

INCREASE IN MANUFACTURING EMPLOYMENT COMBINED WITH DECREASE IN LABOR FORCE PARTICIPATION CAUSED SIZABLE DROP IN UNEMPLOYMENT

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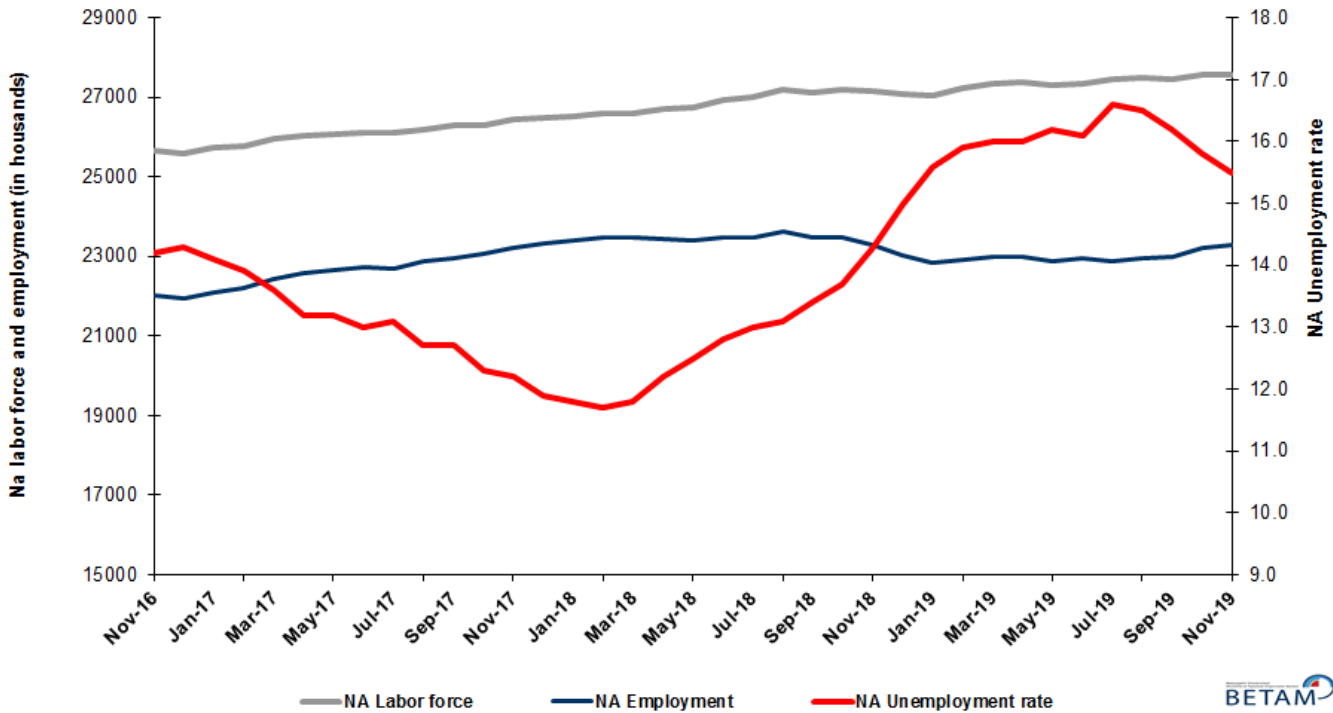
Executive Summary

Seasonally adjusted labor market data shows that in the period of November 2019, non-agricultural unemployment rate turned out to be 15.5 percent, with 0.3 percentage point decrease compared to October 2019. In this period, non-agricultural employment increased by 75 thousand while non-agricultural labor force decreased by 9 thousand. According to sectorial data, while agriculture and manufacturing employment increased, losses occurred in construction and services. Manufacturing employment increased by 92 thousand, while construction and services employment decreased by 10 thousand and 8 thousand, respectively. Based on the seasonally adjusted data, male non-agricultural employment increased by 101 thousand and female non-agricultural employment decreased by 38 thousand.

Increase in employment and decrease in labor force participation

Seasonally adjusted data shows that non-agricultural labor force reached 27 million 551 thousand after the decrease of 9 thousand in November 2019, while non-agricultural employment reached 23 million 281 thousand following an increase of 75 thousand (Figure 1, Table 1). As a result, non-agricultural unemployment decreased by 84 thousand and reached 4 million 270 thousand, and non-agricultural unemployment rate dropped to 15.5 percent.

