

## THE EFFECT OF MINIMUM WAGE INCREASE WILL BE LARGELY OBSERVED AMONG YOUNG AND WOMEN

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### Executive Summary

In this research brief, the effect of minimum wage increase, which came into force by January of 2016, to the labor market is examined using an updated wage data of 2013-Household Labor Force Survey released by Turkstat. It is observed that minimum wage increase will affect various groups in the labor force differently. More specifically, the data indicates considerable increases in the average wages will be observed especially among the young age 15 to 24 years and partially among women. Nonetheless, it is probable to cause adverse events such as informality and unemployment in these groups, of which unemployment and informality rates are relatively higher.

### Minimum wage debate

By the 1<sup>st</sup> of January, the net minimum wage has been increased by 30 percent to 1300 TL. Gross minimum wage has increased from 1274 TL to 1647 TL<sup>1</sup>. Then, we published a research brief examining the possible effects of the minimum wage increase to the regional labor markets<sup>2</sup>. Here, we examine the effects of minimum wage increases in the context of age and gender using the same methodology and the same sample.

This research brief aims to make an estimation of the extent of the wage shock in the labor market due to the minimum wage increase. Accordingly, we would like to make some simplifying assumptions for ease of calculation. We assume that minimum wage increases will not cause any increases in the earnings above the new minimum wage. For example, it is assumed that the wage of an individual earning 1400 TL in February of 2016 will not be affected by the rise of the minimum wage to 1300 TL. Hence, we assume that the increase in minimum wage will only affect the wages between previous year's minimum wage and the new one.

Likewise, the research brief ignores the effects of minimum wage increase on wages earned in informal employment. However, the minimum wage may have a lighthouse effect on informal employment as well as formal employment. In other words, the minimum wage increase will probably increase wages in the informal labor market which take the minimum wage as a reference.

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<sup>1</sup> Please visit the following internet site for more information on the calculation of minimum wage for the year of 2015: [http://www.turmob.org.tr/arsiv/mbs/pratikBilgiler/asgari\\_ucuret2015.pdf](http://www.turmob.org.tr/arsiv/mbs/pratikBilgiler/asgari_ucuret2015.pdf) (In Turkish)

<sup>2</sup> Seyfettin Gürsel et al. 2016. "Regional Effects of the Minimum Wage Increase", Betam Research Brief 16/189.

Surely, these simplifying assumptions do not hold necessarily. Therefore, the estimates in this research brief are more likely to be a lower bound on the wage effects of the minimum wage increase.

9 million 575 thousand employees in Turkey are working formally and full-time in the private sector or NGO's as wage-earners or casual workers (Table 1). Updating their earnings to the prices in November of 2013, it is predicted that 57.3 percent of those employees are working for below the minimum wage, 1300TL.

**Table 1 Number of persons earning net monthly wage below of TL 1300 and its share**

	1300TL and higher		Lower than 1300TL	
	(000)	(%)	(000)	(%)
Turkey	4,091	42.7	5,484	57.3

Source: HLFS 2013, Betam update for November 2015

### Minimum wage increase is largely observed among the youngs

Evidences in the literature on economics introduce a significantly concave relationship between the earnings and the experience gained in the labor market. A direct increase in the age with the years of experience in the labor market increase, in general, implies that the wages of the youngs are relatively lower. In other words, as a young individual gets older, that is the experience that gained through the labor market increases and thereby the improvements in the human capital, the wage that individual earn rises but the magnitude of the return from the human capital investment diminishes. Hence, an image of what the literature refers can be observed in the profiles of minimum wage earners. Generally, it is expected that the minimum wage earners are relatively younger. In this sense, it is arguable that the effect of an external shock in the labor market due to minimum wage increase will differ by each age groups.

Table 2 examines the earnings of the employees working formally and full-time in the private sector or NGO's as wage-earners or casual workers by their age groups. Most of the employees (41.8 percent of them) are clustered in the 25-44 year age group. The individuals in the age group of 35 to 44 years constitutes the second largest group (28.9 percent). On one hand, the share of the youngs in the age group of 15 to 24 years among employees is relatively lower (15.9 percent) for several reasons such as continuing education, non-participation and unemployment, albeit a young population structure in Turkey. On the other hand, the share of age group of 44 years and above is lower for the reasons such as retiring in early ages and early exit of women from the labor market.

