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Making better use of skills and migration in Poland

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By Nicola Brandt

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ABSTRACT/RÉSUMÉ

Making better use of skills and migration in Poland

To continue catching up with living standards in other OECD countries Poland needs to invest in higher skills. Crucial elements include: i) making sure that all children have access to high-quality early childhood education; ii) strengthening the basic skills of vocational education students and the relevance of their studies through stronger links with firms; and iii) improving the quality of universities by linking university teachers' pay and career progress with their teaching and research performance. The Polish government has taken action in many of these areas. More needs to be done to put immigrants' skills to better use. Polish return migrants frequently complain about difficulties in using their skills acquired abroad, while many immigrants of foreign origin work in professions that do not match their qualifications. Ongoing reforms to improve recognition of foreign credentials and new possibilities to validate work experience through formal qualifications will be helpful.

This Working Paper relates to the 2016 OECD Economic Survey of Poland (www.oecd.org/eco/surveys/economic-survey-poland.htm).

JEL classification codes: I23, I25, I28, F22

Keywords: Migration, skills, vocational education, early childhood education, tertiary education

Mieux utiliser les compétences et les migrations en Pologne

Pour continuer de combler son retard par rapport aux autres pays de l'OCDE en termes de niveau de vie, la Pologne doit investir dans des compétences de plus haut niveau. Les éléments cruciaux d'une telle stratégie incluent : i) garantir à tous les enfants l'accès à un enseignement de qualité dès le plus jeune âge ; ii) améliorer les compétences de base des élèves des filières professionnelles, de même que la pertinence de leur formation en créant des liens plus étroits avec les entreprises ; et iii) garantir un enseignement universitaire de meilleure qualité en liant la rémunération et la carrière des enseignants du supérieur avec leurs performances en matière d'enseignement et de recherche. Le gouvernement polonais a déjà pris des mesures dans ce sens. Il faut faire plus pour mettre pleinement à profit les compétences des immigrés: les émigrés polonais de retour en Pologne se plaignent souvent d'avoir du mal à utiliser leurs compétences acquises à l'étranger, tandis que les immigrés d'origine étrangère occupent fréquemment des emplois qui ne correspondent pas à leurs qualifications. Les réformes en cours pour améliorer la reconnaissance des diplômes étrangers et les nouvelles possibilités de validation des acquis de l'expérience professionnelle devraient se montrer utiles à cet égard.

Ce Document de travail se rapporte à l'Étude économique de l'OCDE de la Pologne 2016 (www.oecd.org/fr/eco/etudes/etude-economique-pologne.htm).

Classification JEL: I23, I25, I28, F22

Mots clefs: Migration, compétences, formation professionnelle, formation pré-scolaire, formation tertiaire

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Making better use of skills and migration

By Nicola Brandt¹

Improving Polish living standards further requires investment in higher technologies and skills. Poland has achieved important progress in raising the skills of its population after an exceptional boom in tertiary education and improvements in the learning outcomes of school children. This paper discusses how the government can build on this progress. The skills available to the Polish economy are also affected by migration, as the country has experienced significant outmigration of highly qualified individuals. Some of them later return. Immigrants of foreign origin, whose number has been increasing albeit from a low level, also include many highly qualified individuals. The paper therefore discusses policies to make better use of immigrants' skills.

The next section reviews progress in raising the skill level of the Polish population and policies that would help to build on this. The following section discusses skill matches and reforms to improve them. Labour market policies that would strengthen workers' access to training are discussed thereafter. The final section discusses migrants' skills and ways to make better use of them.

Raising skill levels

The government is striving to lift learning outcomes

Average test scores in numeracy and literacy of Polish adults are relatively low, according to the OECD Survey of Adult Skills (Programme for International Assessment of Adult Competencies, PIAAC) (Figure 1, Panel A), and the share of adults with basic skills deficiencies is correspondingly higher than the OECD average (Panel B). This is also the case for tertiary graduates (Panels C and D).

The new government is focused on raising the skills of the workforce to strengthen productivity and the economy's ability to absorb modern technologies. It can thereby build on important progress achieved over the past 20 years, including an exceptional boom in tertiary education. Learning outcomes for 15 year-olds have improved considerably and are now above the OECD average, according to test scores of the Programme for International Student Assessment (PISA). Reforms that contributed to these improvements, in particular for weaker students, include: i) the postponement of tracking by one year through the introduction of lower secondary schools; ii) new national core curricula, combined with external exit exams for each school level; and iii) enhanced teacher and school autonomy (OECD, 2011a). The Ministry of National Education has now initiated experts' consultations and a broad public debate on education reforms, including curricula and examinations, teachers' skills and professional development, school governance and financing. The aim is to agree on a reform programme that will ensure equal opportunities for all young people, especially disadvantaged groups.

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. Average numeracy proficiency scores B. Share of adults with weak numeracy skills 2 16-65, % 30 300 290 25 280 20 270 260 15 250 10 240 5 OECD SWE DEU OECD AUT CZE SVK DNK NOR SWE AUS CAN POL GBR IRL FRA USA ESP CAN KOR EST NOR GBR KOR DEU Ţ SVK PK AUT POL EST BEL FIN JPN SZE BEL Average numeracy proficiency scores D. Share of adults with weak numeracy skills 2 16-65 with tertiary education 16-65 with tertiary education, % 320 18 16 310 14 300 12 290 10 8 280 6 270 260 250 OECD USA POL EST AUS DEU DNK NOR SVK SVK AUT JPN SWE SWE NLD BEL CZE FRA JPN BEL

Figure 1. Skill test scores of adults, including those with tertiary education, are below the OECD average 2012

Share of adults scoring at or below level 1 of the PIAAC scale of numeracy proficiency.

Source: OECD Skills Outlook 2013 Database.

One particularly effective measure to help disadvantaged students is early intervention (OECD, 2014a). The coverage of preschools has been extended substantially in recent years to close to 80 per cent of three to five year-olds in 2015, and the government plans to spell out curricula and learning outcomes to set the basis for strong basic skills and first steps in foreign languages. These efforts need to continue, especially since the compulsory school age was raised to seven, reversing an earlier reform, although parents may send six year-olds to primary school if they wish. Without excellent coverage with high-quality preschool education there is a danger that children from disadvantaged families, in particular, will not benefit from formal education early on and chances to level their skills will be missed. According to the Ministry of Education, there are enough places for all three to six year-olds even after the reform, as the demographic decline observed since 2013 will compensate for the possible increase in the number of six year-olds in kindergarten. The number of new childcare institutions for under-three year-olds was quadrupled between 2011 and 2014, but coverage remains well below the OECD average. The government should ensure that poor families, in particular, have access to childcare services.

Vocational education

Vocational education (Box 1) has suffered from a number of weaknesses, including a poor reputation, a failure to provide students with solid basic skills and key competencies, such as independent and creative thinking and team work, and often a poor adaptation to labour market needs. The government has started to address many of these issues. Taking these reforms further would help vocational graduates to find better job matches on the Polish labour market.

Box 1. Initial vocational education in Poland

Upper secondary (general and vocational) education starts at age 16. Most students go either to a four-year upper secondary technical school (*technikum*, *ISCED 3A*) or to a three-year basic vocational school (*zasadnicza szkoła zawodowa, ISCED 3B*). Vocational education is also provided in post-secondary non-tertiary schools (*szkoła policealna*).

General secondary school (*licea ogólnoksztalcace, ISCED 3A*) prepares students for passing a *matura* exam and for pursuing their education in a higher-education institution. Technical upper secondary school prepares students both for the *matura* and entering the labour market. Basic vocational school and post-secondary non-tertiary school are focused on providing vocational qualifications for occupations classified by the Ministry of Education.

Practical training makes up approximately 60% of total hours in basic vocational schools and 50% in technical schools and may take place in school workshops and laboratories, continuing education centres and practical training centres. Work-based training in all types of vocational schools lasts 4-12 weeks, depending on the occupation, and is organised once or twice during the study period.

The scope of knowledge and skills acquired by pupils and the volume of practical and work-based training are defined by curricula for each occupation. Since 2012, there has been a single core curriculum for all occupations that defines interdisciplinary skills (e.g. social and interpersonal, entrepreneurship and management) and the level of proficiency to be mastered in every occupation.

Based on: Cedefop (2013a and 2013b).

Adapting vocational education to the market economy has been a challenge. While the education systems in former communist states were generally thought to be good, it quickly turned out after the transition to a market economy that they lacked the flexibility to adapt. Average educational attainment and literacy rates were relatively high, and there was a strong base of vocational education in Poland, as in other Central and Eastern European Countries (CEECs), when the economic transformation set in. However, knowledge and competencies taught in vocational schools were often specific to enterprises to which they were attached (Mertaugh and Hanushek, 2005). Many of these enterprises disappeared, and thus firm-specific knowledge and skills became obsolete. As demand for skilled manufacturing workers dwindled, many young people abandoned basic vocational education (Figure 2). Only lately has the interest in vocational schools, above all the technical branch, begun to increase again, as it has become apparent that there are shortages of qualified workers with intermediate skills. Meanwhile, it took vocational schools time to establish links to newly created firms, and the process of developing highquality training in management, IT and other advanced technologies is still ongoing. The same holds for more generic skills, such as foreign languages, critical thinking, creativity and leadership. This has been partly related to widespread rote learning, as opposed to active learning, which involves a critical evaluation and understanding of concepts (Nešporová, 2000).

Per cent ■ General ■ Basic vocational ■ Technical ■ Other Academic year 1995/96 2000/01 2007/08 2008/09 2009/10 2010/11 2011/12 2012/13 2013/14 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Figure 2. First-year students in upper secondary school by type of education

Source: GUS (2014c), Education in the 2013/2014 School Year.

Overall labour market outcomes of Polish vocational school leavers are weak, especially so for graduates of basic vocational schools. Employment rates are low by international comparison (Figure 3, Panel A). Graduates of basic vocational schools are more likely to be unemployed than graduates of general secondary schools (Panel B), and their average wages are lower (Lis and Miazga, 2014).

