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Labor Underutilization in European Countries: Some Facts About Age and Gender *

Avrupa Ülkelerinde Atıl İş Gücü: Yaş ve Cinsiyet Hakkında Bazı Tespitler

Yasemin ÖZERKEK[a], Fatma DİDİN SÖNMEZ[b]

[a]Department of Economics, Marmara University, Istanbul, Turkey
[b]Department of Economics, Istanbul Bilgi University, Istanbul, Turkey

[a]İktisat Bölümü, Marmara Üniversitesi, İstanbul, Türkiye
[b]Ekonomi Bölümü, İstanbul Bilgi Üniversitesi, İstanbul, Türkiye

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ABSTRACT

It is undeniably accepted that labor underutilization has important consequences for economies and societies. Unemployment that is the narrowest measure of labor underutilization is one of the main concerns for policymakers, investors, and society. Besides the standard unemployment rate, there are alternative measures of labor underutilization providing a wider picture of the underutilization of workforce. This study aims to delineate some facts about labor underutilization by age and gender for a group of European countries in a broader view. For this purpose, specifically, time-related underemployment and potential labor force data are employed to measure the labor underutilization along with unemployment. It is observed that there are significant gender and age differences in the labor underutilization components across countries. Elasticity and descriptive analyses together verify that time-related underemployment is more sensitive to unemployment than the potential labor force. While the sensitivity of time-related underemployment to changes in unemployment differs by gender and age, the potential labor force is almost equally sensitive to unemployment regardless of age and gender. The study additionally displays the degree of reallocation between underutilization components and suggests a higher reallocation for the young than adults. On the other hand, reallocation between labor underutilization components is not gender-biased.

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ÖZ

İş gücünün atıl kullanımının ekonomiler ve toplumlar için önemli sonuçları olduğu açık bir şekilde kabul edilmektedir. Atıl iş gücünün en dar kapsamlı göstergesi olan işsizlik, politika yapıcılar, yatırımcılar ve toplum için temel sorunlardan biridir. Standart işsizlik oranının yanı

***Sorumlu yazar / Corresponding author**
*E-mail: yasemin.ozerkek@marmara.edu.tr

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sıra, atıl iş gücünü temsil eden daha kapsamlı alternatif göstergeler mevcuttur. Bu çalışma, bir grup Avrupa ülkesi için yaş ve cinsiyet dikkate alınarak atıl iş gücüne dair bazı tespitleri daha geniş bir bakış açısıyla sunmayı amaçlamaktadır. Bu amaçla, işsizlikle birlikte zamana bağlı eksik istihdam ve potansiyel iş gücü verileri, atıl iş gücünü ölçmek için kullanılmaktadır. Atıl iş gücü göstergelerinin ülkeler arasında cinsiyet ve yaşa göre önemli ölçüde farklılaştığı görülmektedir. Betimsel bulgular ve esneklik analizi, zamana bağlı eksik istihdamın işsizliğe potansiyel iş gücünden daha duyarlı olduğunu ortaya koymaktadır. Zamana bağlı eksik istihdamın işsizlikteki değişikliklere duyarlılığı cinsiyete ve yaşa göre farklılık gösterirken, potansiyel iş gücünün işsizliğe duyarlılığı yaşa ve cinsiyete göre değişmemektedir. Çalışma ayrıca, atıl iş gücü bileşenleri arasındaki kaymaları analiz ederek yetişkinlerin gençlere göre daha fazla bileşenler arasında yer değiştirdiğini göstermektedir. Öte yandan, atıl iş gücü bileşenleri arasındaki kaymaların cinsiyete dayalı olmadığı tespit edilmiştir.

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1. INTRODUCTION

As labor markets become more complicated, the analysis of unemployment is increasingly becoming not adequate to understand the problems associated with poverty, inequality, economic development, etc. Underutilization of workforce has important adverse consequences in terms of productive capacity in the labor market, national income and social inclusion (Mitchell and Muysken, 2008). Thus, economists have been focusing on broad measures of labor underutilization which provide a more comprehensive understanding of multi-dimensional social and economic effects compared to the traditional unemployment rate measure (ILO, 2020; Baum and Mitchell, 2010).