**Tablo 2 Yaş gruplarına göre 1300 TL'nin altında net ücret alanların sayısı ve oranı**

	Earnings lower than 1300TL		Earnings 1300TL and higher		Age distribution of employees
	(000)	(%)	(000)	(%)	(%)
15-24 years	1,213	22.1	308	7.5	15.9
25-34 years	2,128	38.8	1,875	45.8	41.8

35-44 years	1,410	25.7	1,357	33.2	28.9
45-54 years	634	11.6	470	11.5	11.5
55-64 years	91	1.7	75	1.8	1.7
64 and above years	8	0.2	6	0.2	0.1
Turkey	5,484	100.0	4,091	100.00	100.0

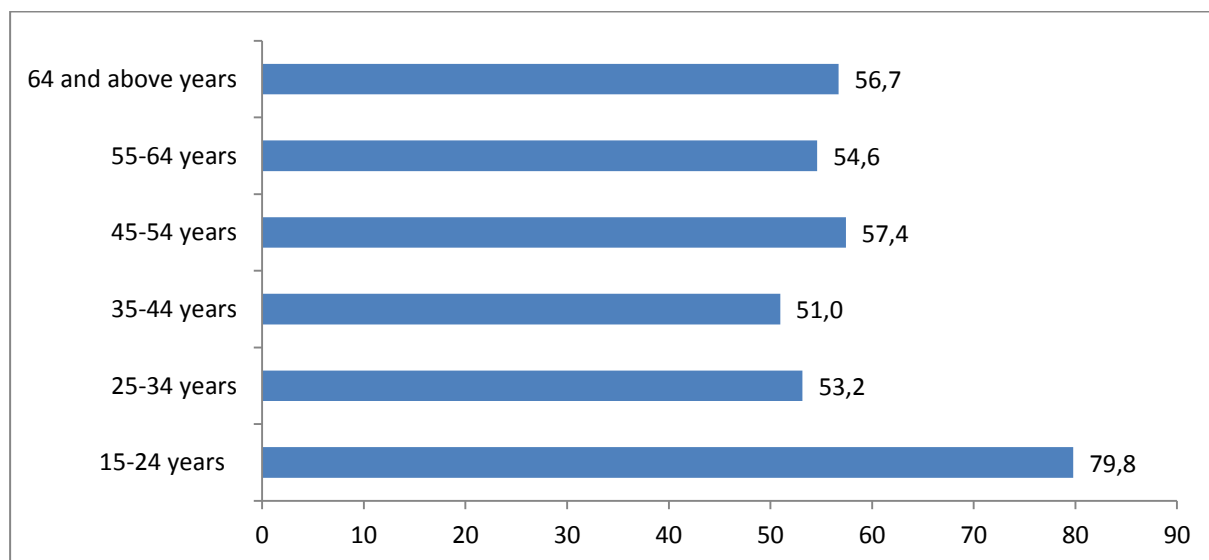
Source: HLFS 2013, Betam update for November 2015

As seen in Table 2, the share of the age group of 15-24 years in the employees earning 1300TL and higher is bounded at 7.5 percent while its share in those earning lower than 1300TL reaches to 22.1 percent.

Figure 1 expresses age distribution of formal and full-time employees earning lower than 1300TL in the private sector as wage-earners or casual workers. The figure presents that the share of the age group of 15-24 years is the highest among those earns lower than 1300TL.

In other words, 79.8 percent of those in the ages from 15 to 24 years work for a earning lower than 1300TL. Hence, it is expected that minimum wage increase will be more likely to affect to those having lower experience in the labor market or those who will enter to the labor market for the first time.

**Figure 1 The share of age groups earning less than 1300TL (%)**



Source: HLFS 2013, Betam update for November 2015

Recall that, in Turkey, 57.3 percent of formal and full-time employees working in the private sector as wage earners or casual workers monthly earns lower than 1300TL. Hence, their shares in the age groups of 44-54 years and 64 years and higher converge to its average at the country level. The least likely group which will be affected by the minimum wage increase is the age group of 35-44 years whom share of earning less than 1300TL in this age group is 51 percent.

