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w Krakowie

OCCUPATIONAL BAROMETER 2018



2017

Summary Survey Report
for Poland

Occupational Barometer 2018

Summary Survey Report for Poland

The Report was prepared by the Regional Labour Office in Cracow within the framework of the national Occupational Barometer survey commissioned by the Minister of Family, Labour and Social Policy.

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TABLE OF CONTENTS

| | |
|--|----|
| I. Survey history and methodology | 6 |
| 1.1. Reasons for conducting the survey | 6 |
| 1.2. Survey objective and methodology | 6 |
| 1.3. List of occupations selected for the survey | 8 |
| II. Labour market in Poland | 9 |
| III. Results of Occupational Barometer 2018 | 14 |
| 3.1. Updated list of occupations | 14 |
| 3.2. Increasing recruitment problems | 14 |
| 3.3. The unemployed | 15 |
| 3.4. Growing share of deficit occupations | 16 |
| 3.5. Decreasing number of surplus occupations | 19 |
| 3.6. Local differences | 19 |
| 3.7. Shortage and surplus occupations by regions | 20 |
| 3.8. Summary | 22 |
| IV. Appendix | 39 |

Dear Reader,

I would like to present our publication on the Occupational Barometer national survey. As a qualitative analysis based on the knowledge and experience of the national labour office personnel, the Barometer survey is a great source of information that complements labour market statistics.

For several years now, we have observed improvement on the Polish labour market - the unemployment rate has dropped to the lowest level since 1991 and employment rate has grown. As the enterprises grow and new businesses emerge, the need for more employees grows. Moreover, there are more and more occupations, with respect to which the local needs exceed the available resources. Some industries, where the demand for workforce is growing, are faced with the problem of insufficient competencies and professional experience of candidates. As the Occupational Barometer results show, in 2018 the number of deficit occupations will continue to increase, while the number of surplus occupations will decrease. In the upcoming year, we will continue to observe how the lack of human resources affects the construction, transport, health care and manufacturing industries. There will be a high demand for both specialists as well as skilled blue collar workers. Enterprises will continue to hire people from abroad, mainly from Ukraine, to be able to function and grow. In addition to activation of the unemployed and economically inactive, one of the solutions to increase domestic labour resources is to help people to adapt their skills to the changing conditions on the labour market. Since the Occupational Barometer provides the information on the demand for occupations and qualifications, it can and should be used to support training policy and career counselling. In view of the expected continuous decrease of the unemployment rate and increasing demand for labour, the labour offices will need to help the employers in seeking qualified personnel. One of the tools supporting continuous education is the National Training Fund (NTF), which supports continuous education for the economically active based on priorities set every year. In 2018, one of such priorities set by the fund is the continuous education provided in the most deficit occupations in selected counties or regions, based on the results of, among others, the current Occupational Barometer survey.

This Report consists of four parts. The first part describes the survey history and methodology, the second one characterizes labour market in Poland, while the third analyses the survey results in terms of changes observed over the past two years in specific occupation groups. It discusses the reasons for demand and oversupply on labour market, while focusing on local differences between larger and smaller cities as well as between regions. The last part of the report contains a list of deficit, surplus and balanced labour supply in each region.

It is also worthwhile to read the reports prepared by the personnel of regional labour offices, where you will find the information on the labour market situation in each region. Electronic versions of regional as well as national reports and full survey results, including forecasts for all counties and regions are available at: barometrzaszawodow.pl. The website is a user friendly tool addressed to a wider groups of users, both private as well as employment-related businesses.

As I do every year, I would like to thank all who have contributed to the Occupational Barometer survey - first of all the employees of county labour offices. It is their professional experience and knowledge of the local labour markets that has made the Occupational Barometer survey a success. I would also like to thank the employees of private employment agencies and other institutions participating in the county panels. Finally, I would like to thank regional coordinators for their help in conducting the survey in all counties as well as the employees of the Regional Labour Office in Krakow for the survey coordination at the national level. Without your help and involvement the Occupational Barometer survey would not be possible.

Stanisław Szwed, Secretary of State,
Ministry of Family, Labour and Social Policy

I. Survey history and methodology

1.1. Reasons for conducting the survey

Pursuant to the Employment Promotion and Labour Market Institutions Act of 20 April 2004, Deficit and Surplus Occupation Monitoring survey (MZDiN) is conducted countrywide. The survey is conducted by the county and regional labour offices as well as the Ministry of Family, Labour and Social Policy.

The main source of information on the number of the registered unemployed as well as job offers broken down by occupations and specializations used in the national level monitoring are the data from IT systems used by the labour offices. Since such data represent merely a small part of the labour market information, the monitoring process also utilizes data from the survey of the Internet job offers conducted by the regional labour offices, data from the business surveys conducted by the county labour offices as well as the data from the forecast and information system www.prognozowaniezatrudnienia.pl.

The analysis covers main occupation groups in accordance with the Classification of Occupations and specializations for the Labour Market Needs (KZiS) that are important from the labour market point of view.

Occupational Barometer survey provides additional information to the MZDiN. Since the survey is conducted countrywide, it allows to prepare a short-term, professional forecast that includes the qualitative information of the local labour markets. Due the survey specifics, KZiS terminology is not used directly, while the list of occupations prepared for the survey contains the key words linking to KZiS.

1.2. Survey objective and methodology

The survey methodology was developed in Sweden in 1990's, as a part of a broader system for forecasting changes in the labour market. In 2007, the Occupational Barometer was adapted by the public employment service in south-western Finland. Currently the survey is conducted in throughout Finland.

The Barometer was first used in Poland by the Regional Labour Office in Krakow. In 2009, the staff of the Labour Market and Education Observatory of Małopolska (which is a research project of the Regional Labour Office in Kraków) learnt about the concepts of the Barometer during a study visit to Turku, Finland. The same year, a pilot survey was conducted in six counties in małopolskie voivodeship, and then in the entire region. The survey has been conducted in all counties in Poland since 2015.

The Occupational Barometer is a short-term (one year) forecast of the situation in occupations. The survey is a qualitative one. It is developed during group discussion (expert panel), where the participants observing the labour market from different perspectives (the unemployed and employers) can share knowledge and opinions. The panel usually counts from four to eight people:

- employees of county labour offices: employment agencies, career counsellors, persons responsible for cooperation with businesses and for training as well as the EURES (The European Jobs Network) and employment club leaders;
- in larger cities the forecasts are developed in cooperation with the private employment agencies as well as other institutions with knowledge of the local labour market (e.g. employees of the special economic zone managers, voluntary labour corps, trade associations, non-government organizations and university career centres).

The experts analyse each occupation group separately. As a result, they are able to answer the following questions:

- In your opinion, how will the demand for [occupation] change in the upcoming year? Is it going to:
 - increase dynamically
 - increase
 - be balanced
 - decrease
 - decrease rapidly?
- In your opinion, what will the relationship between the available labour force and the demand for [occupation] in the upcoming year be? Will there be:
 - great deficit of job seekers
 - deficit of job seekers
 - balance between the demand and supply
 - surplus of job seekers
 - great surplus of job seekers?

Based on the answers, the jobs are classified into one of three categories:

- **deficit occupations** – those, in which it should not be difficult to find a job, as the demand from employers will be high, while the supply labour with the required skills will be low,
- **balanced occupations** – those, in which the number of jobs offered will be close to the number of people capable of taking up employment in a given occupation (supply and demand are balanced),
- **surplus occupations**, those, in which it might be more difficult to find a job due to the low demand and/or excess number of candidates that meet the employers' requirements.

In their assessment, the experts use data on the numbers of job offers and people registered as unemployed in the particular occupation. It should be noted, however, that such data are of complementary nature (as they do not provide the basis for the analysis). The participants include the information, which is not provided in the statistics. Will a person who declares skills in a particular occupation be capable of doing the job to the required standard, and if so, on terms and conditions offered by the employer? Will the employer be willing to hire such a person and if not, why (problem with skills, professional experience, salary expectations, etc.)?

Panel members assess only those occupations that are present on the local labour market. If they have no knowledge of the situation in the occupation concerned, they should leave it out – that is why the list of occupations which are ultimately included in the forecast for the specific county may be shorter than maximum (167 items). After all the county expert panels end, the Occupational Barometer for the region is developed, based on the aggregated data from all the county panels¹.

¹ Only those occupations which have been evaluated in at least half the counties will be included in the regional survey results, which have been evaluated in at least half the counties.

1.3. List of occupations selected for the survey

The list of occupations used in the Barometer survey is based on the Classification of Occupations and Specializations for Labour Market Needs of 2014 (KZiS). The Barometer methodology was adapted to the Polish conditions in terms of its usefulness for the forecast providers as well as the users. First, the Classification of Occupations and Specializations was developed for 167 occupation groups (to assess all of them during a single panel). The main objective was to include occupation groups that function among employers, job seekers, employment agencies and other persons interested in the labour market. The proposed list of occupations contain the names of groups that function on the market and are recognizable to the users.

Names of classification categories defined for the Barometer survey are not fully consistent with the names of occupations and groups used in KZiS. The list developed for the Occupational Barometer has been based on KZiS and groups the occupations and specializations with 4-digit code (elementary groups) and 6-digit code (occupations and specializations) taken from KZiS. Names of elementary groups as well as occupations and specializations were specified in the transformation table attached to this survey.

The list of occupations assessed in the Barometer was developed with the focus on those occupations, that are numerously represented by the potential candidates as well as offered by employers, who recruit such candidates. Therefore, some of the occupations, for which the candidates must be appointed or elected, were omitted: parliament members, politicians, senior government officials, senior officials of special-interest organizations, university directors, etc. The list also does not include religion related occupations (clergy and consecrated persons or other religious professionals) or professionals practicing unconventional or complementary therapy. The list also omitted some arts and sports occupations, which involve artistic and sports professionals. On the other hand, the occupations involving work in the cultural, sports and recreation centres are included in the *cultural associate professionals*, *event planners* and *fitness and recreation instructors* groups. In addition, the occupations that require artistic talent have been classified into *interior designers and decorators*, *product and garment designers* and *photographers* groups.

The occupations were grouped in the Barometer list by similar professional areas or contents, based on the methodology used in the Scandinavian countries. The occupation groups were compiled taking into consideration candidates with partial qualifications or overqualified candidates (e.g. *archivists and curators* group consists of elementary groups KZiS 2621 *archivists and curators* and 4414 *filig and similar clerks*). Based on the observations of local and regional labour markets, this is how the candidates are actually selected for jobs. In situations, when a specific education level is a requirement on a local labour market, the panel members were asked to indicate that in comments. Comments included in the forecasts and published on the Barometer website give the interested parties (career counsellors, job seekers, who are more computer savvy) an opportunity to learn more about local conditions.

The Barometer survey includes teaching professions (i.e. vocational schools, technical secondary schools, colleges as well as professional training courses), which are assigned to the groups related with specific occupations that are popular on the market. As regards the occupations involving university education, only those occupations were omitted after the discussions with experts, regional coordinators and the survey team, that could not have been clearly assigned to the existing groups and with respect to which a consensus could not be reached to include them in a new group, as they were not represented in such numbers on the majority of local labour markets, that would justify doing so. That is why, the physicists group was not included in the Barometer survey, as a physicist without a teaching license, who is neither a research scientist at the university or a research institute, in terms of labour market, does not practice his learned profession.

The Classification of Occupations and Specializations for the Labour Market Needs also contains elementary groups, where occupations not elsewhere classified are included – the occupations that could not be assigned to any other group. As a result of combining certain occupations similar in terms of the required competencies and job description, the groups were formed, in which most of “not classified elsewhere” occupations could be included.

II. Labour market in Poland

In 2017, the labour market situation in Poland continued to improve, as confirmed by the changes in unemployment and other rates. As compared to 2016, there was an increase in the number of the employed, professional activity and average employment rate improved, unemployment rate decreased, while the salaries increased.

According to the Central Statistical Office, 16.5 million Poles were employed in Q3 2017. In Q3 2016 the number of the employed was lower by 244 thousand (i.e. by 1.5%). IN Q3 2017, the professional activity ratio² reached 56.7%, which was slightly higher as compared to Q3 2016 (by 0.4%). On the regional scale, the ratio of professionally active people was 53.1% (Śląsk region) to 60.5% (Mazowsze region). The ratio of the employed persons to the total population increased a little more. Employment ratio, which shows how many people in productive age are employed, increased during the year by 1pp and reached 54% in Q3 2017. The regions with the highest employment ratio were: Wielkopolska region (57.9%), Mazowsze region (57.5%) and Pomorze region (56.5%)³.

In Q3, the most people worked in services sector (9.5 million). 5.2 million were employed in industry and 1.7 million – in agriculture. According to GUS data for Q2 2017, specialists represented the highest share (19.4% - including over 26% of working women), followed by industrial blue collar workers and craftsmen (15.2%). Two groups placed third in terms of the size: services sector personnel and sales force as well as technicians and associate professionals (approx. 13% each)⁴.

Average employment rate in national economy continues to increase⁵. In the 1st semester of 2017, it reached 8.7 million, i.e. 3.1% higher as compared to the previous year (the increase in the same period in 2016 was 2.3%)⁶. In the enterprise sector, the average employment rate⁷ in the same period increased by 4.4% year to year, i.e. to 6 million people⁸.

Salaries increased slowly along with the employment growth. In the 1st semester of 2017, average gross monthly salary in the national economy⁹ was PLN 4 286, i.e. it was higher by 4.6% as compared to the same period of the previous year.

² Professional activity ratio is the percentage of professionally active people to the total population over 15 years of age.

³ Local Data Bank.

⁴ Ibid.

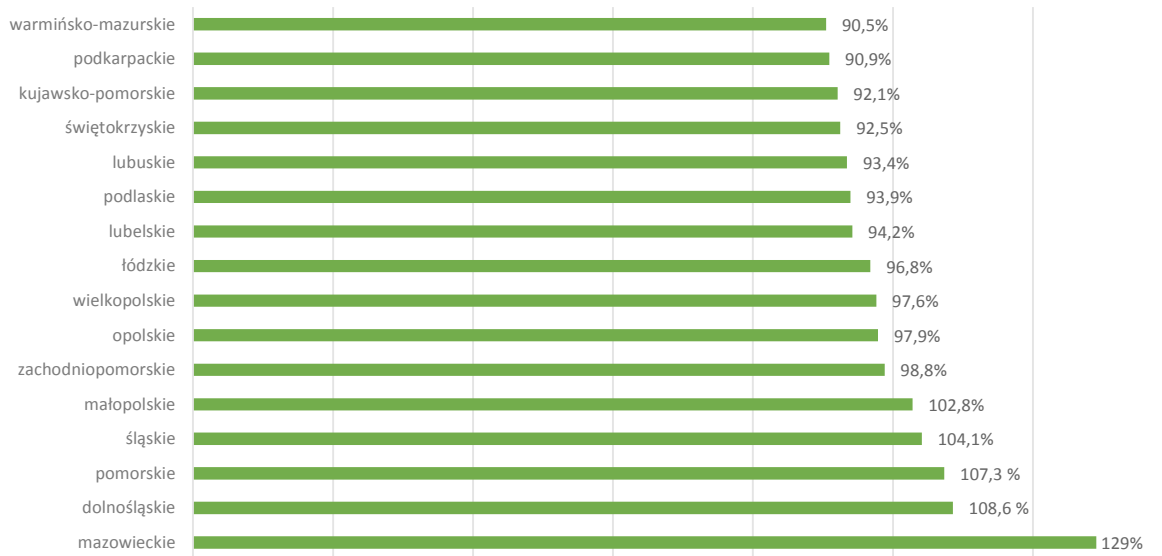
⁵ Average employment in national economy is the average employment rate including people employed under specified and unspecified term employment contract, full or part time, hired farm labour as well as inactive teachers or teachers on sick leave.

⁶ Local Data Bank.

⁷ Average employment in enterprise sector means an average number of FTE's in enterprise sector entities that employ over 9 people.

⁸ Local Data Bank.

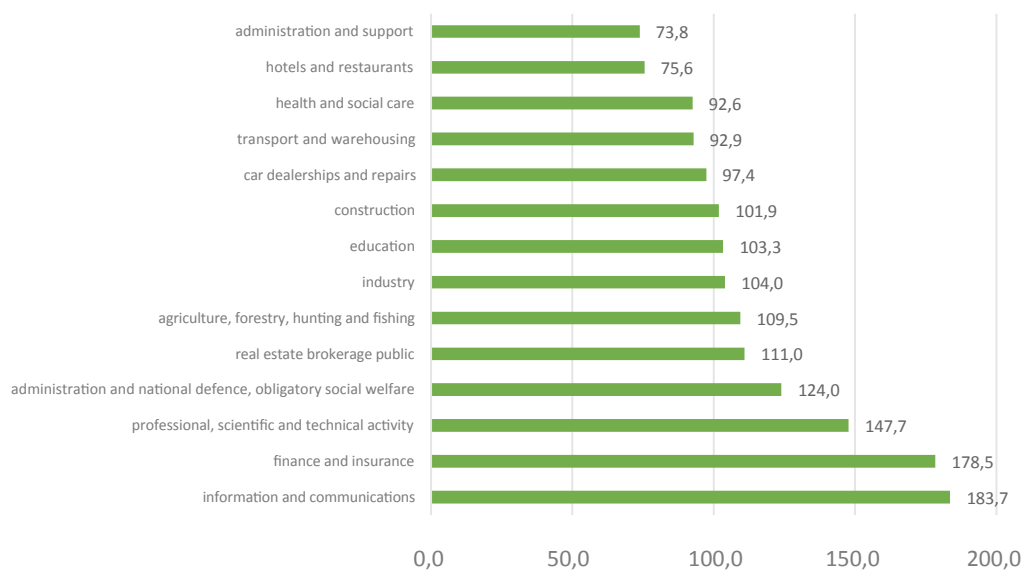
⁹ Excluding enterprises that employ up to 9 people, where salaries are probably lower. At the end of Q3 2017, over 95% business entities entered in the National Official Business Register (REGON) employed up to 9 people.

Chart 1. Average monthly salary in national economy sector by regions as compared to the national salary level in 1st semester of 2017

Source: Own analysis based on the *Employment and salaries in national economy in 1st semester of 2017*, GUS, Warsaw, 2017

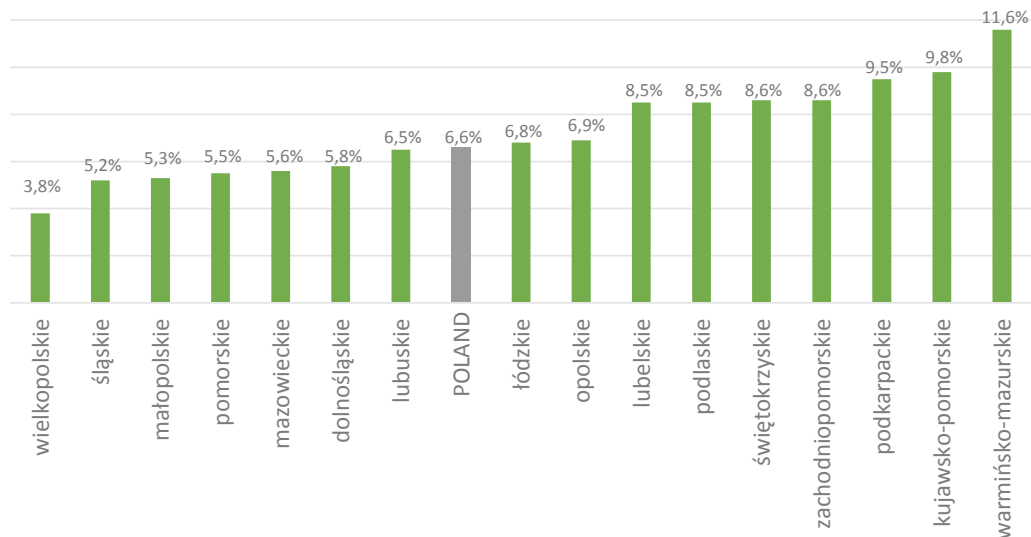
In private sector salaries increased faster than in the public sector – by 5.7% and 3.4% respectively. The salaries increase due to legal regulations (e.g. base salary increase) as well as labour market conditions (due to high demand for labour in certain sectors / occupations, employers are more willing to increase salary level). Attention should be paid to differences in salary levels between regions as well as between counties within a region. The difference between gross monthly base salary in the first three quarters of 2017 in Warmia-Mazury region and Mazowsze region was over PLN 1 600 (chart 1). The values, which present salary level better than average salary rate are the median and modal value. According to GUS¹⁰, the most frequently paid monthly salary (modal value) in Poland at the end of October 2016 was PLN 2 074 (gross), while half of the labour force earned less than PLN 3 511 (gross) (median). In addition to the local differences, attention should also be paid to the differences in salary levels between industries (chart 2). Due to such differences in low paid jobs (e.g. sales assistants, unskilled labour) there are problems with employee recruitment and retention. Higher pressure on salaries, followed by the higher pay increase is more noticeable in those industries, where the employers have problems with finding employees. Due to the fact, that salaries are still much higher in Western Europe, economic migration is still high, in particular among young Poles.

¹⁰ Salary structure by occupations in October 2016, Information, GUS, Warsaw, 2017 (most current data).

Chart 2. Average gross monthly salary by sectors of national economy as compared to the national salary level in 1st semester of 2017

Source: Own analysis based on the *Employment and salaries in national economy in 1st semester of 2017*, GUS, Warsaw, 2017

In 2017, unemployment decreased at unprecedented scale – at the end of October there were 1.07 million unemployed registered in the county labour offices (decrease by 18.2% during the year), while the unemployment rate was 6.6%. Differences between regions in terms of the unemployment rate are significant - from 3.8% in wielkopolskie to 11.6% in warmińsko-mazurskie (chart 3).

