




# “Working time flexibility in the EU countries”

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# WORKING TIME FLEXIBILITY IN THE EU COUNTRIES

## Abstract

The study aims to identify the EU's trends in the use of flexible forms of working time and to determine the specifics of individual EU countries. The study monitors the flexibility of working time based on the following indicators: persons employed part-time (as a percentage of the total employment); involuntary part-time employment as % of total part-time employment; the share of employed persons by the flexibility to decide on working time by a country; the share of employed persons who can easily take one or two days off at a short notice by working at home. The paper uses descriptive statistics, analysis of the development of time series using the growth rate, sigma convergence, and weighted sum approach. All analyzed indicators were taken into account to express one value, based on which it is possible to compare countries. Thus, the study expressed the overall benefit using the weighted sum method. The maximum value of the total benefit expressed using all the indicators among the EU countries was reached by the Netherlands. One of the reasons may be the short period of parental leave and the large share of women working part-time for a long time. The second reason is the large share of young people working part-time. On the contrary, Bulgaria, where women spend a relatively long time with their children after birth and then start full-time employment, ranked the last. This should be justified by the fact that flexible forms of work are mainly used by women and their prevalence is largely dependent on the length of maternity and parental leave.

## Keywords

working time flexibility, part-time employees, involuntariness of part-time work

## JEL Classification

F66, J21, J41, J81

## INTRODUCTION

The current development in the EU countries is characterized by several specifics. One of them is that demographic trends such as increasing life expectancy, declining birth rates, and changes in the population structure are beginning to have a more pronounced effect on the labor market. The amount of new emerging labor force is smaller than the amount of labor force leaving the market. Labor force reproduction is declining. This causes labor force shortages in the EU countries.

Other equally serious changes include the increasing economic burden of the productive component of the population by the post-productive component. This leads to adjusting the pension system and increasing the tax burden.

The change in the population structure is reflected in population aging. It is directly related to labor force aging. Individual age categories of the labor force are characterized by specific characteristics and skills. The changes in the labor force structure also lead to changes in the prevailing characteristics of the labor force.

The dynamics of changes related to labor shortage are different in different countries; thus, they are addressed differently. Some countries, such as Luxembourg, employ a large share of foreigners. In this way,



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### Conflict of interest statement:

Author(s) reported no conflict of interest

they address the labor shortage and reduce the burden of the productive population. Another response is that the list of jobs with the possibility of flexible working hours is starting to increase. It is mainly jobs with shorter working hours and jobs with the possibility of working from home. They are used by different age groups of the population: most often, however, by young students and retired people. It is also used more by women who are taking care of children and the household. Non-full-time work allows them to bring together personal and professional life.

Trends in the labor market, therefore, make employers respond more flexibly to employee requirements. They are more willing to allow employees to determine their working hours.

Masárová (2020) claims that time flexibility is also reflected in job positions with different organizations of working time, such as part-time work and remuneration based on performance. Such types of employment could ultimately lead to higher employment rates. They provide opportunities to enter the labor market for people who do not have the opportunity to get a full-time job.

Due to the absence of systematic processing of approaches to part-time employment and work with the possibility of working hours' adjustment in the EU, this study focuses on the trends in the use of flexible forms of work that would determine the specifics of individual EU countries. The analyzed topic is highly relevant due to the ongoing changes.

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## 1. LITERATURE REVIEW

According to the International Labour Office and European Commission (2005), part-time employment is underdeveloped in the EU, but the share of people working part-time has been increasing. According to Nicolaisen et al. (2019), part-time work has its own specifics compared to full-time work. There are differences in the average hourly earnings, the work process, the offer of training, job security, the planning schedule, etc. According to the Global Voice of Business (2014), the advantage of flexible forms of work is greater efficiency in matching the needs and preferences of employers and employees. The efficiency and effectiveness of job allocation are improving. At the same time, such forms make it possible to satisfy a growing number of people who want to balance private and professional life – especially parents and older workers.

The specifics of part-time work may cause the disadvantages of part-time work to outweigh the advantages. Another disadvantage of part-time work is job insecurity. According to Fullerton et al. (2020), part-time work at an individual level is associated with greater cognitive job insecurity. Thus, part-time workers experience much greater job insecurity than full-time workers. Leiva (2000, p. 29) emphasizes that up to about 50% of cases of

part-time work can be considered insecure work. It is stated that in terms of the insecurity factor, part-time work is precarious in two-thirds of cases. In consequence, feelings related to insecurity affect physical and mental health.

Part-time workers point out that they are often at a disadvantage compared to full-time employees. Zeytinoglu et al. (2004) also state that part-time workers complain that they are assigned disadvantageous shifts more often than full-time employees are. E.g., they are often assigned to work on Saturdays and Sundays. Another disadvantage is that part-time workers do not have many possibilities to take part in training that would enable them to perform their work more efficiently. Full-time workers are more likely to take part in such training.