**Table 3 The effects of minimum wage increase to the wages by age group**

	Mean of wage(TL)	Estimated mean wage by 1300TL minimum	Amount of increase in mean of wages	Increase in mean of wages
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		wage (TL)	(TL)	(%)
<b>15-24 years</b>	1,146	1,396	251	21.9
<b>25-34 years</b>	1,568	1,700	132	8.4
<b>35-44 years</b>	1,783	1,912	129	7.2
<b>45-54 years</b>	1,759	1,914	155	8.8
<b>55-64 years</b>	2,081	2,240	159	7.6
<b>64 and above years</b>	2,638	2,835	198	7.5
<b>Turkey</b>	1,595	1,749	154	9.7

Source: HLFS 2013, Betam update for November 2015

Updated wages for each age group are calculated in Table 3. In its second column, average estimated wages are given for each age group under the assumption that the earnings lower than 1300TL will increase to the new minimum wage by January of 2016. The last two columns gives the estimated change in mean of wages in terms of amount and percentage.

It is expected that the percentage change in the average of wages under a strict assumption will be 9.7 percent at the country level. Thereby, the increase in the average of wages will be lower for those aged 25 years and higher. On the other hand, it is expected that its increase among the employees (full-time and formal employees in the private sector) in the age group 15 and 24 years will be around 22 percent, thus, for this age group, it will be increased by around 250TL.

### Minimum wage increase may shrink gender wage gap

Gender stands out as another significant determinant for wage differentials and many multi-dimensional studies about the question of why women earns lower than men are existed in the literature on economics.

In the Table 4 showing the wage distribution by gender, it declares that 65.9 of women and 54.6 percent of men earn lower than 1300TL for a month.

**Table 4 Current wages by gender**

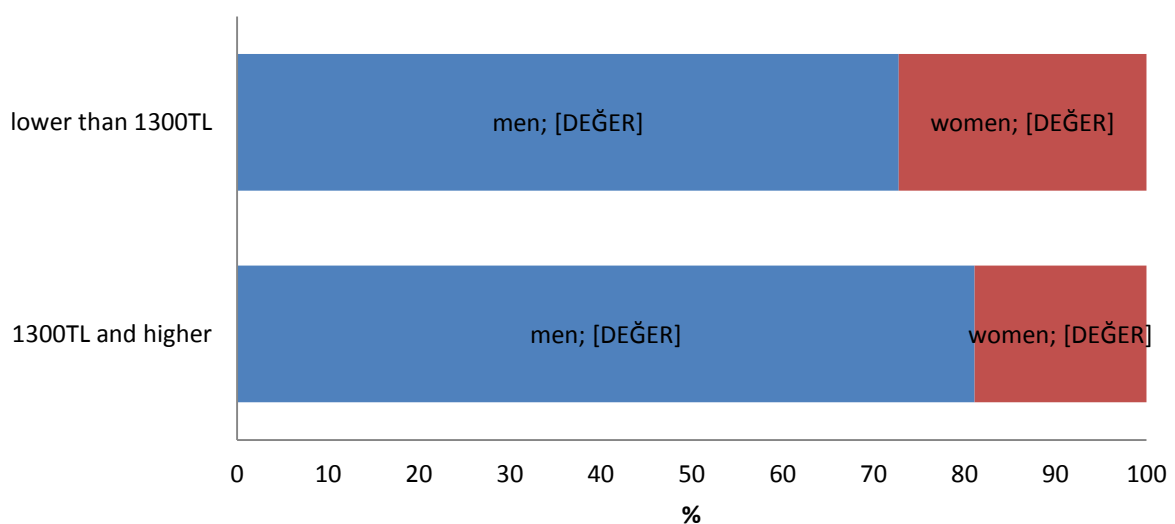
	Men		Women	
	Persons (in thousands)	Percent	Persons (in thousands)	Percent
<b>&lt;1300</b>	3,990	54.6	1,494	65.9
<b>&gt;1300</b>	3,318	45.4	773	34.1
<b>Total</b>	7,308	100.0	2,267	100.0

Source: HLFS 2013, Betam update for November 2015

In addition to wage differentials, share of females in employment is low. For example, 7 million 308 thousand men are formally working in the private sector under the full-time jobs as wage earners or casual employees, however 2 million 267 thousand women are employed under the same condition (Table 4).

