

OPENING THE “BLACK BOX” OF THE LABOR MARKET IN MACEDONIA: YOUTH UNEMPLOYMENT

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Abstract:

The youth unemployment in Macedonia has been high and persistent for the last three decades, despite the many active labour policies for young persons. This paper examines the determinants of youth unemployment in the Macedonian labour market using quantitative and qualitative analysis. In order to empirically estimate the relevant determinants of youth unemployment in Macedonia we employ the two-step conditional mixed processes model (CMP) using the school to work transition survey (SWTS) by the International Labour Organization. The quantitative analysis is accompanied by qualitative analysis to further explore and explain the social-economic issues. The qualitative analysis includes semi-structured interviews and focus groups conducted in different regions of Macedonia. The empirical results indicate that gender, age, the wealth of the household, the education level and regional characteristics are the main determinants of youth unemployment in Macedonia. According to the findings of the qualitative analysis, the most of the young people pursue education and live with their families who provide them with financial support to cover their expenses. Consequently, the young persons have a diminished interest to search for a job and this attitude on long run could have a dubious effect and influence on the personal choices. Overall, there is a long school to work transition period, which discourages young people to actively participate in the labor market.

Keywords: youth unemployment, job search, discourage workers

1. Introduction

Unemployment is a very sensitive worldwide issue, especially in young democratic countries since high unemployment reduces output and income, increases inequality and harms human capital (Kapstein and Converse, 2008). The youth unemployment rate is closely linked with the adult unemployment rate (O'Higgins, 2001), in fact according to the available data youth unemployment rates are almost twice higher than the adult unemployment rates. Essential element in the “Europe 2020 Strategy” is to provide young people with decent and proper job which in turn will contribute to economic growth and stable societies (series of ILO youth employment reports and Decent Work Country Programme 2023-25 North Macedonia). According to the objective of ILO's Youth Employment Action Plan 2020-2030 it is of utmost importance to “secure a better future of work for young people by promoting a human-centered, pro-youth job rich recovery from the COVID crisis, and beyond”. However, the evidence from the real life reveal that experienced workers are preferred over young– school leaver candidates; young people are most likely to be the first to lose their job in bad times (economic downturns), which in the long run may result in loss of skills, talents, creativity, enthusiasm and possibilities for innovations and growth. In 2021 the youth unemployment rate worldwide

is around 15.6%, namely approximately 75 million young people are unemployed, more than three times higher than the rate for adults, and 408 million young people were employed, whereas 732 million were not in the labor force (Global Employment Trends for Youth 2022, ILO). The primary reason behind young people's comparatively low labor force participation (LFP) rate is their enrollment in the educational system, which in turn is expected to eventually obtain greater labor market returns. On the other hand, there is a significant number of young people who simultaneously study and work. In 2019 in 86 countries, according to the latest ILO report (2023), almost half of all young people aged 15–24 years not pursuing educational degree or training were not employed.

The aim of this paper is to investigate the determinants of youth unemployment in the labor market in Macedonia, in particular individual characteristics which may impact the (un)employability of a young person such as education level, family financial situation, region of living and similar; which will help to draft policy recommendation aimed at reducing the unemployment rate. The paper is organized as follows: Section 2 presents some stylized facts for Macedonian labor market in general and participation of youth in the labor market in particular. Section 3 gives brief overview of the most prominent literature in the field of youth (un)employment, with special focus

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on developing economies. We explore market situations and developments that might influence the employment status of youth, which are used to derive the potential determinants of youth unemployment. Section 4 gives overview on the research framework (the model and methodology) with special focus on the data employed in this study in order to examine the youth labor market in Macedonia. We use micro-data set provided by ILO for the quantitative empirical analysis and additionally we perform a qualitative analysis for further explanation of the obtained quantitative results. Section 5 summarizes the main findings and their implications for the country's current employment and youth-friendly policies. Finally, we provide an overview of policy recommendations for improvement of the situation in the labor market and reducing the youth unemployment

2. Stylized facts about Macedonian labor market

Macedonia is a small and open economy with the total population of 1.8 mil inhabitants. The country faces many challenges in creating opportunities for social and economic development and growth. One of the main socio-economic tensions is related to the relatively high unemployment rates and double high youth unemployment rates that are reflected by either high idleness of the youth or the high brain drain. Although there are some improvements in the labor market in the last years, in Macedonia still persist high unemployment, low employment and participation rates and substantial gender gaps. In 2022 there are 808,078 persons, of which 692,034 were employed and 116,045 unemployed (State Statistical Office data). The activity rate (15–64) in 2022 was 66.4 per cent, with an activity gender gap of 24.1 percentage points (78.4 per cent for men versus 54.3 per cent for women). Youth inactivity in Macedonia is significant, in fact 73,574 young Macedonians (52 per cent female), or almost one out of five was neither in employment nor in education and training in 2022. Young workers low participation rate can be explained by high rates of young people engaged in fulltime education. This can be perceived as positive investment and the return to it should be good job position, but in most of the cases, young people see the higher education as a “rescue plan” for not to stay unemployed or not to have the possibility for obtaining decent job, and also they see it as a possibility for obtaining visa for travelling and in some cases emigrating in the western countries. These two reasons for idle youth are alarming signs for addressing youth employment opportunities on policy level.

