

DECREASE IN UNEMPLOYMENT CONTINUES

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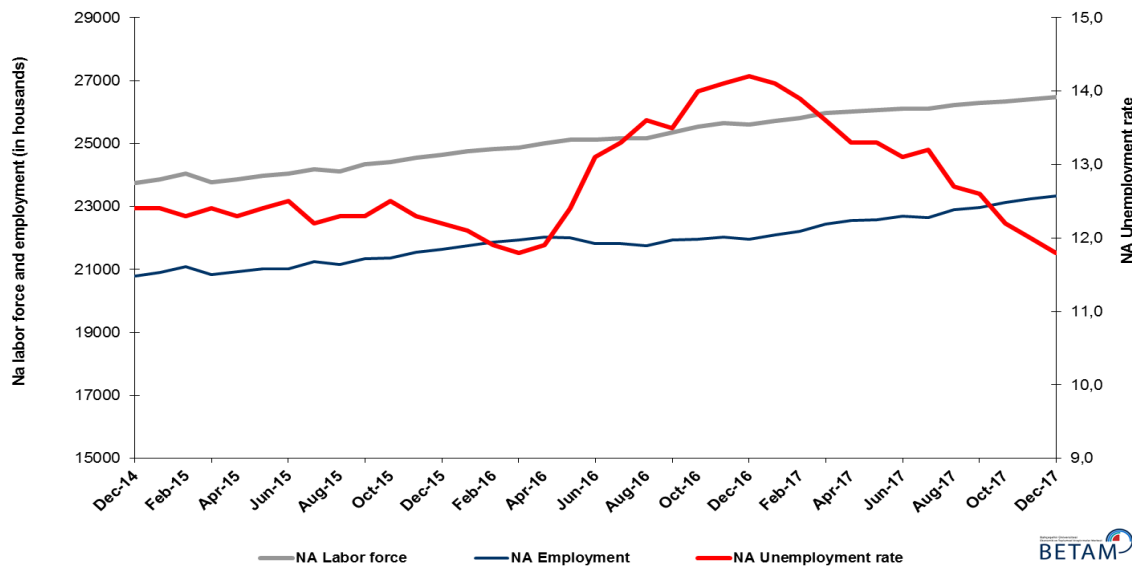
Executive Summary

Seasonally adjusted labor market data show that non-agricultural unemployment rate decreased by 0.2 percentage points in the period of December reaching 11.8 percent. It is worthy to note that in recent past the highest level in unemployment has been attained in December 2016 at 14.2 percent. The reason behind this decrease is the high GDP growth (expected over 7 percent) which led to strong increases in non-agricultural employment. From November to December employment increased in the services by 13 thousand while employment increase reached 44 thousand in both manufacture and construction sectors. Betam's forecasting model predicts that the non-agricultural unemployment will decrease to 11.7 percent in the period of January 2018. On the other hand, according to seasonally adjusted labour data, the unemployment rate for females remained unchanged at 16,8 and for males it decreased from 9.9 percent to 9.6 percent. Thus, difference in non-agricultural unemployment rate by gender increased.