Hinterseer (2013) emphasizes that it is necessary to look for approaches that can reduce the connection between part-time work and job insecurity and worse working and living conditions, such as wages, a low level of social security, and a high rate of involuntary work (p. 5). The option to change the form of full-time work to part-time work and vice versa, full inclusion in the social system, reducing the risks of future precarious conditions, expansion of childcare institutions (p. 6), etc., could contribute to this.

The specifics of part-time work are influenced by several factors. The basic factors are voluntariness, more precisely involuntariness, age, gender, education, occupations, etc.

It is important whether part-time work is involuntary or voluntary, or whether part-time employment is performed as the second job or as the main employment. Involuntary part-time employment can cause serious health problems. They manifest on physical and mental levels. According to Moortel et al. (2020), women who work part-time but are interested in working full-time have poor mental health. People who are forced to choose part-time work suffer from a significantly higher rate of depression.

The share of part-time workers also varies in terms of age groups. This form is widely used by students. According to Patton and Smith (2010), the share of part-time students is increasing. Students work part-time in various work positions – very often in retail and in restaurants and offices. Part-time work while studying later influences their inclusion in the full-time work process. It has a positive impact on students' employability and technical skills after graduation.

As stated by Nicolaisen et al. (2019), part-time work has its gender specifics. In general, it is more common for women than men. For women, part-time work has certain advantages as well as disadvantages. One of the advantages is the fact that women working part-time can take care of children. Disadvantages include less chance of career progression and lower pensions. Fewer career opportunities when working part-time are also emphasized by Nicolaisen (2011). It is pointed out that the lack of career-related regulations influences the fact that gender differences prevail (Norway, Luxembourg). Thus, supplementing legislative standards with adjustments to career progression when working part-time could reduce gender differences.

According to Ciminelli et al. (2021), part-time work is influenced by both individual preferences and social standards, which emphasize the greater share of women being responsible for taking care of children.

Some studies suggest that there is a relationship between education and the share of women working part-time. Women with low education

are more likely to work part-time. However, the alleged claim about the dependence of education and part-time work on women cannot be generalized to all countries. For example, Barbieri et al. (2019, p. 259) state that the reported dependence has not been proven for Mediterranean countries: there is no significant interaction with women's education. On the contrary, it was proved for continental countries. Interestingly, similar conclusions were made when examining the impact of the number of children on the share of part-time workers. Dependence was confirmed for continental, but not for Mediterranean countries. Buddelmeyer et al. (2004) on the other hand state that there is an indirect relationship between skills and education and the share of people working part-time; thus, there are no differences between countries.

Part-time employment is also more closely associated with certain occupational groups. Buddelmeyer et al. (2004) note that there is a high share of part-time work especially for basic occupations, low-skilled jobs in the service sector, sales workers, and lower-level officials. On the other hand, the share is relatively low for craftsmen, fitters, senior legislators, and technicians.

The share of part-time work is also linked to macroeconomic processes – especially employment, unemployment, and the risk of poverty. According to Horemans et al. (2016), in countries where unemployment rates have increased during the crisis, part-time employment has increased as well, especially involuntary part-time employment. Thus, there is a direct relationship between unemployment and involuntary part-time employment. Part-time work is associated with a higher risk of poverty, but as full-time work predominates, the increase in its share does not have a significant impact on the overall risk of poverty.

In countries with high unemployment, part-time work is associated with deteriorating working and living conditions. Hinterseer (2013) points out that the possibility of changing the form of full-time work to part-time work and vice versa may affect the disadvantages of part-time work. Thus, this fact is very important and outlines the possibilities of reducing the negative impacts of part-time work.

In some countries, some special subgroups of jobs are being monitored as part of part-time work monitoring. One of them is the so-called “mini-jobs” in Germany. According to Beckmann (2020), it is working with a limit of up to 450 Euros per month or working for 3 calendar months, respectively 70 days a year. In this form, workers do not pay contributions to the social insurance company and are therefore not entitled to financial compensation in the event of illness or unemployment. Most often, mini-jobs are chosen by young and old employees. Disadvantages such as low wages, low social security, on the other hand, are compensated by advantages such as the possibility of “earning extra money”. Experts also think that it is a job option for low-skilled workers and can be considered a bridge between unemployment and employment.

The future extension of part-time work will depend on several factors. According to Hinterseer (2013), the basic factors that will influence future developments in the field of part-time work include:

- investments in childcare facilities;
- progress towards more flexible forms of work, in particular, flexible working hours;
- acceptance of part-time work forms in society in general; and
- prolonging life expectancy and improving health.

The development of part-time work is also influenced by decisions and measures at the state level. These are rooted in legislative norms and can affect wage levels and tax levies. Incentive adjustments to levies may be adopted at the state level as well. Buddelmeyer et al. (2004) note that such measures may include, for example, special discounts granted to companies offering part-time work. They cite France as an example, where such discounts were granted to companies in 1993–2000, and this was reflected in a stronger dynamic of increasing the share of part-time work and increasing employment. On the other hand, flexible forms of work can be a solution to seasonal economic fluctuations. They can simplify the economic situation when the demand changes, etc. (Eurostat, 1998).

