MINIMUM WAGE NON-COMPLIANCE: CASE SLOVAKIA 2019

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There has been significant growth of employment in Slovakia over recent years. We focus on development of employees, whose salaries are less than the official minimum wage. We will categorize these employees based on age, region, other source income (mainly pensions and other sources of working income like self employment or working agreements) and duration of such employment (whether person is below minimum wage for one month or 12 months a year). The main result of this article is, that minimum wage non-compliance is higher than 4%, since the number of employees which are below minimum wage for 12 months a year and do not have any other source of income increased is 4% in 2019, with some regions reaching 8%. Overall, 13% of salaries in 2019 was below minimum wage, while in 2012 it was 7.6%. After comparison with other data sources, we conclude that this increase is caused by minimum wage non-compliance, fictional part time jobs and tax evasion.

Key words: minimum wage, social trap, working poor, precarious jobs, tax evasion

1. INTRODUCTION²

Economic growth in Slovakia during years 2012 to 2019 had several effects, including increased wages and minimum wage. Average wage increase by %, minimum wage by %. Another effect was non compliance with legislation, including legislation on minimum wage.

Various countries have various definitions of minimum wage [ILO]. In Slovakia, minimum wage is defined by Law no. 663/2007 on minimum wage and is further clarified by Labour code no. 311/2001 and other legislation. There is single minimum wage in Slovakia, regardless of age, region or sector. There are several sectoral collective agreements, which define higher minimum wages in given sector. These are not covered in this article.

[Eurofound2020] and [Garnero2018] give good introduction to minimum wage non-compliance in various countries. [Dirhamfathurusi2019] describes compliance with regency and city minimum wages in Indonesia. [McGuinness et al 2020] quantify minimum wage non-complience in Ireland at 5.6%. [ONS] quantify this for the UK at 1.4% in 2019. [Garnero2018] shows that in Italy, 10% of workers are paid 20% less than the sectoral minimum. Other authors focus on the depth of non-compliance. [Bhorat et al 2013] studies South Africa data with results in tens of per cent.

Above mentioned articles focus on several aspects on minimum wage non-compliance. In this article, we quantify number of employees receiving legal salary, which is below minimum wage. We quantify these by age, region, sector, depth of non-compliance, duration of such employment and connection to other sources of income. We do not study compliance with sectoral collective agreements standards, non-labour contracts, and undeclared work. Therefore, numbers presented in this paper are lower bounds of minimum wage non-compliance.

In this paper we use data of Social insurance company, which are administrative data of all employees with legal labour income.

¹ this article is a part of project APVV-15-0722 – Social trap – its costs and the way out.

this article extends and clarifies Michal Páleník: Employees in Slovakia working below minimum wage; 2019; available at https://socialnapasca.oromoch.sk/download-files/sk/michal-palenik-horizonty-2019.pdf

Graph 1 gives histogram of monthly salaries in Slovakia. As in can be seen, number of people receiving monthly salary below statutory monthly minimum wage (black portion of the graph) is non zero. In further pages, we split this group and specify its basic components.

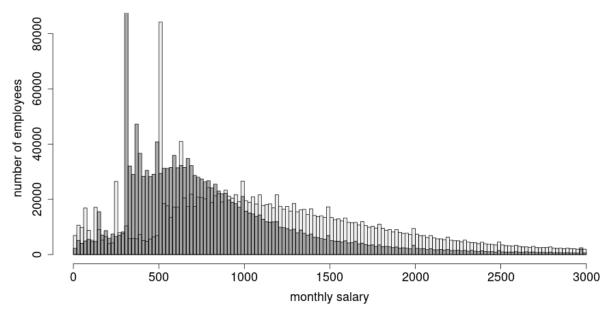


Graph 1- Histogram of salaries in Slovakia, November 2019. Black part is under minimum wage.

Precarious forms of work are a negative phenomenon on the Slovak labor market. One of the means is forced self employment: self employed "entrepreneurs" who practice dependent work under §1 section 2 of the Labour Code [Labour code]. Another means is abuse of working agreements under The Labor Code §223. This article stipulates that the employer may "exceptionally conclude agreements with individuals on work performed outside the employment relationship (agreement on work performance, agreement on work activity and agreement on temporary work of students)" whilst some employees have tens of percent of such "exceptional" workers.

Overall, salaries in Slovakia are rising, which is demonstrated by graph 2. However, the number of people earning less than the statutory minimum wage is also rising.

