DECREASE IN UNEMPLOYMENT CONTINUES

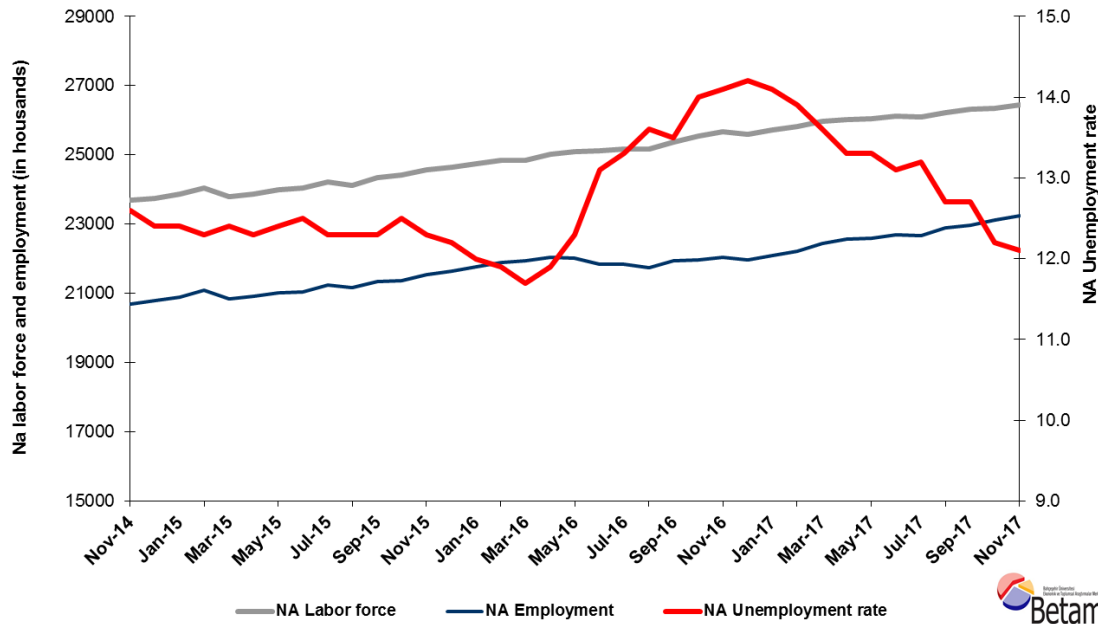**Seyfettin Gürsel[*], Gökçe Uysal [**] and Yazgı Genç[***]**

Executive Summary

Seasonally adjusted labor market data show that non-agricultural unemployment rate decreased by 0.1 percentage points in the period of November from October reaching 12.1 percent. In this period, employment increased in the construction and services sector by 35 and 87 thousand respectively while employment did not change in the manufacturing sector. Betam's forecasting model predicts that the non-agricultural unemployment will decrease to 11.8 percent in the period of December 2017. On the other hand, according to seasonally adjusted labour data, difference in non-agricultural unemployment rate by gender decreased. From November 2016 to November 2017, the unemployment rate of female decreased by 2.8 percentage points reaching 17.3 percent and the rate for males decreased by 1.6 percentage points and reached 9.8 percent.

Strong increase in employment and labor force

According to seasonally adjusted labor market data, in the period of November 2017 compared to October 2017, the non-agricultural labor force increased by 109 thousand and reached 26 million 440 thousand while the number of employed in non-agricultural sectors increased by 122 thousand and reached 23 million 241 thousand (Figure 1, Table 1). As result, the number of unemployed in non-agricultural sectors decreased by 13 thousand and recorded as 3 million 169 thousand and the non-agricultural unemployment rate decreased from 12.2 percent to 12.1 percent. Nevertheless, the declining unemployment rate slows down but continues.