## 2. AIMS, METHODS, AND DATA

This paper aims to identify the EU trends in use of flexible forms of working time and to determine the specifics of individual EU countries.

The study has focused mainly on:

- the share of part-time employees in the total number of employees. It is interesting to find whether pan-European tendencies and legislative changes have led to a reduction in the differences between EU countries within the scope of the indicator analyzed;
- voluntariness or involuntariness of part-time work. This view is important and without it, the elaboration of this topic would be incomplete;
- an important aspect of working time flexibility is also the ability of employees to determine their working time. Therefore, the study examines this aspect; and
- factors that can affect the development, either positively or negatively.

It is important to compare EU countries and determine their specifics in the aspects analyzed, as this will allow assessing best practices and determine which EU countries are the best in addressing this issue. The best EU countries can then serve as an example for the others.

The study monitors the flexibility of working time based on the following indicators:

1. Persons employed part-time (as a percentage of the total employment), aged from 15 to 64;
2. Involuntary part-time employment as % of total part-time employment, aged from 15 to 64;
3. The share of employed persons by the flexibility to decide on working time by a country – a person can fully decide (in %), aged from 15 to 74;
4. The share of employed persons who can easily take one or two days off at a short notice by

working at home – usually easily (in %), aged from 15 to 74.

The study identifies which EU countries use flexible working hours the most and provides an overview of approaches in certain EU countries. Data were analyzed using such software as Statistica and Microsoft Excel.

According to the European Commission (2021), the framework agreement between EU employers and trade unions is culminated in the EU Directive 97/81; the directive stipulated that EU countries should pay attention to the development of part-time work. At the same time, recommendations have been set for employers on how to ensure that part-time workers are not disadvantaged.

Based on the adopted directive and the policy statement, which were acknowledged by the EU, it can be assumed that EU countries have gradually developed a similar share of part-time workers since 1999.

Due to the database required for the analysis, the period analyzed was adjusted. 2009 was set as the beginning of the period analyzed. This is because Eurostat has been publishing the data analyzed since 2009. The period analyzed is therefore the period from 2009 to 2019.

The data of the first indicator were drawn from Eurostat (2021a). Values for individual EU countries were compared. Data for the second indicator were drawn from Eurostat (2021b).

The third and fourth indicators have been monitored by Eurostat since 2019. Therefore, the study focuses on analyzing their state in 2019. The data were collected from Eurostat (2021c, f). Three countries were excluded from the analysis due to unpublished data for the indicator “employed persons who can easily take one or two days off at a short notice by working at home”. They were Denmark, Finland, and Sweden.

In the analysis, the share of unemployed people in the total number of economically active people was also studied. Data were drawn from Eurostat (2021d). Complementary data were data on temporary employment contracts from Eurostat (2021e).

To reach the aim of the study, the paper focuses on three main areas:

1. Determining the specifics of EU countries regarding the development of the share of part-time workers; determining the specifics of involuntary part-time work and analyzing the convergence of EU countries in the share of part-time workers;
2. Determining the specifics of EU countries regarding the status of indicators characterizing the possibility of adjusting the working time;
3. Comparing EU countries based on values of the total benefit expressed using all the indicators analyzed in 2019 by the weighted sum method.

The analysis also includes monitoring the factors that influence the development of the indicators.

When analyzing the development of time series, descriptive statistics of the selected indicator at the beginning and the end of the period analyzed were expressed. It expressed descriptive statistics of average, median, minimum, and maximum values; and descriptive statistics of variability: standard deviation and variation coefficient. In the next step, the study focused on EU countries with the minimum or maximum values.

Based on the growth rate in %, the dynamics of changes is compared and it was found in which EU countries the largest changes occurred in the period analyzed.

It expressed the growth rate  $m_t$  in % in period  $t$  :

$$m_t = \frac{y_t}{y_{t-1}} - 100, \quad (1)$$

where  $y_t$  is the value in the time series in period  $t$ ;  $y_{t-1}$  is the value in the time series in period  $t-1$ .

The assumption of convergence tendencies within the selected indicator by the sigma convergence method was verified. According to Minařík et al. (2013, p. 89), this method is called sigma convergence development (the variability of a variable expressed by a standard deviation decreases systematically). Mostly used in the analyses are logarithms of the values analyzed.

As the intention is to compare EU countries based on selected indicators of working time flexibility at the same time, the weighted sum method was used. This method is a multi-criteria variant evaluation method. According to Jablonský and Dlouhý (2004, pp. 50-51), it is based on constructing a linear utility function. Its range of values is the interval from zero to one. '0' is considered the worst variant and '1' is considered the best variant. The values form the input criterion matrix  $y_{ij}$ . At the beginning of the method application, all values of the criterion matrix are replaced by the values of  $y'_{ij}$ . They express the benefit of the  $X_i$  variant when evaluated according to the  $Y_j$  criterion. Their calculation depends on whether the criterion is minimizing or maximizing.

