

## THE DECREASE IN UNEMPLOYMENT STOPPED IN MARCH

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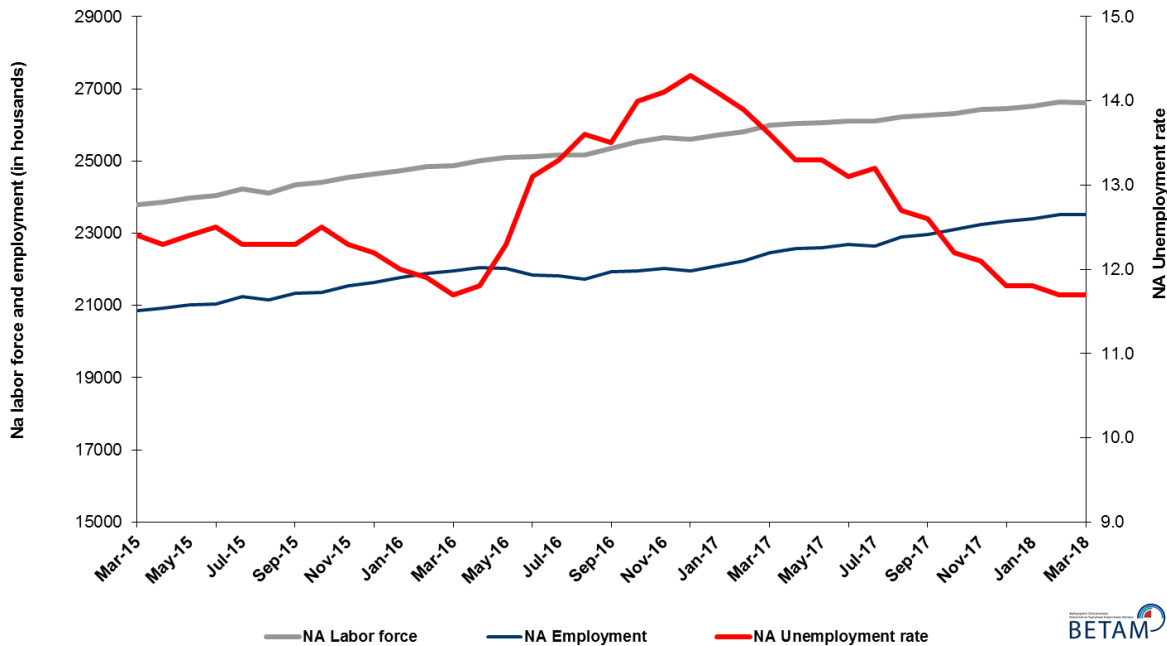
### Executive Summary

Seasonally adjusted labor market data shows that non-agricultural unemployment rate remained at 11.7 percent in the period of March. The non-agricultural unemployment rate decreased from 13.6 to 11.7 in the last year as a consequence of high GDP growth in 2017. As result, the non-agricultural unemployment rate has decreased by 1.9 percentage points in the recent year. The reason behind this decrease has been the strong increase in non-agricultural employment. This increase continues along with GDP growth; from March 2017 to March 2018, employment increased by 272 thousand in manufacture, 701 thousand in the services and 69 thousand in construction, 1 million 42 thousand in total. Betam's forecasting model predicts that the non-agricultural unemployment will remain at 11.7 percent in the period of April 2018.

### The non-agricultural unemployment remained constant compared with the previous period

According to seasonally adjusted labor market data, in the period of March 2018 compared to February 2018, the non-agricultural labor force decreased by 5 thousand and reached 26 million 619 thousand while the number of employed in non-agricultural sectors decreased by 4 thousand and reached 23 million 505 thousand (Figure 1, Table 1). As result, the number of unemployed in non-agricultural sectors decreased by a thousand and recorded as 3 million 114 thousand and the non-agricultural unemployment rate remained at 11.7 percent. In the last year, the seasonally adjusted non-agricultural unemployment rate decreased from 13.6 to 11.7 as a consequence of high GDP growth in 2017.