Chart 3. Unemployment rate by regions in the end of October 2017

Source: Local Data Bank

The profile of the unemployed changes as the unemployment rate decreases. In such situation, most of the registered unemployed are long-term unemployed, with low skills or not ready to take up a job. At the end of October 2017, 582 thousand of such unemployed were registered (55% of all the unemployed). The reasons for long-term unemployment include poor health or obsolete skills or professional licenses. There is a large group of the unemployed over the age of 50 – there are 288 thousand registered. There are slightly more young unemployed under 30 years of age – 291.5 thousand. Young people are able to find jobs easier than the older ones, as they are more mobile and willing to learn new skills.

Despite the increased professional activity of Poles and significant decrease of the unemployment rate, the number of economically inactive people has decreased only slightly. In Q3, there were as many as 13.3 million of such people in

Poland, only 152 thousand fewer than a year before and 245 thousand fewer than in Q3 2015. The most common reasons for economic inactivity among Poles include retirement and education, followed by family obligations, homemaking, illness or disability. Social welfare may also affect relatively low supply of labour; however the decision to stay professionally active made by people on welfare greatly depends on how attractive jobs are in terms of salary and employment conditions.

The number of job offers sent to the county labour markets and to open market is the best proof of the growing labour supply and the problems with balancing it. In Poland, 1.47 million of job offers were sent to the county labour offices between January and October 2017. It is 13% more as compared to the same period in 2016 and 32% more than two years before. In addition, there are more job offers for which no candidates were found. At the end of October 2017, there were nearly 111 thousand vacancies as compared to 89.5 thousand a year before and 82.6 thousand two years before¹¹.

The demand for jobs will probably continue to grow. In Q2 2017 GDP increased by 3.8% as compared to Q2 of the previous year. Macroeconomic situation continues to improve. Domestic demand continues to grow at 4.3% level.

According to the forecasts provided by the Forecast and Business Analysis Institute, at the end of 2017, GDP will grow to 3.7% (1 pp higher as compared to the previous year). In 2018, the economic growth will slightly decrease to 3.6%. Along with the observed decrease in unemployment, the employment rate should grow by 2.8% in the entire 2017 and 2.5% in 2018¹². Due to continuing deficit of labour resources and increasing demand for labour followed by decreased unemployment rate, the salaries will most likely continue to grow in the upcoming years.

Table 1. Forecast for average gross salary in national economy in 2018-2021

| | 2018 | 2019 | 2020 | 2021 |
|--|-------|-------|-------|-------|
| Average gross salary in national economy in PLN | 4443 | 4669 | 4916 | 5185 |
| Average gross salary in enterprise sector in PLN | 4724 | 4989 | 5278 | 5593 |
| Real dynamics | 102,4 | 102,7 | 102,7 | 102,9 |

Source: *Guidelines for the application of homogenous macroeconomic indicators, based on which financial impact of the bills will be estimated, Update – October 2017, the Ministry of Finance.*

Poland is attractive for the foreign investors, thanks to its geographical location, relatively high share of the productive age population, stable conditions for business activity and growing purchasing power of its inhabitants. The advantages of the Polish labour market from the point of view of foreign investors also include relatively low salary level as well as the availability of well-educated workforce, who speak foreign languages and have high professional skills.

- The weaknesses of the Polish labour market include:
 - the increasing labour deficit, in particular in the case of lowly paid and unattractive jobs;
 - a large number of economically inactive people – such a group in Poland represents approx. 30% of the population age 15-64, and even though this value gradually decreases, it is still 3.6 pp higher than the average for EU member states;
 - candidates' skills and experience not meeting the employers' requirements;
 - inadequate education system, lack of career counselling and continuous education, even though there are more young people who decide to attend vocational schools;
 - still insufficient involvement of employers in the development of skills and qualifications of their own employees.

¹¹ Local Data Bank

¹² Economic situation status and forecast no. 2/2017 (95), Forecast and Economic Analysis Institute, 2017.

Occupational Barometer 2018

Poland

www.barometrzwodow.pl

| SHORTAGE | BALANCE | SURPLUS |
|---|---|---|
| <ul style="list-style-type: none"> Bakers Bricklayers and plasterers Bus drivers Chefs Concreters and steel fixers Confectioners Construction installation assemblers Construction joiners and carpenters Construction workers | <ul style="list-style-type: none"> Accounting and bookkeeping clerks Acoustics and sound engineers Administration and office clerks Agricultural and gardening machines operators Air traffic controllers Analysts, testers and ICT system operators Animal services workers Architects and urban planners Archivists and curators Assistants in education Automotive diagnosis technicians Beauticians Biologists, biotechnologists, biochemists Business managers Butchers and fishmongers Car wash, laundry and ironing workers Caretakers, doorkeepers, janitors and custodians Cement and stone machine operators Chemical engineers and chemists Chemical products plant and machine operators Childminders Cleaners and room service Clearing and forwarding agents Construction engineers Construction managers Construction supervision inspectors Construction technicians Contact centre agents, survey and market research interviewers Crane, hoist and related plant operators Database developers and administrators, programmers Deliverer and suppliers Dental technicians Dentists Driving instructors Educators in educational and care institutions Electrical and energetic engineers Electronic assemblers Electronics technology, automation and robotics specialists Environmental engineering engineers Events, cultural activities and animation organizers Farmers and animal producers Farming and forestry specialists Finance and accounting staff with knowledge of foreign languages Finance professionals Fishermen Florists | <ul style="list-style-type: none"> Cooks Earthmoving plant operators and mechanics Electrical mechanics and electrical assemblers Finishing work technologists in building trades Hairdressers Handicraft workers in wood and joiners Independent accountants Metal working machine tool setters and operators Motor vehicle mechanics and repairers Food and nutrition technology specialists Food processing workers Foreign language teachers Forest workers Funeral service workers Gardeners i orchardists Glaziers and window fitters Graphic and multimedia designers Handicraft workers in leather and related materials Household helps Human resources management and recruitment specialists Industrial ceramists Insurance agents Internet sales staff IT technicians Journalists and editors Kitchen helpers Landscape architects Lawyers Librarians and related information professionals Logistics managers Machinery mechanics and repairers Manual workers in production and simple works Mechanical engineering technicians Mechanical engineers Medical doctors Medical imaging and therapeutic equipment technicians Metal processing workers Meteorologists, geologists, geographers Miners and mining plant and machine operators OHS specialists Opticians and prosthetics workers Other education specialists Painters and varnishers Paper manufacturing and processing machine operators Paramedical practitioners Passenger car drivers Pharmacists Photographers Physical protection services workers Physiotherapy technicians and assistants Plant and machine operators and assemblers Postal clerks Postmen and package deliverers Potters and glaziers PR, advertising, marketing and sales specialists Pre-school teachers Primary education teachers Nurses and midwives Pavers Roofers and sheet metal workers in building trades Social work professionals caring for the elderly and disabled Stock clerks Tailors and clothing manufacturers Toolmakers Truck drivers Printing trades workers Product and garment designers Production managers Production organisation professionals Psychologists and psychotherapists Public administration professionals Quality specialists Railway traffic operators Real estate professionals Receptionists Road construction workers Rubber and plastic machine operators Sales managers Salespeople and cashiers Secretaries and assistants Service managers Shipdeck crew, ship and port operators Shoemakers Social institutions and culture managers Social workers Sociologists and social/economic surveys professionals Special school teachers Speech therapists and audiophonologists Sport and recreation instructors Stonemasons Structural metal workers Surveyors and cartographers Teachers for practical vocational training Teachers of general subjects Teachers of vocational subjects Telecommunications specialists Textile machine operators Tinsmiths and laquerers Trade representatives Translators , interpreters and other linguists Travel consultants and clerks Uniformed services workers Upholsterers Veterinarians Vindicators Visual artists and interior designers Waiters and bartenders Webmasters |
| | Economists | Educational counsellors |
| | | Political scientists, historians, philosophers |

The "Occupational Barometer" is a forecast for the demand for employees in 2018. The study was conducted by experts at the turn of the third and fourth quarters of 2017. The situation in some professions may change depending on market conditions. The results for the voivodeship include professions assessed in at least half of the counties.



Regional/Province coordinator

Institution ordering the study

III. Results of Occupational Barometer 2018

The analysis of the national score is based on generalized data from forecasts provided by counties. The objective is to focus on the situation on labour market nationwide and to compare the results with the previous survey. The main deliverables are the county forecasts, as they specify the demand for given occupations on local labour markets.

3.1. Updated list of occupations

The list of occupations has changed as compared to the previous survey. Such change was caused by the list adaptation to the current *Classification of Occupations and Specializations for the Labour Market Needs* of 2014 as well as the feedback and suggestions provided by coordinators and survey users. The list was extended from 165 to 167 items. Some of the occupations were renamed (e.g. *dental technologists* instead of *dental assistants and dental technicians*, *managers in social and cultural institutions*, instead of *managers in public/non-public institutions*) and some of the groups were further divided into subcategories. Newly created occupation groups include *audiologists and speech therapists* (group consists of subcategories: *occupational therapists* and *other education professionals*) as well as *undertakers and embalmers*. The groups *travel guides* and *travel consultants and tour organizers* were combined. Moreover, this year's list of occupations allows to compare data from previous years.

3.2. Increasing recruitment problems

Occupational Barometer survey provides the basis for the labour market forecasts for the subsequent 12 months by classifying each occupation group from the list to one of three categories – deficit occupations, where there is shortage of candidates, balanced occupations, where no problems are expected as regards matching the available workforce to the employers' needs and surplus occupations, where finding a job might prove more difficult due to the small number of job offers or lack of required skills.

In terms of the economic growth, the situation where most occupations are balanced is the most optimal. It means a balanced labour market in terms of the number of job offers as well as competent employees. As compared to the last year's survey results, continuous labour deficit is expected, followed by more recruitment problems. This status quo is also confirmed by the decreasing unemployment rate, which reached unprecedented low.

The survey participants from county labour offices as well as other labour market related institutions stress the fact that it is becoming increasingly hard to find candidates for job offers. Due to current labour market situation, the employers are willing to have a more flexible approach to recruitment. In some industries the salaries have been gradually increasing, while the number of civil law contracts has been decreasing in favour of employment contracts.

However, the quality of jobs offered is still unsatisfactory, which proves to be a great obstacle in the acquisition of new employees. As a result of unattractive employment conditions, unclear recruitment criteria or lack of information on the

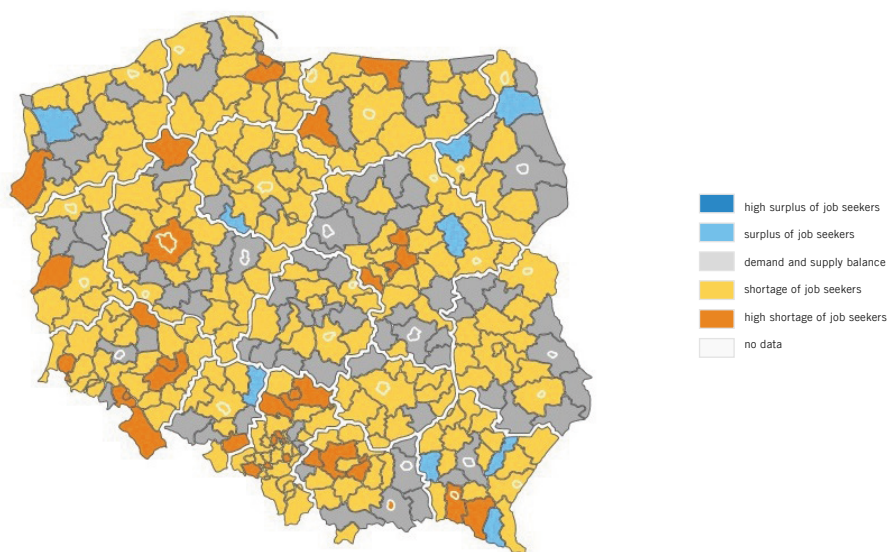
expected salary level in the job ads, potential employees are reluctant to apply for the jobs being offered. Polish employers are trying to close the deficit gap by seeking labour force behind the eastern border. These people are usually willing to take up jobs for which no candidates can be found among the registered unemployed. However, the expectations of this group gradually grow.

3.3. The unemployed

The large group of the registered unemployed is represented by high school graduates as well as graduates of popular university specializations, people without professional licenses as well as people over 50, who are unable to work in their profession due to health problems.

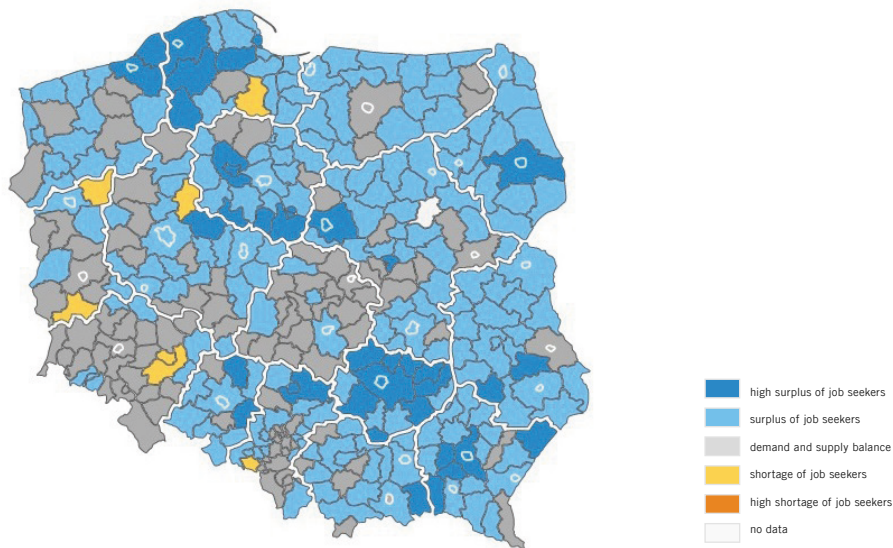
As regards graduates, there is still a problem with making the wrong choices as far as education is concerned as well as the low quality of vocational education. As a result, such candidates fail to meet the employers' requirements. Although there are many *hairdressers*, *bakers* or *cooks* registered in the county labour offices, neither their skills nor qualifications are sufficient to make them good candidates. One of the most common barriers in finding a job (mainly in hospitality sector) is the lack of knowledge of foreign languages.

Map 1. Comparison of available candidates and employers' needs - hairdressers

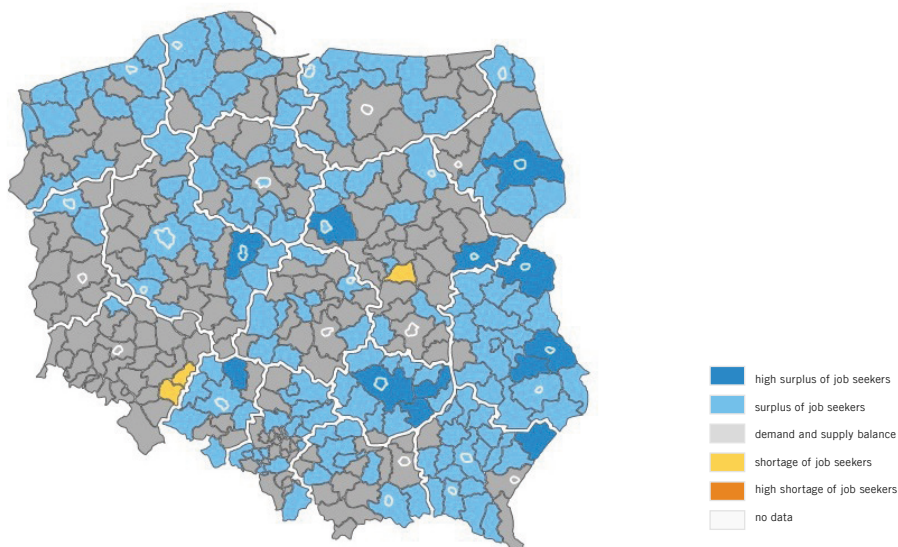


Yet another problem is the oversupply of graduates without any training as well as the fact that often the education is too general to teach the skills expected by the employers that would allow such candidates to find a job right after graduation (e.g. *economists*, *educationalists*, *philosophers*, *historians*, *political scientists* and *culture experts*). Such candidates who are looking for jobs in their field must continue their education, e.g. by taking postgraduate courses.

Map 2. Comparison of available candidates and employers' needs - economists



Map 3. Comparison of available candidates and employers' needs - educationalists



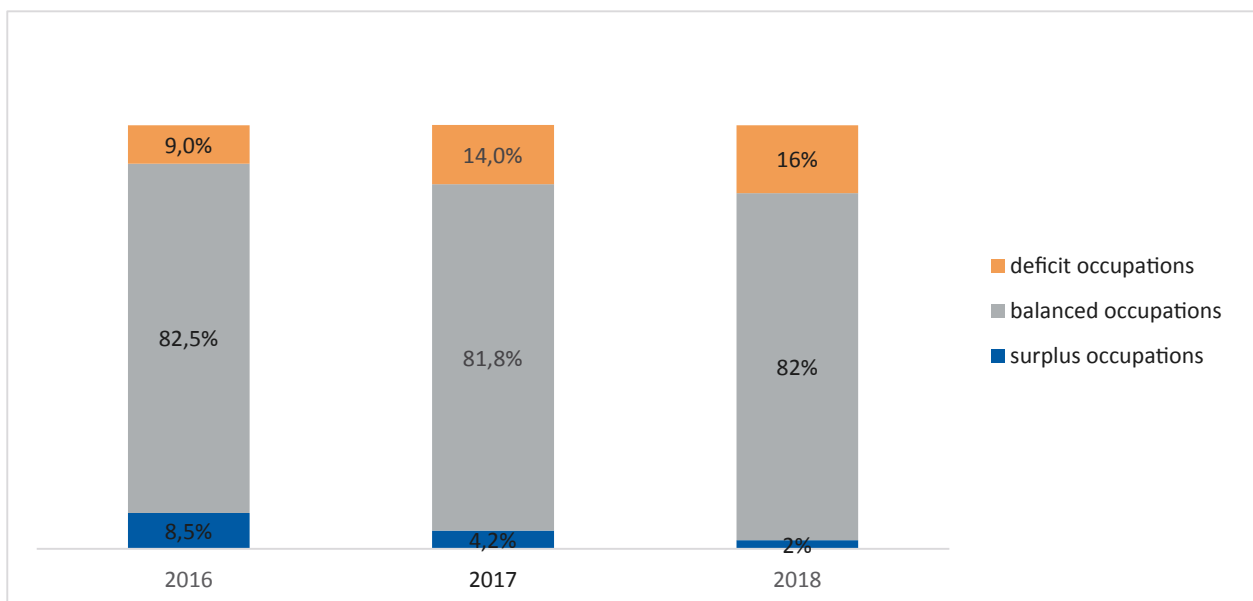
3.4. Growing share of deficit occupations

Based on the Occupational Barometer survey methodology as well as standardized data gathering process, the data can be analysed quantitatively, which allows to observe changes on the labour market. 27 deficit occupations are expected in 2017 based on the results aggregated from all 380 counties. They represent 16% of all occupation groups covered by the survey¹³. In 2017, the ratio was 14% and in 2016 – only 9%. There will be 137 balanced occupations in 2018 (82% of the entire occupation list - 81.8% a year before), while the occupations, which the experts expect to be oversupplied will only reach 3 (2%).

¹³ In this year's national study, similarly to the last edition, all the occupations from the list were included (100%=167). The regional results still contain the algorithm that excludes the occupations, which have not been assessed in at least half of the counties.

Their share decreased more than twice as compared to the previous year, when the surplus occupation ratio was 4.2% (8.5% in 2016). Therefore, the trend from the last year, i.e. increasing share of deficit occupations and decreasing share of surplus occupations is continuing.

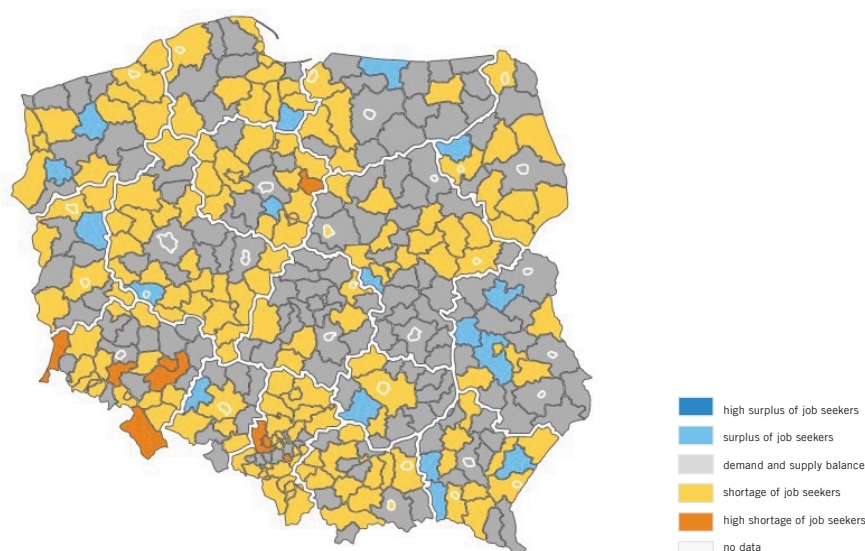
Chart 4. Share of deficit and surplus occupations in three editions of Occupational Barometer - nationwide



Source: Own study.