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

Source: Turkstat, Betam

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Decrease in unemployment rate is expected in the period of December 2017

Betam's forecasting model had predicted that the seasonally adjusted non-agricultural unemployment rate would remain at 12.2 in the period of November 2017. However, seasonally adjusted non-agricultural unemployment rate in November 2017 decreased by 0,1 percentage points and reached 12.1 compared to the previous period. Betam's forecasting model predicts the seasonally adjusted December 2017 non-agricultural unemployment will decrease to 11,8 percent. Forecasting model details are available on Betam's website.[1] Kariyer.net[2] 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. Taken into account all these factors, Betam's forecasting model predicts that seasonally adjusted non-agricultural unemployment rate will decline to 11.8 in the period of December 2017.

Figure 2 Seasonally adjusted non-agricultural unemployment rate and application per vacancy
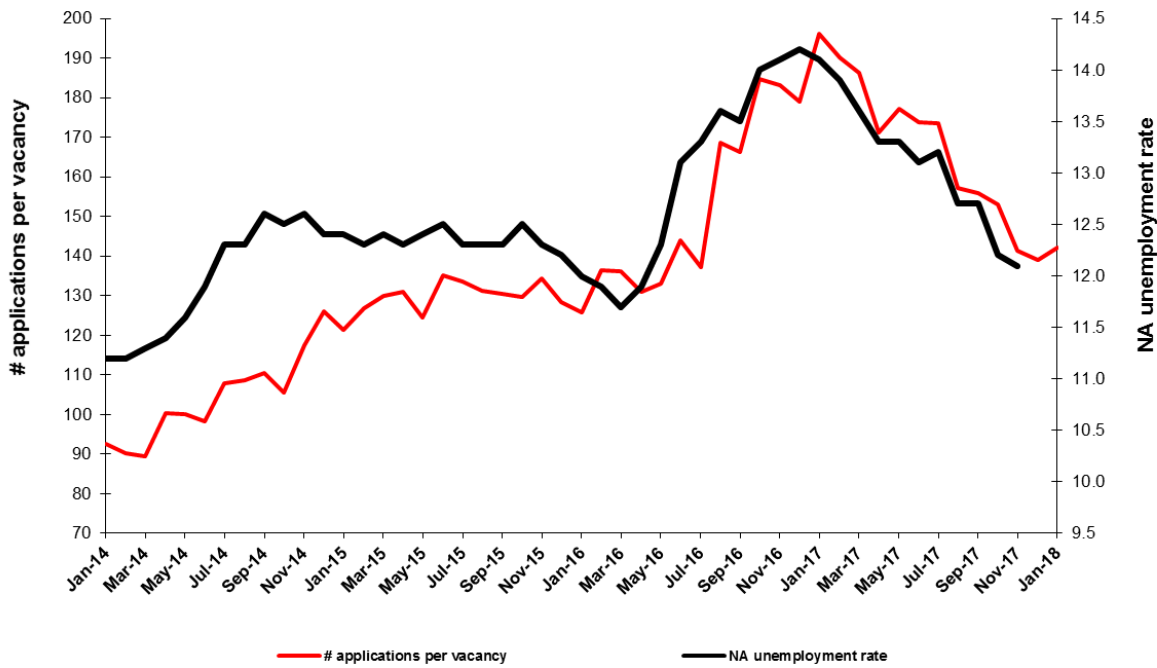
Source: Kariyer.net, Turkstat, Betam

Employment increases in services and construction

According to seasonally adjusted sectoral labor market data, in November 2017 compared to October employment increased in all sectors except in manufacturing (Figure 3, Table 2).[3] An unchanged employment has been observed in manufacture sectors in the period of November 2017, while employment had increased by 49 thousand in this sector in the period of October 2017. In the construction sector 35 thousand employment increase is observed in November 2017 while employment had decreased by 7 thousand in October 2017. Employment in services continued its increase in the period of November 2017 by 87 thousand. 900 thousand additional employment has been created in this sector since the beginning of 2017.