Figure 1. Seasonally adjusted non-agricultural labor force, employment, and unemployment



Source: Turkstat, Betam

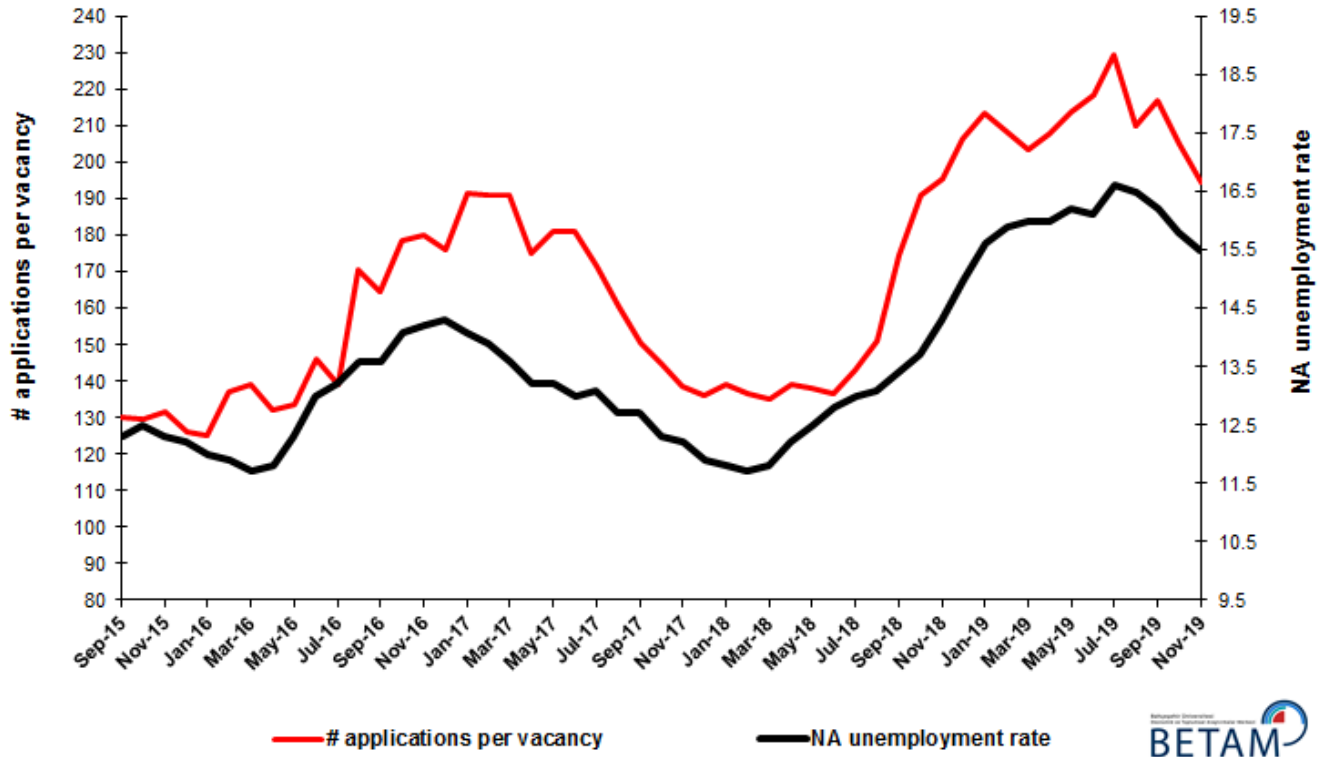
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Unemployment rate is expected to decrease in December 2019

Betam's forecasting model had predicted that non-agricultural unemployment rate would be 15.7 for November 2019 while the decrease attained 15.5 percent. Our forecasting model predicts a decrease of 0.2 percentage point in non-agricultural unemployment to 15.3 percent in December 2019. Forecasting model details are available on Betam's website.¹ Kariyer.net² application per vacancy series used in the Betam forecasting model is depicted in Figure 3. Kariyer.net series is only one of the inputs of Betam forecast model. Indeed, several variables such as employment agency (İŞKUR) data, reel sector confidence index, capacity utilization rate are used in forecasting.

