European Training Foundation

YOUTH DISENGAGEMENT AND SKILLS MISMATCH IN THE WESTERN BALKANS

Working Paper

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CONTENTS

INTRODUCTION

The Youth Guarantee is a key flagship of the Economic and Investment Plan 2021 to 2027, 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 Youth Guarantee aims at securing a good quality offer of employment, traineeship, apprenticeship, or continued education to all young people aged 15 to 29 who are not in employment, education or training (NEETs). The Western Balkan countries have committed to devise and adopt the Youth Guarantee implementation plans by mid-2022. The European Training Foundation (ETF) is partnering with the European Commission and the International Labour Organisation (ILO) in providing support and advice to the Western Balkan countries for introducing Youth Guarantee schemes.

This short paper presents patterns of youth disengagement and skills mismatch in the Western Balkans based on the most recent data available. The analysis takes as reference key indicators included in the Youth Guarantee monitoring framework. It shows the ETF preliminary findings based on the Youth Guarantee monitoring framework by examining nine indicators[1], with a focus on the main one: young people not in employment, education or training. To complement the picture of the youth situation in the region, we also include in our analysis some recent results on the incidence of skills mismatch among young people, based on the ETF pioneering work on the topic.

The paper is intended for policy makers and stakeholders in the areas of education, training and employment, as input to forthcoming consultations and action planning for gradual implementation of Youth Guarantee schemes in the Western Balkans.

Key highlights

The situation of young people remains problematic in all six Western Balkan countries, with persistently high numbers of NEETs (age group 15–29). The 2020 data shows a yearly increase of NEET rates in all six countries, ranging from 1 percentage point in a number of countries (similar to the average increase in the EU Member States) to some 5 percentage points in Montenegro. It is believed that the pandemic has largely contributed to these patterns, as most countries were previously on a decreasing trend for NEETs. Although a clear effect cannot be isolated in these countries, this issue has been already studied/documented in the OECD countries (OECD, 2021).

Young women were more seriously affected than young men. This is closely linked to gender patterns observed for NEETs which will be also discussed later in this paper. As young women are more likely to be inactive, their first steps to (re)enter the labour market tend to be even more challenging. This can be linked to several factors, such as socio-cultural norms, less favourable working environments, and family duties. This has been documented by previous ETF work in its partner countries and is also a clear pattern observed in EU countries.

[1] The monitoring of the Youth Guarantee implementation includes three types of indicators, namely: a **main indicator** (share of NEETs); **four indicators** complementing the main indicator by giving more detailed information on the labour market situation of young people and **eight indicators** which are intended to measure the longer-term consequences of implementing the Youth Guarantee on educational attainment and labour market attachment. Only **some indicators** are discussed in this paper. Source: European Commission, Employment Committee, *Indicator Framework for Monitoring the Youth Guarantee*, Revision of January 2017.

NEETs are at higher risk of being socially and economically excluded and so are more likely to become vulnerable in the long term. Yet, this category contains a variety of sub-groups, some of which are vulnerable and some not. The high heterogeneity of the NEET population needs to be further considered when designing policies for vulnerable groups and their re-engagement with the labour market or the education system (ETF, 2015). The Youth Guarantee schemes can be instrumental in this respect.

As everywhere in the world, young people face more challenges than adults do in entering the labour market owing to their lack of work experience and the mismatch between the skills they have to offer and those required by employers. During their (first) transition to the labour market, young people often gain practical experience by accepting jobs requiring lower levels of skills. Together with low labour mobility, this leads to a higher level of observed over-qualification. Recent ETF data shows that at least one-third of young people aged 15–24 have held jobs requiring lower levels of formal qualifications in 2019; yet this share can be as high as half of young people in Albania, two-thirds in Serbia and three-quarters in Kosovo[2] (ETF, 2022 (forthcoming)).

Youth transition to work in recent years has become more prolonged and somewhat unstable and less predictable. Young people are changing jobs usually more frequently (either by choice or necessity). Combining work and study is no longer an exception but rather the rule and also a common choice. However, the data available for the Western Balkan countries shows rather different patterns compared to the EU: only one in twenty young people aged 15–29 combine study and work, while in the EU the value is 13.5% (Eurostat, 2021). This difference contributes to higher NEET incidence in the Western Balkan countries. This is where the Youth Guarantee can make a difference, by securing a good quality offer of employment, traineeship, apprenticeship, or continued education to all young people in the Western Balkan countries.

[2] 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 – hereinafter 'Kosovo'.

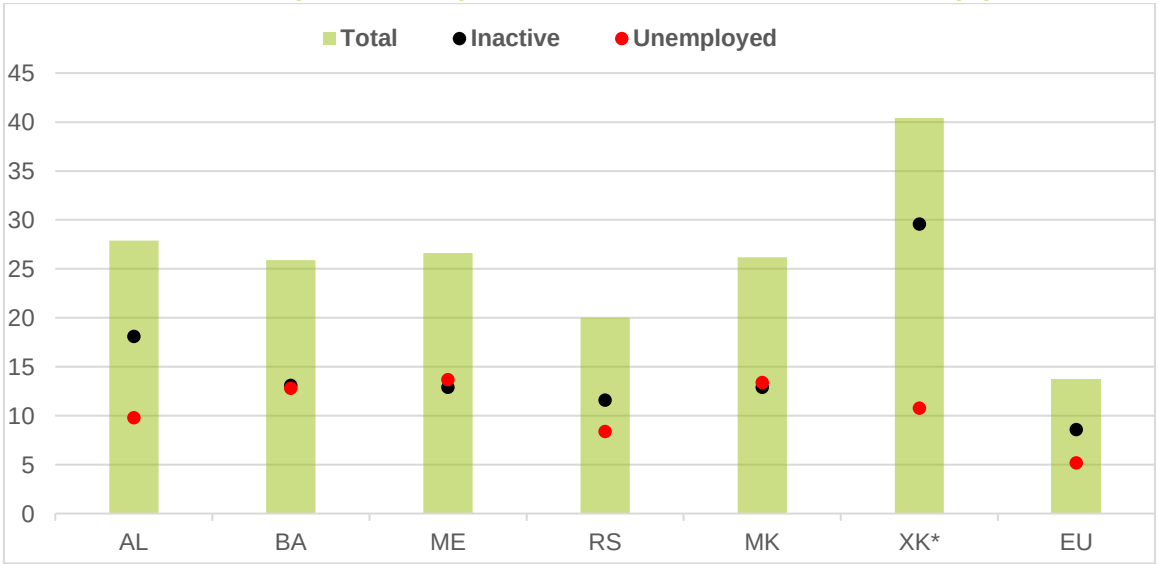
USING THE YOUTH GUARANTEE MONITORING FRAMEWORK IN THE WESTERN BALKANS: KEY FINDINGS