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[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/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] 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)**
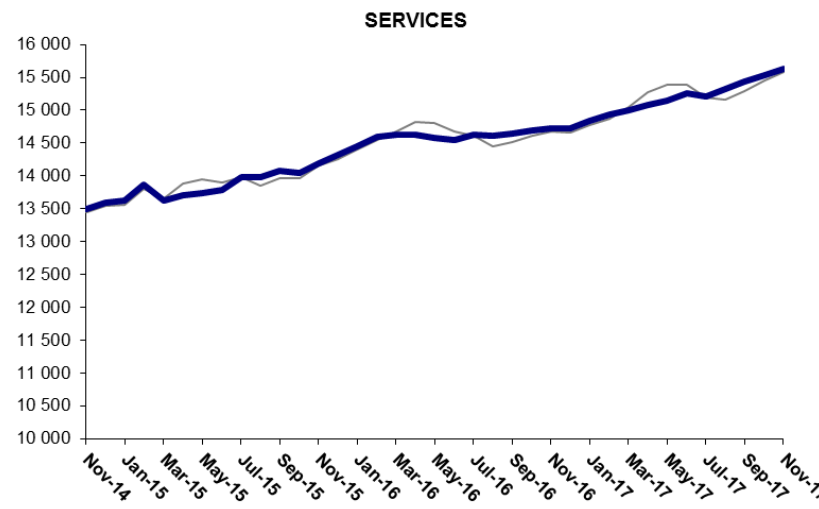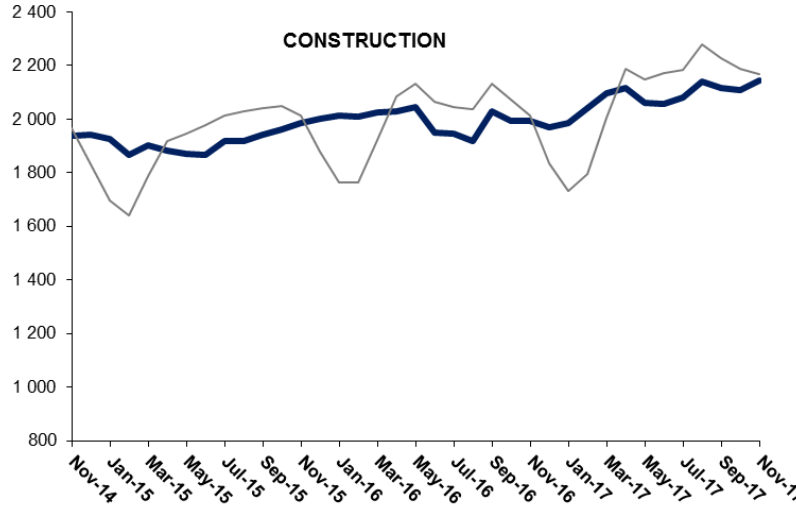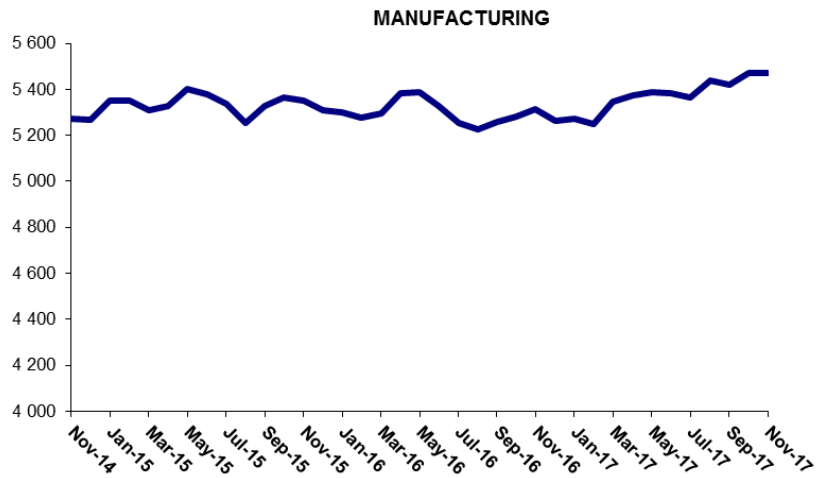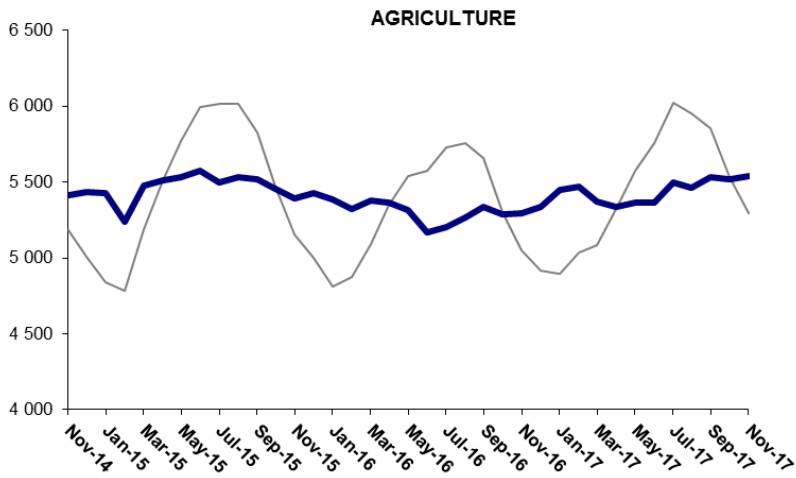
Source: TURKSTAT, Betam