Simply, labor underutilization occurs when supply of and demand for labor do not match. The unemployment rate, which is calculated by considering the active job seekers who are currently not working but available to start working within two weeks, is a narrow definition of labor underutilization. The definition of the concept does not involve the people who are not actively seeking a job and not available to start working. Likewise, it does not consider those who are employed on a part-time basis but want to work more hours. These two labor force status are qualified as underutilized labor. Since unemployment does no longer sufficiently describe all aspects of the labor market, a wider definition assessing the overall degree of labor underutilization is more helpful for broad labor market monitoring.

Several researchers have engaged in efforts to identify and gauge the elements of labor underutilization, along with conventional unemployment measure. Ducoff and Hagood (1957), one of the earlier studies, examine the measurement of discouraged workers. The concept of underemployment is also scrutinized to acquire an accurate understanding of labor underutilization (Carter, 1982; Jensen et al., 1999; Wilkins & Wooden, 2011). Some previous literature has focused on the term subemployment (White, 1969; Vietorisz et al., 1975; Price, 1976). The extent of subemployment measure comprises discouraged workers, involuntary part-time workers, and workers who work full-time but earn below a certain level of income. These measures intend to capture labor market failure, thereby enabling a more comprehensive view of labor underutilization (Glyde, 1977).

Clogg (1979) credits that Labor Utilization Framework (LUF) has been first suggested by Hauser (1974, 1977) to tackle shortcomings in the unemployment measure.[1] Clogg (1979) and Clogg and Sullivan (1983) are among the studies applying the LUF to the U.S. data. Clogg (1979) remarks that this framework was applied especially to developing countries in which the deficiency of unemployment measure could account for the slow growth in economic productivity in these countries.

There is a growing literature providing insights into the issues surrounding labor underutilization (Cavalcanti, 1974; Pazos, 1975; Baum & Mitchell, 2010; Addy et al., 2012; Bell & Blanchflower (2011, 2013, 2018); Song & Wei, 2019; Sibirskaya, 2020, among others). The studies are concentrated on either one or more components of labor underutilization. In their panel study with a group of European countries, Ruiz-Quintanilla and Claes (1996) find that organizational and societal factors have a larger effect than behavioral and demographic variables on the pattern of underemployment. Kingdon and Knight (2006) examine the nature of non-searching jobless persons in South Africa and they underline how the treatment of them is important for the understanding of poverty and labor market concerns. Baum et al. (2008) investigate labor underutilization in Australia by emphasizing the essential role of individual characteristics, personal circumstances, and local features of labor markets in the analysis. Baum and Mitchell (2010) investigate unemployment and hidden unemployment by gender in Australia. Prause and Dooley (2011) study the

[1] LUF included the following categories: those not in the labor force, the subunemployed (discouraged workers), the unemployed, the part-time employed, low income underemployment, and educational mismatch (Clogg, 1979; Clogg et al., 2001).

effects of youth underemployment on the psychological health and well-being of young workers. Song and Wei (2019) examine the difference between the unemployed and those not in the labor force by analyzing the demographics, time allocation, and transition rates to employment for the U.S. They suggest an extended alternative measure which also includes out of labor force individuals who are non-retired and non-disabled males and single females without children, to reflect the scope of labor underutilization more accurately. Bell and Blanchflower (2018) studying European countries find that underemployment, rather than unemployment has the main effect on wages in the years since the Great Recession.

This study aims to provide the conceptual framework of labor underutilization and investigate the components of labor underutilization for a group of European countries during the period 2006-2019. The components include the potential labor force and the time-related underemployed along with the unemployed. Time-related underemployment consists of employed working-age persons who are willing and available to work more hours than their current working time. The potential labor force comprises working-age persons not in employment. It consists of two different groups; those who are available but not actively searching for a job and those who are seeking but not immediately available. The first group characterizes discouraged workers, or alternatively, it is called hidden unemployment. In this study, hidden unemployment is defined in a broader sense as the sum of the potential labor force and time-related underemployment. The analyses are performed by age (youth, adult) and gender. Youth refers to individuals aged 15- 24 and adults to those aged 25 and older. The association and reallocation between components of labor underutilization and the sensitivity of hidden components (potential labor force and time-related underemployed) to the number of unemployed are investigated. It is important to note that this study does not seek to identify causal relationships. Rather the analysis aims to provide some insights into labor underutilization by age and gender aspects and to identify the associations between labor underutilization measures.