Figure 2 presents the distributions of those who earn lower than 1300TL and the shares of those who earn 1300TL and higher by gender. 72.8 percent and 27.2 percent of the employees earning lower than 1300TL are respectively men and women. In addition, 81.1 percent of those working for 1300TL and higher for a month are men and only 18.9 percent of them are women. Hence, women are less likely to be formally working in the private sector under the full-time jobs as wage earners or casual employees and earn lower wages than men. Looking within this context, in consequence of minimum wage increase affecting the earnings in between the previous minimum wage level and its new one to increase to 1300TL, increase in average earnings of women will be higher than in that of men.

**Figure 2 Gender distribution of those having net earning lower than 1300TL and earning 1300TL and higher**



Source: HLFS 2013, Betam update for November 2015

The effect of minimum wage increase to average earnings are reported in Table 5. The results shows that average earnings of women will increase to 1719TL and average earnings of men will increase to 1758TL. In conjunction with wage shock, it is predicted that women’s average earnings will increase around by 200TL and men’s average earnings will increase around by 140TL under the assumptions. In other words, it is forecasted that average earnings will increase by 12.9 percent for women and it will increase by 8.6 percent for men. Hence, it is expected that the wage shock due to minimum wage increase will shrink the gender wage gap. Despite this prediction, it is probable the wage shock to labor supply and labor demand to affect. We would like to remind you to consider these effects for the final outcome.

**Table 5 The effects of minimum wage increase to the wages by gender**

	<b>Mean of wage(TL)</b>	<b>Estimated mean wage by 1300TL minimum wage (TL)</b>	<b>Amount of increase in mean of wages (TL)</b>	<b>Increase in mean of wages (%)</b>
Men	1,618	1,758	139	8.6
Women	1,523	1,719	196	12.9

Source: HLFS 2013, Betam update for November 2015

Minimum wage increase may help increase low rate of female labor force participation. In other words, minimum wage increase by increasing the return of being in labor force may attract the women out of the labor force to participate.

### **The youngs, the womens and informality**

The data indicates that the increase in minimum wage will be more likely to affect youngs and women. Since the share of employees working for minimum wage is higher among these groups, then minimum wage increase may help close the wage gap in the favour of these groups. However, on the other hand, both unemployment and informality rates among the youngs and women are higher relative to other groups. According to 2013-HLFS data, one out of every five youngs in the ages between 15 and 24 years could not find a job and their informality rates for those working as wage earners/casual workers or salary earners are reaching to 35.3 percent (Additional Table 1). According to HLFS data in 2013 shows, 22.2 percent of women and 19.1 percent of men are informally employed in paid jobs (Additional Table 2).

In consideration of the regulation legally binding to the firms, their production cost will substantially increase. And thereby, it is more likely the firms to incline into the informal market if no increased comprehensively auditing. Besides, it is predictable that job creation may have a moderate decrease along with the increase in labor cost. Thereby, it is likely the effect of minimum wage increase to the disadvantaged groups in the labor market such as the youngs and the women to be worsen.

**Additional Table 1 Unemployment and informality rates in Turkey and in youngs.**

	Unemployment rate (%)	Informality rate* (%)
15-24 years	18.7	35.3
Turkey	9.7	19.9

Source: Household Labor Force Survey(HLFS) 2013, Betam

\*Calculated among wage and salary earners and casual employees.

**Additional Table 2 Labor market indicators by gender**

	Unemployment rate (%)	Informality rate* (%)
Men	8.7	19.1
Women	11.9	22.2

Source: Household Labor Force Survey(HLFS) 2013, Betam

\*Calculated among wage and salary earners and casual employees.