

## DECREASE IN UNEMPLOYMENT CONTINUES

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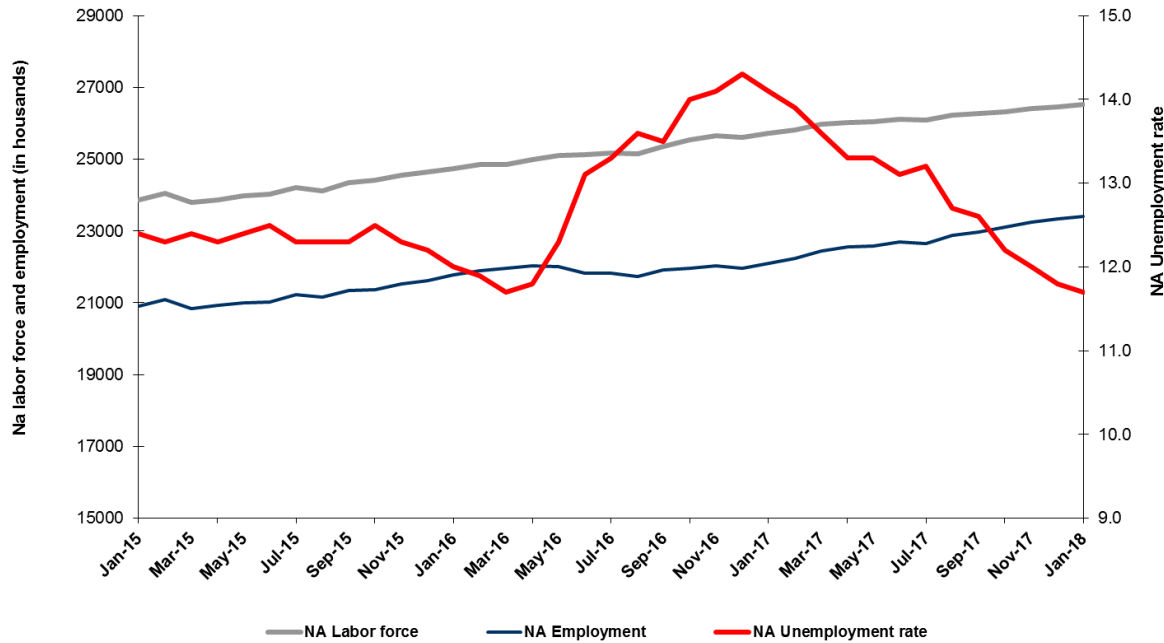
### Executive Summary

Seasonally adjusted labor market data show that non-agricultural unemployment rate decreased by 0.1 percentage points in the period of January reaching 11.7 percent. The non-agricultural unemployment rate decreased from 14,1 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 2.4 percentage points in the recent year. The reason behind this decrease is the strong increases in non-agricultural employment. From December 2017 to January 2018, employment increased by 29 and 53 thousand in the construction and manufacture sectors while employment decreased by 4 thousand in the services. Betam's forecasting model predicts that the non-agricultural unemployment will remain constant at 11.7 percent in the period of February 2018.

