Study
of Human Capital
in Poland

2014

# The Study of Human Capital in Poland

Key results of the fourth round
of the BKL Study in 2013

HUMAN CAPITAL
NATIONAL COHESION STRATEGY

PARP

JAGIELLONIAN
UNIVERSITY
IN KRAKOW

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# The Study of Human Capital in Poland

Key results of the fourth round of the BKL Study in 2013

**The publication originated as part of the Study of Human Capital in Poland research project conducted jointly by the Polish Agency for Enterprise Development (PARP) and the Jagiellonian University (Centre for Evaluation and Analysis of Public Policies at the Jagiellonian University (CEiAPP))**

Text of this publication is based on reports from the 4th round of the BKL Study, carried out in 2013:
Szymon Czarnik, Konrad Turek, **Occupational activity and education of Poles**
– report from the population study
Krzysztof Kasparek, Mateusz Magierowski, **Students in Polish schools**
– report from the study of students and analysis of teaching areas
Anna Szczucka, Konrad Turek, Barbara Worek, **Competence development by adult Poles**
– report from the study of training institutions and companies, employers and the population
Magdalena Jelonek, Patrycja Antosz, Anna Balcerzak-Raczyńska, **The future employees of the Polish economy**
– report from the study of students and analysis of teaching areas
Marcin Kocór, Anna Strzebońska, **Demand for employees**
– report from the study of employers and job offers
Jarosław Górniak (ed.), **Competences of Poles vis a vis the needs of the Polish economy**
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Ladies and Gentlemen,

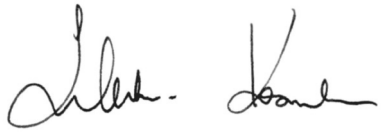
We have the pleasure of presenting the key results of the 4th round of the Study of Human Capital in Poland (the BKL Study). The publication presents a synthetic image of the Polish labour market. One of its most significant features is the mismatch between the supply of and demand for competences. This is especially upsetting, because many people remain unemployed for long periods of time, but employers still encounter significant problems with finding appropriate candidates. The most sought-after competences still include self-organisation, interpersonal skills, and occupation-specific competences. This means that Poles must be encouraged to develop their competences, and public interventions must be designed in a manner that would reduce the problem of mismatch.

As suggested by the data collected in the course of BKL Study, the main motivation for learning activity is work-related. Therefore, it is important that the employers not only enable their employees to develop their qualifications, but also encourage them. Unfortunately, the results of all the Study rounds indicate that most employers lack the strategic approach to personnel development, and any activities they undertake are purely incidental.

The institutions that shape the labour market policy in Poland face numerous challenges. One of the most important ones is the creation of conditions that would be supportive for business activity and for ensuring personnel with appropriate potential for the Polish entrepreneurs.

I invite you to become familiar with the results

Bożena Lublińska-Kasprzak
President of the Polish Agency for Enterprise Development



# 1. The Study of Human Capital in Poland – the largest study of the labour market in Poland

### Range of systematic studies carried out in the years 2010–2013

Under the research project The Study of Human Capital (the BKL Study), the Polish Agency for Enterprise Development in cooperation with the Jagiellonian University has been conducting since systematic research since 2010, which one allows to follow changes occurring in the structure of competences available in the labour market in Poland. The first round of the study was carried out in the fourth quarter of 2010, the subsequent ones, 2011, 2012, 2013 and 2014, are repeated regularly during the second quarter of each year. The comprehensive nature of the study is best proven by the numbers of persons covered by each of its rounds:

- over 16 000 employers,
- over 17 900 working age persons,
- over 8000 unemployed registered with the County Employment Offices (1st round),
- over 35 700 students of the last grades of upper secondary schools (1st and 4th round),
- over 33 000 students (1st and 4th round),
- over 20 000 of job offers, and
- over 4500 training institutions.

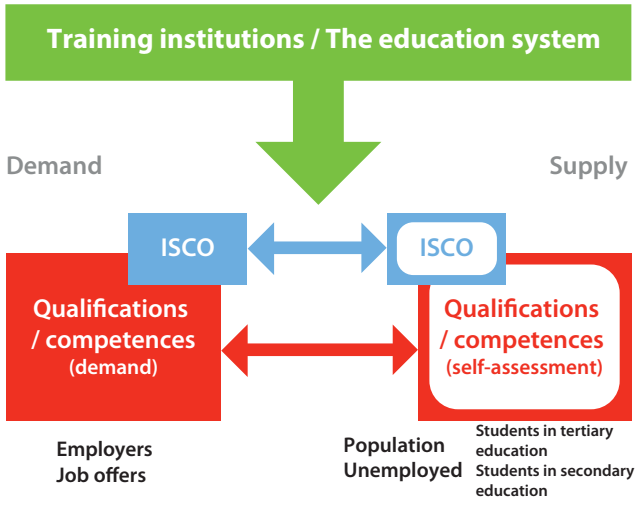
This publication presents the results of analyses prepared based on the 4th round of the study, which was carried out in the 2nd quarter of 2013. A lot of attention has been devoted to persons in education, including students of upper secondary schools and of HE institutions. Data of the Educational Information System (SIO) and of the Central Statistical Office (GUS) proved invaluable during this stage.

The study of people in education was conducted previously only under the first round of the BKL. In 2013, the study focused on the analysis of commissioned fields of study in higher education.

### Monitoring of the labour market

The Study of Human Capital is a model for labour market monitoring, which unique in Poland and in Europe. The uniqueness of research carried out under the BKL is based, among others, on the opportunity to compare competences of present and future employees with competences sought by employers. This comparability is ensured by applying the International Standard Classification of Occupations (ISCO) to all the analyses.

**Model of the Study of Human Capital**



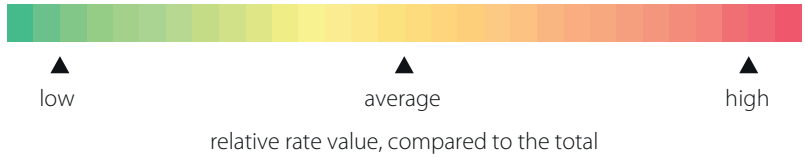
### Classification of competences

Classifications grouping the competences into 11 categories have been developed especially for the purpose of the Study of Human Capital. It is presented below:

| | | |
|---|---|---|
| ART | Artistic | Artistic and creative skills |
| BIU | Office | Organisation of, and conducting office works |
| DYS | Availability | Availability |
| FIZ | Physical | Physical fitness |
| INT | Interpersonal | Contacts with others |
| KIE | Managerial | Managerial skills and organisation of work |
| KOG | Cognitive | Finding and analysing information, drawing conclusions |
| KOM | Computer | Working with computers and using the Internet |
| MAT | Mathematical | Performing calculations |
| SAM | Self-organisational | Self-organisation, initiative, punctuality |
| TCH | Technical | Handling, assembling and repairing equipment |

### Colour coding of data

To improve the legibility of data, the tables employ "topographic" coding, making reference to the convention of colouring of maps: The relatively low values are shown in green, the average ones in yellow, and the relatively high values are in red. The colours show the relative position of the given category compared to the total.



# 2. Students in Polish schools

## Educational plans of Poles

The survey of the upper secondary schools, conducted under the fourth round of BKL Study in 2013, is a repetition of study carried out in 2010. One of its purposes was to diagnose the educational plans of secondary school students and to analyse tendencies of changes in that area. As the results show, on the average, 80% of the young people declare their willingness to continue education after upper secondary school (decline of 7% compared to 2010), and 59% of them plan full-time studies. On one hand, this suggests the high educational aspirations of this group of students; however, on the other hand, it proves that higher education has become a mass commodity.

**80%**
of students want to continue education

***Table 2.1. Type of school where the student plans to continue education, broken down per type of current school (% of all persons who replied to the question, "Do you plan to continue education directly after completing the present school?") (data in %)***

| response | post-secondary school | | general secondary school | | specialised secondary school | | technical secondary school | | basic vocational school | | total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2010 | 2013 | 2010 | 2013 | 2010 | 2013 | 2010 | 2013 | 2010 | 2013 | 2010 | 2013 |
| full-time studies | 17 | 13 | 75 | 72 | 31 | 23 | 29 | 25 | 4 | 3 | 48 | 47 |
| evening studies | 3 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 |
| extramural studies | 26 | 22 | 13 | 11 | 34 | 23 | 32 | 22 | 8 | 6 | 19 | 15 |
| post-secondary school | 3 | 4 | 3 | 4 | 12 | 19 | 2 | 4 | 2 | 1 | 3 | 4 |
| general secondary school | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 10 | 17 | 2 | 2 |
| specialised secondary school | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 2 | 0 | 0 |
| technical secondary school | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 35 | 17 | 5 | 2 |
| doesn't know | 36 | 16 | 9 | 7 | 21 | 14 | 30 | 14 | 31 | 18 | 20 | 11 |
| N | 1116 | 711 | 17716 | 18880 | 1011 | 692 | 10863 | 12045 | 4962 | 4011 | 35712 | 36339 |

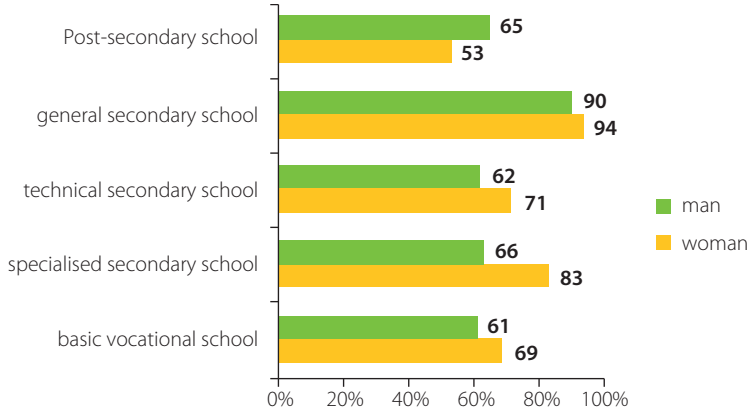
*Source: BKL Study – Study of the Students 2010 (N = 36339) and 2013 (N = 36339).*

The intention to continue education is declared most frequently by students of general secondary schools – women more frequently than men.

*Małgorzata Marcińska, wiceminister, Deputy Minister, Ministry of Labour and Social Policy*

*The education and matching of competences and tests of predispositions should take place at the earliest stage of education possible. It is also important to instil the right attitudes and flexibility in the planning of the field and level of education, and professional development. Education should be more strongly related to the predispositions of a given person, and not to trends or traditions. The present, fourth round of the BKL Study, shows problems and development directions for the education of human capital. The Ministry of Labour and Social Policy uses results of this research to propose reforms and changes to legislation and the labour market. The updated Act on promotion of employment and institutions of the labour market has come into force. It sets out three profiles for assisting the unemployed, determines support instruments for the unemployed (vouchers for internship, employment, re-settlement), and defines support for enterprises in the form of loans to create new jobs, subsidies for teleworking and other forms of support.*

***Figure 2.1. Percentage of students intending to continue education after completion of the present school, broken down by Table 19. Self-assessment of computer competences broken down by type of school and respondents' gender***




*Source: BKL Study – Study of the Students 2010 and 2013 (N = 36339).*

Almost half of all students have already determined further areas of their education. The choice of the path of further education is influenced by the current type of the student's school. Various specialised fields enjoy relative popularity among general secondary school students. Students of technical secondary schools usually opt for physical, mathematical, and technical sciences, while those from post-secondary schools opt for fields tied to healthcare. Students of basic vocational schools most frequently named fields of study tied to personal services.

## Students as the working population

**51%**
of upper secondary schools engage in gainful work

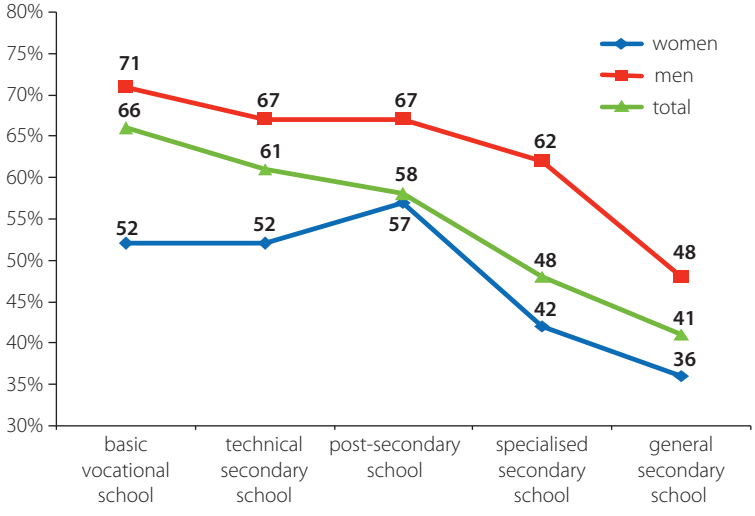
Over half of students of various kinds of upper secondary schools already engage in gainful work at this stage of education. In most cases (53%), this work is not linked to their education profile. Students of basic vocational schools are the most likely to work (66%). Irrespective of school type, men work more frequently than do women.

