

EMPLOYMENT EXCEEDS ITS PRE-PANDEMIC LEVEL IN Q3

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Executive Summary

As of 2021, Turkstat decided to publish labor market statistics of the respective month and they published the data of January 2021 on March 10, 2021.¹ Turkstat started publishing individual monthly labor market estimates instead of 3-month moving average estimates with the new revision. Previously, it took about 70 days to announce the basic labor market estimates of the reference month; however, it takes about 40 days since 2021. The shortening of the delay in the publication of the estimates is undoubtedly beneficial to follow the current trends in the labor market in a timely manner. Nevertheless, Turkstat also publishes the 3-month labor market figures since the sample size used for calculating the monthly estimates fails to be sufficient for some labor market indicators. The 3-month labor market statistics extends their coverage on the education levels and occupational breakdowns as well as employment at work and weekly working hours data.

Although the new publication policy is an important step to reach the up-to-date labor market statistics concurrently, the new monthly estimates are more volatile than 3-month moving average estimates as they contain fewer observations. High volatility in both the raw and the seasonally adjusted data of the sectorial employment not only raises concerns about the quality of the estimates but also makes the estimates harder to interpret.

In fact, according to the seasonally adjusted data in 2021, in services sector the employment level **increased by 480 thousand in July, decreased by 341 thousand in August, and increased by 175 thousand in September** MoM. Similarly, in industrial sector, the employment level **decreased by 278 thousand, and increased by 221 thousand and 218 thousand in August and September** MoM, respectively. It is not possible to totally attribute the high swings in the employment levels in the subsequent months to labor market dynamics. The erratic behavior of the employment level is not specific to the services and the industrial sectors. The employment levels of both the agricultural and the construction sector are also volatile. Nevertheless, the high volatility of the employment levels is not present in the 3-month monthly average estimates. For this reason, Betam decided to evaluate the 3-month estimates in "Quarter on Quarter Labor Market Outlook" in addition to the monthly

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1 For further information (in Turkish) about the details see: <https://betam.bahcesehir.edu.tr/2021/03/isgucu-piyasasi-gorunumu-mart-2021/>

notes. We waited for the data of Q3 to start. From now on, we aim to publish quarterly research notes that contain the unemployment rates based on the hours-worked, youth unemployment and education levels as well.

Employment and the number of employed at work rise

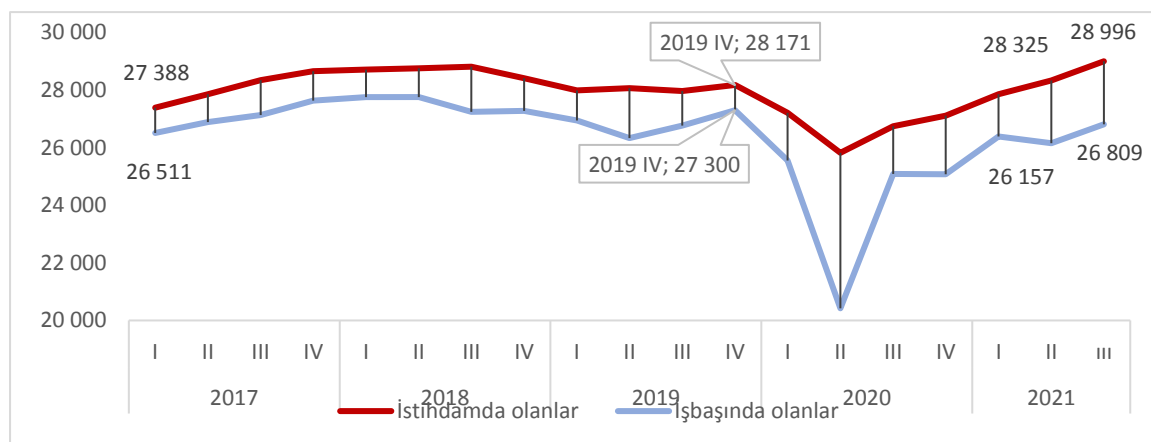
According to the seasonally and working day adjusted estimates, the number of employed people had fallen by 961 thousand QoQ to 27 million 210 thousand following the outbreak of the pandemic in the Q1 2020. In Q2, when the pandemic severely affected the labor market, the number of employed people reduced by 1 million 391 thousand QoQ to 25 million 819 thousand. The cumulative decrease in the number of employed persons was 2 million 352 thousand in the 2-quarter period.