Figure 2 Seasonally adjusted non-agricultural unemployment rate and application per vacancy



Source: Kariyer.net, Turkstat, Betam

Gains in agriculture and manufacturing, losses in services and construction employment

According to seasonally adjusted sectorial labor market data, employment increased in the period of November 2019 compared to October 2019 in agriculture and manufacturing sector (Figure 3, Table 2).³ After the decrease of 89 thousand in September 2019, employment in agriculture sector increased by 45 thousand. After the increase of 48 thousand in October 2019, the number of employed in services sector decreased by 8 thousand. Most significant change in the number of employed people occurred in manufacturing sector, with a sizable gain of 92 thousand in November 2019

¹ For detailed information on Betam's forecasting model, please see Betam Research Brief 168 titled as "Kariyer.net Verisiyle Kısa Vadeli Tarım Dışı İşsizlik Tahmini". For the innovations in the model please see Betam Research Brief 14 titled as "Mevsim Etkilerinden Arındırılmış İşsizlik Tahmini".

Soybilgen, B., "Kariyer.net Verisiyle Kısa Vadeli Tarım Dışı İşsizlik Tahmini", Betam Research Brief 168.

<http://betam.bahcesehir.edu.tr/2014/06/kariyer-net-verisiyle-kisa-vadeli-tarim-disi-issizlik-tahmini/>

