Population by social characteristics - preliminary results of the National Census 2021

31 May 2022





This report contains a presentation of the preliminary results of the National Census of Population and Housing 2021 in terms of the level of education. For all persons aged 13 and over, the highest completed level of education has been established as of March 31, 2021, regardless of whether it had been obtained in day school, evening school or in the extramural system.

In 2021, the population of Poland aged 13 and more - for which the level of education was determined - amounted to 32,883.4 thous. persons and was lower by 1.9% compared to the results of the 2011 census.

Population according to level of education

A positive phenomenon observed in 2011-2021 is the constant increase in the level of education of the population. According to the preliminary results of the National Census of Population and Housing, in 2021 the percentage of persons with at least secondary education amounted to 55.5% (in 2011 - 48.5%), i.e. increased by 7 percentage points.

The most dynamic growth (over 30%) was recorded in relation to persons with higher education, whose share increased from 17.1% in 2011 to 23.1% in 2021 (an increase by 6 percentage points) among total population aged 13 and over.

However, the greatest growth (an increase by almost 40% compared to 2011) was of persons with a master's degree, master's degree in engineering or equivalent.

Graduates of secondary schools (including post-secondary) still occupy a dominant position in the structure of the population according to the level of education - in 2021 the percentage of such persons was 32.4% (in 2011 - 31.4%). Within this group, persons with secondary vocational education had the highest share (18.2% in 2021, while in 2011 - 17.2%).

Basic vocational education still occupies a significant place in the structure of the population according to the level of education. In 2021, the share of persons with this level of education amounted to 19.6%, however, compared to 2011, a decrease by 2.1 pp. was observed (21.7%).

Over the last 10 years, the share of persons with primary education has significantly decreased from 18.3% in 2011 to 11.7% in 2021 and the share of persons with lower secondary education - from 4.9% to 3.1%. For 8,0% of persons the level of education has not been established, this issue will be the subject of further analyses.

In 2021 every second person had at least secondary education.

Within the decade, there was an increase by 6 pp. in the share of persons with higher education in the total population aged 13 and more.

Table 1. Population aged 13 and more by educational level in 2011 and 2021

Specification	2011		2021			
	in thous.	in %	in thous.	in %	2011=100	
Total	33505.3	100.0	32883.4	100.0	98.1	
Tertiary ^a	5735.6	17.1	7612.3	23.1	132.7	
of which:						
with a master's degree, mas- ter's degree in engineering or equivalent degree	3990.4	11.9	5489.0	16.7	137.6	
Secondary ^b	10531.3	31.4	10644.3	32.4	101.1	
of which:						
vocational secondary educa- tion	5761.9	17.2	5989.8	18.2	104.0	
Basic vocational/ sectoral	7260.8	21.7	6429.2	19.6	88.5	
Lower secondary	1650.9	4.9	1021.6	3.1	61.9	
Completed primary	6133.7	18.3	3860.0	11.7	62.9	
Primary not completed and without school education	457.0	1.4	689.8	2.1	151.0	
Unknown	1735.9	5.2	2626.2	8.0	151.3	

a Including persons holding a college graduation diploma. b Including persons with post-secondary education.

The structure of the population by education level differs according to gender. In 2021, 19.0% of all men had tertiary education. In turn, the share of women with higher education amounted to 26.9%, which means that more than one in four women had an university degree.

Table 2. Population aged 13 and more by educational level and sex in 2021

Specification	Ma	ales	Females		
	in thous.	in %	in thous.	in %	
Total	15743.1	100.0	17140.4	100.0	
Tertiary ^a	2994.9	19.0	4617.4	26.9	
Secondary ^b	4915.3	31.2	5729.0	33.4	
Basic vocational/ sectoral	3875.5	24.6	2553.7	14.9	
Lower secondary	558.5	3.5	463.1	2.7	
Completed primary	1678.1	10.7	2181.9	12.7	
Primary not completed and without school education	356.9	2.3	332.9	1.9	
Unknown	1363.9	8.7	1262.3	7.4	

a Including persons holding a college graduation diploma. b Including persons with post-secondary education.