Tests indicate that Polish basic vocational education often fails to provide students with necessary skills. Average literacy and numeracy proficiencies of students and graduates from basic vocational schools are poor, as evidenced by standardised tests for pupils (PISA) and adults (PIAAC), and too many can understand only short and simple texts or master only basic numerical operations (Figure 4). While this is partly a selection effect, as the weakest students tend to go to basic vocational education due to its poor reputation, average test results of graduates from basic vocational schools are only marginally higher than those of adults who finished only lower secondary education. Results obtained by students and graduates from technical schools are much better, though.

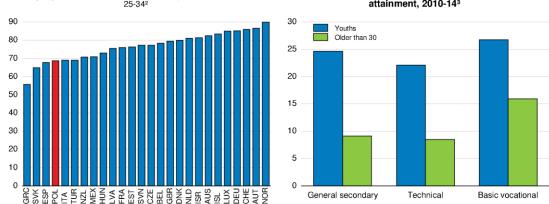
Figure 3. Labour market outcomes of vocational school leavers are weaker than in other OECD countries

A. Employment rates of vocational graduates¹, 2013

B. Unemployment rates by type of secondary educational attainment, 2010-14³

90

Older then 30



- 1. Corresponding to ISCED's 3CL and 3B categories.
- 2. As a percentage of the age-corresponding population.
- 3. As a percentage of the labour force. Unemployment rates of youths refer to young people of up to 30 years of age not in formal education

Source: OECD Education at a Glance 2014 Database; Lis, M. and A. Miazga (2014), "Time for quality in vocational education", IBS Policy Paper, No. 03.

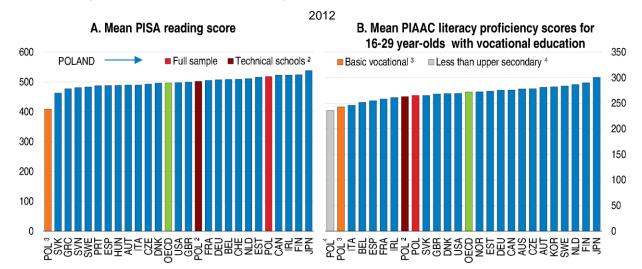


Figure 4. The skills of students and graduates from basic vocational schools are weak

- Mean reading score for 16 year-old students of Polish technical schools (Panel A) from an optional national study for the first grade of upper secondary school (16 year-olds) complementing PISA and mean PIAAC literacy proficiency score for Polish adults having attended technical schools (Panel B).
- Mean reading score for 16 year-old students of Polish basic vocational education (Panel A) from an optional national study for the first grade of upper secondary school (16 year-olds) complementing PISA and mean PIAAC literacy proficiency score for Polish adults having attended basic vocational education (Panel B).
- 3. Mean PIAAC literacy proficiency score for adults with less than upper secondary education.

Source: OECD (2013), OECD Skills Outlook 2013.

The government has moved to address these problems. There was a campaign to improve the image of vocational education in the 2014/2015 school year. Curricula are now based on learning outcomes rather than on a narrow description of subject content, giving schools more autonomy to adapt their programmes, including in collaboration with employers. Learning outcomes are defined for knowledge, occupational and general skills, such as reasoning, problem-solving and collaboration. Vocational education programmes also now include training on setting up a business. Moreover, the 2012 curriculum reform integrated the general education curriculum for lower and upper secondary schools and introduced the same curricular requirements for the first year of all types of upper secondary programmes. This should help weak students in basic vocational schools to strengthen their basic skills.

But more needs to be done to help weak students make progress. OECD experience has shown that, in addition to early intervention, individualised support is crucial to help weak students bring their competencies up to acceptable standards. Given that many weak students are concentrated in basic vocational schools, one-on-one support and remedial classes are needed there for students who fall behind. Most vocational teachers have advanced university degrees including pedagogical training. In addition, the government intends to develop the skills of the existing teaching workforce through professional development. This will include courses, practical work in firms, graduate studies to help teachers acquire skills in vocational subjects they would like to teach and networks for teachers to cooperate and share their teaching experiences. Such professional development in groups has proven highly effective in other OECD countries, such as Finland and Japan (OECD, 2005; Barber and Mourshed, 2007). To attract those with the best pedagogical skills to basic vocational schools the authorities should offer them singularly attractive pay and career opportunities. Cross-country research suggests that while effective teaching is particularly helpful for low performers, they are often less likely to receive it (OECD, 2005).

According to a survey conducted in 2010-11, headmasters often planned their courses based on technical and organisational considerations, such as the availability of technical facilities or qualified

teachers (Goźlińska and Kruszewski, 2013). Only much less frequently did they consider local labour market needs and other offerings in the region. This was in part related to a lack of up-to-date information on labour market demand or reliable forecasts thereof and a failure of local governments to develop strategies for vocational education (MEN, 2011). As a result, there is often a mismatch between specialisations most frequently offered by vocational schools and the needs of employers. In transport and storage, for example, demand exceeds supply (MEN, 2011; Lis and Miazga, 2014). Among graduates from a number of specialisations in service jobs, such as hairdressers, cooks and vendors, which are frequently offered in vocational schools and are particularly popular among women, unemployment was close to 20% in 2010-12 and inactivity around a further 30% (Górniak, 2013).

A large and growing number of Polish employers complain about difficulties in finding qualified workers who meet their expectations: surveys show 80% of employers made that claim in 2014, up from 75% in 2010 (Kocór et al., 2015). According to the same study qualified manual workers were particularly scarce, and employers frequently bemoaned a lack of professional competencies specific to the job that they were looking to fill. Apart from more flexible courses in vocational schools with a greater focus on general skills, allowing workers to adapt more easily to new jobs and circumstances, this would also require more employer involvement in planning programmes and offering practical training opportunities.

With the new core curriculum based on learning outcomes, the government has made it easier for schools to contribute to programme design and is striving to engage employers in such efforts. This is a welcome change. It has become easier for schools to offer new vocational programmes after consultations with the district (*powiat*) and regional (voivodship) governments to ensure alignment with local labour market needs. The number of enterprises collaborating with schools to develop curricula and sending external examiners to participate in vocational exams is growing, according to the Ministry of Education. Yet, reaching small and medium-sized enterprises, which make up more than 90% of all firms in Poland, remains a challenge. Engaging craft associations will be crucial to enhance collaboration with these firms.

Employers will need to become more engaged in offering practical training. Otherwise they cannot expect to find workers with the specific job skills and experience they seek. Conducting practical training through firm-based work experience rather than in schools makes it much easier to ensure that the qualifications of vocational students correspond to labour market needs (OECD, 2014b), as firms will typically be interested in offering training opportunities in areas where they lack workers. Although about 65 % of students in basic vocational schools learn in a system including firm-based training, the rest practice in different forms of workshops that are confined to training purposes.

Enterprises also need to contribute by providing more workplace-training opportunities for vocational teachers and by allowing their own staff to combine teaching in schools with work. This has proven crucial to ensuring that teachers have up-to-date industry knowledge and experience. In Poland practitioners can now become teachers based on the teacher charter after completing pedagogical training, or they can be employed through contracts based on the labour code, if headmasters find them fit for teaching. These measures are welcome, as long as pedagogical training for practitioners interested in teaching is of high quality (OECD, 2014b; OECD, 2010).

Regardless of efforts to increase the number of workplace-training opportunities for students, it will still be necessary to offer practical training in workshops for some time. The effectiveness of training in schools has often been hindered by a lack of modern equipment. Yet, qualifications offered at technical schools are evolving rapidly and in some regions, where local authorities have taken the lead to adjust courses to labour market needs, they have started to equip centres of practical training with modern technologies, which can be shared by several schools. However, these successful practices would need to be generalised, as schools tend to compete in other regions, where local authorities do not coordinate sufficiently, often resulting in several under-equipped workshops, rather than modern equipment that is

shared (OECD, 2016b). Enterprises can contribute to these efforts by helping to equip joint laboratories. Providing vocational schools with state-of-art technology and modern equipment is also one of the priorities for the European structural funds intervention planned for 2014-20.

Continuing education

Participation in continuing education is low in Poland, notably for those who need it most. Adult participation in lifelong learning is one of the lowest in the European Union, especially among older and low-skilled workers (Figure 5). According to 2010 Eurostat data, only 22 % of all companies provided continuing vocational education and training, compared to 66 % in the EU-27 (European Commission, 2014). At the same time, low-skilled workers account for the largest proportion of Poland's unemployed. A lack of opportunities for adults to adapt their skills and competencies to new circumstances is a serious issue in an economy that has had to traverse a radical transition like Poland over the last 25 years.

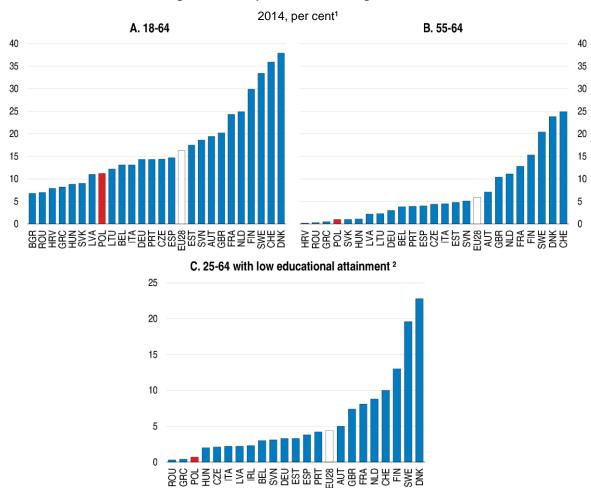


Figure 5. Participation in continuing education

- Percentage of individuals having had training in the 4 weeks preceding the survey.
- 2. Less than upper secondary education, ISCED levels 0-2.

Source: Eurostat; OECD Skills Outlook 2013 Database.

Older adults are in urgent need to improve their numeracy and literacy competencies. The share of adults with no computer experience and severe problems in solving digital tasks is higher than anywhere else in the OECD (Figure 6), pointing to the need to enhance access to digital skills training. At the same

time, the government should move forward with its plans to upgrade the communications infrastructure, as the share of the population without fixed high-speed Internet access is comparatively high (Goujard, 2016).