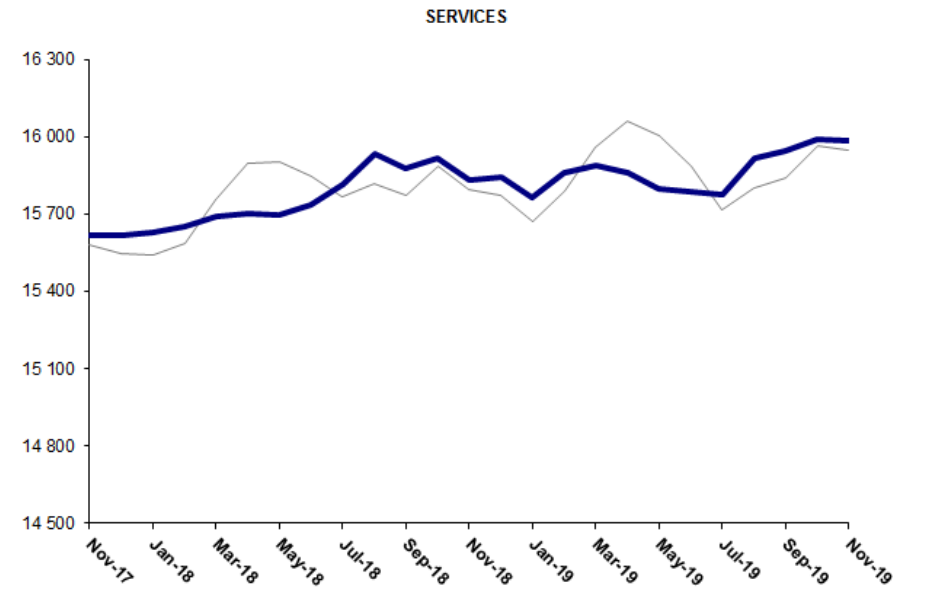
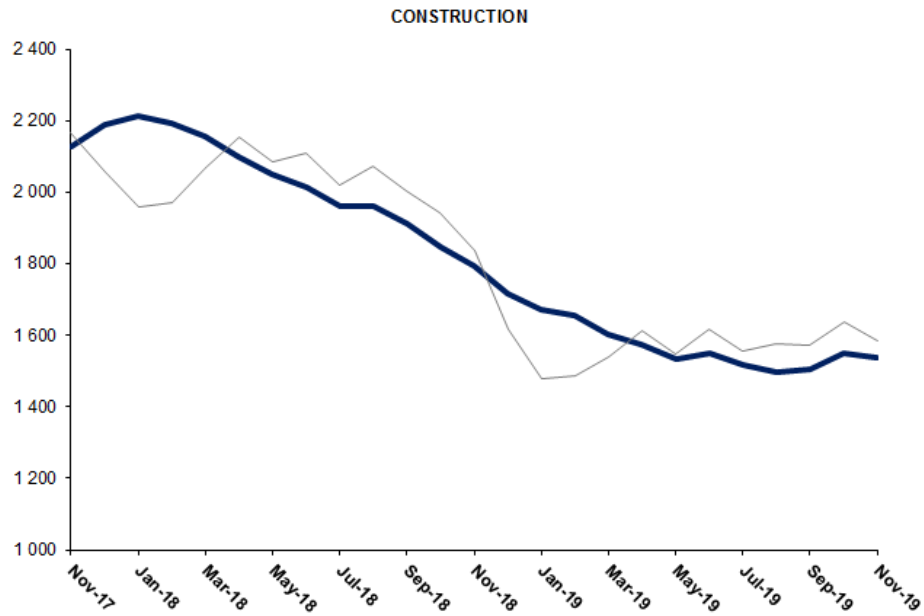
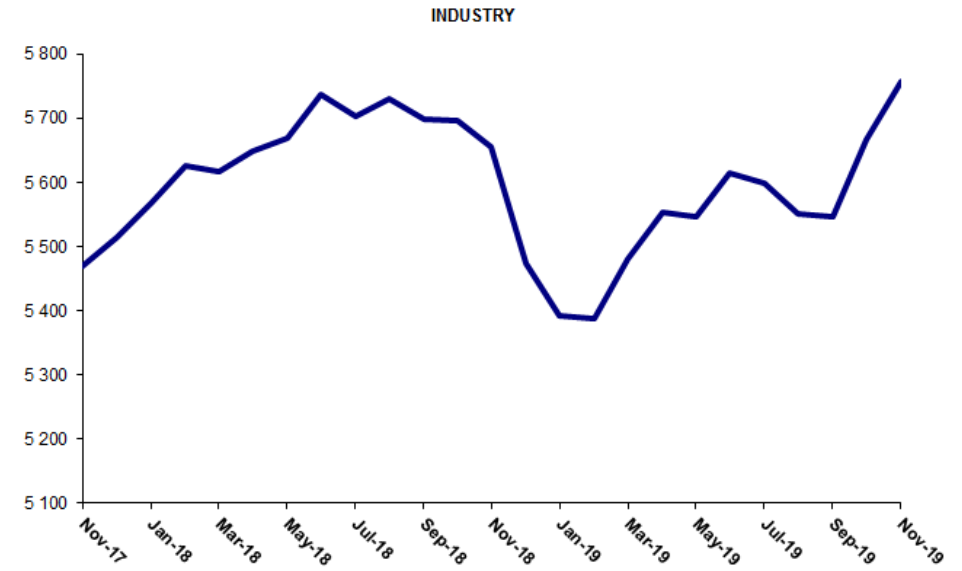
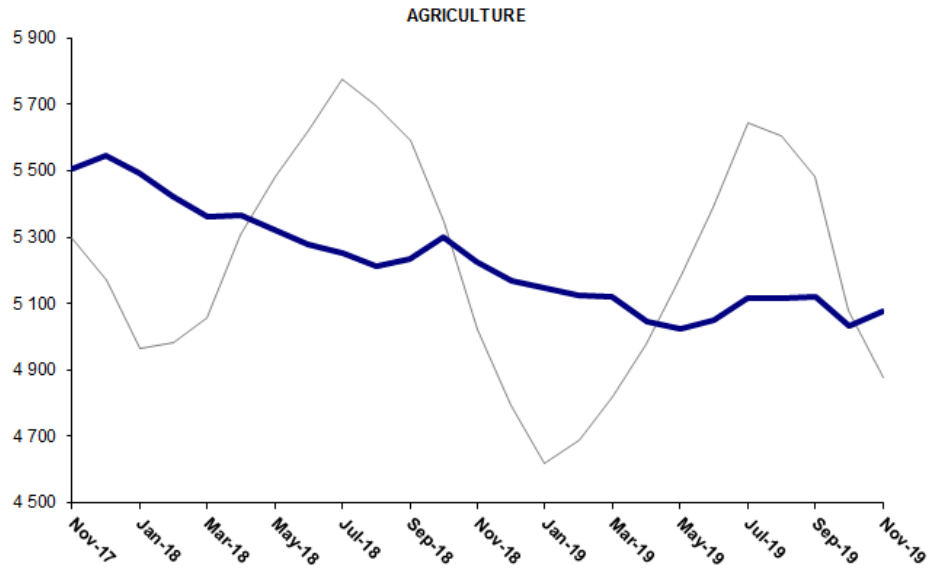
Soybilgen, B., "Mevsim Etkilerinden Arındırılmış İşsizlik Tahmini", Betam Research Brief 14