Almost 40% of upper secondary schools intend to work in their acquired profession. In the context of future work, the most popular occupations include professionals in mathematical, physical, or technical sciences (12%), professionals in healthcare, law, social issues and culture, and associate professionals in business and administration (under 10%). Two-thirds of the young people plan to commence work in the coming months. The vast majority of them believe that they are well prepared to enter the labour market, and only 30% of students stated that they need to increase their skill levels. Almost one out of every three students plans to set up their own business – men more frequently than do women.

## Self-assessment of the students' competences

The students display the highest self-assessment of their interpersonal skills (primarily working in a group and establishing contacts with new people), and of computer competences. The latter ones are understood almost exclusively as basic skills, such as basic work with the computer and use of the Internet. Young people are the least certain of their technical and mathematical competences. A slight increase of self-assessment in that area has been observed in comparison to the 2010 study. One of the most interesting results is the increase of the average self-assessment of technical competences among women.

*Figure 2.2. Percentage of students undertaking work during the past 12 months, broken down by type of school and respondents' gender*




*Source: BKL – Study of the Students 2013.*

*Table 2.2. Average value of self-assessment of 12 groups of competences broken down by gender (1 to 5 scale) (data in %)*

| competences | self-assessment of competence level | | |
|---|---|---|---|
| | W | M | total |
| computer | 4.03 | 4.29 | 4.15 |
| interpersonal | 4.20 | 4.02 | 4.12 |
| availability | 3.94 | 3.90 | 3.92 |
| physical fitness | 3.63 | 4.06 | 3.84 |
| language* | 3.89 | 3.68 | 3.79 |
| self-organisation | 3.79 | 3.65 | 3.73 |
| cognitive | 3.49 | 3.55 | 3.52 |
| managerial | 3.5 | 3.55 | 3.52 |
| clerical | 3.37 | 3.06 | 3.23 |
| mathematical | 3.13 | 3.27 | 3.20 |
| artistic | 3.28 | 2.8 | 3.05 |
| technical | 2.09 | 3.33 | 2.68 |

** self-assessment of language competences was not included in the BKL Study of the Students 2010.*
*Source: BKL – Study of the Students 2013.*

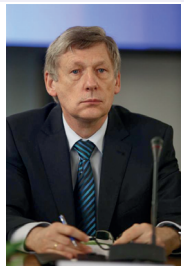
# 3. Students – future employees of the Polish economy

**60%**
of all students are women

The results of the study on the students, carried out in 2013, confirm the tendency of a steady decline in the number of higher education students, observed since 2006.
Analysis of changes in the number of students in the various fields of education (covering the years 2002-2012) shows that the non-public higher education institutions have seen the largest declines in the humanities (21% students less), while public HE institutions, the highest decline is in pedagogical fields (33% students less). Both types of HE institutions experienced a drop in the number of students of economics and administration by about one-third. The numbers of students of medical specialties, as well as architecture and civil engineering rose significantly (for example, the number of students who chose civil engineering at non-public HE institutions, rose more than fourfold).
The demographic low, resulting in the decline in the overall number of students, means that public and non-public HE institutions need to compete in order to attract students. A certain "specialisation" of educational profiles has been observed: Full-time studies are the domain of public HE institutions, while the non-public ones strengthen their position in extramural studies.

## Public universities have the upper hand

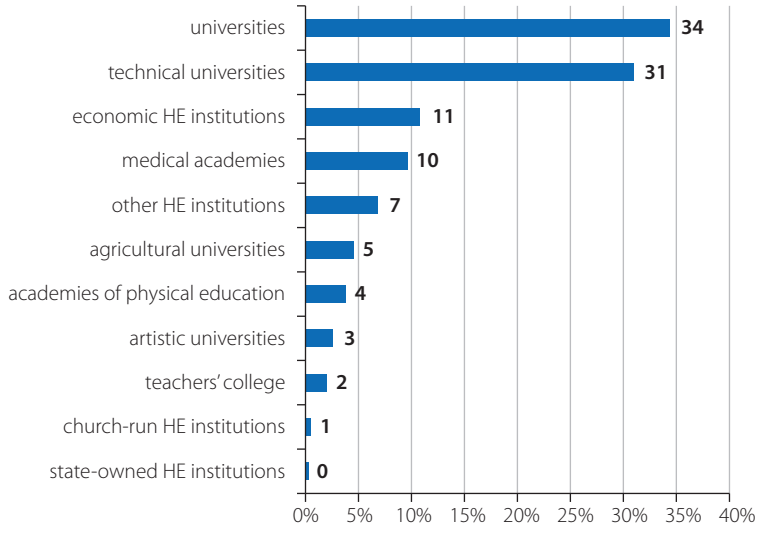
The vast majority of students (over 70%, on the average) are pleased with the choice they made regarding both the field of education and the HE institution. Students of public HE institutions, students of artistic, technical, and economic HE institutions are the most satisfied. The chosen field of study offers the most satisfaction to those who selected artistic, legal, computing, architecture and construction fields, while students of social sciences, journalism and information management, biology, and personal services are the least pleased with their choices. Satisfaction with the educational choice is the highest among those students who opted for study specialties that have been associated for many years with a specific type of HE institution. It drops significantly for students whose chosen field does not have much to do with the overall profile of the HE institution.
If the students were to choose their higher education institution once again, the winners would be technical universities (there are more students who wish to move to a technical university from their current HE education than those who would switch the technical university for another institution), the economic universities, and the medical universities.



*prof. Marek Ratajczak, Deputy Minister, Ministry of Science and Higher Education*

*The Polish higher education institutions are well prepared to their new role. It would be an excessive simplification to state that the teaching personnel are either good or bad. The opinions vary, as for every profession. In the current situation, it would be more advisable to focus on individual evaluation mechanisms and to abandon the traditional ways of evaluating teaching personnel at universities. Individual unsatisfactory evaluations should not be grounds to form a bad opinion on the overall education system. The quality of higher education system is confirmed by statistical data on the groups of the unemployed. Persons with higher education are the smallest group of the unemployed. The system of higher education should be developed further. Work is required on the support mechanisms and on changing the organisational culture at higher education institutions. The teaching personnel should have better conditions for development. Institutions of higher education should be more open to practitioners from business circles, but this is not to imply that great practitioners make good teachers. They need pedagogical background, which supports all educational processes.*

***Figure 3.1. Type of HE institutions that the respondents would choose, if they could decide once again (data in %)***




** data combined for 2010 and 2013, N of choices – 4311.*
*Source: BKL – Students' Study 2010, 2013.*

Those choices correspond to activities that promote fields of study of a more "vocational" character, which is meant to strengthen the ties between HE institutions and the labour market and to make higher education more vocation-oriented.

### Hard-working students

The belief that full-time students do not engage in gainful work during studies – as opposed to their peers in extramural and evening education – is not confirmed by hard data. The BKL Study conducted in the second quarter of 2013 shows that 40% of full-time students do work. Gainful work is undertaken most frequently by students of personal services, journalism and information management, security and protection, economics, administration, and social studies (every second one of them, on the average).

The fourth round of the BKL Study confirms the conclusions drawn three years ago: Students engage in gainful work primarily to have additional financial support and to become independent from their parents, at least partially. Most of the occupations performed by the students are not directly linked to their future career and do not require specialist knowledge and skills acquired in the course of studies. Similarly as three years ago (in 2010), most students work on a part-time basis in services or retail. Despite that, certain changes appear in the students' labour market. The number of persons working as professionals, office workers, and unskilled workers dropped, while the numbers of persons performing technical and associate professional jobs rose. The research results negate the widespread belief that students frequently change employment. During the year preceding the BKL Study, only 6% of working students did change their jobs.

From the employers' perspective, the students are an attractive group of employees due to the low labour costs associated with hiring them. This theory is confirmed by data collected under the BKL Study. As it turns out, most students are hired under civil law contracts (64% of all working students), and only 21% under

**40%**
of full-time students work

**25%**
of Polish students agree to work in the "black economy"

regular employment contracts. Only one in four of the working students work in the "black economy." The average salary of working students amounts to under PLN 1 100 per month, and almost 90% of them earn less than PLN 2 000 per month.

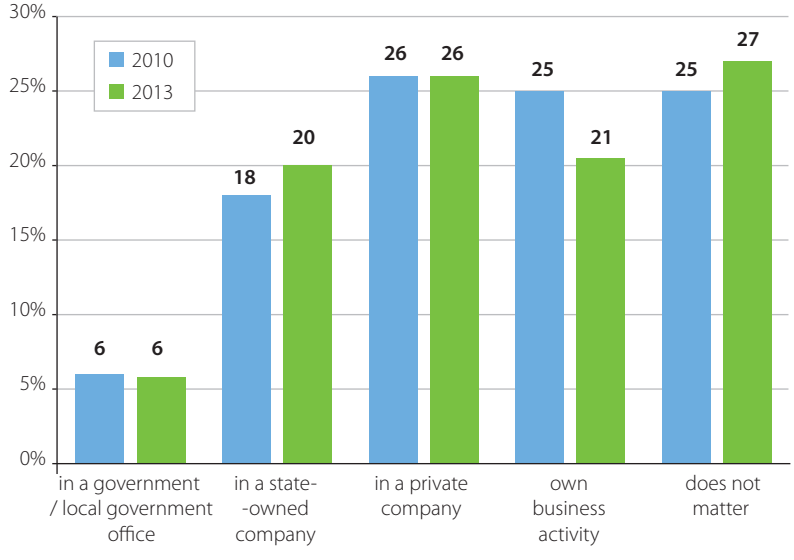
The fact that one in three students did not participate in any internship or apprenticeship during studies is disturbing.

**86%**
of students wish to work in their acquired profession

### How the students perceive their chances in the labour market?

Pessimism regarding the chances for finding a good job thanks to competences acquired in the course of studies rose among most graduates. Such doubts are expressed by one in three students of journalism and information management, social sciences, security and protection, and personal services. More optimism is demonstrated by students of artistic universities, technical universities, medical academies, and economic HE institutions. The majority of them (86%) will try to find a job in their acquired profession. Careers consistent with the field of study is usually planned by students of such fields as environmental protection, architecture and construction, computer sciences, medicine, veterinary medicine, manufacturing and processing, engineering and engineering trades, and biological and artistic fields.

***Figure 3.2. Preferences regarding future employer (data in %)***




** N 2010 = 32878, N 2013 = 31856.*
*Źródło: BKL – Badanie Studentów 2010, 2013.*

For a large group of the students (27%), it does not matter whether they would find a job in a public or private institution. A salary of about PLN 2 600 after tax is indicated as satisfactory, although the students would agree to work for about PLN 1 800, after tax.

### How do the students judge their competences?

The students have an increasingly high view of their competences. Similarly as three years ago, they feel particularly strong in terms of working with computers and using the Internet (average assessment on the 1 to 5 scale: 4.25 and 4.09, respectively). They also have a high view of their contacts with other people, and declare their availability.

Those conclusions are important in the context of employers' opinions on the competence shortages of young people, where the social competences are seen as being in very short supply. This could prove discrepancies between the employers' and the students' definition of a high level of social competences.

Polish students (including students of technical sciences!) have a low view of their competences in the area of handling, assembling and repairing equipment (average assessment of 2.76), and mathematical and artistic competences (average of 3.45 and 3.20, respectively).

