registered with another adult, for example a grandparent, since under the UN Principles and Recommendations for Population and Housing Censuses ([6](#)) family (family nucleus) is formed by family members of two consecutive generations (children and parents).

The child's addressing object code is not changed to that of a parent if the population estimation method indicates that either parent is living abroad. As this approach does not entirely eliminate cases where a child is recorded as the sole occupant of a dwelling, since 2021 it has been assumed

that when neither parent of a child aged 0–15 resides in Latvia and the child does not live in a collective living quarter, the child most likely lives with grandparents; in such cases, the child's addressing object code is changed to that of one of the grandparents.

At the second stage of determining the registered place of residence, persons living in private dwellings are grouped into families using the family nucleus analysis algorithm. After the grouping, the place of residence of certain individuals is adjusted by changing the addressing object code of a woman living separately to that of the dwelling where her husband resides together with their common children aged 0–15.

This adjusted database is supplemented with persons whose address codes do not correspond to the population group 'family' as defined in the Population and Housing Census methodology – that is, persons living in collective living quarters, in houses not divided into apartments, as well as single persons (without a spouse, parents, or children) who have no addressing object code and whose place of residence is known only at the municipal level.

In line with the updated addressing object code, i.e. the ATVK transition table, the registered place of residence for each person is determined at the level of municipality rural territory, city, and municipality. The determination is based on both the administrative territorial division in force until 1 July 2021 and that applied following the administrative-territorial reform.

Addressing object codes of the place of residence are specified for persons whose codes, based on the State Land Service information, do not correspond to their actual place of residence, by replacing them with the housing code of a relative or another suitable housing code.

5 Producing population, natural population change, and migration statistics

5.1 Classifier precision compared to the Census 2011 data

One way to assess the precision of the classification is by calculating classification values for the data as at 1 March 2011 and comparing the results at individual level with those of the Census 2011. This allows producing a *confusion matrix* that shows the number of cases where the classification outcomes correspond or do not correspond to the Census 2011 data.

The confusion matrix can be calculated for the entire population or for specific sub-sets, such as males, females, or persons in particular age groups, e.g., males, females, or people at a certain age. When interpreting the matrix, the following aspects should be considered:

- the calculation is based on classification values derived from initial estimates (without migration adjustment);
- all data sources contain errors, including Census 2011;
- the confusion matrix reflects micro-level precision (individual level). Micro-level errors are not directly related to macro-level errors (for the total population or sub-sets).

Table 5. *Confusion matrix of total population and gender breakdown*

Population domain	Indicator	Census 2011 result	Classification includes in the population set	Classification does not include in the population set	Total
Total population	Number	Census 2011 includes in the population set	1 912 867	154 848	2 067 715
		Census 2011 does not include in the population set	155 070	275	155 345
		Total	2 067 937	155 123	2 223 060
	Proportion	Census 2011 includes in the population set	0.8605	0.0697	0.9301
		Census 2011 does not include in the population set	0.0698	0.0001	0.0699
		Total	0.9302	0.0698	1.0000
Males	Number	Census 2011 includes in the population set	862 811	81 956	944 767
		Census 2011 does not include in the population set	82 071	174	82 245
		Total	944 882	82 130	1 027 012
	Proportion	Census 2011 includes in the population set	0.8401	0.0798	0.9199
		Classification does not include in the population set	0.0799	0.0002	0.0801
		Total	0.9200	0.0800	1.0000
Females	Number	Census 2011 includes in the population set	1 050 056	72 892	1 122 948
		Census 2011 does not include in the population set	72999	101	73100
		Total	1 123 055	72 993	1 196 048
	Proportion	Census 2011 includes in the population set	0.8779	0.0609	0.9389
		Census 2011 does not include in the population set	0.0610	0.0001	0.0611
		Total	0.9390	0.0610	1.0000

5.2 Classifier precision compared to SOPA data and survey results

Each person $\tilde{c}_i$ has an estimate derived from the model, which may not fully correspond to their actual residential status. Using the survey and administrative data listed in [Section 3](#), it is possible to estimate the proportion of persons classified as being abroad ($\tilde{c}_i = 0$) but actually living in Latvia.

The target population of the surveys covers usual residents living in private households, with respondents drawn exclusively from this group. It should be noted, however, that the model is used to estimate population as at the beginning of the year, while survey reference periods usually differ from that date. Moreover, since only persons living in private households are surveyed, the data cannot be used to draw conclusions about those residing in collective living quarters.

Table 6. Share of persons excluded from the population estimate – logistic regression method (%)

Data source	Estimate year (1 January)												
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SOPA (2012)	1.05	0.92											
SOPA (2013)		1.14	0.98										
SOPA (2014)			1.25	1.09									
SOPA (2015)				1.47	1.33								
SOPA (2016)					1.71	1.59							
SOPA (2017)						1.89	1.50						
SOPA (2018)							1.81	1.60					
SOPA (2019)								1.96	1.77				
SOPA (2020)									2.05	1.87			
SOPA (2021)										2.32	1.98		
SOPA (2022)											2.51	4.48	
SOPA (2022), excl. Ukraine refugees												2.15	
SOPA (2023)												2.37	2.63
SOPA (2023), excl. Ukraine refugees													1.99
EHSIS (2012)	0.49	0.93											
LFS (2011)	1.15												
LFS (2012)	0.98	1.29											
LFS (2013)		1.36	1.42										
LFS (2014)			1.71	1.84									
LFS (2015)				1.99	2.10								
LFS (2016)					1.92	2.08							
LFS (2017)						2.13	2.22						
LFS (2018)							2.35	2.43					
LFS (2019)								2.37	2.40				
LFS (2020)									2.46	2.50			
LFS (2021)										3.05	2.88		
LFS (2022)											2.90	2.76	
LFS (2023)												2.75	2.55
SILC (2011)	1.19												
SILC (2012)	1.01	1.23											
SILC (2013)		1.31	1.45										
SILC (2014)			1.38	1.49									
SILC (2015)				1.49	1.66								
SILC (2016)					1.80	1.99							
SILC (2017)						2.11	2.17						
SILC (2018)							2.09	2.17					
SILC (2019)								2.37	2.41				
SILC (2020)									2.26	2.29			
SILC (2021)										2.41	2.35		
SILC (2022)											2.61	2.37	
SILC (2023)												2.45	2.32
EHIS (2014)			1.43	1.54									
EHIS (2019)								0.85	1.03				
ICT (2017)						0.89	1.05						
ICT (2018)							0.98	1.11					
ICT (2019)								0.75	0.79				
ICT (2020)									0.41	0.53			

Data source	Estimate year (1 January)												
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
ICT (2021)										0.38	0.43		
ICT (2022)											0.74	0.90	
ICT (2023)												0.55	0.58
AES (2017)						1.47							
AES (2022)											0.84	0.84	
MOBA (2017)						0.67	0.77						
EMS (2017)							3.56	3.60					
EMS (2018)								3.66	3.73				
CDH (2019)								0.30	0.30				
EU-GBV (2021)										1.42	1.56		
LPIUIA_24													17.41

Differences between the data and the model classification results may partly be explained by a mismatch in reference periods. For example, a person may be recorded as a usual resident of Latvia in a survey conducted at the beginning of the year, while by the end of the year the same person may have moved abroad or died. If such changes are captured in the Register of Natural Persons, these persons are excluded from the accuracy assessment. However, there are also cases where change of residence is not registered, making it possible that some individuals identified as usual residents in survey data and not included in the estimate may, in fact, still be living in Latvia.

At the same time, the reverse type of misclassification is more difficult to quantify – cases where persons are classified as usual residents ($\tilde{c}_i = 1$) but are actually living abroad. The Labour Force Survey can provide some insight into such situations, but the number of confirmed cases is too small to draw reliable conclusions. Moreover, persons who arrive in or leave Latvia during the year may display temporary activity in administrative registers – for example, through health services, employment or benefit records – while spending most of their time abroad. In these cases, they may be classified as residents even though they should be classified as living abroad ($\tilde{c}_i = 0$).

To complement survey-based evidence, information on local government benefit recipients is also used. Approximately 9% of usual residents receive such benefits. Data on benefit recipients for 2012 were used to evaluate the performance of the classification approach, while from 2013 onwards these data have been integrated into the production of population estimates.

In 2016, a more detailed analysis of the declared places of residence was carried out by geo-referencing and cartographically visualising the data. This analysis revealed locations with a high concentration of persons whose place of residence was declared at their workplace. As a result, the method used to estimate usually resident population was improved. In accordance with the internationally adopted definition of usual residence, persons who had declared their place of residence at their workplace (i.e., at an enterprise registered in Latvia) but were foreign workers not actually living in Latvia (for example, lorry drivers) were excluded from the usually resident population. These changes were introduced starting from the 2017 data.

Due to this adjustment, the population change in certain municipalities was affected. For example, in the former Mārupe municipality the recorded population increased by around 5% in 2015, followed by a decline of 0.5% in 2016, while the actual increase in both years was around 2–3%. A similar situation was observed in Riga and the former Carnikava municipality, where a higher real estate tax rate was introduced for properties without registered residents; however, the impact on population change in these areas was smaller.

The highest share of persons classified as living abroad ($\tilde{c}_i = 0$) while actually being residents of Latvia is observed in the External Migration Survey (4.09 %), particularly among people aged 28–36. In 2023, 4.48 % of persons receiving municipal benefits (SOPA data) were not included in the population estimate. Most of these were Ukrainian refugees who received benefits in the summer of 2022 and subsequently moved to another European country or returned to Ukraine.

Table 7. Share of persons excluded from the population estimate – SoL-logit method (%)

Data source	Estimate year (1 January)		
	2023	2024	2025
SOPA (2022)	3.45		
SOPA (2023)	1.75	2.82	
SOPA (2024)		2.32	2.88
LFS (2022)	1.47		
LFS (2023)	1.61	1.38	
LFS (2024)		1.67	1.46
SILC (2022)	1.06		
SILC (2023)	1.23	1.04	
SILC (2024)		1.33	1.23
ICT (2022)	0.87		
ICT (2023)	0.91	0.90	
ICT (2024)		1.15	1.16
ICT (2025)			1.55
AES (2022)	0.95		

6 Conclusions and future improvements

Within the framework of the grant project *G-19.10 Urban and Territorial Statistics* carried out in 2019, work was initiated to evaluate the previously used population estimation method and to develop an improved approach. Test data at the individual level were obtained covering all cases of persons recorded in the SSIA, CSDD, and SEA administrative registers.

After the completion of project G-19.10, testing of the SoL-logit model was started. Since the SoL-logit and logistic regression approaches produced different results, it became necessary to assess their accuracy using a coverage survey and to consider alternative administrative data-based methods. In 2020, CSB prepared the survey design and required sample size and submitted a grant application to further develop improved methodology and to carry out a pilot survey in 2023–2024.

In 2023, a pilot coverage survey was conducted under the grant project *G-22.11 Development of population statistics methodology using signs of life in national registers*. Based on the pilot survey results, CSB decided to adopt the SoL-logit method for population estimation starting from 2025.

CSB will continue to monitor data quality and will introduce improvements to the model where necessary.

7 References

1. Population estimation method used in Estonia in 2017. Available at: https://census.statisticsevents.ro/wp-content/uploads/2019/04/07_Estonia-Ethel-Massing.pdf
2. Population estimates in Ireland. Available at: <https://www.cso.ie/en/statistics/population/populationandmigrationestimates/>
3. Population estimates in United Kingdom. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates>
4. Population statistics in the Netherlands. Available at: <https://opendata.cbs.nl/statline/#/CBS/en/dataset/83474ENG/table?ts=1755594778724>
5. Population statistics in Finland. Available at: <https://stat.fi/en/statistics/documentation/vaerak>
6. The United Nations Statistics Division (2017) *Principles and Recommendations for Population and Housing Censuses, Rev.3*. Available at: <https://unstats.un.org/unsd/demographic/sources/census/census3.htm>
7. Population statistics in Germany. Available at: <https://www.destatis.de/EN/FactsFigures/SocietyState/Population/CurrentPopulation/CurrentPopulation.html>

European Union regulations

The methodology adheres to the principles set out in the following EU regulations:

8. Regulation (EC) No 862/2007 of the European Parliament and of the Council of 11 July 2007 on Community statistics on migration and international protection. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32007R0862>
9. Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics and repealing Regulation (EC, Euratom) No 1101/2008 of the European Parliament and of the Council on the transmission of data subject to statistical confidentiality to the Statistical Office of the European Communities, Council Regulation (EC) No 322/97 on Community Statistics, and Council Decision 89/382/EEC, Euratom establishing a Committee on the Statistical Programmes of the European Communities. Available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32009R0223>
10. Regulation (EU) No 1260/2013 of the European Parliament and of the Council of 20 November 2013 on European demographic statistics. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32013R1260>
11. Commission Implementing Regulation (EU) No 205/2014 laying down uniformed conditions for the implementation of Regulation (EU) No 1260/2013 of the European Parliament and the Council on European demographic statistics, as regards breakdowns of data, deadlines and data revisions. Available at: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2014:065:0010:0026:EN:PDF>

12. Commission Implementing Regulation (EU) 2017/543 laying down rules for the application of Regulation (EC) No 763/2008 of the European Parliament and of the Council on population and housing censuses as regards the technical specifications of the topics and of their breakdowns (Text with EEA relevance). Available at: <https://eur-lex.europa.eu/legal-content/LV/TXT/PDF/?uri=CELEX:32017R0543>

National laws and regulations

13. 20.06.2002. Law *Declaration of Place of Residence Law* (Latvijas Vēstnesis, 104 (2679), 10.07.2002; Ziņotājs, 16, 22.08.2002) [in force since 07.07.2003] with amendments. Available at: <https://likumi.lv/ta/en/en/id/64328-declaration-of-place-of-residence-law>
14. 23.03.2000. Law *Personal Data Protection Law* (Latvijas Vēstnesis, 132, (6218) 04.07.2018) [in force since 05.07.2018]. Available at: <https://likumi.lv/ta/en/en/id/300099-personal-data-processing-law>
15. 23.03.2015. Law *Statistics Law* (Latvijas Vēstnesis, 118 (5436), 18.06.2015) [in force since 01.01.2016] with amendments. Available at: <https://likumi.lv/ta/en/en/id/274749-statistics-law>
16. 29.11.2012. Law *Law on Civil Status Registration* (Latvijas Vēstnesis, 197, 14.12.2012) [in force since 01.01.2013] with amendments. Available at: <https://likumi.lv/ta/en/en/id/253442-law-on-registration-of-civil-status-documents>
17. 28.08.2018. Cabinet Regulation No 555 *Procedure for Health Care Organisation and Funding* (Latvijas Vēstnesis, 176 (6262), 05.09.2018) [in force since 06.09.2018] with amendments. Available at (in Latvian): <https://likumi.lv/ta/id/301399>
18. 15.06.2021. Cabinet Regulation No 371 *Regulations for Classification of Administrative Territories and Territorial Units* (Latvijas Vēstnesis, 176 (6262), 05.09.2018) [in force since 06.09.2018]. Available at (in Latvian): <https://likumi.lv/ta/id/324030-administrativo-teritoriju-un-teritoriala-iedalijuma-vienibu-klasifikatora-noteikumi>
19. 02.06.2015. Cabinet Regulation No 280 *On Plan of Activities for Preparation and Organisation of Population and Housing Census 2021* (Latvijas Vēstnesis, 108 (5426), 04.06.2015) with amendments. Available at (in Latvian): <https://likumi.lv/ta/id/274448-par-pasakumu-planu-2021-gada-tautas-skaitisanas-sagatavosanai-un-organizesanai>

Annex 1. Tables: Model estimates and population coverage

Table 1. *Dependent variables of logistic regression model and model coefficient estimates*

Administrative register	Variable description (municipalities meet the administrative territorial division in force until 1 July 2021)	B	S.E	Sig	ExpB
OCMA	changed placed of residence during the year	0.081	0.005	0.000	1.085
OCMA	male	0.203	0.004	0.000	1.225
OCMA	single	-0.017	0.013	0.194	0.983
OCMA	married	-0.039	0.012	0.002	0.962
OCMA	divorced	-0.171	0.009	0.000	0.843
OCMA	born in Russia, Ukraine or Belarus	-0.023	0.005	0.000	0.977
OCMA	born in EU (except LV)	-0.086	0.003	0.000	0.918
OCMA	Estonian	-0.003	0.003	0.436	0.997
OCMA	German	-0.038	0.003	0.000	0.963
OCMA	Russian	-0.049	0.004	0.000	0.953
OCMA	Ukrainian	-0.021	0.004	0.000	0.979
OCMA	Pole	-0.028	0.004	0.000	0.972
OCMA	Jew	-0.108	0.003	0.000	0.898
OCMA	Roma	-0.016	0.002	0.000	0.984
OCMA	unspecified/unknown ethnicity	-0.024	0.004	0.000	0.977
OCMA	lives in Kurzeme region	0.016	0.007	0.023	1.013
OCMA	lives in Pierīga region	0.013	0.006	0.017	1.008
OCMA	lives in Riga region	0.008	0.006	0.181	0.976
OCMA	lives in Vidzeme region	-0.024	0.006	0.000	0.978
OCMA	lives in city of Daugavpils	-0.022	0.004	0.000	0.978
OCMA	lives in Jelgava city	-0.022	0.004	0.000	0.978
OCMA	lives in Liepāja city	-0.045	0.005	0.000	0.956
OCMA	lives in Rēzekne city	-0.042	0.004	0.000	0.959
OCMA	lives in Valmiera city	-0.031	0.004	0.000	0.970
OCMA	lives in Ventspils city	-0.026	0.004	0.000	0.975
OCMA	lives in Tukums municipality	-0.022	0.004	0.000	0.978
OCMA	lives in Talsi municipality	-0.017	0.004	0.000	0.983
OCMA	lives in Strenči municipality	-0.015	0.004	0.000	0.985
OCMA	lives in Ropaži municipality	0.014	0.004	0.000	1.014
OCMA	lives in Ogre municipality	-0.014	0.004	0.000	0.986