The number of non-agricultural unemployed decreased by 447 thousand within a year

From November 2016 to November 2017 non-agricultural labor force increased by 758 thousand (3.0 percent) and non-agricultural employment by 1 million 205 thousand (5.5 percent) (Figure 4). Thus, the decrease in non-agricultural unemployed decreased by 447 thousand and attained 3 million 226 thousand (Figure 4). Annual increases in non-agricultural employment exceed one million people since the period of August 2017. In the last three periods, increases in non-agricultural labor force are relatively weak; thus, the non-agricultural unemployed decreased rapidly.

Figure 4 Year-on-year changes in non-agricultural labor force, employment, and unemployment
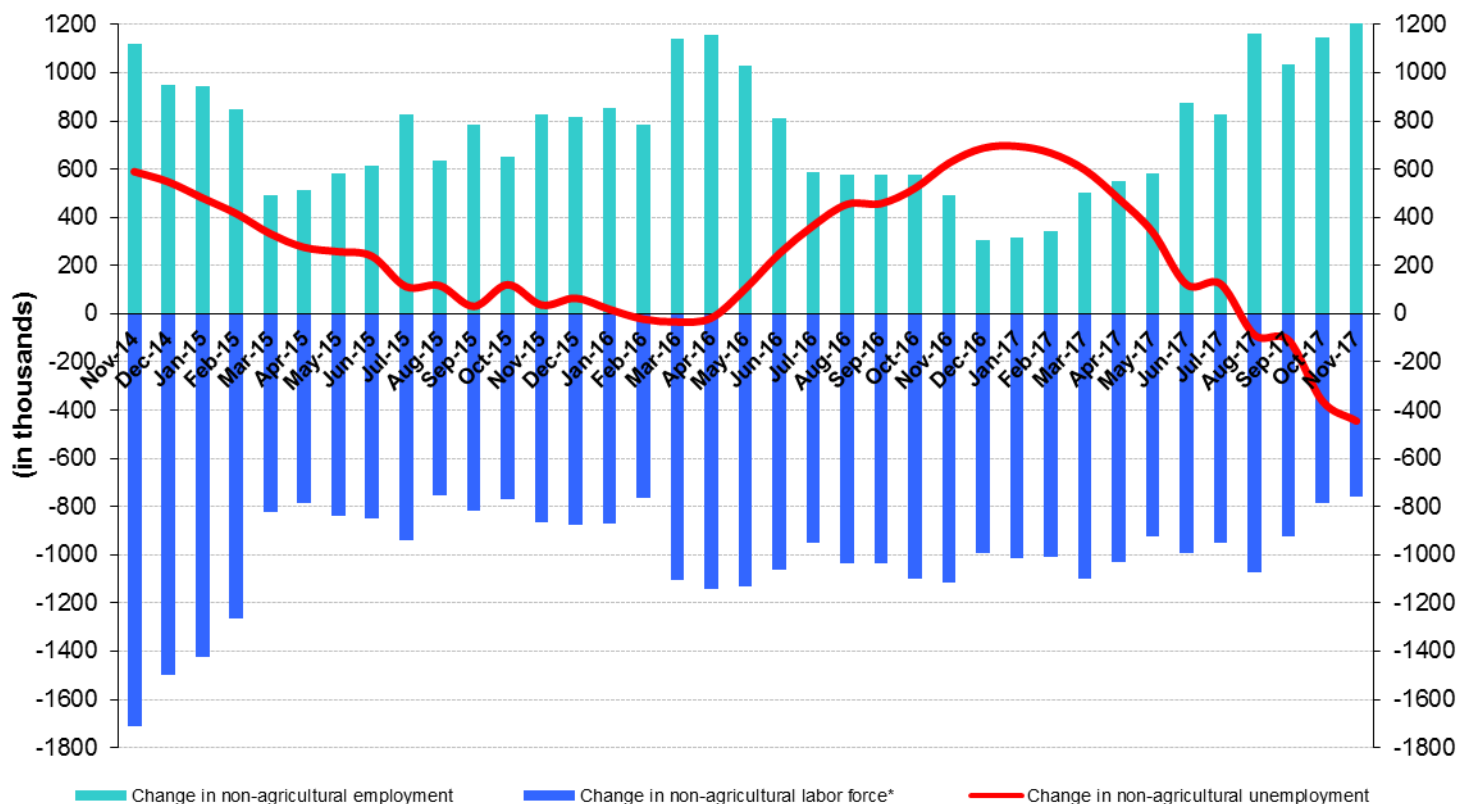
* The change in labor force represented with a negative sign.