The overall employment rate (15–64) was 56.7 per cent, whereas the employment rate of young people (15–29) was 34 per cent. Both indicators are still significantly lower compared to the EU average of overall employment and youth employment of 69.8 percent and 49.2 percent, respectively.

The unemployment rate in Macedonia, besides the severe impact of the COVID-19 pandemic, has declined over the last decade, but it is still twice as high as in the EU. In 2022 the unemployment rate and youth unemployment (15–29) rate were 14.4 percent and 25.2 percent, respectively.

3. Literature review

There has been an extensive literature devoted to the youth roles in society and in the family through time. The evidence shows existence of discouraging changes that have taken place over time and across cohorts in perceptions about youth's roles or identities. According to O'Higgins (2010) the entry of the young people in the labor market is highly related to the general conditions in the overall economy. Specifically, the youth employment rates are correlated to the aggregate labor supply and the labor market regulations, policies and legislations. The recent COVID-19 pandemic has even more distressed the limited market opportunities for the young people. Specifically, during 2020 worldwide youth employment fell by 8.7 per cent comparing to adults employment rate which declined by 3.7% (Youth Employment in Times of COVID, 2021). The drop in youth unemployment was mainly due to the fact that young people are usually the first to be laid off or not able to find a job due to the closures in sectors that traditionally employ the youth labor force, such as retail, tourism and consumer services. According to Fares and Tiongson (2007), if the situation of the youth unemployment remains in recent future, it can have long-term impact of the lives of today's youth. As, indicated in the ILO (2006) report, that can lead to social exclusion within the society and even increase in deviant behaviors.

Neoclassical economics explains the decision of a person to enter the labor market using utility maximization over the work-leisure choice. If leisure is considered as a “good”, the net effect of an increase in the wage rate over the quantity of labor supplied will: (i) increase if the substitution effect is larger than the income effect and (ii) decrease if the income effect is larger than the substitution effect. Hence, the net effect depends on the own-wage elasticity and the household income (including their family background) elasticity. According to Freeman (1979) one aspect of the youth unemployment problem is related to the lower levels of work activity among young people comparing to adult workers. He further finds that the LFP and employment rates to population rates are lower for youth, compared to those of the adults, while the rates of unemployment are higher. This is further supported by Shimer (2001), who finds a negative relationship between youth population size and youth unemployment rates and advocates that “labor markets containing substantial numbers of young people are likely to be more flexible than those dominated by older workers and therefore in

such markets employers are more willing to create jobs.” According to Shimer, the relative increase in the size of the youth population leads to decrease in unemployment rates; hence the unemployment is the result of the capability of the country to handle the increases in the supply on the youth labor market.

Freeman (1979) suggest two basic reasons for high youth unemployment: from the demand side, the main reason for high youth unemployment rates is the lack of adequate demand for young labor force due to the economic cycles and slow growth; and on the supply side, the main reason for high unemployment is the inappropriate training, lack of skills and experience by the young people. Peterson and Vorman (1992) argue that the increase in the unemployment is could results from structural changes of the economy, as exogenous shocks (financial crisis, recession). The structural changes might lead to potential mismatches on the demand side and in at the same the supply side of the market is not able to respond in real time as changes occur. At some point the mismatch arise due to the technological advancements which cause a change in the demand for labor, namely highly educated and well-skilled workers.