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



Source: Turkstat, Betam

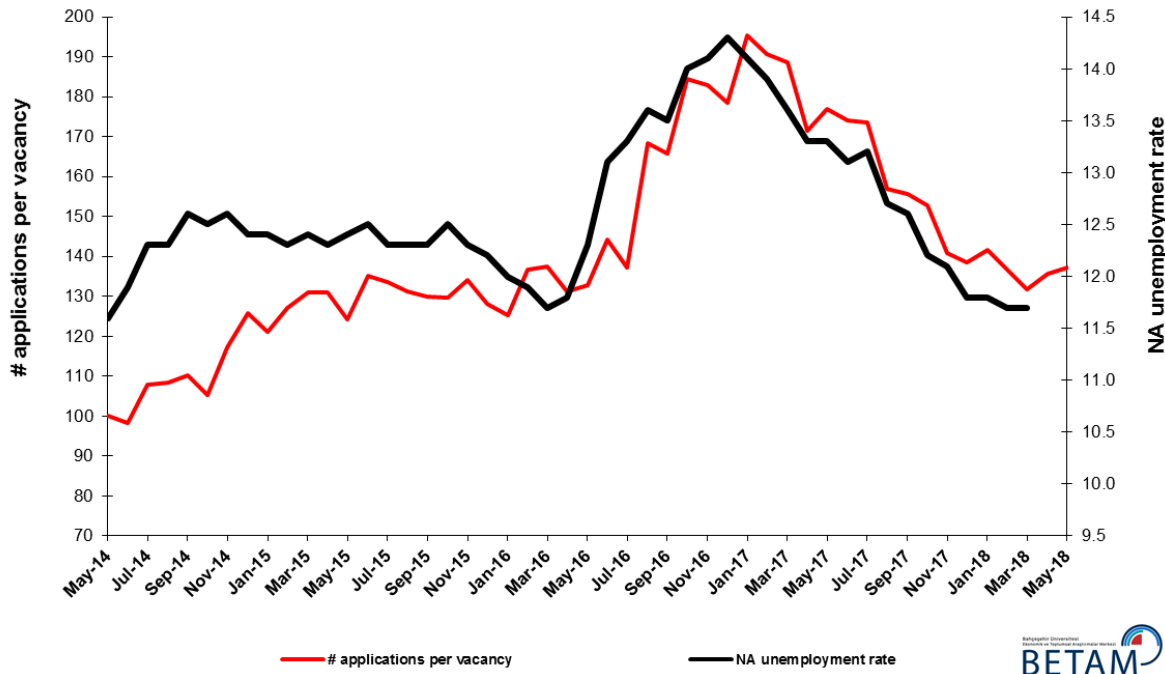
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## Unemployment rate is expected to remain constant in the period of April 2018

Betam's forecasting model had predicted that the seasonally adjusted non-agricultural unemployment rate would decrease from 11.6 percent to 11.5 percent in the March 2018. TURKSTAT revised the unemployment rate of February from 11.6 percent to 11.7 and the non-agricultural unemployment rate remained constant at 11.7 percent in the period of March 2018. Betam's forecasting model predicts that the non-agricultural unemployment rate will remain constant at 11.7 percent in April 2018. Forecasting model details are available on Betam's website.<sup>1</sup> Kariyer.net<sup>2</sup> 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

## Employment decreases in all sectors except services

According to seasonally adjusted sectorial labor market data in March 2018 compared to February 2018, employment decreased in agriculture, manufacturing and construction sectors while employment increased in services (Figure 3, Table 2).<sup>3</sup> Employment decreased by 55, 9 and 44 thousand in agriculture, manufacturing and construction sectors respectively. On the other hand, employment in services increased by 48 thousand. It has to be noted that employment decrease in agriculture accelerates. On the other hand, increase of employment in construction and manufacturing sectors in the previous period has been replaced by a decrease. Non-agricultural unemployment rates which have fallen sharply in the past year have been realized thanks to the employment increases in all sectors. These yearly increases attained 272 thousand in manufacturing, 69 thousand in construction, 701 thousand in services and 1 million 42 thousand in total. Given that the GDP growth rate reached 7.4 percent in 2017, this increase in employment is reasonable.