Main indicator: young people not in employment, education or training

In 2020, at least one in four young people aged 15–29 was not in employment, education or training (the EU value was at 13.7%). Whereas most Western Balkan countries have now stabilised at this level, Kosovo shows a much higher proportion (some 40%) of NEETs (see Annex, Table 1). Young women are typically over-represented in this group in all countries and the proportion of young women who are NEETs is close to 30% in most countries, peaking at 43% in Kosovo. A closer look at the gender patterns for NEETs by their labour market status, shows a higher incidence of inactivity among young women coupled with a higher likelihood of unemployment for young men. In other words, while young men are more likely to enter the labour market, young women more frequently remain inactive.

On average, one in twenty young people is without a job and not looking for a new one. A closer look at the gender patterns of NEETs also shows that more young women do not look for jobs compared to young men. For the countries with data available (Montenegro, North Macedonia and Serbia), this proportion goes from 11% (North Macedonia) to 5% (Montenegro) for young NEET women (Labour Force Survey (LFS) data). Only some 3% of young men who are counted as NEETs don't look for a job; this is also the EU average (see Annex, Table 1). This disengagement might have various reasons and explanations. It also shows a high heterogeneity of the NEET population which needs to be further considered when designing policies for vulnerable groups and their re-engagement with the labour market or the education system. ETF evidence (2015) shows that some factors are more important than others in the determinants of NEETs. 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 socio-economic background.

CHART 1 NEETS (AGED 15–29) BY LABOUR MARKET STATUS, 2020 (%)

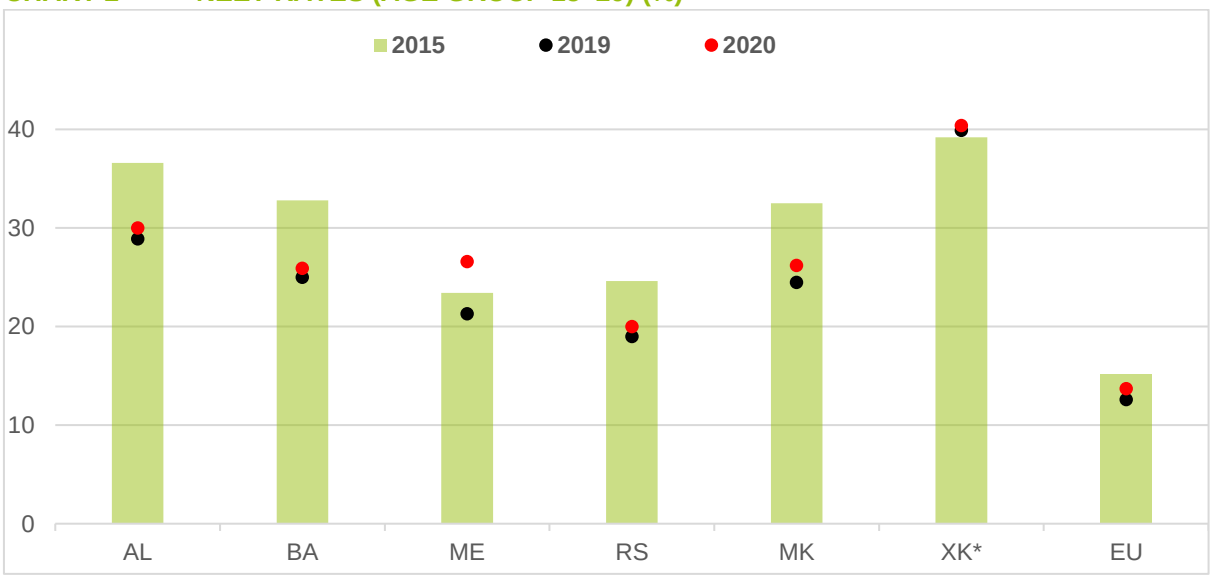


Notes: AL – Albania, BA – Bosnia and Herzegovina, ME – Montenegro, RS – Serbia, MK – North Macedonia, XK – Kosovo

Source: ETF, 2021a; Eurostat

Whereas most Western Balkan countries have managed to keep the NEET rate under control in the past years, the current pandemic seems to have contributed to a deterioration of the youth situation. Not only have NEET rates gone up, but also other metrics (typically used to frame youth transition) have deteriorated (see Chart 2). The 2020 data shows an increase of NEETs in all six countries, ranging from 1 percentage point in a number of countries (including also the EU) to some 5 percentage points in Montenegro. It is believed that the pandemic has largely contributed to these patterns, as most countries were previously on a decreasing trend for NEETs.

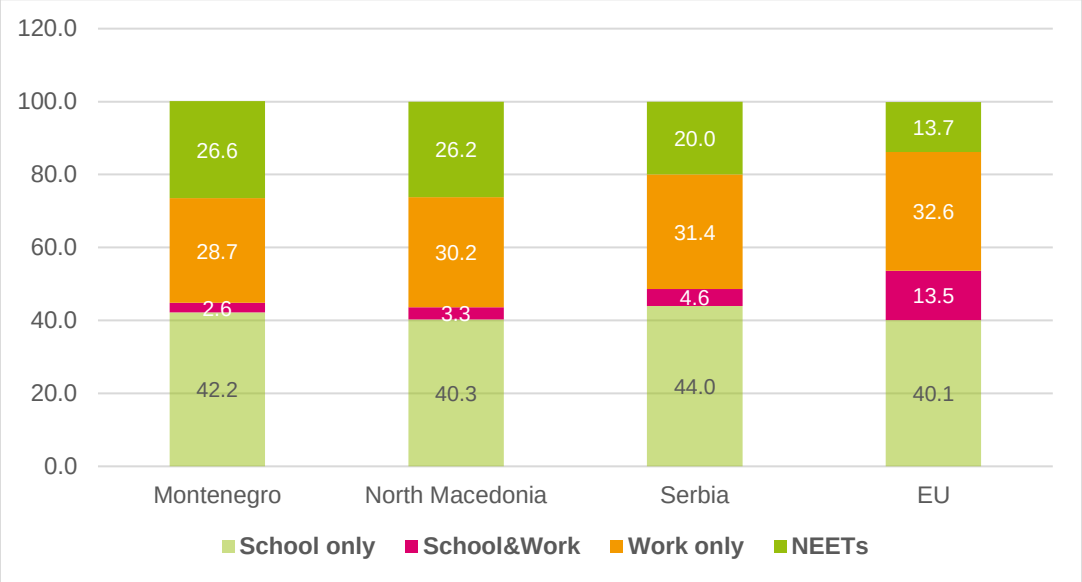
CHART 2 NEET RATES (AGE GROUP 15–29) (%)