In the first case:

$$y'_{ij} = \frac{M_j - y_{ij}}{M_j - P_j}. \quad (2)$$

In the latter case:

$$y'_{ij} = \frac{y_{ij} - P_j}{M_j - P_j}, \quad (3)$$

where  $P_j$  is the lowest value and  $M_j$  is the highest value.

Then, the total benefit for the variant  $X_i$  is expressed from the values  $y'_{ij}$ . It is the weighted sum of partial benefits of individual criteria:

$$u(X_i) = \sum_{j=1}^k n_j y'_{ij}, \quad (4)$$

where  $n_j$  is the weight of the  $j$ -th criterion. In the analysis, the weights will be the same.

### 3. RESULTS AND DISCUSSION

#### 3.1. Persons employed part-time

The values of the indicator "persons employed part-time" depend, as already mentioned, on several factors. One of the most important is the legislative conditions and the amount of wage levies. In some countries, this form of employment is used in particular by young mothers, pensioners, and students.

There are significant differences in the values of the indicator between EU countries. Throughout

the period analyzed, Bulgaria had the lowest share of part-time workers aged 15 to 64. Since this trend is long-term, it can be concluded that in Bulgaria there is a factor, or more factors, that affect the share of part-time employment.

On the other hand, the Netherlands had the largest share of part-time employment. Since 2018, this country has even had a share of part-time workers higher than 50%. The reason could be a large share of young people aged 15 to 24 who work part-time. It was up to about 80%. Austria and Germany are countries with a high share of part-time workers (27.2% in 2019).

Descriptive statistics for the indicator "persons employed part-time" are presented in Table 1. The median of the indicator had an increasing tendency from 2009 to 2014. However, it slightly decreased in the last five years of the period analyzed. The arithmetic average had the same tendency over the last five years. The question is why the trend of the indicator changed in the last four years.

From 2009 to 2019, the value of the indicator increased in most EU countries. The decrease occurred in 46.4% of EU countries, including Bulgaria, Denmark, Ireland, Croatia, Lithuania, Luxembourg, Hungary, Poland, Portugal, Romania, Slovenia, Sweden, and the United Kingdom. The largest increase in the value of the indicator occurred in Greece, where the value increased by as much as 54.24%. The increase was mainly due to an increase in the share of young people aged 15 to 24 working part-time. The largest decrease in the values of the indicator occurs in Romania, i.e. 28.24%. The share of part-time workers in the Slovak Republic was significantly below average throughout the period analyzed.

4 countries had the lowest values of the indicator (the year 2019): Bulgaria, Hungary, Slovakia, and Croatia. The values of the indicator were below 6%. These 4 countries have one thing in common, namely that they have a low share of people aged 15–24 who work part-time. This share ranged from 7% to 8%. It can be assumed that young people in these countries mostly work on temporary employment contracts. However, when comparing Bulgaria, Hungary, and Slovakia based on temporary employment of young people aged

**Table 1.** Descriptive statistics on the indicator “persons employed part-time”

Source: Eurostat (2021a).

Variable	N valid	Average	Median	Minimum	Maximum	Standard deviation	Variation coefficient
PEPT 2009	28	14.1786	10.2500	2.1000	47.0000	9.9171	69.9444
PEPT 2019	28	14.6964	11.7500	1.9000	50.2000	10.4160	70.8743

Note: PEPT 2009 – persons employed part-time in the year 2009; PEPT 2019 – persons employed part-time in the year 2019.

**Table 2.** Sigma-convergence of indicator log

Source: Eurostat (2021a).

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
0.3089	0.3007	0.2984	0.3003	0.2940	0.2945	0.2963	0.3064	0.3059	0.3161	0.3186

15–24 from Eurostat (2021e), findings show that the values of the indicator are below average. Thus, young people in these countries rely more on the care of their parents.

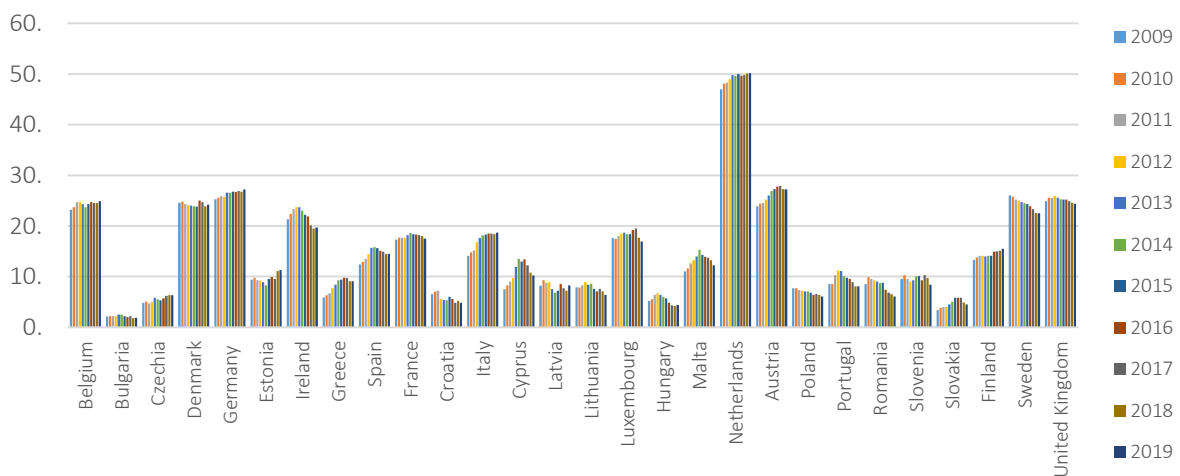
However, in the group of four countries with the lowest values, there are differences between Bulgaria and the other three countries. Thus, there is another factor that affects the values of the indicator in the long run. Similarly, there is a large difference in the values of the indicator analyzed between countries with a large share of people aged 15–24 working part-time – in the Netherlands (79.7%) and Denmark (63.3%). This is only confirmed by the fact that the share of people working part-time is influenced by another important factor. The development of the indicator persons employed part-time in EU countries is shown in Figure 1. Findings show that it is the length of maternity and parental leave.