<sup>1</sup> 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/tr/2014/06/kariyer-net-verisiyle-kisa-vadeli-tarim-disi-issizlik-tahmini/>

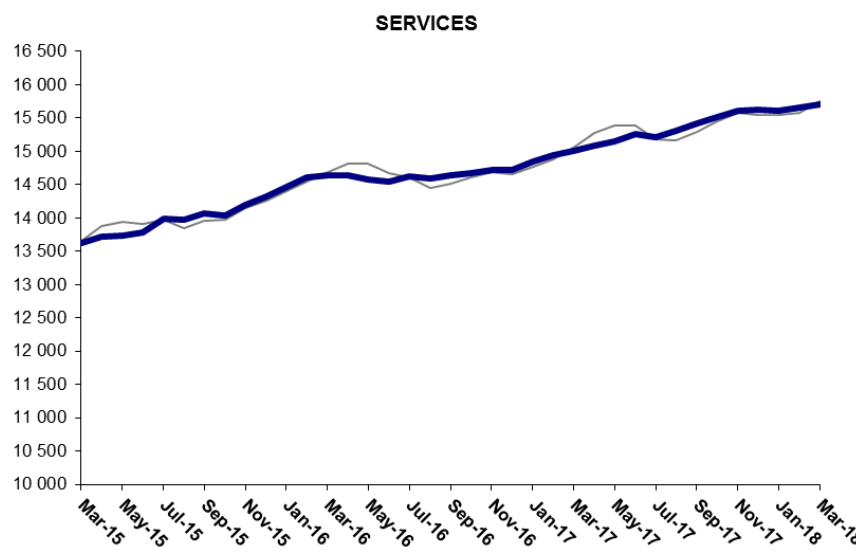