***Table 3.1. Average self-assessment of the main competences among students, on a 1 to 5 scale***

| competences | average study year | |
|---|---|---|
| | 2010 | 2013 |
| COG | 3.82 | 3.87 |
| TEC | 2.60 | 2.76 |
| MAT | 3.31 | 3.45 |
| COM | 4.16 | 4.25 |
| ART | 3.26 | 3.20 |
| PHY | 3.63 | 3.63 |
| SLF | 3.88 | 3.88 |
| PER | 4.02 | 4.09 |
| OFF | 3.56 | 3.60 |
| MNG | 3.62 | 3.67 |
| AVL | 3.90 | 4.06 |
| N | 31942 | 31068 |

*KCOG – Finding and analysing information, drawing conclusions; TEC – Handling, assembling and repairing equipment; MAT – Performing calculations; COM – Working with computers and using the Internet; ART – Artistic and creative skills; PHY – Physical fitness; SLF – Self-organisation of work and initiative, timely completion of actions; PER – Contacts with others; OFF – Organisation and execution of office work; MNG – Managerial skills and organising work of others; AVL – Availability.*
*Source: BKL – Students' Study 2010, 2013.*

Male students believe that finding and analysing information, and drawing conclusions are their strengths. Women, regardless of the field of study, have a better opinion on their artistic and creative skills, as well as interpersonal competences. Female students are also more certain of their self-organisation and office competences. They also declare better availability than do their male colleagues.

The need for additional training, tied to future work, is expressed by half of students – more frequently by women, students of public rather than non-public HE institutions, as well as by students of those fields whose graduates are seen as having worse prospects for finding employment (e.g. journalism and information management, environmental protection).

*Table 3.2. Percentage of students who declare they need some training for future work, broken down by year of study and educational field (in %)*

| groups of specialties | percentage | |
|---|---|---|
| | 2010 | 2013 |
| education | 45 | 46 |
| humanities and art | 43 | 34 |
| social sciences, economics and law | 53 | 46 |
| sciences | 42 | 41 |
| health and social services | 50 | 51 |
| technology, industry, civil engineering | 47 | 51 |
| agriculture | 49 | 49 |
| services | 49 | 49 |

*Source: BKL – Students' Study 2010, 2013.*

The vast majority of students (95-96%) declare that they speak a foreign language (usually English) and this level is similar as in 2010. Similarly as three years earlier, students of the various fields are in agreement. At the same time, language courses are the most frequently selected area of additional training (outside the curriculum of studies). They are rather unwilling to invest in social competences, which they believe they mastered quite well, as mentioned earlier. Meanwhile, the employers have a rather poor opinion on the same subject.

## Students of strategic fields – hope for the Polish economy

In order to increase the supply of graduates of specialties crucial for a knowledge-based economy in Poland, a program of the "commissioned fields of study" was implemented. It is subsidised by the Ministry of Science and Higher Education. The commissioned fields of study include specialties in technical, mathematical and natural sciences, identified by the National Centre for Research and Development as strategic, producing qualified specialists in these fields. The fourth round of the BKL Study attempted to analyse the effectiveness of this form of public intervention.

## Do the scholarships attract students?

In most cases, the commissioned fields of study were tied not to launch of new teaching offer, but rather to increasing enrolment for the given fields. Usually these fields already had an upward profile – they enjoyed increasing popularity among students. Thus, the observed effect of a growing number of students of the strategic fields of study does not necessarily have to be caused by the intervention itself. One can suspect that a large part of the students would have studied more or less the same fields, even if they did not receive the additional financial support. They perhaps would choose other universities or slightly different specialties from the same field.

Certain study specialties enjoy permanent popularity among students, regardless of whether studies there are subsidised. They belong to the following groups: mathematics and statistic, physical sciences, environmental protection, engineering and engineering trades, architecture, and construction.

The results of the fourth round of the BKL Study allow one to formulate a rather optimistic conclusion that educational choices of the Polish youth are made based on common sense. The rational nature of choices is seen in the process of selecting the commissioned fields, since

enrolment rises for those specialties that ensure a relatively good market situation for their graduates (mechatronics, power engineering, and computer science). In the case of commissioned fields whose graduates encounter problems with finding employment (environmental protection, chemistry, environmental engineering), the financial encouragement does not exert such a strong influence.

***Table 3.3. Change in the number of students in the 2nd year of studies of the commissioned fields – detailed specialties***

| specialty | 2009 | 2010 | 2011 | 2012 | 2009/2010 | 2010/2011 | 2011/2012 |
|---|---|---|---|---|---|---|---|
| industrial design | 42 | 58 | 36 | 51 | 38% | -38% | 42% |
| environmental protection | 712 | 995 | 882 | 770 | 40% | -11% | -13% |
| chemistry | 1065 | 1076 | 1205 | 1152 | 1% | 12% | -4% |
| physics | 122 | 161 | 133 | 145 | 32% | -17% | 9% |
| mathematics | 741 | 1016 | 1287 | 1333 | 37% | 27% | 4% |
| computer science | 2398 | 2909 | 2965 | 3373 | 21% | 2% | 14% |
| automation and robotics | 664 | 769 | 739 | 805 | 16% | -4% | 9% |
| biotechnology | 770 | 862 | 716 | 773 | 12% | -17% | 8% |
| technical physics | 73 | 97 | 104 | 73 | 33% | 7% | -30% |
| mechanics and machinery design | 998 | 1104 | 1295 | 1256 | 11% | 17% | -3% |
| mechatronics | 276 | 459 | 536 | 542 | 66% | 17% | 1% |
| power engineering | 113 | 188 | 188 | 324 | 66% | 0% | 72% |
| material engineering | 229 | 362 | 320 | 292 | 58% | -12% | -9% |
| civil engineering | 1549 | 1907 | 2000 | 1902 | 23% | 5% | -5% |
| environmental engineering | 1133 | 1493 | 1478 | 1337 | 32% | -1% | -10% |

*Source: the authors' own work based on data of the Central Statistical Office (reporting data of the HE institutions – form S-10).*

The results of the BKL Study lead to the conclusion that the increase in the number of graduates of science fields does not depend so much on financial incentives. Rather, it is influenced by the perception of these fields in social and economic terms and by the manner of teaching at lower levels of education (whether cognitive curiosity and a passion for sciences are formed and encouraged).

### Technical universities and universities profit the most

Under the BKL Study, a clear correlation is observed between the size of the academic entity and the outcomes of commissioning specialties that it offers. For the smaller HE institutions, the fact of obtaining financial support from the Ministry of Science and Higher Education is an important factor, boosting their chances to increase enrolment. This effect is usually short-lived and ends when the support offered by the Ministry is terminated. A reverse trend is observed in the case of technical universities and universities, since those academic centres usually see constant increase in the numbers of students of strategic fields' in the subsequent years. This means that strong institutions that attract students obtain a dual benefit from the participation in the programme of commissioned fields of study. The smaller and weaker institutions obtain a short-term benefit, and in the subsequent years, they slowly but systematically lose everything they gained through the Ministry's investment.

This phenomenon confirms the tendency seen in many educational markets, involving the centralization of academic centres; key centres are strengthened, and peripheral ones weaken or deteriorate. In Poland, this tendency has been additionally strengthened by the processes tied to the demographic decline. Krakow and Warsaw are currently the strongest in terms of education, and they will certainly attract students from smaller, peripheral centres.

The strategy of investing into strategic fields of study offered by the key entities appears to be fully justified, as they offer the largest chances for upholding the increase in the numbers of graduates who are crucial for the economy, even after the extra financing ends.

### Are there any differences between students of commissioned and non-subsidised fields of study?

Contrary to expectations, students of the both the commissioned and regular fields of study considered strategic for the Polish economy are similar in many respects. Their assessment of future professional opportunities, satisfaction with the education offered, or plans for the future are tied more to the chosen specialty and the type of HE institution where they study than to the mere fact of studying a commissioned, subsidised field. However, there are certain differences between these two groups.

Despite the fact that the practical application of knowledge acquired during studies is evaluated similarly by students of both the commissioned and regular fields, the first group is more convinced that skills gained in the course of studies would increase their chances for finding good employment linked to their education profile. This belief is not influenced by the fact of receiving a scholarship. This leads to the conclusion that the increased confidence in the labour market is not tied to the actual skills of the students only, but rather to the fact itself of studying a commissioned field, which in the future (according to the beliefs of the students) should guarantee decent work to the graduates. Fulfilment of this expectation will be a huge challenge for decision-makers in charge of educational and labour market policy.

Both groups of students usually plan to work in an occupation tied to their education (about 90%). Work not tied to the field of study is considered most frequently by students of commissioned mechatronics, material engineering, environment protection, and environmental engineering, industrial design, and civil engineering.

***Table 3.4. Assessment of the chances for finding a job consistent with study profile, according to type of studies and type of HE institution [N = 9225]***

| N–C | | university | | technical / agricultural university | | other | |
|---|---|---|---|---|---|---|---|
| | | C | N–C | C | N–C | N–S | C |
| chances for finding a job consistent with education | N | 1870 | 955 | 3224 | 1879 | 747 | 550 |
| | no | 15% | 9% | 11% | 12% | 12% | 12% |
| | yes | 62% | 74% | 67% | 68% | 66% | 67% |
| | difficult to say | 22% | 15% | 21% | 19% | 20% | 20% |
| | will not look for job | 1% | 1% | 1% | 2% | 2% | 1% |

*N–C – non-commissioned, C – commissioned.*

** Differences significant on the p < 0.01 level.*

*Source: BKL – Students' Study 2013.*

Those studying strategic fields have higher salary expectations than all the students in tertiary education. However, the salary requirements of students of commissioned and non-commissioned specialties do not differ significantly. The lowest after-tax salary for which students of the fields strategic for the national economy would agree to work is, on the average, slightly under PLN 2000.

Regardless of the field of study, women have lower salary expectations than men. From the perspective of the specialties, the highest salary expectations are seen among students of computer science, industrial design, power engineering, mechatronics, automation, and robotics (the lowest expected after-tax salary from PLN 2129 to PLN 2302)

***Table 3.5. Salary aspirations of students of the commissioned and non-commissioned fields (after-tax salary)***

| | non-subsidised | commissioned |
|---|---|---|
| lowest salary | 1999 | 1972 |
| satisfactory salary | 2846 | 2828 |
| salary if you're very lucky | 4026 | 4067 |

*Source: BKL – Students' Study 2013.*

**15%**
of students of the strategic fields plan to work outside Poland

Students of commissioned fields and of parallel non-subsidised fields plan to work outside Poland in the future to the same extent (about 15% of all respondents). As the data suggests, this percentage could rise, depending on Poland's economic situation. Another 50% would consider emigration, if job supply in the local labour market turns out insufficient.

*Janusz Piechociński, Vice Prime Minister, Minister of Economy*

*The new quality of the Polish economy takes shape before our eyes. We are looking for innovative solutions that would enforce the constant development of employees' qualifications. The report of the Polish Agency for Enterprise Development, which contains a comprehensive analysis of this aspect of the market, indicates that economic and educational processes run parallel to each other. The proper use of human potential is the fundamental source for competitiveness of enterprises. This enables us to build a strong market position and increase the effectiveness of operations. Only the economy based on labour performed by highly qualified employees, with constant access to state-of-the-art knowledge, stands a chance for continuous development and successful competition in the market. The cycles in economy and business are different from the cycles in education. Therefore, enterprises must react to the flow of personnel in the increasingly internationalised market in a flexible way. Not only the reaction of enterprises to personnel fluctuations will be important, but also the fact whether our education system is ready for them. The study of human capital is important also due to the change in awareness, civic attitudes, and changes in the mentality of the Polish society.*

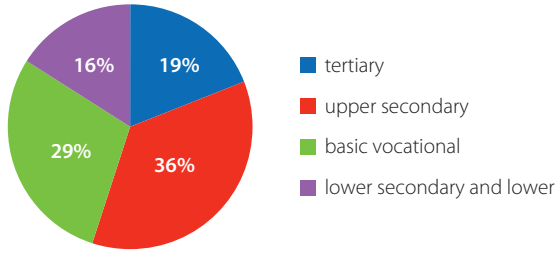
# 4. Occupational activity and education of Poles

**19 %**
of adult Poles graduated from a higher education institution (Chapter II, p. 60)

## Education

The subsequent rounds of the BKL Study show that the number of working-age Poles, graduating from institutions of higher education, rises (19% in 2013, 18% in 2012). Women still dominate this group, since one in four holds a diploma from a HE institution, while, among men, the proportion of graduates is 14%. The data shows that 10% of Poles hold a Master's degree (mostly women), 3% hold a Bachelor's degree, and 1% holds an Engineering degree.