The number of employed at work persons reduced by 1 million 744 thousand to 25 million 556 thousand in Q1 2020. In Q2 2020, it dropped by 5 million 135 thousand to 20 million 421 thousand. The gap between the number of employed persons and the number of employed at work persons reached its maximum about 5 million 400 thousand in Q2 2020 while it remained relatively stable in a narrow band before the pandemic (Figure 1, Table 1). The underlying reasons behind the rising gap are simultaneously enactment of both the short time working allowances, in which the government paid some portion of the insurances of the registered workers, and the ban on laying the employees as well as the unpaid leave at the same time. As of Q3, not only the number of employed persons but also the number of employed at work persons started to increase. The number of employed persons rose by 747 thousand whereas the number of employed at work persons increased by 1 million 315 thousand QoQ in Q1 2021.

The number of employed persons rose by 671 thousand to 28 million 996 thousand in Q3 2021 (Figure 1). So, the number of employed persons strongly rose and exceeded its pre-pandemic (Q4 2019) level by 825 thousand (Table 1).

While the number of employed persons rose, the number of employed at work persons (people who are in employment and participated in an economic activity for 1 hour in the reference period) dropped by 230 thousand QoQ in Q2 but strongly increased by 652 thousand QoQ in Q3 and reached 26 million 809 thousand.

Figure 1: Seasonally adjusted levels of employed people, and employed people at work (000)

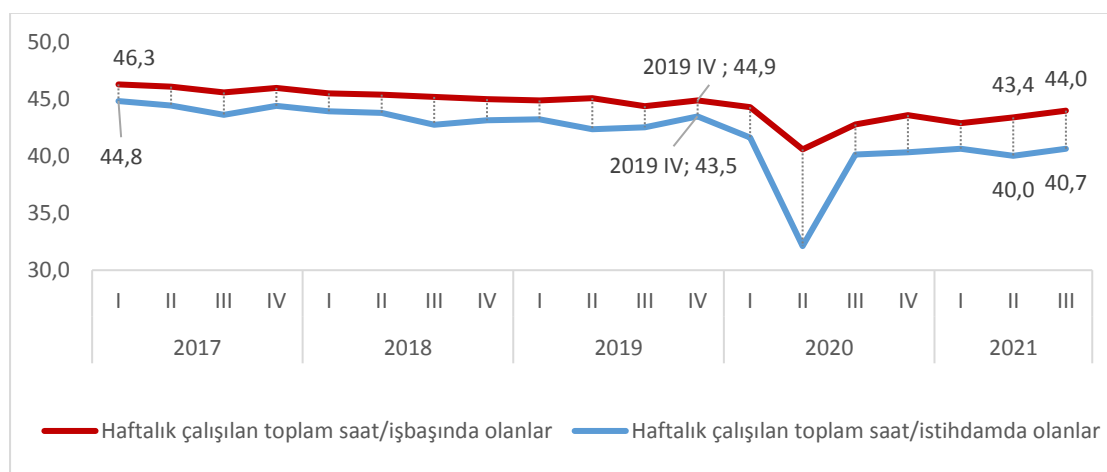


Source: Turkstat, Betam

Weekly average hours at work increases

Turkstat announces the average weekly hours for the employed at work persons in quarterly releases. In addition to this series, we calculate the average working hours for the persons in employment. The gap between these two series started to widen with the outbreak of the pandemic even though it remained stable in a band until the eve of pandemic (Q4 2019). In fact, the weekly average working hours is 43.5 hours for the people in employment whereas it is 44.9 hours for the people at work in Q4 2019 (Table 1). The gap was 1.4 hours in Q4 2019, and it rose to 2.7 and 8.5 hours in Q1 and Q2 2020, respectively. The average weekly working hours rose by 0.7 hours for the people in employment, and it increased by 0.6 hours for the people at work. The average working hours of the people in employment and the people at work became 40.7 and 44 hours, respectively. Even though the average weekly working hours rose both for the people in employment and the people at work in Q3 2021, the average working hours of the people in employment and the people at work are lower 2.8 and 0.9 hours in compared to the eve of the pandemic (Q4 2019), respectively.