The paper is organized as follows. The next section reveals some facts about the indicators of labor underutilization by age and gender for a group of European countries. Section 3 focuses on the shares of the components in total underutilization and demonstrates the gender and age aspects of the reallocation between them. In Section 4 we examine the sensitivity of hidden unemployment elements to unemployment. Section 5 concludes by providing a discussion of the main findings.

2. RESEARCH AND RESULTS

Traditional labor market analysis mostly considers people employed, unemployed and not in the labor force as discrete categories and underutilization of the workforce is commonly measured by the unemployment rate. Besides the rate of unemployment, ILO (International Labour Organization) describes three more different labor underutilization indicators using a broad view of this concept as is shown in Table 1. The narrowest indicator is the unemployment rate (LU1), while the broadest one is the composite measure of labor underutilization (LU4) including time-related underemployment, unemployment, and potential labor force.

Table 2 presents the average rates of different labor underutilization measures taken from ILO Statistics for the period 2015-2019. It shows the rates of 23 European countries for different gender and age groups. While the narrowest measure of labor underutilization (LU1) is low, unsurprisingly the broader measures including time-related underemployment (LU2) and potential labor force (LU3) are considerably high. If one considers the broadest measure (LU4), all countries suffer from very high labor underutilization rates compared to LU1. In addition, the difference between LU4 and LU1 are remarkably high, especially for the young and women in general. Among those listed countries, only Czechia has a very small difference between LU4 and LU1.

Table 2 also reveals that European countries have a serious underutilization problem of the young workforce for all indicators. Youth labor underutilization rates are considerably higher than adult rates. Given the broader indicator of

Table 1. Basic Labor Underutilization Indicators

LU1	Unemployment rate	[persons in unemployment / labor force] x 100
LU2	Combined rate of time-related underemployment and unemployment	[(time-related underemployment + unemployment) / labor force] x 100
LU3	Combined rate of unemployment and potential labor force	[(unemployment + potential labor force) / (extended labor force)] x 100
LU4	Composite measure of labor underutilization	[(time-related underemployment + unemployment + potential labor force) / (extended labor force)] x 100 where extended labor force=labor force + potential labor force

Source: ILO (2020).

Table 2. Labor Underutilization Rates % (average between 2015-2019)

Country	LU4				LU3				LU2				LU1			
	Youth		Adult		Youth		Adult		Youth		Adult		Youth		Adult	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Austria	21	20	13	10	16	17	8	8	15	14	10	7	9	11	4	5
Belgium	35	32	13	11	25	27	9	8	28	25	11	9	17	20	6	6
Croatia	45	39	21	16	43	37	18	13	33	29	13	11	30	27	10	9
Czechia	13	10	5	3	12	10	5	3	11	9	4	3	10	8	4	2
Denmark	28	29	10	8	19	22	7	6	21	21	8	6	11	12	5	4
Estonia	22	22	11	10	20	21	10	9	14	15	6	6	11	13	5	5
Finland	43	43	16	15	33	36	11	11	29	29	12	11	18	21	6	7
France	40	37	21	16	27	29	11	11	35	32	18	14	21	23	8	8
Germany	14	14	10	8	10	12	5	5	9	10	8	6	6	7	3	4
Hungary	20	19	8	7	18	18	7	6	15	14	6	5	12	13	4	4
Ireland	30	32	15	13	19	23	8	8	25	27	12	11	13	18	6	6
Italy	58	51	27	18	54	48	23	15	42	36	15	12	37	33	11	9
Latvia	23	26	15	15	19	23	11	12	17	20	11	12	13	17	7	9
Netherlands	23	23	15	9	16	17	9	7	17	16	11	7	9	9	5	4
Norway	23	25	8	7	19	21	5	5	14	15	6	5	9	11	3	4
Poland	25	22	10	8	21	19	8	6	19	17	7	6	15	15	4	4
Portugal	45	39	19	16	36	32	12	10	37	30	16	13	26	23	8	8
Slovakia	32	24	12	10	29	22	10	8	25	21	10	8	22	18	8	7
Slovenia	31	25	14	11	19	17	9	7	25	20	12	10	12	12	7	6
Spain	58	53	31	20	47	46	23	16	52	48	27	18	40	40	18	14
Sweden	40	40	11	9	31	33	7	7	28	27	9	7	18	20	5	5
Switzerland	24	22	19	9	18	19	10	7	14	12	14	7	8	9	5	4
United Kingdom	28	29	12	8	17	20	6	5	23	24	10	7	11	14	3	3

