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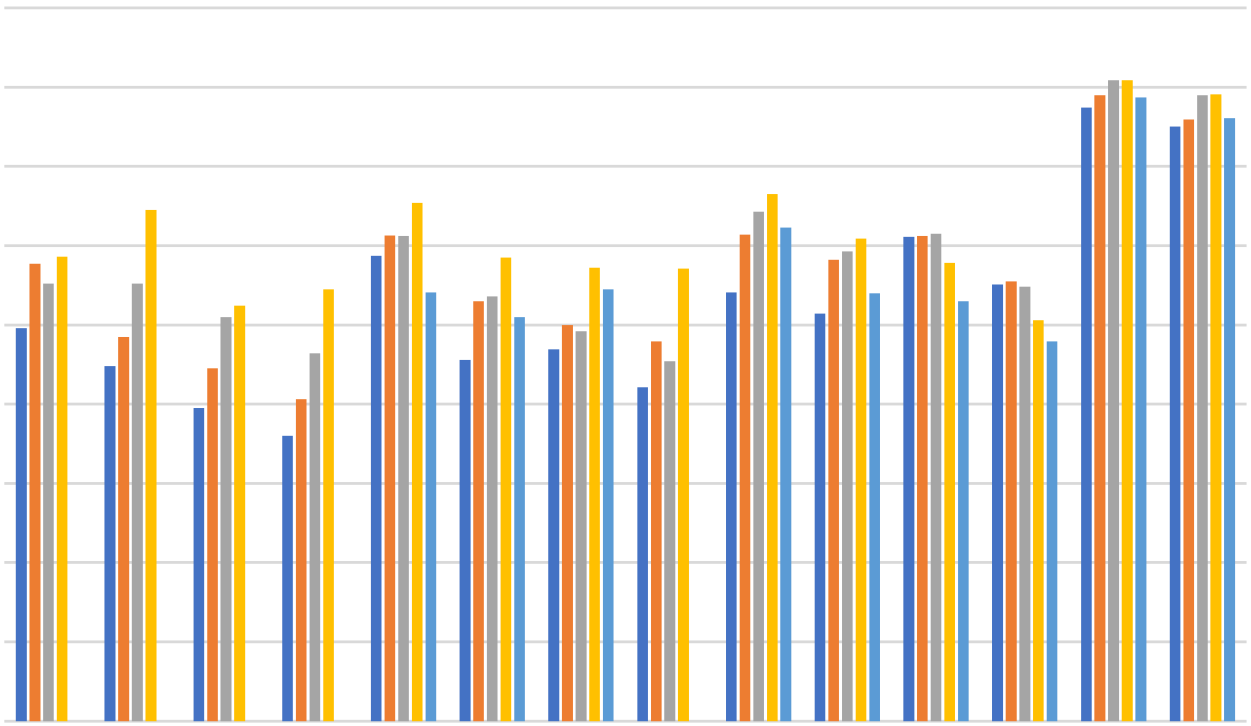
KEY INDICATORS ON EDUCATION, SKILLS AND EMPLOYMENT 2021



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Manuscript completed on 20 October 2021

PREFACE

These Key Indicators on Education, Skills and Employment (KIESE) are a collection of statistics that are part of a broader set of indicators proposed by the ETF to enable an assessment of developments in the field of human capital in the partner countries[1]. They include data on education, initial vocational education and training, basic skills, school to work transition, labour market outcomes, skills mismatch and adult training. A revision of KIESE was carried out in 2020 for a closer alignment with ETF strategy and new monitoring frameworks at European level.

KIESE describe issues that influence human capital development and skills policies in the partner countries. They do not assess national systems or policies in a comprehensive or in-depth way. KIESE diligently record developments over time according to a fixed set of indicators, while avoiding – insofar as possible and necessary – judgments about these developments, their underlying reasons, and any implications for the future. Furthermore, statistics have their limitations in that they can oversimplify complex issues, and to be construed properly they must be contextualised.

In order to allow for cross-country analysis and an international perspective, it is vital to ensure data comparability. KIESE use standard statistical frameworks to categorise and report cross-nationally comparable statistics.

They also allow the ETF partner countries to reference themselves against the European Union. Comparability remains one of the most important features of KIESE.

This document presents the main findings and results from the 2021 data compilation exercise. It provides an essential, though partial, overview of the ETF partner countries, and one which needs to be read in combination with the countries' own strategies and other developments. Time lags are also inevitable and must be taken into consideration.

Comprehensive analysis of VET and skills requires more detailed data and other information, to which KIESE are an important but not an exhaustive contribution. One important objective of this report is to provide an overview of trends and developments in partner countries, and also to raise awareness on the use of indicators to drive the policy cycle.

This report is divided into four parts:

1. the indicators and their definitions,
2. key findings for 2021,
3. data availability and quality,
4. indicators.

[1] The ETF uses other evidence, such as in-depth studies in the thematic areas and national sources of evidence, to compile its intelligence on each country and thematic domain. KIESE provide an overview that is comparable among countries and includes only quantitative key indicators. They are an important input to be considered along with other information to better understand the country context and key features

TABLE OF CONTENTS

THE INDICATORS AND THEIR DEFINITIONS

1. **Early leaving from education and training** is defined as the percentage of the population aged 18 24 with (at most) lower secondary education who were not in further education or training during the 4 weeks preceding the survey. Lower secondary education refers to ISCED 2011 levels 0-2. The indicator provides a measure of the youth population most at risk of being marginalised from education and training.

2. **Enrolment in technical and vocational programmes.** Such programmes prepare participants for direct entry into specific occupations without further training. Successful completion of such programmes leads to labour-market-relevant vocational qualifications acknowledged as occupationally oriented by the relevant national authorities and/or the labour market. Vocational education may have work-based components, such as apprenticeships and dual-system education programmes. They may include programmes that involve concurrent school-based and work-based training, as well as programmes that involve alternating periods of attendance at educational institutions and participation in work based training. The degree to which a programme has a vocational or general orientation does not necessarily determine whether participants have access to tertiary education..

3. **Enrolment rates.** The net enrolment rate is the total number of students in the theoretical age group for a given level of education enrolled in that level, expressed as a percentage of the total population in that age group. The gross enrolment rate is the number of students enrolled in a given level of education, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education. For the tertiary level, the population used is the 5-year age group starting from the official secondary school graduation age. A high gross rate generally indicates a high degree of participation, whether the pupils belong to the official age group or not. A value approaching or exceeding 100% indicates that a country is, in principle, able to accommodate all of its school-age population, but does not indicate the proportion already enrolled. The gross rate can exceed 100% due to the inclusion of over-aged and under-aged students because of early or late entrants and grade repetition. In this case, a rigorous interpretation of the gross rate needs additional information to assess the extent of repetition, late entrants, etc.

4. **Lifelong learning** refers to persons who stated that they received education or training in the 4 weeks preceding the survey (numerator). The denominator consists of the total population of the same age group, excluding those who did not answer the question on participation in education and training. The information collected relates to all education or training, whether or not it is relevant to the respondent's current or possible future job. The indicator provides a measure of lifelong learning as well as of the supply of additional skills in the country.

5. **Low achievers in reading** are the 15 year-olds who are failing level 2 on the OECD Programme for International Student Assessment (PISA) scale for reading. The indicator provides a measure of the youth population most at risk due to lack of foundation/basic skills.

6. **Skills mismatches** reflect changes in the labour market, some at a rapid pace, and are interconnected with human capital. Specifically, a skills mismatch can be used to describe vertical mismatch (usually measured in terms of over-education, under-education, over-skilling and under skilling), horizontal mismatch (usually a comparison of fields of study

and work), skills gaps (the extension to which workers lack the skills necessary to perform their current job), skills shortages (usually measured in terms of unfilled and hard-to-fill vacancies) and skill obsolescence (skills can become obsolete due to ageing, through technological or economic change, which renders certain skills unnecessary, or through the underutilisation of skills). Only two types of mismatches are discussed in this report: over-skilling and over-education.

7. **The employment rate** is calculated by dividing the number of employed persons by the population of the same age group. Employed persons are all persons who worked at least 1 hour for pay or profit during the reference period or were temporarily absent from such work. The indicator can be used to evaluate the ability of the economy to create jobs. It can be used in combination with unemployment rate for a general evaluation of the situation on the labour market.

8. **The unemployment rate of recent graduates** is estimated for persons aged 20-34 who fulfil the following conditions: (1) being employed, according to the ILO definition; (2) having attained at least upper secondary education (International Standard Classification of Education (ISCED) levels 3-8) as the highest level of education; (3) not having received any education or training in the 4 weeks preceding the survey; and (4) having successfully completed their highest educational attainment 1, 2 or 3 years before the survey. The indicator provides a measure of employability and transition from school to work of recent graduates.

9. **The unemployment rate** represents unemployed persons as a percentage of the labour force. The labour force is the total number of people who are employed or unemployed. Unemployed persons comprise those aged 15 and over who were without work during the reference week; are currently available for work (were available for paid employment or self-employment before the end of the 2 weeks following the reference week); are actively seeking work, i.e. had taken specific steps in the 4 week period ending with the reference week to seek paid employment or self-employment, or had found a job to start later (within a period of, at most, 3 months). The indicator provides a measure of the overall probability of being unemployed and the associated underutilisation of skills. It is probably the best-known labour market measure and certainly one of the most widely quoted by media in many countries. It reflects the inability of an economy to generate employment for those persons who want to work but are not doing so, even though they are available for employment and actively seeking work. It is thus seen as an indicator of the efficiency and effectiveness of an economy to absorb its labour force and of the performance of the labour market. Often quoted as a measure of skills gaps and imbalances on the labour market, the indicator fails to provide a robust image of the incidence and causes of skills mismatches.

10. **Years of schooling.** The number of expected years of schooling is calculated as the sum of age specific enrolment rates between ages of 4 and 17. Age-specific enrolment rates are approximated using school enrolment rates at different levels: pre-primary enrolment rates approximate the age-specific enrolment rates for 4 and 5-year-olds; the primary rate approximates for 6-11-year-olds; the lower-secondary rate approximates for 12-14-year-olds; and the upper-secondary rate approximates for 15-17-year-olds. Most recent estimates are used. Learning-adjusted years of school are calculated by multiplying the estimates of expected years of schooling by the ratio of the most recent harmonised test score to 625, where 625 corresponds to advancement attainment in the TIMSS (Trends in International Mathematics and Science Study) test.

11. The number of **young people not in employment, education or training (NEETs)** provides information on young people aged 15-24/15-29 who meet the following two conditions: first, they are not employed (i.e. unemployed or inactive according to the ILO definition); and, second, they have not received any education or training in the 4 weeks preceding the survey. Data is expressed as a percentage of the total population of the same age group and gender, excluding the respondents who have not answered the question on participation in education and training. The indicator provides a measure of the youth population most at risk of being marginalised from the labour market and underutilising their skills.

KEY FINDINGS FOR 2021

EDUCATION AND INITIAL VOCATIONAL EDUCATION AND TRAINING

Most ETF partner countries have witnessed an increase in participation in formal educationn.