Administrative register	Variable description (municipalities meet the administrative territorial division in force until 1 July 2021)	B	S.E	Sig	ExpB
OCMA	lives in Nereta municipality	0.027	0.004	0.000	1.028
OCMA	lives in Grobiņa municipality	-0.011	0.004	0.003	0.989
OCMA	lives in Cēsis municipality	-0.035	0.004	0.000	0.966
OCMA	lives in Burtnieki municipality	0.035	0.004	0.000	1.036
OCMA	lives in Valka municipality	-0.017	0.004	0.000	0.983
OCMA	lives in Rugāji municipality	0.016	0.004	0.000	1.016
OCMA	lives in Saldus municipality	-0.016	0.004	0.000	0.984
OCMA	lives in Mārupe municipality	0.025	0.004	0.000	1.025
OCMA	lives in Ērgļi municipality	-0.014	0.004	0.000	0.986
OCMA	lives in Brocēni municipality	-0.015	0.004	0.000	0.985
OCMA	lives in Līvāni municipality	-0.013	0.004	0.000	0.987
OCMA	lives in Auce municipality	-0.023	0.004	0.000	0.978
OCMA	lives in Krāslava municipality	-0.019	0.004	0.000	0.981
OCMA	lives in Jēkabpils municipality	0.025	0.004	0.000	1.026
OCMA	lives in Dobeles municipality	-0.017	0.004	0.000	0.983
OCMA	lives in Balvi municipality	-0.016	0.004	0.000	0.984
OCMA	lives in Alūksne municipality	-0.021	0.004	0.000	0.979
OCMA	citizen of Latvia	-0.015	0.006	0.012	0.985
OCMA	aged 1	-0.068	0.009	0.000	0.860
OCMA	aged 2	-0.150	0.008	0.000	0.826
OCMA	aged 3	-0.191	0.008	0.000	0.793
OCMA	aged 4	-0.232	0.008	0.000	0.769
OCMA	aged 5	-0.262	0.008	0.000	0.772
OCMA	aged 6	-0.259	0.008	0.000	0.753
OCMA	aged 7	-0.284	0.008	0.000	0.738
OCMA	aged 8	-0.303	0.008	0.000	0.748
OCMA	aged 9	-0.291	0.008	0.000	0.741
OCMA	aged 10	-0.300	0.008	0.000	0.741
OCMA	aged 11	-0.299	0.008	0.000	0.741
OCMA	aged 12	-0.289	0.008	0.000	0.749
OCMA	aged 13	-0.276	0.008	0.000	0.759
OCMA	aged 14	-0.293	0.008	0.000	0.746
OCMA	aged 15	-0.299	0.009	0.000	0.741
OCMA	aged 16	-0.297	0.009	0.000	0.743

Administrative register	Variable description	B	S.E	Sig	ExpB
	(municipalities meet the administrative territorial division in force until 1 July 2021)				
OCMA	aged 17	-0.311	0.009	0.000	0.632
OCMA	aged 18	-0.402	0.009	0.000	0.669
OCMA	aged 19	-0.322	0.009	0.000	0.717
OCMA	aged 20	-0.320	0.009	0.000	0.726
OCMA	aged 21	-0.349	0.010	0.000	0.705
OCMA	aged 22	-0.370	0.010	0.000	0.691
OCMA	aged 23	-0.400	0.010	0.000	0.670
OCMA	aged 24	-0.426	0.010	0.000	0.653
OCMA	aged 25	-0.426	0.010	0.000	0.653
OCMA	aged 26	-0.282	0.010	0.000	0.755
OCMA	aged 27	-0.290	0.010	0.000	0.748
OCMA	aged 28	-0.279	0.010	0.000	0.756
OCMA	aged 29	-0.273	0.009	0.000	0.761
OCMA	aged 30	-0.263	0.009	0.000	0.768
OCMA	aged 31	-0.260	0.009	0.000	0.771
OCMA	aged 32	-0.250	0.009	0.000	0.779
OCMA	aged 33	-0.237	0.009	0.000	0.789
OCMA	aged 34	-0.240	0.009	0.000	0.786
OCMA	aged 35	-0.233	0.009	0.000	0.792
OCMA	aged 36	-0.221	0.009	0.000	0.802
OCMA	aged 37	-0.211	0.009	0.000	0.810
OCMA	aged 38	-0.210	0.009	0.000	0.811
OCMA	aged 39	-0.206	0.010	0.000	0.814
OCMA	aged 40	-0.202	0.010	0.000	0.817
OCMA	aged 41	-0.184	0.009	0.000	0.832
OCMA	aged 42	-0.173	0.009	0.000	0.841
OCMA	aged 43	-0.175	0.009	0.000	0.839
OCMA	aged 44	-0.169	0.009	0.000	0.844
OCMA	aged 45	-0.163	0.009	0.000	0.850
OCMA	aged 46	-0.158	0.010	0.000	0.854
OCMA	aged 47	-0.159	0.010	0.000	0.853
OCMA	aged 48	-0.157	0.010	0.000	0.855
OCMA	aged 49	-0.147	0.010	0.000	0.863
OCMA	aged 50	-0.141	0.010	0.000	0.869

Administrative register	Variable description	B	S.E	Sig	ExpB
	(municipalities meet the administrative territorial division in force until 1 July 2021)				
OCMA	aged 51	−0.138	0.010	0.000	0.871
OCMA	aged 52	−0.131	0.010	0.000	0.877
OCMA	aged 53	−0.117	0.010	0.000	0.890
OCMA	aged 54	−0.114	0.010	0.000	0.892
OCMA	aged 55	−0.107	0.010	0.000	0.898
OCMA	aged 56	−0.101	0.009	0.000	0.904
OCMA	aged 57	−0.093	0.009	0.000	0.912
OCMA	aged 58	−0.088	0.009	0.000	0.916
OCMA	aged 59	−0.074	0.009	0.000	0.928
OCMA	aged 60	−0.100	0.009	0.000	0.905
OCMA	aged 61–64	−0.175	0.018	0.000	0.839
OCMA	aged 65	−0.045	0.012	0.000	0.956
OCMA	aged 66	−0.028	0.013	0.026	0.972
OCMA	aged 67	−0.021	0.013	0.115	0.979
OCMA	aged 68	−0.026	0.013	0.050	0.974
OCMA	aged 69	−0.032	0.013	0.018	0.969
OCMA	aged 70	−0.019	0.013	0.157	0.981
OCMA	aged 71	0.001	0.013	0.958	1.001
OCMA	aged 72	0.012	0.014	0.373	1.012
OCMA	aged 73	0.012	0.013	0.377	1.012
OCMA	aged 74	0.002	0.013	0.890	1.002
OCMA	aged 75	−0.014	0.012	0.233	0.986
OCMA	aged 76	−0.015	0.012	0.203	0.985
OCMA	aged 77	−0.008	0.012	0.488	0.992
OCMA	aged 78	−0.024	0.011	0.033	0.977
OCMA	aged 79	0.011	0.012	0.374	1.011
OCMA	aged 80	−0.013	0.011	0.219	0.987
OCMA	aged 81	−0.007	0.010	0.477	0.993
OCMA	aged 82	−0.020	0.010	0.052	0.981
OCMA	aged 83	0.004	0.010	0.709	1.004
OCMA	aged 84	−0.013	0.009	0.150	0.987
OCMA	aged 85	−0.013	0.009	0.136	0.987
OCMA	aged 86	−0.019	0.008	0.014	0.981
OCMA	aged 87	−0.001	0.008	0.143	0.989

Administrative register	Variable description (municipalities meet the administrative territorial division in force until 1 July 2021)				
		B	S.E	Sig	ExpB
OCMA	aged 88	-0.004	0.007	0.542	0.996
OCMA	aged 89	-0.017	0.006	0.007	0.983
OCMA	aged 90	-0.015	0.006	0.008	0.985
OCMA	aged 91	-0.015	0.005	0.004	0.986
OCMA	aged 92	-0.016	0.005	0.001	0.984
OCMA	aged 93	-0.013	0.005	0.005	0.987
OCMA	aged 94	-0.013	0.004	0.001	0.987
OCMA	aged 95	-0.015	0.004	0.000	0.985
OCMA	aged 96	-0.016	0.004	0.000	0.984
OCMA	aged 97	-0.012	0.003	0.000	0.988
OCMA	aged 98	-0.014	0.003	0.000	0.986
OCMA	aged 99	-0.013	0.003	0.000	0.988
OCMA	aged 100+	-0.022	0.003	0.000	0.978
OCMA	has reached the statutory retirement age	-0.563	0.025	0.000	0.570
MES	attends a pre-school, secondary, special, or vocational education institution	1.063	0.009	0.000	2.896
SSIA	receives a service pension	0.127	0.004	0.000	1.135
SSIA	receives an old-age pension	2.095	0.014	0.000	8.129
SSIA	receives a disability pension or other benefits/compensations for persons with disabilities	0.673	0.009	0.000	1.960
SRS	employee information – the employee has taken unpaid leave	-0.053	0.008	0.000	0.948
SRS	employee information – acquisition employee status during custodial sentencing	0.081	0.016	0.000	1.084
SRS	employee information – acquisition of employee status or microenterprise employee status subject to all types of state social insurance	0.480	0.008	0.000	1.617
SRS	employee information – loss of employee or microenterprise employee status	-0.354	0.011	0.000	0.702
SRS	employee (worker) for 1 month	0.036	0.004	0.000	1.037
SRS	employee (worker) for 2 months	0.237	0.005	0.000	1.268
SRS	employee (worker) for 3 months	0.264	0.006	0.000	1.303
SRS	employee (worker) for 4 months	0.267	0.006	0.000	1.306
SRS	employee (worker) for 5 months	0.263	0.006	0.000	1.301

Administrative register	Variable description (municipalities meet the administrative territorial division in force until 1 July 2021)	B	S.E	Sig	ExpB
SRS	employee (worker) for 6 months	0.274	0.006	0.000	1.315
SRS	employee (worker) for 7 months	0.274	0.007	0.000	1.315
SRS	employee (worker) for 8 months	0.283	0.007	0.000	1.327
SRS	employee (worker) for 9 months	0.286	0.007	0.000	1.331
SRS	employee (worker) for 10 months	0.367	0.008	0.000	1.443
SRS	employee (worker) for 11 months	0.590	0.011	0.000	1.805
SRS	employee (worker) for 12 months	1.998	0.019	0.000	7.374
SRS	self-employed person	0.261	0.011	0.000	1.329
UL/ RTU	studies at UL or RTU	0.261	0.006	0.000	1.298
TSI/ RTTEMA/ BIA/ RTA/ LiepU/ RBC/ RTC/ MC/ RMCUL/ DMC/ R1MC/ JVLMA/ LAC/ LAC LCC/ SPC/ RSU RCMC/ SSE Riga	studies at TSI / RTTEMA / BIA / RTA / LiepU / RBC / RTC / MC / RMCUL / DMC / R1MC / JVLMA / LAC/ LAC LCC/ SPC/ RSU RCMC or SSE Riga	0.181	0.005	0.000	1.198
RSS	is recorded in the Rural Support Service data	0.160	0.009	0.000	1.173
ADC	herd owner	0.181	0.009	0.000	1.198
Census/OCMA	lives in an institutional dwelling	0.022	0.003	0.000	1.022
SRS	with calculated state social insurance contributions EUR 44.02–89.46	0.039	0.011	0.000	1.040
SRS	with calculated state social insurance contributions EUR 89.46–123.54	0.067	0.013	0.000	1.069
SRS	with calculated state social insurance contributions EUR 123.54 to 187.44	0.163	0.016	0.000	1.178
SRS	with calculated state social insurance contributions EUR 187.44–293.94	0.262	0.019	0.000	1.300
SRS	with calculated state social insurance contributions > EUR 293.94	0.306	0.020	0.000	1.358
SRS	with registered income < EUR 2059	0.157	0.004	0.000	1.171
SRS	with registered income EUR 2059–3821.22	0.130	0.006	0.000	1.139
SRS	with registered income EUR 3821.22–5576.34	0.120	0.006	0.000	1.127
SRS	with registered income from EUR 5576.34–8660.58	0.093	0.007	0.000	1.097
SRS	with registered income from EUR 8660.58–13691.64	0.082	0.009	0.000	1.085
SRS	with registered income < EUR 13691.64	0.103	0.010	0.000	1.109

Administrative register	Variable description (municipalities meet the administrative territorial division in force until 1 July 2021)	B	S.E	Sig	ExpB
MES/ UL/ RTU/ TSI/ RTTEMA/ BIA/ RTA/ LiepU/ RBC/ RTC/ MC/ RMCUL/ DMC/ R1MC/ JVLMA/ LAC/ LAC LCC/ SPC/ RSU RCMC/ SSE Riga	parents – only for persons aged 0–25	0.036	0.006	0.000	1.037
RSS/ADC	parents (RSS or ADC) – only for persons aged 0–25	0.066	0.004	0.000	1.068
SHS	parents (state compensated health care service) – only for persons aged 0–25	0.180	0.007	0.000	1.197
SSIA	parents (SSIA, childbirth allowance, childcare benefit, state family benefit, maternity benefit, etc. benefits/ allowances, compensations for the performance of guardian's and foster family's duties) – only for persons aged 0–25	0.214	0.006	0.000	1.239
SSIA	parents (disability allowances/benefits or pension) – only for persons aged 0–25	0.041	0.004	0.000	1.042
SEA	parents (SEA) – only for persons aged 0–25	0.078	0.005	0.000	1.081
SRS	parents (SRS) – only for persons aged 0–25	0.130	0.010	0.000	1.139
SRS	monthly income of mother or father < EUR 1278 – only for persons aged 0–25	0.239	0.009	0.000	1.270
SRS	monthly income of mother or father > EUR 1278 – only for persons aged 0–25	0.128	0.005	0.000	1.136
CSDD	obtained a driving licence abroad during the previous year	–0.041	0.002	0.000	0.960
CSDD	obtained a driving licence during the previous year	0.043	0.004	0.000	1.044
CSDD ⁵	obtained or renewed a boat driving licence during the previous year	0.019	0.004	0.000	1.020
CSDD	obtained a bicycle driving licence during the previous year	0.074	0.011	0.000	1.077
CSDD	received a penalty for road traffic offences during the previous year	0.147	0.004	0.000	1.158
OCMA	born in Latvia and is not Latvian, and is not citizen of Latvia	0.113	0.005	0.000	1.119

⁵ As the Road Traffic Safety Directorate (CSDD) data received in 2021 do not include information on the type of the driving license changed (boat or car), as of 2021 the values of the predicated variable are determined differently. The status of a boat licence change is identified by combining information on boat licences issued between 2010 and 2020 and comparing it with the information on licences changed in 2020.

Administrative register	Variable description (municipalities meet the administrative territorial division in force until 1 July 2021)	B	S.E	Sig	ExpB
SSIA/SRS	receives a childbirth allowance/childcare benefit, family allowance, maternity benefit and other benefits for the adoption and care of a child, or the person went on or returned from a childcare leave	0.555	0.005	0.000	1.742
SSIA	receives a pension for the loss of a provider, other special benefits/allowances or funeral benefit	0.171	0.006	0.000	1.186
SHS/SSIA	receives a compensation for harm to the participants of the Chernobyl Nuclear Power Plant accident consequence elimination, benefits for losing one's ability to work (if harmed while at work) or sickness benefits, and receives a state-funded health care services	0.266	0.013	0.000	1.304
SHS/SSIA	has received state-funded health care services at least once during the year, but does not receive any sickness benefits from SSIA	0.931	0.004	0.000	2.536
SHS/SSIA	receives a compensation for harm to the participants of the Chernobyl Nuclear Power Plant accident consequence elimination paid to persons who have lost 10–25% of their ability to work, benefits for losing one's ability to work (if harmed while at work) or sickness benefits, but the respective person has not received any sickness benefits from SSIA during the year	0.030	0.009	0.001	1.030
SEA/SSIA	is registered with the SEA as an unemployed person or a person seeking employment and receives unemployment benefit	0.314	0.005	0.000	1.368
SEA/SSIA	is registered with the SEA as an unemployed person or a person seeking employment, but does not receive unemployment benefit	0.616	0.004	0.000	1.852
	model constant	5.326	0.012	0.000	205.639

Table 2. *Share of persons excluded from the population estimate by age group; 2012–2025 (%)*

Age	Population on 01.01.2012						Population on 01.01.2013					
	SOPA	EHSIS	DA (2011)	SOPA	EHSIS	SILC (2012)	SOPA	EHSIS	DA (2012)	SOPA	EHSIS	SILC (2013)
0	0.83		0.00	0.00	2.38	0.93	0.35		0.00	0.74	0.00	0.00
1	0.82		0.00	1.27	0.00	0.76	0.56		0.00	0.00	0.00	0.00
2	0.74		0.52	0.96	0.00	0.00	1.17		0.00	0.63	0.77	1.56
3	0.77		0.49	1.90	1.22	0.63	0.56		1.44	1.35	0.00	0.74
4	0.75		2.59	1.46	1.12	2.45	1.20		0.95	0.44	1.25	0.61
5	0.72		1.55	0.00	0.65	0.00	0.75		1.46	0.93	2.45	2.05
6	0.42		0.50	0.00	0.71	0.76	0.63		0.00	0.00	0.00	0.70
7	0.50		2.59	0.59	0.65	0.69	0.51		0.53	1.13	0.76	1.36
8	0.18		0.90	1.42	0.00	0.00	0.57		1.18	0.00	0.69	0.00
9	0.34		0.57	0.58	0.68	0.75	0.34		0.94	0.00	0.00	0.00
10	0.10		0.52	0.00	0.00	0.00	0.43		1.16	0.00	1.50	0.84
11	0.12		0.51	0.51	0.00	0.00	0.19		0.49	0.00	0.00	0.00
12	0.16		0.00	0.00	0.00	0.00	0.37		1.01	0.95	0.00	0.00
13	0.10		0.58	0.00	0.00	0.00	0.19		0.56	0.00	0.00	0.00
14	0.18	0.00	0.00	0.49	0.67	0.00	0.17		0.00	0.58	0.00	0.00
15	0.03	0.00	0.00	0.00	0.00	0.00	0.29	0.86	0.49	0.00	0.00	0.00
16	0.30	0.54	0.00	0.00	0.63	0.00	0.31	0.65	0.00	0.52	0.00	0.74
17	0.32	0.00	0.79	0.43	0.56	0.54	0.37	0.54	0.46	0.00	0.00	0.00
18	0.57	0.84	0.72	0.39	1.56	1.18	0.53	0.41	1.74	0.93	0.54	1.25
19	1.50	0.66	1.06	0.38	1.67	2.03	0.67	1.26	0.79	0.87	1.78	1.37
20	2.98	0.29	2.06	2.00	4.47	2.80	1.71	1.32	3.09	3.67	1.52	0.56
21	2.85	0.83	3.69	2.75	3.27	3.55	2.84	0.87	2.40	4.76	4.21	3.68
22	3.73	1.16	3.28	2.45	0.97	1.76	2.86	0.83	3.53	4.13	4.57	4.52
23	3.42	0.56	3.96	3.38	3.43	3.35	3.56	2.33	2.45	6.88	2.35	3.80
24	3.54	0.00	3.97	2.29	4.21	3.01	3.36	1.69	4.22	2.82	3.91	4.52
25	2.79	0.00	4.67	3.92	2.59	1.78	3.23	2.78	3.21	2.75	3.03	3.03
26	3.69	0.00	2.44	2.94	3.43	2.94	2.93	0.00	2.94	2.40	2.96	3.87
27	2.64	0.00	5.47	4.23	3.09	4.61	3.02	0.00	3.43	2.96	2.94	2.50
28	2.74	0.00	2.51	2.88	3.93	2.60	2.07	0.00	4.23	4.64	3.95	5.22
29	2.50	0.00	0.51	2.37	2.89	2.65	2.11	3.28	3.37	1.07	1.31	1.88
30	2.69	3.77	2.42	2.37	1.34	0.78	2.21	1.89	2.96	3.50	2.65	2.07
31	1.52	1.79	3.38	2.69	1.90	1.90	1.88	3.77	2.84	3.11	0.78	0.71
32	2.03	0.00	1.28	2.35	0.00	0.73	1.89	3.57	3.23	2.73	3.82	2.27