Source: ILOSTAT (2020).

labor underutilization, the number of countries having serious youth labor underutilization problems is significantly increasing.

Furthermore, some countries in Table 2 have a relatively high labor underutilization gender gap. It is observed that labor underutilization indicators are gender-biased. The number of countries experiencing a comparably high gender gap in labor underutilization is increasing as we expand the measure further. To focus more on the gender and age aspects of the indicators, Figures 1, 2, 3 and 4 show labor underutilization measures by age and gender groups. In the figures, straight lines reflect 45-degree lines to check whether there exists a biased distribution for gender and age groups.

It is seen that unemployment rates for youth are more dispersed and relatively higher than adults in Figure 1. LU1 ranges from 6 per cent to 40 per cent for youth while it ranges from 3 per cent to 18 per cent for adults. In the figure, higher values for females are associated with higher values for males. Among the other countries, Croatia, France, Italy, Portugal and Spain are the countries that suffer the most from extremely high youth unemployment. Variations in adult unemployment across countries are not noteworthy as they are in youth unemployment. Only Spain has a remarkably higher adult unemployment rate (18 per cent for females and 14 per cent for males) than the other countries have.

Figures 2 and 3 use broader labor underutilization measures of LU2 and LU3, respectively. They show the combined rates considering time-related underemployment and potential labor force in addition to unemployment. These two figures show that there is a substantial variation in LU2 and LU3 across countries. Rates plotted in these figures are more dispersed compared to Figure 1. LU2 ranges from 3 per cent to 27 per cent for adults and from 9 per cent to 52 per cent for youth while LU3 is between 3 per cent and 23 per cent for adults and between 10 per cent and 54 per cent for youth. Additionally, the figures indicate that LU2 and LU3 are gender-biased for adults. These measures for the adult female are greater than for adult males in almost all countries presented in the figure.

Figure 4 presents LU4 which is the broadest indicator to measure labor underutilization by including both time-related underemployment and potential labor force in addition to unemployment. Thus, the rates are considerably higher than the rates presented in Figures 1, 2 and 3. The scatter plots involving exceptional rates in the figure signal striking disparities across countries. The highest rates for both youth and adults belong to Italy and Spain. In these two countries, more than half of the youth are underutilized. Like LU2 and LU3, LU4 is also gender-biased with relatively high adult female rates.

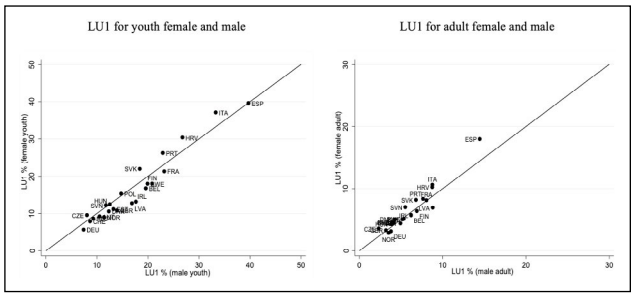

Figure 1. Average Unemployment Rates for the Period 2015-2019 (%).

Source: ILOSTAT (2020).

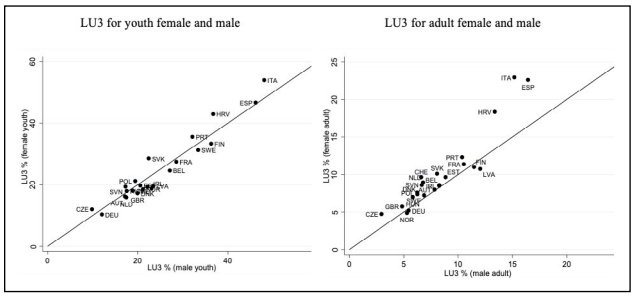

Figure 3. Average Combined Rate of Unemployment and Potential Labor Force for the Period 2015-2019 (%).