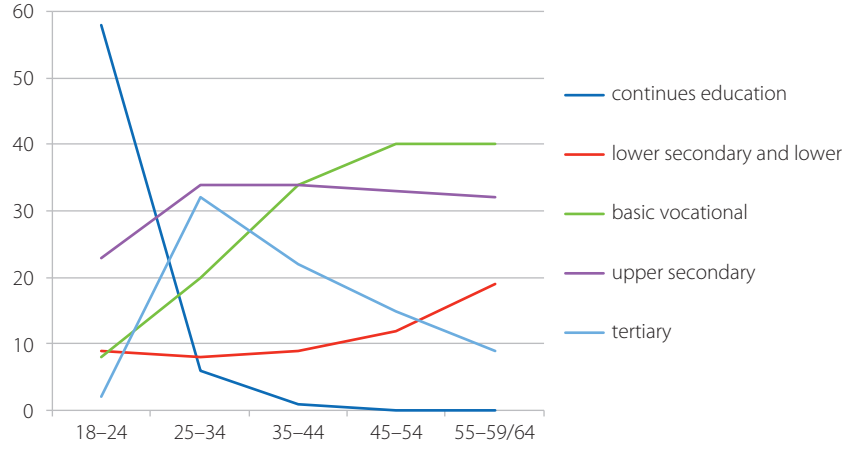
***Figure 4.1. Education structure of Poles of working age***




*Source: BKL – Population Study 2013.*

The factor that differentiates Poles in terms of their educational levels is age. Among the 30-year-olds, one in three has tertiary education, while, in the group of 50-year-olds, one in ten has tertiary education. Among the oldest Poles, basic vocational education dominates (40%).

***Figure 4.2. Education structure of Poles of working age***




*Source: BKL – Population Study 2013.*

The number of the youngest adult Poles (18-24 years) choosing tertiary education falls (from 31% in 2010 to 24% in 2013), whereas the percentage of persons of that age studying at general upper secondary schools rises (from 10% to 14% during the same period).

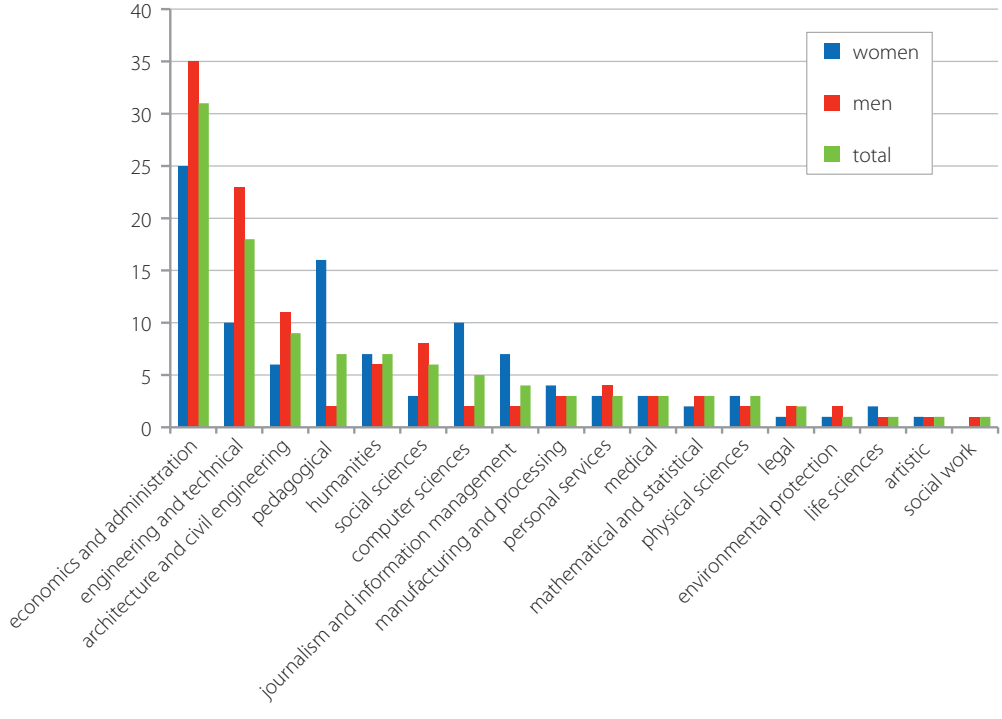
It is worth noting that 13% of adult Poles terminated their education (at least for the time being) at the level of lower secondary or lower education. Most of this group comprises 50-year olds (one in five), but it includes also persons under 24 years of age (9%).

### Who studies what and where?

In 2013, as in the previous years, the most popular fields of study included economics and administration. One in three of all graduates held a diploma from these specialties. The second most popular field of study included the different pedagogical specialties (18%), and the third one included humanities (9%). All of these fields of study were dominated by women.

Men more frequently chose engineering and technical studies (16%), computer science (10%), architecture, and civil engineering (7%). There is a noticeable downward trend in social sciences (from 10% of all first-year students in 2010 to 6% in 2013).

***Figure 4.3. Fields of study with the highest numbers of graduates, broken down by sex (in %)***




*Source: BKL – Population Study 2013.*

In terms of differences based on age, studies of economic and administrative fields are much more popular among the younger age group. A reverse trend is observed for pedagogical fields, since their graduates are more frequently from the 40+ age group. In the group of sixty year olds (represented by men only), the share of engineering

Over
**50%**
of persons entering the labour market are graduates of HE institutions

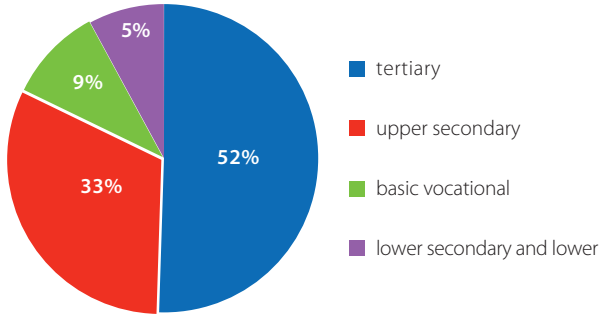
and technical fields grows distinctly in comparison to all other fields of study.
Among all persons with tertiary education, 83% graduated from a public HE institution, and 22% from a private one. Private institutions of higher education were selected more frequently by the younger generation. In the age group 19-24, their popularity drops slightly, to the advantage of public institutions. The popularity of extramural studies, as compared to full-time programs, is also falling. 23% of students chose the extramural form, while 79% the full-time program.

## Poles in the labour market

### The graduates

During the past 5 years, almost 3 million graduates entered the labour market. More than half of them had tertiary education, and one in four held a Master's degree.

***Figure 4.4. Percentage of graduates from the past 5 years (2008–2013), broken down by type of school completed***




*Source: BKL – Population Study 2013.*

**10%**
of the unemployed have a diploma from a HE institution
(Chapter II p. 61)

### Education and occupational situation of adult Poles

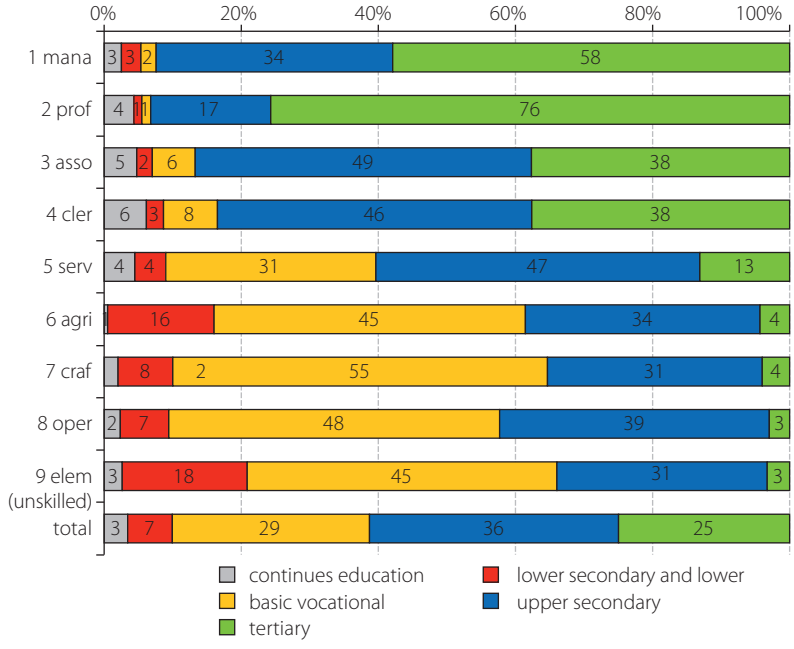
Those who work have, on the average, a better educational level than do the unemployed. In 2013, one in four among the working population had tertiary education, and one in ten among the unemployed.

Among the working population, those with the best education include professionals (76% of employees with higher education) and managers (58%). Upper secondary education prevails among technicians and associate professionals, office workers, employees of the service and retail sectors.

*Mateusz Garczyński of the Ministry of Science and Higher Education*

*The trends in education have changed. Young people increasingly study at renowned technical universities. The institutions of higher education are more willing to cooperate with the labour market and entrepreneurs and organise internships and practical training. The decision on the commissioning of certain fields of study was the right one. Looking back, we can state that it inspired changes in the higher education system. The quality of teaching in the commissioned fields is higher, and the universities more willingly cooperate with entrepreneurs at the stage of planning and execution of internships and practical training for their students. The evolution of the commissioned fields of study and our experience so far suggest that education will increasingly shift from teaching given fields of study towards teaching specific competences and skills sought after in the labour market.*

***Figure 4.5. Education levels of the working Poles, broken down by ISCO-1 occupational groups (in %)***




*Source: BKL – Population Study 2013.*

In each of these occupational groups, persons in formal education were a small minority, under 6%. Some optimism can be found in the fact that, among the inactive population (not working and not having the status of unemployed), almost one in three persons is currently continuing education at school or a higher education institution.

## Occupational activity

In the most recent BKL Study, conducted in the second quarter of 2013, the researchers noted the rising percentage of working women, especially under 30 years of age and aged 50+. This phenomenon inspires optimism.

Most people work under employment contracts (in 2013 – about 74% of workforce). About 12% of persons work under contract of mandate or specific task contract. The majority 30% of persons hired under these civil law contracts are simultaneously employed full-time. This group is dominated by professionals (21.8%), employees of the retail and services sectors (20.1%), and unskilled workers (19.2%). The number of persons declaring that they work without a formal contract remains on the level of circa 4% during the subsequent BKL Study rounds. Such unregistered work applies mostly to blue-collar occupations; therefore, the group of persons declaring they work in this manner is dominated by men.

## Occupational structure of the employment contracts

Among those working full time in 2013, the largest groups included professionals, employees of the retail and services sectors, and skilled workers. Almost half of all men work as skilled workers or operators/fitters (usually drivers), while the proportion of women in these occupations is less than 10%. Dominance of women is the strongest in the category of professionals, as well as in retail and services. Over half of all women work in these professions.

**60%**
of Poles of working age do work

**74%**
of those who work are hired under employment contracts

***Table 4.1. Occupational structure (ISCO-1) of full-time employees, broken down by sex and age****

| | total | | | | Men | | | | Women | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| isco-1 | 18–34 | 35–49 | 50+ | total | 18–34 | 35–49 | 50–64 | total | 18–34 | 35–49 | 50–59 | total |
| 1 mana | 3.3 | 3.7 | 3.6 | 3.5 | 3.5 | 3.9 | 4.1 | 3.8 | 3.1 | 3.5 | 3.0 | 3.2 |
| 2 prof | 16.3 | 19.4 | 17.5 | 17.8 | 12.4 | 11.9 | 9.4 | 11.5 | 21.1 | 26.7 | 25.2 | 24.5 |
| 3 asso | 13.1 | 12.4 | 12.9 | 12.8 | 12.3 | 10.8 | 6.8 | 10.5 | 14.1 | 13.9 | 18.7 | 15.2 |
| 4 cler | 12.5 | 9.3 | 10.0 | 10.6 | 8.0 | 5.8 | 5.1 | 6.5 | 18.1 | 12.6 | 14.7 | 15.0 |
| 5 serv | 20.5 | 16.0 | 12.9 | 16.9 | 11.0 | 8.8 | 10.3 | 10.0 | 32.3 | 22.9 | 15.4 | 24.2 |
| 7 craf | 15.9 | 19.3 | 20.8 | 18.4 | 25.3 | 31.3 | 35.2 | 29.8 | 4.2 | 7.6 | 7.0 | 6.3 |
| 8 oper | 11.0 | 12.1 | 10.6 | 11.3 | 17.9 | 21.2 | 20.1 | 19.6 | 2.4 | 3.2 | 1.5 | 2.5 |
| 9 elem | 7.4 | 7.9 | 11.8 | 8.7 | 9.6 | 6.3 | 9.0 | 8.2 | 4.8 | 9.5 | 14.5 | 9.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N | 2860 | 3102 | 1827 | 7789 | 1583 | 1528 | 896 | 4007 | 1277 | 1574 | 931 | 3782 |

** The very small group of full-time workers in agricultural occupations was not included.*
*Source: BKL – Population Study 2013.*

The largest increase of full-time employment was seen in the groups of secretaries, personal service workers, labourers, household staff (helpers), and cleaners. The number of teachers dropped the most. Construction workers are an interesting group, because their overall share almost did not change, but the youngest age group shrunk clearly, while the number of the oldest ones rose. A similar phenomenon is observed in the case of household helpers and cleaners. Meanwhile, a reverse trend (growth in the youngest group, decline in the older one) is seen among business and administration professionals.