Age	Population on 01.01.2012						Population on 01.01.2013					
	SOPA	EHSIS	DA (2011)	SOPA	EHSIS	SILC (2012)	SOPA	EHSIS	DA (2012)	SOPA	EHSIS	SILC (2013)
33	1.59	2.13	0.98	0.99	4.44	2.96	2.33	0.00	2.36	3.92	0.73	1.61
34	1.20	2.13	0.89	2.20	2.75	1.20	1.37	6.38	1.98	1.62	3.55	4.23
35	1.59	0.00	2.53	0.87	0.00	2.26	1.15	2.13	2.21	2.99	2.41	3.39
36	1.13	3.28	0.00	0.00	1.49	1.03	1.44	3.57	1.73	2.67	2.26	2.89
37	1.45	3.85	1.91	1.15	1.80	2.45	0.76	4.92	0.75	2.12	1.03	1.11
38	1.40	0.00	2.90	1.69	1.81	1.14	1.12	2.56	1.15	2.49	1.84	2.86
39	1.65	0.00	0.38	1.19	1.65	1.05	1.17	0.00	2.95	1.66	1.70	1.18
40	1.31	0.00	1.83	1.14	1.27	0.92	1.29	2.60	3.56	1.64	2.11	2.62
41	1.26	1.10	2.02	0.82	2.40	0.96	1.04	0.00	1.15	2.09	0.92	0.93
42	1.77	0.00	2.71	1.63	0.93	0.49	0.64	1.10	0.82	1.14	2.88	3.00
43	1.61	0.00	1.93	2.16	0.54	0.00	1.17	1.09	2.04	1.27	1.48	1.41
44	1.78	1.02	1.92	0.80	1.38	1.79	1.29	0.00	2.16	1.23	0.55	1.08
45	1.43	0.00	1.10	1.08	0.51	0.56	1.28	1.03	1.20	2.34	2.70	2.24
46	1.09	0.00	1.45	1.63	0.46	0.00	0.95	0.82	0.72	1.39	0.56	0.54
47	1.74	0.96	0.60	0.96	0.00	0.43	0.61	0.00	1.65	1.55	0.00	0.47
48	1.81	1.71	0.95	0.96	1.37	0.49	0.97	0.96	0.64	2.11	0.44	0.83
49	1.67	0.00	0.91	0.66	1.21	1.29	1.13	1.71	1.61	1.00	0.98	0.51
50	1.52	0.00	1.22	1.90	1.23	1.72	1.34	0.00	1.33	1.68	1.29	0.45
51	1.65	0.83	1.16	1.55	2.99	2.46	0.68	0.75	1.93	1.66	2.16	4.35
52	2.01	0.64	1.18	1.16	1.98	1.33	1.26	0.83	2.17	1.92	2.07	1.37
53	1.75	0.00	1.57	0.63	2.58	1.69	1.28	0.64	1.73	0.91	1.34	1.87
54	1.31	0.78	1.70	1.31	1.52	2.07	1.20	0.00	1.27	1.28	2.12	1.28
55	1.98	1.54	2.01	2.08	1.72	1.36	0.94	0.00	2.30	0.63	2.50	2.04
56	0.99	0.00	0.32	0.67	0.87	0.00	1.09	1.54	3.14	2.74	1.37	1.46
57	1.69	0.70	1.44	1.46	0.93	0.53	0.75	0.00	1.01	1.69	0.44	1.34
58	1.79	0.00	1.13	1.15	1.53	1.49	1.04	0.70	1.47	1.06	1.08	1.55
59	1.47	0.65	1.16	0.40	0.49	0.90	0.95	0.00	1.53	1.61	2.02	3.08
60	1.91	0.00	0.35	0.36	1.01	1.01	1.37	0.65	0.79	0.79	0.90	1.52
61	1.40	0.00	0.73	0.72	1.38	1.49	1.62	0.00	0.72	1.81	1.02	1.01
62	1.75	0.00	0.00	0.73	1.73	1.83	0.79	0.00	0.36	1.61	1.50	1.07
63	0.68	0.00	0.36	0.39	0.00	0.00	1.50	0.00	0.74	0.75	1.41	0.50
64	0.59	0.00	0.00	0.00	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.00
65	0.37	0.00	0.00	0.00	0.62	0.00	0.92	0.00	0.00	0.49	0.00	0.00
66	0.34	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.44	0.00	0.00
67	0.18	0.00	0.00	0.00	0.57	0.60	0.36	0.00	0.00	0.50	0.60	0.65

Age	Population on 01.01.2012						Population on 01.01.2013					
	SOPA	EHSIS	DA (2011)	SOPA	EHSIS	SILC (2012)	SOPA	EHSIS	DA (2012)	SOPA	EHSIS	SILC (2013)
68	0.06	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.61	0.00
69	0.20	0.00	0.00	0.00	0.00	0.00	0.24	2.44	0.00	0.00	0.00	0.00
70	0.29	0.00	0.00	0.00	1.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00
71	0.00	0.00	0.00	0.00	0.53	0.51	0.25	0.00	0.00	0.00	0.00	0.00
72	0.05	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.36	0.52	0.53
73	0.10	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.37	0.79	0.00	0.00
74	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	1.00	0.96
75	0.06	0.00	0.00	0.48	0.00	0.00	0.21	0.00	0.00	0.38	0.00	0.00
76	0.14	0.00	0.00	1.13	0.00	0.00	0.13	0.00	0.50	0.54	0.00	0.00
77	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	1.17	0.57	0.00	0.00
78	0.00	0.00	0.00	0.00	0.71	0.72	0.32	0.00	0.00	0.00	0.00	1.35
79	0.05	0.00	0.63	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.75	0.75
80	0.00	0.00	1.38	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
81	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00
83	0.00	0.00	0.00	0.00	0.83	0.83	0.00	0.00	0.00	0.00	0.00	1.04
84	0.18	0.00	0.00	0.00	0.00	1.22	0.00	0.00	0.78	0.88	0.87	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00
86	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	1.89	1.79
88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89	0.20	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00
90+	0.35	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00

Age	Population on 01.01.2014							Population on 01.01.2015						
	LFS (2013)	LFS (2014)	SOPA (2013)	LFS (2013)	LFS (2014)	SILC (2014)	LFS (2013)	LFS (2014)	LFS (2015)	LFS (2013)	LFS (2014)	SILC (2014)	LFS (2013)	LFS (2014)
0	0.00	0.95	0.24	0.84	0.24	0.84		0.00	0.00	0.14	0.53	0.00	0.00	
1	0.00	0.87	0.73	0.48	0.73	0.48		0.95	1.12	1.01	0.72	0.00	0.00	
2	0.58	0.43	0.55	0.44	0.55	0.44		0.87	1.16	0.52	0.90	0.00	0.00	
3	0.63	1.90	0.71	0.81	0.71	0.81		0.43	0.43	0.48	0.59	0.00	0.00	
4	1.35	1.16	0.55	0.61	0.55	0.61		1.90	1.40	0.81	1.15	1.68	0.00	
5	0.44	0.75	0.98	0.95	0.98	0.95		1.16	1.60	0.65	0.79	0.00	0.00	
6	0.93	1.44	0.70	0.99	0.70	0.99		0.75	1.17	0.95	0.84	0.60	0.00	
7	0.00	0.00	0.62	0.62	0.62	0.62		1.81	2.41	0.99	1.15	1.54	0.72	
8	1.14	1.12	0.48	0.59	0.48	0.59		0.00	1.15	0.62	0.73	0.00	0.00	
9	0.00	1.18	0.23	0.36	0.23	0.36		1.12	0.70	0.62	0.65	0.65	0.00	
10	0.00	0.00	0.24	0.28	0.24	0.28		1.18	2.37	0.37	0.35	0.00	0.00	
11	0.00	0.00	0.25	0.23	0.25	0.23		0.00	0.00	0.28	0.25	0.00	0.00	
12	0.00	0.43	0.22	0.30	0.22	0.30		0.37	1.11	0.23	0.37	0.88	0.83	
13	0.48	0.36	0.11	0.20	0.11	0.20		0.85	0.42	0.30	0.33	0.00	0.00	
14	0.00	0.00	0.11	0.22	0.11	0.22	0.00	0.00	0.00	0.23	0.29	0.00	0.00	
15	0.58	0.44	0.22	0.27	0.22	0.27	0.00	0.00	0.00	0.25	0.22	0.75	0.00	0.00
16	0.00	0.39	0.20	0.15	0.20	0.15	0.00	0.44	0.00	0.27	0.17	0.00	0.00	0.00
17	0.52	1.19	0.17	0.56	0.17	0.56	0.00	0.39	0.77	0.15	0.80	0.00	1.48	1.61
18	0.00	0.80	0.34	0.35	0.34	0.35	0.00	1.19	0.83	0.56	0.20	0.00	0.00	0.00
19	0.47	1.53	0.22	0.29	0.22	0.29	0.00	0.80	1.32	0.31	0.70	0.00	3.25	0.00
20	0.87	1.80	0.44	1.08	0.44	1.08	0.00	2.31	2.30	0.29	1.15	2.26	2.96	0.00
21	4.15	3.99	1.99	2.86	1.99	2.86	4.44	2.87	1.55	1.09	1.53	1.49	6.16	0.00
22	5.63	5.32	2.44	2.98	2.44	2.98	2.00	4.33	2.98	2.80	3.13	3.07	7.24	5.56
23	4.62	4.15	2.53	3.52	2.53	3.52	5.06	5.32	3.45	2.58	4.18	2.42	3.60	1.96
24	5.96	8.75	2.23	3.03	2.23	3.03	4.62	4.14	4.94	3.00	5.80	4.05	3.03	5.00
25	4.52	5.06	2.79	4.63	2.79	4.63	4.69	8.75	5.62	2.17	3.64	7.86	6.92	6.06
26	2.76	4.27	2.87	3.28	2.87	3.28	1.49	6.25	7.01	3.96	4.51	4.27	5.30	1.56
27	3.38	4.80	1.70	2.90	1.70	2.90	3.03	4.29	3.99	2.92	4.57	5.59	6.54	1.49
28	3.45	4.78	1.97	2.64	1.97	2.64	4.76	4.44	5.69	2.11	3.49	5.97	5.00	5.97
29	4.66	6.23	2.54	2.97	2.54	2.97	1.52	5.15	5.99	1.92	2.80	4.43	4.85	5.95
30	1.06	2.72	1.83	2.60	1.83	2.60	3.45	6.23	5.62	2.25	3.78	2.86	4.72	1.52
31	3.54	3.99	2.48	2.86	2.48	2.86	0.00	2.71	3.57	2.21	3.27	2.10	2.53	3.45
32	3.11	5.24	2.40	2.32	2.40	2.32	2.53	4.69	6.28	2.65	3.03	1.94	4.60	1.56

Age	Population on 01.01.2014							Population on 01.01.2015						
	LFS (2013)	LFS (2014)	SOPA (2013)	LFS (2013)	LFS (2014)	SILC (2014)	LFS (2013)	LFS (2014)	LFS (2015)	LFS (2013)	LFS (2014)	SILC (2014)	LFS (2013)	LFS (2014)
33	2.20	3.21	2.13	2.19	2.13	2.19	3.23	4.86	6.27	1.91	2.29	1.52	2.72	3.80
34	3.43	4.76	1.74	1.99	1.74	1.99	2.94	3.61	3.70	2.07	2.30	2.29	1.36	3.23
35	1.63	3.40	1.64	2.82	1.64	2.82	4.41	5.15	5.32	2.00	2.74	1.63	3.88	2.94
36	3.42	1.79	1.89	2.28	1.89	2.28	3.08	2.56	4.74	2.45	2.65	3.01	3.60	4.41
37	1.79	3.86	1.83	2.48	1.83	2.48	2.94	2.51	2.93	2.18	2.91	1.88	4.65	3.08
38	1.70	2.08	1.51	2.40	1.51	2.40	4.17	4.18	4.26	2.28	2.61	5.49	4.29	1.47
39	2.50	1.79	1.44	2.14	1.44	2.14	1.43	2.10	2.07	2.30	2.38	2.81	0.61	4.11
40	1.66	2.44	1.63	2.34	1.63	2.34	4.49	2.15	2.86	1.82	2.44	2.19	3.41	1.43
41	2.06	1.52	1.51	2.10	1.51	2.10	1.27	2.14	2.79	2.10	3.51	1.23	3.23	4.49
42	2.10	1.41	1.48	1.94	1.48	1.94	3.03	2.13	1.90	2.00	2.79	3.14	2.65	1.27
43	1.14	2.87	1.68	2.26	1.68	2.26	1.23	2.25	2.97	1.73	2.87	1.44	2.76	3.03
44	1.69	1.55	1.72	2.39	1.72	2.39	0.00	3.92	2.11	2.21	2.69	2.15	2.21	1.23
45	1.64	1.45	1.89	3.38	1.89	3.38	0.00	2.17	2.74	2.09	3.10	1.02	1.52	0.00
46	3.13	1.90	1.96	2.34	1.96	2.34	1.19	1.45	1.68	2.76	3.18	1.78	3.13	0.00
47	2.08	3.11	2.02	2.75	2.02	2.75	1.10	2.23	2.13	2.03	2.38	2.14	4.47	1.19
48	1.56	0.94	1.45	2.31	1.45	2.31	1.10	3.39	3.98	2.52	3.49	1.09	4.28	1.10
49	1.79	2.20	1.56	2.59	1.56	2.59	1.85	0.94	2.68	2.18	3.90	0.99	2.53	2.17
50	1.00	2.90	1.47	2.56	1.47	2.56	1.94	2.21	2.89	2.37	3.36	2.65	2.55	1.85
51	2.01	2.36	1.52	1.78	1.52	1.78	2.00	2.65	2.54	2.24	2.95	3.66	2.86	1.92
52	1.33	0.77	1.68	2.27	1.68	2.27	0.00	2.36	1.95	1.50	2.26	1.94	0.47	2.00
53	1.92	1.03	1.81	2.77	1.81	2.77	0.83	1.29	1.64	1.83	2.45	3.51	4.80	0.00
54	0.92	1.47	1.80	2.68	1.80	2.68	1.90	1.28	2.33	2.48	2.66	2.62	1.76	1.67
55	1.29	0.72	1.84	2.79	1.84	2.79	4.50	1.73	3.18	2.46	2.79	1.68	1.70	1.90
56	0.95	0.56	1.49	2.11	1.49	2.11	0.87	0.96	1.91	2.04	2.83	0.98	1.35	4.50
57	2.41	1.29	1.36	2.24	1.36	2.24	2.80	0.56	1.39	1.69	2.57	2.27	2.49	0.87
58	1.71	1.89	1.25	1.97	1.25	1.97	0.00	1.30	1.04	1.85	2.21	0.51	2.34	2.83
59	1.43	2.92	1.48	1.95	1.48	1.95	2.11	1.63	1.61	1.72	2.20	0.98	1.05	0.00
60	1.64	1.57	1.22	2.17	1.22	2.17	0.00	2.96	2.80	1.64	2.25	0.97	0.94	2.11
61	1.21	0.93	1.76	1.94	1.76	1.94	0.98	1.59	2.03	1.92	2.69	1.57	2.49	0.00
62	2.18	1.60	2.28	3.01	2.28	3.01	1.10	1.25	1.81	1.87	3.14	2.09	2.03	0.98
63	2.04	1.32	1.79	2.18	1.79	2.18	0.83	1.60	1.46	2.69	3.93	0.47	0.95	1.10
64	0.38	1.12	2.11	1.81	2.11	1.81	0.00	1.00	0.90	2.05	2.75	1.17	0.56	0.83
65	0.00	0.60	1.35	1.35	1.35	1.35	0.00	1.15	1.35	1.55	1.80	0.00	0.00	0.00

Age	Population on 01.01.2014							Population on 01.01.2015						
	LFS (2013)	LFS (2014)	SOPA (2013)	LFS (2013)	LFS (2014)	SILC (2014)	LFS (2013)	LFS (2014)	LFS (2015)	LFS (2013)	LFS (2014)	SILC (2014)	LFS (2013)	LFS (2014)
66	0.51	0.35	0.84	0.82	0.84	0.82	0.00	0.30	0.57	1.16	1.37	1.09	0.00	0.00
67	0.44	0.79	0.35	0.20	0.35	0.20	4.55	0.35	0.64	0.65	0.71	0.00	0.00	0.00
68	0.51	1.14	0.22	0.27	0.22	0.27	0.00	0.81	0.83	0.21	0.38	0.00	0.00	4.60
69	0.00	0.00	0.15	0.09	0.15	0.09	0.00	1.15	0.38	0.20	0.35	0.00	0.00	0.00
70	0.00	0.67	0.16	0.12	0.16	0.12	0.00	0.00	0.00	0.13	0.31	0.00	0.00	0.00
71	0.00	0.00	0.13	0.08	0.13	0.08	0.00	0.68	0.00	0.16	0.19	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.00	0.00	0.09	0.14	0.58	0.55	0.00
73	0.37	0.00	0.09	0.03	0.09	0.03	0.00	0.00	0.00	0.00	0.05	0.64	0.00	1.01
74	0.00	0.00	0.06	0.04	0.06	0.04	0.00	0.00	0.61	0.03	0.09	0.00	1.31	0.00
75	0.48	0.67	0.08	0.05	0.08	0.05	0.00	0.32	0.59	0.04	0.03	0.57	1.13	0.00
76	0.39	0.93	0.00	0.03	0.00	0.03	1.39	0.69	0.63	0.03	0.03	0.99	0.51	0.00
77	0.55	0.41	0.07	0.09	0.07	0.09	0.00	0.96	0.63	0.03	0.03	0.00	0.00	1.41
78	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.41	0.06	0.06	0.64	0.00	0.00
79	0.00	0.49	0.14	0.11	0.14	0.11	0.00	0.00	0.47	0.00	0.11	0.00	0.00	0.00
80	0.00	0.48	0.07	0.11	0.07	0.11	0.00	0.52	0.57	0.11	0.13	1.46	0.81	0.00
81	0.00	0.00	0.04	0.04	0.04	0.04	0.00	0.51	0.00	0.12	0.13	0.00	0.00	0.00
82	0.00	0.56	0.05	0.09	0.05	0.09	0.00	0.00	0.00	0.04	0.09	0.00	0.00	0.00
83	0.00	0.00	0.09	0.04	0.09	0.04	0.00	0.61	0.65	0.05	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.18	0.00	0.18	0.00	0.00	0.00	0.05	0.13	0.00	1.23	0.00
85	0.93	0.70	0.09	0.10	0.09	0.10	0.00	0.00	0.00	0.04	0.00	0.00	1.20	0.00
86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12	1.19	0.00	0.00
87	0.00	0.00	0.08	0.23	0.08	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.56
88	0.00	0.00	0.10	0.09	0.10	0.09	0.00	0.00	0.00	0.17	0.18	0.00	0.00	0.00
89	0.00	0.00	0.00	0.08	0.00	0.08	0.00	0.00	0.00	0.10	0.21	0.00	0.00	0.00
90+	0.81	0.76	0.20	0.23	0.20	0.23	0.00	0.68	0.00	0.19	0.27	0.00	1.27	0.00