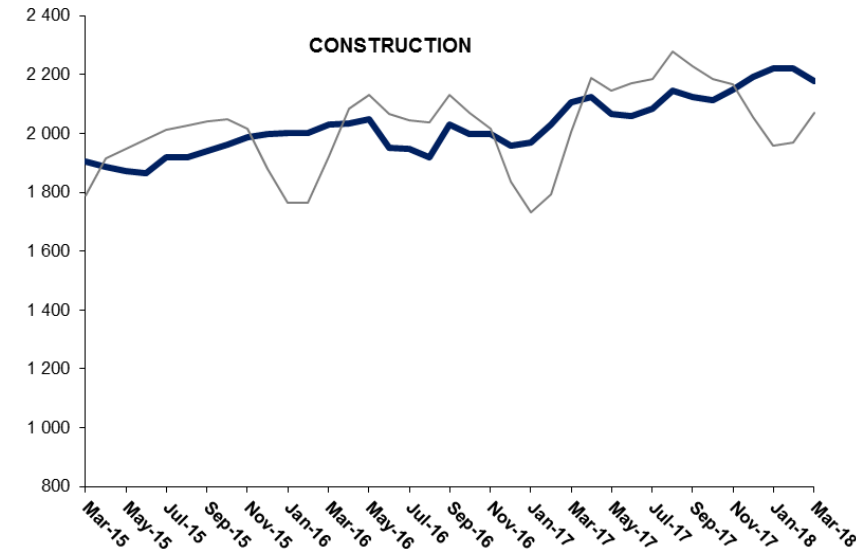
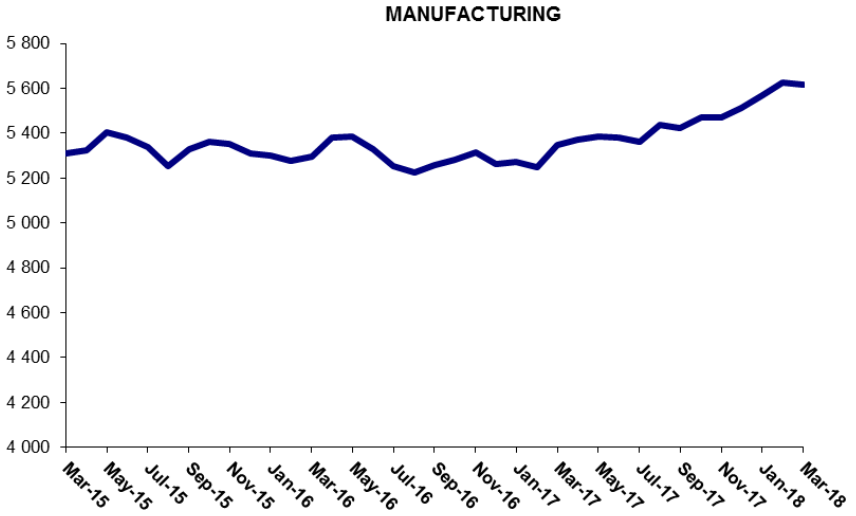
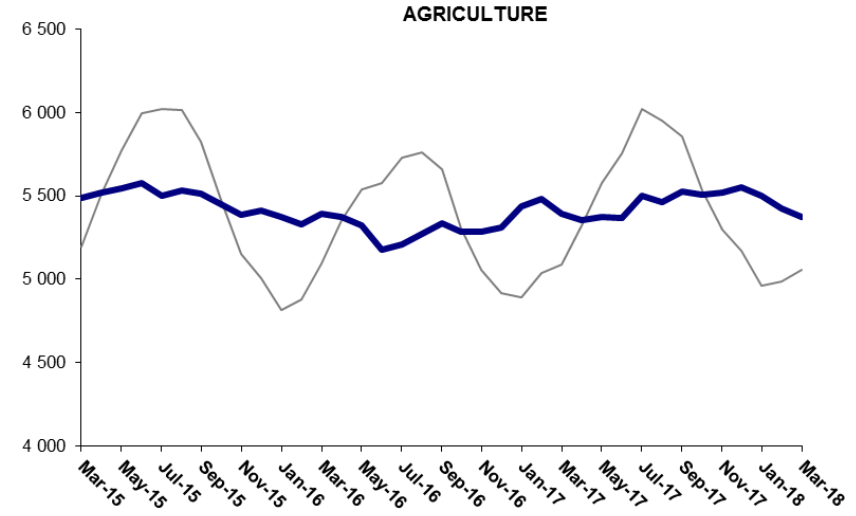
Soybilgen, B., "Mevsim Etkilerinden Arındırılmış İşsizlik Tahmini", Betam Research Brief 14