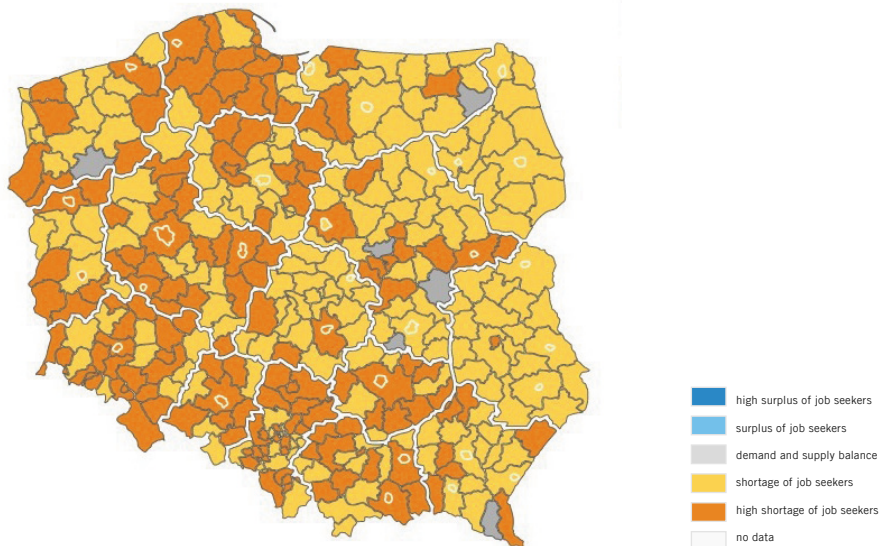
In order for a given profession to be deemed deficit, it must be included in such a category in more than half of the counties. Deficit occupations include nearly all of those listed last year (except for *sales representatives and financial and accounting clerks with knowledge of foreign languages*). New deficit occupations (which were included in the balanced group last year) include *concrete placers, bricklayers, pastry cooks, stock clerks and construction workers*. There is also a new deficit category: building finishers (in previous editions, the group was divided into several different occupations, such as floor layers and building painters).

Map 4. Comparison of available candidates and employers' needs – pastry cook

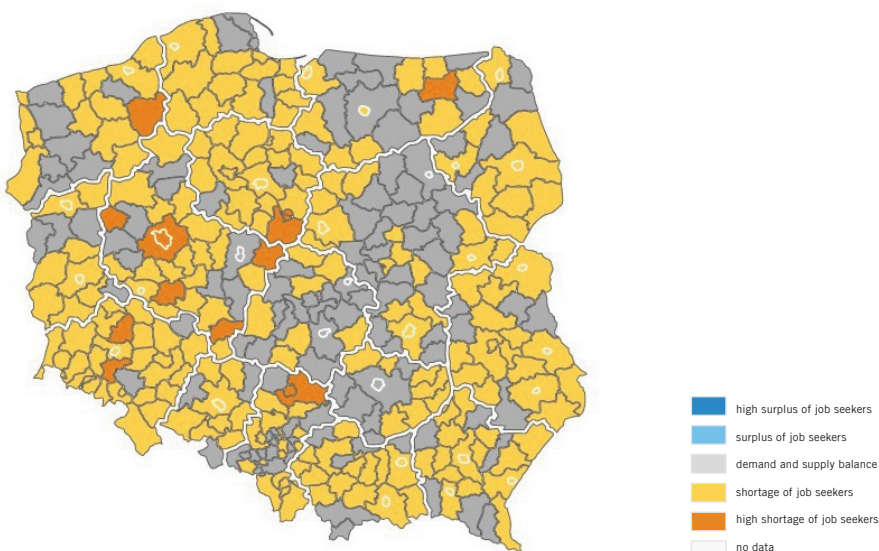


The problem with finding job candidates in 2018 will affect several sectors. The most problems with finding suitable candidates may be expected in construction and manufacturing sectors (e.g. *carpenters, bricklayers and plasterers, tailors and garment trade workers*). Other industries include restaurants (*chefs, cooks and pastry makers*), health care (*nurses and midwifery professionals, home-based personal care workers*), transport (*heavy truck and lorry drivers, bus drivers*) and services (*hairdressers, car mechanics*). There is observable deficit of both skilled workers as well as professionals (e.g. *certified accountants*). The employers also experience problems with finding unskilled labour. The reasons behind such situation are the same as last year.

Map 5. Comparison of available candidates and employers' needs – heavy truck and lorry drivers



Mapa 6. Comparison of available candidates and employers' needs – certified accountants



- The main reasons given by the experts for such deficit:
 - **Unattractive employment conditions** – not only due to salary level inadequate to the work performed but also in terms of low quality of job offers (e.g. unclear recruitment terms),

uneven salary levels, the risk of being laid off and lack of general work comfort (working hours, relations with the employer, long hours that affect private life).

- **Too low salary level** – it is one of the key reasons for the unemployed not to take up jobs. As a result, employers hire more workers from behind the eastern border and there are more problems encountered in such areas, as agriculture, forestry or food processing. There are also occupations, where even though the nominal salary is relatively high, due to the working conditions, the candidate perceive such salary as too low (e.g. *heavy truck and lorry drivers*).
- **Difficult or harmful working conditions** - it mainly applies to jobs involving shifts (night time), extremely low or high temperature (e.g. in a cooling tower or steel mill), work at heights, piecework (e.g. *tailors and garment trade workers*).
- **Need to commute** – many people are unwilling to accept jobs, which involve frequent business trips and working away from home. Another problem, in particular in smaller towns, is the lack of transportation infrastructure. It often happens that people simply cannot get to work or it proves to be too expensive.
- **Lack of required skills** – professional experience is still one of the main requirements in most industries. Employers are unwilling to entrust modern equipment and demanding tasks to people without proven experience. Lack of practical skills is also a problem, especially among graduates and people returning to work after a long break (e.g. lack of knowledge of the applicable laws, lack of knowledge of advanced technologies, machinery and equipment).
- **Lack of or expired license** – in many sectors there are professional licenses required. Since the training courses are often very expensive or time consuming and they do not guarantee finding a job, the interest in such training does not go hand in hand with the number of employers seeking skilled candidates. Furthermore, there are occupations, where after a longer break from work, the license expires (e.g. *nurses*), and it takes a long time to have the license renewed.

3.5. Decreasing number of surplus occupations

Current situation on the labour market clearly shows the deficit of people with required qualifications. That is why, there are few occupations and industries, where there is oversupply of job seekers. The surplus occupations in 2018 included those representing the large number of technical secondary school and university graduates. They include *economists, educationalists and philosophers, historians, political scientists and culture experts*.

According to the panel members, the main reason of such surplus is the fact that the education offer is ill matched to the labour market conditions as well as the decreasing demand for certain occupations.

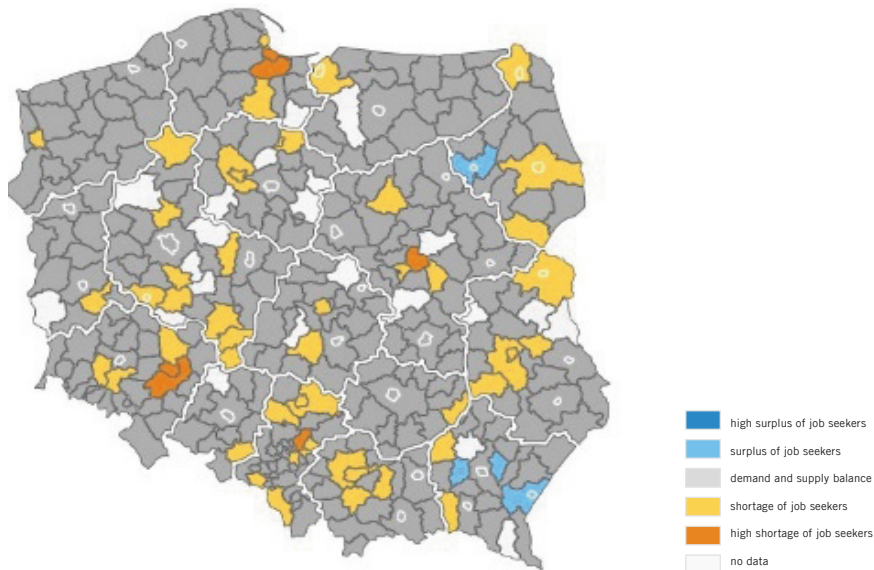
Despite the growing deficit and recruitment problems, one should bear in mind that the Polish labour market is very diversified, in particular when comparing regional cities with smaller towns, which are not located near large industrial centres. In such places, the unemployment rate is still high, as the candidates have limited opportunities to continue education or retrain, while public transport infrastructure prevents mobility and working away from home.

3.6. Local differences

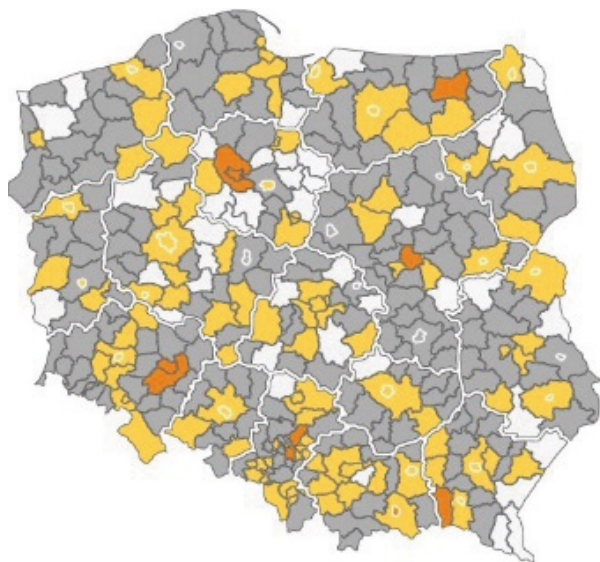
The analysis also covered the differences between labour markets in big and small cities. Typical for regional cities is the deficit of occupations evaluated as balanced on the national or regional scale. Such industries include IT as well as BPO/SSC (*outsourcing*). The high demand for IT professionals, i.e. software developers and programmers, database administrators as well as IT system operators is mainly present in large cities as well as within Special Economic Zones. People with the required skills will not have a problem with finding a well-paid job. In addition, the employers are now willing to hire candidates without completed education or training, as they often recruit students. In smaller cities, such demand for IT professionals is reported mainly by institutions and companies, hence the demand is much lower as is the salary level.

Maps 7, 8, 9. Differences in demand for IT professionals depending on specialization and education level - 2018

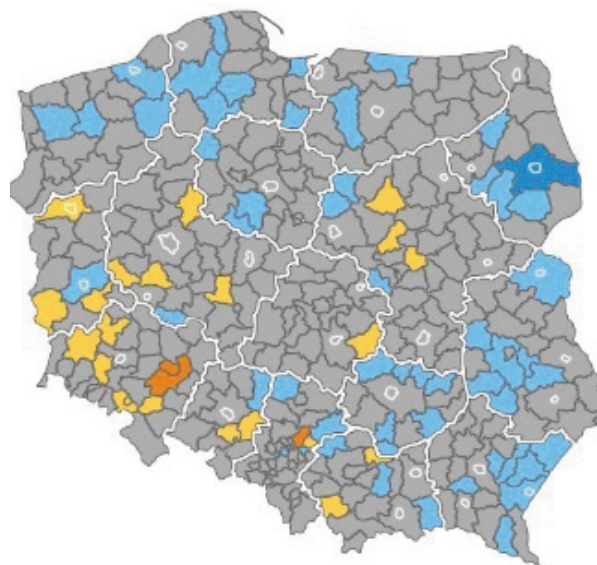
IT analysts, testers and IT system operators



database developers and administrators, programmers



IT technician



In most regional cities there will be a deficit of occupations in health care (*medical doctors, nurses and midwifery professionals*) and professionals (e.g. *certified accountants*). In addition, vocational school and technical school graduates will have great job opportunities in such occupations as *hairdressers, bakers, pastry makers and construction workers of different trade*. In cities there is also a high demand for unskilled labour: as last year, they include *cleaners, room attendants, salespersons and cashiers*.

3.7. Shortage and surplus occupations by region

Despite the fact that the labour market trends are similar countrywide (i.e. growing number of deficit occupations and decreasing number of surplus occupations), the situation differs from region to region. Such factors, as the education centres, transportation infrastructure, financing from the EU funds or geographical location, affect the employment structure on local labour markets.

In 2018, there are no surplus occupations expected in the entire dolnośląskie voivodeship (last year, the only surplus occupation was the economist). The share of shortage occupations in all categories assessed was 37.5%. Occupations from that group included drivers with B+ category driver's license, nurses and midwifery professionals, medical doctors and many occupations from services sector.

In 2018, kujawsko-pomorskie voivodeship continues to observe further decrease in the surplus occupations. This group also includes such occupations, as economists, educationalists, food and nutrition engineering professionals, travel consultants and tour organizers, interior decorators, conservators, farmers and breeders. Most of problems are related to the mass education or limited demand from employers. The deficit sectors include transport, construction, metallurgy, restaurants and food processing, health care and IT.

In the forecast for lubelskie voivodeship, the increased demand is observed for such occupations, as nurses and midwifery professionals, vocational teachers, Internet salespersons, heavy truck and lorry drivers, physiotherapists and masseurs. Occupations, for which the demand might be slightly lower as compared to last year, include, but are not limited to teachers, agriculture and forestry professionals as well as postal workers.

There are no surplus occupations expected in 2018 in the entire lubuskie voivodeship. Based on the assessment, 46 occupations were classified into the deficit occupation group, while 114 – to the balanced occupation group. Deficit of labour may be observed in such occupations, are bookkeeping and accounting, chefs, car mechanics and medical doctors.

According to the 2018 forecast, in łódzkie voivodeship there will be a high demand for concrete placers and steel fixers, carpenters, bricklayers, plaster layers and construction workers. In restaurant business, there is demand for unskilled workers who can work as kitchen help or fast food workers.

In małopolskie voivodeship the trends observed in previous years are expected to continue. There was a significantly more deficit occupations identified (36) as compared to the surplus occupations (5). All the occupations identified as surplus in 2018 were also classified as such last year. The remaining occupations listed in the previous survey edition as surplus were classified into the balanced occupation group. Generally, occupations listed as deficit last year and this year are the same. They include such industries, as construction, transport, manufacturing, restaurants, health care and IT. The factors that contribute to problems with finding a job include: hard working conditions, lack of required skills, age and health condition of candidates, salary inadequate to the job/position.

In 2018, in mazowieckie voivodeship the number of deficit occupations is expected to increase. Only one occupation was categorized as surplus, namely - economists, which is often identified as the education direction and not occupation on the labour market. The reasons behind recruitment problems include, but are not limited to, lack of skills and experience required by the employers, large grey market, low quality of job offers, generation gap in education and unattractive employment terms. Since mazowieckie voivodeship is also one of the most diversified regions, the situation on individual labour markets may vary.

In opolskie voivodeship, the decrease in surplus occupations was observed. In the 2016 forecast, surplus occupations represented 8.5% of all assessed occupations, in 2017 – 4.9% and in 2018 – only 3%. There is still high demand for electronics, automation and robotics professionals (in particular automated production line operators), as well as for electricians, electromechanics and wiremen – the candidates sought must have valid professional license, while most of the registered unemployed obtained their licenses a long time ago and their skills are outdated.

The survey participants podkarpackie voivodeship stressed the fact that the companies, which had invested in their existing personnel, should not have problems with employment. On the other hand, those businesses that failed to notice changes on the labour market will be seeking to recruit more people, even by raising salaries or offering fringe benefits. The deficit occupations include bus drivers, heavy truck and lorry drivers, welders, nurses and midwifery professionals and chief accountants. The surplus group includes 13 occupations.

According to 2018 forecasts, there will be deficit in labour in podlaskie voivodeship in 20 groups of occupations. They include, but are not limited to: bakers, toolmakers, car diagnosticians, stock clerks, tailors and garment trade workers. The number of surplus occupations will drop – there should be problems with finding jobs in 8 occupation groups, such as: economists, educationalists, mechanical technicians, public administration professionals, food and nutrition engineering professionals, teachers, textile machine operators, farmers and breeders.

The survey results for pomorskie voivodeship confirm the conclusions from the last year's forecast, according to which the current market is „an employee market”. As compared to the previous year, in 2018 the labour demand structure will slightly change. The number of deficit occupations will be nearly eight times higher than the surplus ones (last year it was six times higher). The deficit category included, but was not limited to: construction engineers, foreign language teachers and tutors, certified accountants and sales representatives.

In 2018, in all counties in śląskie voivodeship it is expected that the number of deficit occupations will outweigh the number of surplus ones. Two occupations were classified as deficit in all counties in the region, i.e. heavy truck and lorry drivers and welders. In two counties only single occupation was identified a surplus, while no such category was observed in 6 counties. Deficit occupation group included, but was not limited to: site managers, home based personal care workers and blue collar workers in manufacturing as well as unskilled labour.

According to the personnel of labour offices in świętokrzyskie voivodeship, the main reasons behind the surplus in labour is the fact that education curricula are not adapted to the local labour market needs. Schools produced large numbers of inexperienced graduates with low skills, who remain as registered unemployed for a long time after graduation. It is expected, that next year there will be deficit in 24 occupations (the highest number since the survey was first conducted in the region), while the surplus occupations will reach 11 (the lowest number since the survey was first conducted).

In warmińsko-mazurskie voivodeship there are 25 deficit occupations and one surplus occupation (economists) expected. The deficit in labour will be noticeable in the following industries: construction, transport, manufacturing, restaurants, services and health care. The problem with finding the right candidates arise mainly from low pay being offered, hard working conditions as well as work in the „shadow economy”.

In wielkopolskie voivodeship, the deficit group in 2018 will include unskilled labour as well as professionals in growing industries. In most counties in the region, there will be high demand for skilled pastry makers, hairdressers, cooks, car mechanics, tailors and garment trade workers (including seamstresses) as well as upholsterers. According to the experts, even though there are many representatives of the aforementioned occupations in many counties, they lack the required skills or qualifications to meet the current market requirements.

In zachodniopomorskie voivodeship, vacancy number is growing, while the unemployment rate is dropping. According to the experts who assessed the labour market in the region, there might be problems with finding candidates from 32 out of 167 assessed occupation groups. As compared to previous years, there is still high demand for construction workers. There is also high demand for bus drivers (D category driver's license) as well as heavy truck and lorry drivers. The deficit occupations also include stock clerks, as the demand for such occupations increased due to new investments in resources management, goods distribution and transshipment.

3.8. Summary

Occupational Barometer results clearly show that the recruitment problems will be greater as compared to 2017. Such situation is advantageous for the job seekers, as the employers are more willing to adapt employment conditions to the employees' expectations. However, in the long-term perspective, such situation is unfavourable, as it significantly affects general economy, causing downturn, which will also affect the labour market.

At present, the greatest challenge for the labour market institutions is to find solutions that would reduce the number of deficit occupations. It would be worthwhile to focus on using hidden resources, i.e. people who are economically inactive, for various reasons. It will not be easy to identify the employment barriers or to plan actions aimed at solving such problems, but it will be necessary, as there are fewer and fewer opportunities to hire labour force from the East.

If you are interested in learning more about situation on local labour markets, please visit our website at barometrzaszawodow.pl, where you will find detailed information on labour demand in individual counties.

Occupational Barometer 2018

dolnośląskie województwo

www.barometrzwodow.pl

SHORTAGE

Bakers
Bricklayers and plasterers
Bus drivers
Chefs
Clearing and forwarding agents
Concreters and steel fixers
Confectioners
Construction engineers
Construction installation assemblers
Construction joiners and carpenters
Construction managers
Construction workers
Cooks
Earthmoving plant operators and mechanics
Electrical mechanics and electrical assemblers
Finishing work technologists in building trades

Foreign language teachers
Hairdressers
Handicraft workers in wood and joiners
Independent accountants
Kitchen helpers
Medical doctors
Metal working machine tool setters and operators
Motor vehicle mechanics and repairers
Nurses and midwives
Pavers
Physiotherapists and masseurs
Plant and machine operators and assemblers
Pre-school teachers
Production managers
Roofers and sheet metal workers in building trades
Rubber and plastic machine operators

Salespeople and pos operators
Social work professionals caring for the elderly and disabled
Special school teachers
Storekeepers
Structural metal workers
Tailors and clothing manufacturers
Teachers for practical vocational training
Teachers of vocational subjects
Tinsmiths and laquerers
Toolmakers
Truck and tractor drivers
Waiters and bartenders
Welders

BALANCE

Accounting and bookkeeping clerks
Acoustics and sound engineers
Administration and office clerks
Agricultural and gardening machines operators
Analysts, testers and ICT system operators
Animal services workers
Architects and urban planners
Archivists and curators
Artists, interior decorators and conservators
Assistants in education
Automotive diagnosis technicians
Beauticians
Biologists, biotechnologists, biochemists
Butchers and fishmongers
Car wash, laundry and ironing workers
Caretakers, doorkeepers, janitors and custodians
Cement and stone machine operators
Chemical engineers and chemists
Chemical products plant and machine operators
Childminders
Cleaners and room service
Construction supervision inspectors
Construction technicians
Contact centre agents, survey and market research interviewers
Crane, hoist and related plant operators
Database designers and administrators, programmers
Deliverer and suppliers
Dental technicians
Dentists
Driving instructors
Economists
Educational counsellors
Educators in educational and care institutions
Electrical and energetic engineers
Electronic assemblers
Electronics technology, automation and robotics specialists
Environmental engineering engineers
Events, cultural activities and animation organizers
Farmers and animal producers
Farming and forestry specialists

Finance and accounting staff with knowledge of foreign languages
Finance professionals
Fishermen
Florists
Food and nutrition technology specialists
Food processing workers
Forest workers
Gardeners i orchardists
Glaziers and window fitters
Graphic and multimedia designers
Handicraft workers in leather and related materials
Household helps
Human resources management and recruitment specialists
Industrial ceramists
Insurance agents
Internet sales staff
IT technicians
Journalists and editors
Landscape architects
Lawyers
Librarians and related information professionals
Logistics managers
Machinery mechanics and repairers
Management and business service managers
Managers in public/non-public institutions
Manual workers in production and simple works
Mechanical engineering technicians
Mechanical engineers
Metal processing workers
Meteorologists, geologists, geographers
Miners and mining plant and machine operators
OHS specialists
Operators of medical equipment
Opticians and prosthetics workers
Other education specialists
Paper manufacturing and processing machine operators
Paramedical practitioners
Passenger car drivers
Pharmacists
Photographers
Physical protection services workers

Political scientists, historians, philosophers and culture experts
Postal clerks
Postmen and package deliverers
Potters and glaziers
PR, advertising, marketing and sales specialists
Pracownicy usług pogrzebowych
Primary education teachers
Printing trades workers
Product and garment designers
Production organisation professionals
Psychologists and psychotherapists
Public administration professionals
Quality specialists
Railway traffic operators
Real estate professionals
Receptionists and registrars
Road construction workers
Sales managers
Sales representatives
Secretaries and assistants
Service managers
Shoemakers
Social workers
Sociologists and social/economic surveys professionals
Speech therapists and audiophonologists
Sport and recreation instructors
Stonemasons
Surveyors and cartographers
Teachers of general subjects
Telecommunications specialists
Textile machine operators
Translators, interpreters and other linguists
Travel agency employees and tour operators
Uniformed services workers
Upholsterers
Varnishers
Veterinarians
Vindicators
Webmasters

The "Occupational Barometer" is a forecast for the demand for employees in 2018. The study was conducted by experts at the turn of the third and fourth quarters of 2017. The situation in some professions may change depending on market conditions. The results for the voivodeship include professions assessed in at least half of the counties.