Age	Population on 01.01.2016						Population on 01.01.2017								
	LFS (2015)	LFS (2016)	SOPA (2015)	SOPA (2016)	SILC (2015)	SILC (2016)	LFS (2016)	LFS (2017)	SOPA (2016)	SOPA (2017)	SILC (2016)	SILC (2017)	AES (2016)	ICT (2017)	MOBA (2017)
0	0.78	0.37	0.24	1.17	0.00	0.00	0.00	0.43	0.28	1.21	0.00	0.00			
1	0.00	0.00	0.73	0.51	0.00	0.00	1.10	2.26	1.21	0.83	0.00	0.00			
2	1.11	0.72	0.58	0.66	0.00	0.70	0.00	0.77	0.51	0.76	0.72	0.71			
3	1.16	1.19	0.81	0.83	0.00	0.00	0.72	1.05	0.70	0.61	0.70	0.00			
4	0.43	0.82	0.68	1.08	0.00	0.00	1.58	1.89	0.87	1.1	0.76	0.73			
5	1.39	0.81	1.11	1.35	2.34	1.61	1.22	1.23	1.07	0.87	0.00	0.00			
6	1.60	1.93	0.79	0.98	0.00	0.00	0.81	0.38	1.35	1.56	1.60	0.78			
7	1.18	0.69	0.82	0.87	0.62	1.25	1.93	1.61	1.02	1.21	0.00	1.55			
8	2.06	2.09	1.08	1.13	1.45	0.00	0.69	0.34	0.90	0.96	1.25	0.68			
9	0.76	1.12	0.70	0.96	0.69	0.00	2.09	1.05	1.16	0.93	0.00	0.00			
10	0.70	0.00	0.65	0.58	1.29	0.64	1.49	1.56	1.04	1.05	0.00	0.74			
11	1.98	0.85	0.32	0.46	0.00	0.00	0.00	0.78	0.58	0.82	0.64	0.76			
12	0.00	0.00	0.25	0.41	0.00	0.00	1.27	0.44	0.45	0.41	0.00	0.00			
13	1.11	0.42	0.37	0.56	0.83	0.00	0.00	0.45	0.44	0.47	0.00	0.00			
14	0.00	0.00	0.36	0.49	0.00	0.00	0.43	0.43	0.55	0.51	0.00	0.00			1.85
15	0.00	0.39	0.29	0.31	0.00	0.00	0.00	0.86	0.52	0.42	0.00	0.00			0.00
16	0.00	0.00	0.22	0.27	0.74	0.75	0.00	0.44	0.34	0.45	0.00	0.00		0.00	0.00
17	0.00	0.46	0.17	0.42	0.00	0.00	0.00	0.00	0.31	0.65	0.75	0.74		0.00	0.00
18	1.93	0.90	0.76	0.30	0.74	0.76	0.93	0.51	0.32	0.19	0.00	0.00		0.00	0.00
19	1.24	0.00	0.15	0.41	1.65	0.88	0.91	0.53	0.36	0.75	0.77	0.00		0.00	0.00
20	2.22	1.16	0.64	1.41	0.00	0.00	0.47	0.48	0.32	1.03	1.74	1.04		0.00	1.59
21	2.30	1.99	1.06	2.35	0.74	0.00	2.34	3.03	1.52	1.72	0.88	0.00		0.00	2.08
22	1.55	0.94	1.08	2.62	2.05	5.22	3.45	2.59	1.90	2.29	0.00	0.88		0.00	0.00
23	2.99	3.35	2.53	3.10	4.61	2.21	1.42	1.75	2.19	3.63	6.72	5.00		6.06	1.45
24	4.15	5.58	3.52	4.45	4.32	5.15	4.85	4.42	2.91	5.36	1.48	5.00		1.56	0.00
25	5.39	4.72	4.93	5.20	1.52	7.25	7.23	6.56	3.13	5.52	6.62	8.66	1.75	3.13	1.04
26	6.07	2.21	3.21	4.93	6.15	7.63	3.95	3.36	4.27	4.74	7.30	6.67	2.01	0.94	1.01
27	7.78	4.76	3.64	5.28	7.28	5.76	1.77	4.92	3.78	4.13	7.63	5.34	2.44	1.12	3.19
28	5.09	7.19	3.66	4.08	6.54	3.14	5.11	4.76	4.45	4.01	8.63	5.56	2.76	1.87	0.00
29	6.02	6.51	2.63	4.16	5.76	6.16	8.25	9.06	3.71	4.62	3.13	4.43	0.77	3.19	0.96
30	6.04	4.81	2.31	3.74	5.45	4.32	6.85	8.16	3.42	4.59	6.85	6.79	3.03	0.00	1.05
31	4.87	6.32	3.65	3.42	2.36	1.41	5.19	7.67	3.83	3.84	5.66	3.85	3.09	0.79	1.96

Age	Population on 01.01.2016						Population on 01.01.2017								
	LFS (2015)	LFS (2016)	SOPA (2015)	SOPA (2016)	SILC (2015)	SILC (2016)	LFS (2016)	LFS (2017)	SOPA (2016)	SOPA (2017)	SILC (2016)	SILC (2017)	AES (2016)	ICT (2017)	MOBA (2017)
32	3.59	3.40	3.36	3.99	3.16	3.03	6.75	5.22	3.64	4.71	1.43	2.07	0.71	3.45	1.74
33	6.69	5.84	2.79	4.15	2.89	2.30	3.40	6.00	3.97	4.59	2.42	2.80	1.23	0.89	0.00
34	5.86	4.68	2.31	3.11	2.04	5.66	6.98	8.50	4.21	4.66	2.87	5.16	0.81	1.94	1.85
35	3.70	5.11	2.06	2.86	3.40	5.33	5.02	5.28	3.23	2.89	5.10	5.06	3.79	4.49	0.00
36	5.32	4.13	2.89	3.06	2.33	4.05	5.09	4.68	2.67	3.9	5.30	6.90	1.52	0.92	0.00
37	5.56	5.49	2.35	3.48	2.88	4.35	5.35	4.45	3.03	3.87	4.08	3.85	1.48	2.53	0.00
38	2.93	5.65	2.78	3.56	2.33	3.37	5.51	3.20	3.29	3.99	4.35	4.62	0.00	0.00	1.14
39	3.96	2.80	2.54	3.14	4.91	3.53	6.41	5.10	3.40	4.23	5.03	3.21	0.66	0.97	2.04
40	2.08	1.65	2.07	3.55	1.88	1.72	2.80	1.92	3.32	4.03	2.96	2.45	3.25	0.81	0.00
41	3.17	4.42	2.20	2.99	2.86	2.12	1.66	3.23	3.46	3.98	2.30	2.94	0.84	1.00	1.71
42	3.35	3.40	3.45	3.84	1.94	1.85	4.11	1.82	2.98	4.07	2.63	3.98	0.79	1.05	0.00
43	2.17	1.53	2.62	3.42	3.17	3.59	3.70	3.38	3.33	4.23	1.88	3.01	2.04	2.02	0.93
44	3.01	3.06	2.61	2.44	2.76	2.75	1.78	3.43	3.24	4.18	3.59	2.76	0.66	1.79	0.00
45	2.11	1.20	2.74	4.03	2.21	2.87	3.06	1.62	2.19	3.29	2.76	2.30	1.41	1.61	2.88
46	3.06	0.93	2.99	3.95	1.52	0.54	1.50	1.70	3.71	4.2	2.91	4.60	0.68	0.00	1.63
47	1.96	1.92	2.80	3.24	1.25	2.86	0.93	1.81	3.94	4.98	1.65	2.15	0.72	0.89	2.63
48	2.74	2.57	2.15	3.15	1.12	2.87	2.19	2.12	2.97	4.26	2.84	2.52	0.00	0.00	0.00
49	4.26	2.47	3.13	3.61	2.16	1.58	2.58	1.06	3.45	4.79	2.89	4.68	1.29	0.00	1.80
50	2.99	1.90	3.86	4.59	3.03	3.24	2.21	2.44	3.42	4.37	2.09	3.09	3.13	2.50	0.95
51	2.94	1.85	3.32	4.09	3.09	3.28	1.92	1.93	4.59	5.14	3.80	2.92	2.63	0.00	0.00
52	2.31	2.31	2.72	3.56	3.37	1.90	2.14	2.22	3.89	4.65	4.89	4.24	0.00	0.88	2.78
53	2.21	1.76	2.30	3.00	1.40	2.29	2.58	2.23	3.21	4.92	2.42	2.62	1.94	0.00	0.00
54	1.65	2.12	2.41	3.39	3.07	3.95	2.02	2.39	3.10	3.89	2.29	3.62	1.94	1.74	0.76
55	2.56	3.06	2.50	3.43	2.22	2.20	1.91	1.84	3.26	3.89	3.52	3.57	1.13	0.78	0.00
56	3.46	3.26	2.63	3.34	2.84	2.05	3.29	2.57	3.20	4.15	2.65	4.26	2.21	0.00	0.00
57	2.16	2.86	2.68	3.11	1.82	1.87	3.27	3.14	3.27	4.11	2.07	2.08	1.15	0.00	0.00
58	1.67	2.63	2.41	3.16	0.50	2.31	3.08	1.52	3.08	4.26	1.90	3.47	1.79	0.93	0.80
59	1.04	1.42	1.81	2.69	0.95	1.02	2.65	3.41	2.89	3.54	2.30	3.47	0.66	0.86	0.79
60	1.89	1.48	1.82	2.68	0.53	2.62	1.44	2.68	2.58	3.6	1.03	1.43	1.42	0.87	0.00
61	2.84	1.32	2.00	2.47	2.38	2.38	1.49	0.59	2.44	2.94	2.65	2.53	0.00	0.88	0.00
62	1.75	1.16	2.50	2.85	1.51	2.19	1.06	1.04	2.28	2.76	2.40	0.99	0.61	0.00	0.93
63	1.53	2.42	3.03	4.11	1.04	0.60	1.16	1.39	2.92	3.55	2.21	1.59	1.49	0.00	0.00

Age	Population on 01.01.2016						Population on 01.01.2017								
	LFS (2015)	LFS (2016)	SOPA (2015)	SOPA (2016)	SILC (2015)	SILC (2016)	LFS (2016)	LFS (2017)	SOPA (2016)	SOPA (2017)	SILC (2016)	SILC (2017)	AES (2016)	ICT (2017)	MOBA (2017)
64	1.72	1.63	3.72	4.05	1.44	0.95	2.13	2.75	4.21	3.92	0.61	1.72	1.32	0.00	0.92
65	0.90	1.12	2.56	3.04	0.56	1.08	1.65	2.16	3.80	3.49	0.97	1.03	0.00	0.00	0.00
66	1.36	1.13	1.77	1.72	0.56	0.46	1.13	0.29	3.02	2.64	1.09	0.96		1.11	0.00
67	0.29	0.57	1.21	1.35	0.64	0.61	1.15	0.58	1.48	1.68	0.48	0.00		0.00	0.00
68	0.33	0.00	0.65	0.67	0.00	0.00	0.58	0.56	1.19	1.05	0.62	1.21		0.00	0.00
69	0.86	0.40	0.36	0.66	0.00	0.00	0.35	0.34	0.66	0.81	0.00	0.00		0.00	0.00
70	0.39	0.43	0.26	0.16	0.00	0.00	0.40	0.39	0.60	0.47	0.00	0.00		0.00	0.00
71	0.00	0.41	0.26	0.18	0.00	0.00	0.44	0.00	0.16	0.20	0.00	0.00		0.00	1.27
72	0.00	0.31	0.20	0.20	0.00	0.00	0.41	0.40	0.15	0.16	0.00	0.00		0.00	0.00
73	0.00	0.00	0.18	0.15	0.56	1.16	0.31	0.33	0.17	0.11	0.00	0.00		0.00	0.00
74	0.00	0.31	0.06	0.13	0.59	1.12	0.00	0.31	0.15	0.22	1.18	1.10		0.00	0.00
75	0.63	0.63	0.10	0.06	0.68	0.00	0.31	0.32	0.16	0.10	1.14	1.22			0.90
76	0.61	0.30	0.03	0.06	1.16	1.08	0.33	0.33	0.03	0.09	0.00	0.00			0.00
77	0.65	0.32	0.03	0.06	0.52	0.00	0.31	0.00	0.06	0.03	1.09	1.09			1.10
78	0.98	0.37	0.06	0.20	0.00	0.00	0.32	0.32	0.06	0.24	0.00	0.00			0.00
79	0.42	0.45	0.03	0.08	0.67	0.78	0.38	0.43	0.17	0.27	0.00	0.00			0.00
80	0.48	0.47	0.12	0.16	0.00	0.00	0.00	0.00	0.08	0.07	0.81	0.00			0.00
81	0.59	0.00	0.14	0.28	0.83	0.95	0.48	0.00	0.12	0.17	0.00	0.00			0.00
82	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.00	0.20	0.36	0.96	0.00			0.00
83	0.00	0.00	0.09	0.24	0.00	0.00	0.00	0.00	0.15	0.16	0.00	0.00			0.00
84	0.69	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.10	0.26	0.00	0.00			0.00
85	0.00	0.00	0.15	0.05	1.32	1.18	0.00	0.00	0.18	0.07	0.00	0.00			
86	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.91	0.06	0.07	1.28	2.74			
87	0.00	1.03	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
88	0.00	0.00	0.00	0.00	0.00	0.00	1.09	3.75	0.00	0.29	0.00	0.00			
89	0.00	0.00	0.21	0.36	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00			
90+	0.00	0.00	0.28	0.32	0.00	0.00	0.00	0.55	0.34	0.53	0.00	1.10			

Population on 01.01.2018										
Age	LFS (2017)	LFS (2018)	SOPA (2017)	SOPA (2018)	SILC (2017)	SILC (2018)	IKT (2017)	MOBA (2017)	EMS (2017)	ICT (2018)
0	0.85	0.45	0.29	1.99	0.00	1.00			0.42	
1	0.43	0.00	1.64	0.46	0.00	0.00			1.84	
2	1.89	2.03	0.65	0.76	0.00	0.00			2.13	
3	0.77	0.38	0.76	0.99	0.71	0.76			0.66	
4	0.70	0.39	0.53	0.54	0.00	0.00			3.86	
5	1.89	0.41	1.02	1.07	0.00	0.80			3.07	
6	1.23	1.73	0.87	1.00	0.00	0.00			2.87	
7	0.38	1.96	1.42	1.28	0.78	0.00			2.77	
8	1.61	2.46	1.17	1.27	1.55	0.86			1.69	
9	0.34	0.69	0.96	0.90	0.68	0.62			1.47	
10	1.05	1.80	0.86	0.98	0.00	0.73			1.61	
11	1.17	1.50	1.02	0.91	0.74	0.72			1.67	
12	0.78	0.74	0.82	0.95	0.76	1.54			1.44	
13	0.44	0.00	0.41	0.47	0.00	0.00			1.44	
14	0.45	0.93	0.44	0.42	0.00	0.00			1.12	
15	0.43	0.00	0.47	0.58	0.00	0.00		1.85	1.86	
16	0.86	0.00	0.42	0.59	0.00	0.00		0.00	1.24	0.00
17	0.44	0.80	0.45	0.46	0.00	0.00	0.00	0.00	1.49	1.23
18	0.00	0.00	0.60	0.43	0.74	0.00	0.00	0.00	0.46	2.67
19	0.51	0.00	0.19	0.53	0.89	1.09	0.00	0.00	2.22	0.00
20	0.53	0.00	0.76	1.03	0.00	0.89	0.00	1.59	2.42	1.72
21	0.97	2.04	0.91	0.52	1.04	3.70	0.00	1.59	5.24	1.96
22	3.05	2.26	1.44	2.00	2.13	1.11	0.00	4.17	2.67	0.00
23	2.59	2.01	1.73	2.93	1.75	0.00	0.00	0.00	3.25	2.99
24	2.18	0.54	3.22	3.85	4.96	3.00	6.06	1.45	6.95	0.00
25	5.28	3.81	4.44	4.75	5.83	9.01	1.56	0.00	5.95	3.57
26	6.90	2.82	4.48	6.08	8.87	7.27	3.13	1.04	6.78	1.09
27	4.87	4.31	3.20	3.72	6.67	7.50	0.95	1.01	5.74	1.00
28	4.51	5.86	2.19	3.70	6.11	8.33	1.12	2.13	9.49	3.37
29	4.79	8.90	2.58	4.20	4.90	3.17	1.87	1.09	8.87	2.17
30	8.42	5.54	2.85	3.99	4.49	4.73	3.23	0.96	8.82	2.04
31	8.84	9.06	4.54	4.37	6.79	8.05	1.92	1.06	8.69	1.79

Population on 01.01.2018										
Age	LFS (2017)	LFS (2018)	SOPA (2017)	SOPA (2018)	SILC (2017)	SILC (2018)	IKT (2017)	MOBA (2017)	EMS (2017)	ICT (2018)
32	8.04	7.85	3.70	4.06	3.80	4.61	2.42	1.94	10.65	0.00
33	5.60	4.91	4.37	5.12	2.07	4.32	3.45	0.88	10.07	2.56
34	5.96	7.66	4.10	3.63	2.11	3.52	2.68	0.00	9.19	1.79
35	8.56	8.49	4.26	4.68	5.19	4.96	1.94	1.83	9.21	0.99
36	6.06	6.56	2.85	3.13	4.46	4.61	4.49	0.00	10.98	0.00
37	5.04	5.24	3.66	3.32	6.90	6.15	1.83	0.00	4.42	1.90
38	4.81	4.86	3.40	4.08	3.85	3.88	2.56	0.00	7.23	2.22
39	3.57	5.09	3.29	3.40	4.62	4.62	0.00	1.14	5.47	1.14
40	5.10	4.55	3.68	4.22	3.85	2.82	0.98	3.06	5.93	2.00
41	1.92	2.46	3.14	3.98	3.07	2.37	0.81	0.00	8.54	2.86
42	3.55	4.62	3.09	3.41	2.96	1.99	1.00	1.71	3.56	0.00
43	2.43	4.14	3.32	4.06	3.98	4.79	1.05	0.00	5.38	0.00
44	3.40	2.81	3.75	4.38	3.01	3.14	2.02	0.93	5.57	2.80
45	3.70	3.63	3.02	4.44	2.78	2.99	0.90	0.00	3.80	0.85
46	1.91	4.39	2.52	3.52	2.33	3.18	1.61	2.88	5.04	1.68
47	1.98	3.73	3.54	4.40	4.62	2.44	0.99	2.44	4.18	0.00
48	1.81	1.31	3.93	5.19	2.69	2.78	0.90	2.65	7.50	0.91
49	2.13	2.91	3.52	4.19	2.53	1.76	0.00	0.00	3.22	0.89
50	0.80	1.84	4.07	4.85	4.71	4.76	0.00	2.70	6.63	0.94
51	2.44	3.91	3.11	4.33	3.09	1.59	2.50	0.96	4.66	0.00
52	2.23	2.62	3.68	4.30	3.51	3.43	0.85	0.00	5.37	1.75
53	2.79	3.21	3.69	4.28	4.27	4.12	0.88	2.80	4.59	1.68
54	2.01	2.54	3.44	4.23	2.63	3.30	0.00	0.85	4.88	1.57
55	2.39	3.67	3.12	3.99	3.64	0.93	1.74	0.76	5.04	1.71
56	2.10	1.21	2.95	3.93	4.04	3.29	0.78	0.00	4.85	0.00
57	2.59	2.45	3.37	3.62	3.90	3.21	0.00	0.71	3.24	0.77
58	3.16	2.81	3.37	3.74	2.60	3.47	0.00	0.00	3.04	0.00
59	1.53	1.59	3.15	3.43	3.03	3.20	0.93	0.81	3.38	0.00
60	3.44	3.56	3.08	4.17	3.47	3.16	0.86	0.80	3.03	0.89
61	3.30	2.51	2.97	3.68	1.44	1.91	0.88	0.00	3.23	0.00
62	0.59	1.69	2.36	3.11	2.55	2.46	1.77	0.00	3.16	0.77
63	1.05	2.06	2.51	3.80	1.00	1.47	0.00	0.93	4.16	0.79