O’Higgins (2001) found that unemployment was decreasing proportionally to the increase in the education level in the OECD country, however he found that this does not hold for developing countries, because the results suggest that there is high unemployment among educated groups. According to the neoclassical theory of individual labor supply the opportunity cost of being out of the labor market increases with each additional finished level of education. Osterman (1980) found that the school-to-employment transition is very important factor for youth unemployment. According to Osterman (1980) the age-LFP relationship seems to be linear because the young workers quitting rate falls as their age increases, showing work dedication increases with age, hence the attitude towards employment changes. MacDonald (1988) explains the effect of regional characteristics (urban-rural) on youth LFP and O’Grady (1993) empirical results support the further the importance of the regional factors in the school to work transition period. DeLamatre (1996) and O’Regan and Quigley (1996) findings suggest that the employment success indeed depends on the perception and the attitude regarding the region of residence, along with the degree of poverty of the particular neighborhood. Specifically, O’Higgins (2001) results suggest that there is a difference in rural vs. urban unemployment rates in the developing countries.. Regardless of the residence area, female LFP is lower compared to males, mainly due to their presence in the informal labor (taking care of the household), while the young males stay longer in the educational system (O’Higgins, 2001). He further advocates that in ethnic

diverse countries, often the ethnic origin is found to be significant determinant of (un)employment, as supported by the large differences in the LFP rates across different ethnic groups. Given the above economic literature, our empirical model considers two broad categories of determinants: (i) personal characteristics (education, age, health condition) and (ii) household characteristics (household wellbeing, size, parents education, number of children – if married).

4. Analysis

This study considers two broad stages of empirical analysis. The first stage employs conditional mixed processes methods to empirically investigate the potential youth unemployment determinants. Considering the complex nature of youth unemployment, in the second stage of analysis, the quantitative research complemented by qualitative analysis. The qualitative analysis addresses socio-cultural dimensions of the youth unemployment determinants, which otherwise cannot be addressed or fully explained by the quantitative analysis. Specifically, this analysis aims to explain the socio-cultural concept and the traditional relationships detected with the empirical investigation. Furthermore, there are factors such as tradition, expectations, and common discrimination on the basis of ethnicity, age, political determinants, that are rarely introduced in the surveys and even less empirically examine.

4.1. Estimation technique and model specification, data and empirical findings

The empirical investigation is based on the theoretical review presented in the Section 3 and focuses on obtaining relevant results considering and explaining the potential factors of youth (un) employment. For that end we use the micro data “school to work transition” conducted by the State Statistical Office of Macedonia for the purposes of the International Labor Organization (ILO) and the empirical analysis employs the conditional mixed processes (CMP) model. The CMP model, firstly introduced by Roodman (2009), can handle a variety of models using a maximum likelihood approach. Its flexibility allows for the model to vary depending on the type of observations used. For example, this model allows for a combination of equations that relay on different samples with matching observations. According to Roodman (2009) this procedure is appropriate in the following two scenarios: (i) “those in which a truly recursive data-generating process is posited and fully modelled” and (ii) “those in which there is simultaneity but instruments allow the construction of a recursive set of equations, as in two-stage least squares (2SLS). CMP is fundamentally an SUR estimation program. But it turns out that the ML SUR can consistently estimate parameters in an important subclass of

mixed-process simultaneous systems: ones that are recursive, with clearly defined stages; and that are fully observed, meaning that endogenous variables appear on the right hand side only as observed “, (Roodman, 2009, p.2).

According to the nature of the variables included in the CMP model we will use probit and ordered probit equations.

The probit model is based on assumption that value of the unobserved variable Y_i , is determined by the explanatory variable X_i (Gujarati, 2004):

$$Y_i = \beta_0 + \beta_i X_i + u_i \tag{1}$$

where: Y_i represents the latent propensity to be either 0 or 1, employed or unemployed, highest level of completed education, financial status, X_i (where $i = 1,2,...n$) are explanatory variables that stand for individual supply factors, such as age, sex, marital status, number of children, regional characteristics and similar. u_i - is the error term (with mean = 0 and variance = 1)

The explanation of the probability (Pr) of the young person to be unemployed is obtained by the following model:

$$\text{Pr}(Y = 1|X_i) = \Phi(\beta_i X_i) \tag{2}$$

Where: $Y=1$ if the young person is unemployed and 0 otherwise; Φ is the Cumulative Distribution Function of the standard normal distribution and β_i are the parameters of the explanatory variables X_i that will be estimated by maximum likelihood. The ordered probit inspects the probability that an alternative will be selected:

$$p_{ij} = p(y_i = j) = p(\alpha_{j-1} < y^*_i \leq \alpha_j) = F(\alpha_j - x'_i \beta) - F(\alpha_{j-1} - x'_i \beta) \tag{3}$$

where for the ordered probit F is the standard normal cdf; the model with j alternatives will have one set of coefficients ($j-1$) intercepts and j sets of marginal effects.