Regional/Province coordinator



National coordinator



Ministerstwo Rodziny,
Pracy i Polityki Społecznej

Institution ordering the study

Occupational Barometer 2018

kujawsko-pomorskie voivodeship

www.barometrzasowodow.pl

SHORTAGE

Automotive diagnosis technicians
Bakers
Bricklayers and plasterers
Bus drivers
Chefs
Clearing and forwarding agents
Concreters and steel fixers
Confectioners
Construction engineers
Construction installation assemblers
Construction joiners and carpenters
Construction managers
Cooks
Crane, hoist and related plant operators
Database designers and administrators, programmers

Earthmoving plant operators and mechanics
Electrical mechanics and electrical assemblers
Finishing work technologists in building trades
Graphic and multimedia designers
Hairdressers
Handicraft workers in wood and joiners
Independent accountants
Medical doctors
Metal working machine tool setters and operators
Motor vehicle mechanics and repairers
Nurses and midwives
Pavers
Physiotherapists and masseurs
Psychologists and psychotherapists
Roofers and sheet metal workers in building trades

Sales representatives
Structural metal workers
Tailors and clothing manufacturers
Teachers for practical vocational training
Teachers of vocational subjects
Toolmakers
Truck and tractor drivers
Upholsterers
Varnishers
Welders

BALANCE

Accounting and bookkeeping clerks
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Architects and urban planners
Archivists and curators
Assistants in education
Beauticians
Biologists, biotechnologists, biochemists
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Farming and forestry specialists
Finance professionals
Florists

Food processing workers
Foreign language teachers
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Gardeners i orchardists
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IT technicians
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Mechanical engineers
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OHS specialists
Operators of medical equipment
Paper manufacturing and processing machine operators
Paramedical practitioners
Passenger car drivers
Pharmacists
Photographers
Physical protection services workers
Plant and machine operators and assemblers
Postal clerks
Postmen and package deliverers
Potters and glaziers

PR, advertising, marketing and sales specialists
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Production managers
Production organisation professionals
Quality specialists
Railway traffic operators
Real estate professionals
Receptionists and registrars
Road construction workers
Rubber and plastic machine operators
Sales managers
Salespeople and cashiers
Secretaries and assistants
Service managers
Social institutions and culture managers
Social work professionals caring for the elderly and disabled
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Sport and recreation instructors
Stonemasons
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Surveyors and cartographers
Teachers of general subjects
Tinsmiths and laquerers
Translators, interpreters and other linguists
Uniformed services workers
Veterinarians
Waiters and bartenders
Webmasters

SURPLUS

Artists, interior decorators and conservators
Economists
Educational counsellors
Farmers and animal producers

Food and nutrition technology specialists
Political scientists, historians, philosophers
Public administration professionals
Sociologists and social/economic surveys professionals

Travel agency employees and tour operators

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WOJEWÓDZTWO
KUJAWSKO-POMORSKIE



Regional/Province coordinator



INSTYTUCJA
WOJEWÓDZTWA
MAŁOPOLSKIEGO
Wojewódzki Urząd Pracy
w Krakowie

National coordinator



Ministerstwo Rodziny,
Pracy i Polityki Społecznej

Institution ordering the study

Occupational Barometer 2018

Iubelskie voivodeship

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| SHORTAGE | BALANCE | SURPLUS | |
|---|---|---|--|
| Shortage Automotive diagnosis technicians Bakers Beauticians Bus drivers Chefs | Accounting and bookkeeping clerks Administration and office clerks Agricultural and gardening machines operators Analysts, testers and ICT system operators Animal services workers Architects and urban planners Archivists and curators Assistants in education Biologists, biotechnologists, biochemists Bricklayers and plasterers Butchers and fishmongers Car wash, laundry and ironing workers Caretakers, doorkeepers, janitors and custodians Cement and stone machine operators Chemical engineers and chemists Chemical products plant and machine operators Childminders Cleaners and room service Clearing and forwarding agents Concrete placers, concrete finishers and related workers Confectioners Construction engineers Construction installation assemblers Construction joiners and carpenters Construction supervision inspectors Construction technicians Construction workers Contact centre agents, survey and market research interviewers Crane, hoist and related plant operators Database developers and administrators, programmers Dental technicians Dentists Driving instructors Educators in educational and care institutions Electrical and energetic engineers Electrical mechanics and electrical assemblers Electronic assemblers Electronics technology, automation and robotics specialists Environmental engineering engineers Events, cultural activities and animation organizers Finance professionals Finishing work technologists in building trades Florists Food processing workers Foreign language teachers | Construction managers Cooks Earthmoving plant operators and mechanics Hairdressers Independent accountants Nurses and midwives Forest workers Funeral service workers Glaziers and window fitters Graphic and multimedia designers Handicraft workers in leather and related materials Handicraft workers in wood and joiners Household helps Human resources management and recruitment specialists Insurance agents Internet salespersons IT technicians Journalists and editors Kitchen helpers Landscape architects Lawyers Librarians and related information professionals Logistics managers Machinery mechanics and repairers Management and business service managers Manual workers in production and simple works Mechanical engineers Medical imaging and therapeutic equipment technicians Metal processing workers Metal working machine tool setters and operators Meteorologists, geologists, geographers Motor vehicle mechanics and repairers OHS specialists Operators of medical equipment Opticians and prosthetics workers Other education specialists Paper manufacturing and processing machine operators Paramedical practitioners Passenger car drivers Pavers Pharmacists Photographers Physical protection services workers Physiotherapists and masseurs Plant and machine operators and assemblers Postal clerks Postmen and package deliverers Potters and glaziers PR, advertising, marketing and sales specialists Pre-school teachers Primary education teachers Printing trades workers | Speech therapists and audiophonologists Teachers for practical vocational training Teachers of vocational subjects Truck drivers Welders Product and garment designers Production managers Production organisation professionals Psychologists and psychotherapists Quality specialists Railway traffic operators Real estate professionals Receptionists Road construction workers Roofers and sheet metal workers in building trades Rubber and plastic machine operators Sales managers Sales managers Salespeople and pos operators Secretaries and assistants Service managers Shoemakers Social institutions and culture managers Social work professionals caring for the elderly and disabled Social workers Special school teachers Sport and recreation instructors Stonemasons Storekeepers Structural metal workers Surveyors and cartographers Tailors and clothing manufacturers Telecommunications specialists Textile machine operators Tinsmiths and laquerers Toolmakers Trade representatives Uniformed services workers Upholsterers Varnishers Veterinarians Visual artists and interior designers Waiters and bartenders Webmasters Sociologists and social/economic surveys professionals Teachers of general subjects Translators, interpreters and other linguists Travel consultants and clerks |

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Regional/Province coordinator



National coordinator



Institution ordering the study

Occupational Barometer 2018

Iubuskie voivodeship

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SHORTAGE

Accounting and bookkeeping clerks
Automotive diagnosis technicians
Bakers
Beauticians
Bricklayers and plasterers
Bus drivers
Butchers and fishmongers
Chefs
Concreters and steel fixers
Confectioners
Construction engineers
Construction installation assemblers
Construction joiners and carpenters
Construction workers
Cooks
Earthmoving plant operators and mechanics

Electrical mechanics and electrical assemblers
Finance and accounting staff with knowledge of foreign languages
Finishing work technologists in building trades
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Hairdressers
Handicraft workers in wood and joiners
Independent accountants
Kitchen helpers
Medical doctors
Metal working machine tool setters and operators
Motor vehicle mechanics and repairers
Nurses and midwives
Pavers
Physiotherapists and masseurs
Pre-school teachers

Psychologists and psychotherapists
Roofers and sheet metal workers in building trades
Salespeople and cashiers
Social work professionals caring for the elderly and disabled
Social workers
Storekeepers
Tailors and clothing manufacturers
Teachers for practical vocational training
Teachers of vocational subjects
Tinsmiths and laquerers
Toolmakers
Truck and tractor drivers
Upholsterers
Waiters and bartenders
Welders

BALANCE

Acoustics and sound engineers
Administration and office clerks
Agricultural and gardening machines operators
Analysts, testers and ICT system operators
Animal services workers
Architects and urban planners
Archivists and curators
Artists, interior decorators and conservators
Assistants in education
Biologists, biotechnologists, biochemists
Car wash, laundry and ironing workers
Caretakers, doorkeepers, janitors and custodians
Cement and stone machine operators
Chemical engineers and chemists
Childminders
Cleaners and room service
Clearing and forwarding agents
Construction managers
Construction supervision inspectors
Construction technicians
Contact centre agents, survey and market research interviewers
Crane, hoist and related plant operators
Database designers and administrators, programmers
Deliverer and suppliers
Dental technicians
Dentists
Driving instructors
Economists
Educational counsellors
Educators in educational and care institutions
Electrical and energetic engineers
Electronic assemblers
Electronics technology, automation and robotics specialists
Environmental engineering engineers
Events, cultural activities and animation organizers
Farmers and animal producers
Farming and forestry specialists
Finance professionals
Florists
Food and nutrition technology specialists

Food processing workers
Forest workers
Funeral service workers
Gardeners i orchardists
Glaziers and window fitters
Graphic and multimedia designers
Household helps
Human resources management and recruitment specialists
Insurance agents
Internet sales staff
IT technicians
Journalists and editors
Landscape architects
Lawyers
Librarians and related information professionals
Logistics managers
Machinery mechanics and repairers
Management and business service managers
Manual workers in production and simple works
Mechanical engineering technicians
Mechanical engineers
Metal processing workers
Meteorologists, geologists, geographers
OHS specialists
Operators of medical equipment
Opticians and prosthetics workers
Other education specialists
Paper manufacturing and processing machine operators
Paramedical practitioners
Passenger car drivers
Pharmacists
Photographers
Physical protection services workers
Plant and machine operators and assemblers
Political scientists, historians, philosophers and culture experts
Postal clerks
Postmen and package deliverers
Potters and glaziers
PR, advertising, marketing and sales specialists
Primary education teachers

Printing trades workers
Product and garment designers
Production managers
Production organisation professionals
Public administration professionals
Quality specialists
Railway traffic operators
Real estate professionals
Receptionists and registrars
Road construction workers
Rubber and plastic machine operators
Sales managers
Sales representatives
Secretaries and assistants
Service managers
Shoemakers
Social institutions and culture managers
Sociologists and social/economic surveys professionals
Special school teachers
Speech therapists and audiophonologist
Sport and recreation instructors
Stonemasons
Structural metal workers
Surveyors and cartographers
Teachers of general subjects
Telecommunications specialists
Textile machine operators
Translators, interpreters and other linguists
Travel agency employees and tour operators
Uniformed services workers
Varnishers
Veterinarians
Vindicator
Webmasters

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Regional/Province coordinator



National coordinator



Institution ordering the study

Occupational Barometer 2018

łódzkie voivodeship

www.barometrzaszawodow.pl

| SHORTAGE | BALANCE | SHORTAGE | BALANCE | SHORTAGE | BALANCE |
|--|--|---|---------|----------|---------|
| Cooks | Nurses and midwives | Toolmakers | | | |
| Earthmoving plant operators and mechanics | Storekeepers | Truck and tractor drivers | | | |
| Hairdressers | Tailors and clothing manufacturers | Welders | | | |
| Accounting and bookkeeping clerks | Florists | Production organisation professionals | | | |
| Administration and office clerks | Food and nutrition technology specialists | Psychologists and psychotherapists | | | |
| Agricultural and gardening machines operators | Food processing workers | Public administration professionals | | | |
| Analysts, testers and ICT system operators | Foreign language teachers | Quality specialists | | | |
| Animal services workers | Forest workers | Railway traffic operators | | | |
| Architects and urban planners | Funeral service workers | Real estate professionals | | | |
| Archivists and curators | Gardeners i orchardists | Receptionists and registrars | | | |
| Artists, interior decorators and conservators | Glaziers and window fitters | Road construction workers | | | |
| Assistants in education | Graphic and multimedia designers | Roofers and sheet metal workers in building trades | | | |
| Automotive diagnosis technicians | Handicraft workers in leather and related materials | Rubber and plastic machine operators | | | |
| Bakers | Handicraft workers in wood and joiners | Sales managers | | | |
| Beauticians | Human resources management and recruitment specialists | Sales representatives | | | |
| Biologists, biotechnologists, biochemists | Independent accountants | Salespeople and cashiers | | | |
| Bricklayers and plasterers | Insurance agents | Secretaries and assistants | | | |
| Bus drivers | Internet sales staff | Service managers | | | |
| Butchers and fishmongers | IT technicians | Shoemakers | | | |
| Car wash, laundry and ironing workers | Journalists and editors | Social institutions and culture managers | | | |
| Caretakers, doorkeepers, janitors and custodians | Kitchen helpers | Social work professionals caring for the elderly and disabled | | | |
| Cement and stone machine operators | Landscape architects | Social workers | | | |
| Chefs | Lawyers | Sociologists and social/economic surveys professionals | | | |
| Chemical engineers and chemists | Librarians and related information professionals | Special school teachers | | | |
| Chemical products plant and machine operators | Logistics managers | Speech therapists and audiophonologists | | | |
| Childminders | Machinery mechanics and repairers | Sport and recreation instructors | | | |
| Cleaners and room service | Management and business service managers | Stonemasons | | | |
| Clearing and forwarding agents | Manual workers in production and simple works | Structural metal workers | | | |
| Concreters and steel fixers | Mechanical engineering technicians | Surveyors and cartographers | | | |
| Confectioners | Mechanical engineers | Teachers for practical vocational training | | | |
| Construction engineers | Medical doctors | Teachers of general subjects | | | |
| Construction installation assemblers | Metal processing workers | Teachers of vocational subjects | | | |
| Construction joiners and carpenters | Metal working machine tool setters and operators | Telecommunications specialists | | | |
| Construction managers | Motor vehicle mechanics and repairers | Textile machine operators | | | |
| Construction supervision inspectors | OHS specialists | Tinsmiths and laquerers | | | |
| Construction technicians | Operators of medical equipment | Translators , interpreters and other linguists | | | |
| Construction workers | Opticians and prosthetics workers | Travel agency employees and tour operators | | | |
| Contact centre agents, survey and market research interviewers | Other education specialists | Uniformed services workers | | | |
| Crane, hoist and related plant operators | Paper manufacturing and processing machine operators | Upholsterers | | | |
| Database designers and administrators, programmers | Paramedical practitioners | Varnishers | | | |
| Deliverer and suppliers | Passenger car drivers | Veterinarians | | | |
| Dental technicians | Pavers | Waiters and bartenders | | | |
| Dentists | Pharmacists | Webmasters | | | |
| Driving instructors | Photographers | | | | |
| Economists | Physical protection services workers | | | | |
| Educational counsellors | Physiotherapists and masseurs | | | | |
| Educators in educational and care institutions | Plant and machine operators and assemblers | | | | |
| Electrical and energetic engineers | Political scientists, historians, philosophers and culture experts | | | | |
| Electrical mechanics and electrical assemblers | Postal clerks | | | | |
| Electronic assemblers | Postmen and package deliverers | | | | |
| Electronics technology, automation and robotics specialists | Potters and glaziers | | | | |
| Environmental engineering engineers | PR, advertising, marketing and sales specialists | | | | |
| Events, cultural activities and animation organizers | Pre-school teachers | | | | |
| Farmers and animal producers | Primary education teachers | | | | |
| Farming and forestry specialists | Printing trades workers | | | | |
| Finance professionals | Product and garment designers | | | | |
| Finishing work technologists in building trades | Production managers | | | | |

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Regional/Province coordinator



National coordinator



Ministerstwo Rodziny, Pracy i Polityki Społecznej

Institution ordering the study

Occupational Barometer 2018

małopolskie voivodeship

www.barometrzwodow.pl

SHORTAGE

| | | |
|--------------------------------------|--|---|
| Bakers | Construction workers | Motor vehicle mechanics and repairers |
| Beauticians | Cooks | Nurses and midwives |
| Bricklayers and plasterers | Database designers and administrators, programmers | Pavers |
| Bus drivers | Earthmoving plant operators and mechanics | Physiotherapists and masseurs |
| Butchers and fishmongers | Electrical mechanics and electrical assemblers | Roofers and sheet metal workers in building trades |
| Chefs | Finishing work technologists in building trades | Social work professionals caring for the elderly and disabled |
| Clearing and forwarding agents | Graphic and multimedia designers | Tailors and clothing manufacturers |
| Concreters and steel fixers | Hairdressers | Tinsmiths and laquerers |
| Confectioners | Handicraft workers in wood and joiners | Toolmakers |
| Construction installation assemblers | Independent accountants | Truck and tractor drivers |
| Construction joiners and carpenters | Medical doctors | Waiters and bartenders |
| Construction managers | Metal working machine tool setters and operators | |

BALANCE

| | | |
|--|--|--|
| Accounting and bookkeeping clerks | Food processing workers | Pre-school teachers |
| Agricultural and gardening machines operators | Foreign language teachers | Primary education teachers |
| Analysts, testers and ICT system operators | Forest workers | Printing trades workers |
| Animal services workers | Funeral service workers | Product and garment designers |
| Architects and urban planners | Gardeners i orchardists | Production managers |
| Archivists and curators | Glaziers and window fitters | Production organisation professionals |
| Artists, interior decorators and conservators | Handicraft workers in leather and related materials | Psychologists and psychotherapists |
| Assistants in education | Human resources management and recruitment specialists | Quality specialists |
| Automotive diagnosis technicians | Industrial ceramists | Railway traffic operators |
| Biologists, biotechnologists, biochemists | Insurance agents | Real estate professionals |
| Car wash, laundry and ironing workers | Internet sales staff | Receptionists and registrars |
| Caretakers, doorkeepers, janitors and custodians | IT technicians | Road construction workers |
| Cement and stone machine operators | Journalists and editors | Rubber and plastic machine operators |
| Chemical engineers and chemists | Kitchen helpers | Sales managers |
| Chemical products plant and machine operators | Landscap architects | Sales representatives |
| Childminders | Lawyers | Salespeople and cashiers |
| Cleaners and room service | Librarians and related information professionals | Secretaries and assistants |
| Construction engineers | Logistics managers | Service managers |
| Construction supervision inspectors | Machinery mechanics and repairers | Shoemakers |
| Construction technicians | Management and business service managers | Social institutions and culture managers |
| Contact centre agents, survey and market research interviewers | Manual workers in production and simple works | Social workers |
| Crane, hoist and related plant operators | Mechanical engineering technicians | Sociologists and social/economic surveys professionals |
| Deliverer and suppliers | Mechanical engineers | Special school teachers |
| Dental technicians | Metal processing workers | Speech therapists and audiophonologists |
| Dentists | Meteorologists, geologists, geographers | Sport and recreation instructors |
| Driving instructors | OHS specialists | Stonemasons |
| Educational counsellors | Operators of medical equipment | Storekeepers |
| Educators in educational and care institutions | Opticians and prosthetics workers | Structural metal workers |
| Electrical and energetic engineers | Other education specialists | Surveyors and cartographers |
| Electronic assemblers | Paper manufacturing and processing machine operators | Teachers for practical vocational training |
| Electronics technology, automation and robotics specialists | Paramedical practitioners | Teachers of general subjects |
| Environmental engineering engineers | Passenger car drivers | Teachers of vocational subjects |
| Events, cultural activities and animation organizers | Pharmacists | Telecommunications specialists |
| Farmers and animal producers | Photographers | Textile machine operators |
| Farming and forestry specialists | Physical protection services workers | Translators , interpreters and other linguists |
| Finance and accounting staff with knowledge of foreign languages | Plant and machine operators and assemblers | Uniformed services workers |
| Finance professionals | Postal clerks | Upholsters |
| Florists | Postmen and package deliverers | Varnishers |
| Food and nutrition technology specialists | Potters and glaziers | Veterinarians |
| | PR, advertising, marketing and sales specialists | Vindicators |
| | | Webmasters |

SURPLUS

| | | |
|----------------------------------|--|--|
| Administration and office clerks | Political scientists, historians, philosophers and culture experts | Public administration professionals |
| Economists | | Travel agency employees and tour operators |

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Wojewódzki Urząd Pracy
w Krakowie