Population on 01.01.2018										
Age	LFS (2017)	LFS (2018)	SOPA (2017)	SOPA (2018)	SILC (2017)	SILC (2018)	IKT (2017)	MOBA (2017)	EMS (2017)	ICT (2018)
64	1.40	0.83	3.23	3.79	1.59	1.13	0.00	0.00	4.36	1.11
65	2.81	2.87	3.56	4.09	1.75	1.72	0.00	0.92	1.27	0.00
66	2.22	1.77	3.11	3.61	1.04	0.59	0.00	0.00	2.52	0.00
67	0.30	0.58	2.40	2.33	0.97	0.55	1.11	0.00	1.76	0.00
68	0.59	0.87	1.34	1.28	0.00	0.47	0.00	0.85	2.52	0.00
69	0.57	0.54	0.85	0.82	1.24	0.00	0.00	0.00	0.66	0.00
70	0.35	0.34	0.75	0.61	0.00	0.00	0.00	0.00	1.27	0.00
71	0.00	0.00	0.37	0.38	0.00	0.00	0.00	0.00	0.43	0.00
72	0.00	0.00	0.11	0.21	0.00	0.00	0.00	1.28	0.98	0.00
73	0.40	0.43	0.13	0.18	0.00	0.00	0.00	0.00	1.44	0.00
74	0.67	0.35	0.12	0.16	0.00	0.81	0.00	0.00	2.22	0.00
75	0.00	0.00	0.23	0.19	1.11	0.58	0.00	0.00	0.38	
76	0.34	0.64	0.08	0.08	1.24	0.61		0.90	1.22	
77	0.35	0.00	0.09	0.06	0.00	0.00		0.00	0.40	
78	0.00	0.69	0.03	0.03	1.12	0.00		1.10	0.00	
79	0.34	0.32	0.22	0.26	0.00	0.00		0.00	0.45	
80	0.00	0.00	0.28	0.23	0.00	0.00		0.00	0.45	
81	0.00	0.00	0.07	0.07	0.00	0.00		0.00	1.14	
82	0.00	0.99	0.09	0.16	0.00	1.06		0.00	0.00	
83	0.00	0.00	0.38	0.34	0.00	0.00		0.00	0.80	
84	0.00	0.00	0.11	0.25	0.00	0.00		0.00	0.00	
85	0.00	0.00	0.28	0.11	0.00	0.00		0.00	1.54	
86	0.00	0.00	0.00	0.07	0.00	0.00			0.91	
87	1.00	1.14	0.00	0.00	1.56	1.56			1.23	
88	0.00	0.00	0.00	0.09	0.00	0.00			0.00	
89	2.74	0.00	0.00	0.21	0.00	0.00			0.00	
90+	0.44	0.00	0.35	0.33	0.94	1.08			1.31	

Age	Population on 01.01.2019											
	LFS (2018)	LFS (2019)	SOPA (2018)	SOPA (2019)	SILC (2018)	SILC (2019)	EMS (2017)	EMS (2018)	EHIS (2019)	ICT (2018)	ICT (2019)	CDH (2019)
0	0.00	0.00	0.37	2.29	0.00	0.00	0.00	0.48				
1	0.45	0.00	2.30	0.50	1.01	1.68	0.47	1.37				
2	0.00	0.00	0.42	0.65	0.00	0.00	1.62	1.66				
3	2.05	0.39	0.76	0.74	0.00	1.80	2.22	2.55				
4	0.37	0.80	1.03	0.81	0.00	0.95	0.69	0.71				
5	0.39	0.39	0.51	0.70	0.75	0.00	3.44	3.75				
6	0.41	1.17	1.15	1.33	1.59	1.03	1.50	2.92				
7	1.73	1.67	0.93	0.97	0.00	0.00	2.20	2.07				
8	1.96	1.99	1.28	1.36	0.00	0.00	2.18	3.30				
9	2.05	1.22	1.19	1.27	0.00	0.00	1.09	1.44				
10	0.69	1.09	0.90	1.19	0.62	1.47	0.31	1.17				
11	1.81	1.79	0.99	1.03	0.73	0.81	1.35	2.03				
12	1.50	1.89	0.91	1.09	0.72	0.00	1.72	1.85				
13	0.74	0.41	0.95	0.85	1.54	0.86	0.75	1.45				
14	0.00	0.42	0.47	0.43	0.00	0.00	1.10	0.00	0.00			
15	0.93	0.47	0.42	0.47	0.00	0.00	1.11	1.81	0.00		0.00	
16	0.00	0.47	0.63	0.68	0.00	1.87	1.89	1.55	0.00		0.00	
17	0.00	0.87	0.74	0.57	0.00	0.00	0.84	0.40	0.00	0.00	0.00	
18	0.80	0.45	0.46	0.39	0.00	0.00	1.66	0.88	0.00	1.25	0.00	
19	0.00	0.00	0.44	0.54	0.00	0.99	0.49	0.49	0.00	2.70	1.69	
20	0.00	0.00	0.32	0.34	1.10	0.00	2.43	2.06	0.00	0.00	0.00	
21	0.00	0.72	1.05	1.02	0.89	1.20	3.45	4.07	0.00	1.75	5.88	
22	2.04	1.71	0.53	1.34	3.70	1.67	3.80	4.60	1.69	3.92	4.26	
23	1.71	0.74	2.02	1.82	2.25	4.55	2.06	2.16	4.11	0.00	3.17	
24	3.33	4.86	2.77	3.13	1.16	1.27	4.85	4.04	1.45	3.03	0.00	
25	1.64	0.65	3.70	4.09	4.04	3.45	5.60	5.88	0.00	0.00	2.99	
26	3.81	2.01	4.66	5.70	9.09	14.12	5.65	6.60	3.03	2.41	1.20	
27	3.61	5.21	5.05	4.09	7.27	4.35	7.28	6.55	0.00	1.11	2.60	
28	5.58	5.24	3.51	5.97	7.63	7.14	5.11	6.46	0.00	1.01	1.01	
29	5.86	7.44	3.21	4.68	8.33	8.40	9.52	7.95	4.08	3.37	1.12	0.00
30	8.90	8.91	2.99	4.41	3.94	3.67	7.69	7.45	0.95	2.20	1.22	0.00
31	5.58	3.04	3.87	5.01	4.70	5.07	10.37	9.56	0.87	2.06	0.86	6.67
32	10.11	7.14	4.24	4.68	8.16	8.63	8.51	8.76	0.00	0.90	0.00	0.00

Age	Population on 01.01.2019											
	LFS (2018)	LFS (2019)	SOPA (2018)	SOPA (2019)	SILC (2018)	SILC (2019)	EMS (2017)	EMS (2018)	EHIS (2019)	ICT (2018)	ICT (2019)	CDH (2019)
33	7.82	10.17	3.71	3.85	4.64	3.94	9.43	7.83	3.26	0.00	1.25	0.00
34	4.91	6.96	4.66	5.49	5.07	6.50	8.00	9.69	2.00	3.85	1.20	0.00
35	7.72	6.21	3.49	4.01	3.52	6.09	7.21	7.23	2.04	1.79	1.96	0.00
36	8.52	7.19	4.53	4.65	4.96	6.36	7.74	5.82	1.22	0.99	1.23	0.00
37	6.53	3.32	3.06	4.30	4.64	4.90	10.82	9.60	2.53	0.00	1.19	4.76
38	5.24	4.84	3.02	3.52	6.15	5.61	3.88	4.42	1.00	1.92	0.00	0.00
39	4.86	3.98	3.77	3.60	3.88	5.56	6.69	6.45	1.15	1.12	1.14	0.00
40	4.40	5.00	3.21	3.71	4.69	9.32	4.79	4.35	2.53	1.14	0.00	0.00
41	4.55	3.60	3.89	4.21	2.82	4.10	5.60	6.32	2.44	2.00	0.00	0.00
42	2.46	2.88	3.82	3.59	2.38	2.08	8.26	4.82	1.08	3.77	0.00	0.00
43	4.62	4.39	3.27	4.71	1.99	1.29	4.08	5.52	0.88	0.00	0.97	0.00
44	4.50	3.65	3.66	4.00	4.79	5.22	5.54	4.80	0.00	1.02	0.00	0.00
45	2.82	3.09	4.00	4.61	3.14	4.17	5.16	6.06	1.15	3.74	1.06	0.00
46	3.94	2.96	4.02	4.89	2.99	2.82	4.43	6.21	0.00	0.85	0.00	0.00
47	4.39	6.25	3.27	3.93	3.21	2.76	4.34	3.53	1.05	1.68	0.00	0.00
48	3.73	5.06	4.05	4.99	3.05	2.03	4.68	4.91	1.15	0.00	0.00	0.00
49	1.97	3.32	4.47	4.78	3.89	4.97	6.35	5.90	1.14	0.91	0.00	5.26
50	2.92	3.67	3.83	5.22	1.76	3.50	3.23	4.79	2.20	0.89	4.49	0.00
51	2.36	2.50	4.58	5.07	4.79	4.35	6.08	5.16	2.27	1.89	0.00	0.00
52	4.20	2.85	3.75	4.15	2.14	2.15	5.56	4.30	1.25	0.00	1.02	0.00
53	2.65	2.58	4.02	4.25	3.45	3.21	4.69	3.52	0.00	1.75	0.97	0.00
54	3.24	3.39	3.62	4.80	4.12	2.81	3.74	4.04	1.98	2.52	0.00	0.00
55	2.54	3.19	3.83	5.30	3.33	2.63	3.93	4.44	1.18	1.57	0.00	0.00
56	3.68	3.47	3.44	4.70	0.94	1.12	4.47	3.76	0.94	1.74	0.88	0.00
57	1.46	1.50	3.24	4.63	3.33	3.72	3.68	2.55	0.84	0.00	0.92	0.00
58	2.46	2.78	3.47	3.93	3.26	1.46	2.38	3.28	0.00	0.78	0.00	0.00
59	3.08	1.83	3.50	3.89	3.48	3.21	3.12	3.20	0.00	0.86	2.78	0.00
60	1.88	1.08	3.09	3.38	2.75	3.08	3.05	3.50	0.00	0.00	0.78	0.00
61	3.61	2.89	3.89	4.18	3.19	2.63	2.93	4.30	0.99	1.80	0.83	0.00
62	2.53	1.09	3.25	3.38	1.92	2.79	3.27	3.59	0.94	0.00	0.00	0.00
63	1.72	2.81	2.82	3.88	2.48	2.14	2.15	2.39	1.09	0.77	0.00	0.00
64	2.09	2.03	3.51	4.15	1.48	1.70	3.72	3.44	0.00	0.80	0.00	0.00
65	0.84	1.74	3.48	3.83	1.14	1.78	3.93	3.72	0.00	1.12	0.00	0.00

Age	Population on 01.01.2019											
	LFS (2018)	LFS (2019)	SOPA (2018)	SOPA (2019)	SILC (2018)	SILC (2019)	EMS (2017)	EMS (2018)	EHIS (2019)	ICT (2018)	ICT (2019)	CDH (2019)
66	2.92	3.53	3.69	4.28	1.72	1.20	1.21	1.15	1.39	0.00	0.00	0.00
67	1.79	1.89	3.33	3.58	0.60	3.68	2.76	2.48	0.00	0.00	0.00	0.00
68	0.29	1.12	2.29	2.27	0.55	1.18	2.01	1.87	1.16	0.00	0.00	0.00
69	0.88	0.88	1.21	1.18	0.48	1.02	1.81	2.02	0.00	0.00	0.00	0.00
70	0.56	0.00	0.83	0.90	0.00	0.00	0.32	0.60	0.00	0.00	0.00	
71	0.34	0.00	0.64	0.83	0.00	0.74	1.20	0.79	0.00	0.00	0.00	
72	0.00	0.00	0.36	0.51	0.00	0.00	0.40	2.01	0.00	0.00	0.00	
73	0.00	0.40	0.11	0.14	0.00	0.00	0.95	0.99	0.00	0.00	0.00	
74	0.43	0.44	0.19	0.26	0.00	0.00	1.39	0.97	0.00	1.28	0.00	
75	0.36	0.35	0.17	0.18	0.81	0.00	1.79	1.80	0.00	0.00		
76	0.00	0.00	0.20	0.20	0.59	0.61	0.37	0.38	0.00			
77	0.65	0.33	0.06	0.06	0.62	0.64	1.18	0.73	0.00			
78	0.00	0.36	0.06	0.13	0.00	0.00	0.00	0.00	0.00			
79	0.72	0.39	0.03	0.21	0.00	0.00	0.41	0.40	0.00			
80	0.33	0.39	0.25	0.32	0.00	0.88	0.44	0.43	0.00			
81	0.00	0.47	0.21	0.23	0.00	0.00	0.00	1.34	0.00			
82	0.00	0.00	0.07	0.11	0.00	0.00	2.22	1.69	0.00			
83	1.05	1.18	0.17	0.09	0.00	0.00	0.00	0.00	0.00			
84	0.00	0.00	0.37	0.30	0.00	0.00	0.78	0.00	0.00			
85	0.00	0.00	0.26	0.12	0.00	0.00	0.00	0.00	0.00			
86	0.00	0.00	0.12	0.19	0.00	0.00	0.80	2.65	0.00			
87	0.00	0.00	0.00	0.00	0.00	0.00	0.98	2.00	0.00			
88	1.20	0.00	0.00	0.00	1.67	0.00	1.37	1.41	0.00			
89	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00			
90+	0.00	0.00	0.32	0.42	1.47	1.14	1.08	1.03	0.00			

Population on 01.01.2020

Age	LFS (2019)	LFS (2020)	SOPA (2019)	SOPA (2020)	SILC (2019)	SILC (2020)	EHIS (2019)	EMS (2018)	ICT (2019)	ICT (2020)	CDH (2019)
0	0.00	0.00	0.25	1.61	0.00	0.00		0.00			
1	0.00	0.48	2.67	0.62	0.00	0.76		0.48			
2	0.00	0.38	0.51	0.58	2.48	2.22		1.38			
3	0.00	0.69	0.61	0.73	0.00	0.00		1.67			
4	0.39	0.78	0.74	0.51	1.80	1.53		2.55			
5	0.40	0.00	0.81	0.96	0.95	0.69		1.07			
6	0.39	0.77	0.73	1.01	0.00	0.00		3.40			
7	0.78	1.19	1.33	1.19	1.03	0.91		2.92			
8	1.66	1.31	0.96	0.90	0.00	0.88		2.06			
9	1.99	1.42	1.36	1.26	0.00	0.00		3.30			
10	1.22	1.21	1.26	1.03	0.00	0.83		1.44			
11	0.73	0.68	1.12	0.98	1.47	0.68		1.17			
12	1.79	1.06	1.03	1.20	0.81	0.00		2.03			
13	1.89	1.17	1.16	1.09	0.00	0.00		1.84			
14	0.41	0.85	0.93	0.98	0.86	1.36		1.45			
15	0.42	0.00	0.39	0.37	0.00	0.00	0.00	0.36			
16	0.47	0.00	0.56	0.68	0.00	0.00	0.00	2.17	0.00	0.00	
17	0.94	1.40	0.63	0.75	1.89	0.00	0.00	1.55	0.00	0.00	
18	0.87	0.43	0.51	0.49	0.00	0.00	0.00	0.40	0.00	0.00	
19	0.45	1.12	0.39	0.54	0.00	0.86	0.00	0.88	0.00	0.00	
20	0.00	0.00	0.55	0.70	0.99	1.83	3.08	0.00	1.69	0.00	
21	0.00	1.41	0.17	1.56	0.00	0.00	1.85	1.56	0.00	0.00	
22	0.73	0.88	1.03	2.65	1.20	1.20	0.00	4.71	4.00	1.85	
23	1.71	3.28	1.33	2.79	1.67	2.74	1.69	5.20	6.38	0.00	
24	0.74	1.43	1.83	5.09	6.25	5.13	5.41	3.80	3.13	3.92	
25	4.86	5.81	2.89	4.36	2.53	4.35	1.43	4.57	0.00	0.00	
26	0.65	3.98	3.47	3.73	3.45	2.53	0.00	5.86	2.99	0.00	
27	2.00	6.28	4.71	4.97	14.12	10.58	4.00	6.60	1.22	0.00	
28	5.66	6.70	3.28	4.27	4.35	3.54	0.00	6.99	3.90	2.08	
29	5.28	6.71	4.46	5.25	7.14	5.34	0.00	6.48	1.01	0.00	
30	7.41	8.81	2.82	3.99	7.63	5.26	4.00	8.08	1.12	0.00	0.00
31	8.91	9.12	4.19	4.65	3.67	6.29	1.90	7.18	1.22	0.00	0.00