Histogram of salaries in Slovakia, nov. 2010 and 2019



Graph 2- Histogram of salaries in Slovakia, November 2010 (dark gray) and 2019 (light gray)

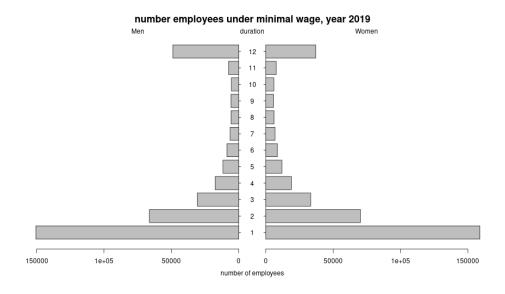
We can categorize workers below minimum wage based on their region, age, other income or the number of months each person does have salary below or above minimum wage.

1.1 Duration of low salaries

From individuals point of view, it is very important, whether this person has such low salary for only one month, or 12 months a year.

There are several legal possibilities one's monthly salary can be lower than the monthly minimum wage: labour contract started not on the 1st but on the 25th of given month, sick leave for a part of given month, nursing a family member (for example during the period of closed schools during Corona pandemic), participation on strike during a part of the month, or leaving for maternity leave in the middle of the month. These options explain those that are below minimum wage for one month, which represents approximately 310,000 employees. These causes for decreased salary cannot occur for extended number of months.

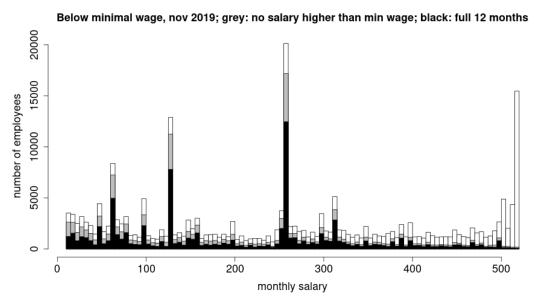
However, there are up to 101,000 employees receive this wage for 11 to 12 months continuously. Compared to 2012, when in Slovakia there were only 47,000 such employees, this number increased 4.5 times up to 2019.



Graph 3- Number of employees having at least a single wage lower than the minimum wage by gender, according to the number of months in which salary is lower than the minimum wage, 2019.

If we look at the number of months in which employees received less than the minimum wage in year 2012, most were paid less than the minimum wage for 1 month (221 401), 2 months (83 808), 3 months (33 454) and 12 months (19,094). In 2019 it was 1 month (308 000), 2 months (137 699), 12 months (64 068) and 3 months (53 565). As we can see, these figures confirm the growing trend in part-time jobs with a salary lower than the minimum wage. There are only slight gender differences.

Graph 4 describes employees with salaries below minimum wage by monthly salary. Black portion consists of employees, who had salary below minimum wage during whole 12 months of year 2019. Gray are those employees, who only had salaries below minimum wage, but did not have salary for full 12 months (for example unemployed, who only had seasonal job during summer but was unemployed otherwise). White part of the graph are those, that had at least one salary in year 2019 above minimum wage. It can be seen that higher salaries mean higher portion of employees only partially below minimum wage, lower salaries mean higher share of employees who had no salary above minimum wage.



Graph 4- Below minimum wage, November 2019.

Students can have low labour income, since they focus on education. There are 20 083 employees under the age of 24 with salary below minimum wage. This is a double value of the year 2012.

One category of employees with a salary lower than the minimum wage of at least 1 month is employees with a different income. Number of these employees is 80 519. They earn in another job or receive a pension, whether it is invalidity or old-age pension.

One of the options is labour contract in connection with working agreements according to §223 of the Labour code. Around 11 000 employees with salary below minimum wage do have also working agreement. But only 2 770 of them have this working agreement in such amount, that its amount combined with labour contract income is higher than the minimum wage. In 2012, the numbers were 6 500 in total, with the number 3 900 remaining. Thus, the numbers remained roughly unchanged for people reaching the minimum wage.

Self-employed people who were employed with a salary lower than the minimum wage were almost 6 000 in 2012 and all of them also earned income exceeding the minimum wage. In 2019 this number did not change.

There are 17 879 old-age pensioners and approximately 16 500 disability pensioners. This is an increase in both cases compared to 2012, when we had about 13 500 old-age pensioners and about 10 000 disability pensioners in Slovakia.