<http://betam.bahcesehir.edu.tr/2015/08/mevsim-etkilerinden-arindirilmis-tarim-disi-issizlik-tahmini/>

² Betam has been calculating application per vacancy using series released by Kariyer.net for a while. Seasonal and calendar adjustment procedure is applied to application per vacancy series. A decrease in applications per vacancy may be caused by an increase in vacancies or by a decrease in the number of applications. An increase in vacancies signals economic growth while decreasing number of applications indicates a decrease in number of people looking for a job. Monthly labor market series released by TurkStat is the average of three months. Therefore, application per vacancy statistics calculated using Kariyer.net series is the average of three months as well.

³ Employment in each sector is seasonally adjusted separately. Hence the sum of these series may differ from the seasonally adjusted series of total employment. The difference stems from the non-linearity of the seasonal adjustment process.

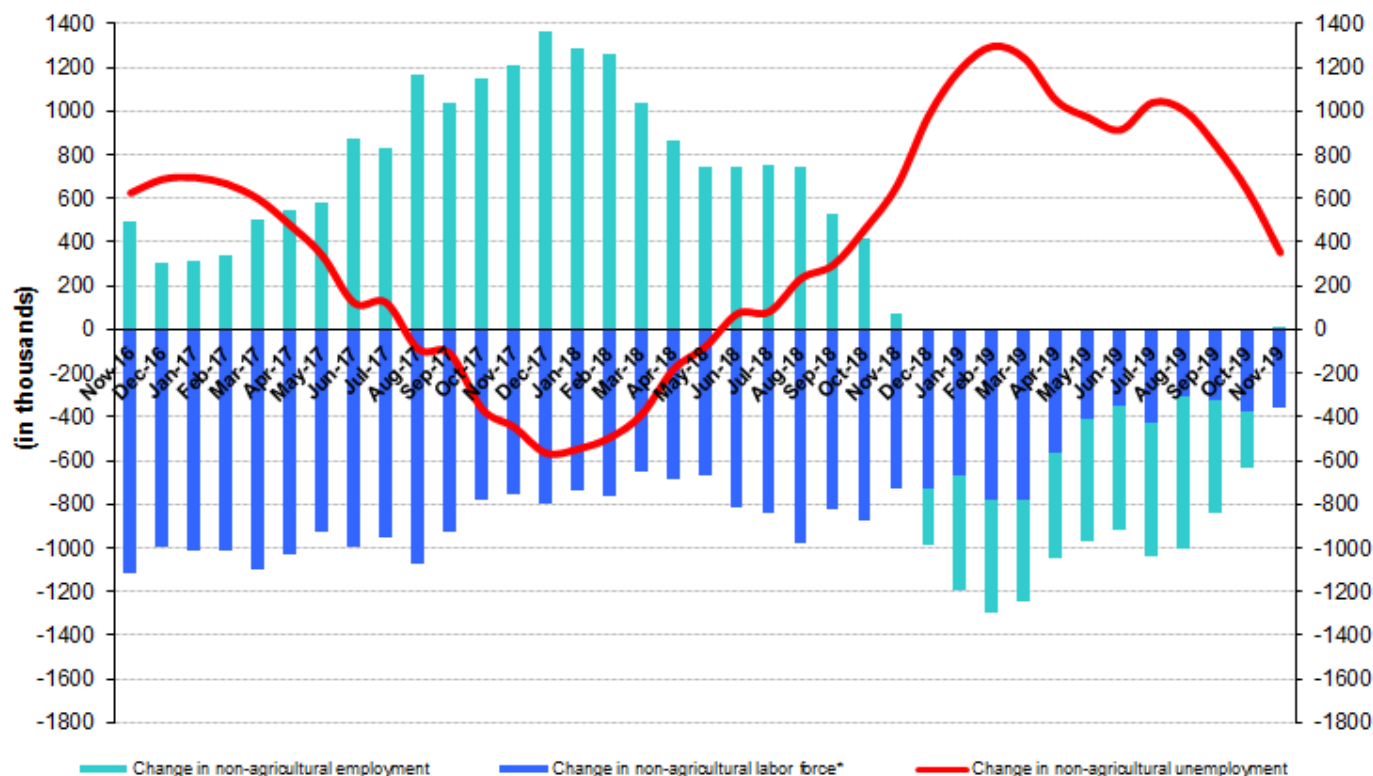
Figure 3: Employment by sectors (in thousand)