Source: ETF, 2021a; Eurostat

The NEET rate should not be regarded as the ultimate image of youth transition. 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 has become in recent years more prolonged and rather unstable and unpredictable; nowadays young people are usually changing jobs more frequently (either by choice or necessity) and so no longer have a clear labour market status for longer periods (Eurostat, 2021). Combining work and study is no longer an exception but rather the rule and a common choice in our days. From this perspective, the Western Balkan countries with data available show rather different patterns compared to the EU (see Chart 3). Whereas some 40% of young people aged 15–29 are still in school (likewise the EU level), only less than one in twenty also works (the EU value is 13.5%).

CHART 3 WHERE ARE THE YOUNG PEOPLE AGED 15–29 TODAY? (%)



Note: Totals don't add up to 100 due to the young people with an unknown status.
Source: Eurostat

Supplementary indicators

Youth transition in the Western Balkan countries is also characterised by persistently high youth unemployment rates (see Annex, Table 2). Youth unemployment remained very high in 2020, affecting about half of active young people[3] aged 15–24 in Kosovo, about one in three in Bosnia and Herzegovina, Montenegro and North Macedonia, and one in four in Albania and Serbia (the EU average is 17%). This situation remains serious, with long-term economic and social consequences. As everywhere in the world, youth unemployment rates have traditionally been higher than those of other age groups in the Western Balkan countries, and there are clearly some strong determinants. Youth unemployment is more responsive than adult unemployment to the business cycle. This is because young people are more concentrated in certain economic sectors and a disproportionate number hold 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.

Several factors could explain the precarious position of young people in the labour market. Young graduates often face a difficult transition from school to work due to insufficient employability levels caused by, among others, low education attainment, insufficient relevance of their skills for the labour market or insufficiently developed soft skills. At the same time, future graduates and young jobseekers do not receive consistent and timely support during such transition periods such as career orientation and counselling, job matching and activation measures, and socio-emotional support. Also, the unattractive working conditions, reflected in informality, low wages, insufficient protection of health and safety at work, and insufficient mentorship and/or coaching arrangements for newly hired workers or

[3] The youth unemployment rate is the percentage of unemployed people in the age group 15–24 compared to the total labour force (both employed and unemployed) in that age group. However, it should be remembered that a large share of people between these ages are outside the labour market (since many young people are studying full time and are thus not available for work). For this reason, the youth unemployment ratio is also often used: the percentage of unemployed young people compared to the total population of that age group (not only the active, but also the inactive, such as students).

skills are not aligned with those needed in the economy or by employers (ETF, 2020a). Covid-19 has induced volatility on the labour market and employment opportunities which reinforce these challenges.

Vocational education and training (VET) programmes can be effective in developing skills and ensuring a smooth and successful transition to the labour market. In all the Western Balkan countries with data available, employment rates tend to be higher among young adults who graduated from VET programmes than among those who pursued an upper secondary general programme as their highest level of educational attainment.

In 2020 at least half of the recent graduates[4] from VET programmes (ISCED 3–4 combined) were employed, and there has been good progress over recent years (ETF, 2020b). In most countries, these values are close to those recorded for recent graduates from tertiary level[5]. This is positive, especially in countries such as Bosnia and Herzegovina, Montenegro or Serbia, where large proportions of upper secondary students follow VET 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. Nevertheless, smooth transitions require support through career guidance and career education, also in VET. Efforts should be made to equip VET graduates with the skills needed in the knowledge economy and for the twin transitions (green and digital), and to foster their key competences, in particular their digital, entrepreneurial and career management skills.

[4] Aged 20–34, no longer in education or training, one–three years after graduation.
[5] One of the supplementary indicators used in the Youth Guarantee monitoring framework.

SKILLS MISMATCH: WHAT IMPACT ON YOUTH TRANSITION?

Youth transition is seen to be increasingly linked to the existence of various imbalances in the labour market. Indeed, most ETF partner countries have identified skills imbalances in the labour market as one of the reasons for persistently high levels of youth unemployment. During their transition from school to the labour market, young people often gain practical experience by accepting jobs requiring lower levels of skills. Together with low labour mobility, this leads to a higher level of observed overqualification. Young people face more challenges than adults do in entering the labour market owing to their lack of work experience and the mismatch between the skills they have to offer and those required by employers.

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).

Skills mismatches reflect changes in the labour market, some of which occur rapidly which then impact on human capital. A surplus of human capital is typically measured in terms of over-education or over-skilling[6]. However, 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. The ETF has framed and estimated for the first time these two types of mismatches in the Western Balkan countries and other partner countries.

Provisional data (ETF, 2022 (forthcoming)) for the Western Balkan countries shows that in 2019, at least one in four tertiary graduates have held jobs requiring lower levels of formal qualifications but the incidence was as high as 40% in Albania and Kosovo, while approaching half of tertiary graduates in Serbia (see Annex, Table 3). The ETF evidence also shows that the incidence of mismatch for upper/post-secondary graduates is lower than that of tertiary graduates.

Some countries, such as Albania or Kosovo, with 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, this increase 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, 2020a). This shows that education systems face many challenges in responding to changing demands for skills. It can 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 force especially higher-educated individuals to accept such positions.

[6] 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.

The relatively high level of over-education, particularly among tertiary educated 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, point out that graduation does not necessarily always lead to a matched integration in the labour market and could signal a human capital loss.