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

<sup>2</sup> 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.

<sup>3</sup> 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 thousands)**

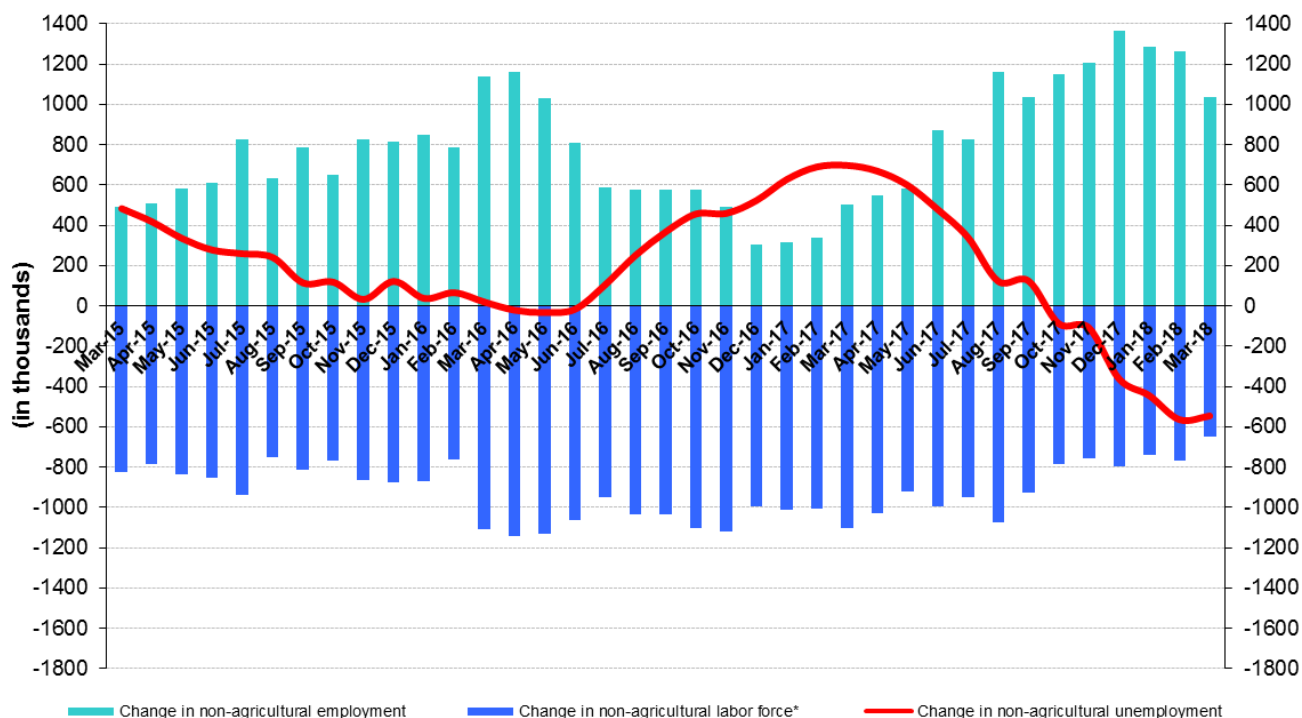


Source: TURKSTAT, Betam

## The number of non-agricultural unemployed decreased by 390 thousand within a year

From March 2017 to March 2018 non-agricultural labor force increased by 648 thousand (2.5 percent) and non-agricultural employment increased by 1 million 38 thousand (4.6 percent) (Figure 4). Thus, non-agricultural unemployed decreased by 390 thousand and attained 3 million 166 thousand (Figure 4). Annual increases in non-agricultural employment exceed one million people since the period of August 2017. Since September 2017, the number of non-agricultural unemployed has decreased sharply as the non-agricultural labor force increases have been relatively weak.