A study of language competences of European teenagers suggests that relatively few Polish pupils learn English well enough to be qualified as independent users: a bit more than 25%, compared with more than 80% in Sweden and more than 50% in Estonia, Slovenia and the Netherlands (European Commission, 2012). The share of independent users of German among Polish pupils (which is relevant, because Germany is Poland's main trading partner) is even lower according to this test: 6%, compared with around 20% in Estonia, Slovenia and Bulgaria. In the very open Polish economy many employers state that they are seeking employees with language skills. In that context, new initiatives to integrate first steps in foreign language training in preschools are welcome. More high-quality language-training opportunities for adults are also needed.

Since 2012 Poland has been implementing reforms to improve the quality of vocational education and opportunities for adults to acquire new skills and qualifications. The government now promotes courses to help adults acquire general competencies. Computer and foreign language courses, in particular English and German near the border, have been particularly popular. Rather than attending full-time vocational schools, adults can acquire or complete their vocational qualifications in more flexible courses. These can be offered part-time and outside of working hours to facilitate combining study with work. Participation in short vocational education courses has increased rapidly since their introduction in 2012. A register of occupations offered in vocational education (klasyfikacja zawodów szkolnych) facilitates modular completion of vocational education, as different qualifications required to obtain a certificate for a specific occupation can now be certified in separate exams (Cedefop, 2013a). Exams can confirm knowledge and skills acquired through practical experience, and up to two years of work in a specific occupation can be validated for vocational qualification certificates. This could prove especially useful in Poland, where qualifications are valued more than skills (Figure 7). There are also courses related to occupations and specialisations meeting specific labour market needs, which are often conducted in cooperation with public labour offices. Finally, there are apprenticeships for jobseekers, provided by local labour offices and financed by the labour fund (Cedefop, 2013b).

A. Percentage share of adults aged 45-54 with extremely B. Percentage share of adults with no ICT experience 3 weak skills in problem-solving 2 60 45 40 50 35 30 40 25 30 20 15 20 10 0 JPN GBR DEU CZE IRL EST EST SVK POL

Figure 6. Many adults have weak computer skills 2012

 Percentage of adults between 45 and 54 years of age scoring below level 1 of PIAAC's scale of proficiency in problem solving in technology-rich environments, or failing to complete the relevant PIAAC test.

Share of adults who opted out of PIAAC computer based assessment or declared a lack of any ICT experience.
 Source: OECD Skills Outlook 2013 Database.

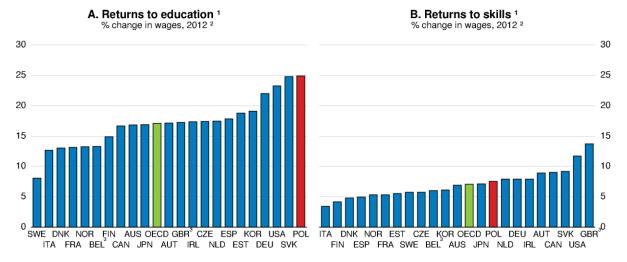


Figure 7. Qualifications are valued more than skills

- Coefficients from an OLS regression of log hourly wages on years of education (Panel A) and literacy proficiency (Panel B), interpreted as effects on wages in per cent. Coefficients are adjusted for age, gender, foreign-born status and tenure.
- 2. Percentage change in wages associated with a one standard deviation change in years of education (Panel A) and proficiency in literacy (Panel B).

Source: OECD Skills Outlook 2013 Database.

Given the large share of adults with severe difficulties in mastering basic skills, it would be useful to develop a strategy to fight low literacy. Poland's own success with improving students' learning outcomes, as measured by PISA results, and the experiences of other OECD countries with basic skills strategies could serve as a starting point (Box 2). A special approach is necessary to reach people with low literacy, in particular when they are adults. Only a fraction of those with poor literacy and numeracy test results report that they have problems with reading, writing or calculating. Yet, those who do are much more likely to state a willingness to improve their skills (Bynner and Parsons, 2006). People with low confidence in their ability to learn are less likely to take up training offers, but if they do, they progress as fast as others (Wolf, 2008). Access to training opportunities should be easy, ideally occurring in the context of candidates' everyday lives, such as the family or the workplace.

Box 2. Basic skills strategies in OECD countries

In response to findings that around 14% of the working-age population are unable to understand even short and simple texts, the Federal and Länder governments in **Germany** launched a joint strategy for adult literacy and basic skills training in 2012. Measures include awareness-raising campaigns, new courses and guidance services, support for research and exchange of best practices regarding pedagogical methods. Specialised training for basic skills teachers for adults was also developed.

In **France**, the National Agency for the Fight Against Illiteracy has a central role. It runs awareness campaigns and has developed a reference framework for basic skills policies for adults, guiding the professionalisation of teachers and the exchange of good practices through an online database. It organises seminars where teachers evaluate and share their methods and learning material. The Agency has also developed a key competency programme for adult learners, which is free of charge.

England launched its Skills for Life strategy in 2001, setting up a wide range of basic skills programmes, including family- and workplace-based learning, and developing regulation to professionalise basic skills trainers. Evaluations suggest that college-based programmes improve learners' self-esteem, their commitment to education, and their self-assessed literacy and numeracy. Literacy and numeracy courses were associated with improved health, increased independence and a greater ability to conduct everyday activities. Yet, subsequent surveys of adults' measureable literacy and numeracy skills did not point to an improvement for adults with weak skills, highlighting the challenge of designing programmes with sufficient scale and quality to create a measurable impact at the national level.

Based on Windisch (2015).

Higher education

Tertiary attainment rates have increased substantially in recent years in Poland as in other CEECs (Figure 1.8). This rapid expansion has brought with it quality weaknesses in some higher education institutions, and the programmes are not always aligned with labour market needs. The government is working to address these issues.

Expanding numbers of tertiary students brought about a rapid creation of private institutions of higher education all over the country and fee-based courses at public universities. At its peak in 2008 Poland had one of the largest private university sectors in the OECD, enrolling more than one third of all students, often in very small institutions. Since then the demographics-related decline in enrolments has progressed much faster in private than in public universities, however (Figure 9). Public institutions can offer fee-based programmes, as long as they enrol fewer students than fully subsidised programmes of similar content. Fee-based programmes both at public and at private universities are often part time.

On average the skill level of tertiary graduates in Poland is somewhat lower than in other OECD countries, and a high number lack basic skills as elsewhere in the OECD (see Figure 1). This puts into question the quality of some Polish university degrees. Moreover, people with basic skills weaknesses are unlikely to benefit much from tertiary education, and the fact that there are so many of them points to deficiencies in Poland's guidance system.

Per cent 70 70 2014 2000 60 60 50 50 40 40 30 30 20 20 10 10 0 POL BEL FRA SVN USA CHE I ISL ESF EST OECD GRC

Figure 8. Tertiary education attainment rates of individuals aged 25 to 34

Source: OECD, Education at a Glance 2015 Database.

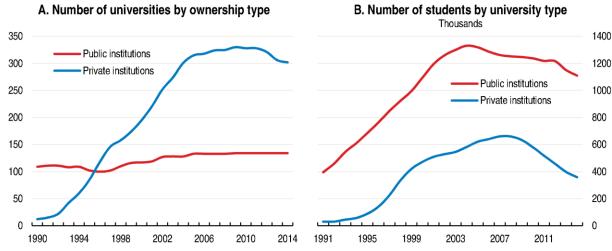


Figure 9. Poland's tertiary education institutions

Source: GUS (2015), Higher Education Institutions and their Finances in 2014.

Public universities are the most selective and have a better reputation than their private counterparts. Fully subsidised programmes in public universities attract the best students, as job opportunities are generally at least as good as for graduates of fee-based programmes (Ernst & Young, 2009). But there is evidence of poor quality in some private institutions. The findings of the Polish Accreditation Committee suggest that the share of poor-quality higher education institutions was larger among private than public institutions at least until recently, while good quality was rarer (Figure 10). For some programmes this is reflected on the labour market. For sociology and teacher training the share of unemployed graduates was particularly high among students that went to private universities in 2010-12 (Górniak, 2013). For example, only 3.5% of sociology graduates from public universities were unemployed in 2010-2012 compared to almost 20% among graduates from private universities.

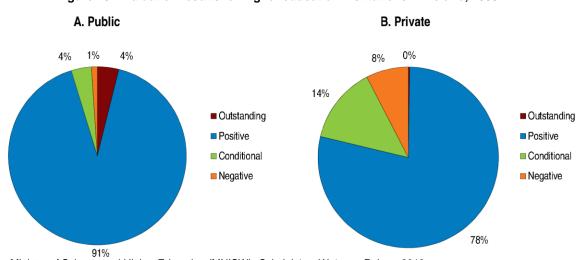


Figure 10. Evaluation results for higher education institutions in Poland, 2008-11

Source: Ministry of Science and Higher Education (MNISW), Szkolnictwo Wyżse w Polsce, 2013..

Lower quality in private universities has repercussions on equity, as students from weaker socio-economic backgrounds are more likely to attend them. Thanks to the emergence of private universities all over the country, the enrolment rate for students from small towns with less than 20 000 inhabitants has increased from 5% to 60%. Yet, although enrolment rates have increased for all income groups, lower

family income still decreases the likelihood of attending university (Herbst and Rok, 2014), and students from small towns whose parents have no tertiary education are much more likely to enrol in part-time feebased programmes (Lewandowski and Magda, 2014). This means that students from weaker socioeconomic backgrounds are more likely to have to pay fees for tertiary education that will often be of lower quality than at public universities. Owing to demographic trends it has become easier to be admitted to public university programmes that are not subject to fees, though. In any case, making sure that children from poor families attend high-quality early childhood education as discussed above will improve their chances to attend the best universities later on.