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)[4]. From the period of October 2017 to the period of November 2017, the non-agricultural female unemployment rate remained at 17.3 percent while the non-agricultural male employment rate decreased by 0.1 percentage points and recorded as 9.8 percent. It is worthy to notice that on yearly basis, the non-agricultural female unemployment rate decreased from 20.1 to 17.3 percent (2.8 percentage points) and male unemployment rate by 11.8 percent to 9.8 percent (2.0 percentage points). So, the gender gap in non-agricultural unemployment has been narrowed.

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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 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 nonagricultural unemployment rate by gender

Source: Turkstat, Betam

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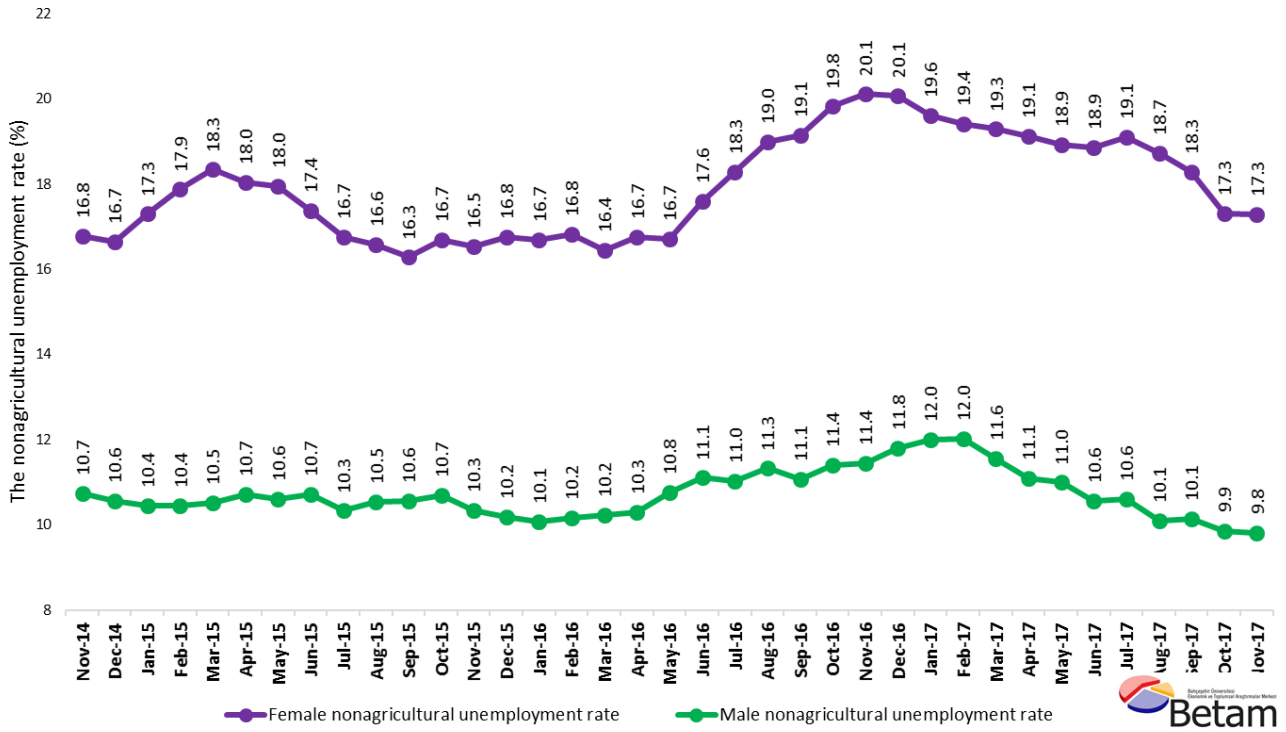
Table 1 Seasonally adjusted non-agricultural labor market indicators (in thousands) *