Population on 01.01.2020

Age	LFS (2019)	LFS (2020)	SOPA (2019)	SOPA (2020)	SILC (2019)	SILC (2020)	EHIS (2019)	EMS (2018)	ICT (2019)	ICT (2020)	CDH (2019)
32	3.42	5.21	4.62	4.90	5.07	3.57	0.88	9.37	1.72	0.00	6.67
33	6.76	3.32	4.70	4.32	9.29	8.05	0.80	8.79	0.00	0.00	0.00
34	9.86	8.15	3.89	4.57	3.97	4.83	3.30	7.85	1.25	0.00	0.00
35	7.25	4.78	5.06	4.62	6.56	7.69	2.00	9.49	1.20	0.85	0.00
36	6.21	4.33	3.98	4.75	6.09	5.07	2.04	7.04	1.96	1.10	0.00
37	7.47	7.14	4.79	4.73	6.36	5.19	1.22	6.09	1.25	3.03	0.00
38	3.32	4.28	3.92	4.16	4.93	3.11	2.50	9.32	1.19	1.03	4.76
39	4.78	3.68	3.28	3.66	5.61	5.67	1.00	4.46	0.00	1.30	0.00
40	3.57	3.70	3.22	4.53	5.60	5.03	1.15	6.47	1.14	0.00	0.00
41	4.96	3.70	3.68	3.10	9.32	7.64	2.53	4.60	0.00	0.00	0.00
42	3.58	2.85	3.97	4.67	4.07	3.85	2.44	6.87	0.00	1.15	0.00
43	2.89	3.67	3.70	3.89	2.08	2.87	1.08	4.82	1.09	0.00	0.00
44	4.39	3.80	4.78	4.01	1.30	1.73	0.87	5.80	0.97	0.00	0.00
45	3.67	2.58	3.76	4.91	5.26	5.17	0.00	5.10	0.00	0.00	0.00
46	3.43	1.44	4.17	4.22	4.17	2.16	1.15	5.56	1.09	0.00	0.00
47	2.96	2.69	4.71	4.96	2.82	3.47	0.00	6.85	0.00	1.03	0.00
48	6.27	3.80	3.67	4.09	2.76	3.43	2.11	3.54	0.00	0.00	0.00
49	5.09	4.09	4.95	5.64	2.04	3.87	1.15	4.66	0.00	0.00	0.00
50	3.34	3.89	4.57	4.74	4.97	4.17	2.27	5.66	0.00	0.93	5.26
51	3.69	4.02	5.08	5.08	3.50	3.17	2.20	4.83	4.49	0.00	0.00
52	3.07	2.62	4.74	6.31	4.35	2.94	2.27	5.25	0.00	0.00	0.00
53	3.14	3.65	4.11	4.48	2.16	2.44	1.25	4.32	0.00	0.00	0.00
54	2.57	2.49	3.93	4.51	3.21	1.02	0.00	3.53	0.97	0.00	0.00
55	3.42	2.41	4.16	5.38	2.84	3.24	1.98	3.83	0.00	0.00	0.00
56	3.21	3.07	5.17	5.03	2.63	2.94	1.18	4.00	0.00	0.00	0.00
57	3.48	3.54	4.43	4.73	1.14	1.76	0.94	3.83	0.89	0.00	0.00
58	1.51	2.22	4.41	4.82	3.74	4.35	0.85	2.80	0.93	0.00	0.00
59	3.03	4.40	3.79	4.31	1.46	1.33	0.00	3.36	0.00	0.92	0.00
60	1.85	1.30	3.90	4.42	3.23	2.74	0.00	3.23	2.80	0.86	0.00
61	1.36	1.59	3.22	4.41	3.14	2.21	0.00	3.81	0.78	0.78	0.00
62	2.48	2.80	4.12	4.46	2.12	1.74	0.99	4.36	0.84	0.00	0.00
63	1.10	1.60	3.21	4.08	2.82	2.55	0.93	3.62	0.00	0.99	0.00

Population on 01.01.2020

Age	LFS (2019)	LFS (2020)	SOPA (2019)	SOPA (2020)	SILC (2019)	SILC (2020)	EHIS (2019)	EMS (2018)	ICT (2019)	ICT (2020)	CDH (2019)
64	2.84	2.08	3.75	4.38	2.17	1.38	1.09	2.71	0.00	2.35	0.00
65	2.06	2.14	4.00	4.12	1.70	0.49	1.08	3.76	0.00	0.00	0.00
66	1.74	1.54	3.56	3.79	1.80	1.58	0.00	3.75	0.00	0.00	0.00
67	3.33	2.22	4.31	4.37	1.82	1.55	1.39	0.88	0.00	0.00	0.00
68	1.90	1.02	3.57	4.13	3.75	2.20	0.00	2.21	0.00	0.00	0.00
69	1.14	1.71	2.17	2.18	1.19	0.54	1.16	1.59	0.00	0.00	0.00
70	0.90	1.28	1.16	1.37	0.52	0.44	0.00	2.08	0.00	0.00	0.00
71	0.00	0.39	0.90	0.76	0.00	0.00	0.00	0.63	0.00	0.00	
72	0.00	0.39	0.68	0.79	0.75	1.35	0.00	0.82	0.00	0.00	
73	0.00	0.00	0.50	0.58	0.00	0.00	0.00	1.66	0.00	0.00	
74	0.41	0.49	0.15	0.25	0.00	1.65	0.00	1.54	0.00	0.00	
75	0.44	0.52	0.19	0.14	0.00	0.00	0.00	1.01	0.00		
76	0.36	0.00	0.15	0.23	0.00	1.06	0.00	1.87			
77	0.00	0.00	0.21	0.21	0.63	0.00	0.00	0.00			
78	0.34	0.00	0.03	0.10	0.68	0.73	1.54	0.75			
79	0.37	0.48	0.14	0.26	0.00	0.00	0.00	0.00			
80	0.40	0.51	0.22	0.09	0.00	0.00	0.00	0.00			
81	0.41	0.62	0.31	0.27	0.93	0.00	0.00	0.45			
82	0.50	2.60	0.28	0.34	0.00	0.00	0.00	1.42			
83	0.00	0.00	0.04	0.09	0.00	0.00	0.00	1.80			
84	1.21	0.93	0.15	0.44	0.00	0.00	0.00	0.00			
85	0.00	0.00	0.25	0.34	0.00	0.00	0.00	0.00			
86	0.00	0.00	0.20	0.29	0.00	0.00	0.00	0.00			
87	0.00	0.00	0.07	0.24	0.00	0.00	0.00	3.06			
88	0.00	0.00	0.00	0.10	0.00	0.00	0.00	2.22			
89	0.00	0.00	0.00	0.06	0.00	0.00	0.00	1.82			
90+	0.00	0.00	0.38	0.49	0.93	1.11	0.00	0.97			

Population on 01.01.2021

Age	LFS (2020)	LFS (2021)	SOPA (2020)	SOPA (2021)	SILC (2020)	SILC (2021)	ICT (2020)	ICT (2021)	EU-GBV (2021)
0	0.00	0.52	0.21	2.28	0.00	0.00			
1	0.00	0.43	1.88	0.53	0.00	0.00			
2	0.48	1.80	0.58	0.62	0.76	0.71			
3	0.38	0.78	0.59	0.75	2.22	2.04			
4	0.68	1.01	0.76	0.69	0.00	1.73			
5	0.78	0.68	0.51	0.86	1.53	1.37			
6	0.37	0.72	0.99	0.72	0.69	1.86			
7	0.77	0.72	0.99	1.04	0.00	0.72			
8	1.19	1.56	1.19	1.74	0.91	0.00			
9	1.31	2.67	0.90	1.07	0.88	0.85			
10	1.42	1.53	1.23	1.32	0.00	0.00			
11	1.21	0.76	1.03	1.06	0.83	0.00			
12	0.68	0.91	0.93	1.25	0.68	2.01			
13	1.06	2.75	1.18	1.24	0.00	1.84			
14	1.17	0.80	1.09	1.29	0.00	0.00			
15	0.85	1.49	0.98	0.81	1.36	1.27			
16	0.00	0.39	0.34	0.73	0.00	0.00		0.00	
17	0.00	0.00	0.72	0.69	0.00	0.00	0.00	0.00	1.59
18	1.40	0.00	0.75	0.79	0.00	0.92	0.00	0.00	0.88
19	0.43	0.00	0.43	0.81	0.00	0.00	0.00	0.00	1.69
20	1.14	0.00	0.45	0.80	0.86	0.00	0.00	0.00	1.77
21	0.00	0.00	0.70	1.14	1.82	1.06	0.00	0.00	1.75
22	1.43	0.00	1.22	1.74	0.00	0.00	0.00	0.00	3.92
23	0.88	2.27	2.67	3.16	2.38	1.28	1.85	1.85	6.20
24	4.07	6.25	2.39	3.63	4.05	3.80	1.69	0.00	2.91
25	0.73	1.92	4.72	3.25	5.13	3.30	3.92	4.23	4.42
26	5.81	6.43	4.17	4.19	5.43	6.67	0.00	1.32	3.70
27	4.57	6.81	3.76	3.69	2.50	1.00	0.00	1.39	1.57
28	6.31	6.99	4.71	5.23	11.54	8.93	0.00	0.99	3.45
29	6.67	5.99	3.72	4.42	3.54	3.10	2.08	0.00	3.09
30	7.34	7.53	4.95	6.13	5.34	4.38	0.00	2.02	3.77
31	8.81	9.16	4.02	5.62	6.02	4.43	0.00	0.00	1.71

Population on 01.01.2021

Age	LFS (2020)	LFS (2021)	SOPA (2020)	SOPA (2021)	SILC (2020)	SILC (2021)	ICT (2020)	ICT (2021)	EU-GBV (2021)
32	9.15	9.87	4.79	4.99	6.29	4.35	0.00	0.00	3.19
33	5.21	5.86	4.87	4.43	4.14	5.52	1.02	0.00	3.82
34	3.92	7.89	4.34	4.82	7.51	5.77	0.00	0.00	3.33
35	8.15	6.71	4.61	4.88	4.86	6.32	0.00	0.00	2.16
36	4.78	7.45	4.42	5.65	7.69	7.23	1.71	0.94	2.11
37	4.36	6.47	4.32	5.32	5.04	5.59	2.20	0.00	1.18
38	7.12	4.84	4.48	4.68	5.22	5.19	3.09	0.00	0.00
39	4.67	6.44	4.11	4.57	3.11	2.17	1.04	0.00	2.88
40	3.32	4.98	3.38	4.36	5.67	5.76	1.32	0.00	2.92
41	3.70	4.44	4.12	4.36	5.03	6.17	1.10	0.00	2.82
42	4.07	3.90	3.23	4.58	7.64	6.04	0.97	1.04	0.00
43	2.85	2.78	4.34	4.84	3.85	5.43	1.15	0.80	0.71
44	3.67	6.62	3.92	5.24	3.47	2.61	0.00	0.99	1.14
45	3.82	4.40	4.02	4.39	1.75	2.67	0.00	0.00	1.30
46	2.58	2.79	4.93	5.43	5.17	5.42	0.00	0.00	1.63
47	1.45	3.61	3.96	5.49	2.16	2.49	0.00	1.01	1.68
48	2.68	3.07	4.57	4.97	3.47	1.05	1.03	0.00	3.01
49	3.52	2.64	4.00	4.23	3.45	4.04	0.00	0.90	1.89
50	4.11	2.41	5.34	6.79	3.35	3.40	0.00	0.00	0.53
51	3.89	3.88	4.40	5.86	4.19	4.81	0.93	1.14	1.03
52	4.06	3.49	4.84	6.34	3.19	2.02	0.00	2.40	3.01
53	2.63	2.87	6.23	6.25	2.94	4.85	0.00	0.00	0.65
54	3.66	4.37	4.19	5.50	2.44	3.50	0.00	0.90	0.54
55	2.49	3.24	4.27	5.05	1.02	1.84	0.00	0.00	1.31
56	2.69	2.70	4.82	5.32	3.26	3.19	0.00	0.00	0.00
57	2.84	2.17	4.92	6.18	2.96	1.97	0.00	0.00	0.00
58	3.81	4.31	4.63	4.93	1.34	2.59	0.00	0.00	1.13
59	2.48	3.19	4.64	5.70	4.35	3.27	0.00	0.00	0.47
60	3.94	5.17	3.94	4.98	1.35	0.48	0.93	0.00	0.00
61	1.83	3.18	4.13	4.97	2.76	4.03	0.88	0.94	0.47
62	1.60	3.29	4.33	5.03	2.24	3.35	0.78	0.00	0.00
63	2.83	4.62	4.20	4.57	1.76	0.86	0.00	0.00	2.22

Population on 01.01.2021

Age	LFS (2020)	LFS (2021)	SOPA (2020)	SOPA (2021)	SILC (2020)	SILC (2021)	ICT (2020)	ICT (2021)	EU-GBV (2021)
64	1.61	2.94	3.96	4.32	2.58	2.70	1.00	0.00	1.22
65	2.09	2.72	4.28	4.49	1.39	1.26	2.38	0.00	0.00
66	2.16	3.38	3.96	4.31	0.49	1.87	0.00	0.00	0.32
67	1.56	2.53	3.54	3.66	1.06	1.91	0.00	0.00	0.36
68	2.23	1.52	4.15	4.08	1.57	2.03	0.00	0.00	0.71
69	1.03	0.34	3.93	3.65	2.27	2.26	0.00	0.00	0.35
70	1.74	1.75	2.11	2.28	0.54	0.50	0.00	0.00	0.35
71	1.31	0.32	1.40	1.57	0.44	0.95	0.00	0.00	0.00
72	0.39	1.15	0.66	0.96	0.00	0.00	0.00	0.00	0.42
73	0.40	0.45	0.72	0.65	1.37	1.26	0.00	0.00	0.00
74	0.00	0.00	0.57	0.68	0.00	0.00	0.00	0.00	0.00
75	0.51	1.73	0.29	0.31	1.71	2.50	0.00		
76	0.53	0.57	0.14	0.17	0.00	0.00			
77	0.00	0.99	0.20	0.20	1.08	0.00			
78	0.00	0.56	0.16	0.19	0.00	0.65			
79	0.00	1.04	0.07	0.24	0.75	0.85			
80	0.50	0.56	0.25	0.24	0.00	0.00			
81	0.54	1.29	0.10	0.07	0.00	0.00			
82	0.63	0.00	0.28	0.35	0.00	1.14			
83	2.67	3.10	0.32	0.38	0.00	0.00			
84	0.00	0.00	0.05	0.28	0.00	0.00			
85	0.97	0.00	0.48	0.25	0.00	0.00			
86	0.00	0.00	0.37	0.38	0.00	0.00			
87	0.00	0.00	0.24	0.25	0.00	0.00			
88	0.00	0.00	0.18	0.09	0.00	0.00			
89	0.00	0.00	0.12	0.41	0.00	0.00			
90+	0.00	0.00	0.35	0.40	0.00	0.00			

Population on 01.01.2022										
Age	LFS (2021)	LFS (2022)	SOPA (2021)	SOPA (2022)	SILC (2021)	SILC (2022)	ICT (2021)	ICT (2022)	EU-GBV (2021)	AES (2022)
0	0.00	0.00	0.23	1.41	0.00	0.00				
1	0.51	0.00	2.38	0.73	0.00	0.00				
2	0.43	0.80	0.53	0.78	0.00	0.00				
3	1.80	0.40	0.66	0.91	0.71	0.81				
4	0.78	2.37	0.79	0.94	2.04	1.40				
5	1.01	1.02	0.76	0.70	1.73	0.74				
6	0.69	0.98	0.82	0.79	1.37	0.70				
7	0.72	1.44	0.60	0.83	1.86	1.27				
8	0.72	0.73	0.98	1.24	0.72	1.57				
9	1.17	0.42	1.65	1.39	0.00	0.00				
10	2.23	1.38	1.06	1.33	0.85	1.80				
11	1.53	1.53	1.26	1.60	0.00	0.00				
12	0.76	1.17	0.95	1.08	0.00	0.00				
13	0.91	1.32	1.28	1.45	2.01	1.45				
14	2.75	1.95	1.21	1.40	1.84	2.04				
15	0.80	0.00	1.24	1.12	0.00	0.00				
16	1.12	1.49	0.78	1.09	1.27	0.00		0.00		
17	0.39	0.00	0.73	0.70	0.00	0.00	0.00	1.49		0.00
18	0.00	0.00	0.65	1.07	0.00	0.00	0.00	0.00	1.59	0.00
19	0.00	0.49	0.69	1.04	0.92	0.00	0.00	0.00	1.77	0.78
20	0.00	0.55	0.81	1.11	0.00	0.00	0.00	1.56	1.71	0.00
21	0.00	0.00	0.54	0.68	0.93	1.15	0.00	2.74	0.89	0.00
22	0.00	0.00	0.82	1.57	2.13	2.99	0.00	1.64	2.65	0.95
23	0.00	0.00	1.76	1.96	0.00	1.35	0.00	0.00	4.00	0.99
24	3.03	4.14	2.42	2.20	1.28	2.86	1.89	0.00	6.25	2.47
25	5.51	5.13	3.42	4.02	3.80	4.41	0.00	1.96	2.94	2.25
26	2.56	3.60	3.02	2.43	3.30	4.65	4.23	2.86	5.26	2.06
27	5.85	4.27	2.23	3.61	4.81	4.60	1.32	5.41	4.48	1.02
28	6.77	5.03	2.23	3.91	1.01	4.60	1.39	0.00	2.36	1.10
29	5.65	7.18	1.39	6.09	9.73	8.70	0.99	1.16	4.65	2.19
30	5.53	6.61	0.94	6.04	3.10	6.25	0.00	1.03	3.11	2.88
31	7.86	7.98	6.31	5.98	3.13	4.88	3.03	0.00	4.46	0.00

Population on 01.01.2022										
Age	LFS (2021)	LFS (2022)	SOPA (2021)	SOPA (2022)	SILC (2021)	SILC (2022)	ICT (2021)	ICT (2022)	EU-GBV (2021)	AES (2022)
32	8.37	8.87	5.31	5.70	4.43	5.41	0.00	0.89	1.71	1.37
33	9.55	7.69	4.93	5.56	4.38	6.49	0.83	0.86	2.67	0.65
34	5.57	8.66	4.09	6.60	5.52	5.11	0.00	0.00	3.85	1.69
35	7.67	8.70	4.57	6.40	4.81	5.26	0.00	0.83	2.39	0.90
36	6.69	3.87	4.58	5.65	5.17	9.33	0.88	0.81	2.72	0.98
37	7.18	6.12	5.14	5.54	6.59	5.39	0.94	0.00	2.13	2.13
38	6.18	6.21	4.74	5.47	5.59	5.41	0.00	0.00	1.18	2.65
39	4.85	7.84	4.16	4.88	5.23	4.03	0.00	0.00	0.00	1.20
40	6.46	5.52	4.19	4.98	2.19	1.32	0.00	3.33	3.60	0.85
41	4.36	5.57	4.27	4.61	5.76	6.25	0.00	0.00	2.94	0.95
42	4.07	4.41	3.73	3.57	6.21	5.13	0.00	0.00	2.84	1.18
43	3.90	3.23	4.04	3.90	6.08	4.52	1.04	0.00	0.00	0.00
44	2.44	4.08	3.76	4.14	4.92	5.23	0.80	0.00	0.71	0.96
45	5.99	5.98	4.77	4.16	3.27	4.20	0.99	1.05	1.14	0.00
46	4.40	3.26	3.62	3.27	2.16	3.05	0.00	0.00	1.96	0.00
47	2.48	2.70	4.96	3.30	4.85	4.58	0.00	0.00	1.64	0.97
48	2.79	4.63	5.04	3.75	2.49	2.76	1.01	1.04	1.69	0.00
49	3.08	2.38	4.59	3.19	1.05	2.35	0.00	0.87	3.03	0.00
50	2.65	3.76	3.87	3.03	4.04	4.55	0.90	0.00	1.91	0.00
51	2.14	2.54	5.71	3.14	4.39	5.23	0.00	1.89	0.54	1.02
52	3.63	3.23	5.48	3.01	4.85	3.30	1.14	0.00	2.06	1.02
53	3.53	3.00	5.81	3.48	1.53	2.34	1.60	1.63	3.03	2.33
54	2.89	2.79	5.92	3.29	4.41	2.13	0.00	0.91	1.96	0.00
55	3.56	4.90	4.92	3.67	3.54	4.47	1.80	0.00	0.54	0.00
56	3.28	3.02	4.84	3.81	1.88	3.23	0.00	1.96	1.32	0.00
57	2.98	3.55	4.84	3.23	3.19	4.46	0.00	2.34	0.00	1.11
58	1.94	2.49	5.34	3.47	1.99	1.40	0.00	0.88	0.00	0.00
59	3.26	3.43	4.58	2.98	2.60	2.94	0.00	0.73	1.14	0.00
60	2.96	2.91	5.42	3.44	2.89	2.78	0.00	0.00	0.48	0.00
61	5.18	2.09	4.19	3.03	0.48	2.12	0.00	0.00	0.48	0.90
62	3.24	2.57	4.26	3.04	3.25	2.83	0.96	0.00	0.95	0.00
63	2.75	2.47	4.49	3.24	3.40	3.81	0.00	3.03	0.52	0.87