The gross enrolment rates in education (at primary to tertiary level) have increased in the past years in most partner countries, now ranging between some 60% in Jordan to some 90% in Georgia[2]. This increase has been mainly due to a higher participation of young women, especially at the tertiary level. Whereas nearly all partner countries have achieved universal primary education, participation drops notably at secondary and tertiary level. Yet, with the decrease of typically age cohorts, more students are nowadays enrolled in education (**read more**)[3].

Progress towards the Sustainable Development Goal 4 target – Ensuring equal access for all women and men to affordable and quality technical/vocational education – was rather limited in most countries. For those aged 15-24, participation in technical/vocational education remains very low in Jordan (1%), Turkmenistan (2%), Georgia and Palestine[4] (some 3%). In Bosnia and Herzegovina, Serbia, Montenegro, Turkey and Uzbekistan, one in four young people aged 15-24 is enrolled in a technical/vocational programme. In all partner countries, young women are less likely to follow a technical/vocational pathway compared to young men; no notable progress on this side among the ETF partner countries was seen in the past years (**read more**).

VET programmes can be successful in preventing early leaving from education and trainings.

The proportion of early leavers remains high in some countries, affecting one in three young people in Palestine, one in four in Turkey and around one in five in Albania and Moldova (the EU average is 10%). However, the incidence of early leaving from education is decreasing in all countries, according to the data available. In particular, Albania, Moldova and Turkey have witnessed notably lower numbers of young people aged 18-24 leaving the education system prematurely in recent years (**read more**).

VET can mitigate the risk of early leaving, though the relationship is not always a straightforward one. Nevertheless, some patterns can be identified based on the ETF data. Only some 5% of 18 24 year olds dropped out of school in 2020 in Bosnia and Herzegovina, Montenegro and Serbia. The countries are similar in that they show a very high proportion (up to 75%) of upper secondary students enrolled in vocational programmes. Keeping young people in education while upskilling them through vocational qualifications has proved to be a successful policy option in these countries. Conversely, in Albania or Palestine, the incidence of early leaving remains higher while the number of VET students is relatively lower. Reducing the incidence of early leaving is an important element in mitigating the risk of social exclusion. High-quality VET systems can help in this respect by providing second-chance education programmes for young people who have dropped out of school and are more at risk of having low skill levels.

[2] The gross rate can exceed 100% (as in Kazakhstan or Turkey) due to the inclusion of over-aged and under aged students because of early or late entrants, and grade repetition. In this case, a rigorous interpretation of the gross rate needs additional information to assess the extent of repetition, late entrants, etc.

[3] A high gross rate generally indicates a high degree of participation, whether the pupils belong to the official age group or not.

[4] This designation shall not be construed as recognition of a State of Palestine and is without prejudice to the individual positions of Member States on this issue.

Schooling and learning do not always go hand in hand, and the time spent in school may translate unevenly into learning in some countriesng.

In the ETF partner countries, a child born today[5] can expect to spend between 10 and 14 years at school by the time they turn 18. The lowest number of expected years of schooling is estimated for Lebanon, Morocco and Tunisia (some 10 years), whereas a child born in Belarus, Israel, Kazakhstan or the Russian Federation is expected to spend around 14 years in school. However, the time spent in school may translate unevenly into learning, depending on many factors. One way to measure this gap is to use standardised tests[6] and to convert schooling into learning-adjusted years of school. When adjusted for learning outcomes, schooling can drop drastically in some countries, to the magnitude of 4 years (representing the typical duration of an educational level). For instance, the gap between schooling and learning can be as high as 4 years in around one third of the ETF partner countries (**read more**). This gap can be considered a loss in the human capital, as students go to school without learning, with consequences in later life (see below).

One of the main challenges remains tackling underachievement in key competences.

The OECD Programme for International Student Assessment (PISA) 2018 results show high levels of underachievement (i.e. students failing Level 2 on the PISA scale in reading, for some half of the partner countries[7]). The indicator provides a measure of the youth population most at risk through a lack of foundation skills. Data shows that around three out of four students aged 15 in countries such as Kosovo[8] or Morocco, two-thirds in Kazakhstan or Lebanon and around half of the students in Albania, Bosnia and Herzegovina or North Macedonia fall under this category. Compared with the previous rounds of the survey (2015), only North Macedonia and Turkey have witnessed sizeable decreases in the share of underachievers (**read more**).

ISA also makes it possible to analyse national performance by gender, socioeconomic status and immigrant background, and contains other contextual information and pupils' attitudes. The 2018 results show a wide performance gap in reading between pupils in general education and those in vocational programmes. Therefore, when analysing the incidence of low achievement among students aged 15, it is worth noting that, in most partner countries, this is the typical age for entering VET. Thus, students entering VET are at high risk as a result of a lack of foundation skills.

YOUTH TRANSITION

The situation of young people remains problematic in most partner countries, with persistently high numbers of young people who are not in employment, education or training (NEETs).

In 2020, one in three young people aged 15-24 in Palestine, Kosovo and Tunisia, and one in four in most other partner countries with data available, were classified as NEETs (**read more**). Young girls are typically over-represented in this group, reaching one-third in Armenia, Kosovo, Palestine, Tunisia and Turkey. A closer look at the gender patters for NEETs by their labour market status[9], shows a higher incidence of inactivity among young women, coupled with a higher likelihood of unemployment for young men in some countries[10]. In other words, while young men are more likely to enter the labour market, transiting between various stages, the young more frequently choose to remain inactive. A closer look at the gender patterns of NEETs also shows that more young women are not looking for jobs compared to young men. This could be linked to several factors, such as sociocultural norms, less favourable working environments or family duties.

5 Given the risks to poor health and poor education that prevail in the country.
6 Test scores may not accurately reflect the quality of the whole education system in a country, to the extent that test-takers are not representative of all the student population.
7 Most ETF partner countries take part in the OECD PISA (Albania, Algeria, Armenia, Azerbaijan, Belarus, Georgia, Israel, Jordan, Kazakhstan, Kyrgyzstan, Kosovo, Lebanon, Moldova, Montenegro, Morocco, North Macedonia, Russian Federation, Serbia, Tunisia, Turkey and Ukraine).
8 This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence
9 This categorisation of NEETs is instrumental in monitoring the Youth Guarantee, which is a key flagship initiative launched by the European Commission for the Western Balkan region in response to the COVID-19 crisis and the twin digital and green transitions. The initiative aims at securing a good quality offer of employment, traineeship, apprenticeship or continued education to all young people aged 15-29 who are NEETs.
10 ETF (forthcoming), Disengagement and mismatch among youths in Western Balkans.

Whereas most partner countries have managed to keep the NEETs rates under control in the past years, the current COVID-19 pandemic seems to have contributed to a recent deterioration in the youth situation. Not only the NEETs rates went up, but other metrics (typically used to frame youth transition) have also degraded (see below). The 2020 data shows an increase in NEETs in nearly all countries with data available, ranging from 1pp in a number of countries (also including EU countries) to some 4pp in Montenegro. It is believed that the pandemic has largely contributed to these patterns, since the NEETs rates were previously decreasing in most countries. This issue has already been studied/documented for the OECD countries[11].

NEETs are at higher risk of being socially and economically excluded and so are much more likely to become vulnerable in the long term. However, the NEETs category contains a variety of sub-groups, some of which are vulnerable and some not. This high heterogeneity of the NEETs population must be further considered when designing policies for vulnerable groups and their re-engagement with the labour market or the education system[12].

There may be various reasons and explanations for youth disengagement with the labour market, including a difficult transition from school to work due to insufficient employability levels and insufficient support during such transition periods. It may also be explained by the unattractive working conditions, reflected in informality, wage levels and occupational health and safety, and insufficient mentorship and/or coaching arrangements for newly hired workers or skills that are not aligned with those needed in the economy or by employers[13].

The NEETs rate should not be regarded as a comprehensive image of school-to-work transition since its behaviour is complicated by the emergence of new patterns. Whereas, in the past, most young people would traditionally start work only after completing their studies (and so rarely combining school and work), this pattern is no longer valid in most European countries. Youth transition into the labour market has become more prolonged and somewhat also rather unstable/unpredictable in recent years; nowadays young people usually change jobs more frequently (either by choice or necessity) and so no longer have a clear labour market status for longer periods[14]. Combining work and study is no longer an exception, but rather the rule, and also a common choice nowadays. From this perspective, a few countries with data available[15] show rather different patterns compared to the EU. Whereas some 40% of young people aged 15-29 are still in school (also the EU level), only less than one in 20 also work (the EU value is 13.5%)[16]. This difference contributes to a higher NEETs incidence in these countries.

Youth transition is also characterised by persistently high youth unemployment.

Youth unemployment remained very high in 2020, affecting around 50% of the active youths[17] in Kosovo, some 40% in Palestine and around one in three in Bosnia and Herzegovina, Georgia, Montenegro, North Macedonia and Tunisia (the EU average is 17%). The situation remains serious in most partner countries, with long-term economic and social consequences (**read more**).

Youth unemployment rates have traditionally been higher than those of other age groups, and there are clearly some strong determinants. Young people face more challenges than adults in entering the labour market owing to their lack of work experience and the mismatch between the skills they have

11 OECD (2021) Employment Outlook
12 ETF evidence (2015) shows that some factors are more important than others in determining NEETs rates. The high incidence of NEETs in the partner countries is often related to lower educational attainment, gender, lower employability as a result of skill gaps and the socioeconomic background. Young people not in employment, education or training: an overview in the ETF partner countries.
13 ETF (2020), Unlocking youth potential in South-Eastern Europe and Turkey: Skills development for labour market and social inclusion.
14 Eurostat (2021) Statistics on young people neither in employment nor in education or training.
15 Montenegro, North Macedonia, Serbia and Turkey.
16 ETF (forthcoming), Disengagement and mismatch among youths in Western Balkans
17 The youth unemployment rate is the percentage of unemployed people in the 15-24 age group compared to the total labour force (both employed and unemployed) in that age group. However, it should be remembered that a large number of people in this age group are outside the labour market, since many young people are studying full time and are thus not available for work. Because not every young person is in the labour market, the youth unemployment rate does not reflect the total number of young adults who are unemployed. For this reason, the youth unemployment ratio is also often used: the percentage of unemployed young people compared with the total population of that age group (not only the active population, but also the inactive, such as students).

to offer and those required by employers. Youth unemployment is more responsive to the business cycle than adult unemployment. This is because young people are more concentrated in certain economic sectors, and a disproportionate number have part-time jobs and temporary contracts. As such, they are also more affected by periods of economic crisis and are often among the first to lose their jobs. COVID-19-induced volatility on the labour market and employment opportunities adds to these challenges.

Most ETF partner countries have identified skills imbalances in the labour market as one reason for the persistence of high levels of youth unemployment. During their (first) transition to the labour market, young people often gain practical experience by accepting jobs requiring lower levels of skills. Along with a low labour mobility, this leads to a higher level of observed over-qualification (see below).

VET programmes can be effective in developing skills and ensuring a smooth and successful transition to the labour market.