Figure 2: Weekly average hours at work, SA



Source: Turkstat, Betam

Non-agricultural employment of females and males exceed their pre-Covid 19 levels

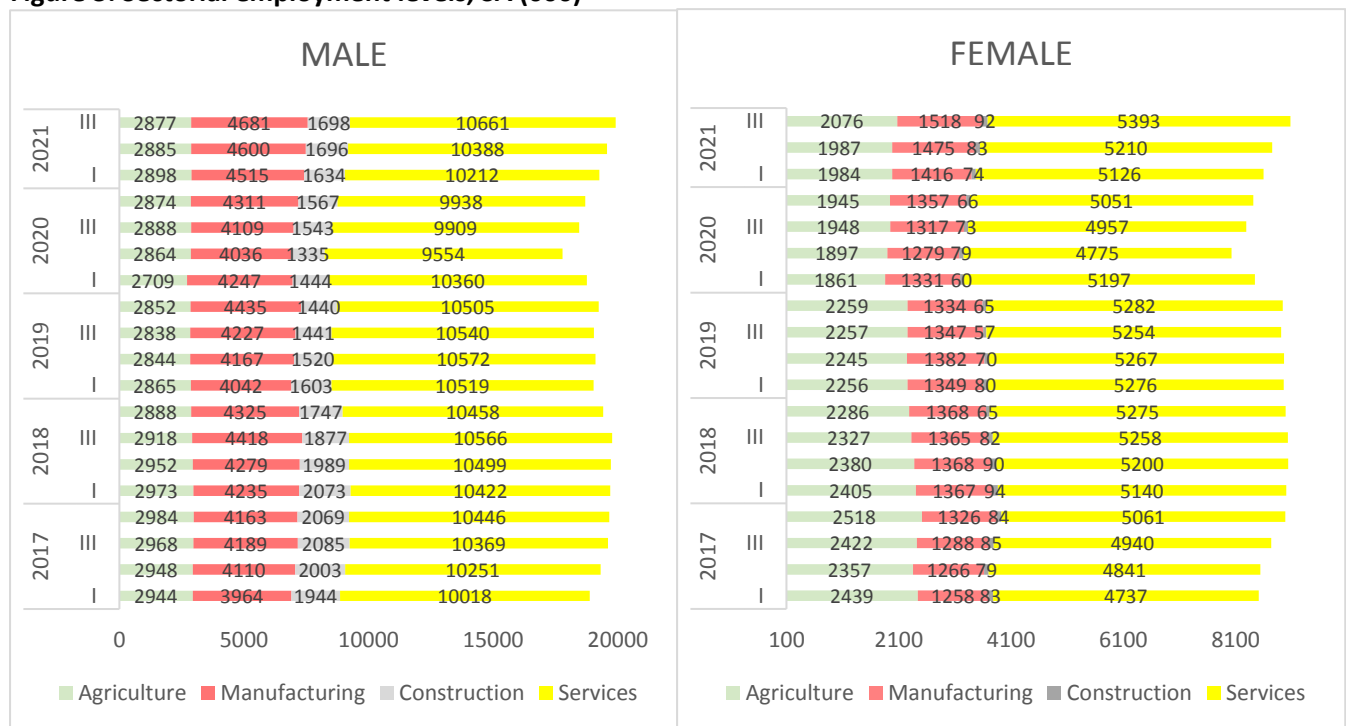
According to the QoQ seasonally adjusted estimates, we noted the cumulative fall in employment was 2 million 352 thousand in Q1 and Q2 2020. The sectorial decomposition of the data revealed that the difference stemmed from the drop in the employment in the services sector. In fact, the services sector experienced the highest falls in the female (507 thousand) and male (951 thousand) employment in 2020 Q2 comparing to 2019 Q4 (Figure 3). The underlying reason of this decline was the slowdown in economic activity due to the mobility restrictions. The employment started to recover as of Q3 2020. The number of people in employment rose by 671 thousand QoQ in Q3 2021, and it increased by 825 thousand in compare the pre-pandemic period (Q4 2019).