Non-agricultural employment reversed its year-on-year decrease after 11 months

Compared to November 2018, non-agricultural labor force increased by 356 thousand (1.3 percent) and non-agricultural employment increased by 2 thousand (0.01 percent) (Figure 4). The annual growth rate of labor force remained well below its normal tendency. Year-on-year decrease in employment came to a halt after 11 consecutive months; compared to November 2018, the number of non-agricultural unemployed increased by 354 thousand.

Figure 4 Year-on-year changes in non-agricultural labor force, employment, and unemployment



* The change in labor force represented with a negative sign.

Source: TURKSTAT, Betam

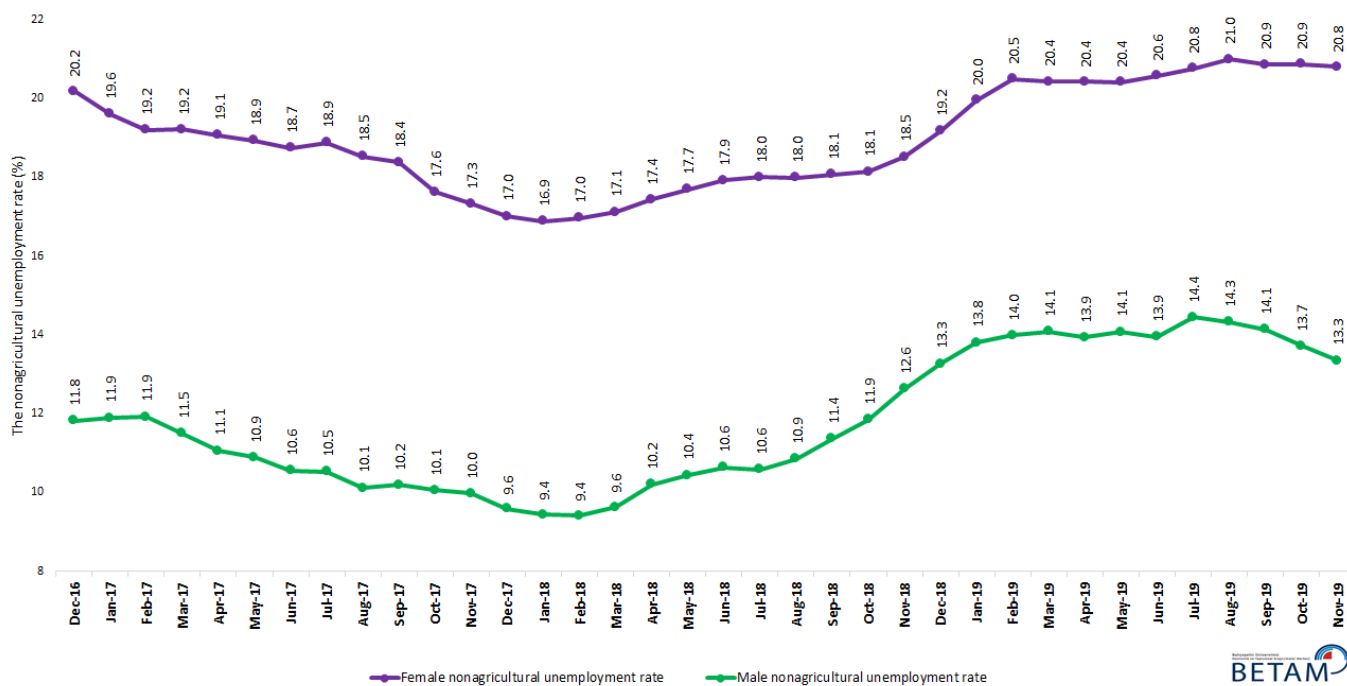
Strong increase in male employment

Figure 5 shows seasonally adjusted non-agricultural unemployment rate for males (green) and for females (purple)⁴. In the period of November 2019, compared to the previous month, female non-agricultural unemployment rate decreased by 0.1 percentage point and reached 20.8 percent, while male non-agricultural unemployment rate decreased by 0.4 percentage points to 13.3 percent. As a result, the gender gap in non-agricultural unemployment rates increased from 7.2 percent to 7.5 percent.