### Migrations are still popular

5% of adult Poles have performed some kind of work abroad during the past year. This is the highest value of this ratio in four years. Men account for the majority of this group (71.6%), and they are usually aged around 40. The share of tertiary education graduates in this group is relatively small (16.8%).

**16%** of unemployed during Q2 of 2013

## Unemployment

### Men are jobless more frequently than are women

In light of the Study of Human Capital, 2013 was still a time of high unemployment – 16.3% on the average. The proportions in the numbers of unemployed men and women reversed. In 2013, the unemployment rate was slightly higher among men (16.4%) than among women (16.1%).

The highest unemployment rate was seen in rural areas (19%), while it was twice as low in large cities (with over 500 thousand inhabitants). As during the previous years, the worst employment situation is seen in the Warmińsko-Mazurskie province (unemployment rate of 25.3%) and Podkarpackie (23.7%), and the best in the Wielkopolskie province (11.5%).

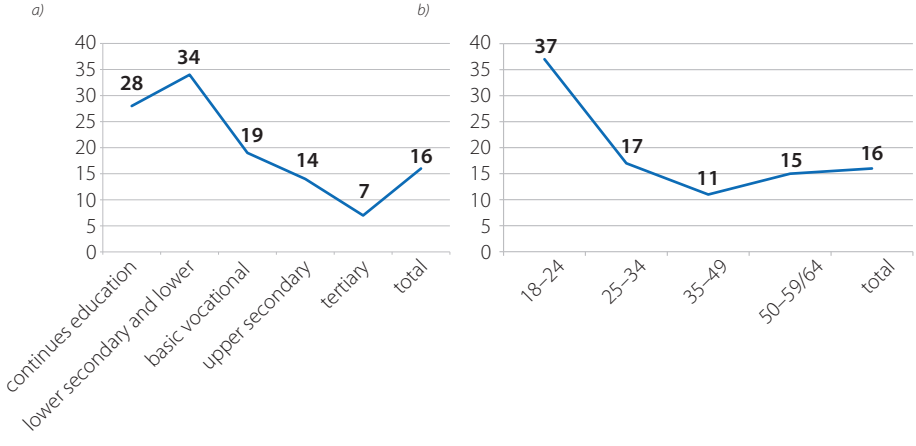
***Table 4.2. Unemployment rate in the individual provinces in the years 2010-2013, according to the BKL Study (in %)***

| administrative region | 2010 | 2011 | 2012 | 2013 | change (in percentage points) | |
|---|---|---|---|---|---|---|
| | | | | | 2012–2013 | 2010–2013 |
| Dolnośląskie | 13.1 | 14.3 | 15.1 | 18.1 | 2.9 | 5.0 |
| Kujawsko-Pomorskie | 12.3 | 12.5 | 17.2 | 18.9 | 1.7 | 6.6 |
| Lubelskie | 12.3 | 13.7 | 16.7 | 18.2 | 1.5 | 5.9 |
| Lubuskie | 14.0 | 18.2 | 19.7 | 18.7 | -1.0 | 4.7 |
| Łódzkie | 9.4 | 11.6 | 16.4 | 16.3 | -0.1 | 6.9 |
| Małopolskie | 12.4 | 14.8 | 17.8 | 140. | -3.8 | 1.6 |
| Mazowieckie | 10.0 | 10.5 | 14.6 | 14.7 | 0.2 | 4.7 |
| Opolskie | 9.9 | 9.6 | 10.6 | 15.5 | 4.9 | 5.6 |
| Podkarpackie | 18.2 | 16.2 | 25.2 | 23.7 | -1.5 | 5.5 |
| Podlaskie | 11.7 | 13.5 | 19.2 | 15.5 | -3.7 | 3.7 |
| Pomorskie | 11.6 | 15.0 | 12.1 | 11.9 | -0.2 | 0.3 |
| Śląskie | 11.9 | 13.6 | 15.5 | 15.0 | -0.6 | 3.1 |
| Świętokrzyskie | 16.7 | 14.9 | 18.7 | 19.2 | 0.6 | 2.5 |
| Warmińsko-Mazurskie | 18.7 | 15.6 | 24.3 | 25.3 | 0.9 | 6.6 |
| Wielkopolskie | 8.1 | 9.5 | 10.7 | 11.5 | 0.8 | 3.4 |
| Zachodniopomorskie | 13.5 | 20.4 | 20.9 | 16.9 | -3.9 | 3.4 |
| Total | 12.0 | 13.4 | 16.4 | 16.3 | -0.1 | 4.3 |

*Source: BKL – Population Study 2010-2013.*

Across all age groups, the highest unemployment rate was seen among persons with the lower education levels (average of 34%) and among young people – up to 24 years.

***Figure 4.6. Unemployment rate in 2013 (in %): a) According to education level; b) according to age groups***



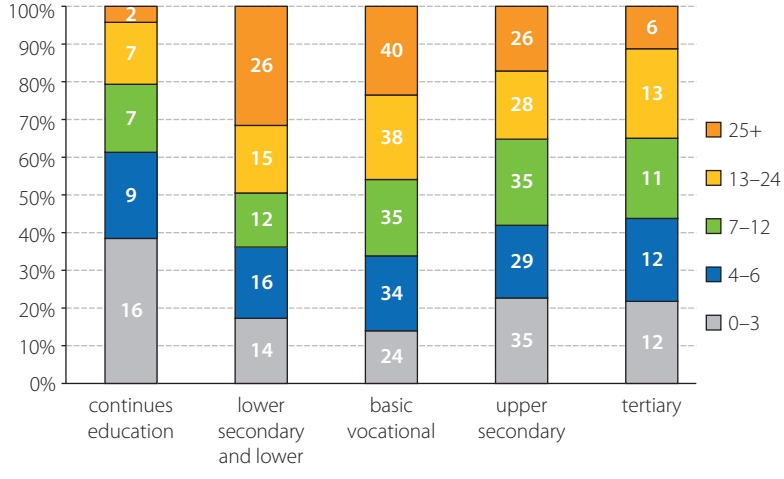

*Source: BKL – Population Study 2013.*

**25** months.
This is the average time of looking for work

### Looking for work takes longer

The fourth round of the BKL Study has demonstrated over the last four years an increase of the average time of looking for work, which is from 21 to 25 months. The groups of persons looking the longest for new work include those with the lowest education levels (41% of them look for work for over 12 months) and persons aged 50+ (more than half of them look for work for over 2 years).

***Figure 4.7. Time of looking for work by the unemployed, broken down by education, taking into account persons in education (in months)***




*Source: BKL – Population Study 2013.*

**19%**
of the unemployed have never worked

### Reasons for and barriers to looking for work

As during the previous rounds of the BKL Study, in 2013, one in three of the unemployed stated that being fired from the previous job was the reason for looking for new employment. One in four of the unemployed hoped to return to the labour market after a break, and one in five indicated the will to undertake first job ever. Among those seeking their first job, the number of those who look for it for more than a year is rising visibly. They account for almost half of all the first-job seekers!

The unemployed invariably believe that the main reason for their joblessness is the absence of appropriate job offers as well as the lack of contacts and connections that would facilitate finding the right job. They consider the competence shortages – insufficient experience or education – as much less important reasons for their failures. The BKL Study has demonstrated that, in 2013, 19% of all job seekers had no occupational experience whatsoever, and among those seeking their first job, this proportion rises to 66%.

### What job is in demand and what are the methods for searching for it?

Help of family or friends is invariably the most popular way of looking for work (irrespective of the age of the unemployed). It is named by 78% of respondents. Two thirds of job seekers use the assistance of employment offices (unfortunately, more than 70% of this number was dissatisfied with these services). A little over half of all the unemployed opt for direct contacts with potential employers. Private employment agencies are still a rarity in the Polish labour market. Their services are used by one in ten of the unemployed. Search for work on the Internet is the domain of the

young, and over half of the unemployed aged 18-24 seek, analyse, and respond to advertisements on job vacancies, and one in four of them publish their own "job wanted" ads.

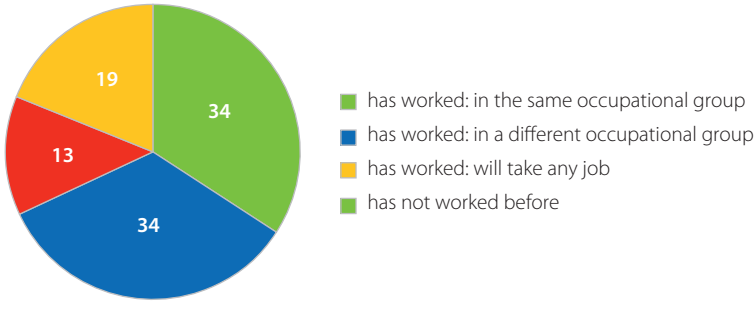
Over one-third of unemployed women look for work in the service occupations (sales workers, secretaries, keyboard clerks), and one in two men look for blue-collar work (skilled and elementary, such as labourers in mining, construction, manufacturing and transport).

One in three of the unemployed look for work in the same occupational group where he or she worked earlier (this phenomenon applied primarily to professionals), and a further 34% intend to look for work in an occupation other than the previous one.

Starting a private business is considered by one in five of the unemployed – more frequently by persons with tertiary education and under 35 years old. However, only a small part of them made any attempts to make that happen.

**79%**
of the unemployed are willing to retrain

***Figure 4.8. Occupational groups where the unemployed Poles were looking for work***




*Source: BKL – Population Study 2013.*

The subsequent rounds of the BKL Study show that a growing number of the unemployed are ready to take any job. In 2013, their proportion amounted to 17%. The salary expectations of unemployed Poles are not high either. The average lowest salary for which they would agree to work amounted to circa PLN 1 500, similarly as a year earlier (the average amounts declared by women were lower on the average by 15% from the ones declared by men). The majority of the unemployed would like to work full time.

**17%**
of the unemployed are willing to take any job

## Ready for changes

Over a million of Poles were looking for new work in 2013, just as a year and two years earlier. The most frequently stated reason was simply the will to change jobs. This tendency was seen most frequently among young people, under 30 (16%). Only one third of these persons were seeking a new employer within the same occupational group. More than half intended to change their occupation (most frequently – employees of the agricultural sector, the least frequently – professionals), while 8% of those working were seeking any new work. Persons working part time are more willing to change their job.

## Who succeeded?

Those currently working, who during the last year were unemployed for at least a month, were mostly aged 25 to 34. One in four of them found employment in elementary blue-collar occupations.