Decrease in non-agricultural unemployment continues

According to seasonally adjusted labor market data, in the period of December 2017 compared to November 2017, the non-agricultural labor force increased by 55 thousand and reached 26 million 465 thousand while the number of employed in non-agricultural sectors increased by 101 thousand and reached 23 million 342 thousand (Figure 1, Table 1). As a result, the number of unemployed in non-agricultural sectors decreased by 46 thousand and recorded as 3 million 123 thousand and the non-agricultural unemployment rate decreased from 12.0 percent to 11.8 percent. From the period of January 2017 to December 2017, the non-agricultural unemployment rate decreased from 14,2 to 11,8 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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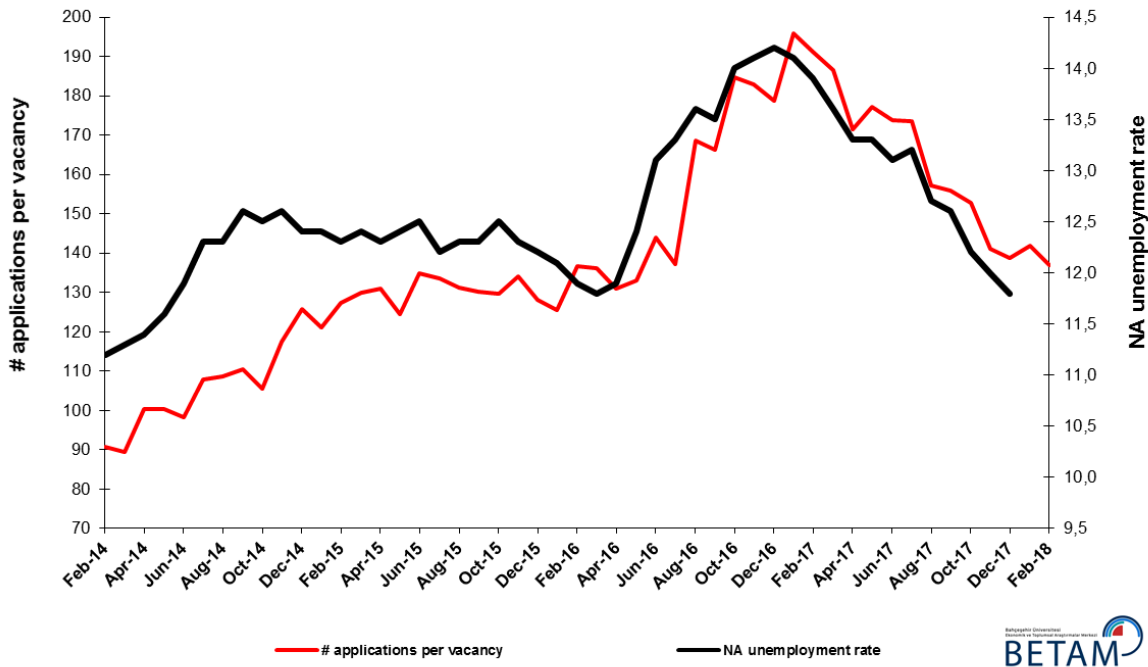
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Decrease in unemployment rate is expected in the period of January 2018

Betam's forecasting model had predicted that the seasonally adjusted non-agricultural unemployment rate would decrease from 12.1 in the October 2017 to 11.8 in the period of December 2017. TUIK revised the unemployment rate of November from 12.1 to 12.0 and the non-agricultural unemployment rate decreased to 11.8 in the period of December 2017. In other words, Betam's forecasting revealed to be accurate. Betam's forecasting model predicts that the non-agricultural unemployment rate will decrease to 11,7 percent in January 2018. 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

Employment increases in all sectors

According to seasonally adjusted sectoral labor market data, in December 2017 compared to November 2017 employment increased in all sectors (Figure 3, Table 2).³ Employment increased by 44 thousand in manufacture sector in the period of December 2017 while an unchanged employment has been observed in manufacture sectors in the period of November 2017. In the construction sector employment increase continued (44 thousand) in December 2017 following a modest increase of 7 thousand in November 2017. Employment in services had strong increases since the period of August 2017 but in December we observe a slow down as employment increase has been limited to 2017 13 thousand. It is worthy to note that 900 thousand additional employment has been created in services sector since the beginning of 2017.