A recent law significantly strengthened higher education accreditation and quality control procedures. All higher education institutions now have to be accredited based on the adequacy of their staffing and the quality of their programmes. Several institutions that were unable to meet standards within the time they were given to improve were closed down. These important efforts should continue.

Another crucial factor to ensure high quality is attracting good teachers. The government has made important efforts to increase academics' wages in recent years. Many had been forced to combine teaching at several higher education institutions before the practice was banned. The new government now plans to align pay and career prospects with performance in teaching and research, a welcome initiative.

Boosting Polish universities' international co-operation would also help to improve the relevance and quality of tertiary education and research. The number of English-language university programmes has increased, and several institutions have used the opportunity to develop more joint-degree programmes with foreign partners. This will also help to strengthen graduates' language skills. Exchanges of views and experiences with other universities can also help make programmes more germane to modern labour markets. Moreover, there is evidence that researchers who collaborate with foreign colleagues are much more productive in terms of research output (Kwiek, 2015; Appelt et al., 2015). Although this might well reflect the fact that better researchers are more likely to collaborate internationally, establishing closer ties to foreign universities would enrich university education in Poland.

A large share of employers looking for managers and specialists complain about a lack of competences that are specific to the profession, a lack of experience and – to a lesser extent – self-organisation (Kocór et al., 2015). The government has embarked on reforms to address these complaints. Following a higher education reform in 2011, universities now have more freedom to design their study programmes, including in co-operation with business. As in secondary education, curricula are now based on learning outcomes described in the National Qualifications Framework for higher education, rather than on broad guidelines defined by the Ministry of Science and Higher Education. This gives higher education institutions more autonomy. Departments that have the accreditation to confer "habilitation" degrees, which allow holders to teach at university, can now create programmes without ministerial agreement, as long as they lead to outcomes defined by the Framework. Departments without an accreditation to confer doctoral degrees must give their programmes a practical orientation, which includes mandatory traineeships in firms or in public administration. Practitioners can be involved in programme design.

Improving skill matches

Although qualification mismatches are overall not very extensive in international comparison according to OECD data, they still concern a substantial share of the population. This goes especially for younger people (Figure 11, Panel A). Qualification mismatches tend to be persistent, as a large share of concerned workers is unable to find a better match within five years (Kiersztyn, 2013), and the associated wage penalty is exceptionally high in Poland (Panel B). Skill mismatches come with negative productivity

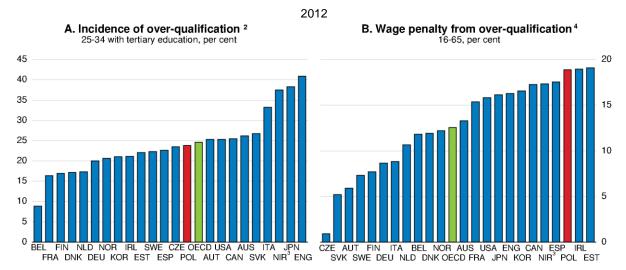


Figure 11. Qualification mismatches have important consequences

- Qualification mismatch is determined based on a comparison of a worker's qualification level expressed as the International Standard Classification of Education (ISCED) level corresponding to his or her highest educational qualification – and what is thought to be the required qualification level for his or her occupation code – the International Standard Classification of Occupations (ISCO) code attached to the job he or she holds.
- Northern Ireland.
- 3. Compared to wages of well-matched employees, controlling for numeracy proficiency, use of skills at work, the individual's socio-economic conditions and the main characteristics of his/her employment relationship.

Source: OECD, OECD Skills Outlook 2013 Database.

effects (Adalet McGowan and Andrews, 2015). Furthermore, field-of-study mismatch is above the OECD average in Poland, implying economy-wide costs in terms of productivity losses, a higher incidence of unemployment and sunk costs for training in a field not corresponding to the worker's ultimate job (Montt, 2015). At the same time, many employers report difficulties in finding suitable candidates, such as professionals in science and engineering, education and healthcare, as well as qualified workers in industry and construction (Kocór et al., 2015). This points to a need to better align the education system with labour market needs and improving guidance to direct students to fields that are in high demand on the labour market.

Enrolment trends suggest that students do react when information about programme quality and labour market outcomes becomes available. Since it became apparent that there is high demand for qualified workers in some technical areas, more students have become interested in vocational education (see Figure 2). Enrolment in private higher education institutions has declined rapidly since 2008 (see Figure 9), and students have started to move away from fields of study with relatively poor labour market prospects, such as humanities, pedagogy and social sciences, while enrolment in mathematics, engineering, computer science and medicine, where labour market prospects are relatively good, have increased (GUS, 2014a, Górniak, 2013).

There are a host of measures in place to monitor and project labour market needs; the main challenge is to ensure that schools and students integrate the results in their decision-making. Since 2009 there has been an ongoing national-level study on the supply and demand for different skills and qualifications on the Polish labour market called the Human Capital Report. This work is set to be linked to sectoral skills councils, composed of officials from social partner organisations, professional associations and the government, which would recommend areas of research and reforms to adjust education to labour market opportunities. The government offers an online forecasting tool

(http://www.prognozowaniezatrudnienia.pl) that projects trends in employment and qualification needs. Regional labour market observatories also conduct labour market research. This information needs to be well presented and easily accessible, so that schools and universities can use it to develop their programmes and counselling services to advise students in their educational and career choices.

The government is currently setting up a monitoring system to track tertiary graduates' careers. Universities have been obliged to track students' careers since 2011, but this has suffered from a lack of a standardised methodology and thus comparability across universities. A new system, Pol-on, will now link information from universities with social security data to track graduates' careers. This could help orient students' choices and programme development. A similar system is planned for vocational graduates.

Despite a legal obligation to provide secondary students with guidance, establishing high-quality orientation services remains a challenge both in schools and universities. Survey data suggest that many vocational students are unaware of career counselling availability at their schools, and only every fifth student seeks career advice, most frequently from parents and other family members (MEN, 2011). Similarly, a survey at Częstochowa University of Technology revealed that three-quarters of students were unaware of the existence of the careers office, and only a fraction of those who knew about it sought its advice (Sroka, 2014). According to the Ministry of Science and Higher Education, about three-quarters of higher education institutions operate a careers office. However, it is up to the university to decide on their resourcing, and many are small relative to the student population they are meant to serve (OECD, 2013b).

The government is taking action to improve guidance services in universities and schools, and these efforts should continue. Centres of Information and Career Planning at regional labour offices now have to cooperate with the academic careers offices at universities, providing them for example with information on professions that are in high demand in the region. To ensure their effectiveness academic careers centres will need to be adequately staffed. The government envisages investing money from the European Social Fund in strengthening careers offices. The National Centre for Supporting Vocational and Continuing Education (KOWEZiU) has initiated training for 18 000 counsellors from lower secondary schools to provide orientation services. This will continue in coming years, supported by EU financing. To inform students in their choice of vocational schools the Ministry of Education has launched an interactive Internet tool called "Map of vocational schools", with information on education and training options.

Promoting a better use of skills through labour market policies

Poland has the European Union's largest share of workers with temporary contracts (Figure 12, Panel A); such contracts are especially prevalent among the young and the low skilled. Prospects of moving from a temporary to a permanent job are poor (OECD, 2014c). Temporary jobs can be based on regular labour law or civil law. Civil-law contracts are not subject to the minimum wage, paid leave, notice period for dismissals or working time regulations and can involve much lower social contributions (Arak et al., 2014). In firms with more than nine workers the incidence of civil-law contracts increased from 547 000 in 2010 to 1.2 million in 2014 or around 13% of total employment in those firms (GUS, 2014b; GUS, 2015a). These contracts were originally created for freelance workers, but in recent years employers have increasingly used them for jobs that have clear characteristics of dependent employment, such as a well-defined work place and hours and subordination vis-à-vis the employer. Yet, Polish authorities have found it difficult to combat abuse (OECD, 2008; Vega and Robert, 2013). In 2014 fewer than half of those found to have broken the law by improperly using civil-law contracts were subject to penalties, with an average fine of just over 300 euros (National Labour Inspectorate, 2015). In addition, the share of people who work informally with no legal or social security protection whatsoever amounted to 7.5% in 2014 (GUS, 2015b).

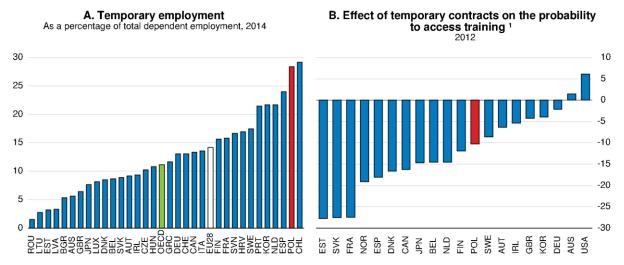


Figure 12. Temporary employment

 Estimated percentage effect of temporary contract status on the probability of receiving employer-sponsored training compared to permanent employees.

Source: OECD Labour Force Statistics Database; and OECD, Employment Outlook 2014.

Having so many workers on temporary and irregular contracts impinges on well-being, productivity and Poland's ability to raise the technology and skill content of its production. Weak regulation of temporary work contracts encourages their widespread use and is associated with slower productivity growth (Bassanini et al., 2009; Dolado et al., 2012). Such contracts are also associated with postponing childbirth and a lower number of children overall (Auer and Danzer, 2015; de la Rica and Iza, 2005). Workers on temporary contracts are confronted with a higher risk of unemployment, lower wages, greater in-work poverty risks and poorer access to training (Figure 12, Panel B; OECD, 2014b; Lewandowski and Kaminska, 2014) than others with otherwise similar characteristics.