In all countries for which there is data available[18], employment rates tend to be higher among young adults who graduated from vocational training than among those who pursued an upper secondary general programme as their highest level of educational attainment. In 2020, more than half of recent graduates[19] from VET programmes (ISCED 3-4 combined) were employed, and there has been good progress over recent years (**read more**). This is positive, especially in countries such as Bosnia and Herzegovina, Montenegro or Serbia, where large numbers of upper secondary students follow vocational programmes. It shows that VET can be successful in equipping young adults with the skills demanded in the labour market, ensuring a smooth transition and a better integration into the world of work. Efforts should be made to equip VET graduates with the skills needed in the knowledge economy and to foster their key competences, in particular their digital and entrepreneurial skills.

LABOUR MARKET OUTCOMES

Labour market outcomes can differ by educational attainment levels, with VET graduates displaying higher employment rates in all partner countries.

In 2020, only one quarter of the population was employed in Kosovo and around one third in Moldova or Palestine (the EU average was 52%). In some countries, including Algeria, Kosovo or Palestine, most women display typically less favourable labour market prospects and only one in ten is employed. In nearly all countries for which there is data available[20], employment rates tend to be higher among adults who graduated from vocational training programmes compared to those of the overall population (see Table 10). Interestingly, these patterns have remained valid over the past years, despite past economic downturn, suggesting better job prospects for the VET graduates.

Unemployment is also typically linked to educational attainment levels, but this relationship is more mixed in the ETF partner countries. The unemployment rate remained high in 2020, affecting one in four active persons and one in three women in Kosovo or Palestine; the rate was over 15% in Bosnia and Herzegovina, Georgia, Montenegro, North Macedonia or Tunisia (**read more**). Unemployment rates tend to be lower for adult VET graduates compared to the overall unemployment rates in several partner countries with data available[21], and this complements other ETF findings suggesting improved labour market prospects for VET graduates.

Variance in employment and unemployment due to educational attainment levels could also signal potential labour market imbalances such as low labour demand or skills mismatch. Such differentials in the educational attainment levels of the active population are important for assessing the potential for skills-based economic growth or employment promotion strategies. The ETF's recent evidence[22] shows that the employed cohort exhibit larger

[18] The information on graduates' employability remains rather scarce in the ETF partner countries. Data is only available for Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Serbia and Turkey.
[19] Aged 20-34, no longer in education or training, 1-3 years after graduation.
[20] The first estimates are available for: Albania, Armenia, Belarus, Bosnia and Herzegovina, Egypt, Georgia, Jordan, Kosovo, Kyrgyzstan, Moldova, Montenegro, North Macedonia, Serbia, Turkey and Ukraine.
[21] Albania, Georgia, Kosovo, Kyrgyzstan, Moldova and North Macedonia.
[22] ETF (2019), Skills mismatch measurement in ETF partner countries.

differences across educational levels compared to the overall population, implying that higher levels of attainment lead to higher probability of employment in some countries. Less pronounced differentials between the two educational profiles (of the employed and overall working-age population) could imply that skills levels do not always play a role in the likelihood of getting a job, but may rather signal a low availability of employment opportunities (i.e. a low aggregate demand).

LABOUR MARKET IMBALANCES: WHAT ROLE FOR SKILLS MISMATCH?

Skills mismatches[23] reflect changes in the labour market, some at a rapid pace, and are interconnected with human capital. A surplus of human capital is typically measured in terms of over education or over-skilling[24]. However, a surplus of education may also be related to horizontal (or field of study) mismatch, whereby workers are employed in jobs that are not relevant to the skills and knowledge accumulated by them in formal education. In 2020 the ETF framed and estimated for the first time these two types of mismatches in most partner countries[25].

Skills mismatch can impact labour market imbalances, recent ETF evidence shows.

Provisional data[26] for some 20 partner countries shows that, in 2019, at least one in four tertiary graduates held jobs requiring lower levels of formal qualifications in a vast majority of countries, and that the rate was as high as one in three graduates in Georgia, Turkey and Ukraine, and almost 50% of tertiary graduates in Tunisia. The ETF evidence also shows that the incidence of mismatch for upper/post-secondary graduates is lower than that of tertiary graduates. Young tertiary graduates had a higher incidence of over-skilling in all countries with data available: in 2019, some two-thirds were mismatched (i.e. held jobs requiring lower levels of formal qualifications) in Tunisia, around 50% in Kyrgyzstan, Serbia and Turkey, some 40% in Albania, Georgia and Kosovo and one-third in Montenegro, North Macedonia, Moldova, Palestine and Ukraine (**read more**).

Some countries, such as Albania, Kosovo, Moldova, Palestine and Turkey, displaying lower shares of high-skilled workers (i.e. with tertiary education attainment) in the workforce, have seen a sizeable and rapid increase in the size of this group in the past years. However, being high-skilled has not always led to better employment prospects, and in some countries holding a university degree does not always mean being employed and/or job-matched (ETF, 2020)[27]. This shows that education systems face many challenges in responding to changing demands for skills. It may also suggest that many higher skilled graduates have to accept positions below their level of formal qualifications. High unemployment levels and limited opportunities on the labour market are forcing especially higher educated individuals to accept such positions.

In 2019, at least one in four workers was over-educated[28] in most countries with data available[29], with one-third of workers being over-educated in Armenia, Tunisia and Turkey. The incidence of over education is typically higher for young people in the vast majority of countries, peaking at some 40% of young people aged 15-24 in Tunisia and Turkey, and affecting one in 10 young people only in three countries: Albania, Bosnia and Herzegovina and North Macedonia (**read more**). The relatively high level of over education, particularly among tertiary educated

[23] Specifically, skills mismatch can be used to describe vertical mismatch (usually measured in terms of over education, under-education, over-skilling and under-skilling), horizontal mismatch (usually fields of study and work are compared), skills gaps (the extension to which workers lack the skills necessary to perform their current job), skills shortages (usually measured in terms of unfilled and hard-to-fill vacancies) and skill obsolescence (skills can become obsolete due to ageing, through technological or economic change which renders certain skills unnecessary, or through the underutilisation of skills).

[24] The policy literature tends to favour the word 'over-qualification' instead of 'over-education' on the grounds that it is always best to have more educated people than less. There is a similar aversion to the term 'over-skilling' as it is believed that having more skills on the whole is a good thing.

[25] Albania, Armenia, Belarus, Bosnia and Herzegovina, Egypt, Georgia, Jordan, Kosovo, Kyrgyzstan, Moldova, Montenegro, North Macedonia, Palestine, Serbia, Tunisia, Turkey and Ukraine

[26] ETF (forthcoming), Skills mismatch: measurement and policy implications in selected ETF Partner Countries.

[27] ETF (2020), Unlocking youth potential in South-Eastern Europe and Turkey: Skills development for labour market and social inclusion

[28] Over-educated workers are those usually holding jobs for which the modal value of job/occupation distribution in their country is typically below their (ISCED) level of education.

[29] Albania, Armenia, Belarus, Bosnia and Herzegovina, Egypt, Georgia, Jordan, Kosovo, Kyrgyzstan, Moldova, Montenegro, North Macedonia, Palestine, Serbia, Tunisia, Turkey and Ukraine

workers is not completely surprising as such workers are typically more exposed to (vertical) mismatch. Nevertheless, the relatively high incidence of over-qualified tertiary graduates (at least one in four) in most countries included in this analysis, indicates that graduation does not necessarily always lead to a matched integration in the labour market and could signal a human capital loss[30].

There could be many reasons for this situation, and further country-specific studies are necessary to identify the determinants and most effective solutions to prevent or counteract such imbalances. What emerges clearly is that education systems are only in part generating such imbalances through insufficiently forward-looking enrolment policies, the poor quality and relevance of educational programmes and failures in addressing social inclusiveness goals. Career guidance and career education from early schooling onwards, effective matching services and work-experience gaining programmes during the transition phase from school to work are also essential[31].

Most adults are often unlikely to participate in further training, with negative consequences for their careers.

The lack of lifelong learning opportunities remains a challenge in most partner countries; many adults who have no further opportunity to participate in training are trapped in low-skilled jobs. In countries for which data exists[32], adult participation in training is around 1% (Albania, Georgia, Moldova and Ukraine), around 5% in Kosovo or Turkey and 9% in Israel (the EU average is 9%). There was little progress in participation in the past decade. Age, education and working status are all determinants of engagement in lifelong learning. ETF data shows that low-skilled and unemployed adults are less likely to receive training; in 2020, less than 1% of low-skilled workers participated in training in North Macedonia and Serbia, and around 1.4% in Israel (the EU average is 3.4%); and the same patterns are observed for the unemployed (**read more**). Adult training is also influenced by the structure of the economy (i.e. the share of knowledge-intensive sectors or those requiring upskilling), the overall rate of employment, including the incidence of vulnerable/informal employment (see the section on the labour market above). Also, limited employment opportunities or the insufficient attractiveness of jobs available inhibit participation in upgrading/reskilling programmes to some extent.

30 ETF (forthcoming), Skills mismatch: measurement and policy implications in selected ETF Partner Countries.
31 ETF (2021), M. Badescu and C. Mereuta, Skills mismatch: Measurement and policy implications in selected countries, in Changing skills for a changing world: Understanding skills demand in EU neighbouring countries.
32 Information on lifelong learning remains very limited and is available for only one-third of the partner countries.

DATA AVAILABILITY AND QUALITY

Data availability varies greatly among partner countries and remains the most important challenge. Although the coverage of labour market statistics is satisfactory, the availability of other indicators, in particular on education and training, remains limited. Only a very few countries provide information on educational outcomes such as graduate employability and early leavers. Thus, the key findings are limited only to a few countries where data is available, and this affects the overall analysis. Efforts should be continued to ensure better coverage and quality of data.

South Eastern Europe and Turkey (SEET)

Data availability in the SEET region is generally quite high. Coverage of labour market indicators is very good, and all countries have data from recent labour force surveys, which guarantees a good level of comparability within the region. As some SEET countries have close cooperation with Eurostat, most indicators on education and employment are also published on the Eurostat website for some countries (Montenegro, North Macedonia, Serbia and Turkey).

Southern and Eastern Mediterranean (SEMED)

Data availability and quality are fairly high in Israel, Palestine and Tunisia, whereas in all other SEMED countries the availability needs to be further improved. Although the availability of educational data is lower than in other regions, some progress can be noticed in the past years. However, most countries do not provide information on early leavers from education or on adult participation in lifelong learning. One important problem with educational data is the use of different national classifications instead of ISCED levels for educational levels. This, of course, affects the comparability of both education and labour market indicators. Labour market data is generally readily available in the region as most countries run regular labour force surveys. Nevertheless, comparison is sometimes made difficult by the use of different age ranges. All countries cooperate with Eurostat, and so some data (especially on the labour market) is also published on the Eurostat website. However, not all indicators are always updated on a regular basis.

Eastern Europe

Data coverage in the Eastern European countries is good, especially concerning labour market indicators. However, the coverage of education varies widely among indicators and countries. Labour market data is usually available, as most countries carry out labour force surveys. However, information on early leavers from education and on adult participation in lifelong learning is poorly covered. The main problems encountered are the reference age used in the labour force surveys and the use of national educational classifications instead of ISCED levels. These cannot necessarily be matched, which complicates data comparisons between different countries.