### Decrease in non-agricultural unemployment continues

According to seasonally adjusted labor market data, in the period of January 2018 compared to December 2017, the non-agricultural labor force increased by 58 thousand and reached 26 million 518 thousand while the number of employed in non-agricultural sectors increased by 78 thousand and reached 23 million 415 thousand (Figure 1, Table 1). As result, the number of unemployed in non-agricultural sectors decreased by 20 thousand and recorded as 3 million 103 thousand and the non-agricultural unemployment rate decreased from 11.8 percent to 11.7 percent. In the last year, the non-agricultural unemployment rate decreased from 14,1 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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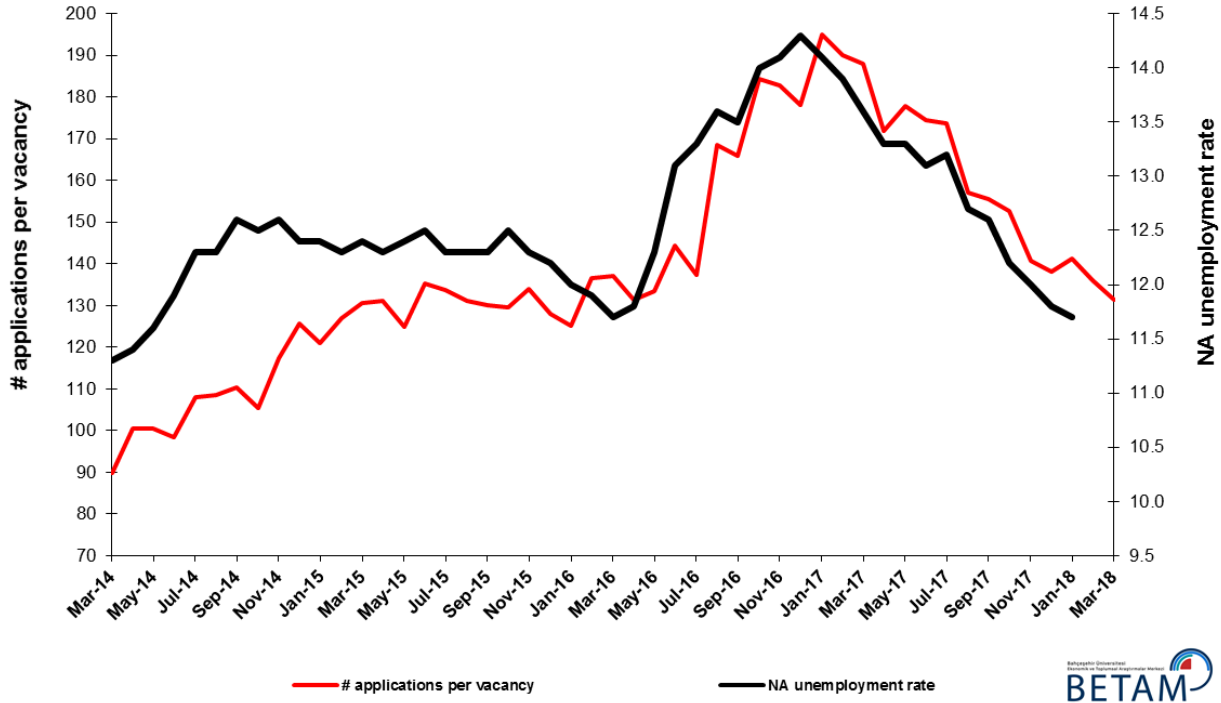
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## Unemployment rate is expected to remain stable in the period of February 2018

Betam's forecasting model had predicted that the seasonally adjusted non-agricultural unemployment rate would decrease from 11.8 in the December 2017 to 11.7 in the period of January 2018. Betam's forecasting has revealed to be accurate. Betam's forecasting model predicts that the non-agricultural unemployment rate will remain stable at 11,7 percent in February 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 increases in manufacturing and construction sectors but decreases in services

According to seasonally adjusted sectoral labor market data in January 2018 compared to December 2017, employment increased in manufacturing and construction sectors while employment decreased in services and agriculture sectors (Figure 3, Table 2).<sup>3</sup> Employment increased by 53 and 29 thousand in manufacture and construction sectors, respectively. On the other hand, strong monthly increases of around 100 thousand in the services employment from August 2017 to November 2017 had decelerated in December 2017 (increase of 9 thousand) and gave way to a limited decrease of 4 thousand in January 2018. 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 293 thousand in industry, 255 thousand in construction and 771 thousand in services.