Source: ILO (2020).

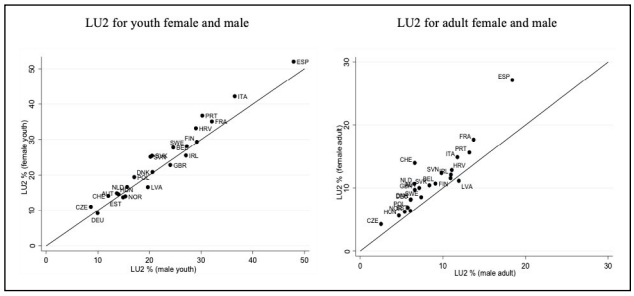

Figure 2. Average Combined Rate of Time-related Underemployment and Unemployment for the Period 2015-2019 (%).

Source: ILO (2020).

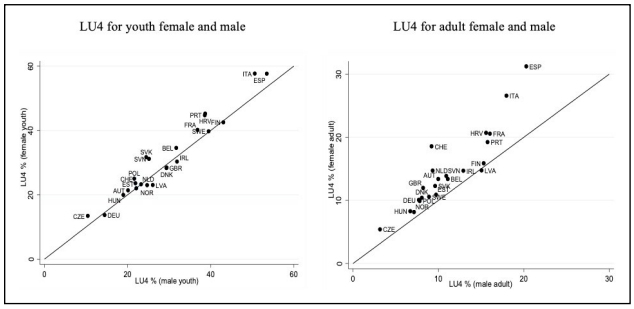

Figure 4. Average Composite Measure of Labor Underutilization for the Period 2015-2019 (%).

Source: ILOSTAT (2020).

2. THE SHARES OF UNDERUTILIZATION COMPONENTS

This section dwells on shares of each component in total underutilization. The shares are computed as the number of persons in each element of labor underutilization divided by the total number of underutilized persons (Figure 5). Starting from the left in the figure, countries are sorted by their share of unemployment in total labor underutilization. As we move from left to right, the unemployment share is decreasing whilst the shares of the potential labor force and time-related underemployment are not following a certain pattern across countries. Thus, as is depicted in the figure, it is not possible to generalize the relationship between shares of unemployment and hidden unemployment components (potential labor force or time-related underemployment). Figure 5 also indicates that the shares of the potential labor force and time-related underemployment is too large to be ignored. Their total share is 50 and over per cent in most of the countries (19 out of 23 countries). Among those countries, Czechia, Slovakia, Spain and Hungary have the smallest share of hidden components, with the shares of 32, 33, 40 and 47 per cent, respectively. Although countries have similar shares of unemployment, they differ in their shares of the potential labor force and time-related underemployment. This might stem from the country-specific labor market structures.

Figure 6 depicts age and gender-specific underutilization patterns in a comparative view. For both youth and adults, since unemployment shares are located on the right of the 45-degree line whilst time-related underemployment shares are located left of the line, there is a gender-biased distribution for these two components. As is seen in the figure, females have a larger time-related underemployment share in total underutilization than males while males have a greater unemployment share than females. For the potential labor force, the distribution by gender and age does not differ notably.

How do unemployment and other components of labor underutilization move in these countries? Figure 7 provides visual evidence on the shares of the elements of labor underutilization. In most of the countries, the share of unemployed is greater than those of the potential labor force and time-related underemployed. In particular, the gap between these shares of states is large in Slovakia, Czechia, and Spain with unemployment moving apart from the other two states. On the other hand, all these shares are very close to each other for Norway, Sweden, and Finland.