Female employment rose by 324 thousand to 9 million 79 thousand in Q3 2021. The services sector experienced the highest increase (183 thousand) in the female employment. In Q3 2021, the female employment increased by 43 thousand and 9 thousand in the manufacturing and constructions

sectors, respectively. The female employment in the agricultural sector rose by 89 thousand. In the agricultural sector, the female employment had severely fallen by 400 thousand to 1 million 861 thousand QoQ in Q1 2020. Even though it recovered, the female employment level is 183 thousand lower in Q3 2021 in compared to pre-pandemic (Q4 2019).

QoQ male employment rose by 348 thousand to 19 million 917 thousand in Q3 2021. In this period, the male employment in the services sector and the manufacturing sector rose by 273 thousand and 81 thousand, respectively. The manufacturing sector experienced the most stable increase in the male employment. As of Q2 2018, the male employment in the construction sector steadily declined about 550 thousand in the subsequent periods until Q4 2019. Even though the male employment in the construction sector is in an increasing trend as of Q3 2020, it has lost its momentum. In fact, in Q3 2021, there was a limited increase of 2 thousand in the male employment in the construction sector and it rose to 1 million 698 thousand. The male employment level is still 375 thousand (18%) lower than its Q1 2018 level (Figure 3).

Figure 3: Sectorial employment levels, SA (000)

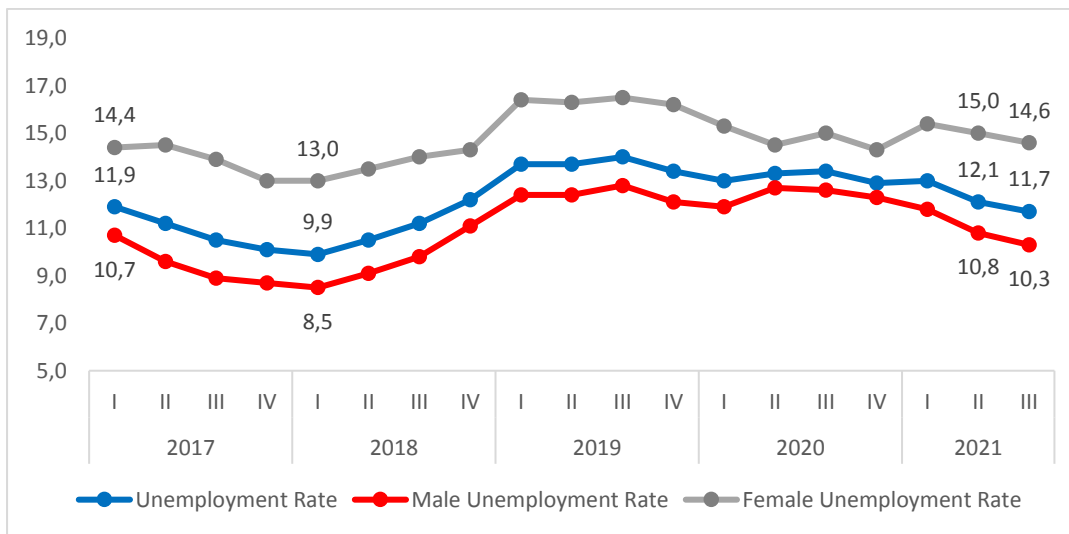


Source: Turkstat, Betam

Unemployment falls

According to the seasonally adjusted data, the headline unemployment rate fell dramatically by 0.4 percentage point (pp) to 11.7% QoQ in Q3 2021. The male unemployment rate has fallen in the last 4 quarters, and it continued to fall in Q3 2021. It reduced by 0.5 pp to 10.3%. The female unemployment rate had fallen 0.4 pp in Q2 2021, and it fell 0.4 pp in Q3 to 14.6%. In the last two quarters, unemployment fell as employment rose. In Q3 2021, the unemployment rate is quite higher than its Q1 2018 level, which fell below 10% because of high growth in 2017 (Figure 4).