	Labor force	Employment	Unemployment	Unemployment rate	Monthly changes		
					Labor force	Employment	Unemployment
October-14	23653	20696	2957	12.5%			
November-14	23685	20701	2984	12.6%	33	5	28
December-14	23744	20800	2944	12.4%	59	99	-40
January-15	23855	20897	2958	12.4%	111	97	14
February-15	24047	21089	2958	12.3%	192	192	0
March-15	23780	20831	2949	12.4%	-267	-258	-9
April-15	23855	20921	2934	12.3%	76	90	-14
May-15	23983	21009	2974	12.4%	128	88	40
June-15	24035	21031	3004	12.5%	53	22	31
July-15	24220	21241	2979	12.3%	185	210	-25
August-15	24124	21157	2967	12.3%	-96	-84	-12
September-15	24345	21351	2994	12.3%	221	194	27
October-15	24421	21368	3053	12.5%	75	17	58
November-15	24559	21538	3021	12.3%	138	170	-32
December-15	24639	21633	3006	12.2%	80	95	-15
January-16	24730	21762	2968	12.0%	91	129	-38
February-16	24834	21879	2955	11.9%	105	117	-12
March-16	24853	21945	2908	11.7%	18	66	-48
April-16	25011	22035	2976	11.9%	159	90	69
May-16	25097	22010	3087	12.3%	86	-25	111
June-16	25122	21831	3291	13.1%	25	-179	204
July-16	25178	21829	3349	13.3%	56	-2	58
August-16	25168	21745	3423	13.6%	-10	-84	74
September-16	25356	21933	3423	13.5%	188	188	0
October-16	25542	21966	3576	14.0%	186	33	153
November-16	25657	22039	3618	14.1%	115	73	42
December-16	25594	21960	3634	14.2%	-62	-79	17
January-17	25715	22089	3626	14.1%	120	129	-9
February-17	25807	22220	3587	13.9%	92	131	-39
March-17	25968	22436	3532	13.6%	160	216	-56
April-17	26021	22560	3461	13.3%	53	124	-71
May-17	26050	22585	3465	13.3%	29	25	4
June-17	26114	22693	3421	13.1%	64	108	-44
July-17	26101	22656	3445	13.2%	-13	-37	24
August-17	26228	22897	3331	12.7%	127	241	-114
September-17	26310	22969	3341	12.7%	82	72	10
October-17	26331	23119	3212	12.2%	21	150	-129
November-17	26440	23241	3199	12.1%	109	122	-13