Limiting the use of irregular contracts would thus support the government's strategy to strengthen skills and productivity and improve working conditions. The government has taken several measures reducing incentives to resort to irregular work relationships. Starting in February 2016 temporary labour law contracts cannot be renewed more than twice, with a maximum cumulative duration of 33 months. The notice period for temporary and indefinite contracts has also been harmonised. As far as civil-law contracts are concerned, contributions are now due on all contracts that an employee has concluded with the same employer up to the minimum wage, rather than only on the first. The government also aims to introduce an hourly minimum wage of PLN 12 applying to civil law contracts. For a standard working week of 40 hours it would be higher than the monthly minimum wage for labour law contracts by 3.7% in 2016. This would improve the quality of civil law contracts and reduce incentives to use them, although there may be a negative impact on employment to some extent or an increase in informal employment. Labour taxes on low wages are currently relatively high. Lowering them would reduce incentives to resort to irregular work relationships or informal employment. One option would be the introduction of a targeted earned income tax credit (OECD, 2014d). In addition, labour law enforcement needs to improve.

Raising female employment would be another way to make better use of skills in the Polish economy. Increasing the provision of childcare services will contribute to this (OECD, 2011b and 2012), as would the development of long-term care services (OECD, 2014d; OECD, 2015a). The current system of joint taxation of family income also implies higher tax rates for second earners – typically women. OECD analysis shows that this reduces female labour force participation and full-time employment (OECD, 2012). Moving to individual taxation only would remove this distortion (OECD, 2014d).

Migration and skills

Emigration is significant, while immigration has been rising from a low level

Workers and their skills available to the Polish economy are also affected by migration. A large number of Polish citizens leave every year to live and work in other countries. More than 2 million Poles, around 5% of the population, stayed abroad for more than three months in 2014, according to estimates from Poland's national statistical office. OECD data based on different sources, in particular information from the statistical offices of receiving countries, suggest that the Polish-born diaspora in 37 other countries is over 8% of the population in Poland. Both the stock and annual flows of Polish emigrants are significantly higher than for the Czech Republic, Hungary and Slovenia, although they are lower than in Baltic states and Slovakia (Figure 13, Panels A and B). Poland's long tradition of emigration contributes to its persistence, as foreign diaspora networks facilitate the integration of new arrivals. Social networks help emigrants to find work abroad (Łukowski, 2004), and inhabitants of particular Polish villages sometimes have a tendency to emigrate to the same country or even the same town in Western Europe (Bukowski, 2007). Emigration intensified significantly after Poland's accession to the European Union in 2004, and the incidence of relatively young people migrating has increased (Panels C and D).

Emigration has become more evenly distributed across regions and includes more urban dwellers since Poland's accession to the EU (Kaczmarczyk and Okólski, 2008). Nevertheless, net emigration rates remain remarkably high in regions with a large rural population share and low average income per capita. Emigration has been particularly marked in rural areas of the south-eastern part of Poland, where 20-35% of younger workers left between 2004 and 2007 (Kaczmarczyk, 2012a).

More and more Polish emigrants have longer-term plans to stay abroad. While relatively short-term seasonal labour migration was common in the early years after EU accession, around three-quarters of emigrants had been away for longer than 12 months in 2011, up from 50 per cent in 2007 (GUS, 2013). In a survey of Polish immigrants conducted by the central bank in four important destination countries, around 40% of respondents stated that they intended to stay for good (Chmielewska, 2015).

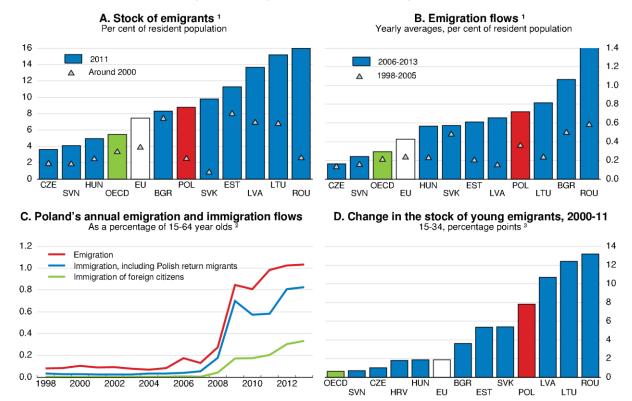


Figure 13. Emigration from Poland is significant

- Emigration stocks and flows are computed with reference to a sample of 38 destination countries for which immigrant data by country of birth (stocks) and nationality (flows) are available.
- The series are subject to a break in 2009. The series were based on the register of permanent residents before 2009 and on survey data after that. This increases the numbers of both immigrants and emigrants after 2009.
- 3. The stock of young emigrants is defined as those in the 15-34 age group as a percentage of the corresponding population. *Source*: OECD International Migration and National Accounts Databases; Eurostat.

From a very low level immigration has also been rising. This is apparent from official data on foreign residents in Poland (Figure 14, Panels A and B). The number of work permits granted for non- EU citizens and the inflow of labour based on a simplified procedure for citizens of Armenia, Belarus, Georgia, Moldova, Ukraine and Russia also reflect rising immigration (Panels C and D). Both work permits and the declaration of intent are used mainly for short-term assignments. Ukrainians accounted for more than half of the work permits and more than 90% of labour inflows based on the simplified procedure.

Working and living conditions drive emigration

The vast majority of Poles considering emigration seek better pay and working conditions. Survey results show that more than 65% of those who considered emigration were seeking higher salaries abroad. Around 30% stated that they considered emigration, because they could not find work at home, because networks, not competences, counted for success in Poland, or because they needed to earn money to cover costs of living at home, such as helping their families or paying down loans (Kotowska, 2014). The desire to find a permanent job also plays an important role (Duszczyk and Matuszczyk, 2015) in a context of widespread temporary and low-quality work relationships.

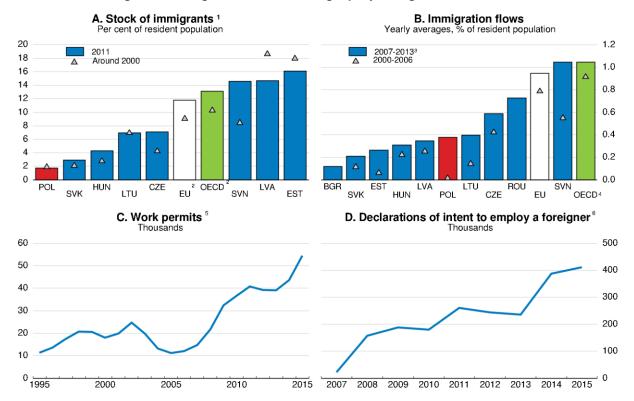


Figure 14. Immigration has been rising rapidly, though from a low level

- 1. Excluding return migrants.
- 2. Simple average across 21 and 31 countries for, respectively, the EU and OECD aggregates.
- 3. For consistency, the EU and OECD aggregates for both periods are simple averages across the member countries for which average data over the reference period from 2000 to 2006 was available. Averages over samples with varying composition for the 2007-2013 period yield 0.85% and 0.99% for the EU and the OECD, respectively.
- 4. OECD Europe only.
- 5. Work permits granted individually and to sub-contracting foreign companies.
- 6. Number of declarations issued by Polish employers according to a simplified procedure allowing firms to employ citizens of Belarus, Georgia, Moldova, Ukraine and Russia without the need for a previous work permit.

Source: OECD (2015), Indicators of Immigrant Integration; Eurostat; Ministry of Labour.

Polish unemployment has come down lately (Figure 15, Panel A). Yet, it has been higher and more persistent in Poland, Slovakia and the Baltic States, where emigration rates are relatively large, than in the Czech Republic, Hungary and Slovenia (Panel B). Indeed, it has been above average among two groups with a high propensity to emigrate: people with vocational education and young university graduates (Panels C and D). Graduates of tourism, humanities, particular foreign languages and social sciences are over-represented among emigrants with tertiary education (GUS, 2013). At the same time, graduates' labour market prospects in some of these areas are especially unfavourable. The share of graduates of the 10 most recent cohorts that were either inactive or unemployed in 2010-12 was 30% in tourism and recreation, and around 20% in sociology and pedagogy, compared to 11% in mathematics, 9% in computer science and 6% in civil engineering (Górniak, 2013).

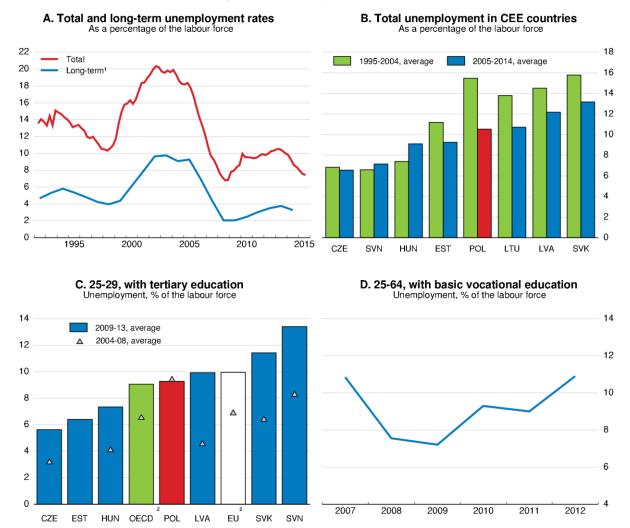


Figure 15. Unemployment in Poland

- 1. Refers to individuals registered as unemployed for more than 12 months.
- 2. Unweighted averages across, respectively, OECD and EU countries for which data are available between 2004 and 2008. Source: OECD, Economic Outlook 98 and Labour Force Statistics 2015 Databases; OECD, Education Statistics Database.

The welfare system, which became less generous in the 1990s, makes it more difficult to cope with an unemployment spell in Poland than in some neighbouring countries. This helps to explain their different migration experiences (Kurékova, 2013). Average replacement rates of social benefits available to the unemployed are low (Figure 16, Panel A), as is coverage of unemployment insurance (Panel B). Spending on passive and active labour market policies per jobless person is comparable or higher than in the Czech Republic and Slovakia, although well below that in Hungary, Slovenia and other OECD countries (Panel C). Total social spending per capita is lower than in most other CEECs and far less than the OECD average (Panel D).