Ministerstwo Rodziny,
Pracy i Polityki Społecznej

Regional and national coordinator

Institution ordering the study

Occupational Barometer 2018

mazowieckie voivodeship

www.barometrzaszawodow.pl

| SHORTAGE | BALANCE | SURPLUS | |
|---|---|--|--|
| Bakers Bricklayers and plasterers Concreters and steel fixers Construction joiners and carpenters Cooks | Accounting and bookkeeping clerks Acoustics and sound engineers Administration and office clerks Agricultural and gardening machines operators Analysts, testers and ICT system operators Animal services workers Architects and urban planners Archivists and curators Artists, interior decorators and conservators Assistants in education Automotive diagnosis technicians Beauticians Biologists, biotechnologists, biochemists Bus drivers Butchers and fishmongers Car wash, laundry and ironing workers Caretakers, doorkeepers, janitors and custodians Cement and stone machine operators Chefs Chemical engineers and chemists Chemical products plant and machine operators Childminders Cleaners and room service Clearing and forwarding agents Confectioners Construction engineers Construction installation assemblers Construction managers Construction supervision inspectors Construction technicians Construction workers Contact centre agents, survey and market research interviewers Crane, hoist and related plant operators Database designers and administrators, programmers Deliverer and suppliers Dental technicians Dentists Driving instructors Earthmoving plant operators and mechanics Educational counsellors Educators in educational and care institutions Electrical and energetic engineers Electronic assemblers Electronics technology, automation and robotics specialists Environmental engineering engineers Events, cultural activities and animation organizers Farmers and animal producers Farming and forestry specialists Finance and accounting staff with knowledge of foreign languages Finance professionals Economists | Electrical mechanics and electrical assemblers Hairdressers Motor vehicle mechanics and repairers Nurses and midwives Tailors and clothing manufacturers Finishing work technologists in building trades Florists Food and nutrition technology specialists Food processing workers Foreign language teachers Forest workers Funeral service workers Gardeners i orchardists Glaziers and window fitters Graphic and multimedia designers Handicraft workers in leather and related materials Handicraft workers in wood and joiners Household helps Human resources management and recruitment specialists Independent accountants Insurance agents Internet sales staff IT technicians Journalists and editors Kitchen helpers Landscape architects Lawyers Librarians and related information professionals Logistics managers Machinery mechanics and repairers Management and business service managers Manual workers in production and simple works Mechanical engineering technicians Mechanical engineers Medical doctors Metal processing workers Metal working machine tool setters and operators OHS specialists Operators of medical equipment Opticians and prosthetics workers Other education specialists Paper manufacturing and processing machine operators Paramedical practitioners Passenger car drivers Pavers Pharmacists Photographers Physical protection services workers Physiotherapists and masseurs Plant and machine operators and assemblers Political scientists, historians, philosophers and culture experts Postal clerks Postmen and package deliverers Potters and glaziers PR, advertising, marketing and sales specialists Pre-school teachers | Toolmakers Truck and tractor drivers Welders Primary education teachers Printing trades workers Product and garment designers Production managers Production organisation professionals Psychologists and psychotherapists Public administration professionals Quality specialists Railway traffic operators Real estate professionals Receptionists and registrars Road construction workers Roofers and sheet metal workers in building trades Rubber and plastic machine operators Sales managers Sales representatives Salespeople and cashiers Secretaries and assistants Service managers Shoemakers Social institutions and culture managers Social work professionals caring for the elderly and disabled Social workers Sociologists and social/economic surveys professionals Special school teachers Speech therapists and audiophonologists Sport and recreation instructors Stonemasons Storekeepers Structural metal workers Surveyors and cartographers Teachers for practical vocational training Teachers of general subjects Teachers of vocational subjects Telecommunications specialists Textile machine operators Tinsmiths and laquerers Translators, interpreters and other linguists Travel agency employees and tour operators Uniformed services workers Upholsterers Varnishers Veterinarians Vindicator Waiters and bartenders Webmasters |

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WOJEWÓDZKI URZĄD PRACY
w WARSZAWIE



Wojewódzki Urząd Pracy
w Krakowie



Ministerstwo Rodziny,
Pracy i Polityki Społecznej

Regional/Province coordinator

National coordinator

Institution ordering the study

Occupational Barometer 2018

opolskie voivodeship

www.barometr Zawodow.pl

| SHORTAGE | BALANCE | SURPLUS |
|--|---|---|
| Bakers Bricklayers and plasterers Bus drivers Chefs Clearing and forwarding agents Construction installation assemblers Construction joiners and carpenters Construction workers Cooks Deliverer and suppliers Earthmoving plant operators and mechanics Electrical mechanics and electrical assemblers Electronics technology, automation and robotics specialists | Accounting and bookkeeping clerks Acoustics and sound engineers Administration and office clerks Agricultural and gardening machines operators Analysts, testers and ICT system operators Animal services workers Architects and urban planners Archivists and curators Artists, interior decorators and conservators Assistants in education Automotive diagnosis technicians Beauticians Biologists, biotechnologists, biochemists Butchers and fishmongers Car wash, laundry and ironing workers Caretakers, doorkeepers, janitors and custodians Cement and stone machine operators Chemical engineers and chemists Chemical products plant and machine operators Childminders Cleaners and room service Concreters and steel fixers Confectioners Construction engineers Construction managers Construction supervision inspectors Construction technicians Contact centre agents, survey and market research interviewers Crane, hoist and related plant operators Database designers and administrators, programmers Dental technicians Dentists Driving instructors Educators in educational and care institutions Electrical and energetic engineers Electronic assemblers Environmental engineering engineers Events, cultural activities and animation organizers Farming and forestry specialists Finance professionals Finishing work technologists in building trades | Economists Educational counsellors |
| Graphic and multimedia designers Hairdressers Handicraft workers in wood and joiners Independent accountants Kitchen helpers Medical doctors Metal processing workers Metal working machine tool setters and operators Motor vehicle mechanics and repairers Nurses and midwives Physical protection services workers Physiotherapists and masseurs PR, advertising, marketing and sales specialists Receptionists and registrars | Florists Food processing workers Foreign language teachers Forest workers Funeral service workers Gardeners i orchardists Glaziers and window fitters Handicraft workers in leather and related materials Household helps Human resources management and recruitment specialists Industrial ceramists Insurance agents Internet sales staff IT technicians Journalists and editors Landscape architects Lawyers Librarians and related information professionals Logistics managers Machinery mechanics and repairers Management and business service managers Managers in public/non-public institutions Manual workers in production and simple works Mechanical engineering technicians Mechanical engineers Meteorologists, geologists, geographers Miners and mining plant and machine operators OHS specialists Operators of medical equipment Opticians and prosthetics workers Other education specialists Paper manufacturing and processing machine operators Paramedical practitioners Passenger car drivers Pavers Pharmacists Photographers Plant and machine operators and assemblers Postal clerks Postmen and package deliverers Potters and glaziers | Farmers and animal producers Food and nutrition technology specialists |
| Rubber and plastic machine operators Sales representatives Social work professionals caring for the elderly and disabled Storekeepers Structural metal workers Tailors and clothing manufacturers Tinsmiths and laquerers Toolmakers Truck and tractor drivers Upholsters Waiters and bartenders Welders | Pre-school teachers Primary education teachers Printing trades workers Product and garment designers Production managers Production organisation professionals Psychologists and psychotherapists Public administration professionals Quality specialists Railway traffic operators Real estate professionals Road construction workers Roofers and sheet metal workers in building trades Sales managers Salespeople and cashiers Secretaries and assistants Service managers Shoemakers Social workers Sociologists and social/economic surveys professionals Special school teachers Speech therapists and audiophonologists Sport and recreation instructors Stonemasons Surveyors and cartographers Teachers for practical vocational training Teachers of general subjects Teachers of vocational subjects Telecommunications specialists Textile machine operators Translators , interpreters and other linguists Travel agency employees and tour operators Uniformed services workers Varnishers Veterinarians Vindicator Webmasters | Political scientists, historians, philosophers and culture experts |

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Regional/Province coordinator



National coordinator



Institution ordering the study

Occupational Barometer 2018

podkarpackie voivodeship

www.barometrzasowowow.pl

SHORTAGE

Automotive diagnosis technicians
Bakers
Bricklayers and plasterers
Bus drivers
Chefs
Concreters and steel fixers
Construction engineers
Construction installation assemblers
Construction joiners and carpenters
Cooks

Earthmoving plant operators and mechanics
Electrical mechanics and electrical assemblers
Hairdressers
Handicraft workers in wood and joiners
Independent accountants
Mechanical engineers
Metal working machine tool setters and operators
Motor vehicle mechanics and repairers
Nurses and midwives
Pavers

Physiotherapists and masseurs
Roofers and sheet metal workers in building trades
Tailors and clothing manufacturers
Tinsmiths and laquerers
Toolmakers
Truck and tractor drivers
Waiters and bartenders
Welders

BALANCE

Accounting and bookkeeping clerks
Administration and office clerks
Agricultural and gardening machines operators
Analysts, testers and ICT system operators
Architects and urban planners
Archivists and curators
Artists, interior decorators and conservators
Assistants in education
Beauticians
Biologists, biotechnologists, biochemists
Butchers and fishmongers
Car wash, laundry and ironing workers
Caretakers, doorkeepers, janitors and custodians
Cement and stone machine operators
Chemical engineers and chemists
Chemical products plant and machine operators
Childminders
Cleaners and room service
Clearing and forwarding agents
Confectioners
Construction managers
Construction supervision inspectors
Construction technicians
Construction workers
Contact centre agents, survey and market research interviewers
Crane, hoist and related plant operators
Database designers and administrators, programmers
Deliverer and suppliers
Dental technicians
Dentists
Driving instructors
Educators in educational and care institutions
Electrical and energetic engineers
Electronic assemblers
Electronics technology, automation and robotics specialists
Events, cultural activities and animation organizers
Finance professionals

Finishing work technologists in building trades
Florists
Food processing workers
Foreign language teachers
Forest workers
Funeral service workers
Gardeners i orchardists
Glaziers and window fitters
Graphic and multimedia designers
Human resources management and recruitment specialists
Insurance agents
Internet sales staff
IT technicians
Journalists and editors
Kitchen helpers
Landscape architects
Librarians and related information professionals
Logistics managers
Machinery mechanics and repairers
Management and business service managers
Manual workers in production and simple works
Mechanical engineering technicians
Medical doctors
Metal processing workers
Meteorologists, geologists, geographers
OHS specialists
Operators of medical equipment
Opticians and prosthetics workers
Other education specialists
Paper manufacturing and processing machine operators
Paramedical practitioners
Passenger car drivers
Pharmacists
Photographers
Physical protection services workers
Plant and machine operators and assemblers
Postal clerks
Postmen and package deliverers

Potters and glaziers
PR, advertising, marketing and sales specialists
Pre-school teachers
Primary education teachers
Printing trades workers
Product and garment designers
Production managers
Production organisation professionals
Psychologists and psychotherapists
Quality specialists
Real estate professionals
Receptionists and registrars
Road construction workers
Rubber and plastic machine operators
Sales managers
Sales representatives
Salespeople and cashiers
Secretaries and assistants
Service managers
Shoemakers
Social work professionals caring for the elderly and disabled
Social workers
Special school teachers
Speech therapists and audiophonologists
Sport and recreation instructors
Stonemasons
Storekeepers
Structural metal workers
Surveyors and cartographers
Teachers for practical vocational training
Teachers of vocational subjects
Telecommunications specialists
Uniformed services workers
Upholsterers
Varnishers
Veterinarians
Webmasters

SURPLUS

Economists
Educational counsellors
Environmental engineering engineers
Farmers and animal producers
Farming and forestry specialists

Food and nutrition technology specialists
Lawyers
Political scientists, historians, philosophers and culture experts
Public administration professionals

Sociologists and social/economic surveys professionals
Teachers of general subjects
Translators, interpreters and other linguists
Travel agency employees and tour operators

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Regional/Province coordinator



National coordinator



Institution ordering the study

Occupational Barometer 2018

podlaskie voivodeship

www.barometrzasowodow.pl

| SHORTAGE | BALANCE | SURPLUS |
|--|---|--|
| Automotive diagnosis technicians Bakers Chefs Confectioners Construction installation assemblers Construction joiners and carpenters Cooks | Accounting and bookkeeping clerks Administration and office clerks Agricultural and gardening machines operators Analysts, testers and ICT system operators Animal services workers Architects and urban planners Archivists and curators Artists, interior decorators and conservators Assistants in education Beauticians Biologists, biotechnologists, biochemists Bricklayers and plasterers Bus drivers Butchers and fishmongers Car wash, laundry and ironing workers Caretakers, doorkeepers, janitors and custodians Cement and stone machine operators Chemical engineers and chemists Chemical products plant and machine operators Childminders Cleaners and room service Clearing and forwarding agents Concreters and steel fixers Construction engineers Construction managers Construction supervision inspectors Construction technicians Construction workers Contact centre agents, survey and market research interviewers Crane, hoist and related plant operators Deliverer and suppliers Dental technicians Dentists Driving instructors Educators in educational and care institutions Electrical and energetic engineers Electronic assemblers Electronics technology, automation and robotics specialists Environmental engineering engineers Events, cultural activities and animation organizers Farming and forestry specialists Finance professionals | Economists Educational counsellors Farmers and animal producers |
| Database designers and administrators, programmers Earthmoving plant operators and mechanics Electrical mechanics and electrical assemblers Hairdressers Handicraft workers in wood and joiners Independent accountants Metal working machine tool setters and operators | Finishing work technologists in building trades Florists Food processing workers Foreign language teachers Forest workers Funeral service workers Gardeners i orchardists Glaziers and window fitters Graphic and multimedia designers Household helps Human resources management and recruitment specialists Insurance agents Internet sales staff IT technicians Journalists and editors Kitchen helpers Landscape architects Lawyers Librarians and related information professionals Logistics managers Machinery mechanics and repairers Management and business service managers Manual workers in production and simple works Mechanical engineers Medical doctors Metal processing workers Miners and mining plant and machine operators Motor vehicle mechanics and repairers OHS specialists Operators of medical equipment Opticians and prosthetics workers Other education specialists Paper manufacturing and processing machine operators Paramedical practitioners Passenger car drivers Pavers Pharmacists Photographers Physical protection services workers Physiotherapists and masseurs Plant and machine operators and assemblers Political scientists, historians, philosophers and culture experts | Food and nutrition technology specialists Mechanical engineering technicians Public administration professionals |
| Nurses and midwives Storekeepers Tailors and clothing manufacturers Toolmakers Truck and tractor drivers Welders | Postal clerks Postmen and package deliverers PR, advertising, marketing and sales specialists Pre-school teachers Primary education teachers Printing trades workers Production managers Production organisation professionals Psychologists and psychotherapists Quality specialists Real estate professionals Receptionists and registrars Road construction workers Roofers and sheet metal workers in building trades Rubber and plastic machine operators Sales managers Sales representatives Salespeople and cashiers Secretaries and assistants Service managers Shoemakers Social institutions and culture managers Social work professionals caring for the elderly and disabled Social workers Sociologists and social/economic surveys professionals Special school teachers Speech therapists and audiophonologists Sport and recreation instructors Stonemasons Structural metal workers Surveyors and cartographers Teachers for practical vocational training Teachers of vocational subjects Telecommunications specialists Tinsmiths and laquerers Translators, interpreters and other linguists Travel agency employees and tour operators Uniformed services workers Upholsters Varnishers Veterinarians Waiters and bartenders Webmasters | Teachers of general subjects Textile machine operators |

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Wojewódzki Urząd Pracy
w Białymstoku

INSTYTUCJA
WOJEWÓDZKIEGO
NAJOPOLSKIEGO



Wojewódzki Urząd Pracy
w Krakowie



Ministerstwo Rodziny,
Pracy i Polityki Społecznej

Regional/Province coordinator

National coordinator

Institution ordering the study

Occupational Barometer 2018

pomorskie voivodeship

www.barometrzaszawodow.pl

SHORTAGE

Accounting and bookkeeping clerks
Bakers
Beauticians
Bricklayers and plasterers
Bus drivers
Butchers and fishmongers
Chefs
Cleaners and room service
Clearing and forwarding agents
Concreters and steel fixers
Confectioners
Construction engineers
Construction installation assemblers
Construction joiners and carpenters
Construction workers
Cooks
Deliverer and suppliers
Earthmoving plant operators and mechanics

Electrical mechanics and electrical assemblers
Finance and accounting staff with knowledge of foreign languages
Finishing work technologists in building trades
Foreign language teachers
Hairdressers
Handicraft workers in wood and joiners
Independent accountants
Kitchen helpers
Manual workers in production and simple works
Medical doctors
Metal working machine tool setters and operators
Motor vehicle mechanics and repairers
Nurses and midwives
Pavers
Physical protection services workers
Physiotherapists and masseurs
Postmen and package deliverers

PR, advertising, marketing and sales specialists
Pre-school teachers
Receptionists and registrars
Roofers and sheet metal workers in building trades
Sales representatives
Salespeople and pos operators
Social work professionals caring for the elderly and disabled
Storekeepers
Tailors and clothing manufacturers
Teachers of vocational subjects
Tinsmiths and laquerers
Toolmakers
Truck and tractor drivers
Upholsterers
Varnishers
Waiters and bartenders
Welders

BALANCE

Acoustics and sound engineers
Administration and office clerks
Agricultural and gardening machines operators
Analysts, testers and ICT system operators
Animal services workers
Architects and urban planners
Archivists and curators
Artists, interior decorators and conservators
Assistants in education
Automotive diagnosis technicians
Biologists, biotechnologists, biochemists
Car wash, laundry and ironing workers
Caretakers, doorkeepers, janitors and custodians
Cement and stone machine operators
Chemical engineers and chemists
Chemical products plant and machine operators
Childminders
Construction managers
Construction supervision inspectors
Construction technicians
Contact centre agents, survey and market research interviewers
Crane, hoist and related plant operators
Database designers and administrators, programmers
Dental technicians
Dentists
Driving instructors
Educators in educational and care institutions
Electrical and energetic engineers
Electronic assemblers
Electronics technology, automation and robotics specialists
Environmental engineering engineers
Events, cultural activities and animation organizers
Farming and forestry specialists
Finance professionals
Fishermen

Florists
Food processing workers
Forest workers
Funeral service workers
Gardeners i orchardists
Glaziers and window fitters
Graphic and multimedia designers
Handicraft workers in leather and related materials
Household helps
Human resources management and recruitment specialists
Industrial ceramists
Insurance agents
Internet sales staff
IT technicians
Journalists and editors
Landscape architects
Lawyers
Librarians and related information professionals
Logistics managers
Machinery mechanics and repairers
Management and business service managers
Mechanical engineering technicians
Mechanical engineers
Metal processing workers
Meteorologists, geologists, geographers
OHS specialists
Operators of medical equipment
Opticians and prosthetics workers
Other education specialists
Paper manufacturing and processing machine operators
Paramedical practitioners
Passenger car drivers
Pharmacists
Photographers
Plant and machine operators and assemblers
Postal clerks

Potters and glaziers
Primary education teachers
Printing trades workers
Product and garment designers
Production managers
Production organisation professionals
Psychologists and psychotherapists
Public administration professionals
Quality specialists
Railway traffic operators
Real estate professionals
Road construction workers
Rubber and plastic machine operators
Sales managers
Secretaries and assistants
Service managers
Shipdeck crew, ship and port operators
Shoemakers
Social institutions and culture managers
Social workers
Sociologists and social/economic surveys professionals
Special school teachers
Speech therapists and audiophonologists
Sport and recreation instructors
Stonemasons
Structural metal workers
Surveyors and cartographers
Teachers for practical vocational training
Teachers of general subjects
Telecommunications specialists
Textile machine operators
Translators, interpreters and other linguists
Uniformed services workers
Veterinarians
Vindicators
Webmasters

SURPLUS

Economists
Educational counsellors
Farmers and animal producers

Food and nutrition technology specialists
Political scientists, historians, philosophers and culture experts

Travel agency employees and tour operators

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WOJEWÓDZKI URZĄD PRACY W GDAŃSKU
Partner w rozwoju. WUP Pomorze



Wojewódzki Urząd Pracy
w Krakowie



Ministerstwo Rodziny,
Pracy i Polityki Społecznej

Regional/Province coordinator

National coordinator

Institution ordering the study

Occupational Barometer 2018

śląskie voivodeship

www.barometrzasowodow.pl

SHORTAGE

Bakers
 Beauticians
 Bricklayers and plasterers
 Bus drivers
 Butchers and fishmongers
 Chefs
 Concreters and steel fixers
 Confectioners
 Construction installation assemblers
 Construction joiners and carpenters
 Construction managers
 Construction workers
 Contact centre agents, survey and market research interviewers
 Cooks

Database designers and administrators, programmers
 Earthmoving plant operators and mechanics
 Electrical mechanics and electrical assemblers
 Finishing work technologists in building trades
 Hairdressers
 Handicraft workers in wood and joiners
 Independent accountants
 Kitchen helpers
 Manual workers in production and simple works
 Medical doctors
 Metal working machine tool setters and operators
 Motor vehicle mechanics and repairers
 Nurses and midwives
 Pavers
 Roofers and sheet metal workers in building trades

Salespeople and cashiers
 Social work professionals caring for the elderly and disabled
 Storekeepers
 Tailors and clothing manufacturers
 Teachers for practical vocational training
 Tinsmiths and laquerers
 Toolmakers
 Trade representatives
 Truck and tractor drivers
 Waiters and bartenders
 Welders

BALANCE

Accounting and bookkeeping clerks
 Acoustics and sound engineers
 Administration and office clerks
 Agricultural and gardening machines operators
 Analysts, testers and ICT system operators
 Animal services workers
 Architects and urban planners
 Archivists and curators
 Artists, interior decorators and conservators
 Assistants in education
 Automotive diagnosis technicians
 Biologists, biotechnologists, biochemists
 Car wash, laundry and ironing workers
 Caretakers, doorkeepers, janitors and custodians
 Chemical engineers and chemists
 Chemical products plant and machine operators
 Childminders
 Cleaners and room service
 Clearing and forwarding agents
 Construction engineers
 Construction supervision inspectors
 Construction technicians
 Crane, hoist and related plant operators
 Deliverer and suppliers
 Dental technicians
 Dentists
 Driving instructors
 Economists
 Educational counsellors
 Educators in educational and care institutions
 Electrical and energetic engineers
 Electronic assemblers
 Electronics technology, automation and robotics specialists
 Environmental engineering engineers
 Events, cultural activities and animation organizers
 Farmers and animal producers
 Finance professionals
 Florists
 Food and nutrition technology specialists

Food processing workers
 Foreign language teachers
 Forest workers
 Funeral service workers
 Gardeners i orchardists
 Glaziers and window fitters
 Graphic and multimedia designers
 Handicraft workers in leather and related materials
 Household helps
 Human resources management and recruitment specialists
 Insurance agents
 Internet sales staff
 IT technicians
 Journalists and editors
 Landscape architects
 Lawyers
 Librarians and related information professionals
 Logistics managers
 Machinery mechanics and repairers
 Management and business service managers
 Mechanical engineering technicians
 Mechanical engineers
 Metal processing workers
 Meteorologists, geologists, geographers
 Miners and mining plant and machine operators
 OHS specialists
 Operators of medical equipment
 Opticians and prosthetics workers
 Other education specialists
 Paper manufacturing and processing machine operators
 Paramedical practitioners
 Passenger car drivers
 Pharmacists
 Photographers
 Physical protection services workers
 Physiotherapists and masseurs
 Plant and machine operators and assemblers
 Postal clerks
 Postmen and package deliverers