Tab 1: employed below the minimum wage for ate least 1 month, with other sources of income

	Old-age pensioners	< 24 years	Other pension	with working agreement	with working agreement (Σ more then min. wage)	self employed	self employed (Σ more then min. wage)
2012, average per month	13680	11956	10395	6490	2874	5954	5954
2012, percentage	10,48	9,16	7,96	4,97	2,2	4,56	4,56
2019, average per month	17879	20083	16511	10705	2770	7417	5154
2019, percentage	7,51 %	8,44 %	6,94 %	4,50 %	1,16 %	3,12 %	2,17 %

Source: own calculations based on administrative data

As we can see, majority of employees below minimum wage do not have other source of income, or their total income is below minimum wage. The portion of employees below minimum wage who have other source of income compared to those that don't, has decreased since 2012.

1.2 Age structure

The age composition of workers who received a salary lower than the minimum wage without any other income of at least 1 month is as follows.

Tab 2: age composition of employees with at least one salary below minimum wage

	2012		2019		
	number of people	percentage of employees	number of people	percentage of employees	
15-19 years	792	25,81	1783	35,92	
20-24 years	10675	12,68	16477	19,45	
25-29 years	13177	7,61	21990	12,6	
30-34 years	13048	6,94	25049	12,65	
35-39 years	14051	6,48	27053	12,05	
40-44 years	11418	5,73	27983	10,56	
45-49 years	10493	5,11	22911	9,37	
50-54 years	9426	4,55	17602	8,34	
55-59 years	7302	3,75	14642	6,94	
60-61 years	867	2,12	4170	6,02	

Source: own calculations based on administrative data; without any other income, percentage - is the percentage of employees of the total number of employees in a given age that fall into the category with a salary lower than the minimum wage

The increase is visible in all age categories. The highest increase of workers below the minimum wage is in the 40-year category (age 40-44 years), which is 27 983 employees. They are followed by 35-year-olds, of whom there are 27 053. Their amount were 13 000 and 14 000, which is twice as low as currently.

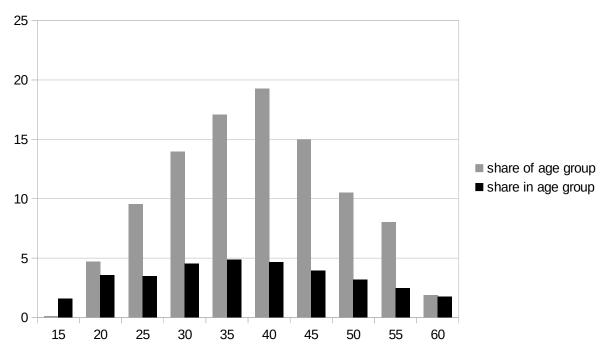
Employees who have worked with a salary lower than the minimum wage for 11-12 months are described in more detail in the following table with their age composition.

Tab 3: age composition of employees with salary 12 month below minimum wage

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	number of people, 2012	percentage, 2012	number of people, 2019	percentage, 2019		
15-19 years	28	0,91	78	1,57		
20-24 years	1400	1,66	3010	3,55		
25-29 years	2493	1,44	6100	3,49		
30-34 years	2747	1,46	8933	4,51		
35-39 years	3494	1,61	10944	4,87		
40-44 years	2921	1,46	12344	4,66		
45-49 years	2521	1,23	9596	3,93		
50-54 years	2021	0,98	6720	3,18		
55-59 years	1347	0,69	5145	2,44		
60-61 years	122	0,3	1198	1,73		

Source: own calculations based on administrative data; 12 months working under the minimum wage without any other income; Percentage - is the percentage of employees of the total number of employees in a given age that fall into the category with a salary lower than the minimum wage

The following graph shows us the percentage composition of the employed population, which has a wage less than the minimum wage.



Graph 5- Composition by age in 2019. (gray- the share of the given age group in the total number of employees below the minimum wage (sum = 100), black - the share of employees under the minimum wage of all employees at a given age in the long term)

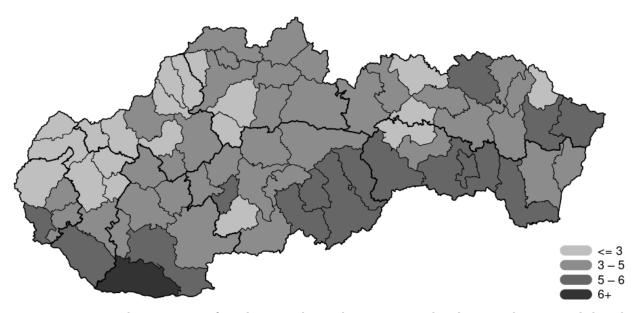
Majority of employees below minimum wage is in the prime working population. Out of total employees in the age groups of 30 to 44 years old, almost 5% have salary below minimum wage for extended period of time. In other age groups, this share is well below 4%.