Figure 4: Unemployment rates, SA (%)

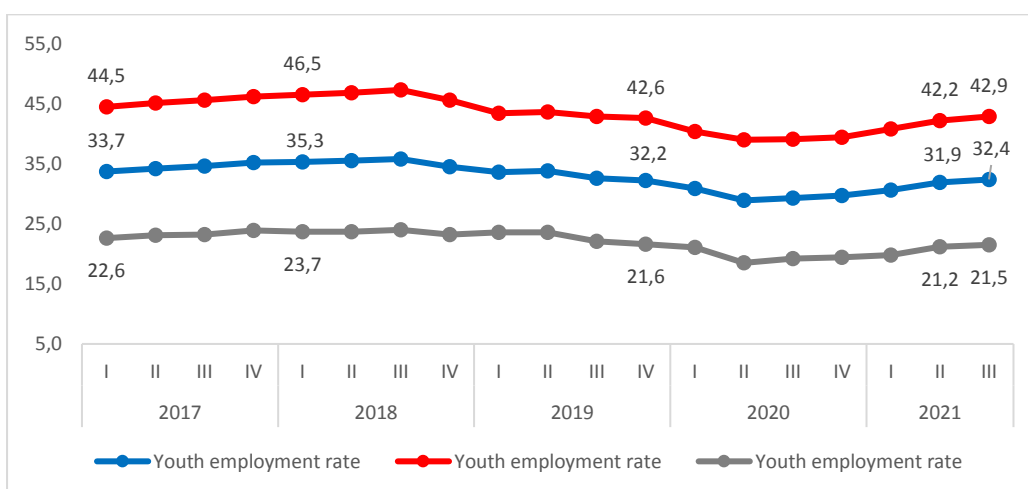


Source: Turkstat, Betam

Youth employment rises for female and male

According to the seasonally adjusted data, youth employment (age 15-24) rose by 86 thousand to 3 million 891 thousand in Q3 2021. As a result, the youth employment rate (youth employment/non-corporate young population) increased by 0.5 pp to 32.4% in Q3 2021. The youth employment rate exceeded its pre-pandemic level (Q4 2019: 32.2%, Q3 2021: 32.4%). In Q3 2021, both the female and male youth employment rates increased. On QoQ basis, male youth employment rate increased by 0.7 pp whereas female youth employment rate rose by 0.3 pp. Nevertheless, even though male youth employment rate has been rising since Q3 2020, it is still 3.4 pp lower than its Q1 2018 level (46.5%). Similarly, the female youth employment rate (21.5%) is lower than its Q1 2018 level (22.6%). The underlying reason of this outcome is that the working age population rises faster than the number of employed persons.

Figure 5: Youth employment rates, SA (%)

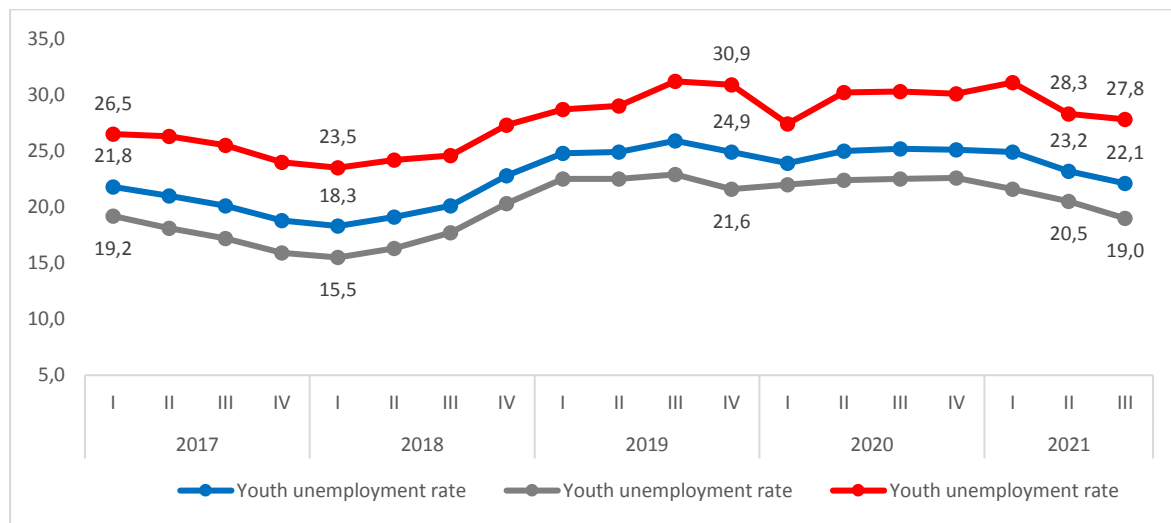


Source: Turkstat, Betam

According to the seasonally adjusted data, the number of unemployed persons dropped by 46 thousand to 1 million 105 thousand in Q3 2021. As a result, the youth unemployment rate reduced by