A million employees are looking for a new job

***Table 4.3. Persons working, who were unemployed for at least a month during the past 12 months, broken down by age and occupation (in %)***

| Category | | % |
|---|---|---|
| Age | 18–24 | 19 |
| | 25–34 | 36 |
| | 35–49 | 31 |
| | 50–59/64 | 13 |
| occupation (ISCO-1) | 1 MANA | 1 |
| | 2 PROF | 6 |
| | 3 ASSO | 8 |
| | 4 CLER | 9 |
| | 5 SERV | 19 |
| | 6 AGRI | 7 |
| | 7 CRAF | 17 |
| | 8 OPER | 9 |
| | 9 ELEM | 24 |
| Total | % | 100 |
| | N | 389 |

*Source: BKL – Population Study 2013.*

*Bożena Lublińska-Kasprzak, President of the Polish Agency for Enterprise Development*

*The BKL Study responds to the needs of the Polish economy and is extremely important for the PARP as the promoter of entrepreneurship. I do hope that the results of this study would be used more frequently both by the government administration and by the community of entrepreneurs and business environment institutions. We should direct more resources towards promotion activities, especially the promotion of good practices, to boost the appetite of entrepreneurs for investing into the education and training of their employees. Entrepreneurs should be encouraged to ongoing cooperation with educational institutions, to have the opportunity to influence the development and the quality of competences necessary for the Polish economy. This could take the form of co-creation of the curricula, the organisation of practical teaching, internships, and trainings at enterprises. This will give the employers certainty that the young people are well prepared for work – both their first employment and subsequent employment.*

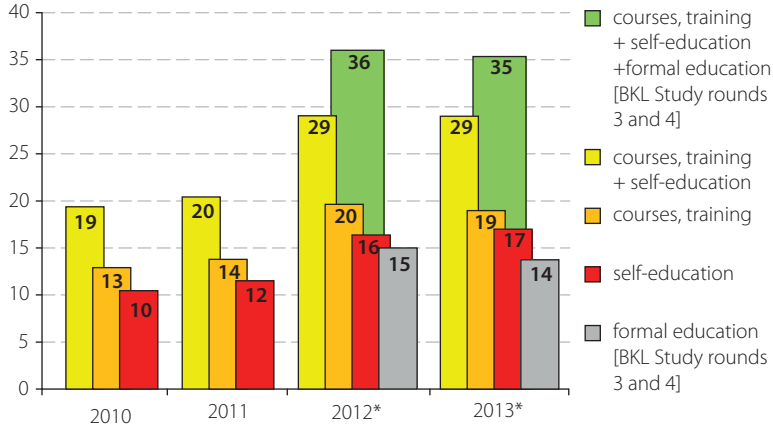
# 5. Lifelong learning

## How many Poles improve their competences?

The involvement of adult Poles in the improvement of their competences, in light of results of the BKL Study of 2013, did not change and reached 35%. The largest group (almost one in every five persons) participated in courses and training (including the obligatory health and safety and fire safety courses). 17% learned on their own, and 14% participated in formal education (at a secondary school or higher education institution).

**65%**
of adult Poles do not participate in any form of learning

***Figure 5.1. Development of competences among persons aged 18-59/64 over the past 12 months (in %)***




** since the 2012 round of the BKL Study, questions on the participation in courses and training and on self-education have been changed.*
*Source: BKL – Population Study 2010–2013.*

Unfortunately, still the majority of adult Poles (65%) do not develop their competences in any manner.

## Who is learning?

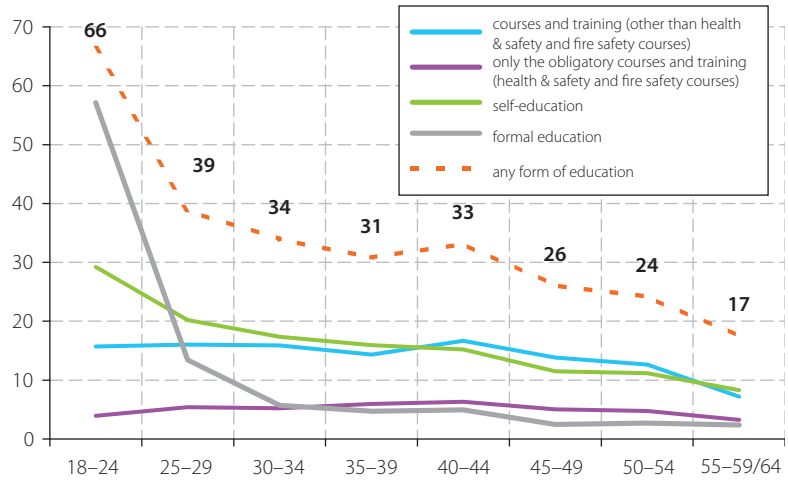
Continuing education participation decreases with age, but people with higher education continue learning more often. Poles with lower education levels, who could improve their chances in the labour market through participation in training, unfortunately constitute the smallest group among all education participants. Irrespective of the occupational situation and education, women take part in various non-obligatory training and education more frequently than do men.

**39%**
of Poles have never participated in non-obligatory courses or trainings

*Patrycja Lipińska, CEDEFOP*

*Adult education is one of the action priorities of CEDEFOP. Studies conducted at various times and under different projects confirm that the level of adult learning activity in Poland is low. Training is frequently not considered as an employee's right, but rather as a benefit given at the discretion of the employer. Following the example of other European countries, we should pay more attention to legislation regarding human capital development policy, build effective instruments that support the learning activity of employees, but also establish a system of incentives for employers, including financial incentives. They should present benefits tied to training and support of the development of strategies for the development of competences through the shaping of positive relations between the employer and the employees.*

***Figure 5.2. Development of competences during the past 12 months, broken down by age (in %)***




*Source: BKL – Population Study 2013.*

Competences are developed most frequently by professionals and managers (over 30%), as well as by technicians and associate professionals (25%). The opposite occurs among those working in unskilled (elementary) professions, farmers, gardeners, foresters, fishermen, industrial labourers, and craftsmen (for each of these groups, the share of those improving their competences does not exceed 10%). For the working persons, education was much more important for educational activity than age.

## What training subjects are the most popular?

Trainings attended by adult Poles most frequently include labour safety and fire safety courses, usually obligatory at work. They were attended by 37% of respondents. Preferences regarding the subject matter of non-obligatory training and courses do not change much over the recent years. The most popular are in the field of medicine, social work, psychology and first aid, as well as civil engineering and industry. The most frequently selected area of self-education was computer science and computers.

Three fourths of the respondents declare they did not incur any costs for their education. Among the rest, only 9% spend more than PLN 1000 for this purpose.

The participants were usually satisfied with the training and perceived it as useful. For 76% of the working respondents, the most frequent reason for participation in courses and training is their will to improve skills necessary for their present occupation. Requirements of employers and the pursuit of one's own interests are much further down in the ranking of reasons (circa 30%). It is rather obvious that, for the unemployed, the primary reason was to find employment. The opportunity for free participation in training motivated one in five of the unemployed.

Absence of a need for improvement at work was the main reason why adult Poles do not engage in any form of development of their competences. As most of the training (circa 80%) is financed with external funds (by employers, the employment office or other institutions), the training costs are not a significant barrier for adult Poles. They consider the possibility of holding universally recognised certificates and

licenses as increasingly important. In the second quarter of 2013, almost one in four adult Poles held such certificates. Over 30% of these certificates and licenses were not required by law, but useful for work.

### What are the plans for the future?

The interest in the improvement of one's competences within the timeframe of one year, declared by Poles, is not impressive. From the total number of respondents, only 22% plan to develop their skills (of this number, 21% are working, 38% unemployed). The most frequently named subjects of planned courses and training include foreign languages, construction and industry, computer science and computers. The fact that over half of people who have not participated in any form of education in the last year and do not plan in the coming months is a worrying one.

### Which employers invest in the development of their employees?

The BKL Study carried out in the spring of 2013 has shown that, as in the previous year, 1.2 million of employers invested in the strengthening of competences of their personnel (this accounted for 69% of all employers). Most frequently, it is the large enterprises and institutions that invest in the development of their employees, regardless of the business sector which they represent. 95% of them declared engaging in at least one form of supporting competences of their personnel. In comparison, for micro-enterprises, this percentage amounts to 67%.

**57%**
of adult Poles did not train during the past 12 months, but intend to do so in the next year

***Table 5.1. Differences in educational activity depending on sector and employment size***

| | 1–9 | 10–49 | 50+ | Total | N |
|---|---|---|---|---|---|
| Manufacturing and mining | 54 | 66 | 90 | 57 | 2036 |
| Construction and transport | 60 | 66 | 87 | 61 | 3070 |
| Trade, hospitality, food services, support services | 60 | 75 | 88 | 61 | 5572 |
| Specialist services | 82 | 90 | 97 | 82 | 3713 |
| Education | 96 | 98 | 100 | 97 | 698 |
| Human health and social work activities | 87 | 92 | 98 | 88 | 915 |

*Source: BKL Employer Study 2013.*

**69%**
of employers implement individual development plans for their employees

Significant differences in the employers' involvement in development of their employees depend on their business sector. The traditional sectors (construction and transport, trade, hospitality and food services, manufacturing, and mining) are characterized by visibly lower activity in that area (circa 60% of all companies), whereas sectors of the so-called new economy (education, human health and social work, specialist services) are characterized by a high share of employers investing in their staff (over 80%). It is worth remembering that the high ratios for the sectors of education and human health are largely due to the current regulations, which stimulate activity in this area.

Since 2010, the BKL Study has invariably confirmed the dependency between development of employee competences and development of the enterprise. Among strongly developing companies, as many as 84% are actively educating their personnel, while, among the stagnant ones, the proportion falls to a little over half (55%). This tendency remains true regardless of enterprise size, but the differences are more pronounced in smaller companies. In 2013, strongly developing companies trained more of their employees (41%) than the stagnant ones (17%).

*Table 5.2. Activity of entrepreneurs in the training of their personnel, broken down by company development phase and size*

| | Stagnant | Poorly developing | Developing | Strongly developing |
|---|---|---|---|---|
| 1-9 | 55% | 70% | 77% | 84% |
| 10-49 | 61% | 76% | 83% | 93% |
| 50+ | 85% | 93% | 95% | 98% |
| Total | 55% | 71% | 77% | 84% |

*Source: BKL Employer Study 2013.*

The large enterprises clearly train more frequently, but those activities cover a significantly smaller percentage of employees. Thus, the chances of employees for the participation of training are comparable across all enterprise size categories and amount to 26% on average.

## How and on what subjects the employers provide training

**49%**
of employers implement individual development plans for their employees

Irrespective of company size, the employers are most willing to subsidise participation of their employees in various courses and training (in 2013, this form of development was used by 60% of micro-enterprises, over 70% of medium-sized ones, and as much as 85% of the large ones). Training delivered by external companies is still the dominant form (44% of employers provided only that type of training).

Larger employers are more willing to engage in other forms of personnel development (aside from training), such as participation in conferences, seminars, workshops, or education at an institution of higher education (this form of support for their employees was applied by almost half of the large companies, and only one in ten micro-enterprises). The tools which can be considered as indicators of a strategic approach to personnel development, which is a system of competence evaluation and individual development plans, were still used relatively rarely (by 34% and 49% of the employers, respectively).

*Table 5.3. Forms of investing in personnel development, depending on company size (in %)*

| year | form of training used | 1–9 | 10–49 | 50+ | ogółem |
|---|---|---|---|---|---|
| 2012 | courses and training (other than obligatory) | 60 | 71 | 85 | 62 |
| | self-education of employees | 57 | 61 | 62 | 58 |
| | employee competence evaluation systems | 33 | 46 | 49 | 34 |
| | conferences, seminars or workshops | 28 | 42 | 56 | 29 |
| | individual development plans for employees | 25 | 29 | 32 | 25 |
| | subsidising education in HE institutions | 10 | 23 | 49 | 12 |
| | subsidising education in vocational and upper secondary schools | 7 | 7 | 10 | 7 |

*Source: BKL Employer Study 2012, 2013.*

Usually, the employers select for their staff training related to the sector of their enterprise's business. Most popular are the trainings in the area of construction and industry, and one in four of all employees providing training indicated this area. The second most popular training subject in 2013 was training in trade, sales, and customer service. It was more interesting for micro than larger enterprises, and for developing rather than stagnant ones.

### How much do the employers invest?

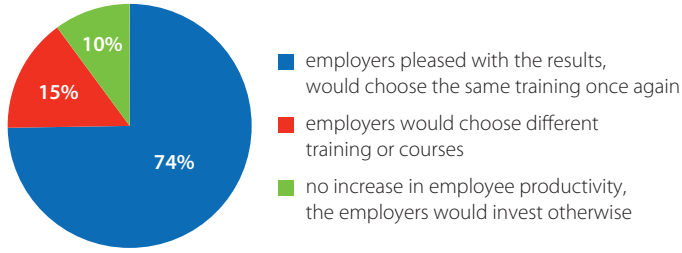
The development of employee competences, as a year earlier, most frequently was financed fully with resources of the employer (71% of all employers providing training). Only one in ten employers decided to profit from EU funds – usually the large companies.