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/>

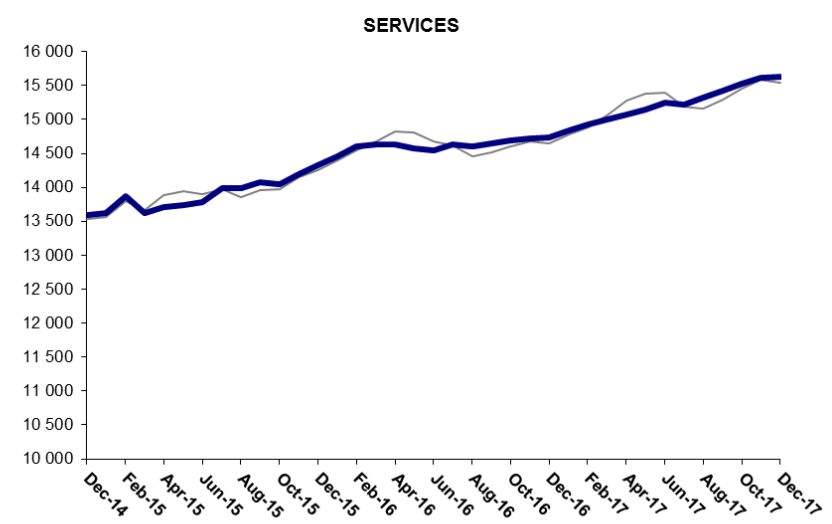
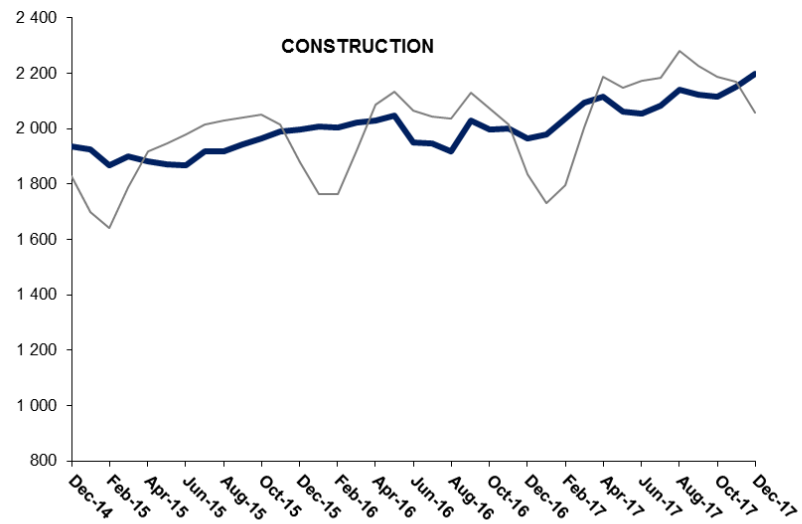
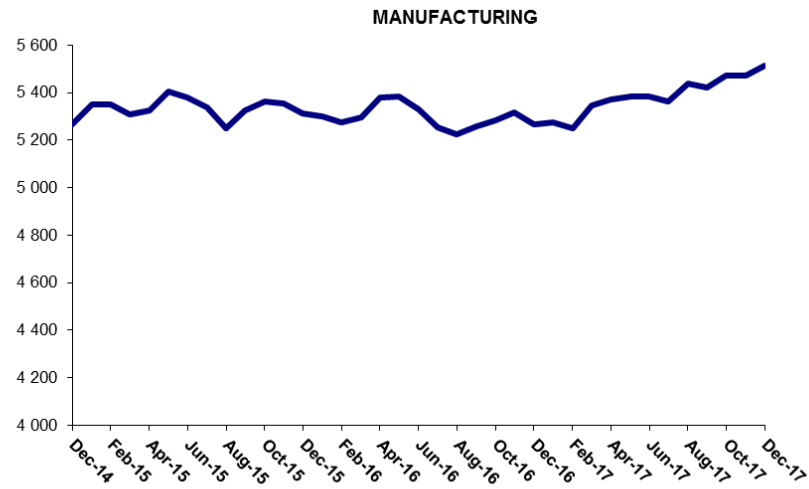
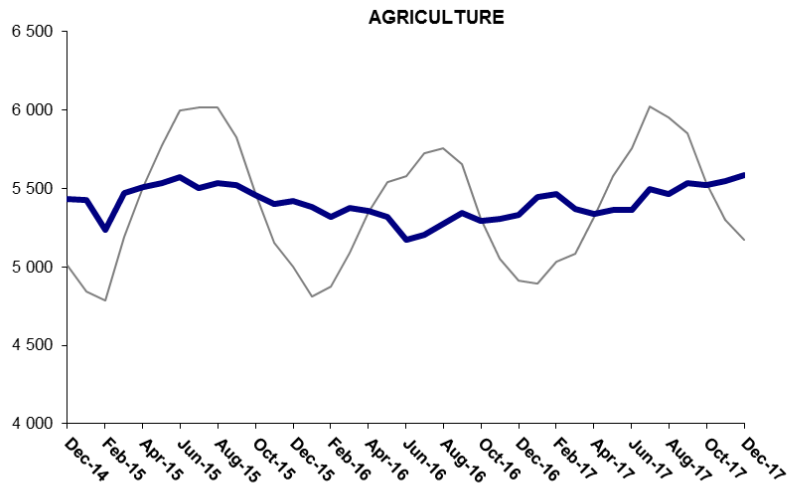
Soybilgen, B., "Mevsim Etkilerinden Arındırılmış İşsizlik Tahmini", Betam Research Brief 14