In 2021 more women than men had an university degree.

In 2021 the percentage of persons with secondary education (including post-secondary education) remained at a similar level, both among women and men - 33.4% and 31.2% respectively. On the other hand, men more often than women declared graduating from basic vocational school, and the shares were as follows: 24.6% men and 14.9% women. Almost 13% of women completed only primary school, and among men this share was close to 11%.

Place of residence is also a factor differentiating the population structure according to the level of education. Despite the increase in the education level of the population of Poland, the structure of the education level of the rural population still differs from that recorded in cities. According to the preliminary results of the population and housing census in 2021, 27.4% of the population living in cities are persons who graduated from universities, in the countryside the share of such persons is much lower and amounts to 16.6%.

In 2021, the prevailing level of education for the population living in both urban and rural areas was secondary education (including post-secondary) and this percentage was 33.6% in cities and 30.4% in rural areas.

The preliminary results of the census showed that in 2021 nearly 25% of rural residents had basic vocational education - in cities this share was much lower and amounted to 16.1%. The greatest number of persons with primary education still live in rural areas and the share of this group in 2021 was 15.9%, while in cities 9.0%.

Table 3. Population aged 13 and more by educational level and place of residence in 2021

Specification	Urban	areas	Rural areas		
	in thous.	in %	in thous.	in %	
Total	19892.2	100.0	12991.0	100.0	
Tertiary ^a	5459.9	27.4	2152.4	16.6	
Secondary ^b	6690.5	33.6	3953.7	30.4	
Basic vocational/ sectoral	3199.0	16.1	3230.2	24.9	
Lower secondary	539.3	2.7	482.3	3.7	
Completed primary	1790.8	9.0	2069.2	15.9	
Primary not completed and without school education	375.6	1.9	314.2	2.4	
Unknown	1837.2	9.2	788.9	6.1	

a Including persons holding a college graduation diploma. b Including persons with post-secondary education.

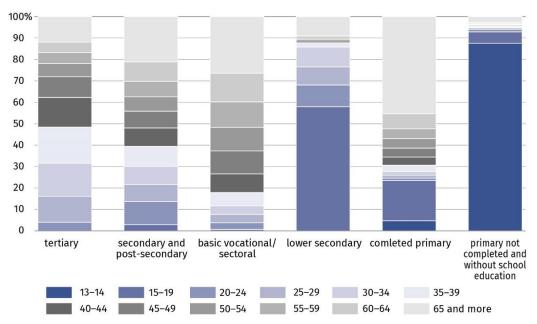
A lot of interesting information on the education of the population is also provided by the analysis conducted according to the age groups. Persons between 25 and 44 years of age constituted the largest share of persons with higher education. Their percentage amounted to nearly 60% of the total population with this level of education.

Among persons with secondary and post-secondary education in 2021 - considering the five-year age groups - persons aged 20-24 constituted the highest share (almost 11%). On the other hand, basic vocational education was most often declared by persons aged 45-69 and the share of such persons amounted to 58.8% in all of persons with this level education. It should be emphasized that persons in the younger age groups - up to 30 years of age - were definitely the least likely to choose basic schools providing vocational preparation.

In cities 61% of the population had at least secondary education while in rural areas – 47%.

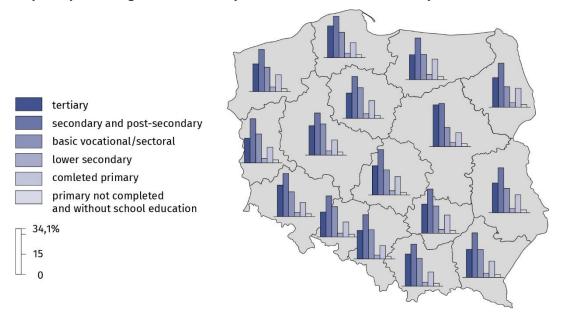
Majority of persons with higher education are between 25 and 44 years of age.