1.1 pp to 22.1%. As the number of female unemployed persons decreased by 1 thousand to 487 thousand, the female unemployment rate dropped by 0.5 pp to 27.8% (Table 3). The number of male unemployed persons dropped by 45 thousand to 618 thousand and the male unemployment rate reduced by 1.5 pp to 19%. It is worth noting that the primary reason of the total unemployment stems from labor market dynamics. The employment levels rose, and unemployment levels fell for both females and males. As a result, the unemployment rate dropped. Like the headline unemployment rate, the youth unemployment rate fell due to rises in the youth employment in the last two quarters. However, it is worth noting that the youth unemployment rate is still 3.8 pp higher than its Q1 2018 level, which reduced to 18.3% because of high growth and high increase in employment.

Figure 6: Youth unemployment rates, SA (%)



Source: Turkstat, Betam

Unemployment of high-educated people surges

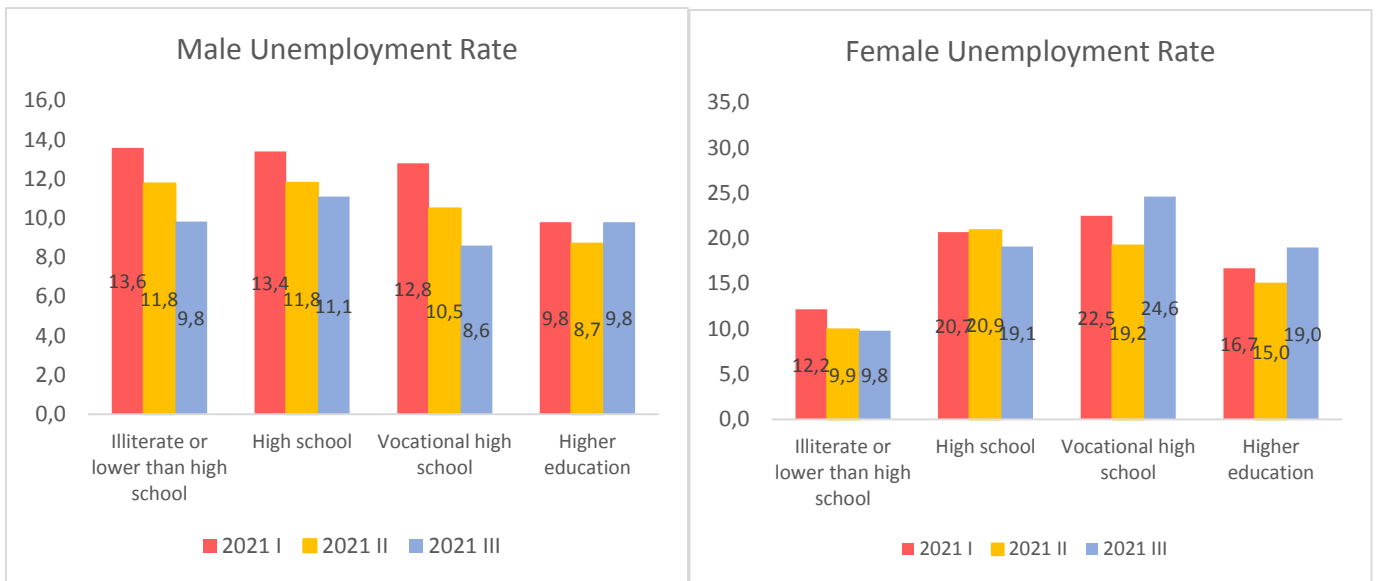
According to **raw** data, the unemployment rates of "high school" and "less than high school" graduates fell, the unemployment of "vocational high school" did not change and the rate of "higher education" graduates rose. The unemployment rate of "**vocational high school**" graduates remained at 12.5% in Q3 2021 while the unemployment rate of "**higher education**" graduates surged by 2.4 pp. The unemployment rate of "**less than high school**" and "**high school**" declined by 1.4 pp and 0.9 pp, respectively.