<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/>

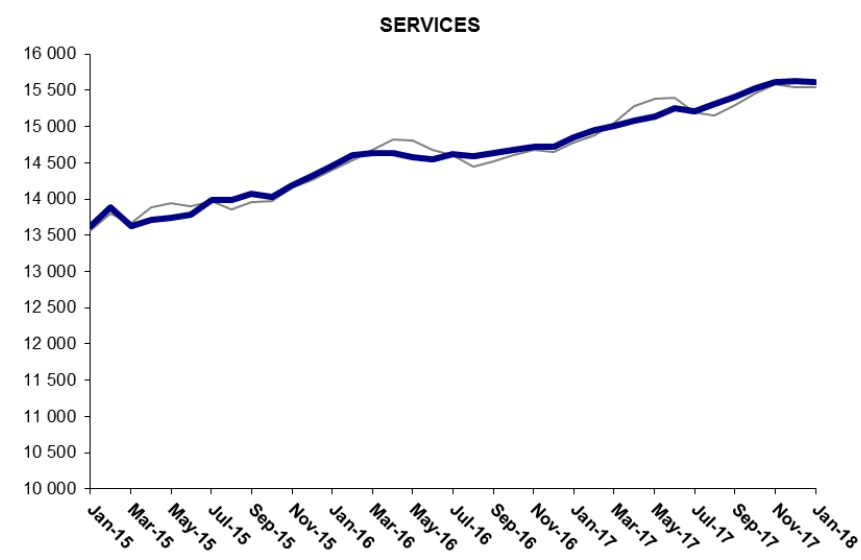
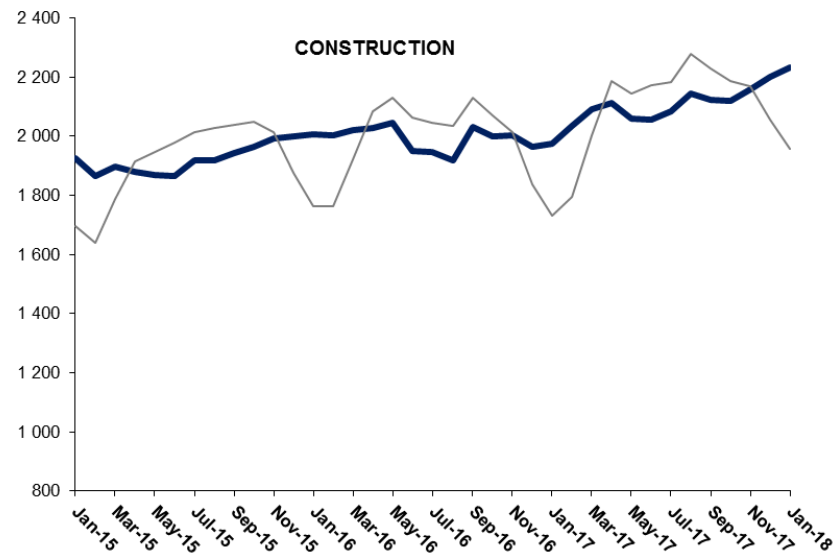
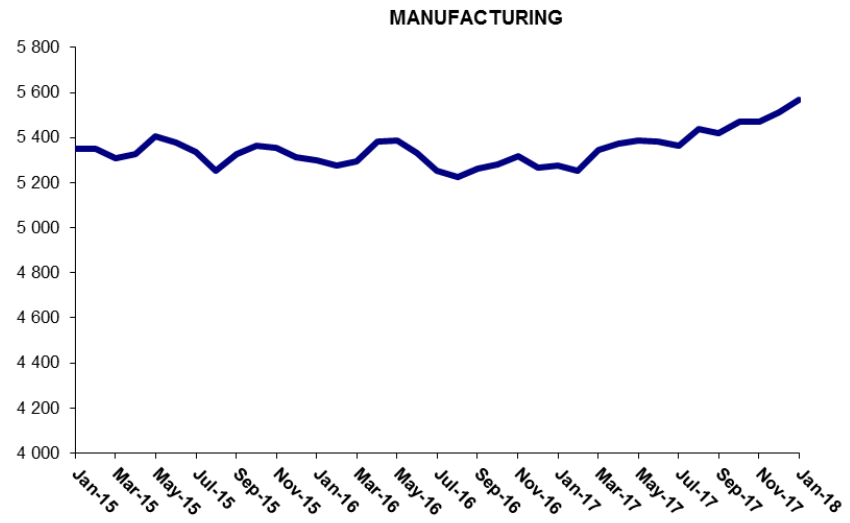
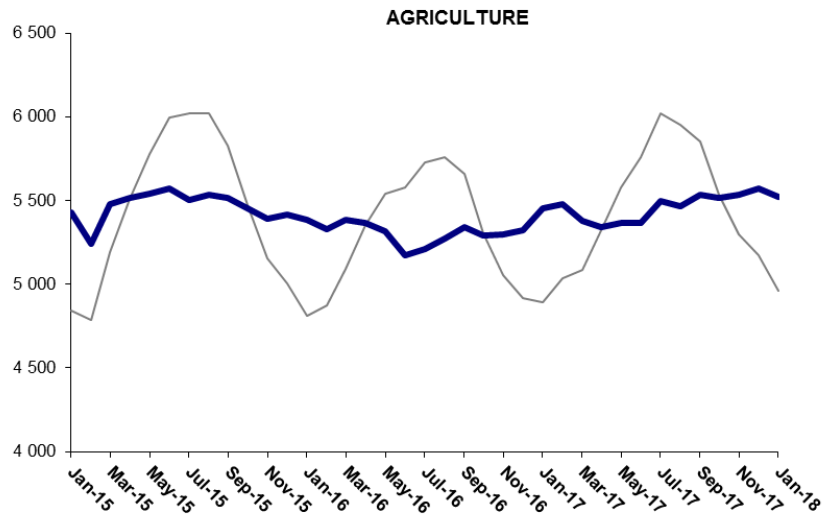
Soybilgen, B., "Mevsim Etkilerinden Arındırılmış İşsizlik Tahmini", Betam Research Brief 14