There could be many reasons behind this situation and more country-specific analyses 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, poor quality and relevance of educational programmes or failures in addressing social inclusiveness goals. Career guidance and career education from early schooling onwards, effective matching services and work-experience gaining programmes during transition phase from school to work are also essential (ETF, 2021b).

CONCLUSIONS

The situation of young people remains problematic in all six Western Balkan countries, with increasingly high numbers of NEETs in 2020. It is believed that the pandemic has largely contributed to these patterns, as most countries were previously on a decreasing trend for NEETs. There is a clear gender pattern observed for NEETs whereby young women were more seriously affected than young men. Yet, this category contains a variety of sub-groups, some of which are vulnerable and some not. The high heterogeneity of the NEET population needs to be further analysed and considered when designing policies for vulnerable groups and their re-engagement with the labour market or the education system. The Youth Guarantee schemes can be instrumental in this respect.

Recent ETF data shows that skills mismatches are affecting younger employees at higher rates. This shows that education systems face many challenges in responding to changing demands for skills. Today, holding a university degree does not always mean being employed and/or job matched. What emerges clearly is that education systems are only in part generating such imbalances. A system of continuous update of skills-sets, with well-funded and relevant (re)skilling programmes accessible to all young people and adults becomes crucial in a very dynamic economic context with significant technological and environmental transformations.

Monitoring will require an increasing number of statistical tools, as well as modern national statistical infrastructures and an increasing cooperation at country and European levels. In the past years, the ETF took important steps towards assisting/helping the Western Balkan countries to better integrate their statistical systems into the European Statistical System. By joining forces with the ILO, Eurostat or Cedefop, the ETF is now engaged in monitoring, sharing data and findings or conducting stand-alone surveys in the region (such as the first skills and jobs survey in 2022 jointly with Cedefop).

Graduates' tracking practices should be mainstreamed in education and training, both at upper-secondary and tertiary levels as well as for continuous training programmes. Such evidence is essential in measuring the labour market outcomes of various education programmes and pinpoint the hurdles recent graduates are facing when searching for employment or getting a first job. Overall, countries would need to enhance their labour market and skills intelligence, combining various sources of data and research instruments for the identification of short-, medium- and long-term skills demand and supply trends.

For the design of Youth Guarantee schemes, countries could explore existing datasets (in particular, LFSs, Survey on Income and Living Conditions as well as other relevant data sources) for more detailed studies on the characteristics of NEETs illustrating different levels of vulnerability.

Worsening labour market indicators for young people in the pandemic context, labour market transformations (e.g. digitalisation, greening of economies) and persistent social exclusion risks call for the completion of several reforms that would enable education systems to provide graduates with relevant skills and support continuous adaptation to emerging skills needs by securing access to quality-assured education and training programmes (both initial and continuing).

Career guidance and counselling is a critical policy element for securing swift transitions from school to work as well as navigation in the world of work and new skills acquisition. Most challenging aspects in the Western Balkans are insufficient coverage of pupils and students with consistent advice and orientation during studies and choice of professional careers; securing competence development for

staff engaged in service provision and lack or inconsistent access to relevant labour market and skills intelligence. Shifting from information provision about professions towards career education to develop learners' career management skills will be an important measure.

Reforms of qualification systems can contribute to the development of quality-proofed skills development programmes and improve their permeability. In addition, they can assure transparency of competences and skills acquired regardless of the learning context. Despite significant steps made by Western Balkan countries over the last decade to build up their qualifications systems, gaps remain in the validation of non-formal and informal learning and availability of accredited further training programmes.

Work-based learning, in-company training, apprenticeships, and internships are challenging areas particularly on the backdrop of pandemic-related health restrictions and rather weak capacities of companies to engage in cooperation with schools and host young learners and workers. Widening the availability of on-the-job training and work experience gain is critical for swift and sustainable employment integration of young graduates.

Ongoing digital education reforms can improve the provision of digital skills and competence and help Western Balkan countries to close the gap in digital skills against the EU average and prepare graduates to face the increasing demand for digital competence in current and future labour markets. Issues of access, equity and quality of digital education and training can be systematically assessed through SELFIE[7] (now covering work-based learning as well) to provide the necessary evidence basis for reforms and investments.

Active labour market programmes (ALMPs) cover only a fraction of young jobseekers in need of activation, training and employment support due to limited budget allocation, and high numbers of jobseekers to public employment service staff ratios. ALMPs work differently across various groups of beneficiaries, and countries should enhance their evidence base for decision making, including regular net impact assessments, for innovation and tailoring of service packages available for young jobseekers.

Urban-rural and gender divides are shaping employment opportunities and career progression of the young people in the Western Balkans. These, next to other challenges such as high propensity for migration or persistent poverty and social exclusion risks, must be carefully factored in for the design of Youth Guarantee schemes.

[7] SELFIE (self-reflection on effective learning by fostering the use of innovative educational technologies) is a free tool designed to help schools embed digital technologies into teaching, learning and assessment. SELFIE has a strong basis in research and was developed based on the European Commission's framework on promoting digital-age learning in educational organisations (https://ec.europa.eu/education/schools-go-digital/about-selfie_en).

STATISTICAL ANNEX

TABLE 1 YOUTH GUARANTEE: MAIN INDICATOR*, 2020

NEETs aged 15–29 (%)	AL	BA	ME	RS	MK	XK	EU27
Total	**27.9**	**25.9**	**26.6**	**20.0**	**26.2**	**40.4**	**13.7**
Inactive	18.1	13.1	12.9	11.6	12.9	29.6	8.6
Unemployed	9.8	12.8	13.7	8.4	13.4	10.8	5.2
Like to work (not) seeking	m	m	22.9	14.7	19.5	m	8.9
Don't want to work	m	m	3.7	5.3	6.7	m	4.9
Low	9.4	3.6	11.4	14.5	18.6	8.2	15.0
Medium	31.2	19.1	29.8	21.8	28.0	25.6	14.1
High	6.9	3.2	38.9	23.8	34.0	6.5	10.7
Men	**25.8**	**22.0**	**26.2**	**18.4**	**23.6**	**38.0**	**12.2**
Inactive	14.4	8.8	11.7	8.9	9.0	24.8	6.5
Unemployed	11.4	13.2	14.6	9.5	14.6	13.2	5.7
Like to work (not) seeking	m	m	24.1	15.5	20.7	m	9.1
Don't want to work	m	m	2.1	2.9	2.9	m	3.1
Low	7.2	3.1	8.1	12.5	13.7	6.5	13.8
Medium	32.4	16.9	31.9	21.1	26.8	27.3	11.9
High	4.3	1.9	36.6	19.1	30.8	4.2	9.3
Women	**30.0**	**30.1**	**26.9**	**21.6**	**29.0**	**43.0**	**15.4**
Inactive	21.9	17.7	14.2	14.4	17.0	34.9	10.8
Unemployed	8.1	12.4	12.7	7.3	12.1	8.1	4.6
Like to work (not) seeking	m	m	21.6	13.8	18.2	m	8.7
Don't want to work	m	m	5.3	7.8	10.8	m	6.7
Low	11.6	4.2	14.9	16.6	23.4	10.1	16.5
Medium	29.3	21.4	27.4	22.7	29.5	23.7	16.4
High	9.5	4.5	40.7	26.9	36.1	9.1	11.8