Central Asia

Data coverage in Central Asia is generally poorer than in other regions. While most key statistics are readily available in Kazakhstan and Kyrgyzstan, only a very few indicators are available for Tajikistan, Turkmenistan and Uzbekistan. Labour market data is usually available, as most of the countries carry out labour force surveys. However, education data are not always readily available. Most countries do not provide information on early leavers from education or adult participation in training. One important issue is that countries use their own educational classifications instead of ISCED levels, which makes comparisons difficult.

INDICATORS (AS OF 1 OCTOBER 2021)[27]

GROSS ENROLMENT RATES FROM PRIMARY TO TERTIARY LEVELS OF EDUCATION (%)

			2016	2017	2018	2019
ALBANIA	AL		**85.2 E**	**85.0 E**	**83.9**	**85.0**
		FEMALE	88.9 E	89.3 E	88.6	90.2
ARMENIA	AM		**M**	**M**	**77.2**	**78.0**
		FEMALE	M	M	80.1	81.4
AZERBAIJAN	AZ		**M**	**M**	**77.0 E**	**78.8 E**
		FEMALE	M	M	77.3 E	79.6 E
BELARUS	BY		**99.3**	**99.4**	**98.4**	**M**
		FEMALE	102.5	101.8	100.1	M
EGYPT	EG		**78.5**	**79.9**	**M**	**M**
		FEMALE	78.3	79.8	M	M
GEORGIA	GE		**85.6**	**88.4**	**90.1**	**92.6**
		FEMALE	87.1	90.0	91.7	94.7
ISRAEL	IL		**94.4**	**94.5**	**94.1**	**M**
		FEMALE	97.9	97.9	97.5	M
JORDAN	JO		**M**	**61.5**	**62.8**	**M**
		FEMALE	M	62.1	63.6	M
KAZAKHSTAN	KZ		**94.6**	**97.3**	**99.2**	**101.3**
		FEMALE	96.6	99.6	101.3	103.6
KYRGYZSTAN	KG		**81.4**	**81.9**	**82.7**	**83.9**
		FEMALE	83.0	83.1	84.2	85.1
MOLDOVA	MD		**70.4 E**	**71.4 E**	**71.6 E**	**71.5 E**
		FEMALE	72.5 E	73.2 E	73.3 E	72.8 E
MONTENEGRO	ME		**82.1**	**82.8**	**82.7**	**82.5**
		FEMALE	84.3	85.4	84.9	85.2
MOROCCO	MA		**M**	**79.5**	**81.1**	**82.8**
		FEMALE	M	76.7	78.7	80.9
NORTH MACEDONIA	MK		**M**	**73.0**	**73.1**	**M**
		FEMALE	M	74.3	74.5	M
PALESTINE	PS		**77.9**	**79.2**	**79.7**	**79.9**
		FEMALE	82.7	84.0	84.5	84.7
RUSSIA	RU		**94.7**	**96.7**	**98.6**	**M**
		FEMALE	96.8	98.3	99.8	M
SERBIA	RS		**86.2 E**	**87.3 E**	**87.5 E**	**87.5 E**
		FEMALE	89.2 E	90.8 E	91.2 E	91.2 E
TURKEY	TR		**102.6**	**104.0**	**104.8**	**M**
		FEMALE	99.8	100.6	102.2	M
TURKMENISTAN	TM		**M**	**M**	**M**	**79.1**
		FEMALE	M	M	M	77.6

[27] The information for Republic of Moldova is presented without data on districts from the left side of the river Nistru and Bender Municipality. The information for Ukraine is presented without data for Autonomous Republic of Crimea, Sevastopol and part of the conflict zone (from 2014 onwards). The information for the Russian Federation includes data for Autonomous Republic of Crimea, Sevastopol (from 2016 onwards).

			2016	2017	2018	2019
UZBEKISTAN	UZ		**67.1**	**68.8**	**70.8**	**73.0**
		FEMALE	66.1	67.6	69.8	72.3

Sources: UNESCO Institute for Statistics (UOE data collection)
Notes: e: estimation, m: missing

PROPORTION OF 15-24 YEAR-OLDS ENROLLED IN VOCATIONAL EDUCATION (%)

			2016	2017	2018	2019
ALBANIA	AL		**M**	**M**	**4.9**	**5.3**
		FEMALE	M	M	1.8	2.0
ARMENIA	AM		**M**	**M**	**M**	**8.2 E**
		FEMALE	M	M	M	8.2 E
AZERBAIJAN	AZ		**M**	**M**	**14.9 E**	**15.1 E**
		FEMALE	M	M	16.1 E	16.2 E
BELARUS	BY		**8.1**	**8.4**	**10.0**	**M**
		FEMALE	6.2	6.4	7.6	M
BOSNIA AND HERZEGOVINA	BA		**M**	**M**	**M**	**22.4**
		FEMALE	M	M	M	21.1
EGYPT	EG		**10.6**	**11.0**	**11.4**	**11.6**
		FEMALE	9.1	9.4	9.7	10.0
GEORGIA	GE		**2.3**	**2.1**	**2.1**	**3.4**
		FEMALE	2.2	2.0	2.0	3.4
ISRAEL	IL		**16.6**	**16.6**	**16.6**	**M**
		FEMALE	17.9	17.8	18.0	M
JORDAN	JO		**M**	**1.4**	**1.2**	**1.2**
		FEMALE	M	1.2	1.0	1.0
KAZAKHSTAN	KZ		**M**	**M**	**18.2**	**18.8**
		FEMALE	M	M	17.1	17.6
KYRGYZSTAN	KG		**5.4**	**5.6**	**5.8**	**6.1**
		FEMALE	4.6	4.6	4.8	5.0
MOLDOVA	MD		**M**	**M**	**10.3 E**	**10.2 E**
		FEMALE	M	M	9.2 E	9.4 E
MONTENEGRO	ME		**21.9**	**21.9**	**22.7**	**23.2**
		FEMALE	20.1	20.3	21.1	21.7
PALESTINE	PS		**M**	**M**	**2.9**	**3.1**
		FEMALE	M	M	2.4	2.6
RUSSIA	RU		**M**	**17.1 E**	**18.2 E**	**M**
		FEMALE	M	15.9 E	16.8 E	M
SERBIA	RS		**24.1 E**	**24.0 E**	**24.3 E**	**24.7 E**
		FEMALE	22.9 E	22.8 E	23.0 E	23.3 E
TURKEY	TR		**26.0**	**25.8**	**25.0**	**M**
		FEMALE	24.7	24.4	24.3	M
TURKMENISTAN	TM		**M**	**M**	**M**	**1.9**
		FEMALE	M	M	M	2.2
UZBEKISTAN	UZ		**23.3**	**23.2**	**23.8**	**M**
		FEMALE	23.4	23.2	23.9	M

Sources: UNESCO Institute for Statistics (UOE data collection)
Notes: e = estimation, m = missing

EARLY LEAVERS FROM EDUCATION BY SEX (% AGED 18-24)

			2016	2017	2018	2019	2020
ALBANIA	AL		**19.6**	**19.6**	**17.4**	**16.3**	**M**
		MALE	21.6	21.6	18.3	17.5	M
		FEMALE	17.3	17.2	16.4	15.1	M
BOSNIA AND HERZEGOVINA	BA		**4.9**	**5.1**	**5.4 U**	**3.8 U**	**4.7**
		MALE	4.4	5.3	5.6 U	4.0 U	4.8 U
		FEMALE	5.4	4.8	5.2 U	3.5 U	4.6 U
GEORGIA	GE		**6.2**	**8.9 B**	**9.6**	**9.3**	**8.2**
		MALE	6.2	9.4 B	9.7	9.6	8.8
		FEMALE	6.3	8.3 B	9.5	8.9	7.4
ISRAEL	IL		**6.9**	**7.2**	**7.2**	**6.1**	**5.6**
		MALE	9.4	9.6	9.4	8.4	7.2
		FEMALE	4.2	4.6	5.0	3.7	4.0
KOSOVO	XK		**12.7**	**12.2**	**9.6**	**8.2**	**7.8**
		MALE	11.0	11.4	9.3	8.0	7.3
		FEMALE	14.6	13.1	9.9	8.4	8.4
MOLDOVA (i)	MD		**20.0**	**19.5**	**21.1**	**19.0 B**	**16.9**
		MALE	23.5	20.6	22.0	22.6 B	20.6
		FEMALE	16.1	18.2	20.1	15.3 B	13.1
MONTENEGRO	ME		**5.5**	**5.4**	**4.6**	**5.0**	**3.6**
		MALE	4.3	5.6	4.4	5.2	M
		FEMALE	6.8	5.2	4.9	4.9	M
NORTH MACEDONIA	MK		**9.9**	**8.5**	**7.1**	**7.1**	**5.7**
		MALE	8.9	8.3	5.6	5.9	5.7
		FEMALE	10.9	8.7	8.5	8.4	5.8
PALESTINE	PS		**31.0**	**29.9**	**30.7**	**30.3**	**30.3**
		MALE	40.1	38.6	39.8	40.2	39.4
		FEMALE	19.4	18.5	18.8	17.8	18.4
SERBIA	RS		**7.0**	**6.2**	**6.8**	**6.6**	**5.6**
		MALE	7.3	6.3	6.8	6.5	5.4
		FEMALE	6.7	6.1	6.8	6.7	5.8
TURKEY	TR		**34.3**	**32.5**	**31.0**	**28.7**	**26.7**
		MALE	32.7	31.0	30.4	28.9	27.5
		FEMALE	35.8	34.0	31.6	28.6	25.8
EUROPEAN UNION (27 COUNTRIES)	EU		**10.6**	**10.5**	**10.5**	**10.2**	**9.9**
		MALE	12.1	12.1	12.1	11.9	11.8
		FEMALE	9.1	8.9	8.8	8.4	8.0

Sources: ETF KIESE, Eurostat
Notes: b-break in series; m = missing; u = unreliable
(i) MD: Estimated using the usual resident population