Figure 7 signals a negative relationship between unemployment and time-related unemployment, whereas the

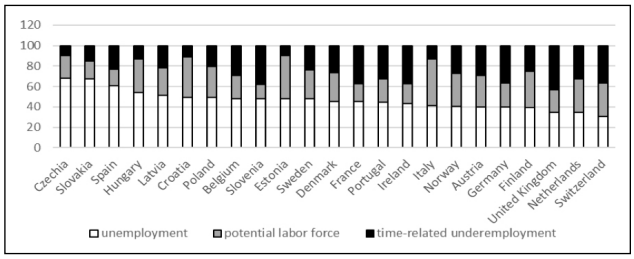

Figure 5. Shares of Labor Underutilization Components in Total Labor Underutilization (%).

Source: ILOSTAT (2020).

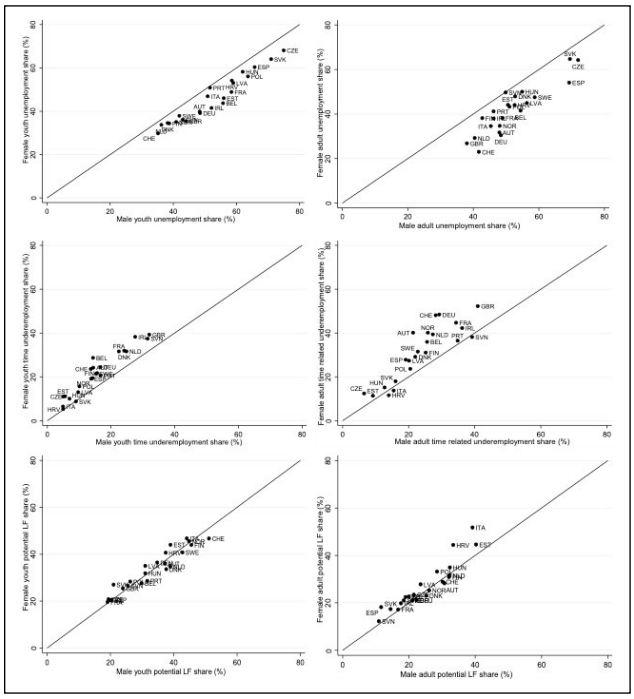

Figure 6. Share of Labor Underutilization Components by Age and Gender (%).

Source: ILOSTAT (2020).

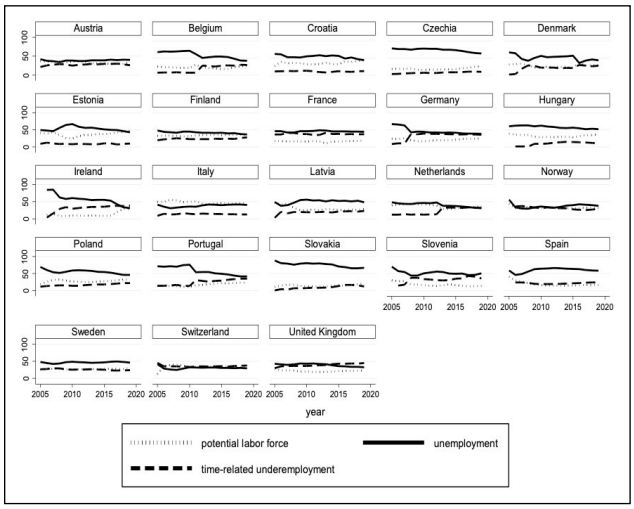

Figure 7. Shares of the Labor Underutilization Components (%).

Source: ILOSTAT (2020).

share of the potential labor force is quite stable during the period of analysis. Time-related underemployment and unemployment are significantly correlated with a correlation coefficient of -0.67. The correlation coefficient between the potential labor force and unemployment is -0.51 and between the potential labor force and time-related underemployment is -0.26, and they are statistically significant.

Variations in percentages of these three states suggest that there exists a reallocation among these components of labor underutilization (Figure 7). It is clearly observed that most of the reallocation is between time-related underemployment and unemployment. Decreasing (increasing) share of unemployment is accompanied by an increasing (decreasing) share of time-related underemployment. Figure 8 draws attention to the reallocation between underutilization components and shows the whole picture of the labor market in a compact way.