Notes: m – missing, Low – ISCED levels 0–2, Medium – ISCED levels 3–4, High – ISCED levels 5–8.
* The Youth Guarantee indicator framework includes three types of indicators: one main indicator – NEET rates, four indicators on detailed labour market situation and eight indicators on the long-term education/labour market effects of the Youth Guarantee implementation.

Source: ETF, 2021a; Eurostat

TABLE 2 YOUTH GUARANTEE: SUPPLEMENTARY INDICATORS, 2020

Indicators*	AL	BA	ME	RS	MK	XK	EU27
1. NEETs (% aged 15–29)	27.9	25.9	26.6	20.0	26.2	40.4	13.7
2. Inactive NEETs (% aged 15–29)	18.1	13.1	12.9	11.6	12.9	29.6	8.6
3. Unemployed NEETs aged (% aged 15–29)	9.8	12.8	13.7	8.4	13.4	10.8	5.2
4. Employment rate (% aged 15–24)	26.7	21.0	19.8	20.8	19.8	11.4	31.5
5. Unemployment ratio (% aged 15–24	13.2	16.4	11.1	7.5	11.0	11.0	6.3
6. Upper-secondary completion (% aged 20–24)	m	m	96.1	93.6	93.9	m	84.3
7. Unemployment rate (% aged 15–24)	27.2	36.6	36.0	26.6	35.7	49.1	16.8
8. Employment rate of recent graduates (% aged 20–34)	58.6	50.5	54.1	62.3	54.5	m	78.7
9. Tertiary attainment (% aged 30–34)	22.1	23.1	38.4	33.0	39.7	m	41.0
10. Early school leavers (% aged 18–24)	16.3	4.7	3.6	5.6	5.7	7.8	9.9

Notes: m – missing. * The Youth Guarantee indicator framework includes three types of indicators: one main indicator – NEET rates, four indicators on detailed labour market situation and eight indicators on the long-term education/labour market effects of the Youth Guarantee implementation.

Source: ETF, 2021a; Eurostat

TABLE 3 ETF INDICATORS OF VERTICAL MISMATCH (PROVISIONAL DATA)

% aged 15–24	2016	2017	2018	2019
Albania				
Over-skilled – High	50.9	54.4	57.7	41.4
Over-skilled – Medium	12.0	8.6	8.2	4.5
Over-educated	17.8	19.9	20.6	13.0
Under-educated	20.8	21.2	21.4	26.9
Bosnia and Herzegovina				
Over-skilled – High	36.5	20.6	41.9	28.3
Over-skilled – Medium	12.5	14.0	8.1	8.4
Over-educated	20.2	9.5	12.4	13.1
Under-educated	15.5	20.1	22.7	18.0
Montenegro				
Over-skilled – High	22.4	17.8	28.9	26.1
Over-skilled – Medium	8.1	7.2	8.0	8.3
Over-educated	18.1	11.2	9.3	18.5
Under-educated	20.9	28.5	23.4	21.7
Serbia				
Over-skilled – High	47.5	47.8	46.4	48.8
Over-skilled – Medium	12.6	11.2	12.6	12.5
Over-educated	20.0	14.9	18.0	17.2
Under-educated	22.0	25.7	21.8	21.0
North Macedonia				
Over-skilled – High	45.3	41.5	41.1	35.7
Over-skilled – Medium	9.6	9.0	8.7	7.3
Over-educated	8.9	8.9	8.0	6.7
Under-educated	11.0	11.0	11.0	11.1

% aged 15–24	2016	2017	2018	2019
Kosovo				
Over-skilled – High	46.5	31.9	24.8	41.7
Over-skilled – Medium	23.8	27.2	22.4	30.4
Over-educated	19.5	16.4	18.3	32.0
Under-educated	31.8	35.8	23.2	22.8

Note: The ETF mismatch framework is made of ten indicators, namely: three core indicators measuring vertical and horizontal mismatch, three contextual and four optional indicators. Only two indicators measuring the vertical mismatch are included here.

Definitions: The **over-skilled** individuals are those holding jobs requiring lower levels of formal qualifications. Example for over-skilled – high value in Albania (2016): half (51%) of tertiary graduates (ISCED levels 5–8) were employed in semi-skilled occupations (ISCO-08 groups 4–8), usually requiring lower levels of formal qualifications. Similarly, 12% of upper/post-secondary graduates (ISCED 3–4) have held elementary jobs (ISCO-08 group 9). By adding the two values, one can conclude that some two-thirds of the young Albanians were mismatched in 2016 (i.e. by holding jobs requiring lower levels of their formal qualifications). The **over-educated** individuals are those having a formal educational (ISCED) level which is above the identified one for an occupation in the country. Likewise, the **under-educated** individuals are usually holding jobs for which the modal value in a job/occupation distribution in their country is typically above their (ISCED) level of education. Also known as the 'empirical method', ETF estimations are based on a modal educational level (i.e. the one 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 ILO recommendations.