The standard deviation of the logarithm of the indicator did not show a stable trend (Table 2). Thus, it is not possible to state that there was sigma convergence in the whole period analyzed. However, in the period from 2013 to 2016, and from 2017 to 2019, the standard deviation of the logarithm of the indicator increased. Thus, from 2013 to 2016 and from 2017 to 2019 there was a sigma divergence. From the above, it can be stated that the EU countries did not have a stable systematic tendency leading to a reduction of differences within the indicator throughout the period analyzed.

### 3.2. Involuntary part-time employment as % of total part-time employment

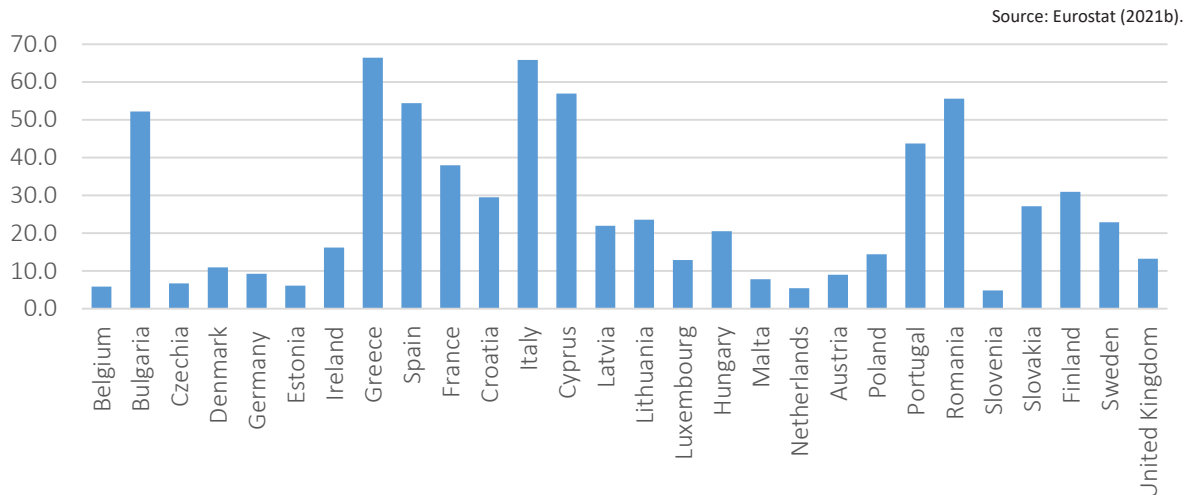
People working part-time could have chosen this option voluntarily or involuntarily. Thus, their choice was voluntary or forced. The increase in the

Source: Eurostat (2021a).



**Figure 1.** Persons employed part-time in EU countries





**Figure 2.** Involuntary part-time employment as % of total part-time employment

share of part-time workers who have been forced to this type of work reflects the deteriorating working conditions. Important information on such tendencies is provided by the development of the indicator “involuntary part-time employment as % of total part-time employment”. The data of the indicator are published by Eurostat (2021b) since 2017. The study focused on the values from 2019.

The highest values of the indicator were reached in 2019 by Greece (Figure 2). 66.4% of the total number of part-time employees in Greece were forced to choose this type of employment. There was a large share of people who did not voluntarily choose to work part-time in Italy and Cyprus too. On the other hand, the lowest value of the indicator was in Slovenia (4.8%).

What is interesting is the relatively large difference between the values of the indicator in Slovakia and the Czech Republic. For a long time, both states had formed one country. Therefore, it is interesting to observe the differences between them. While the value of the indicator was 6.7% in the CR, it was 27.1% in the SR. In the Czech Republic, women had a larger share, while in the Slovak Republic it was men. The reason for the lower values of involuntary part-time work in the Czech Republic may also be the much lower share of unemployed people compared to the Slovak Republic. According to Eurostat (2021d), the share of unemployed people in the Czech Republic out of the total number of economically active inhabitants in 2019 was only 2%, while in the Slovak Republic it was 5.8%. Thus,

according to the findings, one of the important factors influencing the share of people working part-time involuntarily is the share of unemployed people out of the total active population.