Employees of the larger firms had to participate in their competence development costs more frequently than did those in micro-enterprises.

The investment into the development of personnel competences, made by the employers in 2013, was comparable to the previous year's investment and strongly linked to the enterprise size. The average value of total employee training costs in micro- and small enterprises amounted to PLN 2 thousand and PLN 3.5 thousand, respectively, while for the larger enterprises, it reached PLN 18.5 thousand. Those investments are usually seen by the employers as proper. Three fourths of them would repeat their choices regarding the training of employees.

**71%**
of employers finance the development of their employees in full

***Figure 5.3. Assessment of employers' satisfaction with the training organised for their employees***




*Source: BKL Employer Study 2012, 2013.*

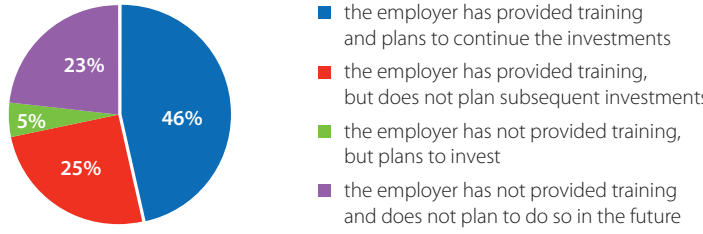
### Why some employers choose not to invest in their staff?

Those employers who did not engage in any activities meant to develop their employees (about 30% of the overall number) most frequently (in about 80% of cases) explained this decision by the lack of need, due to the sufficient skills of their staff. The issue of the excessive costs of training became slightly more important (in comparison to last year, in 2013, it was indicated by 53% of the employers). A certain regularity has been observed among enterprises that did not decide to provide training; the strongly developing companies appreciate the need for training, but give it up due to high costs, the need to carry out other investments or due to limited time of their employees.

Employers are very cautious when planning investment into personnel development. Only half of them declare the intention to improve the competences of their employees in the coming year. This is visibly less than the percentage of employers providing training in 2013. One can only hope that, as in the previous years, the declared intent turns out to be under-estimated in comparison with the later, actual development activity.

**30%**
of employers do not finance the development of their employees

***Figure 5.4. Plans of employers regarding investment into personnel, taking into account their previous experience in that area***




*Source: BKL Employer Study 2012, 2013.*

**45%**
of training institutions predict a worsening of the situation in their sector

## Drop in development or stabilisation of the sector?

The economic downturn and the related reduction of expenses for training and development took their toll on the sector of training institutions. Its slow but regular development observed in the years 2010-2012 was significantly reduced during the past year. The study of the training institutions and companies, carried out in the second quarter of 2013, demonstrated a decline of employment in this sector and drop in the number of clients. The growth of turnover was also small (0.4%). In the opinion of a significant part of the training sector's representatives (45%), this situation will continue to worsen, or would remain unchanged at best (44%). More optimism is expressed in the assessment of financial standing of one's own business and forecasts for its future. One in three respondents expects the financial situation of his business to improve in 2014.

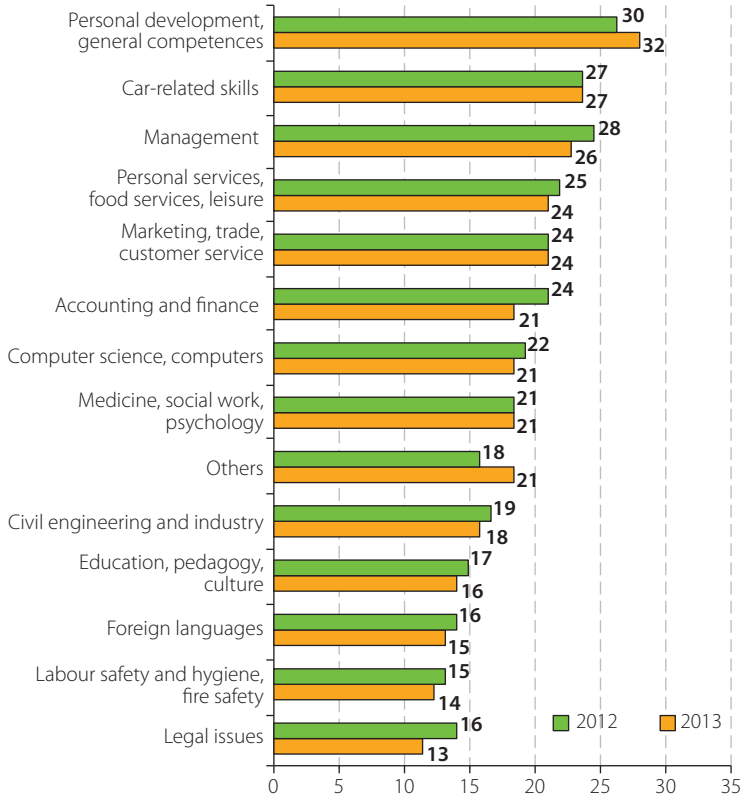
The range of operations of training institutions and companies is growing systematically. The share of those who offer services only in the local markets is dwindling, while the proportion of those offering their services to clients from all over Poland is rising. This tendency may be tied to the rising popularity of e-learning training and courses. In the second quarter of 2013, this form was offered by 22% of all training companies.

The training sector is still attractive for start-up companies. The group of companies operating in the market for a year or less (in 2013, they accounted for 3% of the market) is dominated by micro-companies specializing in the legal, management, computing, and accounting fields.

## Forms of training offered

The BKL Study, carried out in the second half of 2013, confirmed that the most popular form of training offered by the training firms and institutions participating in the Study still includes training and courses. Once again an increase was noted in the number of companies offering innovative forms of development, such as coaching, which is offered by 27% of all companies, or the e-learning mentioned above. The ranking of training subjects, invariably since 2010, is dominated by training in soft skills, which tied to personal development and development of competences of general nature. In 2013, training on these issues was offered by 32% all training institutions and companies participating in the study, which indicates that the number of companies offering training on these matters is growing systematically. A slightly smaller number of companies offer training in management, as well as courses and training for various levels of driver's licenses and other licenses for drivers. It is also easy to find offers for courses and training in the fields of personal services, marketing, trade and customer service, accounting and finance, computing, medicine, social work, and psychology. Almost one in five training companies offer training and courses in the area of construction and industry, 15% of them teach foreign languages, 14% provide labour safety and fire safety training, and 13% offer courses on legal issues.

***Figure 5.5. Ranking of the popularity of training subjects and other forms of development in 2012 and 2013 (in %)***




*Source: BKL – Study of training institutions and companies 2012, 2013.*

## Development plans of the training sector

Representatives of the training sector named the following principal barriers to the development of their sector: the instability and improper structure of legal regulations (including the Public Procurement Act), the economic crisis, and falling demand for training as well as declining quality of services, resulting from the terms and conditions for granting EU subsidies. Despite these obstacles, almost eight in ten of the representatives of training institutions and companies participating in the study declare the intention to develop their business in the coming year, and 84% state that they intend to improve the quality of offered services. Declarations on broadening the range of services and on the development of the company were usually made by representatives of companies providing training and consulting in the field of management (87%), computer science (85%), marketing, and foreign languages (84%). They expect the public institutions to support system-wide activities, including the promotion of the concept of lifelong learning and the shaping of attitudes that support competence development.

# 6. Employers on the labour market

## Undermined stability of demand for new employees

The results of study of the employers, carried out under the fourth round of the Study of Human Capital, show the extent of changes in the labour market in mid-2013. The demand for employees, stable until that time, was reduced significantly. For the first time since 2010, the number of employers seeking new workers dropped significantly. In the past years, demand hovered at the level of around 17%, but in 2013, it fell to 14%.

***Figure 6.1. Percentage of employers declaring demand for employees (N 2010 = 15841, N 2011 = 16159, N 2012 = 16000, N 2013 = 16000)***


*Source: BKL Employer Study 2010, 2011, 2012, 2013.*

This situation applies to all employers – irrespective of the employment size, business sector or company development phase.

***Table 6.1. Percentage of employers (per business sector) searching for new employees (in %)***

| | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| manufacturing and mining | 20 | 19 | 19 | 16 |
| construction and transport | 18 | 22 | 22 | 16 |
| trade, accommodation and food services | 14 | 17 | 14 | 13 |
| specialist services | 16 | 17 | 18 | 14 |
| public education | 18 | 27 | 18 | 24 |
| private education | 42 | 17 | 35 | 35 |
| human health and social work activities | 17 | 10 | 17 | 10 |
| total | 16 | 17 | 17 | 14 |

*Source: BKL Employer Study 2010, 2011, 2012, 2013.*

For the first time in three years, the number of sought employees also dropped. In the spring of 2013, the employers limited their hiring needs to the lowest level since the commencement of monitoring under the BKL Study – 550 000 persons. These changes affected the professionals the most in most categories (mainly doctors, engineers, business, and management professionals). The only exceptions were IT professionals. The smaller demand for skilled workers, operators, and fitters means less people needed to work as construction labourers, drivers, electricians. In the spring of 2013, demand for sales and service workers rose, but it applied in the least extent to personal service workers.

The strongest influence on the overall decline of hiring needs could have been exerted by the limited demand

for employees in the construction and transport sector (reduction by 6 percentage points), which, during the past years, accounted for a significant increase in the number of available jobs. From among all the employers, only those in the sectors of trade, hospitality and food services, as well as public education, maintained their readiness to hire new employees on a level similar to the one observed in 2012.

Analysis of the demand for new employees from the regional perspective shows that, in the spring of 2013, only in the Kujawy and Podkarpacie regions, demand for employees remained unchanged. In all the other regions, hiring needs were reduced, and the strongest declines (by about 20%) were recorded in the Podlaskie, Małopolskie, and Pomorskie administrative regions.

### Increasing difficulties with finding appropriate candidates

Despite the increasingly large supply of available candidates, the scale of recruitment problems rises.

In the spring of 2013, more employers than ever before (78%) encountered difficulties with finding candidates for work who would fulfil their expectations. This problem was indicated more frequently by the smaller enterprises, especially those with under 50 employees.

**78%**
of employers encounter problems with finding appropriate candidates

***Figure 6.2. Percentage of employers looking for people to work and experiencing problems with finding appropriate candidates (N 2010 = 2483, N 2011 = 2731, N 2012 = 2686, N 2013 = 2156)***


*Source: BKL Employer Study 2010–2013.*

The employers stated that they experience the largest difficulties in finding appropriate candidates in those occupations that are the most in demand among them.

An interesting observation was made based on the analysis of who was looking for candidates. The larger employers encountered problems with recruitment for more specialised occupations (managers, professionals and associate professionals), which is tied to the higher expectations posed for such persons in large institutions. The smaller employers indicated problems more often with finding workers for physical labour. This could be due to worse financial terms offered to such persons, who prefer working for larger companies.

### Employers still look for the same kind of people, but need fewer of them

Those employers who declared their readiness to hire new employees usually looked for them in the three occupational categories named below:

- skilled workers, operators and assemblers of machinery (a total of 48% of employers seeking new workers wanted to hire for these occupations);
- professionals, technicians and associate professionals (29% of total demand); and,
- sales and service workers (24% of all employers who declared readiness to hire).