<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> Sektörel istihdam serileri teker teker mevsim etkilerinden arındırılmaktadır. Dolayısıyla sektörel istihdam rakamlarının toplamı, mevsim etkilerinden arındırılmış toplam istihdam rakamından farklı olabilmektedir. Aradaki fark mevsim etkilerinden arındırma prosedürünün lineer olmamasından kaynaklanmaktadır.

**Figure 3: Employment by sectors (in thousands)**

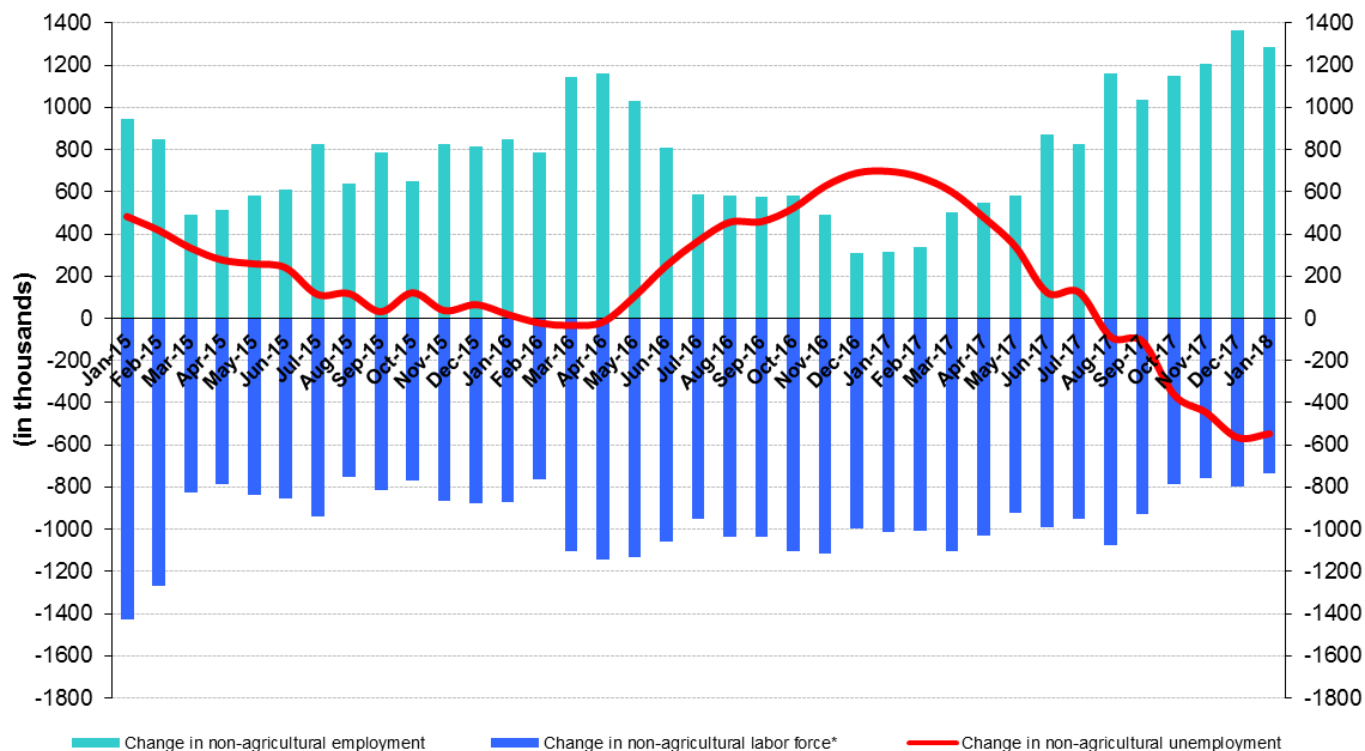


Source: TURKSTAT, Betam

## The number of non-agricultural unemployed decreased by 548 thousand within a year

From January 2017 to January 2018 non-agricultural labor force increased by 738 thousand (2.9 percent) and non-agricultural employment by 1 million 286 thousand (5.9 percent) (Figure 4). Thus, non-agricultural unemployed decreased by 548 thousand and attained 3 million 356 thousand (Figure 4). Annual increases in non-agricultural employment exceed one million people since the period of August 2017.

**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

## Limited increase in female and male unemployment difference

Figure 5 shows seasonally adjusted non-agricultural unemployment rate for males (green) and for females (purple)<sup>4</sup>. In the period of January 2018, the non-agricultural female unemployment rate is at 16.9 percent while the non-agricultural male employment rate is at 9.6 percent. The gender gap in non-agricultural unemployment rate increased slightly by 0.1 percentage point and reached 7.3 percentage points. The gender gap in non-agricultural unemployment rate which was 7.5 percentage points in the period of January 2017 (19.6 percent and 12.1 percent) and was 8.6 percentage points in the period of August 2017 (18.7 percent and 10.1 percent), had decreased to 7.2 percentage points. 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