Source: ETF, 2021a

TABLE 4 KEY YOUTH-RELATED INDICATORS – ALBANIA

Youth not in employment, education or training					
% aged 15–29	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**32.8**	**28.6**	**26.6**	**27.9**	**13.7**
Inactive	19.4	18.1	16.9	18.1	8.6
Unemployed	13.4	10.5	9.7	9.8	5.2
Low	14.2	10.2	9.3	9.4	15.0
Medium	12.8	11.9	10.8	31.2	14.1
High	5.9	6.6	6.4	6.9	10.7
Men	**29.4**	**24.7**	**24.3**	**25.8**	**12.2**
Inactive	14.0	12.3	13.3	14.4	6.5
Unemployed	15.4	12.5	11.0	11.4	5.7
Low	12.6	8.4	7.9	7.2	13.8
Medium	13.3	12.4	12.5	32.4	11.9
High	3.5	3.9	3.9	4.3	9.3
Women	**36.6**	**32.7**	**28.9**	**30.0**	**15.4**
Inactive	25.4	24.3	20.5	21.9	10.8
Unemployed	11.1	8.4	8.3	8.1	4.6
Low	15.9	12	10.8	11.6	16.5
Medium	12.2	11.9	9.1	29.3	16.4
High	8.5	6.6	9.0	9.5	11.8

Notes: Low – ISCED levels 0–2, Medium – ISCED levels 3–4, High – ISCED levels 5–8; break in series – 2014.

Source: Instat, Eurostat (edat_lfse_20/21)

Youth employment rate					
% aged 15–24	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**18.9**	**25.7**	**26.7**	**m**	**31.5**
Men	23.8	30.6	31.2	m	33.7
Women	13.4	20.4	22.2	m	29.1

Note: m – missing

Source: Instat, Eurostat (lfsa_ergan)

Youth unemployment rate					
% aged 15–24	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**39.8**	**28.3**	**27.2**	**m**	**16.8**
Men	39.2	29.6	27.8	m	16.9
Women	40.8	26.0	26.3	m	16.6

Note: m – missing

Source: Instat, Eurostat (lfsa_urgan)

Employment rate of recent graduates*					
% aged 20–34	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
ISCED 3–8	**45.7**	**55.2**	**58.6**	**m**	**78.7**
Men	47.3	59.3	60.1	m	79.9
Women	44.1	51.2	57.5	m	77.5
ISCED 3–4 VET	**50.3**	**55.2**	**64.5**	**m**	**76.1**

Notes: m – missing; * No longer in education or training, 1–3 years after graduation

Source: Instat, Eurostat (edat_lfse_24)

Early school leavers					
% aged 18–24	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**21.3**	**17.4**	**16.3**	**m**	**9.9**
Men	22.9	18.3	17.5	m	11.8
Women	19.6	16.4	15.1	m	8.0

Note: m – missing

Source: Instat, Eurostat (edat_lfse_14)

TABLE 5 KEY YOUTH-RELATED INDICATORS – BOSNIA AND HERZEGOVINA

Youth not in employment, education or training					
% aged 15–29	**2015**	**2018**	**2019**	**2020b**	**EU27 (2020)**
Total	**32.8**	**25.5**	**25.0**	**25.9**	**13.7**
Inactive	10.5	11.0	11.2	13.1	8.6
Unemployed	22.3	14.5	13.7	12.8	5.2
Low	4.5	4.0	3.1	3.6	15.0
Medium	24.2	18.4	18.8	19.1	14.1
High	4.1	3.1	3.1	3.2	10.7
Men	**32.4**	**24.0**	**22.6**	**22.0**	**12.2**
Inactive	7.3	8.2	8.5	8.8	6.5
Unemployed	25.2	15.8	14.1	13.2	5.7
Low	3.8	3.2	2.3	3.1	13.8
Medium	25.4	18.5	18.6	16.9	11.9
High	3.2	2.3	1.7	1.9	9.3
Women	**33.3**	**27.3**	**27.9**	**30.1**	**15.4**
Inactive	14.3	14.3	14.6	17.7	10.8
Unemployed	18.9	13.0	13.3	12.4	4.6
Low	5.4	5.0	4.2	4.2	16.5
Medium	22.8	18.2	19.0	21.4	16.4
High	5.1	4.0	4.7	4.5	11.8

Notes: Low – ISCED levels 0–2, Medium – ISCED levels 3–4, High – ISCED levels 5–8; b – break in series

Source: Agency for Statistics of Bosnia and Herzegovina (BHAS), Eurostat (edat_lfse_20/21)

Youth employment rate					
% aged 15–24	**2015**	**2018**	**2019**	**2020b**	**EU27 (2020)**
Total	**12.1**	**19.7**	**23.4**	**21.0**	**31.5**
Men	15.8	26.1	27.4	26.0	33.7
Women	8.0	12.6	18.6	15.8	29.1

Note: b – break in series

Source: BHAS, Eurostat (lfsa_ergan)

Youth unemployment rate					
% aged 15–24	**2015**	**2018**	**2019**	**2020b**	**EU27 (2020)**
Total	**62.3**	**38.8**	**33.8**	**36.6**	**16.8**
Men	59.5	35.4	31.3	32.5	16.9
Women	67.3	45.5	37.9	42.8	16.6

Notes: b – break in series

Source: BHAS, Eurostat (lfsa_urgan)

Employment rate of recent graduates*					
% aged 20–34	**2015**	**2018**	**2019**	**2020b**	**EU27 (2020)**
ISCED 3–8	**35.9**	**51.0**	**52.4**	**50.5**	**78.7**
Men	36.7	55.2	58.9	56.5	79.9
Women	35.0	45.0	44.8	44.5	77.5
ISCED 3–4 VET	**26.1u**	**46.4**	**54.5**	**42.9**	**76.1**

Notes: b – break in series; u – unreliable; * No longer in education or training, 1–3 years after graduation

Source: BHAS, Eurostat (edat_lfse_24)

Early school leavers					
% aged 18–24	**2015**	**2018**	**2019**	**2020b**	**EU27 (2020)**
Total	**5.2**	**5.4u**	**3.8u**	**4.7**	**9.9**
Men	4.8	5.6u	4.0u	4.8u	11.8
Women	5.6	5.2u	3.5u	4.6u	8.0

Notes: b – break in series; u – unreliable

Source: BHAS, Eurostat (edat_lfse_14)