According to the basic human capital theory and the empirical findings parents tend to shape the lifestyle of their children depending on their educational, social and financial status. Specifically, if the parents are with higher education it is expected that their children will also stay longer in education to obtain their level of education or above. That also relates to the wealth of the household, namely it is expected that parents with higher education, tend to earn more, and have better network, hence their children have shorter transition school-to-work period. It

is expected that there is on-going competition between siblings, hence if one of the siblings is in education it is highly likely that the other will also participate in education. The impact is expected to be positive, but it is expected to vary across regions (more and less developed) and across gender. The relationship of the household characteristics and the youth employability may exhibit dual direction, that is the household wealth may have a positive or negative impact on the probability of being employed, *ceteris paribus*; Furthermore, it is expected that regardless the level of education, young person from a low income household is expected to be less picky when searching for a job and accepting one, or young person coming from a poor family in small communities can have a low chance for finding a job. It is expected the employability of young people considering the regional characteristics to exhibit inverse relation between the size of the youth population and the economic development of that particular region.

4.2. Data

The school to work transition survey used in this analysis was conducted in Macedonia in 2012 on total sample of 2,544 individuals between the ages of 16 to 29 and our empirical model includes 1239 (employed and unemployed individuals-actively looking for a job). As a dependent variable the model employs the probability of young person being unemployed and using the ILO dataset, the dependent variable is based on the questions: “what is the employment status of the person?” and “Is the person looking for a job?” The main drawback of this data is that is old, but this is the only available micro dataset.

All tables should be numbered with Arabic numerals. Every table should have a caption. Headings should be placed above tables, left justified. Only horizontal lines should be used within a table, to distinguish the column headings from the body of the table, and immediately above and below the table. Tables must be embedded into the text and not supplied separately. Below is an example which the authors may find useful.

Table 1 – Description of the dependent variable

Employment status of Respondents:	
Employed	733
Unemployed (actively looking for a job)	506

The dependent variable is unemployed defined as follows:

“0” represents employed individuals, “1” represents unemployed individuals.

The list of explanatory variables for Macedonian youth labor market model is presented below along with expected signs of the variables.

Table 2 – Description of the variables

Variable	Description	Expected Sign
Age	15-29 year	-
Gender	“0” for female, “1” for male	-
Single - dummy variable	What is your current marital status?	+
nb_of_children	How many children do you have?	+
Poor – dummy variable	How would you describe your household’s overall financial situation?	+
Highest level_comp- dummy variable	“1” for poor, “0” for other What is your highest level of completed formal education/training?	+
Region - dummy	East; Southwest; Southeast; Pelagonia; Polog; Northeast; Skopski	-
Father_edu and Mother_edu	What is the highest education that your parents have? Elementary: no education, elementary level Secondary: vocational school, secondary level and post-secondary level University: university and post-graduate, post-doctoral level	+
unempregion	Calculated regional unemployment rates and assigned to the region dummies	+

4.3. Empirical findings

The dependent variable in this model is “a person being unemployed”, which is equal to 1 if the respondent is unemployed and 0 if employed. The set of independent variables includes level of education, gender, age, age squared, marital status, number of children, household financial situation, health and unemployment rate in Macedonia by region. The variables are either binary or ordinal choice. According to the theory, we consider the level of education as endogenous. These variables are instrumented on the second specification with fathers’ level of education and in the third specification with the mothers’ level of education. The CMP regression results are presented on Table 3.

The empirical results suggest that the (un) employment status of an individual is significantly determined by the household wellbeing along with the personal characteristics. There are several determinants that significantly affect the youth unemployment, such as: (i) gender if female the probability of being unemployed decreases by 0.06 comparing to male); (ii) age (for each additional year of age the probability of being unemployed goes up by 0.09); (iii) wealth of the family - if the household is poor the probability of being unemployed increases by 0.5); (iv) level of education - if the individual has only elementary education the probability of being unemployed increases by 0.17; and (v) regional characteristics - if living in one of the regions Polog, Pelagonia or Skopski the probability of being employed goes up by 0.1 and the probability of being unemployed declines by 0.13 in the North region comparing to young people living in Vardarski region.

Table 3 – CMP regression results (dependent variable: unemployed)

Variables	CMP ¹⁾ estimates	Std. error	Marginal effects	Std. error
Elementary	0.601***	0.018	0.167***	0.017
Poor	1.788***	0.000	0.498***	0.000
Age	0.354***	0.006	0.098***	0.006
Agesq	(-)0.008***	0.006	(-)0.002***	0.006
Gender	(-)0.228***	0.002	(-)0.063***	0.002
Single	0.095	0.391	0.026	0.390
Nb_of_children	-0.046	0.469	-0.013	0.468
Health	0.180	0.254	0.050	0.254
East	-0.159	0.254	-0.044	0.255
Southwest	0.191	0.288	0.053	0.287
Pelagonia	0.368***	0.002	0.102***	0.002
Polog	0.3509***	0.008	0.098***	0.008
Northeast	-0.470	0.034	(-)0.131***	0.034
Skopski	0.343***	0.003	0.095***	0.003
Unempregion	0.029***	0.000	0.008***	0.000
_cons	(-)5.799***	0.000		