2. REGIONAL DIFFERENCES

If we look at the distribution by region, the most affected district is Komárno district, 7.4%. Komárno is followed by districts of southern and eastern Slovakia (districts Košice 5.9%, Banská Štiavnica 5.9%, Snina 5.7%, Nové Zámky 5.6%, Trebišov 5.5%, Lučenec 5.4%, Košice and surroundings 5.3%). These regions have some similarities, they are either bordering with and having ties to Hungary (Komárno, Trebišov, Nové Zámky or Lučenec), have high unemployment, or high tourism sector (Košice, Banská Štiavnica). This could explain several ways of avoiding minimum wage (legal travel benefits in case of workplace in neighboring state, higher negotiating power of employers in case of region with high unemployment, undeclared business in tourism or food sectors).

The lowest values are reported in the district of Púchov, where employment with lower wages than the minimum wage is at the level of 2.03%. Following are Myjava districts 2.05%, Nové Mesto nad Váhom 2.24%, Senica 2.25%, Bánovce nad Bebravou 2.32%, Skalica 2.53%, Trnava 2.67%, Považská Bystrica 2.72%, Turčianske Teplice 2.80%, Malacky 2.86% and Levoča 3.01%.

According to NUTS2 regions, the highest number of these employees, around 11 000 are in regions of Košice and Nitra (both have share of 5%).



Picture 4- Regional composition of employees without other income employed 12 months in 2018 below the minimum wage

3. SECTORAL COMPOSITION

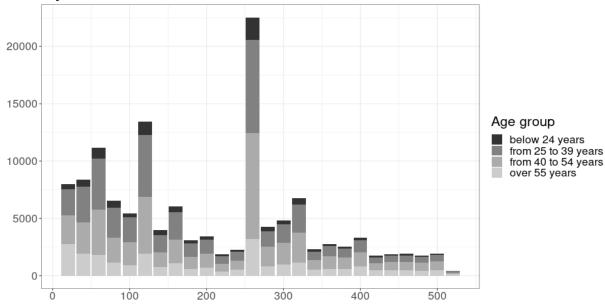
When we look at the issue in terms of where the employees work with a salary below the minimum wage, we come to these conclusions. According to the NACE classification, sector I (accommodation and food) is the main employer in terms of percentage in the sector, where the share of these employees climbed to 11% in 2018. And during the season this number rises to 27%, while in 2012 it was only 16%. In second place was sector S (other), where the share of employees was 7.55%, followed by sector F (construction), with a share of 7.48%.

In terms of the number of employees in the sector, the G (wholesale and retail) sector, which employs almost 15,000 employees, is at the forefront. They make up quarter of all such employees in the economy. Second is sector M (professional, scientific and technical activities), which employs 5,700 people. And third is sector F (construction), where will find a job with less pay than the minimum wage of 5,100 employees.

The sectoral composition of these employees is very similar to sectors with high undeclared work: construction, hotels and restaurants, and other services.

INCOME COMPOSITION

If we focus only on those employees below minimum wage, who earn such salary for the whole year and they have no other source of income, distribution of their salaries is as follows:



Graph 6- Salary of employees below minimum wage in 2019

Employees who have a single income and this income is just below the minimum wage earn typically $260 \\\in$ - 50% of minimum wage (around 22 000 employees). Another large group is of employees earning $60 - 140 \\in \\end{delta}$. There is no group of employees just below minimum wage.

Let's take an employee with brutto salary around 140€, this translates to net income of 131€ [income calculator]. Living minimum for a single person was 210€ in 2019 [IZ living minimum]. Material need benefits for an individual are 126€ [IZ material needs benefit]. Therefore working income of 137€ is both subjectively and objectively extremely low, individuals are unable to make living with such low income.