Potters and glaziers
 PR, advertising, marketing and sales specialists
 Pre-school teachers
 Primary education teachers
 Printing trades workers
 Product and garment designers
 Production managers
 Production organisation professionals
 Psychologists and psychotherapists
 Public administration professionals
 Quality specialists
 Railway traffic operators
 Real estate professionals
 Receptionists and registrars
 Road construction workers
 Rubber and plastic machine operators
 Sales managers
 Secretaries and assistants
 Service managers
 Shoemakers
 Social institutions and culture managers
 Social workers
 Sociologists and social/economic surveys professionals
 Special school teachers
 Speech therapists and audiophonologists
 Sport and recreation instructors
 Stonemasons
 Structural metal workers
 Surveyors and cartographers
 Teachers of vocational subjects
 Telecommunications specialists
 Translators, interpreters and other linguists
 Travel agency employees and tour operators
 Uniformed services workers
 Upholsters
 Varnishers
 Veterinarians
 Vindicators
 Webmasters

SURPLUS

Political scientists, historians, philosophers and culture Teachers of general subjects

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Regional/Province coordinator



National coordinator



Institution ordering the study

Occupational Barometer 2018

świętokrzyskie voivodeship

www.barometrzaswobodow.pl

| SHORTAGE | BALANCE | SURPLUS |
|--|--|--|
| Bakers Bricklayers and plasterers Bus drivers Concreters and steel fixers Construction installation assemblers Construction joiners and carpenters Construction workers Cooks | Accounting and bookkeeping clerks Agricultural and gardening machines operators Analysts, testers and ICT system operators Animal services workers Architects and urban planners Archivists and curators Artists, interior decorators and conservators Assistants in education Automotive diagnosis technicians Beauticians Biologists, biotechnologists, biochemists Butchers and fishmongers Car wash, laundry and ironing workers Caretakers, doorkeepers, janitors and custodians Cement and stone machine operators Chefs Chemical engineers and chemists Chemical products plant and machine operators Childminders Cleaners and room service Clearing and forwarding agents Confectioners Construction engineers Construction managers Construction supervision inspectors Construction technicians Contact centre agents, survey and market research interviewers Crane, hoist and related plant operators Database designers and administrators, programmers Deliverer and suppliers Dental technicians Dentists Driving instructors Educators in educational and care institutions Electrical and energetic engineers Electronic assemblers Electronics technology, automation and robotics specialists Environmental engineering engineers Events, cultural activities and animation organizers Farmers and animal producers Farming and forestry specialists | Earthmoving plant operators and mechanics Electrical mechanics and electrical assemblers Hairdressers Handicraft workers in wood and joiners Independent accountants Medical doctors Metal working machine tool setters and operators Motor vehicle mechanics and repairers |
| Nurses and midwives Pavers Roofers and sheet metal workers in building trades Tailors and clothing manufacturers Tinsmiths and laquerers Toolmakers Truck and tractor drivers Welders | Finance professionals Finishing work technologists in building trades Florists Food processing workers Foreign language teachers Forest workers Funeral service workers Gardeners i orchardists Glaziers and window fitters Graphic and multimedia designers Handicraft workers in leather and related materials Human resources management and recruitment specialists Insurance agents Internet sales staff Journalists and editors Kitchen helpers Landscape architects Lawyers Librarians and related information professionals Logistics managers Machinery mechanics and repairers Management and business service managers Manual workers in production and simple works Mechanical engineers Metal processing workers Meteorologists, geologists, geographers Miners and mining plant and machine operators Operators of medical equipment Opticians and prosthetics workers Other education specialists Paper manufacturing and processing machine operators Paramedical practitioners Passenger car drivers Pharmacists Photographers Physical protection services workers Physiotherapists and masseurs Plant and machine operators and assemblers Postal clerks Postmen and package deliverers Potters and glaziers PR, advertising, marketing and sales specialists | Pre-school teachers Primary education teachers Printing trades workers Product and garment designers Production managers Production organisation professionals Psychologists and psychotherapists Quality specialists Railway traffic operators Real estate professionals Receptionists and registrars Road construction workers Rubber and plastic machine operators Sales managers Sales representatives Salespeople and cashiers Secretaries and assistants Service managers Shoemakers Social institutions and culture managers Social work professionals caring for the elderly and disabled Social workers Sociologists and social/economic surveys professionals Special school teachers Speech therapists and audiophonologists Sport and recreation instructors Stonemasons Storekeepers Structural metal workers Surveyors and cartographers Teachers for practical vocational training Teachers of vocational subjects Telecommunications specialists Translators, interpreters and other linguists Uniformed services workers Upholsterers Varnishers Veterinarians Waiters and bartenders Webmasters |
| Administration and office clerks Economists Educational counsellors Food and nutrition technology professionals IT technicians | Mechanical engineering technicians OHS specialists Political scientists, historians, philosophers and culture experts | Public administration professionals Teachers of general subjects Travel consultants and clerks |

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Wojewódzki
Urząd Pracy
w Kielcach

Regional/Province coordinator



Wojewódzki Urząd Pracy
w Krakowie

National coordinator



Ministerstwo Rodziny,
Pracy i Polityki Społecznej

Institution ordering the study

Occupational Barometer 2018

warmińsko-mazurskie voivodeship

www.barometrzasowodow.pl

| SHORTAGE | BALANCE | SURPLUS |
|---|--|---|
| <ul style="list-style-type: none"> Bakers Bricklayers and plasterers Bus drivers Chefs Concreters and steel fixers Construction installation assemblers Construction joiners and carpenters Construction workers Cooks | <ul style="list-style-type: none"> Accounting and bookkeeping clerks Administration and office clerks Agricultural and gardening machines operators Analysts, testers and ICT system operators Animal services workers Architects and urban planners Archivists and curators Artists, interior decorators and conservators Assistants in education Automotive diagnosis technicians Beauticians Biologists, biotechnologists, biochemists Butchers and fishmongers Car wash, laundry and ironing workers Caretakers, doorkeepers, janitors and custodians Cement and stone machine operators Chemical engineers and chemists Chemical products plant and machine operators Childminders Cleaners and room service Clearing and forwarding agents Confectioners Construction engineers Construction managers Construction supervision inspectors Construction technicians Contact centre agents, survey and market research interviewers Crane, hoist and related plant operators Database designers and administrators, programmers Deliverer and suppliers Dental technicians Dentists Driving instructors Educational counsellors Educators in educational and care institutions Electrical and energetic engineers Electronic assemblers Electronics technology, automation and robotics specialists Environmental engineering engineers Events, cultural activities and animation organizers Farmers and animal producers Farming and forestry specialists Finance professionals Fishermen Economists | <ul style="list-style-type: none"> Earthmoving plant operators and mechanics Electrical mechanics and electrical assemblers Finishing work technologists in building trades Hairdressers Independent accountants Machinery mechanics and repairers Metal working machine tool setters and operators Motor vehicle mechanics and repairers Nurses and midwives Florists Food and nutrition technology specialists Food processing workers Foreign language teachers Forest workers Funeral service workers Gardeners i orchardists Glaziers and window fitters Gardens i orchardists Graphic and multimedia designers Handicraft workers in wood and joiners Household helps Human resources management and recruitment specialists Industrial ceramists Insurance agents Internet sales staff IT technicians Journalists and editors Kitchen helpers Landscape architects Lawyers Librarians and related information professionals Logistics managers Management and business service managers Manual workers in production and simple works Mechanical engineering technicians Mechanical engineers Medical doctors Metal processing workers OHS specialists Operators of medical equipment Opticians and prosthetics workers Other education specialists Paper manufacturing and processing machine operators Paramedical practitioners Passenger car drivers Pavers Pharmacists Photographers Physical protection services workers Physiotherapists and masseurs Plant and machine operators and assemblers Political scientists, historians, philosophers and culture experts Postal clerks Postmen and package deliverers Roofers and sheet metal workers in building trades Storekeepers Tailors and clothing manufacturers Toolmakers Truck and tractor drivers Upholsterers Welders Potters and glaziers PR, advertising, marketing and sales specialists Pre-school teachers Primary education teachers Printing trades workers Product and garment designers Production managers Production organisation professionals Psychologists and psychotherapists Public administration professionals Quality specialists Railway traffic operators Real estate professionals Receptionists and registrars Road construction workers Rubber and plastic machine operators Sales managers Sales representatives Salespeople and cashiers Secretaries and assistants Service managers Social institutions and culture managers Social work professionals caring for the elderly and disabled Social workers Sociologists and social/economic surveys professionals Special school teachers Speech therapists and audiophonologists Sport and recreation instructors Stonemasons Structural metal workers Surveyors and cartographers Teachers for practical vocational training Teachers of general subjects Teachers of vocational subjects Telecommunications specialists Tinsmiths and laquerers Translators, interpreters and other linguists Travel agency employees and tour operators Uniformed services workers Varnishers Veterinarians Vindicators Waiters and bartenders Webmasters |

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Regional/Province coordinator



National coordinator



Ministerstwo Rodziny, Pracy i Polityki Społecznej

Institution ordering the study

Occupational Barometer 2018

wielkopolskie voivodeship

www.barometrzwodow.pl

SHORTAGE

Accounting and bookkeeping clerks
Bakers
Beauticians
Bricklayers and plasterers
Bus drivers
Butchers and fishmongers
Chefs
Clearing and forwarding agents
Concreters and steel fixers
Confectioners
Construction installation assemblers
Construction joiners and carpenters
Construction workers
Cooks
Database developers and administrators, programmers
Earthmoving plant operators and mechanics

Electrical mechanics and electrical assemblers
Electronics technology, automation and robotics specialists
Finishing work technologists in building trades
Foreign language teachers
Graphic and multimedia designers
Hairdressers
Handicraft workers in wood and joiners
Independent accountants
Kitchen helpers
Manual workers in production and simple works
Medical doctors
Metal working machine tool setters and operators
Motor vehicle mechanics and repairers
Nurses and midwives
Pavers

Roofers and sheet metal workers in building trades
Salespeople and cashiers
Social work professionals caring for the elderly and disabled
Storekeepers
Structural metal workers
Tailors and clothing manufacturers
Teachers of vocational subjects
Toolmakers
Truck and tractor drivers
Upholsterers
Waiters and bartenders
Welders

BALANCE

Administration and office clerks
Agricultural and gardening machines operators
Analysts, testers and ICT system operators
Animal services workers
Architects and urban planners
Archivists and curators
Artists, interior decorators and conservators
Assistants in education
Automotive diagnosis technicians
Biologists, biotechnologists, biochemists
Car wash, laundry and ironing workers
Caretakers, doorkeepers, janitors and custodians
Chemical engineers and chemists
Childminders
Cleaners and room service
Construction engineers
Construction managers
Construction supervision inspectors
Construction technicians
Contact centre agents, survey and market research interviewers
Crane, hoist and related plant operators
Deliverer and suppliers
Dental technicians
Dentists
Driving instructors
Educational counsellors
Educators in educational and care institutions
Electrical and energetic engineers
Electronic assemblers
Environmental engineering engineers
Events, cultural activities and animation organizers
Farmers and animal producers
Farming and forestry specialists
Finance professionals
Florists

Food processing workers
Forest workers
Funeral service workers
Gardeners i orchardists
Glaziers and window fitters
Human resources management and recruitment specialists
Insurance agents
Internet sales staff
IT technicians
Journalists and editors
Landscape architects
Lawyers
Librarians and related information professionals
Logistics managers
Machinery mechanics and repairers
Management and business service managers
Mechanical engineering technicians
Mechanical engineers
Metal processing workers
OHS specialists
Operators of medical equipment
Opticians and prosthetics workers
Other education specialists
Paper manufacturing and processing machine operators
Paramedical practitioners
Passenger car drivers
Pharmacists
Photographers
Physical protection services workers
Physiotherapists and masseurs
Plant and machine operators and assemblers
Postal clerks
Postmen and package deliverers
Potters and glaziers
PR, advertising, marketing and sales specialists

Pre-school teachers
Primary education teachers
Printing trades workers
Product and garment designers
Production managers
Production organisation professionals
Psychologists and psychotherapists
Public administration professionals
Quality specialists
Real estate professionals
Receptionists
Road construction workers
Rubber and plastic machine operators
Sales managers
Sales representatives
Secretaries and assistants
Service managers
Shoemakers
Social institutions and culture managers
Social workers
Sociologists and social/economic surveys professionals
Special school teachers
Speech therapists and audiophonologists
Sport and recreation instructors
Stonemasons
Surveyors and cartographers
Teachers for practical vocational training
Teachers of general subjects
Telecommunications specialists
Tinsmiths and laquerers
Translators, interpreters and other linguists
Uniformed services workers
Varnishers
Veterinarians
Webmasters

SURPLUS

Economists
Food and nutrition technology specialists

Political scientists, historians, philosophers and culture experts
Travel agency employees and tour operators

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Regional/Province coordinator



National coordinator



Institution ordering the study

Occupational Barometer 2018

zachodniopomorskie voivodeship

www.barometrzwodow.pl

| SHORTAGE | BALANCE | SURPLUS |
|---|---|---|
| Accounting and bookkeeping clerks Bakers Bricklayers and plasterers Bus drivers Butchers and fishmongers Concreters and steel fixers Confectioners Construction installation assemblers Construction joiners and carpenters Construction workers Cooks Earthmoving plant operators and mechanics | Agricultural and gardening machines operators Analysts, testers and ICT system operators Animal services workers Architects and urban planners Archivists and curators Artists, interior decorators and conservators Assistants in education Automotive diagnosis technicians Beauticians Biologists, biotechnologists, biochemists Car wash, laundry and ironing workers Caretakers, doorkeepers, janitors and custodians Cement and stone machine operators Chefs Chemical engineers and chemists Chemical products plant and machine operators Childminders Cleaners and room service Clearing and forwarding agents Construction engineers Construction managers Construction supervision inspectors Construction technicians Contact centre agents, survey and market research interviewers Crane, hoist and related plant operators Database developers and administrators, programmers Deliverer and suppliers Dental technicians Dentists Driving instructors Educators in educational and care institutions Electrical and energetic engineers Electronic assemblers Electronics technology, automation and robotics specialists Environmental engineering engineers Events, cultural activities and animation organizers Farmers and animal producers Farming and forestry specialists Finance and accounting staff with knowledge of foreign languages | Electrical mechanics and electrical assemblers Finishing work technologists in building trades Hairdressers Handicraft workers in wood and joiners Independent accountants Kitchen helpers Metal working machine tool setters and operators Motor vehicle mechanics and repairers Nurses and midwives Pavers Physical protection services workers Psychologists and psychotherapists |
| | Finance professionals Fishermen Florists Food processing workers Foreign language teachers Forest workers Funeral service workers Gardeners i orchardists Glaziers and window fitters Graphic and multimedia designers Household helps Human resources management and recruitment specialists Insurance agents Internet sales staff IT technicians Journalists and editors Landscape architects Lawyers Librarians and related information professionals Logistics managers Machinery mechanics and repairers Management and business service managers Manual workers in production and simple works Mechanical engineering technicians Mechanical engineers Medical doctors Metal processing workers Meteorologists, geologists, geographers Miners and mining plant and machine operators OHS specialists Operators of medical equipment Opticians and prosthetics workers Other education specialists Paper manufacturing and processing machine operators Paramedical practitioners Passenger car drivers Pharmacists Photographers Physiotherapists and masseurs Plant and machine operators and assemblers Postal clerks | Receptionists and registrars Roofers and sheet metal workers in building trades Social work professionals caring for the elderly and disabled Social workers Storekeepers Tailors and clothing manufacturers Toolmakers Truck and tractor drivers Waiters and bartenders Welders |
| | Postmen and package deliverers Potters and glaziers PR, advertising, marketing and sales specialists Pre-school teachers Primary education teachers Printing trades workers Product and garment designers Production managers Production organisation professionals Public administration professionals Quality specialists Railway traffic operators Real estate professionals Road construction workers Rubber and plastic machine operators Sales managers Sales representatives Salespeople and cashiers Secretaries and assistants Service managers Shipdeck crew, ship and port operators Shoemakers Social institutions and culture managers Special school teachers Speech therapists and audiophonologists Sport and recreation instructors Stonemasons Structural metal workers Surveyors and cartographers Teachers for practical vocational training Teachers of general subjects Teachers of vocational subjects Telecommunications specialists Tinsmiths and laquers Translators, interpreters and other linguists Uniformed services workers Upholsters Varnishers Veterinarians Vindicators Webmasters | Food and nutrition technology specialists Political scientists, historians, philosophers and culture experts Sociologists and social/economic surveys professionals |
| | | Travel agency employees and tour operators |

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Regional/Province coordinator



National coordinator



Ministerstwo Rodziny, Pracy i Polityki Społecznej

Institution ordering the study

IV. Appendix

Classification of occupations to be covered by Occupational Barometer 2018 survey.

| No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 | No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 |
|-----|--|---|-----|--|---|
| 1 | sales representatives | 332203 sales representative 332290 other sales representatives 524906 medical sales professional 5243 door to door salespersons | 11 | environmental engineers | 2143 environmental engineers |
| 2 | sales managers | 1420 retail and wholesale trade managers 5222 shop supervisors 122106 regional sales manager 122102 sales manager | 12 | mechanical engineers | 2144 mechanical engineers 214904 avionics engineers |
| 3 | salespersons and cashiers | 421103 bank teller 421104 foreign currency teller 421190 other bank tellers and related clerks 4213 pawnbrokers and money-lenders 421401 money collector 516903 hostess 5211 stall and market salespersons 5212 street food salespersons 522101 antique shop keeper 522102 kiosk shop keeper 5223 shop assistants 5230 cashiers and ticket clerks 5245 service station attendants 524902 account manager 524903 service assistant 524905 car service assistant 532901 pharmacy assistant 932903 cash counting clerk 9520 street vendors (excluding food with short shelf life) | 13 | chemical engineers and chemists | 2113 chemists 214501 chemical engineer 214502 chemical technology engineer 214590 other chemical engineers and related professionals 311101 chemical laboratory assistant 311102 tester 311603 chemical engineering technician ^s 311604 pharmaceutical engineering technician 311605 cosmetics technology technician 311606 anticorrosion protection technician 311690 other chemical technicians and related professionals |
| 4 | online salespersons | 524401 catalogue/Internet salesperson 524402 Internet sales support | 14 | meteorologists, geologists and geographers | 2112 meteorologists 2114 earth science professionals 311105 geophysics technician 311106 geology technician ^s 311107 hydrology technician 311108 meteorology technician |
| 5 | advertising, marketing and sales professionals | 242109 fundraiser 242228 sales organization and development professional 243101 cool hunter 243102 copywriter 243103 product manager 243104 brand manager 243106 marketing and trade professional 243107 advertising professional 243108 interactive media professional 243109 Internet sales professional 243190 other advertising and marketing professionals 2432 public relations professionals 2433 sales professionals, excluding information and communications technology 2434 Information and communications technology sales professionals 332201 merchandiser 333901 artistic manager 333903 trendsetter 333904 Internet advertising salesperson 333906 advertising organization technician ^s 351405 e-mail campaign support clerk | d | cartographers and surveyors | 2165 cartographers and surveyors 311104 surveying technician ^s 311801 surveying draughtsperson 311802 map draughtsperson |
| 6 | architects and town planners | 214907 spatial development engineer 214927 sound engineer 216101 architect 216190 other architects 216403 town planner | 16 | biologists, biotechnologists, biochemists | 213102 biochemist 213103 biophysicist 213104 bioengineer 213105 biologist 213106 biotechnologist 213107 geneticist 213108 microbiologist 213190 other biologists and related professionals 214905 biocybnetics and biomedical engineering engineer 2271 laboratory diagnosticians without specialization or during specialization 2272 laboratory diagnostics professionals 229901 epidemiologist 229902 clinical trial coordinator 229908 toxicologist 311103 analysis technician ^s 314101 microbiology laboratory assistant 314102 biochemical laboratory assistant 314190 other life science technicians 324001 veterinary laboratory technician 532903 medical preparator |
| 7 | landscape architects | 2162 landscape architect 314202 landscaping technician ^s | 17 | agricultural and forestry professionals | 2132 agricultural, forestry and related professionals 314103 plant growing laboratory technician 314201 seed production laboratory technician 3143 forestry technicians |
| 8 | construction engineers | 2142 construction engineers 214912 concrete technology engineer | 18 | food and nutrition engineering professionals | 214503 food technology engineer 2293 dieticians and nutrition professionals 3144 food technology technicians 3220 dieticians and nutritionists |
| 9 | construction manager | 132301 construction manager | 19 | medical doctors | 134207 hospital ward manager 2211 generalist medical practitioners (during specialization or with first degree specialization) 2212 medical specialists |
| 10 | construction supervision inspector | 242211 construction supervision inspector 311211 construction inspector 311212 road building inspector 311213 bridge building inspector | 20 | nursing and midwifery professionals | 134205 head nurse 134206 head midwifery professional 2221 nurse without specialization or during specialization 2222 professional nurses 2231 midwifery professional without specialization or during specialization 2232 midwifery professionals 325902 school nurse |
| | | | 21 | dentists | 2261 dentists (during specialization or with first degree specialization) 2262 dental specialists |