Population on 01.01.2022

Age	LFS (2021)	LFS (2022)	SOPA (2021)	SOPA (2022)	SILC (2021)	SILC (2022)	ICT (2021)	ICT (2022)	EU-GBV (2021)	AES (2022)
64	4.21	3.79	4.41	3.02	0.87	0.45	0.00	0.00	2.22	0.00
65	2.70	2.67	4.04	3.17	2.73	2.54	0.00	0.00	1.22	0.96
66	2.22	3.59	4.31	3.14	1.28	2.48	0.00	0.76	0.00	1.01
67	3.43	3.41	3.97	3.07	1.90	3.95	0.00	1.03	0.33	0.00
68	2.25	2.29	3.31	2.54	1.95	1.17	0.00	0.00	0.00	0.00
69	1.22	2.37	3.81	2.67	2.05	2.40	0.00	0.00	0.72	
70	0.35	2.03	3.28	2.19	2.31	3.11	0.00	0.00	0.36	
71	1.81	1.84	2.10	1.28	0.51	0.65	0.00	0.00	0.36	
72	0.33	1.02	1.46	0.90	0.97	1.14	0.00	0.00	0.00	
73	1.17	0.37	0.68	0.46	0.00	0.00	0.00	0.00	0.43	
74	0.00	0.89	0.57	0.45	1.32	1.43	0.00	0.00	0.00	
75	0.00	0.00	0.54	0.39	0.00	0.00	0.00		0.00	
76	1.22	0.94	0.20	0.14	2.59	3.30				
77	0.58	0.00	0.18	0.22	0.00	0.00				
78	0.51	0.00	0.17	0.19	0.00	0.00				
79	0.57	0.49	0.13	0.30	0.67	0.00				
80	1.07	0.88	0.24	0.11	0.89	1.14				
81	1.17	1.01	0.22	0.14	0.00	0.00				
82	1.33	0.00	0.08	0.11	0.00	0.00				
83	0.00	0.65	0.34	0.32	1.19	1.23				
84	3.31	2.10	0.38	0.36	0.00	0.00				
85	0.00	0.00	0.28	0.16	0.00	0.00				
86	0.00	0.00	0.14	0.15	0.00	0.00				
87	0.00	0.00	0.27	0.26	0.00	3.33				
88	0.00	0.00	0.30	0.31	0.00	0.00				
89	0.00	0.00	0.00	0.38	0.00	0.00				
90+	0.00	0.72	0.31	0.30	0.00	0.00				

Population on 01.01.2023

Age	LFS (2022)	LFS (2023)	SOPA (2022)	SOPA (2022. excl. refugees from Ukraine)	SOPA (2023)	SILC (2022)	SILC (2023)	ICT (2022)	ICT (2023)	AES (2022)
0	0.00	0	0.35	0.07	0.53	0.00	0			
1	0.00	0.48	6.13	1.51	0.99	0.00	0			
2	0.00	0.49	6.18	0.56	1.02	0.00	0			
3	0.40	0	4.69	0.74	0.77	0.00	0			
4	0.40	0.34	4.85	0.84	1.02	0.81	0			
5	2.76	2.36	5.33	0.79	0.85	1.40	0.93			
6	1.02	0.98	4.93	0.64	0.66	0.00	0			
7	1.30	1.32	3.98	0.71	0.97	0.70	0			
8	1.44	1.21	5.71	0.77	1.03	1.27	0			
9	0.72	0.68	6.28	1.21	1.06	1.57	0.81			
10	0.83	1.99	7.43	1.39	1.11	0.00	0			
11	1.38	1.42	6.28	1.12	1.16	1.80	0.88			
12	1.53	0.36	6.90	1.60	1.55	0.00	0			
13	1.18	1.43	7.02	0.99	1.08	0.00	0			
14	1.32	1.03	5.92	1.20	1.2	0.00	0			
15	1.30	1.03	6.03	1.37	1.39	1.37	1.45			
16	0.00	0.36	6.62	1.05	1.22	0.00	0.87		0.00	
17	1.49	1.52	6.67	1.13	1.06	0.00	0.67	0.00	0.00	
18	0.39	0	6.33	0.57	0.76	0.00	1.74	1.49	0.00	0.00
19	0.00	1.04	5.72	0.87	1.22	0.00	0	0.00	0.00	0.00
20	0.49	1.11	6.47	0.80	0.95	0.00	0	0.00	0.00	0.00
21	1.10	1.99	8.30	1.02	1.32	0.00	0	1.56	0.00	0.00
22	0.00	1.37	7.39	0.49	2.16	1.15	2.67	2.74	0.00	0.98
23	0.00	0.74	8.99	1.04	1.49	4.48	1.59	1.67	0.00	0.95
24	0.83	1.75	10.58	1.73	1.6	1.35	1.67	1.92	2.38	0.99
25	4.14	2.31	10.20	1.33	2.21	2.86	7.35	0.00	0.00	3.66
26	5.98	1.77	10.72	2.57	2.24	2.99	0	1.96	1.89	1.14
27	3.62	2.22	8.86	0.95	1.85	4.65	2.94	4.23	0.00	2.06

Population on 01.01.2023

Age	LFS (2022)	LFS (2023)	SOPA (2022)	SOPA (2022. excl. refugees from Ukraine)	SOPA (2023)	SILC (2022)	SILC (2023)	ICT (2022)	ICT (2023)	AES (2022)
28	4.88	4	8.92	1.55	3.61	5.75	6.41	4.11	6.15	1.02
29	4.47	7.29	6.82	0.35	2.85	4.60	7.69	0.00	1.56	1.10
30	6.67	6.83	7.54	1.65	2.98	8.70	5.22	2.33	1.20	2.21
31	6.23	10	10.62	5.65	3.86	5.41	6.4	1.04	0.00	2.88
32	7.17	5.82	10.32	5.54	5.71	4.91	4.76	0.00	3.45	0.00
33	8.54	6.05	10.22	5.18	4.83	4.08	5.92	0.90	1.23	1.37
34	7.72	7.69	9.55	4.98	4.78	5.84	8.39	0.86	1.02	0.65
35	8.01	7.8	10.58	5.98	3.78	3.43	4.49	0.00	0.00	0.00
36	7.45	6.71	10.48	5.67	5.07	5.29	4.65	1.68	2.00	0.91
37	4.21	4.39	8.85	4.88	4	9.27	9.03	1.63	3.06	0.98
38	5.26	4.11	9.40	4.86	5.23	4.19	4.27	0.00	0.93	2.13
39	5.84	7.05	8.59	4.64	3.97	4.76	2.56	0.00	0.00	2.65
40	7.82	8.06	8.63	4.51	4.5	4.03	4.61	0.00	0.00	3.66
41	4.83	5.09	8.23	4.38	4.16	1.31	5.26	5.00	1.08	0.85
42	4.94	4.49	7.51	4.10	4.82	6.25	8	1.04	2.20	0.96
43	4.04	4.79	5.90	3.04	3.64	4.52	4.29	0.00	0.00	2.35
44	3.58	3.39	6.24	3.63	3.8	4.55	4.76	0.98	0.00	0.00
45	4.10	4.1	5.99	3.88	3.84	4.07	3.98	0.00	0.97	0.96
46	5.65	3.56	5.71	3.88	5.17	3.50	4.96	1.05	0.00	0.00
47	3.27	4.09	4.99	2.92	4.82	3.05	2.61	0.00	0.00	0.00
48	3.02	2.23	5.05	3.05	4.49	3.92	3.05	0.00	0.00	0.97
49	4.64	3.99	4.97	3.51	4.97	2.78	2.73	1.04	0.00	0.00
50	2.09	2.65	4.56	2.97	5.3	2.35	2.31	0.89	0.00	0.00
51	2.91	2.87	4.42	2.86	3.72	4.62	3.16	0.00	0.00	0.00
52	2.53	2.59	4.06	2.84	5.33	5.23	2.92	2.83	0.00	1.02
53	2.66	2.43	3.78	2.60	4.58	3.30	3.61	0.00	0.00	1.02
54	3.01	3.01	4.41	3.22	5.47	2.34	2.86	1.64	0.85	2.33
55	2.23	2.52	3.72	2.96	4.96	2.15	2.19	0.91	1.87	0.99
56	4.89	3.14	4.25	3.32	5.03	2.82	2.27	0.00	0.00	0.00
57	3.06	3.12	4.41	3.44	5.73	3.26	3.03	1.96	0.84	0.00

Population on 01.01.2023

Age	LFS (2022)	LFS (2023)	SOPA (2022)	SOPA (2022. excl. refugees from Ukraine)	SOPA (2023)	SILC (2022)	SILC (2023)	ICT (2022)	ICT (2023)	AES (2022)
58	3.06	3.07	3.78	2.94	5.26	4.04	2.79	2.36	1.85	0.00
59	2.50	3.31	3.96	2.95	5.29	1.40	1.37	0.88	0.00	0.00
60	3.17	3.11	3.85	2.73	5.28	2.96	4.05	0.74	0.00	0.00
61	2.65	2.64	4.34	2.99	5.29	2.79	2.35	0.00	0.00	0.00
62	1.64	3.23	4.00	2.61	4.61	2.12	3.94	0.00	0.00	0.90
63	2.35	2.47	3.68	2.66	4.52	2.36	2.64	0.00	0.00	0.00
64	2.20	3.08	4.04	2.98	5.35	3.38	2.96	3.05	0.75	0.87
65	3.53	2.72	3.47	2.64	4.8	0.00	0.47	0.00	0.00	0.00
66	2.68	3.16	3.87	2.88	4.77	2.04	2.51	0.00	1.00	0.97
67	3.34	3.48	3.60	2.81	4.04	2.53	3.05	0.76	0.00	0.00
68	3.13	2.44	3.46	2.57	3.8	2.86	4.17	1.03	0.00	0.00
69	1.66	2.01	3.09	2.38	3.18	1.18	1.89	0.00	0.00	0.00
70	2.36	1.54	3.21	2.55	3.66	2.40	2.98	0.00	0.00	
71	2.04	2.63	2.77	1.97	3.55	3.18	1.29	0.00	0.00	
72	1.86	1.61	1.89	1.10	1.71	0.67	0	0.00	0.00	
73	1.03	1.72	1.35	0.77	1.12	1.16	1.13	0.00	0.00	
74	0.38	0.65	1.04	0.28	0.4	0.00	0	0.00	0.00	
75	0.90	0.76	0.95	0.33	0.6	0.73	0.64	0.00		
76	0.00	0	1.01	0.26	0.43	0.00	0			
77	0.98	0.4	0.55	0.12	0.22	2.25	2.02			
78	0.00	0.93	0.53	0.20	0.27	0.00	0			
79	0.00	0	0.41	0.17	0.39	0.00	0			
80	0.50	0	0.45	0.24	0.21	0.00	0			
81	0.93	0.91	0.42	0.09	0.22	1.19	1.32			
82	1.04	0	0.53	0.13	0.41	0.00	0			
83	0.00	0.96	0.47	0.08	0.15	0.00	0			
84	0.67	0.61	0.77	0.31	0.51	0.00	0			
85	2.21	1.29	0.58	0.33	0.41	0.00	0			
86	0.00	0.8	0.43	0.09	0.28	0.00	0			
87	0.00	0	0.11	0.06	0.3	0.00	0			

Population on 01.01.2023

Age	LFS (2022)	LFS (2023)	SOPA (2022)	SOPA (2022. excl. refugees from Ukraine)	SOPA (2023)	SILC (2022)	SILC (2023)	ICT (2022)	ICT (2023)	AES (2022)
88	0.00	0	0.29	0.15	0.27	0.00	0			
89	0.00	0	0.36	0.27	0.3	0.00	0			
90+	0.63	1.06	0.42	0.27	0.24	0.00	1.19			

Population on 01.01.2024

Age	LFS (2023)	SOPA (2022)	SOPA (2022. excl. refugees from Ukraine)	SILC (2023)	ICT (2023)	LPIUIA_24
0	0	0.25	0.24	0		
1	0	1.51	0.56	0		
2	0.48	1.32	0.85	0		
3	0.48	1.28	0.8	0		
4	0	1.14	0.72	0		
5	0.34	1.59	1.1	0		
6	2.36	1.26	0.82	0.93		
7	0.98	1.08	0.63	0		
8	1.32	1.67	0.89	0		
9	1.21	1.62	0.85	0		
10	0	2.12	0.97	0.81		
11	1.59	2.6	0.99	0		
12	1.42	2.01	1.04	0		
13	0	3.26	1.35	0		
14	1.43	2.27	0.99	0		
15	1.02	2.19	1.23	0		
16	1.03	3.42	1.27	1.45		
17	0.36	3.41	1.04	0.87		
18	1.52	0.96	0.86	0.67		
19	0	0.64	0.51	1.74	0	5.88
20	0.52	0.86	0.72	0	0	6.67

Population on 01.01.2024

Age	LFS (2023)	SOPA (2022)	SOPA (2022. excl. refugees from Ukraine)	SILC (2023)	ICT (2023)	LPIUIA_24
21	1.12	0.79	0.4	0	0	6.67
22	1.97	1.02	0.75	0	0	7.89
23	1.36	1.75	1.49	2.67	0	6.52
24	0.74	1.03	0.87	1.59	0	16.39
25	1.75	1.24	1.17	3.28	2.44	15.79
26	2.31	1.21	0.58	7.35	0	15
27	1.77	0.56	0.82	0	1.96	9.52
28	2.96	0	0	2.94	0	4.17
29	3.97	0.41	0.37	6.41	4.69	10
30	7.29	0	0	7.69	1.56	22.22
31	6.34	4.72	2.2	5.22	1.22	18.52
32	9.66	5.14	3.53	6.4	0	28.57
33	5.82	6.3	5.01	4.17	3.45	18.52
34	5.41	5.83	5.01	5.88	0	23.81
35	6.75	5.84	4.71	6.99	1.02	29.03
36	7.26	4.66	4.05	4.49	0	36.67
37	6.39	4.98	4.18	4.07	2	0
38	3.81	4.68	3.51	8.44	3.09	32.43
39	3.82	6.31	4.5	3.7	0.93	18.75
40	6.73	4.75	3.96	1.92	0	10.34
41	6.93	4.61	4.03	4.58	1.03	30
42	4.79	4.78	3.88	5.26	1.09	13.79
43	4.49	4.69	3.77	8	2.2	30
44	4.47	4.18	3.61	4.29	0	30.43
45	2.73	4.1	3.52	4.08	0	8
46	4.11	4.63	3.6	4	0.98	13.79
47	2.98	5.16	5.07	4.96	0	27.27
48	3.46	4.29	3.63	2.61	0	11.54
49	2.23	4.32	4.13	3.05	0	35.71
50	3.15	5.6	4.7	2.73	0	23.08
51	2.35	5.38	4.53	1.73	0	32
52	2.61	4.16	3.2	3.18	0	10

Population on 01.01.2024

Age	LFS (2023)	SOPA (2022)	SOPA (2022. excl. refugees from Ukraine)	SILC (2023)	ICT (2023)	LPIUIA_24
53	2.59	5.27	4.62	2.98	0	21.21
54	1.89	5.25	4.51	2.58	0	20
55	2.13	5.02	4.77	2.29	0.87	9.38
56	2.54	4.91	4.33	2.2	1.89	22.58
57	2.89	4.99	4.69	2.27	0.81	23.08
58	2.85	6.01	5.44	3.05	1.69	20
59	2.85	5.19	4.66	2.84	1.9	13.64
60	3.1	5.68	4.89	0.92	0	0
61	2.88	5.21	4.94	3.67	0	34.48
62	2.42	5.64	5.01	2.42	0	18.52
63	2.99	4.45	4.12	3.94	0	3.7
64	2.49	4.77	4.16	2.2	0	11.54
65	2.86	5.75	4.83	2.97	0.77	0
66	2.75	5.17	4.28	0.47	0	0
67	3.21	4.66	4.33	2.54	1.01	0
68	3.26	4.04	3.66	2.58		
69	2.47	3.93	3.44	4.17		
70	1.75	3.16	2.75	1.94		
71	1.55	4.01	3.51	2.99		
72	1.81	3.39	3.14	1.31		
73	1.64	1.93	1.53	0		
74	1.75	1.22	1.01	0.58		
75	0.67	0.54	0.33	0		
76	0.78	1.07	0.45	0.65		
77	0	0.55	0.37	0		
78	0.41	0.39	0.16	1.04		
79	0.95	0.35	0.21	0		
80	0	0.37	0.31	0		
81	0	0.26	0.13	0		
82	0.95	0.27	0.14	1.33		
83	0	0.7	0.29	0		
84	0.5	0.34	0.13	0		

Population on 01.01.2024

Age	LFS (2023)	SOPA (2022)	SOPA (2022. excl. refugees from Ukraine)	SILC (2023)	ICT (2023)	LPIUIA_24
85	0.63	0.5	0.44	0		
86	1.36	0.52	0.26	0		
87	0.84	0.45	0.13	0		
88	0	0.52	0.35	0		
89	0	0.32	0.22	0		
90+	1.31	0.33	0.31	0.93		

SoL-logit method

Age	Population on 01.01.2023								
	LFS (2022)	LFS (2023)	SOPA (2022)	SOPA (2023)	SILC (2022)	SILC (2023)	ICT (2022)	ICT (2023)	AES (2022)
0	1.10	0.00	0.50	1.64	0.00	0.00			
1	0.00	0.48	6.24	1.61	0.00	0.87			
2	0.00	1.45	6.89	1.79	0.00	0.00			
3	1.61	0.43	5.49	1.44	0.00	0.00			
4	0.00	1.02	5.27	1.16	0.00	0.00			
5	2.76	1.18	5.53	0.96	0.70	0.93			
6	1.02	0.33	5.25	0.75	0.00	0.00			
7	1.62	1.65	4.17	0.94	0.00	0.00			
8	1.44	0.60	6.18	1.27	3.16	0.70			
9	0.72	1.01	6.70	1.28	0.00	0.00			
10	0.83	1.59	7.58	1.42	0.86	0.00			
11	0.00	0.71	6.27	1.10	0.90	0.88			
12	0.38	0.00	6.81	1.81	0.00	0.87			
13	0.39	0.71	6.97	0.86	0.00	0.00			
14	1.32	1.03	5.84	0.80	0.00	0.00			
15	0.65	0.69	5.72	1.21	0.68	0.00			
16	0.42	0.36	6.67	1.65	0.00	0.87		0.00	
17	0.75	0.75	7.07	2.73	0.00	0.00	0.00	0.00	
18	0.78	0.41	8.20	2.67	0.00	2.61	4.48	1.75	0.00
19	0.00	0.52	6.21	2.33	0.00	0.00	0.00	0.00	0.00
20	0.49	0.56	7.48	2.34	0.00	0.00	0.00	0.00	0.78
21	0.55	3.29	8.59	2.09	0.00	0.00	1.56	0.00	0.00
22	0.00	1.37	7.94	3.39	1.15	2.67	1.37	0.00	0.00
23	0.73	0.00	10.17	4.18	2.99	3.17	1.67	0.00	0.95
24	0.83	1.75	10.70	5.29	0.00	0.00	0.00	2.38	0.99
25	3.45	2.31	11.25	4.11	4.29	7.35	1.59	0.00	2.44
26	3.42	3.54	10.97	5.68	2.99	0.00	1.96	3.77	0.00
27	3.60	2.94	9.79	4.43	1.16	0.00	1.41	0.00	1.03
28	2.44	4.00	9.22	5.23	3.45	2.56	1.35	6.15	2.04
29	2.79	4.69	8.77	4.15	2.30	1.92	2.25	0.00	2.20
30	3.59	3.90	7.38	3.41	4.35	2.61	0.00	1.20	5.11