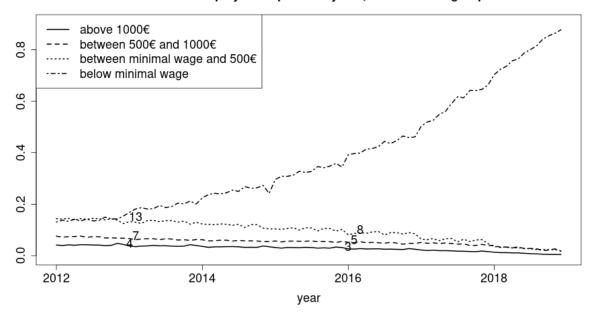
COMPOSITION BASED ON PREVIOUS STATUS

Another view can be based on previous income of an individual's earning well bellow minimum wage. In this section, we study the group of employees, that in year 2019 had labour income below minimum wage in all months of 2019. To allow only for people with possibility of stable income in the past, we limit this group to people above 30 years of age. We track their individual labour income in previous years, dividing them into those with labour income over 1000€, those with labour income between 500€ and 1000€, those with labour income between then minimum wage and 500€, and those that already had income below minimum wage.

A significant portion of these employees had a decent income only several months before reporting period: 8% of them had income over 500€ just 4 years ago; average wage in 2016 was 912€ [IZ average wage], minimum wage was 405€ [IZ minimum wage]. Another 8% had salary between then minimum wage of 405€ and 500€.

In 2013, 11% of employees of these below minimum wage employees had salary over 500€ and 13% between then minimum wage of 337.7€ and 500€. We can assume that these shares are conservative minimal estimates, since in our dataset, we cannot trace a portion of studied group of employees: 46% in 2013 and 30% in year 2016. Therefore, the sum of groups is not equal to 100%.

Position of employees in previous years, share of each group



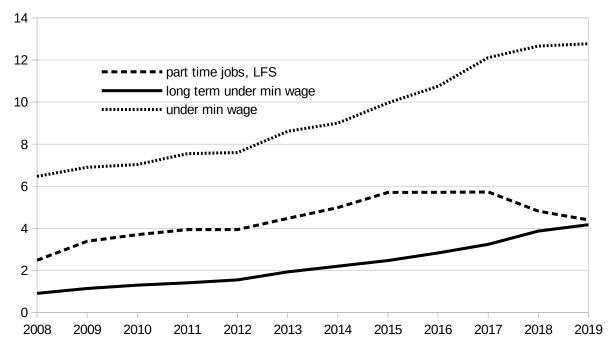
Graph 7- Situation of these employees in previous years

FICTIONAL PART TIME WORK

The only legal explanation of an employee with salary lower than minimum wage for several month is, that this person has a part time work and his hourly salary is at minimum wage.

According to Labour force sample survey (LFS), Slovakia has traditionally had lowest share of employees on part time job, reaching only 5%, compared to 20% EU average [Eurostat 2020].

The share of part time employees, as measured by LFS, rose over recent years. However, the share of employees with salary below statutory minimum wage, as measured by Social insurance company, has had higher rate of increase. The share of LFS part time employees has increased two fold between 2008 and 2019, as well as share of employees having at least a month of salary lower than minimum wage. On the other hand, share of employees whose salary was lower than minimum wage for the entire given year has increased four times (from 0,9% to over 4% of all employees).



Graph 8: comparison of LFS part time work and employees below minimum wage

Discrepancies between the measures by LFS and administrative data are visible in gender perspective: while women have higher share of part time jobs in LFS, men have higher share of salaries below minimum wage than women. Interestingly, share of males with salary below minimum wage during the whole year 2019 is higher than LFS estimate of part time jobs of men.

It is than fair to assume, that rising number of employees with salary below minimum wage is due to fictional part time jobs and tax evasion and not due to increase of regular part time jobs.

4. CONCLUSIONS

All the indicators by the Social Insurance Company mentioned in this article confirm the growing trend of part-time employment with salary lower than the minimum wage. After filtering out employees who have a different (legal) income, the number of employees regularly receiving wages below the minimum wage and having no other legal income increased to 4%, and in some districts to more than 7% of total employment. Overall, in 2019, 13% of monthly wages were paid below the minimum wage, in 2012 it was only 7.6%. Most employees below the minimum wage have less than half the minimum wage. We can quantify the minimum wage non-compliance at at least 4% of total employment.

Based on figures and comparison to other data sources, we can assume, that a significant portion of employees who do not have other source of (legal) income and their employment salary is well below statutory minimum wage for the whole year 2019, have other source of income which is undocumented in administrative data.

One of the major possibilities to achieve this, is to have fictional part time job, in which employee works full time but receives major part of the income in cash and undocumented. Further research and mainly physical inspection of labour contracts by national Labour Inspectorate is needed to confirm this hypothesis.

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