| No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 | No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 |
|-----|---|---|-----|---|--|
| 23 | pharmacists | 2281 pharmacists without specialization or during specialization 2282 professional pharmacists 229904 qualified person in the pharmaceutical industry 3213 pharmaceutical technicians | 32 | foreign language teachers | 234104 other language teacher at primary school 233008 other language teacher in junior high schools and high schools 2353 other language teachers |
| 24 | dental technics workers | 321402 dental technician ^s 3251 dental assistants 532902 dental chairside assistant 229914 specialist in dental technology | 33 | vocational education teachers | 232002 arts vocational teacher 232003 economic vocational teacher 232004 medical vocational teacher 232005 agricultural and forestry vocational teacher 232006 technical subjects vocational teacher 232007 tourist subjects vocational teacher 232090 other vocational education teachers |
| 25 | medical equipment operators | 229911 radiopharmacy specialist 229912 medical device engineering specialist 229913 radiographer 311409 medical electronics technician 311907 medical device repair technician 3211 medical device engineering operators 3212 medical and pathology laboratory technicians 532905 balneological treatment worker | 34 | instructor of practical vocational training | 232001 teacher / instructor of practical vocational training 235106 instructor teacher |
| 26 | paramedical practitioners | 2240 specialists for emergency medical services 3256 paramedical practitioners 532904 hospital porter 229914 physiotherapists | 35 | driving instructors | 235903 driving examiner 5165 driving instructors |
| 27 | physiotherapy technicians and assistants | 2292 physiotherapists 3254 physiotherapy technicians and assistants | 36 | early years teachers | 234113 early years teachers |
| 28 | opticians and medical prosthetic technicians design | 2295 optometrists 321401 audiology technician ^s 321403 prosthetic-orthotics technician ^s 3253 dispensing opticians 325906 orthoptist 731105 prosthetic-orthotics technician | 37 | early childhood educators | 234201 preschool educator 234202 preschool educator 531202 early years teaching assistant |
| 29 | speech therapists and audiologists | 229402 speech and language therapist 229403 neuro- speech therapist 229404 speech and language therapist for the hearing impaired 229490 other audiologist and speech therapists 229401 audiologist 235906 teacher speech therapist | 38 | special school teachers | 2352 special school teachers |
| 30 | psychologists and psychotherapists | 228905 psychotherapist 2634 psychologists and related workers 229906 addiction psychotherapist 229907 addiction therapist 229909 psychooncologist 229910 psychotraumatologist 263502 mediator 263507 court mediator 263510 specialist in social communication 325907 occupational therapist ^s 323013 art therapist 235908 teacher psychologist | 39 | tutors in educational and care establishments | 235914 educator in institutions educational, daily support, parenting and care, and foster care institutions 235916 community artist of free time of youth (youth worker) |
| 31 | generalist teachers | 233016 music teacher at junior high schools and high schools 233017art teacher at junior high schools and high schools 233018 entrepreneurship teacher at junior high schools and high schools 233019 defense training teacher at junior high schools and high schools 233020 religious education teacher at junior high schools and high schools 233021 technical teacher at junior high schools and high schools 233022 cultural knowledge teacher at junior high schools and high schools 233023 social studies teacher at junior high schools and high schools 233024 teacher of education for living in a family at junior high schools and high schools 233025 physical education teacher at junior high schools and high schools 233090 other physical education teacher at junior high schools and high schools (with the exception of vocational education teachers) 234101 ethics teacher at primary school 234102 history and society teacher at primary school 234103 IT teacher at primary school 234108 Polish language teacher at primary school 234111 maths teacher at primary school 234112 music teacher at primary school 234114 art teacher at primary school 234115 nature teacher at primary school 234116 religious education teacher at primary school 234117 technology teacher in elementary school 234118 physical education teacher at primary school 234190 teachers at primary schools | 40 | pedagogues | 235101 adult education specialist 235909 specialist teacher of pedagogical therapy 235911 events and cultural teacher 235912 education welfare officer 235919 special educational needs pedagogue 235921 pedagogue 235922 media teacher |
| | | | 41 | other education officers | 234290 other specialists for early childhood education 235102 evaluator of education programs 235103 distance education methodologies 235104 information and communication technology methodologies 235105 teacher methodological adviser 235109 education inspector 235190 others education inspectors and education methods specialists 2354 other music teachers 235503 other arts teachers 235590 other arts teachers 2356 information technology trainers 235901 multimedia didactic 235902 examiner on-line 235905 educational counsellor 235907 distance learning teacher 235910 other teachers 235913 specialist in education management 235915 lecturer at courses (educator, coach) 235917 répétiteur 235918 home teacher 235920 personal trainer (coach, mentor, tutor) 235990 other teaching and education specialists not classified elsewhere |

| No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 | No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 |
|-----|--|--|-----|--|--|
| 42 | assistants in education | 531201 assistant teacher of a foreign child 531203 roma education assistant 531204 school teaching assistant 531202 early years teaching assistant | | | 263501 probation officer 263503 psychosocial and family counselling specialist 263504 social services manager 263505 social rehabilitation specialist 263508 coordinator of family foster care 263509 adoption specialist 263590 other social specialists 3252 community health workers 325903 addiction therapy instructor 341205 social worker 341207 family support worker 341290 other social work associate professionals |
| 43 | philologist and translators, interpreters | 2643 philologist and translators, interpreters 441302 proofreader | 47 | social workers | 331401 statistical assistant 331404 data processing assistant 331490 Other statistical and related associate professionals 334306 administrative assistant ⁵ 334307 court reporter 334390 other administrative and executive secretaries 334402 medical administrative assistant 334490 other medical and related assistants 341103 case administrator 341190 other legal and related associate professionals 4110 general office clerks 4131 typists and word processing operators 4132 data entry clerks 431201 statistical assistants 431203 brokerage office employee 431290 other statistical, finance and insurance clerks 441301 coding clerks 4419 office service employees not classified elsewhere |
| 44 | social and cultural institutions managers | 134102 nursery school head teacher 134104 nursery / children's club manager 134105 child day care centre manager 134106 adoption centre manager 134107 residential home young people care director 134190 other managers / directors of childcare institutions 134201 head of the hospice 134202 organizational unit of the healing entity manager 134204 head of the medicinal entity 134290 other managers at health care facilities 1343 managers at the elderly care homes 1344 social welfare institutions managers 134501 head teacher 134503 school workshops manager 134590 other educational institutions managers 134901 correctional services manager 134902 juvenile correctional director 134907 archive manager 134908 library manager 134910 museum manager 143105 cultural centre manager 143116 theatre director 143118 philharmonic/ opera/ operetta /orchestra director 143119 director of the song and dance / choir team | 48 | administrative and clerical support workers | 121101 chief Accountant |
| 45 | civil service officers | 242209 fiscal control inspector 242210 inspector of banking supervision 242212 inspector of personal data protection 242213 sea fishing inspector 242214 health and safety inspector 242215 public administration controller 242217 civil service officer 242219 European integration specialist 242225 public procurement specialist 242226 healthcare consultant 242290 other administration and development specialists 325513 civil defence inspector 3351 customs and border inspectors 3352 government tax and excise officials 3353 government social benefits officials 3354 government licensing officials 341206 emergency response employee 242111 information security administrator (data protection inspector) 242229 inspector for trade in medicines | 49 | independent accountants | None in Classification of Specialisations and Occupations (KZIS) |
| 46 | secretaries and assistants | 3342 legal secretaries 334301 accredited parliamentary assistant 334302 management assistant 334303 parliamentary assistant 334304 executive assistant 334305 consular secretary 341102 notarial secretary 4120 secretaries (general) 516902 personal assistant (conciierge) 1212 human resource managers 1213 policy and planning managers 1219 business services and administration managers not classified elsewhere 122101 marketing manager 122103 manager of a company providing marketing and sales services 122104 internet marketing manager 122105 network marketing manager (multilevel) 1221 sales and marketing managers 1222 advertising and public relations managers 1223 research and development managers 242102 coordinator of EU projects 3341 office supervisors | 50 | financial and accounting employees with knowledge of foreign languages | 3311 securities and finance dealers and brokers 3312 credits and loans officers and related 331506 appraiser 331508 valuers and loss assessors 332401 commodity trader |
| | | | 51 | financial specialists | 241103 accounting clerk 241190 other accounting and bookkeeping clerks 3313 accountants 421106 financial settlement auditor 421107 bank treasurer 4311 accounting and bookkeeping employees 4313 payroll clerks |
| | | | 52 | accounting and bookkeeping clerks | 2631 economists 331403 economic technician ⁵ |
| | | | 53 | economists | 261909 insurance claims adviser 331502 loss adjuster 3321 insurance representatives 334401 medical insurance officer 431202 insurance clerk |
| | | | 54 | insurance representatives | 421403 debt collector 421490 debt collectors and related workers |
| | | | 55 | debt collectors | 112001 administrative director 112002 research and development director 112003 energy director 112004 chief information officer 112005 human resources manager 11206 finances director 112007 chief Executive Officer 112008 commercial director 112009 logistics manager 112010 chief marketing officer 112011 chief operating officer 112012 manufacturing director 112013 director of business development 112014 sales Director 112015 technical Director 112016 chief Executive 112019 trustee 112020 director for implementation and development of technologies 112090 other Chief Executives and Managing Directors 121102 head of the accounting office 121103 financial Manager 121190 other financial managers 1212 human resource managers 1213 policy and planning managers 1219 business services and administration managers not classified elsewhere 122101 marketing manager |
| | | | 56 | administration and business service managers | |

| No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 | No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 |
|-----|---|---|-----|---|--|
| 57 | production managersw | 1311 agricultural and forestry production managers 1312 production managers at aquaculture and fisheries plants 1321 industrial production managers 132201 head of the mining plant or plant operations department 132204 mining plant or plant manager 132290 other managers in mining 132302 manager of a small construction company 132390 other construction managers | 61 | lawers | 242216 patent attorney 2611 lawyers, legal advisors and prosecutors 2612 judges 261901 legal assistant 261902 prosecutor assistant 261903 court clerk 261904 court enforcement officer 261905 notary 261906 legislator 261907 counsellor of the State Treasury's General Prosecutor's Office 261908 legal clerk 261910 Intellectual property specialist 261990 other legal specialists not classified elsewhere |
| | | 1330 information and communications technology services managers 134101 manager of the entertainment centre for children 1346 managers in financial and insurance institutions 134903 security managers 134904 manager of the audit company 134905 head of the law office 134906 film / TV agency manager 134909 gallery manager 134990 other managers in specialized services institutions not classified elsewhere 1411 hotel managers 1412 gastronomy managers 143101 agency manager for sports services / tourist / cultural 143107 gambling manager 143108 cinema manager 143109 fitness club manager 143110 sport club manager 143112 manager of the amusement park / circus 143114 gym manager 143115 head of horse riding school 143117 dance school manager 143190 other sports, recreation and culture managers 143901 travel agency manager 143902 translation agency manager 143903 shopping centre manager 143904 conference centre manager 143905 manager of the call centre (call centre manager) 143906 debt collection manager 143907 manager of the cleaning company 143908 campsite manager 143990 other managers for other types of services not classified elsewhere 342203 sport discipline manager 342204 sports events manager | | | 62 |
| 58 | service managers | 1330 information and communications technology services managers 134101 manager of the entertainment centre for children 1346 managers in financial and insurance institutions 134903 security managers 134904 manager of the audit company 134905 head of the law office 134906 film / TV agency manager 134909 gallery manager 134990 other managers in specialized services institutions not classified elsewhere 1411 hotel managers 1412 gastronomy managers 143101 agency manager for sports services / tourist / cultural 143107 gambling manager 143108 cinema manager 143109 fitness club manager 143110 sport club manager 143112 manager of the amusement park / circus 143114 gym manager 143115 head of horse riding school 143117 dance school manager 143190 other sports, recreation and culture managers 143901 travel agency manager 143902 translation agency manager 143903 shopping centre manager 143904 conference centre manager 143905 manager of the call centre (call centre manager) 143906 debt collection manager 143907 manager of the cleaning company 143908 campsite manager 143990 other managers for other types of services not classified elsewhere 342203 sport discipline manager 342204 sports events manager | 63 | librarians and information science specialists | 262203 librarian 262204 information broker (researcher) of the librarian, 262206 information science specialists, technical, economic and librarians 262207 information specialist science 262208 document management specialist specialists 262290 other librarians and information management specialists 3433 employees of libraries, galleries, museums, scientific information and related ones 4411 librarian technicians |
| | | 64 | | | sociologists and specialists in socio-economic research |
| 59 | personnel and careers and recruitment professionals | 242106 specialist for organizational improvement 242190 other management and organizational specialists 2423 personnel and careers professionals 2424 training and staff development professionals 3333 employment agents and contractors 4415 employees of HR departments | 65 | philosophers, historians, political scientists and cultural experts | 242224 international relations officer 263201 archaeologist 263202 ethnographer 263203 culture expert 263205 anthropologist 263207 religion scientific researcher 263290 other archaeologists, sociologists and specialists related fields 2633 philosophers, historians and political scientists |
| | | 66 | | | artists, interior decorators and conservator of monuments |
| 60 | personnel and careers and recruitment professionals | 242106 specialist for organizational improvement 242190 other management and organizational specialists 2423 personnel and careers professionals 2424 training and staff development professionals 3333 employment agents and contractors 4415 employees of HR departments | 67 | journalists and editors | 262205 web content manager 264104 book editor 2642 journalists 265690 other radio, television and related presenters 265902 blogger/ vlogger |
| | | 68 | | | product designers |
| | | | 69 | photographers | 3431 photographers |
| | | | 70 | travel agencies and tour operators employees | 242113 employees of gastronomic, hotel and tourist services |

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|-----|--|---|-----|---|---|
| 71 | receptionists and registrars | 422401 hotel receptionist 4226 receptionists (excluding hotel) 4221 consultants and other employees of travel agencies 422402 hospitality technician 4225 inquiry clerks 5113 travel guides | | | |
| 72 | call centre employees, survey and market research interviewers | 332202 electronic customer service centre information clerk 333905 mystery shopper 421102 telecommunications services assistant 4222 call centre employees 4223 telephone switchboard operators 4227 survey and market research interviewers 432301 taxi controller 524403 call centre agent 524404 telemarketer 524490 other call centre/online consultants | 82 | civil engineering technicians | 311201 building cost estimator 311202 building technician 311203 architect 311204 civil engineering technician ^s 311205 water engineering technicians ^s 311208 environmental engineering and drainage technician ^s 311209 sanitary technician ^s 311210 renovation of architectural elements technician ^s 311218 environmental health technician ^s 311290 other civil engineering technicians 311913 gas technician ^s 311923 building materials technology technician 311930 equipment and renewable energy systems technician ^s 312304 construction general supervisor 312305 industrial construction supervisors 312306 water conservation technician supervisor 312390 other construction supervisors |
| 73 | chefs | 3434 chefs and organizers of catering services | | | |
| 74 | cooks | 5120 cooks | | | |
| 75 | kitchen helpers | 5246 food service counter attendants 9411 fast food preparers 9412 kitchen helpers | 83 | mechanical engineering technician | 311504 mechanical engineering technician ^s 311505 mechanical engineering technicians of transport equipment construction 311506 mechanical engineering technicians of using means of transport 311508 machinery mechanic and repairer 311509 mechanic machining technician 311510 precision mechanic 311511 production engineering technician 311512 agricultural equipment design technician ^s 311515 agricultural equipment design and agrotechnics technician ^s 315316 avionics technician ^s 315317 aircraft maintenance engineer ^s 311590 other mechanical engineering technicians 311939 crane technician 311940 lifting truck technician |
| 76 | waiters and bartenders | 5131 waiters 5132 bartenders | 84 | earthmoving and related plant operators and mechanics | 8342 earthmoving and related plant operators |
| 77 | farmers and breeders | 314203 horse breeder technician ^s 314204 animal breeding technician 314206 bee breeder technician ^s 314207 agricultural technician ^s 314290 other agricultural and related technicians 331402 agribusiness technician ^s 6111 field crop growers 6114 mixed crop growers 6121 farm and domestic animals breeders 6122 poultry breeders 6123 apiarists and sericulturists 6129 animal breeders not classified elsewhere 6130 mixed crop and animal producers 6310 mixed crop and animal producers working for their own needs 6320 subsistence livestock farmers working for their own needs 6330 subsistence mixed crop and livestock farmers for their own needs 634002 picker of fruits, herbs and other plants 722104 farriers inspect 9211 workers doing simple field work 9212 workers performing simple works in animal husbandry 9213 workers doing simple work in the cultivation of plants and animal husbandry | 85 | road construction workers | 311206 road technician ^s 311207 road and railway bridge technician ^s 311215 bridge supervisor 311216 road construction technician ^s 311217 railway and engineering technician 312301 road construction supervisor 312302 rail construction supervisor 312303 bridge construction supervisor 711603 fitter of the railway pavement ^s 711606 pavement paver 711690 other road maintenance workers 931205 road maintenance worker 931206 bridge construction labourers |
| 78 | landscape gardeners and tree and shrub crop growers | 314205 gardener technician ^s 6112 tree and shrub crop growers 6113 landscape gardeners 7544 fumigators and other pest and weed controllers 9214 garden and horticultural labourers | 86 | stonemasons | 7113 stonemasons, stone cutters, splitters and carvers 811408 stone splitters 811409 stone polisher |
| 79 | land-based and garden machinery operators | 834101 tractor driver 834102 harvester driver 834103 agricultural equipment and vehicles technician ^s 834107 agricultural equipment technician 834190 other mobile farm and forestry plant operators 834106 gardening machines operator | 87 | concrete placers and concrete finishers | 7114 concrete placers, concrete finishers and related workers |
| 80 | forestry workers | 6210 forestry and related workers 834104 operator of skidding tractors for logging Suspended 834105 forestry equipment operator ^s 834108 operator of skidding tractors 834109 operator of technical equipment used in forestry 834110 operator of multi-operational self-propelled machines used in forestry 834111 automated cable vehicle controller 9215 workers doing simple work in forestry | 88 | carpenters and building carpenters | 711501 carpenter ^s 711502 formwork carpenter 711503 building carpenter 711590 other carpenters |
| 81 | fishery workers | 6210 forestry and related workers 834104 operator of skidding tractors for logging Suspended 834105 forestry equipment operator ^s 834108 operator of skidding tractors 834109 operator of technical equipment used in forestry 834110 operator of multi-operational self-propelled machines used in forestry 834111 automated cable vehicle controller 9215 workers doing simple work in forestry | 89 | house builders | 7111 assemblers of building constructions and building conservators 7117 water assembler 7119 building frame and related trades workers not classified elsewhere 7133 building structure cleaners and related trades workers 9313 civil engineering workers |
| | | 314208 inland fishing technician ^s 315215 sea fishery workers ^s 6221 fish breeders 6222 inland fishery workers 6223 sea fishery workers 634001 fishery workers working for his own needs 9216 fishery and aquaculture labourers | 90 | bricklayers and plasterers | 711201 stoneware fitter 711202 bricklayer 711203 stove fitter ^s 711204 bricklayer-plasterer ^s 711290 other bricklayers and related workers 7123 other plasterers and related workers 7124 insulation workers |
| | | | 91 | pavers | 711205 paver |
| | | | 92 | roofers and sheet metal workers in construction | 7121 roofers 721301 sheet metal worker ^s 721302 sheet metal workers in construction 721303 insulation workers ^s |

| No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 | No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 |
|-----|---|---|-----|---|---|
| 93 | window and door installer | 712501 window installer 712502 plate glass installer 712503 building plate glass installer 712504 vehicle glazier 712506 glass construction fitter 712590 other glaziers 754902 blind installer | 104 | electricians, electrical equipment installers and repairers | 7411 building and related electricians 7412 electrical equipment installers and repairers 7413 electrical line installers 3113 electrical engineering technicians 3131 power production plant operators |
| 94 | building finishers | 7129 building finishers and related trades not classified elsewhere 311219 building finishers technician workers ^s 7122 floor layers and tile setters 7131 painters and related workers | 105 | electronics fitters | 742102 electronics fitter ^s 742103 medical device assembler 742104 measuring apparatus assembler 742105 electronic musical instrument makers ^s 742106 electronic signalling equipment and signalling systems assembler 742108 repairer of audio-visual equipment 742110 fitter of electronic control systems for industrial automation 742113 conservator of technical security devices for persons and property 742114 mechatronics assembler 742115 subway electronic technician 742116 fitter of remote control and dispatching devices for subway 742117 electronics engineering technician ^s 742118 mechatronics engineering technician ^s 742190 other electronic assemblers and service technicians of electronic devices 742201 installation and telecommunications equipment assembler 742202 telecommunications and telecommunication network technician ^s 742203 telecommunication network technician 742204 antenna installer 742205 fitter of computer equipment 742206 radio communications equipment 742207 fitter of radio and television equipment 742290 other assemblers and service technicians of installations and ICT devices |
| 95 | building installations assemblers | 7126 plumbers and pipe fitters 7127 air conditioning and refrigeration mechanics | 106 | sound artist and sound operator | 311908 acoustical technician 352120 audio production technician ^s 352122 recording studio technician ^s |
| 96 | lacquer spray gun operators | 713201 lacquer spray gun operators ^s 713202 powder refiner 713204 plastic varnish refiner 713205 wood product lacquer 713206 aircraft painter 713207 construction and metal products painter 713208 sandblaster 713290 other painters 932907 paint prepper | 107 | miners and stationary plant and machine operators | 132202 manager of a mining rescue unit 311701 opencast mining technician ^s 311702 hole mining technician ^s 311703 mining technician ^s 311706 stone processing plant operator ^s 311707 drill technician ^s 3121 mine supervisor 313204 mine ventilation technician 7542 shot firers and blasters and related workers 8111 underground and opencast miners and related workers 8112 mineral and stone processing plant operators 8113 well drillers and borers 931101 mining assistant |
| 97 | metal products assemblers | 311910 shipbuilding technicians ^s 311942 water craft construction technician ^s 721304 aircraft sheet metal worker 721305 ship sheet metal worker 721390 other sheet metal worker 7214 structural metal preparers and erectors 7215 riggers and cable splicers | 108 | industrial ceramicist | 311921 ceramic technology technician ^s 311944 ceramicist ^s 731401 ceramic products for building ceramics 731403 wheel moulder 731404 ceramic moulder 731405 production potter 731406 modeller, foundry of plaster moulds 731407 pottery and porcelain caster 731408 ceramic sorter labourer 731409 kiln firer 731490 other potters and related workers 731601 signwriter, decorative painter, engraver and etcher 8181 glass and ceramics plant operators |
| 98 | welders and flame cutters | 7212 welders and flame cutters | | | |
| 99 | toolmakers | 7222 toolmakers and related workers | | | |
| 100 | metal working machine tool operators | 7223 metal working machine tool setters and operators 7224 metal polishers, wheel grinders and tool | | | |
| 101 | motor vehicle mechanics | 7231 motor vehicle mechanics 311513 automotive engineering technician ^s | | | |
| 102 | car testers | 311501 car tester authorized to perform vehicle technical inspections 311503 controller of technical condition of vehicles | | | |
| 103 | sheet metal workers and spray painters and varnishers | 713203 spray painters and varnishers 721306 sheet metal workers ^s | | | |
| 104 | electricians, electrical equipment installers and repairers | 7411 building and related electricians 7412 electrical equipment installers and repairers 7413 electrical line installers 3113 electrical engineering technicians 3131 power production plant operators | | | |