TABLE 6 KEY YOUTH-RELATED INDICATORS – KOSOVO

Youth not in employment, education or training					
NEETs aged 15–29	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**39.2**	**37.3**	**39.9**	**40.4**	**13.7**
Inactive	28.0	24.2	26.8	29.6	8.6
Unemployed	11.1	13.1	13.1	10.8	5.2
Low	14.2	9.9	8.3	8.2	15.0
Medium	21.7	22.3	24.8	25.6	14.1
High	3.2	5.0	6.6	6.5	10.7
Men	**33.7**	**34.4**	**35.6**	**38.0**	**12.2**
Inactive	18.5	16.8	20.3	24.8	6.5
Unemployed	15.3	17.6	15.2	13.2	5.7
Low	9.5	7.8	6.3	6.5	13.8
Medium	21.7	22.8	24.9	27.3	11.9
High	2.5	3.8	4.3	4.2	9.3
Women	**45.3**	**40.6**	**44.8**	**43.0**	**15.4**
Inactive	38.9	32.4	34.0	34.9	10.8
Unemployed	6.5	8.2	10.8	8.1	4.6
Low	19.5	12.3	10.7	10.1	16.5
Medium	21.8	21.8	24.7	23.7	16.4
High	4.1	6.4	9.3	9.1	11.8

Notes: Low – ISCED levels 0–2, Medium – ISCED levels 3–4, High – ISCED levels 5–8

Source: Kosovo Agency of Statistics (KAS), Eurostat (edat_lfse_20/21)

Youth employment rate					
% aged 15–24	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**8.5**	**10.0**	**13.1**	**11.4**	**31.5**
Men	12.9	14.6	18.6	16.1	33.7
Women	3.7	4.9	7.1	6.4	29.1

Source: KAS, Eurostat (lfsa_ergan)

Youth unemployment rate					
% aged 15–24	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**57.7**	**55.4**	**49.4**	**49.1**	**16.8**
Men	54.2	51.5	44.1	45.2	16.9
Women	67.2	64.7	60.3	57.2	16.6

Source: KAS, Eurostat (lfsa_urgan)

Early school leavers					
% aged 18–24	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**14.5**	**9.6**	**8.2**	**7.8**	**9.9**
Men	11.8	9.3	8.0	7.3	11.8
Women	17.5	9.9	8.4	8.4	8.0

Source: KAS, Eurostat (edat_lfse_14)

TABLE 7 KEY YOUTH-RELATED INDICATORS – MONTENEGRO

Youth not in employment, education or training					
% aged 15–29	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**23.4**	**21.0**	**21.3**	**26.6**	**13.7**
Inactive	10.5	8.8	10.1	12.9	8.6
Unemployed	12.9	12.2	11.2	13.7	5.2
Like to work (not) seeking	19.5	18.6	18.3	22.9	8.9
Don't want to work	3.9	2.4	3.0	3.7	4.9
Low	14.4	10.4	11.4	11.4	15.0
Medium	27.0	24.2	23.0	29.8	14.1
High	27.6	28.2	30.0	38.9	10.7
Men	**22.8**	**21.2**	**21.0**	**26.2**	**12.2**
Inactive	8.3	6.9	8.4	11.7	6.5
Unemployed	14.5	14.3	12.6	14.6	5.7
Like to work (not) seeking	20.1	19.6	19.4	24.1	9.1
Don't want to work	2.7	m	m	2.1	3.1
Low	9.4	7.3	8.0	8.1	13.8
Medium	28.3	25.4	23.4	31.9	11.9
High	27.8	30.0	33.1	36.6	9.3
Women	**24.1**	**20.8**	**21.5**	**26.9**	**15.4**
Inactive	12.8	10.8	12.0	14.2	10.8
Unemployed	11.3	10.0	9.6	12.7	4.6
Like to work (not) seeking	18.9	17.6	17.1	21.6	8.7
Don't want to work	5.2	3.2	4.4	5.3	6.7
Low	19.6	13.4	15.0	14.9	16.5
Medium	25.4	22.5	22.4	27.4	16.4
High	27.5	27.0	27.4	40.7	11.8

Notes: m – missing; Low – ISCED levels 0–2, Medium – ISCED levels 3–4, High – ISCED levels 5–8

Source: Eurostat (edat_lfse_20/21)

Youth employment rate					
% aged 15–24	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**18.8**	**23.2**	**27.3**	**19.8**	**31.5**
Men	19.9	25.6	30.9	24.2	33.7
Women	17.7	20.6	23.5	15.0	29.1

Source: Eurostat (lfsa_ergan)

Youth unemployment rate					
% aged 15–24	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**37.6**	**29.4**	**25.2**	**36.0**	**16.8**
Men	39.9	33.3	25.8	33.6	16.9
Women	34.5	23.6	24.3	39.7	16.6

Source: Eurostat (lfsa_urgan)

Employment rate of recent graduates*					
% aged 20–34	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
ISCED 3–8	**61.3**	**61.2**	**65.4**	**54.1**	**78.7**
Men	57.7	58.0	65.6	56.7	79.9
Women	64.6	64.1	65.1	51.1	77.5
ISCED 3–4 VET	**48.9**	**53.6**	**58.5**	**51.0**	**76.1**

Note: * No longer in education or training, 1–3 years after graduation

Source: Eurostat (edat_lfse_24)

Early school leavers					
% aged 18–24	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**5.7**	**4.6**	**5.0**	**3.6**	**9.9**
Men	4.9u	4.4u	5.2u	m	11.8
Women	6.6u	4.9u	4.9u	m	8.0

Notes: m – missing; u – unreliable

Source: Eurostat (edat_lfse_14)

TABLE 8 KEY YOUTH-RELATED INDICATORS – NORTH MACEDONIA

Youth not in employment, education or training					
NEETs aged 15–29	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**32.5**	**29.8**	**24.5**	**26.2**	**13.7**
Inactive	12.8	12.3	11.8	12.9	8.6
Unemployed	19.7	17.5	12.7	13.4	5.2
Like to work (not) seeking	23	22.2	17.9	19.5	8.9
Don't want to work	9.5	7.6	6.6	6.7	4.9
Low	29	23.3	18.3	18.6	15.0
Medium	32.9	31	25.1	28	14.1
High	39	37.8	33.9	34	10.7
Men	**29.9**	**25.9**	**20.9**	**23.6**	**12.2**
Inactive	5.1	5	6.5	9	6.5
Unemployed	24.8	20.9	14.4	14.6	5.7
Like to work (not) seeking	27.3	24.5	18.6	20.7	9.1
Don't want to work	2.6	1.5	2.3	2.9	3.1
Low	18.5	14.4	10.4	13.7	13.8
Medium	34.2	30.1	23.4	26.8	11.9
High	41.2	32.9	33.2	30.8	9.3
Women	**35.3**	**33.9**	**28.3**	**29**	**15.4**
Inactive	20.9	20.1	17.4	17	10.8
Unemployed	14.4	13.8	11	12.1	4.6
Like to work (not) seeking	18.6	19.9	17.2	18.2	8.7
Don't want to work	16.7	14	11.1	10.8	6.7
Low	39.5	31.9	26.2	23.4	16.5
Medium	31.3	32.3	27.2	29.5	16.4
High	37.6	41.1	34.4	36.1	11.8