December-14	23745	20801	2944	12.4%			
January-15	23863	20904	2959	12.4%	118	103	15
February-15	24056	21097	2959	12.3%	193	193	0
March-15	23787	20837	2950	12.4%	-269	-260	-9
April-15	23861	20926	2935	12.3%	74	89	-15
May-15	23982	21008	2974	12.4%	121	82	39
June-15	24033	21029	3004	12.5%	51	21	30
July-15	24218	21239	2979	12.3%	185	210	-25
August-15	24115	21149	2966	12.3%	-103	-90	-13
September-15	24338	21344	2994	12.3%	222	195	27
October-15	24411	21360	3051	12.5%	74	16	58
November-15	24555	21535	3020	12.3%	144	175	-31
December-15	24636	21630	3006	12.2%	80	95	-15
January-16	24738	21769	2969	12.0%	102	139	-37
February-16	24846	21889	2957	11.9%	108	120	-12
March-16	24863	21954	2909	11.7%	17	65	-48
April-16	24991	22042	2949	11.8%	128	88	40
May-16	25097	22010	3087	12.3%	106	-32	138
June-16	25120	21829	3291	13.1%	23	-181	204
July-16	25174	21826	3348	13.3%	54	-3	57
August-16	25159	21737	3422	13.6%	-16	-89	73
September-16	25347	21925	3422	13.5%	188	188	0
October-16	25534	21959	3575	14.0%	187	34	153
November-16	25653	22036	3617	14.1%	119	77	42
December-16	25617	21954	3663	14.3%	-36	-82	46
January-17	25723	22096	3627	14.1%	106	142	-36
February-17	25820	22231	3589	13.9%	97	135	-38
March-17	25978	22445	3533	13.6%	158	214	-56
April-17	26030	22568	3462	13.3%	52	123	-71
May-17	26052	22587	3465	13.3%	22	19	3
June-17	26113	22692	3421	13.1%	61	105	-44
July-17	26098	22653	3445	13.2%	-15	-39	24
August-17	26218	22888	3330	12.7%	120	235	-115
September-17	26272	22962	3310	12.6%	55	74	-19
October-17	26323	23112	3211	12.2%	51	150	-99
November-17	26408	23239	3169	12.0%	84	127	-43
December-17	26459	23337	3122	11.8%	51	98	-47
January-18	26518	23415	3103	11.7%	58	78	-20