Source: Turkstat, Betam

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

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
October-14	5381	5353	1908	13435				
November-14	5412	5273	1938	13490	31	-80	30	55
December-14	5434	5266	1940	13595	22	-7	2	105
January-15	5426	5349	1927	13621	-8	83	-13	26
February-15	5239	5351	1867	13870	-187	2	-60	249
March-15	5476	5308	1901	13623	237	-43	34	-247
April-15	5510	5326	1883	13712	34	18	-18	89
May-15	5535	5404	1871	13733	25	78	-12	21
June-15	5573	5380	1867	13784	38	-24	-4	51
July-15	5500	5336	1919	13985	-73	-44	52	201
August-15	5533	5252	1917	13988	33	-84	-2	3
September-15	5518	5327	1940	14084	-15	75	23	96
October-15	5455	5363	1962	14044	-63	36	22	-40
November-15	5395	5353	1987	14198	-60	-10	25	154
December-15	5426	5311	2001	14320	31	-42	14	122
January-16	5383	5300	2012	14450	-43	-11	11	130
February-16	5324	5276	2008	14594	-59	-24	-4	144
March-16	5378	5295	2025	14625	54	19	17	31
April-16	5362	5381	2030	14624	-16	86	5	-1
May-16	5316	5386	2046	14578	-46	5	16	-46
June-16	5172	5330	1950	14551	-144	-56	-96	-27
July-16	5206	5254	1945	14630	34	-76	-5	79
August-16	5270	5224	1917	14604	64	-30	-28	-26
September-16	5340	5260	2027	14646	70	36	110	42
October-16	5291	5282	1995	14690	-49	22	-32	44
November-16	5298	5316	1994	14728	7	34	-1	38
December-16	5336	5265	1970	14725	38	-51	-24	-3
January-17	5450	5274	1985	14831	114	9	15	106
February-17	5471	5251	2042	14927	21	-23	57	96
March-17	5372	5346	2098	14993	-99	95	56	66
April-17	5339	5372	2115	15073	-33	26	17	80
May-17	5363	5386	2061	15139	24	14	-54	66
June-17	5364	5383	2055	15255	1	-3	-6	116
July-17	5496	5363	2080	15213	132	-20	25	-42
August-17	5463	5437	2138	15321	-33	74	58	108
September-17	5531	5421	2117	15431	68	-16	-21	110
October-17	5518	5470	2110	15539	-13	49	-7	108
November-17	5539	5470	2145	15626	21	0	35	87

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
November-14	6399	5325	1074	17241	15390	1852
December-14	6419	5350	1069	17333	15503	1831
January-15	6505	5380	1125	17322	15514	1808
February-15	6565	5392	1173	17425	15605	1819
March-15	6520	5325	1196	17243	15429	1814
April-15	6540	5360	1180	17299	15445	1854
May-15	6623	5434	1189	17351	15512	1838
June-15	6654	5498	1156	17429	15561	1868
July-15	6747	5617	1130	17493	15686	1807
August-15	6712	5600	1112	17487	15646	1841
September-15	6758	5658	1100	17587	15729	1858
October-15	6780	5649	1132	17630	15744	1886
November-15	6873	5737	1136	17630	15806	1824
December-15	6973	5805	1168	17660	15862	1798
January-16	7017	5846	1171	17678	15898	1780
February-16	7053	5867	1187	17717	15917	1800
March-16	7057	5897	1160	17823	15999	1824
April-16	7141	5945	1196	17856	16017	1839
May-16	7173	5975	1198	17930	16000	1930
June-16	7258	5981	1277	17872	15888	1984
July-16	7268	5939	1328	17926	15950	1976
August-16	7325	5935	1390	17919	15890	2029
September-16	7375	5964	1411	17987	15998	1990
October-16	7441	5967	1475	18064	16006	2058
November-16	7457	5957	1500	18156	16077	2079
December-16	7462	5965	1497	18151	16011	2141
January-17	7457	5994	1463	18259	16067	2192
February-17	7519	6060	1459	18257	16065	2193
March-17	7612	6144	1468	18379	16255	2125
April-17	7598	6145	1453	18410	16369	2041
May-17	7649	6202	1448	18375	16356	2019
June-17	7666	6221	1445	18468	16520	1949
July-17	7678	6211	1467	18465	16506	1959
August-17	7731	6284	1447	18578	16702	1876
September-17	7765	6345	1420	18531	16654	1877
October-17	7791	6443	1348	18499	16677	1823
November-17	7840	6485	1356	18559	16738	1821

Source: Turkstat, Betam