In the face of aggregate labor market conditions, there may be a reallocation between different components of labor underutilization, namely between the unemployed, potential labor force, and time-related underemployed. In order to gauge the degree of reallocation, the Lilien index is calculated for the two age and gender groups (Figure 9).[2] The Lilien index is computed as follows (Lilien, 1982):

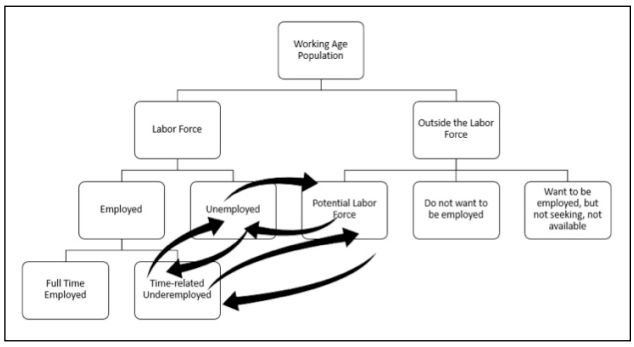

Figure 8. Reallocation between Components of Labor Underutilization.

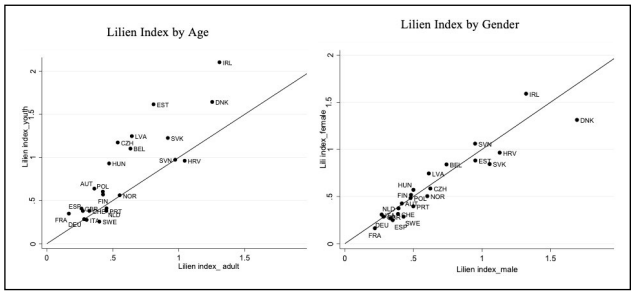

Figure 9. Lilien Index by Age and Gender (2015-2019).

Source: Authors' own calculations with ILOSTAT (2020) data.

$$\hat{\sigma} = \sqrt{\sum_{i=1}^{N} \left(\frac{x_{irt}}{X_{rt}}\right) \left[In\left(\frac{x_{irt}}{x_{ir,t-1}}\right) - In\left(\frac{X_{rt}}{X_{rt-1}}\right) \right]^2} \quad (1)$$

where xirt is the number of people in labor underutilization component i in period t in country r and Xrt is total labor underutilization in period t in country r. The share of labor underutilization component in total labor underutilization is used as the weight. A higher index number indicates that the reallocation is higher.

Figure 9 demonstrates the computed values of the Lilien index by age and gender. For most of the countries in the analysis, the levels of the Lilien index for the youth is higher than those of adults as revealed by the concentration to the left of the 45-degree line. In other words, reallocation between labor underutilization components is higher for the young. This is apparent especially for the higher values of the index. On the other hand, as is shown in the right panel of the figure, European countries are generally concentrated around 45-degree line indicating that reallocation between the unemployed, potential labor force and time-related underemployed is not different for women and men. Among those countries, Ireland and Denmark have a prominently high degree of reallocation.

3. ELASTICITY ANALYSES

There has been much literature on the relationship between unemployment and labor force participation. It is widely accepted that unemployment tends to drive workers out of labor force (Schwietzer and Smith, 1974). We might expect that the greater the number of unemployed people on the labor market, the higher the number of discouraged workers and/or persons in underemployment. The more remarkable question is how big an influence does the change in unemployment have on hidden unemployment? To assess the sensitivity of hidden unemployment to changes in unemployment, the elasticities of time-related underemployment and potential labor force with respect to unemployment are estimated by age and gender.

The estimation outcomes reported in Tables 3 and 4 are obtained with the fixed effect estimation method, which incorporates the time-invariant factors. All elasticity coefficients are positive and significant at 1 per cent.[3] An elasticity of less than one implies that as unemployment increases, hidden unemployment components also increase but less than proportionately. The results show that a 1 per cent increase in unemployment will raise the potential labor force by 0.45 per cent, and time-related underemployment by 0.67 per cent. Hence, the size of the unemployment does have more significant implications for time-related underemployment. The findings reveal that elasticity coefficients for the potential labor force do not vary with age and/or

[2] The Lilien index originally measures the standard deviation of the sectoral growth rates of employment from period t-1 to period t. The index shows sectoral reallocation or sectoral shifts (Lilien, 1982).