Grapf 1. Population aged 13 and more by educational level and age groups in 2021



The preliminary results of the 2021 Census show a significant regional differences in the level of education. The highest percentage of persons with tertiary education was recorded in the Mazowieckie voivodship - 31.3% and it was higher than the average rate for Poland by as much as 8.2 percentage points. The next voivodships with a relatively high share of persons with this education level are: Małopolskie (24.4%) and Pomorskie (23.8%). For comparison, the lowest percentages of persons with higher education were recorded in the following voivodships: Lubuskie, Opolskie and Warmińsko-Mazurskie (around 18%).

Map 1. Population aged 13 and more by educational level and voivodships in 2021



On the other hand, the share of persons with secondary education (including post-secondary) in individual voivodships did not show any significant differences. In 2021 the percentage of persons with this level of education oscillated over 30%.

There are significant differences in the shares of persons with basic vocational education. The highest percentage of persons with this level of education was recorded in the Wielkopolskie (23.4%), Kujawsko-Pomorskie (23.0%) and Opolskie (22.8%) voivodships. The voivodships with the lowest percentage of persons with basic vocational education are: Mazowieckie (14.3%) and Podlaskie (15.5%), with the average rate for the country being 19.6%.

In 2021 nearly one in three inhabitants of the Mazowieckie voivodship had a higher level of education. On the other hand, the lowest share of persons with tertiary education was observed in the Lubuskie voivodship.

It is worth noting that the highest shares of persons with primary education, incomplete primary education and without school education were recorded in the following voivodships: Warmińsko-Mazurskie, Podlaskie and Łódzkie (17.6%, 16.5% and 15.8% respectively).

General notes for tables

Due to the rounding of data, in some cases the sums of components may differ from the given values "in total". Relative numbers (percentages) were calculated on the basis of absolute data, expressed with greater precision than given in the tables.

Methodology

The National Census of Population and Housing 2021 was conducted on the territory of the Republic of Poland from 1st April to 30th September 2021, covering population as of 31st March 2021.

The thematic scope of the census and the rules for its implementation were specified in the Act of August 9, 2019 on the national census of population and housing in 2021 (Journal of Laws from 2019, item 1775; from 2020, item 1486; from 2021, items 615 and 1143) and Regulation (EC) of the European Parliament and of the Council No. 763/2008 from 9th July 2008 on population and housing censuses (Journal of Laws of UE L 218 from 13th August 2008, p. 14), together with implementing acts.

The thematic scope was consulted with key data recipients, in particular public administration units and research centers, which use statistical data to perform their statutory tasks.¹

The census study was carried out as a complete study and included:

- individuals permanently residing or temporarily staying in apartments, buildings and other inhabited non-flats,
- individuals who do not have a residence,
- flats, buildings, collective accommodation facilities and inhabited non-flats.

The census did not include:

- heads and foreign staff of diplomatic missions and consular offices of foreign countries, their family members and other persons enjoying privileges and immunities under law, international agreements or universally recognized international customs,
- apartments, buildings, facilities and premises owned by diplomatic representations or consular offices of foreign countries.

Participation in the census was obligatory, and Polish residents were required to provide accurate, complete and truthful answers (Article 28 (1) of the Law on the National Census).

Data sources

In accordance with the provisions of the Act on the National Census 2021, the population and housing census was carried out using a mixed method, i.e. using data from administrative sources and data collected from respondents.

The data covered by the information scope of the census was obtained from the surveyed population through the electronic census form and using the following data collection channels:

online self-enumeration (CAWI);

¹ A detailed report on the conducted public consultations is available on the website of Statistics Poland at: https://stat.gov.pl/en/national-census/national-population-and-housing-census-2021/- accessed: 26th May 2022.

- telephone interview conducted using census helpline (the so-called census on demand);
- telephone interview conducted by census enumerators (CATI);
- direct interview conducted by census enumerators (CAPI), which due to the pandemic situation in the country could have been conducted from 21st June to 30th September 2021.