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



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

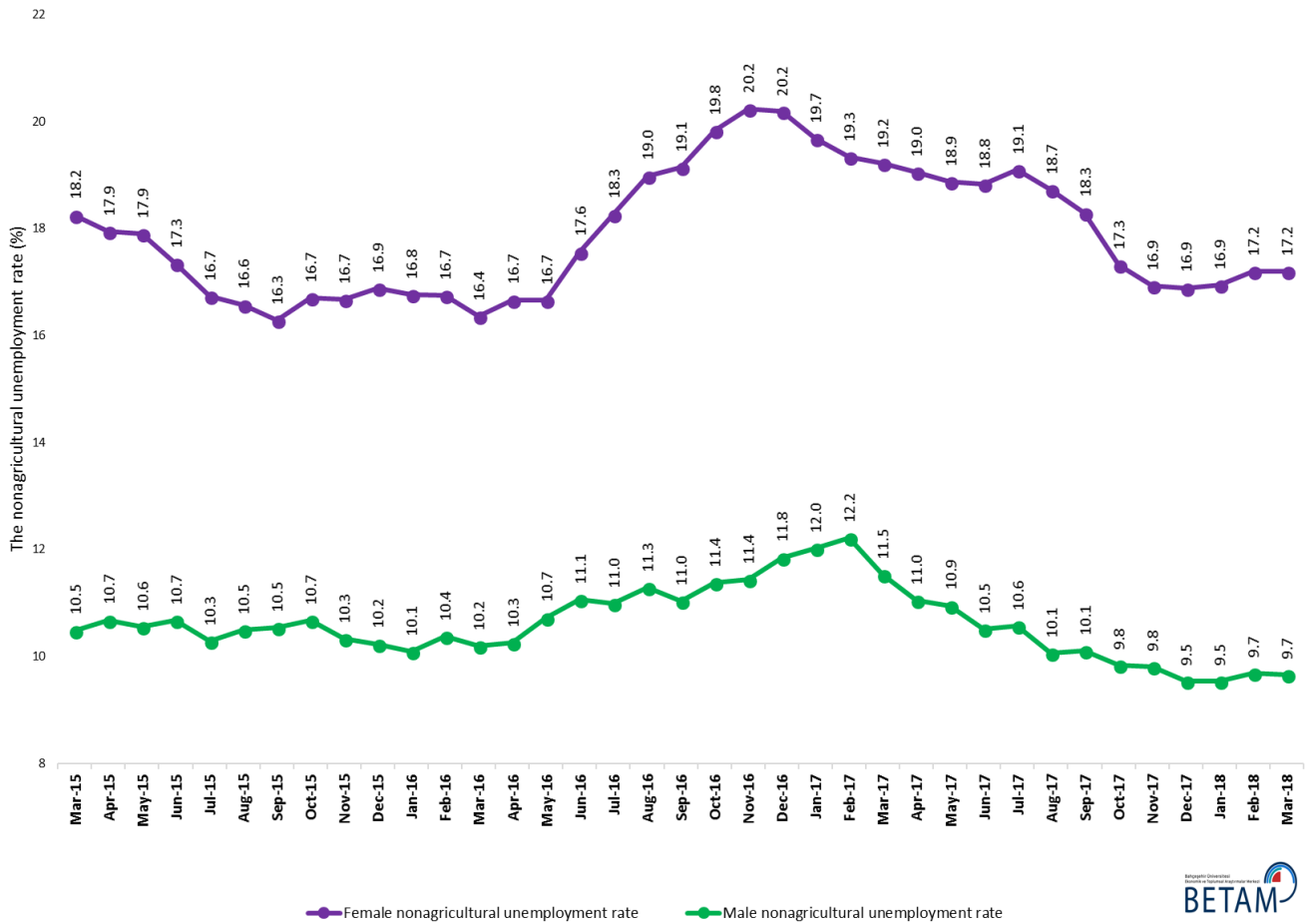
Source: Turkstat, Betam

## Unemployment ratio difference between female and male did not decrease

Figure 5 shows seasonally adjusted non-agricultural unemployment rate for males (green) and for females (purple)<sup>4</sup>. In the period of March 2018, the non-agricultural female and male unemployment rate remained constant at 17.2 and 9.7 percent, respectively. Therefore, the gender gap in non-agricultural unemployment rate remained at 7.5 percentage points. The gender gap in non-agricultural unemployment rate which was 7.7 percentage points in the period of January 2017 (19.7 percent against 12.0 percent) had reached its peak of 8.6 percentage points in the period of August 2017 (18.7 percent against 10.1 percent), but then decreased to 7.1 percentage points in the period of November 2017. It can be said that the gender gap has entered an upward trend again in the last 4 periods. The fact that the gender gap in non-agricultural unemployment rate evolved at high level during a year where unemployment had a strong decrease indicates the insufficiency of policies which aims to gender equality in the labor market.