1) Robust standard errors in parentheses*** p<0.01, ** p<0.05, * p<0.1

4.4. Qualitative analysis

This section presents the findings from the qualitative analysis based on the conducted focus groups and interviews, which focus was to explain some aspects that could not be explained by the quantitative analysis (Auerbach and Silverstein, 2003). Our qualitative analysis includes processing data gathered from both focus groups and semi-structured interviews conducted in two regions in Macedonia, in fact the focus groups were organized in Skopje and Tetovo. Each focus group had 10 participants with an age range 15-29 and the focus groups were gender and ethnic balanced in order to get the full picture for the youth LFP; in fact to get insights whether same opportunities/obstacles exist for everybody as well as how hard/easy it is to find decent, well paid and secure job. The aim of the two focus groups was the same, namely to give space to the participants to share their experiences related to the process of making the initial steps towards finding the first job, i.e. labour market penetration. In view of the semi-structured interviews the questions were directed towards their personal everyday experiences during the process of looking for a job, on the working spot, if a job was found and the working environment within the organization; possible cases of positive/negative discrimination with respect to: the level of education, the gender orientation, the ethnicity, the location, the age and other similar factors.

4.4.1. Aims of the qualitative analysis

The aim of the qualitative analysis is to address questions related to youth employability conditions such as: How do they perceive the current situation in terms of employment? What are the main challenges for finding the first job? Do young people believe that higher education gives more possibilities for obtaining a good job? To what extent the situation in the labor market affects their education choices? How easy/difficult is to find the first employment? How "friendly" is the selection process? How transparent is the selection process? To what extent, the employment status affects the level of social inclusion? What are the perceived barriers for young people to participate in the labor market? What are the most immediate needs and priorities that would help in minimizing the gender gaps in terms of LFP? What are the possibilities of facilitating the integration of young people in the labor market?

4.4.2. Sampling and Data analysis

Each focus group consists of 20 young people aged 15-29 in two different cities, Skopje (the capital) and Tetovo. The main purpose of the focus groups was to gather more information regarding the labor market conditions in different regions perceived by various categories of young people. The focus groups were conducted by pair of researchers in

two occasions; each focus group took between 60-80 minutes.

The semi structured interviews were conducted with 20 young people in the same age range likewise the focus groups. Each interview was conducted individually (young person and researcher), with young people from urban and rural areas. The purpose of the interviews was to gather in-depth insights regarding the challenges and issues that young people coming from different regions and backgrounds might face during the job search process. The participants for the interviews were approached through local youth clubs, NGOs, schools. The questionnaire consists of two main parts: (i) demographic part; and (ii) open ended questions - regarding the obstacles they face as young people in search for a job, and suggestion on the necessary supportive instruments for young people to penetrate the labor market. In the process of transcribing the focus groups and interview recordings, it was taken care that the respondents are not identifiable in any part of the paper. After completion of the qualitative report as an integral part of this study, the recordings from the focus groups and interviews were destroyed.

4.4.3. Findings from the focus groups

The findings presented in this section are based on the responses by the young people participating in the focus groups. The results are summarized in several subcategories:

• *How easy/difficult is to find the first employment?*

A young person enters the labor market often with enthusiasm and willingness to work and learn, but it is very difficult to compete with elderly candidate applying for the same position. As a major obstacle for the young people tend to be the lack of work experience and the start of the search for a job period is considered to be a vicious circle. Although the company's prospect a vacant job position, does not require any previous work experience as a selection criteria, given that it a junior position, the young people during the interview are asked: "What is your previous experience?" and "How do you know that you can be a good match for the position if you have never worked?". This kind of experience is rather discouraging, since it seems impossible to even find a junior level job. This may cause a further negative implication on the professional and personal development of the young people, since the longer the job search process with respect to the iconic first job position, the less chances for getting a good job related to the individual educational background.

• *How “friendly” and transparent is the selection process?*

Most of the participants in the focus groups said that job announcements seem to be rather a secret. There are plenty of job announcements advertised with short notice, hence due to lack of time, individuals cannot submit the requested documents on time. Most of the participants agree that job announcements usually do not enclose the whole set of selection criteria and the time of selection process. In about 80% of the time they did not received any feedback about the stage of the selection process, in 10 % of the cases they received the confirmation that their application was received, and in only 10% of the times they were contacted and preceded further with the selection process. The participants find as very discouraging the perception that most of the job vacancy announcements, especially regarding the public administration, are set for already known persons.