YEARS OF SCHOOLING A CHILD CAN EXPECT TO ATTAIN BY AGE 18

			2010	2017	2020
ALBANIA	AL		**11.6**	**12.9**	**12.9**
		LEARNING-ADJUSTED	7.4	8.9	8.9
ALGERIA	DZ		**11.3**	**11.8**	**11.8**
		LEARNING-ADJUSTED	7.2	6.8	7.0
ARMENIA	AM		**M**	**11.1**	**11.3**
		LEARNING-ADJUSTED	M	7.9	8.0
AZERBAIJAN	AZ		**10.7**	**11.6**	**12.4**
		LEARNING-ADJUSTED	6.9	8.8	8.3
BELARUS	BY		**13.7**	**M**	**13.8**
		LEARNING-ADJUSTED	M	M	10.8
BOSNIA AND HERZEGOVINA	BA		**M**	**11.7**	**11.7**
		LEARNING-ADJUSTED	M	8.6	7.8
EGYPT	EG		**10.2**	**11.1**	**11.5**
		LEARNING-ADJUSTED	6.5	6.3	6.5
GEORGIA	GE		**12.7**	**12.5**	**12.9**
		LEARNING-ADJUSTED	7.9	8.9	8.3
ISRAEL	IL		**13.7**	**13.8**	**13.8**
		LEARNING-ADJUSTED	10.4	11.1	10.6
JORDAN	JO		**11.8**	**11.6**	**11.1**
		LEARNING-ADJUSTED	7.9	7.6	7.7
KAZAKHSTAN	KZ		**13.6**	**13.3**	**13.7**
		LEARNING-ADJUSTED	9.0	11.5	9.1
KOSOVO	XK		**M**	**12.9**	**13.2**
		LEARNING-ADJUSTED	M	7.7	7.9
KYRGYZSTAN	KG		**M**	**12.6**	**12.9**
		LEARNING-ADJUSTED	M	8.4	8.7
LEBANON	LB		**M**	**10.5**	**10.2**
		LEARNING-ADJUSTED	M	6.8	6.3
MOLDOVA	MD		**12.0**	**11.8**	**11.8**
		LEARNING-ADJUSTED	7.9	8.2	8.3
MONTENEGRO	ME		**12.0**	**12.4**	**12.6**
		LEARNING-ADJUSTED	8.0	8.6	8.9
MOROCCO	MA		**9.6**	**10.6**	**10.3**
		LEARNING-ADJUSTED	5.8	6.2	6.1
NORTH-MACEDONIA	MK		**10.6**	**11.2**	**11.2**
		LEARNING-ADJUSTED	7.1	6.8	7.3
PALESTINE	PS		**11.0**	**11.4**	**12.2**
		LEARNING-ADJUSTED	M	7.5	8.0
RUSSIA	RU		**12.7**	**13.8**	**13.7**
		LEARNING-ADJUSTED	9.8	11.9	10.9
SERBIA	RS		**12.9**	**13.4**	**13.3**
		LEARNING-ADJUSTED	9.4	11.2	9.8

			2010	2017	2020
TAJIKISTAN	TJ		**10.6**	**10.8**	**10.9**
		LEARNING-ADJUSTED	M	7.7	6.8
TUNISIA	TN		**10.5**	**10.2**	**10.6**
		LEARNING-ADJUSTED	6.8	6.3	6.5
TURKEY	TR		**12.1**	**12.1**	**12.1**
		LEARNING-ADJUSTED	9.1	8.9	9.2
UKRAINE	UA		**13.1**	**13.0**	**12.9**
		LEARNING-ADJUSTED	10.3	10.2	9.9
UZBEKISTAN	UZ	EXPECTED	11.4	M	9.1

Sources: World Bank (World Development Indicators database)
Notes: m = missing

UNDERACHIEVEMENT IN READING (% AGED 15)

		2009	2012	2015	2018
ALBANIA	AL	69.0	52.3	50.3	52.2
ALGERIA	DZ	A	A	79.0	A
BELARUS	BY	A	A	A	23.4
BOSNIA AND HERZEGOVINA	BA	A	A	A	53.7
GEORGIA	GE	A	A	51.7	64.4
ISRAEL	IL	26.5	23.6	26.6	31.1
JORDAN	JO	48.0	50.7	46.3	41.2
KAZAKHSTAN	KZ	58.7	57.1	A	64.2
KOSOVO	XK	A	A	76.9	78.7
KYRGYZSTAN	KG	83.3	A	A	A
LEBANON	LB	A	A	70.4	67.8
MOLDOVA	MD	57.3	A	45.8	43.0
MONTENEGRO	ME	49.5	43.3	41.9	44.4
MOROCCO	MA	A	A	A	73.3
NORTH MACEDONIA	MK	A	A	70.7	55.1
RUSSIA	RU	27.4	22.3	16.2	A
SERBIA	RS	32.8	33.1	A	37.7
TUNISIA	TN	50.2	49.3	71.6	A
TURKEY	TR	24.5	21.6	40.0	26.1
EUROPEAN UNION (28 COUNTRIES)	EU	19.7	17.8	19.7	21.7

Source: OECD PISA database
Notes: a = not applicable

YOUNG PEOPLE NOT IN EMPLOYMENT / EDUCATION / TRAINING - NEETS (% AGED 15-24)

			2016	2017	2018	2019	2020
ALBANIA	AL		**27.0**	**25.9**	**26.5**	**25.5**	**26.6**
		FEMALE	27.1	27.3	27.6	25.3	26.2
ARMENIA (C)	AM		**26.8**	**25.4**	**27.4**	**26.6**	**23.9 N**
		FEMALE	37.0	36.8	32.8	29.7	30.7 N
BELARUS (C)	BY		**8.2**	**7.6**	**7.2**	**9.9**	**M**
		FEMALE	7.5	7.1	6.5	8.6	M
BOSNIA AND HERZEGOVINA	BA		**26.4**	**24.3**	**21.6**	**21.0**	**21.6 B**
		FEMALE	24.7	24.0	21.1	21.4	23.0 B
EGYPT (C)	EG		**29.3**	**26.9**	**M**	**M**	**M**
		FEMALE	36.1	35.1	M	M	M
GEORGIA (C)	GE		**26.8**	**25.4 B**	**27.4**	**26.6**	**28.5 N**
		FEMALE	31.7	29.5 B	31.6	29.6	28.3 N
ISRAEL	IL		**14.9**	**14.9**	**14.7**	**15.5**	**17.3**
		FEMALE	15.8	15.8	15.0	15.6	17.1
JORDAN (C)	JO		**33.1**	**M**	**M**	**M**	**M**
		FEMALE	43.2	M	M	M	M
KOSOVO	XK		**30.1**	**27.4**	**30.1**	**32.7**	**33.6**
		FEMALE	34.2	31.4	30.0	34.2	33.2
KYRGYZSTAN (C)	KG		**20.4**	**20.7**	**20.5**	**20.8**	**M**
		FEMALE	29.0	29.9	29.4	29.5	M
MOLDOVA (I)	MD		**26.8**	**19.4**	**16.2**	**19.5 B**	**17.6**
		FEMALE	24.6	22.5	17.9	22.8 B	19.7
MONTENEGRO	ME		**18.4**	**16.7**	**16.2**	**17.3**	**21.1**
		FEMALE	18.0	17.1	13.6	15.8	20.6
NORTH MACEDONIA	MK		**24.3**	**24.9**	**24.1**	**18.1**	**19.6**
		FEMALE	25.1	25.9	25.1	19.2	19.8
PALESTINE	PS		**32.4**	**33.2**	**33.4**	**33.4**	**34.5**
		FEMALE	38.9	39.0	39.2	40.4	39.1
SERBIA	RS		**17.7**	**17.2**	**16.5**	**15.3**	**15.9**
		FEMALE	18.3	17.3	17.0	15.8	14.8
TUNISIA (C)	TN		**32.4**	**32.6**	**34.8**	**32.0**	**30.2**
		FEMALE	36.0	35.4	38.1	33.0	31.4
TURKEY	TR		**23.9**	**24.2**	**24.4**	**26.0**	**28.3**
		FEMALE	33.5	34.0	33.5	34.0	35.7
UKRAINE (C)	UA		**17.8**	**15.9**	**14.5**	**15.6**	**15.5**
		FEMALE	20.8	19.0	17.8	19.9	18.4
EUROPEAN UNION (27 COUNTRIES)	EU		**11.7**	**11.0**	**10.5**	**10.1**	**11.1**
		FEMALE	11.9	11.3	10.9	10.4	11.1

Sources: ETF KIESE, Eurostat
Notes: b = break in series; c = ETF calculation based on LFS microdata; m = missing; n-national estimate
MD: Estimated using the usual resident population

YOUNG PEOPLE NOT IN EMPLOYMENT / EDUCATION / TRAINING BY LABOUR STATUS - NEETS (% AGED 15-29)

			2016	2017	2018	2019	2020
ALBANIA (C)	AL		**30.3**	**29.9**	**28.8**	**26.8**	**27.9 N**
		INACTIVE	18.3	19.4	18.2	17.1	18.1 N
		UNEMPLOYED	11.9	10.6	10.5	9.8	9.8 N
ARMENIA (C)	AM		**39.0**	**39.2**	**36.5**	**35.9**	**M**
		INACTIVE	27.3	26.4	25.4	25.2	M
		UNEMPLOYED	11.7	12.8	10.6	10.6	M
BELARUS (C)	BY		**9.2**	**8.6**	**7.6**	**8.9**	**M**
		INACTIVE	4.5	4.4	4.1	5.4	M
		UNEMPLOYED	4.7	4.2	3.5	3.5	M
BOSNIA AND HERZEGOVINA (C)	BA		**30.8**	**28.1**	**24.8**	**24.4**	**25.9 BN**
		INACTIVE	11.1	10.6	10.1	10.3	13.1 BN
		UNEMPLOYED	19.7	17.4	14.7	14.0	12.8 BN
EGYPT (C)	EG		**34.7**	**32.9**	**M**	**M**	**M**
		INACTIVE	24.0	23.6	M	M	M
		UNEMPLOYED	10.8	9.3	M	M	M
GEORGIA (C)	GE		**32.8**	**30.6 B**	**32.0**	**31.0**	**M**
		INACTVE	19.3	19.5 B	20.9	20.6	M
		UNEMPLOYED	13.5	11.1 B	11.1	10.4	M
JORDAN (C)	JO		**36.5**	**M**	**M**	**M**	**M**
		INACTIVE	27.3	M	M	M	M
		UNEMPLOYED	9.2	M	M	M	M
KOSOVO (C)	XK		**37.5**	**35.1**	**37.4**	**40.0**	**40.4 N**
		INACTIVE	26.5	21.9	24.2	26.9	29.6 N
		UNEMPLOYED	11.0	13.2	13.2	13.2	10.8 N
KYRGYZSTAN (C)	KG		**23.9**	**24.9**	**25.3**	**24.9**	**M**
		INACTIVE	18.1	19.4	20.4	20.2	M
		UNEMPLOYED	5.8	5.5	4.8	4.7	M
MOLDOVA (C, I)	MD		**35.2**	**36.3**	**35.3**	**35.7**	**M**
		INACTIVE	32.6	33.9	33.5	33.0	M
		UNEMPLOYED	2.6	2.4	1.8	2.8	M
MONTENEGRO	ME		**22.3**	**21.4**	**21.0**	**21.3**	**26.6**
		INACTIVE	8.7	8.8	8.8	10.1	12.9
		UNEMPLOYED	13.6	12.6	12.2	11.2	13.7
NORTH MACEDONIA	MK		**31.3**	**31.1**	**29.8**	**24.5**	**26.2**
		INACTIVE	12.8	12.5	12.3	11.8	12.9
		UNEMPLOYED	**18.4**	**18.6**	**17.5**	**12.7**	**13.4**
PALESTINE (C)	PS		**39.5**	**40.2**	**40.9**	**40.5**	**M**
		INACTIVE	23.6	23.7	22.6	23.2	M
		UNEMPLOYED	15.9	16.5	18.3	17.3	M
SERBIA	RS		**22.3**	**21.7**	**20.1**	**19.0**	**20.0**
		INACTIVE	10.0	10.5	9.5	9.7	11.6
		UNEMPLOYED	12.3	11.2	10.6	9.2	8.4
TUNISIA (C)	TN		**38.2**	**39.0**	**40.5**	**34.9**	**M**
		INACTIVE	23.4	25.0	25.7	18.8	M
		UNEMPLOYED	14.8	13.9	14.5	15.2	M