### 3.3. Employed persons by the flexibility to decide on working time

Another indicator with which the trends in EU countries in terms of working time flexibility have been monitored since 2019 is “employed persons by the flexibility to decide on working time by a country”. It shows whether a person can fully decide; a person can decide with certain restrictions; or employer, organization or clients mainly decide.

The study focused on the share of persons who can fully decide aged 15 to 74. Compared to the indicator expressing the share of part-time employees, this indicator expresses to a greater extent the employers’ access to flexible working hours. The indicator is not affected by the length of maternity and parental leave.

Descriptive statistics of this indicator are in Table 3 and the values of the indicator in individual EU countries are shown in Figure 3.

Cyprus had the lowest values of the indicator (8.7%). Its values reached only 54.5% on the average for the indicator analyzed. The second was SR. One of the reasons for the low values of the indicator in the Slovak Republic is mainly the fact that many people work shifts and therefore can-

**Table 3.** Descriptive statistics on the indicator “employed persons by the flexibility to decide on working time by a country”

Source: Eurostat (2021c).

Variable	N valid	Average	Median	Minimum	Maximum	Standard deviation	Variation coefficient
EPBF	25	15.9640	15.8000	8.7000	22.6000	4.1787	26.1750

Note: EPBF – employed persons by the flexibility to decide on working time by a country in the year 2019.

**Table 4.** Descriptive statistics on the indicator “employed persons who can easily take one or two days off at a short notice by working at home”, by counties

Source: Eurostat (2021f).

Variable	N Valid	Average	Median	Minimum	Maximum	Standard deviation	Variation coefficient
EPWC	25	70.5800	68.2000	44.8000	94.8000	13.0672	18.5140

Note: EPWC – employed persons who can easily take one or two days off at a short notice by working at home in the year 2019.

not choose their working hours. The maximum values were reached by two countries, namely Belgium and Romania. Interestingly, Romania has the same values of the indicator as Belgium. Thus, although there is not a large share of part-time workers in Romania, there are many employers in the country who allow their employees to fully choose their working hours. It is the only country from the former “socialist” bloc with such high values of the indicator analyzed.

### 3.4. Employed persons who can easily take one or two days off at a short notice by working at home

Another indicator used to monitor trends in EU countries in terms of working time flexibility since 2019 is “the share of employed persons who can easily take one or two days off at short notice

by working at home by a country”. It determines the share of people who have such an option sometimes; usually; or never.

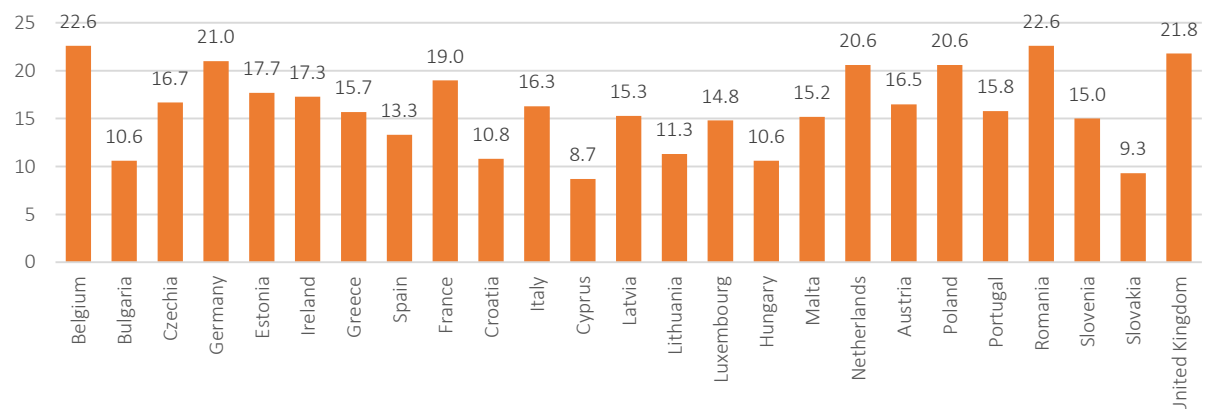
The shares are determined for these options by the answers “1 – it is easy” and “2 – it is difficult”. The paper focused on the share of employees who answered “it is usually easy”.

Descriptive statistics of this indicator are in Table 4 and the values of the indicator in individual EU countries are shown in Figure 4.

The average of the values of the indicator is relatively high. Its average value is 70.58%.