• *Access to information regarding labor market demands.*

Most of the focus group participants said that there is a very limited information about the situations in the labor market. They also pointed out that there is no management in the education, which reflects in hyper production of some professions, issue that should be solved on policy level by restraining the openings at some specific faculties, i.e. humanities, and incentivize students to shift to more technical fields. The interviews also suggested that by making the high school compulsory, there are lot of young people who pursue undergraduate studies and after graduation they are not willing to accept any job that is not in line with their level of education. Consequently, there are many young people whose job search process is pretty long, which may adversely affect the willingness of finding a job. They said that maybe students should be contacted during high school and to be presented with the labor market opportunities. In that context one of the participants mentioned that it would be very useful if we can develop some system similar to the Dutch, where people around their 18th birthday are contacted by scouts, they are offered good and secure job.

• *Access to information regarding vocational training courses.*

Most of the participants are aware of the vocational trainings and courses offered for free by the state employment agencies, but they are very basic and are not very helpful during the job search process. Majority of participants further explain that sophisticated trainings are usually exclusive for a specific group of people. For example courses

like: data mining, programming, My SQL are usually offered only to IT professional or technical university graduates, hence an economist or lawyer cannot gain skills or prequalify according to the labor market conditions. Furthermore, there are cases of inappropriate prequalifying offers, i.e. undergraduate and graduate students are offered to become sewers or chefs, which indicates a lack of management in the education system, because there is a potential mismatch on the labor market.

Recommendations regarding increase in youth employment: Most of the participants emphasize the need for extensive cooperation between educational institutions and the real sector. Companies should offer traineeships and the university curricula should be tailored in accordance to the labor market demand. Some of the suggestions regarding how to increase the employability of the candidates were:

- More restricting university entry selection criteria;
- More labor market specific trainings and courses;
- More communication with pupils in secondary education;
- Education management;
- Cooperation between companies and universities;
- Transparency in the selection criteria;
- Standardized entry exams;

4.4.4. Findings from the interviews

This section presents the findings of the qualitative analysis based on the conducted interviews in the rural and the urban area of Macedonia. That the labor market in Macedonia is highly politicized and not transparent is the general finding from the conducted interviews. People believe that there is no much connection between the education institutions and the real sector. Most of the people are very sceptic that will get a decent and relevant job in the recent period and some of them consider leaving the county in the next 2 years. It is interesting that young people from rural areas are less picky when searching for a job, since due to traditional habits these young people are used to more physical/manual work or agriculture. On the other hand, their counterparts from urban areas are less likely to accept some manual/physical or agricultural job. Most of the interviewees responded that they would rather stay at home than accepting any kind of job. Almost all of the interviewees stated that they feel discriminated in the selection process based on several criteria (age, gender, ethnicity, political thinking, and personal connections). On average, most of the respondents felt discriminated more than once during selection process. The findings of this qualitative analysis suggest the following: the main criterion for obtaining the job position is belonging to a political party; the second most important criterion is the existence of personal connections, and as a third most important criterion

is the educational background, the non-formal knowledge and the volunteer experience. However, there are still positive examples about qualitative and competitive selection procedures. The most promising statements by interviewees for a good employment opportunities and fair selection process are the following:

"... I believe that if I have a better education I will get better employment opportunities; because of this I decided to pursue higher education, to study hard. Additionally, I participate in extracurricular activities where I can learn more than what is written in the book and share opinions with my university colleagues."

"I believe that my volunteering experience brought me closer to obtaining my first entry level jobs. They are not my dream jobs, but I still learn a lot, get working habits and I know that once I get a chance to have interview in the real sector they will value my experience."

"I am not afraid of work, and I believe that there is no bad or good job, but it is more about preferences. I am about to graduate and if I do not find a job immediately I will work on the family farm with my parents."

The quotations above indicate that young people are not easily discouraged by the adverse situations in the labor market in Macedonia, and they believe that education is important and can help them in obtaining better jobs in future. When a person is responsible and want to work hard, being out of the labor market, namely idle and jobless is almost impossible. In long run can be disappointing and discouraging if the person could not find a match job in line with her/his qualifications and skill, and yet there are situations when young people seem to be in a way offended and undervalued by the offer:

"At the HR office I was suggested to prequalify in sewer, well if I wanted to spend my life in the factory I wouldn't dedicate 4 years of my life to studies, but I would go there strait away."