			2016	2017	2018	2019	2020
TURKEY	TR		**27.8**	**27.5**	**27.6**	**29.5**	**32.0**
		INACTIVE	21.5	21.0	20.9	20.9	24.1
		UNEMPLOYED	6.3	6.5	6.7	8.6	7.9
UKRAINE (C)	UA		**23.0**	**22.1**	**20.2**	**20.2**	**M**
		INACTIVE	14.5	14.6	13.5	14.1	M
		UNEMPLOYED	8.5	7.5	6.8	6.1	M
EUROPEAN UNION (27 COUNTRIES)	EU		**14.5**	**13.7**	**13.1**	**12.6**	**13.7**
		INACTIVE	7.9	7.9	7.8	7.8	8.6
		UNEMPLOYED	6.6	5.8	5.3	4.8	5.2

Sources: ETF KIESE, Eurostat
Notes: b = break in series; c-= TF calculation based on LFS microdata; m = missing; n = national estimate
MD: Estimated using the usual resident population

YOUTH UNEMPLOYMENT RATE (% AGED 15-24)

			2016	2017	2018	2019	2020
ALBANIA	AL		**36.5**	**31.9**	**28.3**	**27.2**	**M**
		FEMALE	34.9	27.7	26.0	26.3	M
ALGERIA (I)	DZ		**26.7**	**28.3**	**29.1**	**26.9**	**M**
		FEMALE	49.9	45.7	51.3	45.1	M
ARMENIA (C)	AM		**36.6**	**38.4**	**34.9**	**31.8**	**M**
		FEMALE	46.0	45.0	M	M	M
AZERBAIJAN	AZ		**13.1**	**12.9**	**12.7**	**12.4**	**M**
		FEMALE	15.1	14.9	14.7	14.2	M
BELARUS	BY		**10.7**	**9.3**	**10.7**	**10.2**	**M**
		FEMALE	8.5	7.2	8.4	7.3	M
BOSNIA AND HERZEGOVINA	BA		**54.3**	**45.8**	**38.8**	**33.8**	**36.6 B**
		FEMALE	58.9	51.4	45.5	37.9	42.8 B
EGYPT (C)	EG		**32.5**	**29.6**	**M**	**M**	**M**
GEORGIA	GE		**33.2**	**28.9 B**	**29.9**	**30.4**	**39.4**
		FEMALE	30.4	32.7 B	35.3	32.9	38.2
ISRAEL	IL		**8.6**	**7.3**	**7.2**	**6.7**	**7.9**
		FEMALE	9.1	7.8	7.4	7.2	8.2
JORDAN (C)	JO		**33.4**	**M**	**M**	**M**	**M**
KAZAKHSTAN	KZ		**3.8**	**3.8**	**3.7**	**M**	**M**
		FEMALE	4.2	4.0	4.1	M	M
KOSOVO	XK		**52.4**	**52.7**	**55.4**	**49.4**	**49.1**
		FEMALE	65.4	63.5	64.7	60.3	57.2
KYRGYZSTAN (C)	KG		**15.5**	**14.8**	**12.4**	**12.8**	**M**
		FEMALE	20.6 N	21.0 N	M	M	M
MOLDOVA (I)	MD		**11.0**	**11.9**	**7.1**	**10.4 B**	**10.9**
		FEMALE	11.6	13.3	6.8	9.4 B	12.3
MONTENEGRO	ME		**35.9**	**31.7**	**29.4**	**25.2**	**36.0**
		FEMALE	34.6	33.1	23.6	24.3	39.7
NORTH MACEDONIA	MK		**48.2**	**46.7**	**45.4**	**35.6**	**35.7**
		FEMALE	48.8	48.6	43.2	38.9	38.6

			2016	2017	2018	2019	2020
PALESTINE	PS		**34.1**	**41.9**	**42.1**	**40.1**	**42.1**
		FEMALE	38.6	67.2	69.3	67.1	70.0
RUSSIA	RU		**16.5**	**16.3**	**17.0**	**15.2**	**M**
		FEMALE	17.3	17.0	17.9	15.6	M
SERBIA	RS		**34.9**	**31.9**	**29.7**	**27.5**	**26.6**
		FEMALE	39.5	36.3	32.0	29.9	29.5
TAJIKISTAN	TJ		**21.1**	**21.0**	**20.9**	**20.8**	**M**
		FEMALE	20.5	20.5	20.3	20.2	M
TUNISIA	TN		**35.0**	**34.8**	**33.2**	**34.4**	**35.7**
		FEMALE	37.8	37.1	35.7	34.5	36.2
TURKEY	TR		**19.5**	**20.5**	**20.2**	**25.2**	**25.1**
		FEMALE	23.5	25.6	25.0	30.3	29.9
TURKMENISTAN	TM		**8.1**	**8.0**	**8.0**	**8.3**	**M**
		FEMALE	5.7	5.6	5.6	5.8	M
UKRAINE	UA		**23.0**	**18.9**	**17.9**	**15.4**	**19.3**
		FEMALE	21.5	17.0	19.3	15.3	18.5
UZBEKISTAN	UZ		**9.9**	**11.2**	**11.2**	**11.6**	**M**
		FEMALE	10.3	11.8	11.8	12.2	M
EUROPEAN UNION (27 COUNTRIES)	EU		**20.1**	**18.0**	**16.1**	**15.1**	**16.8**
		FEMALE	19.6	17.5	15.6	14.8	16.6

Sources: ETF KIESE, Eurostat
Notes: b- = break in series; c = ETF calculation based on LFS microdata; m = missing; n-national estimate
MD: Estimated using the usual resident population

EMPLOYMENT RATE OF RECENT GRADUATES (% AGED 20-34)*

			2016	2017	2018	2019	2020
ALBANIA	AL		**49.6**	**57.7**	**55.2**	**58.6**	**M**
		ISCED 3-4 VOCATIONAL PROGRAMMES	44.8	48.5	55.2	64.5	M
BOSNIA AND HERZEGOVINA	BA		**39.5**	**44.5**	**51.0**	**52.4**	**50.5 B**
		ISCED 3-4 VOCATIONAL PROGRAMMES	36.0	40.6	46.4	54.5	42.9 B
MONTENEGRO	ME		**58.7**	**61.3**	**61.2**	**65.4**	**54.1**
		ISCED 3-4 VOCATIONAL PROGRAMMES	45.6	53.0	53.6	58.5	51.0
NORTH MACEDONIA	MK		**46.9**	**50.0**	**49.2**	**57.2**	**54.5**
		ISCED 3-4 VOCATIONAL PROGRAMMES	42.1	47.9	45.4	57.1	M
SERBIA	RS		**54.1**	**61.4**	**64.3**	**66.5**	**62.3**
		ISCED 3-4 VOCATIONAL PROGRAMMES	51.4	58.2	59.3	60.9	54.0
TURKEY	TR		**61.1**	**61.2**	**61.5**	**57.8**	**53.0**
		ISCED 3-4 VOCATIONAL PROGRAMMES	55.1	55.5	54.8	50.6	47.9
EUROPEAN UNION (27 COUNTRIES)	EU		**77.4**	**79.0**	**80.9**	**80.9**	**78.7**
		ISCED 3-4 VOCATIONAL PROGRAMMES	75.0	75.9	79.0	79.1	76.1

Sources: ETF KIESE, Eurostat, see the classification of educational programmes/broad levels in the annex
(*) ISCED levels 3-8, no longer in education/training, 1-3 years after graduation
Notes: b = break in series; m = missing; u = unreliable

EMPLOYMENT RATE: TOTAL, FEMALE, VET GRADUATES* (% AGED 15+)

			2016	2017	2018	2019	2020
ALBANIA	AL		**48.7**	**50.3**	**52.1**	**53.4**	**M**
		FEMALE	42.8	43.5	45.3	46.9	M
		VET GRADUATES (C)	55.8	58.5	58.8	56.1	M
ALGERIA (I)	DZ		**37.4**	**36.9**	**36.8**	**37.4**	**M**
		FEMALE	13.3	13.5	13.2	13.8	M
ARMENIA (C)	AM		**50.0**	**50.1**	**46.8**	**48.2**	**M**
		FEMALE	43.2	43.5	37.4	39.1	M
		VET GRADUATES (C)	51.8	51.1	45.4	48.4	M
AZERBAIJAN	AM		**66.5**	**66.8**	**67.0**	**67.3**	**M**
		FEMALE	59.6	59.8	60.1	60.4	M
BELARUS (I)	BY		**66.7**	**67.2**	**67.5**	**67.7**	**M**
		FEMALE	64.1	64.4	63.9	64.2	M
		VET GRADUATES (C)	73.4	73.4	73.3	72.8	M
BOSNIA AND HERZEGOVINA	BA		**32.2**	**33.9**	**34.3**	**35.5**	**40.1 B**
		FEMALE	22.4	24.9	25.0	26.7	29.9 B
		VET GRADUATES (C)	42.1	43.5	44.5	45.4	M
EGYPT (C)	EG		**40.9**	**39.7**	**M**	**M**	**M**
		FEMALE	17.6	16.9	M	M	M
		VET GRADUATES	51.3	50.4	M	M	M
GEORGIA	GE		**57.1**	**56.7 B**	**55.8**	**55.7**	**41.1**
		FEMALE	50.6	50.8 B	49.3	49.0	33.9
		VET GRADUATES (C)	62.6	60.3 B	59.2	59.5	M
ISRAEL	IL		**61.1**	**61.3**	**61.4**	**61.1**	**59.1**
		FEMALE	56.4	56.7	57.4	57.2	55.8
JORDAN (C)	JO		**35.8**	**M**	**M**	**M**	**M**
		FEMALE	12.7	M	M	M	M
		VET GRADUATES	71.3	M	M	M	M
KAZAKHSTAN	KZ		**66.5**	**66.3**	**66.6**	**M**	**M**
		FEMALE	60.6	60.4	61.3	M	M
KOSOVO	XK		**24.7**	**25.9**	**24.8**	**26.3**	**24.8**
		FEMALE	11.1	10.9	10.5	12.0	12.2
		VET GRADUATES (C)	35.2	35.5	35.0	36.4	M
KYRGYZSTAN (C)	KG		**57.1**	**55.9**	**56.2**	**57.0**	**M**
		FEMALE	44.1	41.8	41.9	42.7	M
		VET GRADUATES	63.4	62.9	63.6	65.9	M
MOLDOVA (I)	MD		**43.0**	**42.4**	**44.5**	**40.1 B**	**38.8**
		FEMALE	40.2	39.1	41.4	36.5 B	35.0
		VET GRADUATES (C)	48.9	47.5	48.8	44.5	M
MONTENEGRO	ME		**44.9**	**45.9**	**47.5**	**48.7**	**43.8**
		FEMALE	39.4	39.4	40.8	42.1	37.9
		VET GRADUATES (C)	49.9	50.9	53.0	54.3	M
NORTH MACEDONIA	MK		**41.9**	**42.8**	**43.7**	**45.9**	**45.7**
		FEMALE	32.7	33.4	34.5	36.7	37.0
		VET GRADUATES (C)	47.4	45.3	44.9	46.3	M