Notes: Low – ISCED levels 0–2, Medium – ISCED levels 3–4, High – ISCED levels 5–8

Source: Eurostat (edat_lfse_20/21)

Youth employment rate					
% aged 15–24	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**17.3**	**17.4**	**20.7**	**19.8**	**31.5**
Men	20.2	21.7	25.4	25.1	33.7
Women	14.2	12.8	15.8	14.3	29.1

Source: Eurostat (lfsa_ergan)

Youth unemployment rate					
% aged 15–24	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**47.3**	**45.4**	**35.6**	**35.7**	**16.8**
Men	49.7	46.6	33.4	34.0	16.9
Women	43.3	43.2	38.9	38.6	16.6

Source: Eurostat (lfsa_urgan)

Employment rate of recent graduates*					
% aged 20–34	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
ISCED 3–8	**48.0**	**49.2**	**57.2**	**54.5**	**78.7**
Men	45.1	49.6	57.4	59.1	79.9
Women	50.8	48.9	57.0	50.2	77.5
ISCED 3–4 VET	**45.4**	**57.1**	**49.1**	**m**	**76.1**

Note: * No longer in education or training, 1–3 years after graduation

Source: Eurostat (edat_lfse_24)

Early school leavers					
% aged 18–24	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**11.4**	**7.1**	**7.1**	**5.7**	**9.9**
Men	10.0	5.6	5.9	5.7	11.8
Women	12.9	8.5	8.4	5.8	8.0

Source: Eurostat (edat_lfse_14)

TABLE 9 KEY YOUTH-RELATED INDICATORS – SERBIA

Youth not in employment, education or training					
NEETs aged 15–29	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**24.6**	**20.1**	**19.0**	**20.0**	**13.7**
Inactive	10.6	9.5	9.7	11.6	8.6
Unemployed	14.0	10.6	9.2	8.4	5.2
Like to work (not) seeking	20.9	15.6	14.1	14.7	8.9
Don't want to work	3.7	4.5	4.8	5.3	4.9
Low	17.2	15.8	15.1	14.5	15.0
Medium	26.1	21.2	19.7	21.8	14.1
High	33.4	24.3	23.7	23.8	10.7
Men	**23.0**	**17.8**	**17.1**	**18.4**	**12.2**
Inactive	8.1	6.3	6.7	8.9	6.5
Unemployed	15.0	11.5	10.4	9.5	5.7
Like to work (not) seeking	20.8	15.1	14.1	15.5	9.1
Don't want to work	2.3	2.7	3.0	2.9	3.1
Low	15.0	13.5	13.6	12.5	13.8
Medium	25.5	19.9	18.2	21.1	11.9
High	31.3	17.7	20.1	19.1	9.3
Women	**26.2**	**22.5**	**20.9**	**21.6**	**15.4**
Inactive	13.2	12.8	12.9	14.4	10.8
Unemployed	13.0	9.6	8.0	7.3	4.6
Like to work (not) seeking	21.1	16.2	14.1	13.8	8.7
Don't want to work	5.1	6.3	6.8	7.8	6.7
Low	19.6	18.3	16.6	16.6	16.5
Medium	26.9	22.7	21.6	22.7	16.4
High	34.8	28.5	26.0	26.9	11.8

Notes: Low – ISCED levels 0–2, Medium – ISCED levels 3–4, High – ISCED levels 5–8; break in series – 2014

Source: Eurostat (edat_lfse_20/21)

Youth employment rate					
% aged 15–24	**2015**	**2018**	**2019**	**2020**	**EU27 (2020)**
Total	**16.7**	**21.1**	**21.5**	**20.8**	**31.5**
Men	21.4	26.0	26.8	26.3	33.7
Women	11.8	15.9	15.9	14.9	29.1

Source: Eurostat (lfsa_ergan)

Youth unemployment rate					
% aged 15–24	2015	2018	2019	2020	EU27 (2020)
Total	**43.2**	**29.7**	**27.5**	**26.6**	**16.8**
Men	40.1	28.3	26.1	25.0	16.9
Women	48.4	32.0	29.9	29.5	16.6

Source: Eurostat (lfsa_urgan)

Employment rate of recent graduates*					
% aged 20–34	2015	2018	2019	2020	EU27 (2020)
ISCED 3–8	**50.6**	**64.3**	**66.5**	**62.3**	**78.7**
Men	53.8	69.8	68.3	64.3	79.9
Women	47.3	58.7	64.9	60.2	77.5
ISCED 3–4 VET	**44.4**	**59.3**	**61.4**	**54**	**76.1**

Note: * No longer in education or training, 1–3 years after graduation

Source: Eurostat (edat_lfse_24)

Early school leavers					
% aged 18–24	2015	2018	2019	2020	EU27 (2020)
Total	**7.5**	**6.8**	**6.6**	**5.6**	**9.9**
Men	7.7	6.8	6.5	5.4	11.8
Women	7.2	6.8	6.7	5.8	8.0

Source: Eurostat (edat_lfse_14)

ACRONYMS AND COUNTRY CODES

ALMPs	Active labour market programmes
BHAS	Agency for Statistics of Bosnia and Herzegovina
Cedefop	Centre européen pour le développement de la formation professionnelle (European Centre for the Development of Vocational Training)
ETF	European Training Foundation
EU	European Union
ILO	International Labour Organisation
ISCED	International Standard Classification of Education
KAS	Kosovo Agency of Statistics
LFS	Labour force survey
NEETs	(Young people) not in employment, education or training
OECD	Organisation for Economic Cooperation and Development
VET	Vocational education and training

Country codes

AL	Albania
BA	Bosnia and Herzegovina
ME	Montenegro
MK	North Macedonia
RS	Serbia
XK*	Kosovo

* Provisional code used by Eurostat.

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