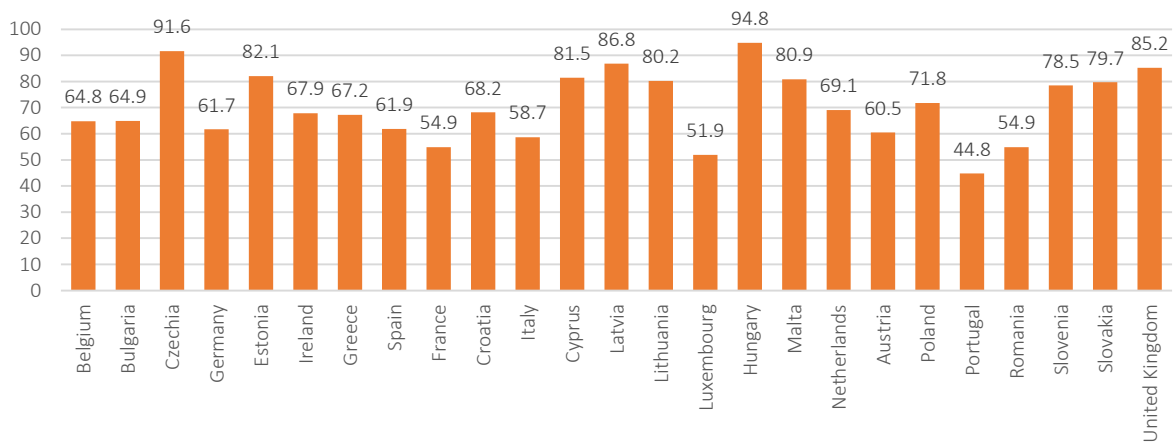
The maximum value of the indicator was reached by Hungary. Interestingly, 94.8% of employed persons can easily take one or two days off at a

Source: Eurostat (2021c).



**Figure 3.** Employed persons by the flexibility to decide on working time by a country – persons can fully decide as % of employed persons

Source: Eurostat (2021f).



**Figure 4.** Employed persons who can usually easily take one or two days off at a short notice by working at home, by countries in %

short notice by working at home. The second is the Czech Republic. On the contrary, the lowest values of the indicator had Portugal and Luxembourg. The values for the SR are above the average.

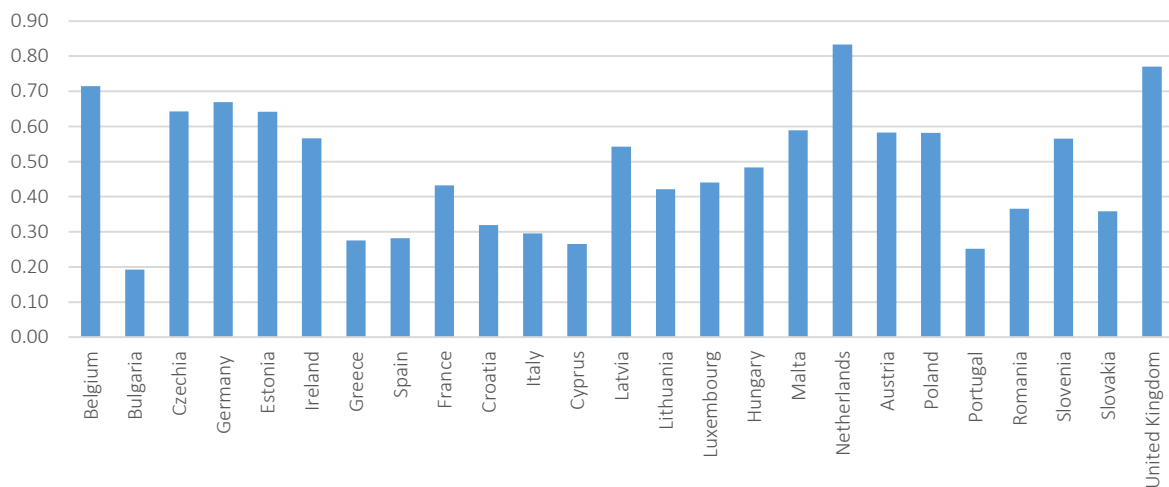
### 3.5. Values of the total benefit expressed from the values of the indicators analyzed in individual EU countries

In the next step, the intention was to compare EU countries and assess them not in isolation according to individual indicators but to compare their values based on all four indicators. For this reason, the study expressed the values of the total benefit from the four indicators analyzed, where the indicators:

- persons employed part-time (in %);
- share of employed persons by the flexibility to decide on working time by a country – a person can fully decide (in %);
- share of employed persons who can easily take one or two days off at a short notice by working at home, by countries – the option “it is usually easy” (in %) is maximizing in terms of working time flexibility.

The indicator involuntary part-time as % of total part-time is minimized. The values of the total benefit expressed from the values of the indicators analyzed in individual EU countries are shown in Figure 5.

Source: Eurostat (2021a, b, c, f).



**Figure 5.** Total benefit

The maximum value of the total benefit expressed from all the indicators analyzed was reached by the Netherlands. The country is characterized by a large share of people aged 15 to 24 who work part-time, and at the same time, there is a large share of women who work part-time. The reason may also be the relatively short period of parental leave and the “collective” habit of mothers not to work full-time but to work part-time and to spend the rest of their time with their families. It can consider this EU country a leader in the use of flexible working hours. The main reason is also the fact that flexible working hours are widely used by women. The United Kingdom ranked the second.