			2016	2017	2018	2019	2020
PALESTINE	PS		**33.3**	**32.7**	**32.1**	**33.1**	**30.3**
		FEMALE	10.6	9.9	10.1	10.6	9.7
RUSSIA	RU		**65.7**	**59.5**	**59.8**	**59.4**	**M**
		FEMALE	60.4	52.8	53.2	52.9	M
SERBIA	RS		**45.2**	**46.7**	**47.6**	**49.0**	**49.1**
		FEMALE	38.1	39.7	40.3	41.9	42.1
		VET GRADUATES (C)	51.7	53.2	54.3	55.6	M
TAJIKISTAN	TJ		**37.1**	**37.2**	**37.3**	**37.4**	**M**
		FEMALE	28.4	28.2	28.1	28.2	M
TUNISIA	TN		**39.8**	**39.8**	**39.8**	**39.7**	**40.0**
		FEMALE	20.4	20.5	20.6	59.6	20.6
TURKEY	TR		**46.3**	**47.1**	**47.4**	**45.7**	**42.8**
		FEMALE	28.0	28.9	29.4	28.7	26.3
		VET GRADUATES (C)	58.2	58.2	58.6	55.2	M
TURKMENISTAN (C)	TM		**62.1**	**62.2**	**62.1**	**62.0**	**M**
		FEMALE	50.6	50.5	50.5	50.3	M
UKRAINE	UA		**56.3**	**56.1**	**57.1**	**58.2**	**56.2**
		FEMALE	51.6	51.4	52.5	52.9	51.2
		VET GRADUATES (C)	62.9	61.6	62.5	59.7	M
UZBEKISTAN	UZ		**61.5**	**61.2**	**61.3**	**61.2**	**M**
		FEMALE	49.8	49.5	49.5	49.4	M
EUROPEAN UNION (27 COUNTRIES)	EU		**51.8**	**52.5**	**53.1**	**53.6**	**52.8**
		FEMALE	45.9	46.6	47.2	47.7	47.0

Sources: ETF KIESE, Eurostat, ILOSTAT
Notes: b = break in series; c = ETF calculation based on LFS microdata; m = missing; n = national estimate
(*) VET graduates: ISCED levels 3-4 combined
DZ, UA: different age-group
MD: Estimated using the usual resident population

UNEMPLOYMENT RATE: TOTAL, FEMALE, VET GRADUATES*
(% AGED 15+)

			2016	2017	2018	2019	2020
ALBANIA	AL		**15.2**	**13.7**	**12.3**	**11.5**	**11.7**
		FEMALE	14.4	12.6	11.9	11.4	11.9
		VET GRADUATES (C)	14.6	12.3	11.1	11.2	M
ALGERIA (I)	DZ		**10.5**	**11.7**	**11.7**	**11.4**	**M**
		FEMALE	20.0	20.7	19.4	20.4	M
ARMENIA (C)	AM		**18.0**	**17.8**	**19.5**	**18.0**	**M**
		FEMALE	17.8	17.5	20.8	18.8	M
		VET GRADUATES	19.8	18.7	22.3	19.7	M
AZERBAIJAN	AZ		**5.0**	**5.0**	**4.9**	**4.8**	**M**
		FEMALE	6.0	5.9	5.8	5.7	M
BELARUS	BY		**5.8**	**5.6**	**4.8**	**4.2**	**M**
		FEMALE	4.2	4.0	3.6	3.2	M
		VET GRADUATES (C)	6.3	6.0	4.8	4.4	M
BOSNIA AND HERZEGOVINA	BA		**25.4**	**20.5**	**18.4**	**15.7**	**15.9 B**
		FEMALE	30.0	23.1	20.3	18.8	18.5 B
		VET GRADUATES (C)	26.3	22.1	19.3	16.8	M
EGYPT (C)	EG		**12.9**	**11.8**	**M**	**M**	**M**
		FEMALE	23.7	23.1	M	M	M
		VET GRADUATES	16.8	17.0	M	M	M
GEORGIA	GE		**14.0**	**13.9 B**	**12.7**	**11.6**	**18.5**
		FEMALE	10.9	12.7 B	11.2	10.1	16.2
		VET GRADUATES (C)	12.2	12.2 B	11.1	9.8	M
ISRAEL	IL		**4.8**	**4.2**	**4.0**	**3.8**	**4.3**
		FEMALE	4.9	4.3	4.0	3.9	4.1
JORDAN (C)	JO		**12.5**	**M**	**M**	**M**	**M**
		FEMALE	16.1	M	M	M	M
		VET GRADUATES	11.6	M	M	M	M
KAZAKHSTAN	KZ		**5.0**	**4.9**	**4.9**	**M**	**M**
		FEMALE	5.5	5.4	5.4	M	M
KOSOVO	XK		**27.5**	**30.3**	**29.4**	**25.5**	**25.7**
		FEMALE	31.7	36.4	33.3	34.4	32.2
		VET GRADUATES (C)	32.6	33.7	32.5	25.1	M
KYRGYZSTAN (C)	KG		**7.2**	**6.9**	**6.2**	**5.5**	**M**
		FEMALE	8.7	8.9	6.9	6.2	M
		VET GRADUATES	7.4	7.4	7.2	4.9	M
MOLDOVA (I)	MD		4.0	3.9	2.9	5.1 B	3.8
		FEMALE	2.7	3.2	2.4	4.4 B	3.2
		VET GRADUATES (C)	3.8	4.1	3.0	5.0	M
MONTENEGRO (I)	ME		17.8	16.1	15.2	15.2	17.9
		FEMALE	17.1	17.0	15.1	15.7	18.4
		VET GRADUATES (C)	19.5	17.8	16.5	15.4	M
NORTH MACEDONIA (I)	MK		**23.7**	**22.4**	**20.8**	**17.3**	**16.4**
		FEMALE	22.8	21.8	19.9	18.4	15.9
		VET GRADUATES (C)	12.9	13.4	13.9	8.6	M

			2016	2017	2018	2019	2020
PALESTINE	PS		**23.9**	**25.7**	**26.2**	**25.3**	**25.9**
		FEMALE	38.0	42.8	41.9	41.2	40.1
RUSSIA	RU		**5.6**	**5.2**	**4.8**	**4.5**	**M**
		FEMALE	5.3	5.1	4.8	4.3	M
SERBIA (I)	RS		**15.4**	**13.6**	**12.8**	**10.5**	**9.1**
		FEMALE	16.2	14.4	13.8	11.2	9.5
		VET GRADUATES (C)	16.6	14.6	13.5	11.1	M
TAJIKISTAN	TJ		**11.4**	**11.3**	**11.1**	**11.0**	**M**
		FEMALE	10.4	10.3	10.1	9.9	M
TUNISIA	TN		**15.6**	**15.3**	**15.4**	**15.3**	**16.2**
		FEMALE	23.5	22.6	22.7	22.4	22.8
TURKEY (I)	TR		**10.9**	**10.9**	**10.9**	**13.7**	**13.2**
		FEMALE	13.7	13.9	13.8	16.5	14.9
		VET GRADUATES (C)	11.6	11.9	11.4	15.3	M
TURKMENISTAN	TM		**3.9**	**3.9**	**3.8**	**3.9**	**M**
		FEMALE	2.2	2.1	2.1	2.2	M
UKRAINE (I)	UA		**9.3**	**9.5**	**8.8**	**8.2**	**9.5**
		FEMALE	7.7	7.7	7.4	7.9	9.1
		VET GRADUATES (C)	10.6	11.1	9.9	9.2	M
UZBEKISTAN	UZ		**5.2**	**5.8**	**9.3**	**M**	**M**
		FEMALE	5.0	5.6	M	M	M
EUROPEAN UNION (27 COUNTRIES) (I)	EU		**9.1**	**8.2**	**7.3**	**6.7**	**7.1**
		FEMALE	9.4	8.5	7.6	7.1	7.4

Sources: ETF KIESE, Eurostat, ILOSTAT
Notes: b-break in series; c-ETF calculation based on LFS microdata; m-missing; n-national estimate
(*) VET graduates: ISCED levels 3-4 combined
DZ ME MK RS TR UA EU: different age-group
MD: Estimated using the usual resident population

INCIDENCE OF OVER-SKILLING* IN SELECTED COUNTRIES
(PROVISIONAL DATA)

			2016	2017	2018	2019
ALBANIA	AL		**17.1**	**19.0**	**20.9**	**19.5**
		FEMALE	14.0	16.2	17.9	18.6
		YOUTHS AGED 15-24	50.9	54.4	57.7	41.4
ARMENIA	AM		**17.2**	**20.1**	**21.9**	**21.9**
		FEMALE	12.3	17.3	17.2	17.1
		YOUTHS AGED 15-24	29.4	18.5	36.2	18.6
BELARUS	BY		**16.4**	**17.8**	**17.0**	**16.7**
		FEMALE	12.7	14.2	13.5	13.3
		YOUTHS AGED 15-24	19.8	17.6	16.2	13.8
BOSNIA AND HERZEGOVINA	BA		**21.6**	**19.5**	**20.2**	**24.9**
		FEMALE	19.5	41.4	17.1	16.7
		YOUTHS AGED 15-24	36.5	20.6	41.9	28.3
EGYPT	EG		**18.3**	**23.9**	**M**	**M**
		FEMALE	9.4	13.4	M	M
		YOUTHS AGED 15-24	29.4	42.9	M	M
GEORGIA	GE		**M**	**29.7**	**31.9**	**30.8**
		FEMALE	M	25.2	27.0	25.8
		YOUTHS AGED 15-24	M	42.5	56.5	42.0
JORDAN	JO		**8.3**	**M**	**M**	**M**
		FEMALE	1.9	M	M	M
		YOUTHS AGED 15-24	10.2	M	M	M
KOSOVO	XK		**21.9**	**20.4**	**20.2**	**27.4**
		FEMALE	17.1	19.1	19.1	24.3
		YOUTHS AGED 15-24	46.5	31.9	24.8	41.7
KYRGYZSTAN	KG		**27.7**	**27.9**	**35.4**	**28.9**
		FEMALE	17.7	20.5	26.4	22.6
		YOUTHS AGED 15-24	**47.6**	**43.1**	**47.4**	48.4
MOLDOVA	MD		**20.9**	**20.7**	**21.4**	24.1
		FEMALE	20.3	19.0	21.1	22.8
		YOUTHS AGED 15-24	45.3	41.5	41.1	35.7
MONTENEGRO	ME		**16.5**	**12.3**	**12.1**	**15.0**
		FEMALE	12.6	8.5	9.4	13.9
		YOUTHS AGED 15-24	22.4	17.8	28.9	26.1
NORTH MACEDONIA	MK		**20.9**	**20.7**	**21.4**	**24.1**
		FEMALE	20.3	19.0	21.1	22.8
		YOUTHS AGED 15-24	45.3	41.5	41.1	35.7
PALESTINE	PS		**23.2**	**23.8**	**23.4**	**21.9**
		FEMALE	10.8	11.4	9.7	8.5
		YOUTHS AGED 15-24	45.5	47.0	50.8	35.7
SERBIA	RS		**21.2**	**23.6**	**24.7**	**26.0**
		FEMALE	20.4	23.7	24.3	26.3
		YOUTHS AGED 15-24	47.5	47.8	46.4	48.8

			2016	2017	2018	2019
TUNISIA	TN		**40.3**	**45.8**	**41.9**	**49.7**
		FEMALE	31.4	36.4	35.0	43.4
		YOUTHS AGED 15-24	42.3	67.2	77.5	59.1
TURKEY	TR		**32.0**	**32.7**	**32.9**	**33.2**
		FEMALE	28.8	29.0	29.1	29.0
		YOUTHS AGED 15-24	50.0	52.5	51.5	51.6
UKRAINE	UA		**30.3**	**31.4**	**30.6**	**31.4**
		FEMALE	25.8	26.6	26.4	26.6
		YOUTHS AGED 15-24	40.3	40.2	39.2	38.1

Source: ETF calculations based on LFS microdata.
(*) The over-skilled are those holding jobs requiring lower levels of formal qualifications. For example, in Albania (2019) one in five (19.5%) tertiary graduates (ISCED levels 5-8) were employed in semi-skilled occupations (ISCO-08 groups 4-8), usually requiring lower levels of formal qualifications.
Note: m = missing.
(i) MD: estimated using the usual resident population.