Along with the decrease of 38 thousand in female non-agricultural employment, female non-agricultural labor force decreased by 55 thousand. The decline in female unemployment resulted from the decrease in female labor force. Male employment increased by 101 thousand and male labor force increased by 36 thousand (Table 3). Since November 2018, male labor force and female labor force increased by 184 thousand and 167 thousand respectively. Level of year-on-year increase in male labor force exceeded level of year-on-year increase in female labor force for the first time in 2019.

⁴ Turkstat revised the labor market statistics drastically in February 2014. Within this framework, they back casted various labor market indicators and they also continued to announce seasonally adjusted series. However, Turkstat is not providing back-casted series by gender. Therefore, female and male labor market statistics are not sufficiently long for the seasonal adjustment procedures (There should be minimum 36 observations). With the announcement of the period of February 2017 data, the number of observations required for the seasonal decontamination process was provided. From this period Betam generated seasonal adjustment series in terms of gender. Nevertheless, it should not be forgotten that seasonal adjustment may cause extra volatility in the series for at least a while.

Figure 5: Seasonally adjusted non-agricultural unemployment rate by gender



Source: Turkstat, Betam

Table 1 Seasonally adjusted non-agricultural labor market indicators (in thousands) **

	Labor force	Employment	Unemployment	Unemployment rate	Monthly changes		
					Labor force	Employment	Unemployment
November-16	25667	22022	3645	14.2%			
December-16	25607	21945	3662	14.3%	-60	-77	17
January-17	25722	22095	3627	14.1%	115	150	-35
February-17	25791	22206	3585	13.9%	69	111	-42
March-17	25964	22433	3531	13.6%	173	227	-54
April-17	26020	22585	3435	13.2%	55	152	-97
May-17	26091	22647	3444	13.2%	71	62	9
June-17	26129	22732	3397	13.0%	38	85	-47
July-17	26122	22700	3422	13.1%	-7	-32	25
August-17	26192	22866	3326	12.7%	70	166	-96
September-17	26284	22946	3338	12.7%	92	80	12
October-17	26291	23057	3234	12.3%	7	111	-104
November-17	26440	23214	3226	12.2%	149	157	-8
December-17	26469	23319	3150	11.9%	29	105	-76
January-18	26541	23409	3132	11.8%	72	90	-18
February-18	26584	23474	3110	11.7%	44	65	-21
March-18	26601	23462	3139	11.8%	17	-12	29
April-18	26707	23449	3258	12.2%	106	-13	119
May-18	26757	23412	3345	12.5%	49	-37	86
June-18	26937	23489	3448	12.8%	180	77	103
July-18	26990	23481	3509	13.0%	53	-8	61
August-18	27186	23625	3561	13.1%	197	144	53
September-18	27120	23486	3634	13.4%	-66	-139	73
October-18	27184	23460	3724	13.7%	64	-26	90
November-18	27167	23282	3885	14.3%	-17	-178	161
December-18	27095	23031	4064	15.0%	-72	-251	179
January-19	27046	22827	4219	15.6%	-49	-204	155
February-19	27231	22901	4330	15.9%	184	74	110
March-19	27352	22976	4376	16.0%	122	75	47
April-19	27364	22986	4378	16.0%	12	10	2
May-19	27296	22874	4422	16.2%	-68	-112	44
June-19	27356	22952	4404	16.1%	60	78	-18
July-19	27447	22891	4556	16.6%	91	-61	152
August-19	27499	22962	4537	16.5%	52	71	-19
September-19	27439	22994	4445	16.2%	-60	32	-92
October-19	27561	23206	4355	15.8%	121	212	-91
November-19	27551	23281	4270	15.5%	-9	75	-84