The breakdown of educational attainment reveals that female unemployment rate of "**vocational high school**" (5.5 pp) and "**higher education**" (4 pp) rose; however, it dropped for other groups (Figure 7, Table 4). The female unemployment rate of "**less than high school**" graduates declined by 0.1 pp QoQ, "**high school**" graduates decreased by 1.8 pp.

The male unemployment rate declined for all the education groups except for "**higher education**", and the "**less than high school**" group experienced the highest fall by 2 pp (9,8%) in the male unemployment rate (Table 4). The unemployment rate of "**higher education**" graduates rose from 8.7% to 9.8%.

It is worth noting that these estimates are not seasonally adjusted. In addition, it is not possible to seasonally adjust these series as Turkstat does not publish these data until 2014.

Figure 7: Unemployment rates by educational level, Unadjusted (%)



Source: Turkstat, Betam

Table 1: The number of employed, employed at work and average hourly work indicators, SA

		Employed	Employed at work	Total weekly hours at work / Employed at work ⁽¹⁾	Total weekly hours at work / Employed ⁽²⁾
2017	I	27388	26511	46.3	44.8
	II	27853	26889	46.1	44.5
	III	28346	27130	45.6	43.6
	IV	28650	27632	46.0	44.4
2018	I	28708	27749	45.5	44.0
	II	28757	27754	45.4	43.8
	III	28811	27239	45.2	42.8
	IV	28412	27273	45.0	43.2
2019	I	27990	26938	44.9	43.3
	II	28068	26335	45.1	42.4
	III	27960	26763	44.4	42.5
	IV	28171	27300	44.9	43.5
2020	I	27210	25556	44.3	41.6
	II	25819	20421	40.6	32.1
	III	26745	25085	42.8	40.2
	IV	27110	25072	43.6	40.3
2021	I	27857	26387	42.9	40.7
	II	28325	26157	43.4	40.0
	III	28996	26809	44.0	40.7

Source: Turkstat, Betam

Table 2: Sectoral employment levels, Seasonally Adjusted (000)

		MALE						FEMALE					
		Total	Nonfarm	Agriculture	Industry	Construction	Services	Total	Nonfarm	Agriculture	Industry	Construction	Services
2017	I	18870	15926	2944	3964	1944	10018	8517	6078	2439	1258	83	4737
	II	19310	16364	2948	4110	2003	10251	8543	6186	2357	1266	79	4841
	III	19611	16643	2968	4189	2085	10369	8735	6313	2422	1288	85	4940
	IV	19662	16678	2984	4163	2069	10446	8988	6471	2518	1326	84	5061
2018	I	19702	16730	2973	4235	2073	10422	9006	6601	2405	1367	94	5140
	II	19719	16767	2952	4279	1989	10499	9038	6658	2380	1368	90	5200
	III	19779	16861	2918	4418	1877	10566	9032	6705	2327	1365	82	5258
	IV	19418	16530	2888	4325	1747	10458	8994	6708	2286	1368	65	5275
2019	I	19029	16164	2865	4042	1603	10519	8961	6705	2256	1349	80	5276
	II	19104	16259	2844	4167	1520	10572	8964	6719	2245	1382	70	5267
	III	19046	16208	2838	4227	1441	10540	8915	6658	2257	1347	57	5254
	IV	19232	16380	2852	4435	1440	10505	8940	6681	2259	1334	65	5282
2020	I	18761	16051	2709	4247	1444	10360	8449	6588	1861	1331	60	5197
	II	17789	14925	2864	4036	1335	9554	8031	6133	1897	1279	79	4775
	III	18449	15561	2888	4109	1543	9909	8295	6347	1948	1317	73	4957
	IV	18690	15816	2874	4311	1567	9938	8419	6474	1945	1357	66	5051
2021	I	19258	16361	2898	4515	1634	10212	8599	6616	1984	1416	74	5126
	II	19569	16684	2885	4600	1696	10388	8755	6768	1987	1475	83	5210
	III	19917	17040	2877	4681	1698	10661	9079	7003	2076	1518	92	5393

