Introduction

Underemployment is not a hot issue for the overall working-age population, at least not in North Macedonia and Montenegro. However, when these rates are calculated for youth, a source of concern emerges. According to the ILO definition, the youth underemployment rates appear twice to eight times higher than the one of the overall working-age population. The issue escalates when the broader definition of youth underemployment is considered given that between half and two thirds of employed youth in the analysed countries possess at least two of five underemployment conditions.

Table 1. Underemployment rates in North Macedonia, Serbia and Montenegro

<table>
<thead>
<tr>
<th>Shares in total employment</th>
<th>North Macedonia</th>
<th>Montenegro</th>
<th>Serbia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underemployment (15-64)</td>
<td>2%</td>
<td>1.8%</td>
<td>9%</td>
</tr>
<tr>
<td>Youth underemployment (15-29) – ILO definition</td>
<td>12.5%</td>
<td>14.3%</td>
<td>19.4%</td>
</tr>
<tr>
<td>Youth underemployment (15-29) – broader definition</td>
<td>57.1%</td>
<td>68.3%</td>
<td>60.9%</td>
</tr>
</tbody>
</table>

Source: ILO (first indicator); SWTS (the other three indicators).
Note: Figures represent shares in total employment.
Research questions and methodology

The overarching objective of this study is twofold: to describe youth underemployment and investigate its effect on personal wellbeing in North Macedonia, Montenegro and Serbia. For that purpose, the research uses ILO’s School to Work Transition Surveys (SWTS) gathered for about 30 countries worldwide where youth 15-29 are surveyed on various aspects including: demographic variables, education, household conditions, employment, inactivity status, perceptions on various aspects during the transition from school to work and so on. We are utilizing the survey conducted in 2014 for North Macedonia and 2015 for Montenegro and Serbia. We drop all youth individuals who are still in education, to arrive at the sample we work with, composed of 4,227 respondents, for all three countries together. The exogenous instrument – the regional unemployment rate – is collected from the regional statistics of the national statistical agencies in the three countries.

We use the conditional mixed process estimator to estimate a system of three equations, where the probability to be (under) employed is regressed to the personal characteristics (gender, age, marital status, education and experience) and the job characteristics which include the sector, composed of industry, construction, market services and public sector. At the last equation, the wellbeing of the youth is defined through the wage, as real earnings per hour. In order to overcome the endogeneity problem that our model faces with, we use a standard IV approach where the average regional unemployment rate at the time the person finished schooling is used as an instrument.

Main findings

The descriptive analysis of youth underemployment in North Macedonia, Serbia and Montenegro shows that underemployment is higher among females; on average 19% (39% by broader definition) of females are underemployed compared to 14 (32%) of males. Wider differences exist regarding the education of youth. 27% of youth with primary education work less than 35 hours and want to work more, compared to about 15% of youth with secondary and tertiary education. However, almost every second youth with tertiary education is underemployed according to the broader definition, which is mainly driven by the self-perception of over-qualification and the limited duration of the contract. Rural youth are more likely to be underemployed and there are no significant differences between married and non-married individuals. As expected, full-time employed youth are more experienced than those underemployed who work 35 hours but want to work more, and more than double experienced compared to underemployed according to the broader definition.

The overview of youth underemployment by sector and occupation shows that according to the ILO definition, the average underemployment in the three countries is the highest in the sectors of agriculture (38.1%), intellectual services (26.3%) and other service activities and activities of households as employers (26.8%). According to the broader definition, highest underemployment is registered in the services sector: on average, 41.8% of the employees in this sector are considered underemployed.

However, the key result of the paper is that underemployment intensity lowers wages. The underemployment in North Macedonia has the largest negative effect on wages (14.3%) following Montenegro where underemployment intensity decreases youth wages by (11.8%)

![Figure 1: Underemployment of youth by gender, education, location and marital status*](image)

*Note: Experience – right axis, all other characteristics left axis
and Serbia’s underemployment intensity has a negative impact of 7.8% on youth wages.

Results suggest that underemployment incidence reduces with experience, though the effect is convex. Females have 1.7% higher probability to have higher underemployment intensity compared to males, which is not surprising taking into consideration the fragile position of females on the labor markets in all three countries (low participation in the labor force, high gender pay gaps, high unemployment and traditional role of women to take care for the household). Youth with primary and secondary education have lower intensity of underemployment compared to tertiary-educated youth. This result suggests that skills’ and supply/demand mismatches on the labor markets in the investigated countries are more prevalent at higher levels of education. With regards to labor-market characteristics, underemployment differs among sectors. Underemployment intensity is slightly lower in the public sector, and higher in market services compared to industry.
**Recommendations**

At the policy level, results suggest that underemployment generates dissatisfaction and impaired financial welfare, and support the necessity for more aggressive youth employment policies, composed of internship and traineeship programs, qualification, re-training and profiling of the youth into sectors and occupations that need (or will need) additional workforce. Such measures would increase skills, reduce the mismatch between the skills supply and demand, increase demand for job formalization and potentially align wage expectations with reality. The findings recommend devising policy measures and active programs that will mitigate the negative consequences of underemployment for wellbeing, in the following veins:

- Provide career counselling for youth who expressed they were over-qualified on their workplace, with the purpose of overcoming mismatches or faster transition to another workplace in the same or other company;
- Devising multi-sectoral traineeship grant, according to which the company will enable that the newly employed young person will spend at least three months at three different jobs within the company related to his/her skills, and then make a suggestion of what best fits his/her skills. The preferred job will not be a ‘must’, but an objective for a reasonable time period of up to year;
- Skill certification, probably established by state certification agencies. Certification may be offered for different level and type of skills, which may not be guaranteed by the diploma. Skill certification may be free of charge (covered by the government), while providing employers guidance of the specific skills the employee possesses;
- Promoting VET schools and motivating youth for high-skill occupations. Promotion could be through: dual school-company programs; mandatory internship during schooling; promoting non-formal education and subsidizing high-tech companies to design and deliver short-term courses for youth NEET.
- Devising (and/or extending the palette of) various very specific trainings (e.g. argon welder), which will provide opportunities for underemployed to acquaint related skill in case of underemployment;
- Fostering education completion, in particular, for disadvantaged groups (e.g. females).