On the contrary, Bulgaria was the last. It has the lowest share of part-time workers. It is characteristic of Bulgaria that it has a low share of people aged 15–24 who work part-time. Why is the share of women working part-time in Bulgaria much lower? The reason is also the length of maternity and parental leave. According to MISSOC (2021), the length of maternity leave in Bulgaria is 410 days. The length of maternity leave in the Netherlands is 16 weeks (112 days). This is a big difference and this fact also affects women’s behavior in the labor market. Bulgaria lags far behind other EU countries in terms of working time flexibility. The penultimate country in terms of total benefit is Cyprus, which has a large share of people with involuntary part-time employment (the second-highest).

Slovakia and the Czech Republic have very different values. According to Hamplová and Šalamounová (2020), both countries have a very low share of working mothers with children under 3 years old. This is because parental leave lasts until a child is 3 years old and in both countries the opinion prevails that a mother should take care

of her child until he/she is 3 years old. Slovakia and the Czech Republic had long developed as one state and are similar in their culture and views on childcare. However, the SR has lower values of the total benefit compared to the CR. It shows that the reason may be the higher unemployment rate in Slovakia compared to the Czech Republic.

Building upon Hinterseer (2013), the paper adds important factors that affect the share of part-time workers, namely the length of parental and maternity leave. There is a higher share of women working part-time in countries with shorter maternity leave. They choose this type of work for a longer period and not only, for example, until their children are 3 years old. On the other hand, in EU countries, where there is longer maternity and parental leave, women take full care of their child until it reaches a certain age and then enter full-time employment.

The study considers how it would be possible to change the start of work of mothers in these countries. The most appropriate solution would be that employers set up facilities for children directly at workplaces, which will allow mothers to spend time with their children, for example during breaks. Thus, it would be possible for them to combine private and professional environments. Mothers using such facilities do not feel as if they have put their children away and that the emotional bond between them and their children is weakening.

Another important factor is the share of young people working part-time. In this respect, it is especially the countries of the so-called “socialist” bloc that are lagging behind. Young people in these countries rely on their parents’ care more.

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## CONCLUSION

The paper deals with certain flexible forms of working time. The paper aimed to identify EU trends in working time flexibility and to identify the specificities of EU countries. Based on them, it analyzes the factors that cause them and outlines possible solutions.

The study monitored the flexibility of working time based on the following indicators: persons employed part-time, involuntary part-time employment as % of total part-time employment, employed persons by the flexibility to decide on working time by country – a person can fully decide, employed persons who can easily take one or two days off at a short notice by working at home (by countries) – it is usually easy.

Bulgaria had the lowest share of part-time workers and the lowest total benefit. By contrast, the Netherlands had the largest share of part-time workers and the highest total benefit. During the period analyzed, the value of the indicator increased in most EU countries. EU countries did not have a stable systematic trend leading to a reduction in disparities within the indicator persons employed part-time throughout the period analyzed.

Part-time employment is not always voluntary. The highest values of the indicator “involuntary part-time employment as % of total part-time employment” were achieved by Greece (66.4%). The values of the indicator were high also in Cyprus and Italy. On the other hand, Slovenia had the lowest value (4.8%). Therefore, involuntary part-time as % of total part-time employment is influenced also by the economic position and the unemployment rate of the country.

The study did not monitor the flexibility of working time only based on the share of people working part-time but also based on indicators expressing employed persons by the flexibility to decide on working time and employed persons who can easily take one or two days off. As for the indicator “employed persons by flexibility”, the maximum values were reached by two countries, namely Belgium and Romania. The minimum values were reached by Cyprus and Slovakia. The maximum values of the indicator “employed persons who can easily take one or two days off at a short notice by working at home – it is usually easy” were reached by Hungary and the Czech Republic. On the contrary, the lowest values of the indicator were achieved by Portugal and Luxembourg.

All analyzed indicators were taken into account to express one value, based on which it is possible to compare countries, so the study expressed the overall benefit using the weighted sum method. The maximum value of the total benefit expressed using all the indicators was reached by the Netherlands. It shows that one of the reasons may be the short period of parental leave and the large share of women working part-time for a long time. The second reason is the large share of young people (15–24 years) working part-time. On the contrary, Bulgaria, where women spend a relatively long time with their children after birth and then start full-time employment, ranked the last.

This should be justified by the fact that flexible forms of work are mainly used by women and their prevalence is largely dependent on the length of maternity and parental leave according to the findings. Especially in the countries of the former “socialist” bloc women take full care of their children until a certain age and then start working full-time. In many other countries, women tend to take full care of their newborn children for a shorter period; however, they often start working only part-time after parental leave.

Employers can contribute to extending part-time work in countries where it is less widespread by setting up facilities for children in workplaces, thus allowing mothers to take care of their children. State support for such facilities would be reflected in the increased employability of women.

Another characteristic of most countries of the former “socialist” bloc is the fact that young people work to a lesser extent based on temporary contracts or part-time.

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