<sup>4</sup> 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 get 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
February-15	24056	21097	2959	12.3%			
March-15	23795	20844	2951	12.4%	-261	-253	-8
April-15	23867	20931	2936	12.3%	72	87	-15
May-15	23983	21009	2974	12.4%	116	78	38
June-15	24033	21029	3004	12.5%	50	20	30
July-15	24216	21237	2979	12.3%	182	208	-26
August-15	24114	21148	2966	12.3%	-101	-89	-12
September-15	24335	21342	2993	12.3%	221	194	27
October-15	24409	21358	3051	12.5%	74	16	58
November-15	24551	21531	3020	12.3%	142	173	-31
December-15	24632	21627	3005	12.2%	81	96	-15
January-16	24732	21764	2968	12.0%	100	137	-37
February-16	24844	21888	2956	11.9%	113	124	-11
March-16	24875	21965	2910	11.7%	31	77	-46
April-16	25002	22052	2950	11.8%	127	87	40
May-16	25103	22015	3088	12.3%	100	-37	137
June-16	25122	21831	3291	13.1%	19	-184	203
July-16	25174	21826	3348	13.3%	52	-5	57
August-16	25156	21735	3421	13.6%	-18	-91	73
September-16	25343	21922	3421	13.5%	187	187	0
October-16	25528	21954	3574	14.0%	185	32	153
November-16	25645	22029	3616	14.1%	117	75	42
December-16	25609	21947	3662	14.3%	-36	-82	46
January-17	25712	22087	3625	14.1%	103	140	-37
February-17	25815	22227	3588	13.9%	103	140	-37
March-17	25999	22463	3536	13.6%	184	236	-52
April-17	26046	22582	3464	13.3%	47	119	-72
May-17	26060	22594	3466	13.3%	14	12	2
June-17	26117	22696	3421	13.1%	57	102	-45
July-17	26099	22654	3445	13.2%	-18	-42	24
August-17	26218	22888	3330	12.7%	119	234	-115
September-17	26268	22958	3310	12.6%	50	70	-20
October-17	26315	23105	3210	12.2%	48	147	-99
November-17	26428	23230	3198	12.1%	112	125	-13
December-17	26444	23324	3120	11.8%	17	94	-77
January-18	26529	23399	3130	11.8%	85	75	10
February-18	26624	23509	3115	11.7%	95	110	-15
March-18	26619	23505	3114	11.7%	-5	-4	-1

Source: Turkstat, Betam

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

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
February-15	5244	5351	1865	13882				
March-15	5487	5308	1904	13632	243	-43	39	-250
April-15	5519	5326	1885	13720	32	18	-19	88
May-15	5542	5404	1871	13734	23	78	-14	14
June-15	5577	5380	1866	13783	35	-24	-5	49
July-15	5502	5336	1918	13983	-75	-44	52	200
August-15	5533	5252	1917	13979	31	-84	-1	-4
September-15	5515	5327	1941	14074	-18	75	24	95
October-15	5449	5363	1963	14032	-66	36	22	-42
November-15	5387	5353	1988	14190	-62	-10	25	158
December-15	5409	5311	1996	14320	22	-42	8	130
January-16	5375	5300	2003	14462	-34	-11	7	142
February-16	5331	5276	2001	14611	-44	-24	-2	149
March-16	5393	5295	2031	14639	62	19	30	28
April-16	5373	5381	2035	14636	-20	86	4	-3
May-16	5324	5386	2049	14581	-49	5	14	-55
June-16	5176	5330	1951	14550	-148	-56	-98	-31
July-16	5209	5254	1946	14626	33	-76	-5	76
August-16	5271	5224	1919	14592	62	-30	-27	-34
September-16	5337	5260	2029	14633	66	36	110	41
October-16	5282	5282	1996	14675	-55	22	-33	42
November-16	5286	5316	1997	14717	4	34	1	42
December-16	5311	5265	1960	14722	25	-51	-37	5
January-17	5439	5274	1968	14845	128	9	8	123
February-17	5481	5251	2030	14946	42	-23	62	101
March-17	5392	5346	2107	15010	-89	95	77	64
April-17	5356	5372	2124	15086	-36	26	17	76
May-17	5374	5386	2065	15143	18	14	-59	57
June-17	5370	5383	2058	15255	-4	-3	-7	112
July-17	5500	5363	2084	15207	130	-20	26	-48
August-17	5463	5437	2144	15307	-37	74	60	100
September-17	5527	5421	2122	15415	64	-16	-22	108
October-17	5506	5470	2114	15521	-21	49	-8	106
November-17	5522	5470	2149	15610	16	0	35	89
December-17	5554	5514	2192	15619	32	44	43	9
January-18	5500	5567	2219	15614	-54	53	27	-5
February-18	5427	5627	2220	15663	-73	60	1	49
March-18	5372	5618	2176	15711	-55	-9	-44	48