Source: Turkstat, Betam

Table 2 Seasonally adjusted employment by sectors (in thousands) *

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
November-16	5277	5316	1986	14720				
December-16	5307	5265	1958	14721	30	-51	-28	1
January-17	5434	5274	1966	14856	127	9	8	135
February-17	5476	5251	2016	14939	42	-23	50	83
March-17	5385	5346	2092	14995	-91	95	76	56
April-17	5366	5372	2126	15086	-19	26	34	91
May-17	5399	5386	2092	15169	33	14	-34	83
June-17	5396	5383	2067	15282	-3	-3	-25	113
July-17	5499	5363	2108	15229	103	-20	41	-53
August-17	5467	5437	2152	15277	-32	74	44	48
September-17	5508	5421	2124	15401	41	-16	-28	124
October-17	5491	5470	2093	15494	-17	49	-31	93
November-17	5507	5470	2129	15615	16	0	36	121
December-17	5547	5514	2187	15618	40	44	58	3
January-18	5492	5567	2212	15630	-55	53	25	12
February-18	5421	5627	2194	15653	-71	60	-18	23
March-18	5362	5618	2154	15691	-59	-9	-40	38
April-18	5365	5650	2098	15702	3	32	-56	11
May-18	5320	5669	2050	15694	-45	19	-48	-8
June-18	5278	5737	2015	15738	-42	68	-35	44
July-18	5252	5703	1961	15817	-26	-34	-54	79
August-18	5213	5730	1959	15936	-39	27	-2	119
September-18	5236	5698	1911	15877	23	-32	-48	-59
October-18	5298	5696	1847	15917	62	-2	-64	40
November-18	5225	5656	1794	15832	-73	-40	-53	-85
December-18	5168	5474	1715	15843	-57	-182	-79	11
January-19	5145	5392	1670	15765	-23	-82	-45	-78
February-19	5125	5388	1656	15858	-20	-4	-14	93
March-19	5122	5482	1604	15889	-3	94	-52	31
April-19	5045	5553	1574	15859	-77	71	-30	-30
May-19	5025	5546	1532	15796	-20	-7	-42	-63
June-19	5052	5616	1548	15788	27	70	16	-8
July-19	5118	5600	1518	15774	66	-16	-30	-14
August-19	5115	5551	1498	15914	-3	-49	-20	140
September-19	5121	5546	1503	15944	6	-5	5	30
October-19	5032	5666	1549	15992	-89	120	46	48
November-19	5077	5758	1539	15984	45	92	-10	-8

Source: Turkstat, Betam

Table 3: Seasonally adjusted non-agricultural labor force by gender (thousands)

	Female Labor Force	Female Employment	Female Unemployed	Male Labor Force	Male Employment	Male Unemployed
December-16	7454	5950	1504	18180	16031	2149
January-17	7451	5991	1460	18297	16121	2176
February-17	7499	6060	1439	18283	16104	2179
March-17	7598	6139	1459	18363	16251	2112
April-17	7604	6155	1449	18403	16369	2035
May-17	7666	6215	1451	18407	16403	2004
June-17	7676	6238	1438	18449	16501	1948
July-17	7697	6244	1453	18438	16496	1942
August-17	7716	6287	1429	18497	16626	1872
September-17	7779	6350	1429	18504	16618	1886
October-17	7777	6406	1370	18496	16637	1859
November-17	7846	6487	1359	18547	16697	1850
December-17	7879	6539	1340	18580	16799	1781
January-18	7920	6583	1337	18592	16837	1755
February-18	7933	6587	1345	18606	16855	1751
March-18	7924	6568	1356	18662	16866	1797
April-18	7991	6599	1393	18725	16814	1911
May-18	8046	6622	1424	18743	16786	1957
June-18	8088	6638	1449	18850	16846	2004
July-18	8111	6651	1460	18843	16848	1995
August-18	8188	6715	1473	18961	16902	2059
September-18	8185	6707	1478	18919	16769	2150
October-18	8251	6755	1496	18892	16653	2239
November-18	8272	6740	1532	18866	16483	2383
December-18	8331	6734	1597	18845	16344	2500
January-19	8359	6691	1668	18834	16234	2600
February-19	8417	6692	1725	18900	16257	2644
March-19	8459	6731	1728	18913	16250	2663
April-19	8420	6701	1719	18879	16249	2630
May-19	8385	6674	1711	18862	16208	2654
June-19	8410	6681	1730	18887	16253	2634
July-19	8434	6684	1750	18963	16224	2739
August-19	8475	6696	1779	18956	16241	2716
September-19	8452	6689	1763	18966	16285	2681
October-19	8493	6721	1772	19014	16407	2608
November-19	8438	6683	1755	19050	16508	2543

Source: Turkstat, Betam