**48%**
of employers seek skilled workers

***Table 6.2. Declared demand for employees in various occupations (percentage of responses)***

| Occupation | 2010 | | 2011 | | 2012 | | 2013 | |
|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % |
| higher-level clerks and managers | 54 | 3 | 84 | 3 | 52 | 2 | 43 | 2 |
| professionals | 399 | 24 | 363 | 14 | 568 | 22 | 327 | 16 |
| technicians and other associate professionals | 270 | 16 | 430 | 17 | 417 | 16 | 268 | 13 |
| office workers | 153 | 9 | 182 | 7 | 142 | 6 | 185 | 9 |
| sales and service workers | 349 | 21 | 654 | 25 | 521 | 21 | 489 | 24 |
| industrial labourers and craftsmen | 420 | 25 | 845 | 33 | 820 | 32 | 655 | 32 |
| operators and assemblers of machinery | 299 | 18 | 382 | 15 | 380 | 15 | 328 | 16 |
| elementary (unskilled) workers | 120 | 7 | 181 | 7 | 222 | 9 | 184 | 9 |
| total | 1675 | 100 | 2599 | 100 | 2529 | 100 | 2019 | 100 |

*Source: BKL Employer Study 2010, 2011, 2012, 2013.*

**56%**
of employers count on the self-organisation competences of future employees

The overall requirements of employers towards the candidates are similar to previous years. When looking for people to work, they focused mainly on the candidates' competences. In their opinion, the following three groups of competences were the most useful:

- self-organisation (indicated by 56% of employers looking for workers) – those related to independent organisation

*Professor Jarosław Górniak, Jagiellonian University, scientific leader of the project Study of Human Capital*

*The results of the BKL Study confirm that, in 2013, the reduction of hiring needs was experienced basically by all categories of employers, irrespective of employment size and business sector. The number of persons sought for work also dropped, and this phenomenon was observed in all the administrative regions.*
*Reduced demand for new employees was accompanied by rising share of complaints on the difficulties with finding appropriate candidates. Such change cannot be the outcome of a violent change in the nature of supply. Thus, the explanation probably lies in the higher expectations of employers. Under stronger competitive pressure and the stagnation or reduction of new jobs, they seek such employees who can "hit the ground running," i.e. they take up the tasks at the given position without the need for additional investment into their training and adaptation. In the employee market, the employers are usually more willing to invest in the development of employee competences and, given the overall economic situation, they have better financial situation to do so. The employers expect their future employees to display not only occupation-specific competences, but also soft skills, such as the ability to self-organise work, teamwork ability, the ability to analyse and solve problems, etc. Competences of that type – transferable from one job to another – should be formed during the learning at schools and higher education institutions. To achieve this, the manner of teaching must be changed, as well as the definition of learning outcomes and the manner for their assessment. Reducing the teaching of competences for the needs of the economy to training of purely practical skills – especially at the workplace and in the context of current demand in the labour market – does not match the results of the BKL Study. It also dangerously narrows down the perspective of defining learning outcomes only to the standpoint of preparation to occupational and social roles. It should be noted that the educational cycles (of 3 to 5 years) are longer than the personnel outlook of enterprises. The future employees should be taught for the future labour market. The results of the rounds of the Study of Human Capital, carried out so far, should be supplemented with sector-specific studies, covering both secondary and tertiary education.*

of one's work and its effectiveness – self-starting, independence, time management, decision-making, initiative and resilience to stress;
- interpersonal (important for 40% of employers looking for workers) – contacts with others, communication, cooperation within a group and problem-solving abilities; and,
- occupation-specific (named by 39% of employers looking for workers) – the skills and knowledge required to perform tasks specific for the individual occupations.

In the employers' opinion, the candidates lacked primarily competences, experience, and motivation to work. Unfortunately, the competences listed above, seen as the most useful by the employers, were simultaneously the most lacking among candidates for work. When looking for specific persons for work, the employers experienced the largest recruitment problems in the following three occupational categories:

- skilled workers – the most severe difficulties applied to construction workers (masons, roofers and others), truck drivers, operators of heavy machinery, and welders;
- service workers – the employers had problems with hiring primarily for the following occupations: cooks, sales workers, hairdressers, bartenders, and waiters; and,
- professionals – the largest difficulties were tied to recruitment for the positions of sales representatives, application developers, accountants, computer graphics, doctors, and sales and marketing specialist.

In the process of recruitment based on vacancy advertisements, the employers invariably ascribed huge importance to previous experience. The employers are looking for "the ready worker." The largest proportion of offers containing such requirements is addressed to higher-level clerks and managers, as well as to operators of machinery and equipment (around 90% of offers in each of these groups). Most importantly, for each of the occupational groups, job vacancy advertisements specifying the requirement of prior experience account for at least 80% of all the advertised vacancies.

**80%** of job vacancy offers are for persons with prior experience

***Table 6.3. Requirements of employers regarding professional experience towards candidates for the various occupations in 2013 (in %)***

| Occupation | experience | references | experience and references | no experience required | N |
|---|---|---|---|---|---|
| MANA | 18 | 42 | 33 | 7 | 1346 |
| PROF | 26 | 26 | 27 | 21 | 4919 |
| ASSO | 26 | 30 | 23 | 21 | 3851 |
| CLER | 30 | 22 | 19 | 29 | 1318 |
| SERV | 27 | 26 | 18 | 29 | 4521 |
| CRAF | 40 | 18 | 25 | 17 | 2211 |
| OPER | 50 | 14 | 25 | 11 | 889 |
| ELEM | 52 | 13 | 15 | 20 | 869 |
| total | 30 | 26 | 23 | 21 | 19924 |

*Source: BKL – Job Offers Study 2013.*

*Professor Jarosław Górniak, Jagiellonian University, scientific leader of the project Study of Human Capital*

*The entire European economy, which includes also the open economy of Poland, is still licking its wounds after the recent crisis. It shall need some more time to regain vigour. The key challenge for Poland is to move the economy into the path of innovative development and to build its international competitiveness under these new conditions. This requires institutional challenges – innovation in economic policy and other public policies.*

## Negative balance of employment

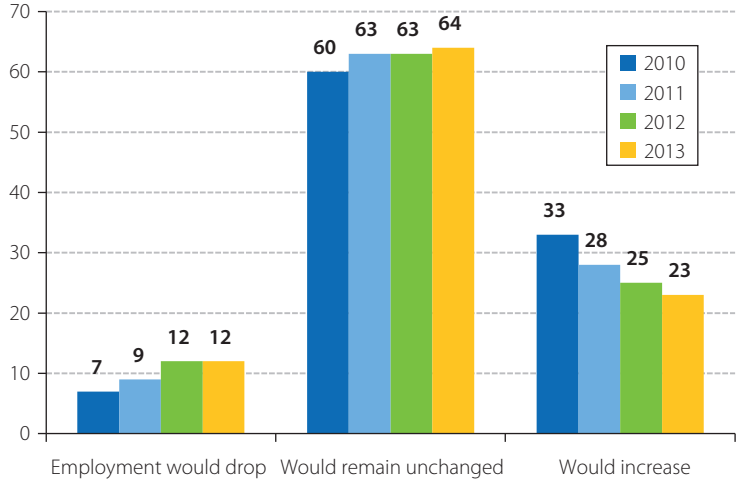
In the spring of 2013, a slight decline in the employment balance was observed. It applied to all categories of enterprises, irrespective of their headcount. The largest employers (with over 50 employees) were the most affected in comparison to the previous year, since they reduced the number of employees by 2 people on the average.

In comparison to the previous year, the structure of the demand for employees changed significantly. In the case of professionals, employment was still rising, but not as much as during the previous years. Very pronounced reductions of employment were seen across all categories of skilled workers, operators, and assemblers, especially construction workers and drivers. Employers also reduced the numbers of sales and other service workers.

## Sceptic forecasts

The employers' forecast regarding planned changes in employment numbers over the coming 12 months are not optimistic. The number of employers planning to increase employment in the coming years dropped. Only 23% of them are optimistic in this respect. Most (64%) of the employers believe that the level of employment in their companies would remain stable over the coming 12 months, and 12% predict its decrease.

***Figure 6.3. Assessment of changes in employment levels over the coming 12 months (data in %, N 2010 = 14909, N 2011 = 15354, N 2012 = 15174, N 2013 = 15025)***




*Source: BKL Employer Study 2010, 2011, 2012, 2013.*

The fourth round of the BKL study confirms that the largest issue for the Polish enterprises and institutions, one that hinders growth of employment, are still the impediments tied to business regulations: excessive non-wage labour costs, the unstable economic situation in the country and excessively high taxes. The number of employers who point to these difficulties is rising! This means that instead of improvement, we experience a worsening of the situation. Paradoxically, the legislative and regulatory changes have an effect opposite to the intended one. Those difficulties are the most acute primarily for the smallest entities, which are the majority of all enterprises operating in the Polish market.

*Paweł Orłowski, Deputy Minister, Ministry of Infrastructure and Development*

*A huge role in the development of the Polish employees and their competences is played by European funds, including the European Social Fund (ESF). Development of human resources is the key issue. Nowadays, Poland does not compete in the market through the competences of employees, but wins thanks to low labour costs. There is significant hiring potential among the micro-, small and medium-sized enterprises. Attention should be paid to supporting strategic personnel management in the enterprises, and to contracting specific services of personnel training, targeted at the development of specific competences. Investment into personnel still remains the principal goal, including under the interventions financed by the ESF. We have not yet achieved a widespread mentality change, but the educational process can be used to shape attitudes, including creativity and innovation.*

# 7. Challenges for the Polish economy

In the spring of 2013, the Polish labour market was in recession. This was a year of still-high unemployment and dwindling numbers of enterprises and institutions seeking potential employees. In the preceding year, the employers reduced their employment levels in the case of these occupational categories that have been in the most demand.

### It is better to match competences of graduates to needs of employers

This was also a year when the enterprises encountered more problems than earlier in finding candidates for jobs who would meet their requirements. One of the main reasons for this situation is the lack of practical abilities among graduates entering the labour market. However, reducing the competence readiness for the needs of the economy to training of purely practical skills – especially at the workplace – does not match the results of the BKL Study. In the opinion of the research team, it also dangerously narrows down the perspective of defining learning outcomes only to the standpoint of preparation to occupational and social roles. Analyses published under the most recent report from the Study of Human Capital confirm that the crucial issue for the Polish labour market would be the teaching of transferable competences to young Poles. These competences, useful in a larger number of occupations, are of a general or an occupation-specific nature. They can be delivered by schools and institutions of higher education and are developed to an unsatisfactory extent and in an insufficient number of persons. To change this situation, the manner of teaching and the level of requirements must be changed.

### Increase the involvement of entrepreneurs into vocational education of Poles

In the opinion of the BKL Study team, more resources should be allocated for action directed at entrepreneurs to encourage them for ongoing cooperation with educational institutions. This would give the employers influence on the quality of competences acquired by the young people, and they would be able to establish that the young ones are well prepared for work – both their first employment and the subsequent ones. The organisation of internships and apprenticeships is of course one of the methods for such cooperation, but it should be preceded by the employers' input into the teaching curricula.

### Ensure appropriate numbers of graduates of strategic fields

The results of the fourth round of the Study of Human Capital are presented under gradually improving economic conditions. The labour market is starting to react to the rising demand; however, this is a slow process, especially regarding the young people. During the design of interventions meant to increase the number of graduates of fields of study identified as strategic for the Polish economy, one needs to keep in mind that educational choices based on financial incentives – in light of the BKL Study – turn out to be less effective than those based on changes in the mandatory education system (including those focused at modernising the teaching of sciences).

**Polish Agency for Enterprise Development (Polska Agencja Rozwoju Przedsiębiorczości, PARP)** is a governmental Agency reporting to the Minister of Economy. It was established on the power of the Act of 9th November 2000. The task of the Agency is to manage funds received from State Treasury and the European Union allocated to manage entrepreneurship and innovativeness, and development of human resources.

For over a decade, PARP has supported entrepreneurs in implementing competitive and innovative projects. The goal of the Agency is to conduct programmes aimed at developing economy, supporting innovation and research activity in small and medium-size enterprises (SMEs), regional development, growth of export, development of human resources, and the use of new technologies.

The mission of the Agency is to establish favourable conditions for sustained development of Polish economy by supporting innovation and international activity of businesses, and promotion of environmentally friendly forms of production and consumption.

In the financial perspective 2007–2013, PARP is responsible for the implementation of tasks in three operational programmes: Innovative Economy, Human Capital, and Development of Eastern Poland.

**The Centre for Evaluation and Analysis of Public Policies at the Jagiellonian University (CEiAPP UJ)** was established in 2008 as an autonomous university research and development unit. The main area of its operation is collaboration with public administration – both central and regional – in the scope of evaluation and analysis of public policies and their methodology. The activity of the Centre covers educational services, conducting scientific and applied research, and expert and analytical studies focused primarily on the sector of public administration at various levels.

During the few years of the Centre's operation, its staff and experts have conducted a number of projects for the institutions of central administration: Ministry of Regional Development, Ministry of Finance, Chancellery of the President of the Council of Ministers, Polish Agency for Enterprise Development, and Pracodawcy RP. In that period, the Centre has also collaborated with regional institutions – the Regional Employment Office in Kraków, the Office of the Marshal of Małopolska Region and other scientific and research centres, including the University of Economics in Kraków, Małopolska School of Public Administration, and the Regional Statistical Office in Kraków.

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