Source: Turkstat, Betam

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

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
December-14	5432	5266	1937	13598				
January-15	5426	5349	1924	13630	-6	83	-13	32
February-15	5243	5351	1865	13881	-183	2	-59	251
March-15	5480	5308	1899	13630	237	-43	34	-251
April-15	5513	5326	1881	13719	33	18	-18	89
May-15	5537	5404	1870	13734	24	78	-11	15
June-15	5574	5380	1866	13782	37	-24	-4	48
July-15	5500	5336	1919	13983	-74	-44	53	201
August-15	5534	5252	1918	13980	34	-84	-1	-3
September-15	5517	5327	1942	14075	-17	75	24	95
October-15	5453	5363	1965	14033	-64	36	23	-42
November-15	5392	5353	1991	14191	-61	-10	26	158
December-15	5417	5311	1999	14321	25	-42	8	130
January-16	5385	5300	2006	14463	-32	-11	7	142
February-16	5330	5276	2004	14610	-55	-24	-2	147
March-16	5382	5295	2022	14637	52	19	18	27
April-16	5364	5381	2028	14634	-18	86	6	-3
May-16	5317	5386	2045	14580	-47	5	17	-54
June-16	5171	5330	1950	14550	-146	-56	-95	-30
July-16	5207	5254	1946	14626	36	-76	-4	76
August-16	5271	5224	1920	14593	64	-30	-26	-33
September-16	5340	5260	2031	14634	69	36	111	41
October-16	5288	5282	2000	14677	-52	22	-31	43
November-16	5294	5316	2002	14718	6	34	2	41
December-16	5323	5265	1966	14723	29	-51	-36	5
January-17	5454	5274	1976	14846	131	9	10	123
February-17	5479	5251	2035	14945	25	-23	59	99
March-17	5377	5346	2093	15007	-102	95	58	62
April-17	5341	5372	2112	15084	-36	26	19	77
May-17	5363	5386	2059	15141	22	14	-53	57
June-17	5363	5383	2055	15254	0	-3	-4	113
July-17	5497	5363	2083	15207	134	-20	28	-47
August-17	5464	5437	2144	15308	-33	74	61	101
September-17	5532	5421	2125	15416	68	-16	-19	108
October-17	5515	5470	2120	15522	-17	49	-5	106
November-17	5535	5470	2158	15612	20	0	38	90
December-17	5572	5514	2202	15621	37	44	44	9
January-18	5522	5567	2231	15617	-50	53	29	-4

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>
January-15	6504	5380	1124	17361	15525	1836
February-15	6564	5393	1172	17454	15610	1844
March-15	6520	5325	1195	17210	15432	1778
April-15	6540	5360	1180	17273	15447	1825
May-15	6623	5433	1189	17330	15513	1817
June-15	6654	5498	1156	17414	15561	1853
July-15	6747	5618	1130	17483	15685	1799
August-15	6712	5600	1111	17482	15643	1839
September-15	6758	5659	1098	17588	15725	1863
October-15	6780	5652	1129	17635	15739	1896
November-15	6877	5735	1142	17640	15802	1839
December-15	6971	5799	1172	17686	15858	1828
January-16	7016	5846	1170	17717	15909	1808
February-16	7053	5868	1185	17746	15922	1824
March-16	7056	5897	1159	17789	16002	1787
April-16	7141	5945	1196	17829	16020	1810
May-16	7173	5974	1198	17910	16001	1909
June-16	7258	5981	1277	17857	15888	1969
July-16	7268	5940	1328	17916	15949	1968
August-16	7325	5935	1389	17915	15888	2027
September-16	7375	5965	1409	17988	15994	1994
October-16	7441	5970	1472	18068	16000	2068
November-16	7461	5955	1506	18166	16073	2093
December-16	7460	5959	1500	18178	16006	2171
January-17	7456	5994	1461	18298	16078	2219
February-17	7518	6061	1458	18286	16069	2217
March-17	7612	6144	1468	18346	16258	2088
April-17	7598	6145	1453	18383	16371	2012
May-17	7649	6201	1448	18355	16357	1998
June-17	7666	6221	1445	18454	16520	1934
July-17	7678	6212	1466	18455	16505	1951
August-17	7731	6284	1446	18574	16699	1875
September-17	7765	6346	1418	18531	16650	1881
October-17	7791	6446	1346	18504	16671	1833
November-17	7829	6508	1321	18563	16726	1837
December-17	7890	6562	1327	18556	16768	1787
January-18	7928	6591	1337	18559	16768	1790

Source: Turkstat, Betam