

Appendix to the publication POPULATION PROJECTION 2023-2060

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Warsaw 2023

Population projection for gminas 2023-2040

Due to the great interest in the experimental "Population projection for gminas 2017-2030", another edition was computed based on the results of the "Population projection 2023-2060". For the first time, projection for gminas has official status. Its assumptions are in line with those of the projection published in August 2023, and the additional files are its supplement. If the population projections for individual gminas are aggregated, the result will be identical to the one obtained at powiat level.

The projection for gminas was calculated on the basis of population according to the national definition, as well as data on vital statistics (administrative data). Only migration for permanent residence was taken into account. The starting point for the calculations was the population by sex and single age groups in individual gminas on 31st December 2022. The cohort-component method was used for the projections. For fertility, mortality and migration, assumptions from the projection at the powiat level were used, which means that the Schermtmann model was used for fertility assumptions, the UN model life table for mortality, and the Rogers-Castro model for migration.

Due to the high variability of demographic rates over time in individual gminas, a decision was made to shorten the projection horizon. The last year of the gminas population projection is 2040, not 2060 as in the projections for the country, voivodships and powiats.

The results of the "Population projection for gminas 2023-2040" are presented by gminas, sex and selected age groups according to the main scenario adopted in the "Population projection 2023-2060". The main scenario includes the average assumption variants for fertility, migration and life expectancy.

Fertility rates and the probability of death by age and sex for the gminas were assumed to be at the same level as those of the powiat in which selected gmina is located. In case of migration, it was assumed that the percentage of powiat's migration (internal and international) which is observed for selected gmina will remain constant. Therefore the average percentages of migration to given gminas (relative to powiats) from 2017-2021 were chosen as projection assumptions.

The results of the projection, illustrated by relative increase and decrease of population in gminas until 2040 in relation to empirical data from 2022 are presented below.

Table 1. The highest projected population growth (in %) in gminas by 2040 in relation to 2022

Gmina	Powiat	Voivodship	Type of gmina	Change (%) 2022-2040
Siechnice	wrocławski	dolnośląskie	urban-rural	43,9%
Kosakowo	pucki	pomorskie	rural	42,5%
Kleszczewo	poznański	wielkopolskie	rural	42,1%
Żukowo	kartuski	pomorskie	urban-rural	41,2%
Czernica	wrocławski	dolnośląskie	rural	40,3%
Kórnik	poznański	wielkopolskie	urban-rural	34,6%
Długołęka	wrocławski	dolnośląskie	rural	34,1%
Rokietnica	poznański	wielkopolskie	rural	32,8%
Kobierzyce	wrocławski	dolnośląskie	rural	32,2%
Szydłowo	pilski	wielkopolskie	rural	32,0%

Table 2. The highest projected population loss (in %) in gminas by 2040 in relations to 2022

Gmina	Powiat	Voivodship	Type of gmina	Change (%) 2022-2040
Ceranów	sokołowski	mazowieckie	rural	-42,9%
Dubicze Cerkiewne	hajnowski	podlaskie	rural	-42,3%
Łeba	łęborski	pomorskie	urban	-40,8%
Mielnik	siemiatycki	podlaskie	rural	-40,2%
Czyże	hajnowski	podlaskie	rural	-39,5%
Frombork	braniewski	warmińsko-mazurskie	urban-rural	-38,8%
Uchanie	hrubieszowski	lubelskie	rural	-38,4%
Rudka	bielski	podlaskie	rural	-37,7%
Rychliki	elbląski	warmińsko-mazurskie	rural	-36,8%
Czeremcha	hajnowski	podlaskie	rural	-36,7%

Map 1. Projected population change (in %) in gminas till 2040 in relation to 2022