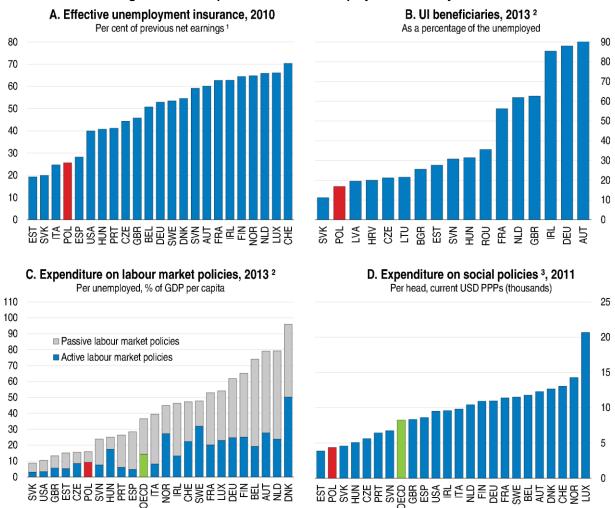


Figure 16. Social protection of the unemployed is relatively limited

- Effective unemployment insurance: average replacement rates of unemployment insurance (UI), unemployment assistance (UA) and social assistance (SA), each weighted with the share of the unemployed receiving the respective benefits. The average replacement rates for recipients of UI and UA take account of family benefits, housing benefits and social assistance if eligible. Net earnings are averaged across household types.
- Or latest available year.
- 3. Public and private mandatory social expenditure.

Source: OECD, Employment Outlook 2014; OECD Labour Market Policies Statistics and SOCX Databases; ILO.

Emigration is adding to significant demographic pressures, but it has reduced poverty and inequality

Poland faces severe demographic pressures, which will weigh on GDP growth and on Poland's ability to finance adequate pension and health-care spending in the longer term. Low fertility is the main determinant of ageing that the government needs to address. However, becoming an attractive country for migrants of both Polish and foreign origins can also make a positive contribution, provided that they are integrated successfully into the labour market. Based on past trends migration is not expected to mitigate the sharp decline in the working-age population over the coming decades, unlike in many other OECD countries (Figure 17). However, immigration has increased rapidly of late. In 2012 the government adopted a strategic document on migration policy to address demographic developments and future labour market needs. Partly as a result of the ensuing reforms, the number of residence permits increased substantially and was almost twice as high in 2015 as in 2012.

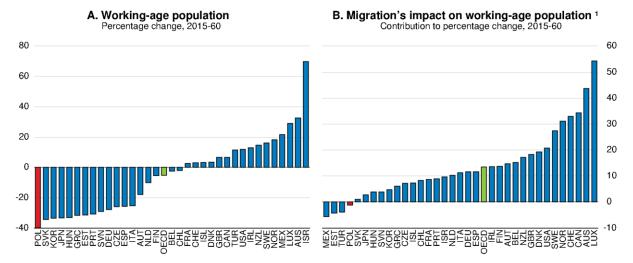


Figure 17. The working-age population is set to decline sharply

Projected impact of migration on the change in size of the working-age population in the 2015-60 period. This is calculated as
the difference between the projected percentage change in the size of the working-age population in a scenario with migration
and a scenario without migration. The migration scenario is based on past trends.

Source: United Nations (2015), World Population Prospects: The 2015 Revision.

Several studies find that emigration has had a weak impact on wages (Kaczmarzcyk, 2012a; Budnik, 2008; Dustmann et al., 2015), although others point out that it was stronger in sectors and regions that had particularly high outflows of workers (Anacka et al., 2014). Dustmann et al. (2015) suggest that the wage impact was stronger for workers with high and intermediate skills, who have a higher propensity to emigrate (see below). In turn, the wage impact on low-skilled workers, who became relatively more abundant, was negative.

Emigration has helped to lower poverty and inequality. Remittances peaked in 2007, owing to the growing tendency in recent years among emigrants to take their families with them, because they plan to stay. In 2014 remittances amounted to approximately 3.8 billion euros (1% of GDP). They were found to have reduced the poverty rate from 19% to 17.1% in 2008 (Barbone et al., 2012) and attenuated income inequality to some extent. They are mainly used for current consumption spending (Chmielewska, 2015), probably because families receiving them are often too poor to cover their current living expenses without these transfers (Brzozowski, 2012). Only emigrants with higher education sometimes state that they want to use their savings accumulated abroad to invest, for example in education or opening a business.

Poland both loses and gains highly qualified workers through migration

More and more Polish emigrants are highly qualified, as are official immigrants. People with higher education and upper secondary education are over-represented among emigrants compared to the resident population, while those with only primary education or less are under-represented. A similar picture holds for immigrants, of which around a quarter have Polish citizenship and are thus likely to be return migrants (Figure 18). The share of emigrants with higher education increased after Poland's EU accession. The largest group still has vocational education, but the share of this group among emigrants was even larger before EU accession (Kaczmarczyk, 2012a). In 2010/11 almost 16% of Poles with tertiary education lived outside the country, significantly more than in the average OECD country (OECD, 2015b).

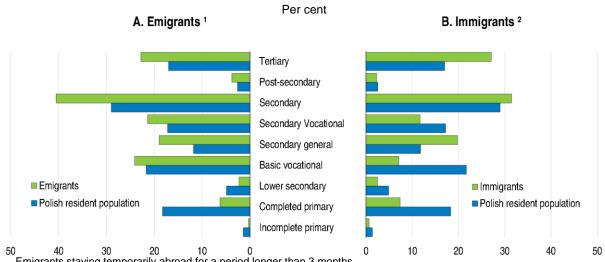


Figure 18. Both emigrants and immigrants are relatively high-skilled, 2011

Emigrants staying temporarily abroad for a period longer than 3 months.

Immigrants staying temporarily in Poland for a period longer than 3 months.

Source: GUS (2013), Migracje Zagraniczne Ludności. Narodowy Spis Powszechny Ludności i Mieszkań 2011.

This finding is qualified to some extent by PIAAC test scores of Polish emigrants, which are much lower than those of the resident population (Figure 19, Panel A). Very weak basic skills are particularly widespread among emigrants, including those with tertiary education (Panel B). While this is likely to reflect at least in part problems in taking the PIAAC test in a foreign language, test scores of emigrants from higher-income OECD countries tend to be much closer to the average among the resident population in their home countries and often even higher. Moreover, even Polish emigrants who have stayed in the foreign country for over 10 years still have lower average test scores than the Polish resident population, although the gap is narrower. Polish emigrants also have lower test scores than the resident population in their host countries (Brandt and Sicari, 2016). This is typical for immigrants in general (Bonfanti and Xenogiani, 2014), although not when they come from higher-income OECD countries (Brandt and Sicari, 2016). Given the wage increase they can expect, it seems plausible that individuals from lower income countries would be willing to move abroad, even if their language preparation did not allow them to fully use their skills in their destination country. Yet, PIAAC data do not allow for an unequivocal differentiation between language problems and low numeracy and literacy skills in respondents' mother tongue. Moreover, they are not necessarily representative for subgroups, such as emigrants from individual countries, even though the dataset comprises more than 600 Polish emigrants. Therefore, the observation that many Polish emigrants have university degrees seems more important.

Many Polish emigrants work in jobs requiring only low skills, although they often have a relatively high level of educational attainment (Chmielewska, 2015; Kaczmarczyk and Tyrowicz, 2015). Similarly, the recent boom of immigration from Eastern neighbours has been mainly used to fill simple, manual jobs, in particular in agriculture in remote regions (where Polish workers are difficult to find), construction, hotels and restaurants, wholesale and retail trade and domestic services. However, immigrants often have tertiary education (Duszczyk et al., 2013). Over-qualification is widespread among migrants in general and language problems as well as difficulties in transferring qualifications and skills acquired in the home country have been shown to contribute to this phenomenon (Bonfanti and Xenogiani, 2014). Yet, PIAAC data suggest that the phenomenon is especially pronounced among Polish migrants (Figure 19, Panels C and D). Many of them are likely to suffer from a loss of hard qualification- and job-specific skills as a result, which will make it difficult for them to work in professions corresponding to their qualifications when they return to Poland.

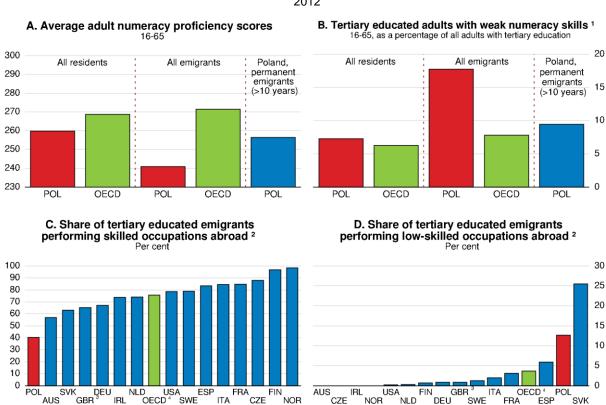


Figure 19. Skills of Polish emigrants are low, and they tend to perform simple jobs abroad 2012

- 1. Percentage of adults scoring at or below level 1 of the PIAAC scale of numeracy proficiency.
- 2. Skilled and elementary occupations are defined based on the ISCO classification.
- 3. Simple average across countries with available observations.

Source: OECD (2013), Survey of Adult Skills 2012 (PIAAC) and OECD calculations.

Related to their concentration in low-skill jobs, average earnings of Polish workers are significantly below the average in destination countries. This disadvantage is persistent, even if it has shrunk somewhat over time. Average earnings of Polish immigrants in Germany who had stayed longer than three years were more than a third lower than average wages of Germans according to a central bank survey (Chmielewska, 2015). Kaczmarczyk and Tyrowicz (2015) show that high-skilled Polish migrants in the United Kingdom also suffer from a significant wage gap compared to their British peers.

Nevertheless, many Polish emigrants report that they were able to acquire new, mainly soft skills abroad through their work experience and training according to a survey among return migrants conducted in Silesia (Brzozowski, 2012; Szymanska et al., 2012). This goes in particular for languages (more than 80%), work experience, know-how and new managerial and organisational techniques (more than 60%). Almost 40% of migrants with higher education and slightly more than 20% of those with vocational education report that they participated in training abroad.