"In one bank I was invited to an interview, and apparently they weren't looking for "a specific major, but more for a person". Although I comply with all the selection criteria, I was not invited for an interview, and then we learnt that the job announcement was meant for somebody in advance."

"After 2 weeks of selection process I was told: "you are the best candidate, but we were making the selection likewise a lottery"... than why 2 weeks of selection procedure?"

People face awkward interview situations that discourage them for future applications in the same organization, which may reduce their job opportunities. They sometimes lose self-confidence and after few unsuccessful interviews they just decide to stay idle and exit the LFP.

There are plenty of job announcements related to the FDIs in the country, but the interviewees commented that they do not see the change in the labor market situations:

"Despite the fact that the managers in the FDIs companies come from developed countries, once they start working in Macedonia, the human resource department is malfunctioning. Are this a signal of symbiosis?"

Most of the companies, even though legally are requested to have human resource department, in practice they do not pay attention to the applicants and people that showed interest. In most of the cases they do not receive feedback that the application was received and if they should expect to be invited to the interview or not.

On the other hand, the general opinion of the respondents already in the job position is a bit more enthusiastic. They detect many irregularities in the selection process, low wages, little protection even in the NGO sector, but they advocate that "any job is better than no job". In general, they believe that the state employment office does not help for finding a better job, but at least a person could get informed about the available vacant job positions. Majority of the respondents are engaged in the informal market, family business or honorary based contract, and believe that every experience counts:

"I prefer to tell that I have worked in a small shop, than that I was not working at all."

But there are opposite experience as well: "I thought volunteering and training programs will ease my employment process, but it turned out no one counts that as a working experience."

In a nutshell, according to the qualitative analysis, the most important factors that affect youth unemployment are: high polarization of the society, lack of consistency between the education system and the real sector. Some of the possible solutions are: better schooling system, better linkage between education and labor market demand, more transparent selection procedure and less political and family connections (especially in the public sector) as all of the above either lowers the chances for getting employment or discourages young people to actively search for an employment.

5. Conclusions and policy recommendation

This paper explores the determinants of the unemployment using conditional mixed processes (CMP) method on the data from the school-to-work transition collected by ILO. Additionally, we conduct an extensive qualitative research to investigate some social factors that can explain the youth unemployment, but are not included in the quantitative indicators. The empirical results indicate that gender, age, the wealth of the household, the education level and regional characteristics tend to influence the probability of one's unemployment status. Moreover, the qualitative analysis suggest that given the socio-economic situation in Macedonia, most of the young people live with their families and the family member usually provide them with financial support to cover their expenses and most likely pursue education, hence they have a diminished interest to search for a job. Such an attitude on long run could have dubious effect and influence on the personal choices. Overall, there is a long school to work transition period, along with highly politicized employment channels, which discourages young people to actively participate in the labor market.

Accounting for the findings, we propose two policy measures aimed at reducing the youth unemployment rate. Each policy aims to address determinants of the youth unemployment that are specific for Macedonian labor market. The policy recommendations mainly rely on three key reasons derived from both qualitative and quantitative data. First, the unemployment rate is significantly higher for young people compared to the entire adult population; second, the unemployment rate is persistently high despite some active labor market policies and reforms undergone in the educational system; and finally, transition from school to first formal employment is found to be a complex and difficult process for most of the Macedonian young people.

The first recommendation considers the necessity of intensive cooperation between the educational institutions and the real sector economy. Our recommendation includes 2-stage process; the first stage includes consultation meetings among students in the last year of studies (for ex. high school or university) and professionals where students could extensively discuss the employment opportunities related to their qualifications, skills and level of education. The second stage process constitutes proactive collaboration between the real sector representatives and educational institution advisers in order to provide a tailored internship/apprentice program that will enable the students to gain the required knowledge and skills which in turn will facilitate the process of the first employment. This process has to be implemented across the

entire every educational system (excluding primary education) and every educational institution will have to improve the program they offer and ease the path for the future employees. The budgetary implications are considered low, since the main role of the ministry of education will be to coordinate the process.

The second policy recommendation considers a potential financial support for graduates that will be conditional on the active job search and personal development aiming to ease school to work transition. The financial aid is in the form of a wage subsidy or a social package designated to every young individual not in employment and education, but actively searching for a job should for a period up to one year. In that period the individual should attend the internship/apprentice program, and attend specific courses that will increase its employability skills, but in the same time to look actively for a job. The amount of the financial aid is beyond the scope of this study, since further analysis is necessary to determine the amount of the financial aid. The budgetary implications may be relatively high, but high and persistent youth unemployment is more harmful for the economic growth and social peace.