[3] The elasticities are computed with the data beloging to each gender and age group (e.g., elasticity of hidden unemployment of youth with respect to youth unemployment).

Table 3. The Elasticity of the Potential Labor Force with respect to Unemployment

Variables	(1) logpotential	(2) logpotential_male	(3) logpotential_female	(4) logpotential_young	(5) logpotential_adult
logun_total	0.455***				
	(0.0401)				
logun_male		0.467***			
		(0.0381)			
logun_female			0.463***		
			(0.0443)		
logun_young				0.444***	
				(0.0500)	
logun_adult					0.465***
					(0.0383)
Constant	2.579***	2.010***	2.275***	1.909***	2.315***
	(0.239)	(0.202)	(0.230)	(0.225)	(0.217)

Source: Authors' own calculations

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: log refers to the natural logarithm.

Table 4. The Elasticity of the Time-related Underemployment with respect to Unemployment

Variables	(1) logtru_tot	(2) logmale_tru	(3) logfemale_tru	(4) logtru_young	(5) logtru_adult
logun_total	0.675***				
	(0.0869)				
logun_male		0.745***			
		(0.0834)			
logun_female			0.583***		
			(0.0944)		
logun_young				0.484***	
				(0.0824)	
logun_adult					0.701***
				(0.0867)	
Constant	1.046**	0.174	1.515***	1.005***	0.900*
	(0.518)	(0.443)	(0.491)	(0.374)	(0.492)

Source: Authors' own calculations

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: log refers to the natural logarithm.

gender, suggesting that the potential labor force is almost equally sensitive to unemployment regardless of age and gender (Table 3). On the other hand, time-related underemployed men are more sensitive to unemployment than women. From the perspective of age groups, an increase in the unemployed adults of 1 per cent will raise the time-related underemployed adults by 0.70 per cent, while the corresponding elasticity coefficient for the young is 0.48. In other words, time-related underemployed adults seem more sensitive to unemployment than the young.

4. CONCLUSION

This study does focus on different labor underutilization measures namely unemployment, potential labor force and time-related underemployment in a comparative view

of gender and age. Employing different indicators provided by ILO, the descriptive analysis part of the paper reveals that labor underutilization indicators are gender-biased especially for adults. Generally, male adults have relatively less underutilization rates than female adults in many countries. For the selected European countries, a broader measure increases the number of countries experiencing a comparably high gender gap in labor underutilization. As we expand the indicator by including potential labor force and time-related underemployment in addition to unemployment, considerable variations across the countries exist as well. Besides, a serious youth labor underutilization problem is strikingly observed.

In addition to labor underutilization indicators, shares of each component in total underutilization are investigated in this study. The most obvious fact is that the share of hidden unemployment in total labor underutilization is too large to be ignored. In most of the countries, total shares of the potential labor force and time-related underemployment is 50 and over per cent. Regarding the gender aspect of the components, the share of time-related underemployment is larger for females while males have a larger unemployment share than females.

Additionally, a negative relationship between unemployment and time-related underemployment shares is detected during the period 2006-2019. For the same period, the share of the potential labor force is quite stable. The correlation between time-related underemployment and unemployment is stronger than the correlation between the potential labor force and unemployment as well. Meanwhile, the potential labor force and time-related underemployment has a weak correlation. There exists a reallocation among these components of labor underutilization and most of the reallocation is between time-related underemployment and unemployment. The Lilien index is calculated to display the extent of reallocation between three underutilization states. The index values point out a higher reallocation between unemployed, potential labor force, and time-related underemployed for the young. Moreover, reallocation between labor underutilization components is not gender-biased.

Furthermore, the elasticity of time-related underemployment with respect to unemployment is greater than that of the potential labor force. The elasticity analysis also indicates that time-related underemployment for males (adults) is more sensitive to unemployment than females (the young). Besides, the potential labor force is almost equally sensitive to unemployment regardless of age and gender so that the elasticity is not age and gender-biased.

In a nutshell, this study shows that variations in labor underutilization elements are considerably high and the shares of these components differ by age and gender groups across countries. These different underutilization patterns of countries point out country-specific underutilization problems. Therefore, it is worth considering gender, age and country-specific aspects to track labor underutilization and develop policies to combat the problem.

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