Selected census terms and definitions

Selected census terms and definitions relate directly to the discussed research topic.

Population according to the national definition - are permanent residents of Poland, including persons who are temporarily staying abroad (regardless of the period of stay), but have maintained permanent registration in Poland. On the other hand, the population does not include immigrants staying in Poland temporarily.

The age of persons is determined by the number of life years completed, calculated by comparing the full date of birth with the date of the census (the so-called critical moment, i.e. 31st March 2021).

Education is the highest educational level achieved in a school-based system, or in any other training mode or form, recognized in compliance with the binding education system. The basis for classifying education to a given level is provided by a certificate (diploma) of completion of a certain school, irrespective of the mode of studying (e.g. full-time, evening/weekend, part-time, by correspondence) in the country or abroad. Information on the educational level was obtained for all persons aged 13 years or more.

Educational attainment is determined using the ISCED 2011 classification:

- a) tertiary education with an academic degree of at least doctorate (Ph. D.) applies to persons with a doctoral or postdoctoral degree or with a title of professor;
- b) tertiary education with a master's degree, master's degree in engineering or equivalent degree obtained after graduation from a second degree studies or long-cycle master's degree programs. This category also includes individuals who hold a medical degree;
- c) tertiary education with a bachelor's (licentiate), engineer's or equivalent degree applies to persons with a bachelor's, engineer's or equivalent degree, obtained after graduation from Bachelor's, engineer's or equivalent studies;
- d) collegium graduation diploma applies to graduates of teachers' and foreign languages teachers' training collegiums (except for those organized within a higher education institution) and graduates of social services collegiums;
- e) post-secondary education applies to persons who have a certificate (diploma) of completion of a post-secondary school, admission to which was conditional upon possession of a secondary school leaving certificate. This category also includes those who have completed teacher training;
- f) general secondary education applies to persons who received a certificate of graduation from a general secondary school, profiled (specialized) secondary school, supplementary secondary school or who graduated from a lower secondary school (gimnazium) before 1932;
- g) vocational secondary education persons who have obtained a certificate of completion of a vocational secondary school (technical school, supplementary technical school, vocational secondary school, technical secondary school, art secondary school) providing at the same time a secondary school curriculum;
- h) basic vocational/sectoral education held by a persons who obtained a certificate of completion of: vocational school (basic vocational or agricultural school, industrial school), preparatory vocational or agricultural school, agricultural correspondence course at the level of basic vocational school only, school of masters, sectoral primary school;
- i) lower secondary (gimnazjum) held by persons who have obtained a certificate of completion of lower secondary school or a certificate of completion of a special preparatory school.
- j) primary held by persons who have received a certificate of completion of: a primary school (before the war a common school) regardless of how many grades it had (eight,

seven, six or formerly four), courses for workers in the scope of a primary school and a primary art school realizing at the same time the curriculum of a primary school;

k) incomplete primary or no school education – applies to persons who are attending primary school, attended primary school but did not complete it or have never attended school.

Dissemination of the results of the National Census 2021

The results of the census will be made available according to a schedule that is publicly available to recipients of the information. Preliminary data, taking into account the division into voivodships, will be disseminated successively from April to July 2022. Data at the lower levels of the country's administrative division, including for communes, will be disseminated from September 2022. The results of the census will be published on the Information Portal of Statistics Poland (news releases and publications) and at the Local Data Bank. The modernized Geostatistics Portal will be used for the cartographic presentation of spatial data.

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Related information

Preliminary results of the National Population and Housing Census 2021

National Population and Housing Census 2021 Research methodology and organization

National Census of Population and Housing 2021. Report on preliminary results

Terms used in official statistics

Population

<u>Age</u>

Education level

Type of education

Primary school

Lower secondary school

Stage I sectoral vocational school

General secondary school

General secondary school for adults

Technical secondary school

Post-secondary school

First-cycle programmes

Second-cycle programmes

Long-cycle programmes

Doctoral student

Scientific degree

Doctoral degree

Doctoral programmes

Scientific title