| No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 | No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 |
|-----|---|--|-----|--|---|
| 109 | signwriters, decorative painters, engravers and etchers | 731305 goldsmith ^s 712505 glass artist 731402 ceramics for usable and decorative products 7315 glass makers, cutters, grinders and finishers 731603 glass guilloche 731604 glass engraver 731605 glass beveller 731606 gilder 731607 glass sculptor 731608 signboard maker 731609 decorative ceramics painter 731610 decorative glass painter 731611 engraver 731690 other signboard makers, engravers i decorative glass and ceramics painter and related workers | 116 | upholsterers | 815902 upholstery machine operators |
| 110 | printing trades' workers | 311911 digital graphic processes technician ^s 311918 polygraph technician 311935 print production technician ^s 311936 bookbinding technician ^s 311943 graphics and digital printing technician ^s 7321 pre-press technicians 7322 printers 7323 bookbinders and related workers | 117 | leather production workers | 311912 tanner ^s 731810 leather goods artisanal worker 7535 pelt dressers, tanners and fellmongers 753702 vesicle ^s 753703 saddler 753790 other vesicle, saddler and related workers 8155 fur and leather preparing machine operators 815602 leather goods machine operator |
| 111 | butchers, and fishmongers | 7511 butchers, and fishmongers and related workers | 118 | shoemakers | 311916 footwear production technician ^s 7536 shoemakers and related workers 815601 footwear stitching machine operator 815603 operator of shoe assembly devices 815604 cutting machine operator 815605 industrial shoemaker 815690 other shoemaking and related machine operators |
| 112 | bakers | 751204 bakers 932910 baker's assistant | 119 | metal processing workers | 311704 steelwork technician ^s 311705 foundry operative ^s 7211 metal moulder and related workers 722101 blacksmith ^s 722102 blacksmith of decorative products 722103 forging press worker ^s 722190 other blacksmiths and forging press workers 731602 electroplater 731905 ornamental metal worker 8121 metal processing and finishing plant operators 8122 metal finishing, plating and coating machine operators |
| 113 | confectioners | 751201 confectioner ^s 751202 confectionery decorator 751203 caramel maker 932906 baker's assistant | 120 | cement, and stone products machine operators | 731410 operator of brick and lime-sand machines 811401 hardening agent for concrete and silicates 811402 cutter of building materials 811404 operator of devices for forming blocks and gypsum plasters 811405 operator for the production of cellular concrete elements 811406 asphalt plant operators 811407 operator of concrete mixing equipment 811490 cement, stone products machine operators and related workers |
| 114 | woodworking workers and carpenters | 311922 wood technology technician ^s 711504 shipwright ^s 7317 handicraft workers in wood, basketry and related materials 7521 wood treaters and related workers 7522 cabinet-makers and related workers 7523 woodworking machine tool setters and operators 8172 wood processing plant operators 818903 operator of wickerwork machines and devices 821902 furniture assembler 821905 wood products assembler | 121 | chemical products plant and machine operators | 8131 chemical products plant and machine operators 8132 photographic products machine operators |
| 115 | tailors and garment related trades workers | 311924 clothing technology technician ^s 311941 fashion industry technician ^s 311926 leather goods industrial engineer ^s 7531 tailors, dressmakers, furriers and hatters and related workers 7532 garment and related patternmakers and cutters 7533 sewing, embroidery and related workers 7534 upholsterers and related workers 8153 sewing machine operators 815903 operator of devices for gluing clothing items 815904 operator of punching and layering equipment 815990 textile, fur and leather products machine operators not classified elsewhere 932902 fabric spreader 932905 tailor's assistant 731808 textile goods artisanal worker ^s | 122 | rubber products and plastic products machine operators | 8141 rubber products machine operators 8142 plastic products machine operators |
| | | | 123 | papermaking plant operators | 8143 papermaking plant operators 8171 pulp and papermaking plant operators |
| | | | 124 | food processing employees | 7513 dairy products makers 7514 fruit, vegetable and related preservers 8160 operators of machines for the food production and related 932909 dairy assistant |
| | | | 125 | textile machine operators | 731802 knitter 731805 yarn spinner 731809 weaver 8151 spinning machine operators and related workers 8152 weaving and knitting machine operators 8154 textile finishing machine operators ⁴ 815901 nonwoven machine operators |

| No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 | No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 | | | | |
|---|---|---|--|--|--|---|--|---|-------------------------------------|
| 126 | machinery mechanics and repairers | 723301 packaging and filling machine operators | 132 | postmen and couriers | 4412 postmen and related | | | | |
| | | 723302 crane technician | | | | | | | |
| | | 723303 mechanic of construction and drainage machines and devices | | | | | | | |
| | | 723304 metal processing plant operators | | | | | | | |
| | | 723305 opencast mining equipment mechanic | | | | | | | |
| | | 723306 mining equipment mechanic | | | | | | | |
| | | 723307 industrial machinery and equipment mechanic | | | | | | | |
| | | 723308 agricultural equipment technician | | | | | | | |
| | | 723309 sewing machines mechanic | | | | | | | |
| | | 723310 machinery mechanic and repairer ^s | | | | | | | |
| 723312 diesel engine mechanic | 133 | post office workers | 421101 post office counter clerk | | | | | | |
| 723390 other mechanics of agricultural and industrial machinery and equipment | | | 421105 post office controller | | | | | | |
| 7234 bicycle and related repairers | | | 421108 post office technician ^s | | | | | | |
| 731102 industrial automation mechanic and precision instrument assembler ^s | | | 134 | car drivers | 832203 car driver | | | | |
| 731103 precision mechanic ^s | | | | | 832204 passenger carrier | | | | |
| 731104 optical technician ^s | | | | | 832205 taxi driver | | | | |
| 731106 clock and watchmaker ^s | | | | | | | | | |
| 731190 other precision mechanics | | | | | | | | | |
| 932908 mechanic assistant | | | | | 135 | bus drivers | 833101 bus driver | | |
| 127 | | | | | | | mechanical machinery assemblers | 723314 mechanical machinery assembler in rural construction | 833102 trolley bus driver |
| | 8211 mechanical machinery assemblers | | | | | | | | |
| | 8212 electrical equipment assemblers | | | | | | | | |
| | 8213 electronic equipment assemblers | 136 | | | | | | truck and truck tractor drivers | 8332 truck drivers |
| | 128 | | logistics managers | 132401 logistics manager | | | | | 832201 driver mechanic ^s |
| | | | | 132402 road transport division manager | | | | | |
| | | | | 132403 purchasing manager | | | | | |
| | | | | 132404 warehouse manager | | | | | |
| | | | | 132405 manager of a forwarding agency | | | | | |
| | | | | 132406 manager of a transport company | | | | | |
| 132408 purchase centre manager | | | | | | | | | |
| 132490 other logistics managers and related workers | | | | 137 | crane, hoist and related plant operators | 8343 crane, hoist and related plant operators and related workers | | | |
| 129 | | | | | | forwarding agents and logistics workers | 214104 procurement, transport and storage engineer | | 138 |
| | | 214917 transport engineer | | | | | 214920 railway controller | | |
| | 214918 rail project engineer | 311401 railway diagnostician | | | | | | | |
| | 216401 traffic planner | 311407 railway electronic technician ^s | | | | | | | |
| | 216402 rail traffic planner | 311928 rail project technician ^s | | | | | | | |
| | 216490 other town and traffic planners | 432304 train conductor | | | | | | | |
| | 242105 road transport division manager | 432305 timetables planner | | | | | | | |
| | 242108 logistics analyst | 5112 transport conductors and related | | | | | | | |
| | 242205 dangerous goods safety adviser | 711602 supervising technician | | | | | | | |
| | 242221 specialist for organization and development of transport | 711605 track maintainer | | | | | | | |
| 311927 road transport technician ^s | 723313 rolling stock mechanic | | | | | | | | |
| 332402 shipbroker | 742101 railway electronic technician | | | | | | | | |
| 3331 clearing and forwarding agents | 8311 locomotive and metro engine drivers | | | | | | | | |
| 432302 bus route supervisor | 8312 railway brakemen, signallers and shunters and related | | | | | | | | |
| 432303 freight transport dispatcher | 833103 tram driver | | | | | | | | |
| 432390 other transport clerks | 931207 railway worker | 139 | ship's deck crews and related workers | 3151 ships' engineers | | | | | |
| 130 | buyers and suppliers | | | 3323 buyers | 315202 port boatswain | | | | |
| | | | | 8321 motorcycle drivers | 315203 marine surveyor | | | | |
| | | | | 832201 driver mechanic | 315204 captain of the seaport | | | | |
| | | | | 832202 delivery driver | 315205 ship captain | | | | |
| | | | | 962103 supplier of dishes | 315206 skipper | | | | |
| | | | | 962105 runner | 315207 captain of coastal shipping | | | | |
| | | | | | 315208 deck officer | | | | |
| | | | | | 315209 port officer | | | | |
| | | | | | 315210 radar observer in inland waterway | | | | |
| | | | 315211 maritime pilot | | | | | | |
| | 315212 inland waterway pilot | | | | | | | | |
| | 315214 marine navigator technician | | | | | | | | |
| | 315216 inland waterway technician | | | | | | | | |
| | 315217 skipper | | | | | | | | |
| | 315290 other ships' deck officers and pilots and related workers | | | | | | | | |
| | 511102 ship steward | | | | | | | | |
| | 723311 marine mechanic | | | | | | | | |
| | 723316 ship duty engineer | | | | | | | | |
| | 723317 engine minder | | | | | | | | |
| | 8350 ship's deck crews and related workers (excluding armed forces) | 140 | air traffic workers | 3153 aircraft pilots and related associate professionals | | | | | |
| 131 | stock clerks | | | 4321 stock clerks and related | 3154 air traffic controllers and related workers | | | | |
| | | | | 515102 intendant | 3155 air traffic safety technicians | | | | |
| | | | | 8344 forklift operators | 511101 steward | | | | |
| | | | | | 723201 mechanic of airframes | | | | |
| | | | | | 723202 aircraft engine inspector | | | | |
| | | | | | 723203 aircraft engine mechanic and repairer | | | | |
| | | | | | 723290 other aircraft engine mechanics and repairers and related workers | | | | |
| | | | | | 214101 engineer of work normalization | | | | |
| | | | | | 214102 production engineer | | | | |
| | | | 214103 traffic planner | | | | | | |
| | 214111 chief technologist | | | | | | | | |
| | 214190 other industrial and production engineers | | | | | | | | |
| | 2146 mining and metallurgical engineers | | | | | | | | |
| | 214909 polygraph engineer | | | | | | | | |
| | 214911 engineer of technical security systems | | | | | | | | |
| | 214913 ceramics technology engineer | | | | | | | | |

| No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 | No. | Occupational Barometer 2018 classification | OCCUPATION CODE AND NAME AS PER KZIS 2014 |
|-----|--|---|-----|--|--|
| | | 214914 wood technology engineers 214915 leather production planner 214916 glass technology engineer 214919 textile technologist 214923 nanoengineer 214924 ergonomics and consumer goods design specialist 214925 packaging production manager 214929 engineer of the painting process 214931 programmer of machine tools 214932 materials engineer 242220 industrial and production engineers 311514 maintenance technician 311601 paper technician S 311602 plastic products technician 311915 job-normalization technician 311917 production technician 311925 glass technology technician S 311929 refrigeration and air conditioning technician S 311931 textile decorative products technician S 311932 textile technician S 3122 manufacturing supervisors 4322 production clerks | | | 331503 personal property appraiser 331504 appraiser of commercial quality of agricultural and food products 3359 government regulatory associate professionals not classified elsewhere 515101 Housekeeping supervisor in a hotel 3135 metal production process controller 313901 industrial robot controller 313902 paper production equipment controller 313990 this unit group covers process control technicians not classified elsewhere 325506 meat hygiene controller 325512 veterinary healthcare controller 325514 healthcare inspector 331503 personal property appraiser 331504 appraiser of commercial quality of agricultural and food products 3359 government regulatory associate professionals not classified elsewhere 515101 housekeeping supervisor in a hotel |
| 142 | employees for environmental protection and health and safety | 2133 environmental protection professionals 2291 environmental and occupational health and hygiene professionals 242227 emergency response coordinators 311214 fire inspectors 313201 toxic waste treatment technicians 313206 Incinerator operators 313207 air conditioning and dedusting equipment operator 313208 wastewater treatment operator 313209 water treatment system operator 313210 worker cleaning the area of explosive and dangerous materials 313290 other incinerator and water treatment plant, water treatment system operators and related workers 325501 ecological educator 325502 occupational health and safety inspector 325503 radiation protection officer 325504 countryside officer 325505 hygiene instructor 325507 environmental technician 325508 environmental analysis and monitoring technician 325509 health and safety officer S 325510 dosimetrist technician 325511 environmental protection technician S 325515 waste management supervisor 325590 other environmental and occupational health inspectors and associates 723315 fire-fighting equipment repair technician | 144 | service employees uniformed | 132914 head of the police / police station 134911 Police commissioner 134912 municipal / municipal guard commissioner 134913 fire commissioner 263506 educator in penitentiary units 311919 fire prevention and protection technician ^s 3355 police officers 3356 prison officers 3357 special services officers 5411 firefighters 5412 juvenile correctional officer 541301 officer of the government protection office 541312 municipal / city guard 541313 guard of the marshal's guard 541314 railway security guard 0310 soldiers 541907 forest ranger 541908 hunting guard 541909 fishing guard |
| | | | 145 | security guard | 311920 technical security systems technician 541307 security guard 541315 security guard technician ^s 541316 security control operator 541317 monitoring service employee 541390 other security guard workers 541906 life guard 541990 protective services workers not classified elsewhere |
| 143 | quality services employees | 214105 consultant of the technical committee 214107 standardiser 214108 security audit specialist 214109 quality control specialist 214110 expert of the goods 214901 domestic energy assessor 214902 inspector of technical supervision 214921 verification officer 214922 metrologist 242204 auditor/ controller 242208 pharmaceutical quality specialist 311109 metrology technician 311901 marking technician 311902 quality control of welded joints 311904 operator of flaw detection tests 311937 industrial product quality control inspector 3133 chemical processing plant controller 3134 petroleum and natural gas refining plant operators 3135 metal production process controller 313901 industrial robot controller 313902 paper production equipment controller 313990 this unit group covers process control technicians not classified elsewhere 325506 meat hygiene controller 325512 veterinary healthcare controller 325514 healthcare inspector | 146 | electronics, automation and robotics specialists | 214903 automation engineer 2152 electronics engineers 311402 security alarm technician 311403 anti-theft security alarm technician 311404 installer of CCTV systems 311406 designer of alarm systems 311408 electronics engineering technicians ^s 311410 mechatronic ^s 311412 broadband electronic communication technician ^s 311490 other electronics technicians and related ones 311909 automation engineering technician ^s 313903 industrial robot controller 313904 automated assembly line operator |
| | | | 147 | electrical and electronics engineers | 214906 energy engineer 214933 energy manager 2151 electrical engineers |
| | | | 148 | telecommunications specialists | 214926 specialist in monitoring security systems 2153 telecommunications engineers 311906 ATM service employee 352122 recording studio technician ^s 3522 telecommunication equipment operators |
| | | | 149 | ICT system analysts, testers and operators | 213109 bioinformatics scientists 2511 systems analysts 251202 specialist in the development of information systems software 251290 other specialist in the development of information systems software 251901 medical computer specialist 251902 specialist in IT applications 251903 computer software tester |

| No. | Occupational Barometer 2018 occupation | OCCUPATION CODE AND NAME AS PER KZIS 2014 |
|-----|--|--|
| 150 | database designers and administrators, programmers | 251201 specialist for application development 2513 network application and multimedia designers 2514 applications programmers 251905 speech recognition systems specialist 2521 database designers and administrators |
| 151 | website administrators | 351401 website administrator 351403 search engine optimisation expert 351404 webmaster 262202 traffic analyst on websites |
| 152 | graphic designers | 216601 desktop publisher 216602 graphic and multimedia designers 216604 graphic designers 216605 web graphics designer 216606 specialist for multimedia animation 216690 other graphic and multimedia designers |
| 153 | IT technicians | 311411 electronics and clinical informatics technician ^s 351103 ICT technician ^s 351190 other ICT equipment operators 3512 IT and technical support technicians 351490 web technicians 742208 computer hardware repair technician |
| 154 | fitness and recreation instructors | 235501 instructor of amateur artistic movement 235502 dance instructor 342201 sport instructor 342202 sport instructor for people with disabilities 342207 sports coach 342290 other sports coaches, instructors and officials 3423 fitness and recreation instructors |
| 155 | other artistic and cultural associate professionals and event planners | 3332 conference and event planners 343901 community artist ^s 342311 fitness and recreation instructors and program leaders |
| 156 | older and disability adult care workers | 341201 disability support worker ^s 341202 older adult care worker ^s 341203 residential care home worker ^s 341204 community care worker ^s 5162 companions and valets 5321 health care assistants 5322 home-based personal care workers |
| 157 | child care workers | 325905 babysitter ^s 5311 child care workers |
| 158 | florists | 343203 florist ^s 524901 flower and garden specialised seller |
| 159 | hairdressers | 5141 hairdressers |
| 160 | beauticians | 229903 cosmetologist 323014 podologist 343917 tattooist 5142 beauticians and related workers |
| 161 | livestock workers | 342101 jockey 5164 pet groomers and animal care workers |
| 162 | funeral attendants | 516302 funeral manager 516303 embalmer |
| 163 | cleaners and room attendants | 9111 cleaners and helpers 911201 bathroom attendant 911203 room attendant 911204 laboratory assistants 911205 hotel service employee ^s 911206 ward maid 911207 office cleaner 911208 vehicle cleaner 911290 other office, hotel and similar aids and cleaners 9123 window cleaners 912901 swimming pools cleaners 912902 carpet cleaner 912904 operator of cleaning machines 912990 other cleaning staff not classified elsewhere |

| No. | Occupational Barometer 2018 occupation | OCCUPATION CODE AND NAME AS PER KZIS 2014 |
|-----|---|--|
| 164 | the car wash, laundry and ironing rooms workers | 8157 operators of washing machines 9121 hand launders and pressers 9122 vehicle cleaners |
| 165 | building and housekeeping supervisors, porters, ushers and janitors | 515301 Building caretaker 515303 economic worker 515390 other building and housekeeping supervisors 541306 porter 8182 boiler operators and related workers 911202 ordinary furnaces operator 9629 elementary workers not classified elsewhere |
| 166 | domestic cleaners and helpers | 5152 Domestic housekeepers |
| 167 | elementary occupations | 8183 packing and bottling machine operators 818901 operator of palletizing equipment 818902 animal waste treatment technician 818990 stationary plant and machine operators not classified elsewhere 821901 rubber goods assembler 821904 textile and cardboard product and related materials assemblers 821906 plastic products assembler 821907 parachute equipment assembler 821990 other assemblers not elsewhere classified 912903 graffiti remover 931102 ground worker in mining 931190 mining and quarrying labourers 931201 gravedigger 931202 strip miner 931203 land reclamation technician 931204 sewage purifier 931290 other civil engineering workers 9321 hand packers and markers 932901 parts / equipment conservator 932904 fish pater 932911 manufacturing, mining, construction and distribution workers 932912 washing parts worker 932913 sorter 932914 shotfirer 932915 tailor assistant ^s 932916 mechanic assistant ^s 932917 locksmith assistant ^s 932918 carpenter assistant ^s 932919 hairdresser assistant ^s 932990 other manufacturing labourer ^a 9331 hand and pedal vehicle drivers 9332 carriage drivers 9333 workers working on transshipment of goods 9334 shelf fillers 9510 street and related services workers 9611 garbage collectors 9612 refuse sorters 9613 sweepers and related labourers 962101 baggageman 962102 bellhop 962104 lift operator 962106 distributor 962107 ambulance assistant 962190 other messengers, package deliverers and luggage porters and related workers 9622 odd-job persons 9623 meter readers and vending-machine collectors 754901 navigation marks installer 754990 craft and trade occupations not classified elsewhere |

The Occupational Barometer is a nationwide survey carried out by **local labour offices in cooperation with private employment agencies**. Survey in each region is coordinated by **regional labour offices**. The national coordinator is **Regional Labour Office in Cracow**.

The Occupational Barometer is a one-year forecast of the demand for employees. Survey shows in which occupations chances to take up employment will be smaller, and in which will be bigger in upcoming year.

The occupations are classified by experts into three groups:

- Deficit occupations – those in which it should not be difficult to find a job in the coming year
- Balanced occupations – those in which the number of vacancies will be close to the number of people capable of and interested in taking up employment in the occupation concerned
- Surplus occupations – those in which it might be more difficult to find a job because of the low demand and numerous candidates willing to take up employment and meeting the employers' requirements.

The survey comes from **Sweden**. Its methodology has been developed in the 90s as the element of wider system designed to predict changes on the labour market. In 2007 The Occupational Barometer was adapted by public employment agencies in **south-west Finland**, and now is implemented in whole country. **The Lesser Poland** started realization of the studies in 2009. The survey was carried out by **Regional Labour Office in Cracow**, within the framework of project "**Lesser Poland observatory on Labour and Education markets**".

More information about The Occupational Barometer and its results are available on the website: **www.barometrzasowodow.pl**



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