References

- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 95 –120.
- DeLamatre, M. S. (1996). Investigating the antecedents of youth unemployment: Individual, family, and neighborhood factors. Unpublished Masters Thesis. Louisiana State University, Baton Rouge.
- Fares, J., & Tiongson, E. R., (2007). Youth unemployment, labor market transition, and scarring: Evidence from Bosnia and Herzegovina, 2001–04. Policy Research Working Paper Series 4183, The World Bank.
- Fields, G. S. (2008). Segmented labor market models in developing countries. Retrieved from http://works.bepress.com/gary_fields/27.
- Gujarati, D.N. 2003. Basic Econometrics. New York: McGraw Hill Book Co.
- ILO (2004, 2006, 2008, 2012, 2013, 2017, 2019, 2020, 2022). Global Employment Trends for Youth. International Labor Office: Geneva.
- Jimeno, J.F., Rodríguez-Palenzuela, D., 2002. Youth unemployment in the OECD: demographic shifts, labour market institutions, and macroeconomic shocks. ECB Working paper 155.

- Kapstein, E. and N. Converse, 2008, "The Fate of Young Democracies," (Cambridge: Cambridge University Press).
- MacDonald, R. F. (1988). Schooling, training, working and claiming: Youth and unemployment in local rural labour markets. Unpublished Ph.D. Dissertation. The University Of York. United Kingdom.
- Neumark, D., & Wascher, W. (2004). Minimum wages, labor market institutions, and youth employment: A cross-national analysis. *Industrial and Labor Relations Review*, 57(2), 223–248. Retrieved from: <http://digitalcommons.ilr.cornell.edu/ilrreview/>
- O'Grady, W. L. (1993). Coming of age on the periphery: Youth unemployment and the transition to adulthood in Newfoundland. Unpublished Ph.D. Dissertation. University of Toronto. Canada.
- O'Higgins, N., & International Labour Office. (2001). Youth unemployment and employment policy: A global perspective. International Labour Office.
- O'Higgins, Niall, 2010. "The impact of the economic and financial crisis on youth employment: measures for labour market recovery in the European Union, Canada and the United States," ILO Working Papers 462129, International Labour Organization.
- O'Higgins, Niall, 2010. "Youth Labour Markets in Europe and Central Asia," IZA Discussion Papers 5094, Institute for the Study of Labor (IZA).
- Osterman, P. (1980). *Getting Started: The Youth Labor Market*. Cambridge, MA: MIT Press.
- Rees, A. & Gray, W. (1982). Family effects in youth employment. *The Youth Labor Market Problem: Its Nature, Causes and Consequences*, Freeman and Wise, (Eds.) (Chicago: NBER and University of Chicago Press).
- Roodman, D (2009). Estimating fully observed recursive mixed-process models with cmp. Working Paper 168. Washington, DC: Center for Global Development.
- Shimer, R. (1999). The impact of young workers on the aggregate labor market. Working Paper 7306. NBER. Cambridge. Retrieved from <http://www.nber.org/papers/w7306>.
- Tiongson, E. R., & Fares, J. (2007). Youth unemployment, labor market transitions, and scarring: Evidence from Bosnia and Herzegovina, 2001–04. The World Bank, Policy Research Working Paper Series: 4183. Retrieved from: http://www.worldbank.org/servlet/WDSContentServer?WDSID=IB/2007/03/27/000016406_20070327134051/40
- Rendered/PDF/wps4183.pdf
- Verick, S. (2009). Who is hit hardest during a financial crisis? The vulnerability of young men and women to unemployment in an economic downturn. International Labour Organization (ILO) and IZA. Discussion Paper No. 4359.
- Van der Geer, J., Hanraads, J. A. J., & Lupton, R. A. (2000). The art of writing a scientific article. *Journal of Science Communication*, 163, 51–59.
- Strunk, W., Jr., & White, E. B. (1979). *The elements of style* (3rd ed.). New York: MacMillan.
- Mettam, G. R., & Adams, L. B. (1999). How to prepare an electronic version of your article. In B. S. Jones & R. Z. Smith (Eds.), *Introduction to the electronic age* (pp. 281–304). New York: E-Publishing Inc.
- Fachinger, J., den Exter, M., Grambow, B., Holgerson, S., Landesmann, C., Titov, M., et al. (2004). Behavior of spent HTR fuel elements in aquatic phases of repository host rock formations, 2nd International Topical Meeting on High Temperature Reactor Technology. Beijing, China, paper #B08.
- Fachinger, J. (2006). Behavior of HTR fuel elements in aquatic phases of repository host rock formations. *Nuclear Engineering & Design*, 236, 54.