Migrants find it difficult to use their skills and qualifications on the Polish labour market

Available data sources suggest that labour force participation among return migrants is relatively high. While they are more likely to be employed than workers with no migration experience, their unemployment rate is also much higher (Kotowska, 2014). According to survey data from Silesia, around

40% of unemployed return migrants were workers moving back and forth between Poland and other countries who registered as unemployed when in Poland mainly for access to health-care benefits. Around 20% were low skilled and had employment problems before moving abroad. Yet, roughly 40% consisted of university graduates who previously worked below their qualifications in their destination country (Brzozowski, 2012), suggesting that over-qualification abroad can contribute to skills depreciation and labour market problems upon return. As in other countries, return migrants are more likely to set up a business than others (Anacka et al., 2014), yet when surveyed they cite various barriers. These include heavy bureaucratic procedures, high labour costs and a lack of support from local labour offices.

Only 40% of return migrants felt that they were able to use their skills and experience acquired abroad in their new jobs. Less than 30% consider that foreign experience has helped them to obtain a better job or higher earnings (Brzozowski, 2012; Szymanska et al., 2012). This may be linked to the finding that qualifications – as proxied by years of education - are valued much more highly on the Polish labour market than skills (Figure 7). Without a Polish qualification in their field of work, it is difficult for migrants to signal their skills to Polish employers. The new possibilities to validate work experience with formal qualifications should be particularly helpful for immigrants of both Polish and foreign origins.

Research suggests that immigrants are mainly complementary to the domestic workforce, in that their positions would have been difficult to fill by Poles (Duszczyk et al., 2013). As labour shortages are starting to emerge, including for qualified manual labour and some specialist professions, such as health-care workers, stronger immigration can help. Yet, more needs to be done to help immigrants fully use their qualifications and skills on the Polish labour market.

Making qualifications more comparable nationally and internationally would improve labour market opportunities for immigrants. A law adopted in December 2015 foresees an integrated qualifications system (*Zintegrowany System Kwalifikacji*), aiming to make diplomas and certificates comparable, both nationally and on the European level. With the same methodology as the European qualifications framework it describes the knowledge, skills and competences associated with Polish qualifications to map them to those from other EU countries. This system should make it easier for Polish emigrants to use their qualifications in other EU countries, promoting better skills matches and development. Using qualifications acquired abroad when returning should also become easier. Similar, perhaps bilateral, initiatives would be helpful for non-EU countries that are major destinations or sources for Polish migration.

Public employment services need to improve further and be prepared to cater to immigrants' needs. The government is working to lower job counsellors' caseloads by increasing staff and to develop more individualised job-search assistance. Counsellors will need to be trained, including how to advise return migrants, immigrants and jobseekers who wish to set up their own business, and up-to-date information on labour market trends needs to be better integrated into counselling. The government recently introduced help for younger workers to set up a business, which can be particularly useful for return migrants with their relatively high propensity to become entrepreneurs. Requests for assistance can now be made online or by telephone, which might help return migrants better prepare their re-integration into the Polish labour market before they come back. Yet, services in English would be helpful to attract migrants who do not yet speak sufficient Polish, and firms should be encouraged more vigorously to list their job offers with the public employment services.

Active outreach to migrants is in Poland's interest

Given the scale of Poland's demographic problems, active outreach to potential immigrants is in its interest. Attracting more workers to Poland requires first and foremost good general economic, education and labour market policies that help the country develop and make effective use of workers' skills. Yet,

actively reaching out to immigrants to facilitate moving to Poland and integrating into the labour market would also be helpful. The government has developed a programme to maintain ties with the Polish diaspora and to engage them to transmit a positive image of Poland in their residence countries. It would be important to actively advertise jobs and business and investment opportunities to them.

Information helping workers to move to Poland and work should also be extended to foreign migrants. There is a dedicated website www.powroty.gov.pl and a manual for emigrants considering returning to Poland to help them with job search, administrative procedures and access to education and health services. In the past, regional programmes included help to set up a business and promotional activities abroad to encourage return, but evaluations of their effectiveness are not available, and a number have been abandoned (Kaczmarczyk, 2012b). Initiatives to facilitate moving to Poland to work should be extended to foreign-born migrants from a wide set of countries. There is ample evidence that immigration is beneficial for innovation and productivity, in particular if migrants come from diverse backgrounds (Ozgen et al., 2011; Ottaviano and Peri, 2006; Alesina et al., 2013).

As immigration from foreign countries increases and the range of source countries widens, some safeguards will be needed along with strong integration policies. With the simple declaration of intent there are essentially no restrictions to hire workers from neighbouring countries. The procedure was introduced to respond to legal seasonal labour needs, mainly in agriculture in remote regions, which had often been filled illegally before. The government should monitor whether the declaration of intent is really used for short-term seasonal employment or whether some employers use it recurrently for the same workers. In addition, stronger integration policies may be needed as more people come to Poland from a wider range of origins with more distant languages and cultures than neighbouring Ukraine. They will need opportunities to learn Polish and enrol their children in education from a very young age. Housing policies will also need to ensure they are integrated into a wide range of neighbourhoods to avoid excessive residential segregation.

Recommendations to strengthen workers' skills and profit more from migration

- Continue to expand access to early childhood education and care, particularly for poorer families.
- Continue to strengthen individual support for weak students in elementary and lower secondary education, and attract the best teachers to basic vocational schools, e.g. by improving their pay and career opportunities.
- Facilitate foreign credentials recognition and validation of experience and skills acquired abroad.
- Link university teachers' pay and career prospects to their performance, and continue strengthening links with business and foreign universities.
- Encourage more enterprises to offer work placements for vocational students.
- Develop a basic skills strategy.
- In addition to childcare facilities develop long-term care facilities and move towards individual taxation only.
- Strengthen labour law enforcement and further align contributions on civil and labour law contracts
- Continue efforts to set up high-quality orientation services for pupils and students. Train job counsellors in public employment services to advise immigrants and people who want to set up a business.
- Engage actively with the diaspora to advertise Polish investment, business and job opportunities. Provide information on how to come and work for Polish return migrants and foreign immigrants alike.

BIBLIOGRAPHY

- Adalet McGowan, M. and D. Andrews (2015), "Labour Market Mismatch and Labour Productivity: Evidence from PIAAC Data", *OECD Economics Department Working Papers*, No. 1209, OECD Publishing.
- Alesina, A., J. Harnoss and H. Rapoport (2013), "Birthplace Diversity and Economic Prosperity", *NBER Working Papers*, No. 18699.
- Anacka, M., J. Brzozowski, I. Grabowska-Lusińska and S. Urbańska (2014), "Społeczne skutki poakcesyjnych migracji ludności polski", *Raport Komitetu Badán nad Migracjami Polskiej Akademii Nauk*, Warsaw.
- Appelt, S. et al. (2015), "Which factors influence the international mobility of research scientists?", *OECD Science*, *Technology and Industry Working Papers*, 2015/02, OECD Publishing. http://dx.doi.org/10.1787/5js1tmrr2233-en
- Arak, P., P. Lewandowski and P. Żakowiecki (2014), "Dual labour market in Poland proposals for overcoming the deadlock", Instytut Badań Strakturalnych, Warsaw.
- Auer, W. and N. Danzer (2015) "Fixed-Term Employment and Fertility: Evidence from German Micro Data", CESifo Economic Studies, pp. 1–29.
- Barber, M. and M. Mourshed (2007), *How the World's Best-Performing School Systems Come Out on Top*, McKinsey and Co., London.
- Barbone, L., K. Piętka Kosińska and I. Topińska (2012), "Wpływ przepływów pieniężnych na polską gospodarkę w latach 1992-2012", Raport Western Union, Centrum Analiz Społeczno-Ekonomicznych CASE, Warsaw.
- Bassanini, A., L. Nunziata and D. Venn (2009), "Job Protection Legislation and Productivity Growth in OECD Countries", *Economic Policy*, Vol. 58, pp. 349-402.
- Bonfanti, S. and T. Xenogiani (2014), "Migrants' Skills: Use, Mismatch and Labour Market Outcomes. A first exploration of the Survey of Adult Skills (PIAAC)", in *Matching economic migration with labour market needs*, OECD Publishing.
- Brandt, N. and P. Sicari (2016), "Migrants' skills: The role of the income level of countries of origin", *Technical Background Paper*, forthcoming.
- Brzozowski, J. (2012), Analiza wpływu powrotów z emigracji na rozwój województwa śląskiego [w:] Zaraz wracam... albo i nie. Skala powrotów, motywacje i strategie życiowe reemigrantów z województwa śląskiego, J. Szymańska, C. Ulasiński, D. Bieńkowska (red.), Centrum Doradztwa Strategicznego, Kraków.
- Budnik, K.B. (2008), "Search Equilibrium with Migration: The Case of Poland", *National Bank of Poland Working Paper, No. 45*, NBP, Warsaw.
- Bukowski, M. (2007), "Employment in Poland 2006 Productivity for Jobs", Ministerstwo Pracy i Polityki Społecznej Warsaw. http://ibs.org.pl/projekty/files/ZWP/Employment_in_Poland_2006___Productivity_for_jobs.pdf.