Source: Turkstat, Betam

Table 3: Youth labor force indicators, Seasonally Adjusted

	TOTAL				MALE				FEMALE				
	Employed (000)	Unemployed (000)	Youth employment rate	Youth unemployment rate	Employed (000)	Unemployed (000)	Youth employment rate	Youth unemployment rate	Employed (000)	Unemployed (000)	Youth employment rate	Youth unemployment rate	
2017	I	3999	1114	33.7	21.8	2670	635	44.5	19.2	1329	478	22.6	26.5
	II	4061	1082	34.2	21.0	2710	600	45.1	18.1	1352	483	23.1	26.3
	III	4105	1035	34.6	20.1	2751	571	45.6	17.2	1354	464	23.2	25.5
	IV	4183	968	35.2	18.8	2788	528	46.2	15.9	1395	440	23.9	24.0
2018	I	4183	939	35.3	18.3	2803	514	46.5	15.5	1380	425	23.7	23.5
	II	4187	988	35.5	19.1	2808	548	46.8	16.3	1379	440	23.7	24.2
	III	4208	1058	35.8	20.1	2820	606	47.3	17.7	1388	452	24.0	24.6
	IV	4043	1192	34.5	22.8	2704	690	45.6	20.3	1340	502	23.2	27.3
2019	I	3926	1294	33.6	24.8	2565	746	43.4	22.5	1360	548	23.6	28.7
	II	3943	1305	33.8	24.9	2581	749	43.6	22.5	1362	557	23.6	29.0
	III	3804	1328	32.6	25.9	2533	752	42.9	22.9	1271	576	22.1	31.2
	IV	3755	1248	32.2	24.9	2513	693	42.6	21.6	1242	555	21.6	30.9
2020	I	3604	1133	30.9	23.9	2392	674	40.4	22.0	1212	458	21.1	27.4
	II	3384	1130	28.9	25.0	2320	669	39.0	22.4	1064	460	18.5	30.2
	III	3441	1159	29.3	25.2	2338	679	39.1	22.5	1103	480	19.2	30.3
	IV	3490	1172	29.7	25.1	2375	693	39.4	22.6	1115	479	19.4	30.1
2021	I	3615	1195	30.6	24.9	2470	680	40.8	21.6	1145	516	19.8	31.1
	II	3805	1151	31.9	23.2	2569	663	42.2	20.5	1237	488	21.2	28.3
	III	3891	1105	32.4	22.1	2627	618	42.9	19.0	1265	487	21.5	27.8

Source: Turkstat, Betam

Table 4: Unemployment Rates by Educational and Gender Breakdown

TOPLAM				
	Illiterate or lower than high school	High school	Vocational high school	Higher education
2021 I	13.2	15.6	14.9	12.7
2021 II	11.2	14.4	12.5	11.3
2021 III	9.8	13.5	12.5	13.7
MALE				
	Illiterate or lower than high school	High school	Vocational high school	Higher education
2021 I	13.6	13.4	12.8	9.8
2021 II	11.8	11.8	10.5	8.7
2021 III	9.8	11.1	8.6	9.8
FEMALE				
	Illiterate or lower than high school	High school	Vocational high school	Higher education
2021 I	13.6	13.4	12.8	9.8
2021 II	11.8	11.8	10.5	8.7
2021 III	9.8	11.1	8.6	9.8

Source: Turkstat, Betam

Table 5: General female and male unemployment rates

		Total	Male	Female
2017	I	11.9	10.7	14.4
	II	11.2	9.6	14.5
	III	10.5	8.9	13.9
	IV	10.1	8.7	13.0
2018	I	9.9	8.5	13.0
	II	10.5	9.1	13.5
	III	11.2	9.8	14.0
	IV	12.2	11.1	14.3
2019	I	13.7	12.4	16.4
	II	13.7	12.4	16.3
	III	14.0	12.8	16.5
	IV	13.4	12.1	16.2
2020	I	13.0	11.9	15.3
	II	13.3	12.7	14.5
	III	13.4	12.6	15.0
	IV	12.9	12.3	14.3
2021	I	13.0	11.8	15.4
	II	12.1	10.8	15.0
	III	11.7	10.3	14.6

Source: Turkstat, Betam