INCIDENCE OF OVER-EDUCATION* IN SELECTED COUNTRIES (PROVISIONAL DATA)

			2016	2017	2018	2019
ALBANIA	AL		**21.0**	**22.8**	**15.8**	**17.9**
		FEMALE	20.6	23.6	17.5	16.4
		YOUTHS AGED 15-24	17.8	19.9	20.6	13.0
ARMENIA	AM		**25.4**	**24.7**	**27.6**	**30.6**
		FEMALE	19.9	21.0	21.4	25.7
		YOUTHS AGED 15-24	25.6	21.9	26.9	32.7
BELARUS	BY		**21.8**	**22.6**	**21.9**	**21.6**
		FEMALE	22.4	21.9	24.2	22.4
		YOUTHS AGED 15-24	21.5	23.5	21.3	23.6
BOSNIA AND HERZEGOVINA	BA		**23.0**	**21.5**	**21.8**	**18.7**
		FEMALE	21.2	21.7	20.6	18.2
		YOUTHS AGED 15-24	20.2	9.5	12.4	13.1
EGYPT	EG		**12.7**	**20.8**	**M**	**M**
		FEMALE	19.0	11.2	M	M
		YOUTHS AGED 15-24	5.8	6.3	M	M
GEORGIA	GE		**M**	**27.5**	**23.6**	**25.9**
		FEMALE	M	19.8	22.5	18.3
		YOUTHS AGED 15-24	M	25.4	25.2	19.7
JORDAN	JO		**24.5**	**M**	**M**	**M**
		FEMALE	26.1	M	M	M
		YOUTHS AGED 15-24	16.6	M	M	M
KOSOVO	XK		**29.5**	**23.0**	**19.9**	**27.8**
		FEMALE	21.1	24.7	19.1	26.0
		YOUTHS AGED 15-24	19.5	16.4	18.3	32.0
KYRGYZSTAN	KG		**23.0**	**22.8**	**25.2**	**23.1**
		FEMALE	17.8	18.1	21.8	19.6
		YOUTHS AGED 15-24	20.6	20.4	24.5	25.9

			2016	2017	2018	2019
MOLDOVA	MD		**19.5**	**19.9**	**18.1**	**21.9**
		FEMALE	20.0	20.6	16.9	19.9
		YOUTHS AGED 15-24	19.1	19.1	23.7	23.3
MONTENEGRO	ME		**20.8**	**17.4**	**17.2**	**18.3**
		FEMALE	22.7	18.5	19.3	20.7
		YOUTHS AGED 15-24	18.1	11.2	9.3	18.5
NORTH MACEDONIA	MK		**12.5**	**13.8**	**15.1**	**13.2**
		FEMALE	14.5	13.6	17.0	13.3
		YOUTHS AGED 15-24	8.9	8.9	8.0	6.7
PALESTINE	PS		**23.2**	**23.4**	**24.3**	**24.5**
		FEMALE	13.8	13.8	12.4	14.3
		YOUTHS AGED 15-24	22.9	22.1	23.1	21.9
SERBIA	RS		**26.4**	**26.5**	**26.3**	**28.4**
		FEMALE	25.2	27.1	24.6	28.1
		YOUTHS AGED 15-24	20.0	14.9	18.0	17.2
TUNISIA	TN		**46.5**	**36.2**	**35.3**	**32.1**
		FEMALE	39.1	36.4	30.4	M
		YOUTHS AGED 15-24	M	43.9	46.0	39.1
TURKEY	TR		**36.0**	**41.9**	**37.6**	**34.4**
		FEMALE	29.7	31.3	31.9	32.6
		YOUTHS AGED 15-24	24.3	26.9	28.0	37.6
UKRAINE	UA		**22.9**	**17.1**	**20.4**	**21.5**
		FEMALE	20.5	20.3	20.4	21.6
		YOUTHS AGED 15-24	24.4	27.2	28.3	22.2

Source: ETF calculations based on LFS microdata.
(*) The over-educated are those usually holding jobs for which the modal value in a job/occupation distribution in their country is typically below their (ISCED) level of education. Also known as the 'empirical method', the ETF estimations are based on a modal educational level (i.e. that identified most frequently) in a given occupational ISCO-08 group in each country, using the most detailed level information available (i.e. ISCO-08 1/2/3 digit-level data). The ETF definition is fully harmonised with the ILO recommendations.
Note: m = missing.
(i) MD: estimated using the usual resident population.

ADULT PARTICIPATION IN LIFELONG LEARNING IN THE PAST 4 WEEKS (% AGED 25-64)

			2016	2017	2018	2019	2020
ALBANIA	AL		**1.1**	**0.9**	**0.9**	**0.8**	**M**
		LOW SKILLED (ISCED 0-2)	0.2	0.2	0.1	0.1	M
		UNEMPLOYED	1.3	1.2	1.3	1.7	M
BOSNIA AND HERZEGOVINA	BA		**2.6**	**1.8**	**1.9**	**1.8**	**3.3 B**
		LOW SKILLED (ISCED 0-2)	0.6 U	0.4 U	0.3 U	0.1 U	1.0 B
		UNEMPLOYED	2.6 U	1 U	1.4 U	2.7 U	2.8 B
GEORGIA	GE		**0.5 C**	**1.6 B**	**1.0**	**0.8**	**1.1**
ISRAEL	IL		**10.2**	**9.7**	**9.3**	**9.2**	**8.6**
		LOW SKILLED (ISCED 0-2)	**M**	**M**	**1.0**	**1.4**	**1.4**
		UNEMPLOYED	**M**	**M**	**9.9**	**10.1**	**8.4**
KOSOVO	XK		**4.4**	**3.9**	**3.5**	**2.7**	**5.6**
MOLDOVA	MD		**1.0**	**1.8**	**1.3**	**1.4 B**	**1.2**
MONTENEGRO	ME		**3.3**	**2.8**	**3.2**	**2.5**	**2.7**
NORTH MACEDONIA	MK		**2.9**	**2.3**	**2.4**	**2.8**	**2.6**
		LOW SKILLED (ISCED 0-2)	0.1	0.2	0.2	0.2	0.2
		UNEMPLOYED	2.7	1.9	1.8	2.9	2.3
SERBIA	RS		**5.1**	**4.4**	**4.1**	**4.3**	**3.7**
		LOW SKILLED (ISCED 0-2)	0.3	0.2	0.2	0.3	0.6
		UNEMPLOYED	5.0	4.5	3.8	3.6	3.2
TURKEY	TR		**5.8**	**5.8**	**6.2**	**5.7**	**5.8**
		LOW SKILLED (ISCED 0-2)	2.8	2.8	3.0	2.8	2.7
		UNEMPLOYED	9.2	10.1	10.7	9.7	9.4
UKRAINE	UA		**0.9**	**0.8**	**0.8**	**0.7**	**0.5**
		LOW SKILLED (ISCED 0-2)	10.3	10.4	10.6	10.8	9.2
			4.0	**4.1**	**4.1**	**4.3**	**3.4**
EUROPEAN UNION (27 COUNTRIES)	EU		**9.4**	**9.9**	**10.5**	**10.7**	**10.5**
		LOW SKILLED (ISCED 0-2)	20.5	20.3	20.4	21.6	
		UNEMPLOYED	24.4	27.2	28.3	22.2	

Sources: ETF KIESE and Eurostat (see the classification of educational programmes / broad levels in the annex).
Note: b = break in series; m = missing; u = unreliable.

ANNEX: CLASSIFICATION OF EDUCATION PROGRAMMES

EDUCATIONAL ATTAINMENT (BROAD LEVELS)	ISCED-11 LEVEL	ISCED-97 LEVEL	DESCRIPTION
LOW	No schooling	No schooling	Less than one year of schooling
	0 Early childhood education	0 Pre-primary education	Education delivered in kindergartens, nursery schools or infant classes
	1 Primary education	1 Primary education or first stage of basic education	Programmes are designed to give students a sound basic education in reading, writing and arithmetic. Students are generally 5–7 years old. Might also include adult literacy programmes.
	2 Lower secondary education	2 Lower secondary education or second stage of basic education	Continuation of basic education, but with the introduction of more specialised subject matter. The end of this level often coincides with the end of compulsory education where it exists. Also includes vocational programmes designed to train for specific occupations as well as apprenticeship programmes for skilled trades.
MEDIUM	3 Upper secondary education	3 Upper secondary education	Completion of basic level education, often with classes specialising in one subject. Admission usually restricted to students who have completed the 8–9 years of basic education or whose basic education and vocational experience indicate an ability to handle the subject matter of that level.
	4 Post-secondary non-tertiary education	4 Post-secondary non-tertiary education	Captures programmes that straddle the boundary between upper-secondary and post-secondary education. Programmes of between six months and two years typically serve to broaden the knowledge of participants who have successfully completed level 3 programmes.
HIGH	5 Short-cycle tertiary education	5 First stage of tertiary education (not leading directly to an advanced research qualification); sub-divided into	
	6 Bachelor's or equivalent level	5A	Programmes are largely theoretically Programmes are largely theoretically based and are intended to provide sufficient qualifications for gaining entry into advanced research programmes. Duration is generally 3–5 years.
		5B	Programmes are of a typically 'practical' orientation designed to prepare students for particular vocational fields (high-level technicians, teachers, nurses, etc.).
	7 Master's or equivalent level	6 Second stage of tertiary education (leading to an advanced research qualification)	Programmes are devoted to advanced study and original research and typically require the submission of a thesis or dissertation.
	8 Doctoral or equivalent level		

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