Population on 01.01.2023

Age	LFS (2022)	LFS (2023)	SOPA (2022)	SOPA (2023)	SILC (2022)	SILC (2023)	ICT (2022)	ICT (2023)	AES (2022)
31	1.17	3.45	7.08	4.05	0.89	3.20	2.08	0.00	2.88
32	1.51	2.73	6.91	3.58	2.44	3.55	0.00	3.41	1.40
33	2.48	2.87	6.92	3.40	1.35	1.96	2.70	1.23	0.00
34	2.11	3.06	6.41	3.75	3.25	2.80	0.86	2.04	0.64
35	2.97	1.11	6.47	2.96	0.57	0.64	0.86	0.93	0.85
36	2.17	0.32	6.58	3.82	1.18	1.16	0.84	1.00	0.00
37	0.65	1.17	5.43	3.02	1.99	2.58	0.00	1.02	0.98
38	1.17	0.63	6.40	3.85	0.60	1.22	0.00	0.00	1.06
39	2.06	1.92	5.61	2.48	1.36	1.28	0.90	0.85	1.77
40	3.26	3.58	5.66	2.35	0.00	0.66	0.00	1.03	1.20
41	0.34	2.10	5.73	2.75	0.00	0.75	2.50	1.06	0.85
42	1.85	2.56	5.09	4.00	0.78	2.40	0.00	2.20	1.92
43	1.10	1.27	4.37	2.67	0.65	1.43	1.15	1.11	0.00
44	1.43	2.37	3.88	3.11	1.29	1.36	0.98	1.08	0.00
45	5.12	3.79	4.25	4.24	3.49	3.41	2.02	1.94	0.96
46	3.65	2.37	4.05	2.84	1.40	2.84	3.16	0.85	2.04
47	3.27	4.09	3.68	4.09	1.83	2.61	2.61	0.00	1.01
48	2.72	2.23	3.85	3.29	2.61	3.66	0.00	0.00	0.97
49	3.01	3.69	3.31	3.79	1.11	1.09	1.04	1.01	0.00
50	1.19	2.65	3.24	3.99	1.18	1.16	0.88	1.43	1.06
51	1.74	2.09	3.13	3.90	2.31	2.53	1.74	1.55	0.95
52	2.81	2.59	2.64	3.74	3.49	1.75	1.89	0.70	1.02
53	2.07	0.54	2.74	3.26	2.75	3.61	0.00	0.80	2.04
54	3.01	2.11	2.56	3.50	1.75	2.29	3.28	0.00	1.55
55	2.51	1.96	2.18	2.79	1.61	1.09	0.00	2.80	0.98
56	2.99	3.14	2.38	2.78	1.69	1.70	0.00	0.80	1.03
57	1.67	2.83	2.63	2.99	1.09	1.82	0.00	1.68	0.00
58	2.04	2.59	2.17	2.92	0.45	0.47	1.57	2.78	1.11
59	1.50	1.65	2.36	2.91	1.87	1.83	0.00	1.74	0.00
60	1.44	2.39	2.30	2.85	1.48	2.25	0.74	0.85	0.00
61	1.06	1.92	2.78	3.00	2.33	0.94	0.00	0.74	0.00
62	0.93	1.74	2.40	2.84	1.06	2.96	0.00	0.69	0.00

Population on 01.01.2023

Age	LFS (2022)	LFS (2023)	SOPA (2022)	SOPA (2023)	SILC (2022)	SILC (2023)	ICT (2022)	ICT (2023)	AES (2022)
63	1.31	1.73	1.98	2.10	1.42	1.32	0.00	0.00	0.00
64	0.27	1.03	1.76	1.78	0.48	0.99	0.76	0.00	0.87
65	1.09	0.82	1.68	2.21	0.00	0.00	0.00	0.89	1.08
66	1.88	1.44	1.61	1.32	0.00	0.00	0.00	0.99	0.97
67	1.11	1.87	1.67	1.39	1.01	1.52	0.76	0.00	1.01
68	1.56	1.36	1.81	1.72	0.00	1.19	1.03	0.00	0.00
69	1.00	1.15	1.48	1.40	0.59	0.00	0.00	0.00	0.00
70	1.01	1.23	1.70	1.80	0.60	1.19	0.00	0.00	
71	1.02	1.46	1.57	1.53	1.27	0.65	0.00	0.00	
72	1.49	1.29	1.35	1.01	0.67	0.00	0.00	0.00	
73	1.03	1.43	1.02	0.74	1.16	1.13	0.00	0.00	
74	0.38	0.65	0.94	0.33	0.00	0.00	0.00	0.00	
75	0.90	0.76	0.93	0.98	0.73	0.64	0.00		
76	0.00	0.00	1.05	0.50	0.00	0.00			
77	1.47	0.40	0.53	0.33	2.25	2.02			
78	0.00	0.47	0.42	0.20	0.00	0.00			
79	0.00	0.00	0.41	0.39	0.00	0.00			
80	0.50	0.00	0.45	0.18	0.00	0.00			
81	0.46	0.91	0.48	0.32	1.19	1.32			
82	1.04	0.00	0.58	0.71	0.00	0.00			
83	0.00	0.96	0.50	0.23	0.00	0.00			
84	0.00	0.00	0.71	0.46	1.35	0.00			
85	1.47	1.29	0.58	0.46	0.00	0.00			
86	0.00	0.00	0.52	0.34	0.00	0.00			
87	0.00	0.00	0.22	0.37	0.00	0.00			
88	0.00	0.00	0.29	0.37	0.00	0.00			
89	0.00	0.00	0.35	0.25	0.00	0.00			
90+	0.63	1.58	0.46	0.24	0.00	1.19			

Population on 01.01.2024

Age	LFS (2023)	LFS (2024)	SOPA (2023)	SOPA (2024)	SILC (2023)	SILC (2024)	ICT (2023)	ICT (2024)
0	0.00	1.18	0.28	1.63	0.00	0.00		
1	0.00	0.00	3.11	1.58	0.00	0.00		
2	0.96	0.40	4.00	2.44	0.00	0.82		
3	1.45	2.99	3.19	1.96	0.00	0.76		
4	0.00	0.00	2.70	1.64	0.00	0.00		
5	1.02	1.37	2.91	1.75	0.79	0.00		
6	1.57	1.17	2.74	1.35	0.00	1.45		
7	0.33	0.33	1.71	1.32	0.00	0.00		
8	1.98	0.98	2.31	1.71	0.00	1.46		
9	0.30	0.32	3.26	1.56	0.70	1.32		
10	1.01	1.35	3.47	1.98	0.81	0.00		
11	0.40	0.75	3.12	1.52	0.84	0.00		
12	0.35	0.36	2.65	1.38	0.88	0.00		
13	0.00	1.09	4.31	1.90	0.00	0.00		
14	1.07	0.35	3.43	1.87	0.00	0.00		
15	0.34	0.00	3.49	2.10	0.00	0.00		0.00
16	0.34	0.35	4.80	3.51	0.00	1.33		0.00
17	1.08	0.76	6.59	6.08	0.87	0.00	1.79	1.33
18	0.76	1.61	10.56	7.50	0.67	0.75	0.00	0.00
19	0.41	0.51	3.07	3.40	1.74	0.00	0.00	1.54
20	0.00	1.10	5.60	4.35	0.00	1.18	0.00	0.00
21	0.56	2.03	6.09	5.22	0.00	1.45	0.00	1.43
22	3.29	2.29	5.68	3.63	0.00	2.86	0.00	0.00
23	0.00	1.34	8.59	7.79	1.33	1.49	0.00	0.00
24	0.00	1.49	9.22	9.39	3.17	0.00	0.00	0.00
25	0.88	3.31	9.73	7.37	1.64	1.72	0.00	0.00
26	1.54	5.93	11.31	10.81	4.41	4.69	0.00	5.80
27	3.54	4.32	11.15	10.00	0.00	3.70	5.66	0.00
28	3.68	3.52	10.66	11.03	0.00	1.61	0.00	0.00
29	2.65	3.47	11.48	12.39	2.56	2.70	4.69	10.91

Population on 01.01.2024

Age	LFS (2023)	LFS (2024)	SOPA (2023)	SOPA (2024)	SILC (2023)	SILC (2024)	ICT (2023)	ICT (2024)
30	3.65	2.02	6.62	6.25	0.00	3.96	0.00	0.00
31	4.39	3.25	4.82	5.50	1.74	2.36	1.22	2.47
32	3.45	4.48	4.59	5.56	2.40	2.38	0.00	2.35
33	2.40	1.64	3.95	5.32	2.38	3.03	4.55	1.10
34	2.55	2.45	4.36	4.97	1.96	1.23	0.00	1.35
35	2.76	2.69	3.82	6.04	2.10	2.86	2.04	0.00
36	0.84	1.85	2.52	4.87	0.64	0.64	0.93	1.64
37	0.00	0.95	2.67	4.36	1.16	1.09	1.00	1.05
38	0.88	1.15	3.00	4.39	1.95	1.08	1.03	1.96
39	0.64	1.29	4.31	5.86	0.00	0.00	0.00	0.00
40	1.28	2.70	2.85	3.59	1.28	1.20	0.85	2.70
41	2.70	2.01	2.27	3.97	1.31	1.31	1.03	1.06
42	1.80	2.99	2.99	3.12	0.75	1.86	1.09	0.00
43	2.56	2.43	2.78	4.11	2.40	2.27	1.10	1.09
44	0.96	2.74	2.83	4.79	1.43	3.57	1.11	1.03
45	2.73	1.88	4.78	5.34	1.36	2.00	1.09	0.00
46	3.80	4.31	5.83	6.75	2.84	4.29	1.94	1.92
47	1.79	2.66	5.55	6.93	2.84	3.36	0.85	4.17
48	3.46	3.13	5.27	4.49	1.96	2.00	0.00	3.51
49	1.96	3.61	4.78	5.44	3.66	4.43	0.00	0.78
50	3.14	2.67	5.26	5.88	0.55	0.57	1.01	5.71
51	2.06	2.05	4.82	5.30	0.58	1.72	1.43	0.83
52	1.57	1.30	5.20	5.24	2.55	5.23	1.56	0.93
53	2.02	1.85	4.60	4.44	1.19	0.00	0.70	1.79
54	0.81	1.48	4.23	4.85	3.09	4.68	0.80	1.57
55	1.82	3.23	4.06	4.68	1.14	1.10	0.00	0.00
56	2.25	2.87	3.61	4.54	1.10	1.26	2.83	1.69
57	2.89	3.11	3.48	3.46	1.70	2.23	0.81	1.65
58	2.85	3.78	3.72	4.34	1.22	0.61	1.69	0.00
59	2.13	1.76	3.33	3.82	0.47	1.85	2.86	0.82
60	0.72	2.32	3.55	3.31	1.83	0.87	2.63	0.81
61	1.92	2.47	2.79	3.02	2.75	1.92	0.85	0.67

Population on 01.01.2024

Age	LFS (2023)	LFS (2024)	SOPA (2023)	SOPA (2024)	SILC (2023)	SILC (2024)	ICT (2023)	ICT (2024)
62	0.72	1.27	3.30	3.44	0.97	2.17	0.00	0.00
63	1.24	2.08	2.60	2.34	2.96	3.20	0.70	0.68
64	1.00	1.26	2.18	2.09	0.88	1.25	0.00	0.00
65	1.30	1.68	2.99	1.97	0.99	1.75	0.00	1.67
66	0.28	0.00	2.96	2.39	0.00	0.00	0.92	0.00
67	1.16	1.28	2.32	1.85	0.00	0.00	1.01	0.90
68	1.36	1.78	2.17	1.76	0.52	1.52	0.00	0.00
69	1.37	0.86	1.97	1.51	0.60	0.61	0.00	0.00
70	0.58	1.20	1.79	1.60	0.00	0.00	0.00	0.00
71	0.93	1.56	2.51	1.68	1.20	1.22	0.00	0.00
72	1.20	1.00	1.78	1.30	0.65	0.60	0.00	0.00
73	1.30	0.67	1.72	1.19	0.00	0.00	1.06	1.28
74	1.45	0.89	0.98	0.67	1.15	1.14	0.00	0.00
75	0.67	0.36	0.67	0.51	0.00	0.00	0.00	
76	0.78	0.79	1.43	0.90	0.65	0.65		
77	0.00	1.47	0.96	0.64	0.00	0.00		
78	0.41	0.00	0.47	0.31	1.03	0.00		
79	0.48	0.96	0.50	0.22	0.00	0.00		
80	0.00	0.00	0.35	0.23	0.00	0.93		
81	0.00	0.00	0.45	0.19	0.00	0.74		
82	0.95	0.48	0.48	0.41	1.33	1.27		
83	0.00	0.47	0.74	0.52	0.00	0.00		
84	1.00	0.52	0.38	0.46	0.00	0.00		
85	0.00	0.00	0.47	0.49	0.00	1.01		
86	2.04	0.79	0.67	0.48	0.00	0.00		
87	0.00	0.00	0.58	0.32	0.00	0.00		
88	0.00	0.00	0.61	0.26	0.00	0.00		
89	0.00	0.00	0.54	0.17	0.00	0.00		
90+	1.31	1.47	0.29	0.60	0.93	1.72		

Population on 01.01.2025

Age	LFS (2024)	SOPA (2024)	SILC (2024)	ICT (2024)	ICT (2025)
0	0.00	0.31	0.00		
1	0.59	2.16	0.00		
2	0.00	2.37	1.05		
3	0.40	2.76	0.82		
4	2.99	2.21	0.76		
5	0.00	2.22	0.00		
6	1.37	2.01	0.00		
7	0.78	1.48	1.46		
8	0.65	1.64	0.00		
9	0.98	2.24	1.46		
10	0.00	2.38	1.33		
11	1.01	2.47	0.00		
12	1.13	2.30	0.00		
13	0.36	1.95	0.00		
14	1.45	2.25	0.00		
15	0.00	2.55	0.00		
16	0.00	3.10	0.00	0.00	0.00
17	0.70	5.54	1.33	0.00	1.69
18	0.38	9.31	0.92	1.33	0.00
19	1.21	7.95	1.49	0.00	0.00
20	1.52	7.60	0.00	1.54	2.90
21	2.20	8.04	1.18	0.00	0.00
22	2.01	11.69	1.45	1.43	4.62
23	1.52	9.71	2.86	0.00	2.08
24	1.35	13.55	1.49	0.00	1.92
25	0.75	19.94	1.75	3.13	4.26
26	4.13	19.03	1.72	0.00	2.38
27	5.19	19.73	4.69	5.80	3.77
28	4.35	23.92	7.41	1.85	3.77
29	1.42	20.04	0.00	0.00	3.39
30	3.47	15.64	2.70	12.73	3.23
31	2.03	12.15	4.95	1.39	4.69

Population on 01.01.2025

Age	LFS (2024)	SOPA (2024)	SILC (2024)	ICT (2024)	ICT (2025)
32	3.64	10.43	1.59	1.25	1.45
33	3.73	7.07	2.38	2.35	1.37
34	1.31	6.59	2.44	1.10	0.00
35	1.22	5.69	0.61	2.70	1.04
36	1.80	5.39	3.60	0.00	2.63
37	1.33	6.09	0.64	0.82	2.41
38	0.63	5.23	1.09	1.06	2.83
39	0.86	5.73	1.08	1.96	1.67
40	1.29	6.57	0.00	0.00	1.33
41	1.52	4.60	1.80	1.80	2.22
42	1.45	4.83	0.67	1.06	1.06
43	1.80	3.59	1.86	0.00	0.00
44	2.10	5.63	0.76	0.00	4.49
45	3.08	7.08	3.60	1.03	1.09
46	1.88	7.43	2.65	0.88	0.00
47	3.70	5.42	3.70	1.92	2.20
48	2.67	7.29	2.70	3.19	2.97
49	3.46	5.91	2.00	2.63	2.75
50	3.31	5.91	3.77	0.00	0.83
51	2.96	6.00	0.57	4.76	1.83
52	2.31	5.94	1.73	0.84	1.74
53	1.56	5.87	2.98	0.94	2.63
54	1.85	5.34	0.56	1.79	2.59
55	0.90	5.91	3.51	1.59	0.00
56	3.24	4.14	0.56	0.00	1.89
57	2.59	3.71	1.27	1.69	0.87
58	2.87	3.71	2.26	0.83	0.92
59	3.26	3.51	0.61	0.00	0.00
60	1.52	3.58	1.40	0.83	1.92
61	2.33	3.92	1.31	0.00	0.84
62	1.24	2.74	1.92	0.68	2.54
63	0.85	3.33	1.30	0.00	0.00

Population on 01.01.2025

Age	LFS (2024)	SOPA (2024)	SILC (2024)	ICT (2024)	ICT (2025)
64	1.17	2.89	1.85	1.38	0.81
65	0.51	2.12	1.25	0.00	0.93
66	1.45	2.32	1.77	1.68	1.94
67	0.00	2.48	0.00	0.91	0.00
68	0.52	1.79	0.00	0.91	1.00
69	1.80	1.80	1.54	0.88	0.00
70	0.58	1.62	0.00	0.00	1.87
71	1.22	1.80	0.00	0.00	0.00
72	1.90	1.96	0.62	0.00	0.00
73	1.02	1.53	0.60	0.00	0.00
74	0.68	1.33	0.00	1.28	1.32
75	0.91	0.91	1.16	0.00	
76	0.36	0.91	0.00		
77	0.81	1.11	0.66		
78	1.52	0.64	0.00		
79	0.00	0.54	0.00		
80	0.50	0.25	0.00		
81	0.00	0.25	0.94		
82	0.00	0.39	0.76		
83	0.50	0.53	1.37		
84	0.49	0.80	0.00		
85	0.55	0.47	0.00		
86	0.00	0.66	1.09		
87	0.81	0.48	0.00		
88	0.00	0.15	0.00		
89	0.00	0.41	0.00		
90+	0.43	0.34	1.63		