Source: Turkstat, Betam

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

	<b>Female Labor Force</b>	<b>Female Employment</b>	<b>Female Unemployed</b>	<b>Male Labor Force</b>	<b>Male Employment</b>	<b>Male Unemployed</b>
<b>March-15</b>	6520	5330	1190	17239	15431	1808
<b>April-15</b>	6540	5366	1174	17295	15448	1847
<b>May-15</b>	6625	5439	1186	17345	15514	1831
<b>June-15</b>	6658	5503	1155	17422	15562	1860
<b>July-15</b>	6751	5622	1130	17485	15686	1799
<b>August-15</b>	6716	5603	1113	17478	15644	1834
<b>September-15</b>	6761	5660	1101	17578	15726	1852
<b>October-15</b>	6782	5650	1133	17620	15739	1881
<b>November-15</b>	6876	5730	1146	17622	15801	1821
<b>December-15</b>	6968	5792	1176	17663	15856	1807
<b>January-16</b>	7010	5835	1175	17691	15906	1785
<b>February-16</b>	7043	5863	1179	17767	15923	1844
<b>March-16</b>	7057	5902	1154	17818	16001	1817
<b>April-16</b>	7142	5951	1190	17851	16020	1831
<b>May-16</b>	7175	5980	1195	17924	16002	1922
<b>June-16</b>	7262	5986	1275	17865	15889	1976
<b>July-16</b>	7272	5944	1328	17918	15950	1968
<b>August-16</b>	7329	5938	1391	17911	15889	2022
<b>September-16</b>	7378	5966	1412	17978	15994	1984
<b>October-16</b>	7443	5968	1476	18054	16000	2054
<b>November-16</b>	7460	5950	1510	18147	16072	2076
<b>December-16</b>	7457	5952	1505	18155	16004	2151
<b>January-17</b>	7449	5983	1466	18272	16075	2197
<b>February-17</b>	7508	6056	1452	18308	16071	2237
<b>March-17</b>	7612	6149	1462	18374	16257	2117
<b>April-17</b>	7599	6151	1447	18405	16372	2033
<b>May-17</b>	7651	6207	1444	18369	16358	2011
<b>June-17</b>	7670	6226	1444	18461	16521	1941
<b>July-17</b>	7682	6216	1467	18457	16506	1951
<b>August-17</b>	7735	6287	1448	18569	16700	1869
<b>September-17</b>	7768	6347	1421	18521	16650	1871
<b>October-17</b>	7793	6444	1349	18490	16671	1819
<b>November-17</b>	7829	6503	1325	18544	16725	1819
<b>December-17</b>	7886	6555	1332	18534	16766	1767
<b>January-18</b>	7921	6580	1342	18533	16765	1768
<b>February-18</b>	7951	6584	1367	18608	16805	1803
<b>March-18</b>	7947	6580	1367	18666	16864	1802

Source: Turkstat, Betam