- Bynner, J. and S. Parsons (2006), "New light on literacy and numeracy", National Research and Development Centre for Adult Literacy and Numeracy, London.
- Cedefop (2013a), "Poland. Vocational Education and Training in Europe Country Report", Thessaloniki.
- Cedefop (2013b), "Spotlight on VET Poland", Thessaloniki.
- Chmielewska, I. (2015), "Transfery z tytułu pracy Polaków za granicą w świetle badań Narodowego Banku Polskiego", *Materiały i Studia*, No. 314, Narodowy Bank Polski (NBP), Warsaw.
- Dolado, J., S. Ortigueira and R. Stucchi (2012), "Does Dual Employment Protection Affect TFP? Evidence from Spanish Manufacturing Firms", *CEPR Discussion Paper*, No. 8763, London.
- Dustmann, C., T. Frattini and A. Rosso (2015), "The effect of emigration from Poland on Polish wages", *The Scandinavian Journal of Economics*, Vol. 117, No. 2, pp. 522–64.
- Duszczyk, M. and K. Matuszczyk (2015), "A one-way ticket? Migration in Europe from the perspective of CEE countries", Central and Eastern Europe Development Institute, Warsaw.
- Duszczyk, M., M. Góra and P. Kaczmarczyk (2013), "Costs and Benefits of Labor Mobility between the EU and the Eastern Partnership Countries: the Case of Poland", *IZA Discussion Paper*, No. 7664, Bonn.
- Ernst & Young and the Gdansk Institute for Market Economics (Instytut Badań nad Gospodarką Rynkową) (2009), *Diagnoza stanu szkolnictwa wyższego w Polsce* (Diagnosis of Higher Education In Poland), http://ptbk.mol.uj.edu.pl/download/aktualnosci/akt.diagnoza.pdf.
- European Commission (2012), "First European Survey on Language Competences", Brussels.
- European Commission (2014), "Education and Training Monitor Poland", Brussels.
- Główny Urząd Stastyczny (GUS) (2013), Migracje Zagraniczne Ludności. Narodowy Spis Powszechny Ludności i Mieszkań, Warsaw.
- Główny Urząd Stastyczny (GUS) (2014a), Higher Education Institutions and their Finances in 2013. Warsaw.
- Główny Urząd Stastyczny (GUS) (2014b), Rocznik Statystyczny Pracy. Warsaw
- Główny Urząd Stastyczny (GUS) (2014c), Education in 2013/2014 School Year. Warsaw.
- Główny Urząd Stastyczny (GUS) (2015a), Wybrane zagadnienia rynku pracy Notatka, Warsaw.
- Główny Urząd Stastyczny (GUS) (2015b), Concise Statistical Yearbook 2015, Warsaw.
- Górniak, J. (2013), "Youth or experience? Human capital in Poland Report concluding the 3rd round of the BKL study in 2012", Polska Agencja Rozwoju Przedsiębiorczości, Warsaw.
- Goźlińska, E. and A. Kruszewski (2013), Stan szkolnictwa zawodowego w Polsce *Raport, Krajowy Ośrodek Wspierania Edukacji Zawodowej i Ustawicznej*, Warsaw.

- Goujard, A. (2016), "Improving transport and energy infrastructure in Poland", OECD Economics Department Working Paper, *forthcoming*.
- Herbst, M. and J. Rok (2014), "Equity in an Educational Boom: lessons from the expansion and marketization of tertiary schooling in Poland", *European Journal of Education*, Vol. 49, No.3, pp. 435–50.
- Kaczmarczyk, P. (2012a), "Labour market impacts of post accession migration from Poland", in OECD, Free Movement of Workers and Labour Market Adjustment: Recent Experiences from OECD Countries and the European Union, OECD Publishing http://dx.doi.org/10.1787/9789264177185-10-en.
- Kaczmarczyk (2012b), "Return migration and transfer of competencies the case of Poland", unpublished Manuscript.
- Kaczmarczyk, P. and M. Okólski (2008), "Demographic and Labour Market Impacts of Migration on Poland", Oxford Review of Economic Policy, Vol. 24, No. 3, pp. 600-25.
- Kaczmarczyk, P. and J. Tyrowicz (2015), "Winners and losers among skilled migrants: The case of post-accession Polish migrants to the UK", Forschungsinstitut zur Zukunft der Arbeit Discussion Paper, No. 9057, Bonn.
- Kiersztyn, A. (2013), "Stuck in a mismatch? The persistence of overeducation during twenty years of the post-communist transition in Poland", *Economics of Education Review*, No. 32, pp. 78–91.
- Kocór, M., A. Strzebońska and M. Dawid-Sawicka (2015), "Rynek pracy widziany oczami pracodawców Na podstawie badań pracodawców i ofert pracy zrealizowanych w 2014 roku w ramach V edycji projektu Bilans Kapitału Ludzkiego", Polska Agencja Rozwoju Przedsiębiorczości, Warsaw.
- Kotowska, I. (2014), "Rynek pracy y wykluczenie społeczne w kontekście percepcji Polaków Diagnoza społeczna 2013", Warsaw. http://analizy.mpips.gov.pl/images/stories/publ_i_raporty/DS2013/Raport_Rynek_pracy_i_wyklucz enie_społeczne.pdf
- Kureková, L. (2013), "Welfare Systems as Emigration Factor: Evidence from the New Accession States", *Journal of Common Market Studies*, Vol. 51, No. 4. pp. 721–39.
- Kwiek, M. (2015), "The Internationalization of Research in Europe: A Quantitative Study of 11 National Systems From a Micro-Level Perspective", *Journal of Studies in International Education*, pp. 1-9.
- Lewandowski, P. and I. Magda (2014), "Employment in Poland Labour in the age of structural change", Warsaw.
- Lewandowski, P. and A. Kaminska (2014), "In-work poverty in Poland: Diagnosis and possible remedies", Institute of Structural Research, Warsaw.
- Lis, M. and A. Miazga (2014), "Time for quality in vocational education", *IBS Policy Paper*, No. 03/04, Instytut Badán Strukturalnych.
- Łukowski, W. (2004), "Polscy pracownicy na rynku pracy Unii Europejskiej na przełomie wiekow", Institute for Social Studies, University of Warsaw.

- Mertaugh, M. and E. Hanushek (2005), "Education and training", in Nicholas Barr (ed.), *Labor Markets and Social Policy in Central and Eastern Europe: The Accession and Beyond*, The World Bank, Washington, DC, pp. 207-51.
- Ministerstwo Edukacji Narodowej MEN (2011), "Badanie funkcjonowania systemu kształcenia zawodowego w Polsce Raport końcowy", Warsaw. www.efs.lubelskie.pl/widget/file/get/1328602926480914.pdf
- Montt, G. (2015), "The causes and consequences of field-ofstudy mismatch: An analysis using PIAAC", OECD Social, Employment and Migration Working Papers, No. 167, OECD Publishing. http://dx.doi.org/10.1787/5jrxm4dhv9r2-en.
- National Labour Inspectorate (Państwowa Inspekcja Pracy, PIP) (2015), Sprawozdanie z działalności Państwowej Inspekcji Pracy w 2014 roku, Warsaw.
- Nešperová, A. (2000), "Employment and labour market policies in transition economies", International Labour Organization, Geneva.
- OECD (2005), Teachers Matter: Attracting, Developing and Retaining Effective Teachers, OECD Publishing, http://dx.doi.org/10.1787/9789264018044-en.
- OECD (2008), *OECD Employment Outlook* 2008, OECD Publishing, http://dx.doi.org/10.1787/empl_outlook-2008-en.
- OECD (2010), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing. http://dx.doi.org/10.1787/9789264087460-en.
- OECD (2011a), "The Impact of the 1999 Education Reform in Poland", *OECD Education Working Papers*, No. 49, OECD Publishing.
- OECD (2011b), *Doing Better for Families*, OECD Publishing, http://dx.doi.org/10.1787/empl_outlook-2008-en.
- OECD (2012), Closing the Gender Gap: Act Now, OECD Publishing.
- OECD (2013a), Skills Outlook, OECD Publishing.
- OECD (2013b), *Higher Education in Regional and City Development: Wroclaw, Poland 2012*, OECD Publishing, http://dx.doi.org/10.1787/9789264188914-en.
- OECD (2014a), "Does primary education reach those who need it most?" *PISA in Focus 40*, OECD Publishing http://www.oecd.org/pisa/pisaproducts/pisainfocus/pisa-in-focus-n40-(eng)-final.pdf
- OECD (2014b), *Skills Beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing. http://dx.doi.org/10.1787/9789264214682-en.
- OECD (2014c), *OECD Employment Outlook 2014*, OECD Publishing. http://dx.doi.org/10.1787/empl_outlook-2014-en.
- OECD (2014d), OECD Economic Surveys: Poland 2014, OECD Publishing.
- OECD (2015a), Ageing and Employment Policies: Poland 2015, OECD Publishing.

- OECD (2015b), Connecting with Emigrants, OECD Publishing.
- OECD (2016a), OECD Economic Surveys: Poland 2016, OECD Publishing.
- OECD (2016b), *Employment and Skills Strategies in Poland*, OECD Reviews on Local Job Creation, OECD Publishing, forthcoming.
- Ottaviano, G. and G. Peri (2006), "The Economic Value of Cultural Diversity: Evidence from US Cities" *Journal of Economic Geography*, Vol. 6, pp. 9–44.
- Ozgen, C., P. Nijkamp and J. Poot (2011), "Immigration and Innovation in European Regions", *IZA Discussion Paper*, No. 5646. http://ftp.iza.org/dp5676.pdf
- Rica, S. de la and A. Iza (2005), "Career Planning in Spain: Do Fixed-term Contracts Delay Marriage and Parenthood?", *Review of Economics of the Household*, Vol. 3, pp. 49–73.
- Sroka, M. (2014), "Functioning of academic career centres in Polish schools of higher education", *Polish Journal of Management Studies*, Vol. 10, pp.135-44.
- Szymańska, Justyna, C. Ulasiński and D. Bieńkowska (2012), *Zaraz wracam... albo i nie. Skala powrotów, motywacje i strategie życiowe reemigrantów z województwa śląskiego*, Centrum Doradztwa Strategicznego, Kraków.
- Vega, M. L. and R. Robert (2013), "Labour Inspection Sanctions: Law and practice of national labour inspection systems", Labour Administration and Inspection Programme LAB/ADMIN, *Working Document*, No. 26, International Labour Organization, Geneva.
- Windisch, H. C. (2015), "Adults with low literacy and numeracy skills: A literature review on policy intervention", *OECD Education Working Papers*, No. 123, OECD Publishing, http://dx.doi.org/10.1787/5jrxnjdd3r5k-en
- Wolf, A. (2008), "Adult learning in the workplace: Creating formal provision with impact", *Teaching and Learning Research Briefing*, No. 59, Teaching and Learning Research Programme, Economic and Social Research Council, London, www.tlrp.org/pub/documents/wolfRB59final.pdf.