<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)

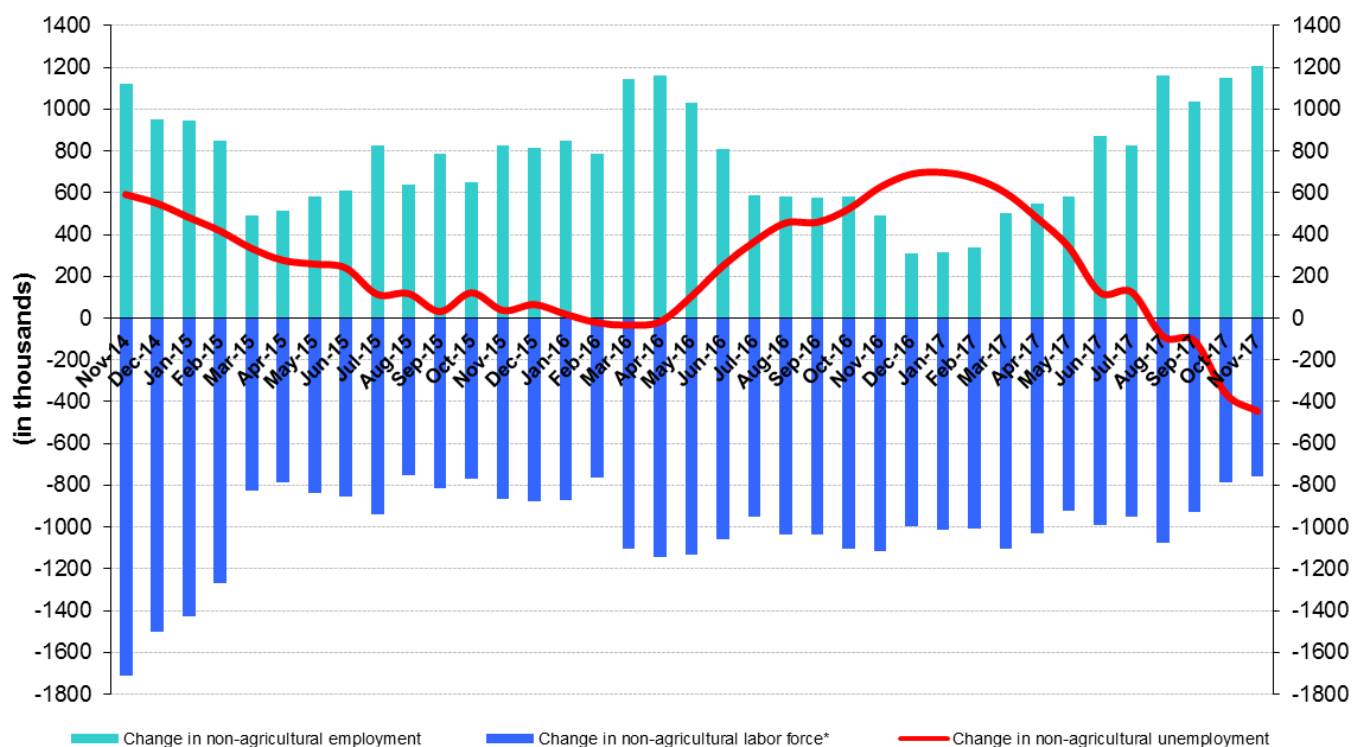


Source: TURKSTAT, Betam

The number of non-agricultural unemployed decreased by 566 thousand within a year

From December 2016 to December 2017 non-agricultural labor force increased by 799 thousand (3.1 percent) and non-agricultural employment by 1 million 365 thousand (6.3 percent) (Figure 4). Thus, non-agricultural unemployed decreased by 566 thousand and attained 3 million 242 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.



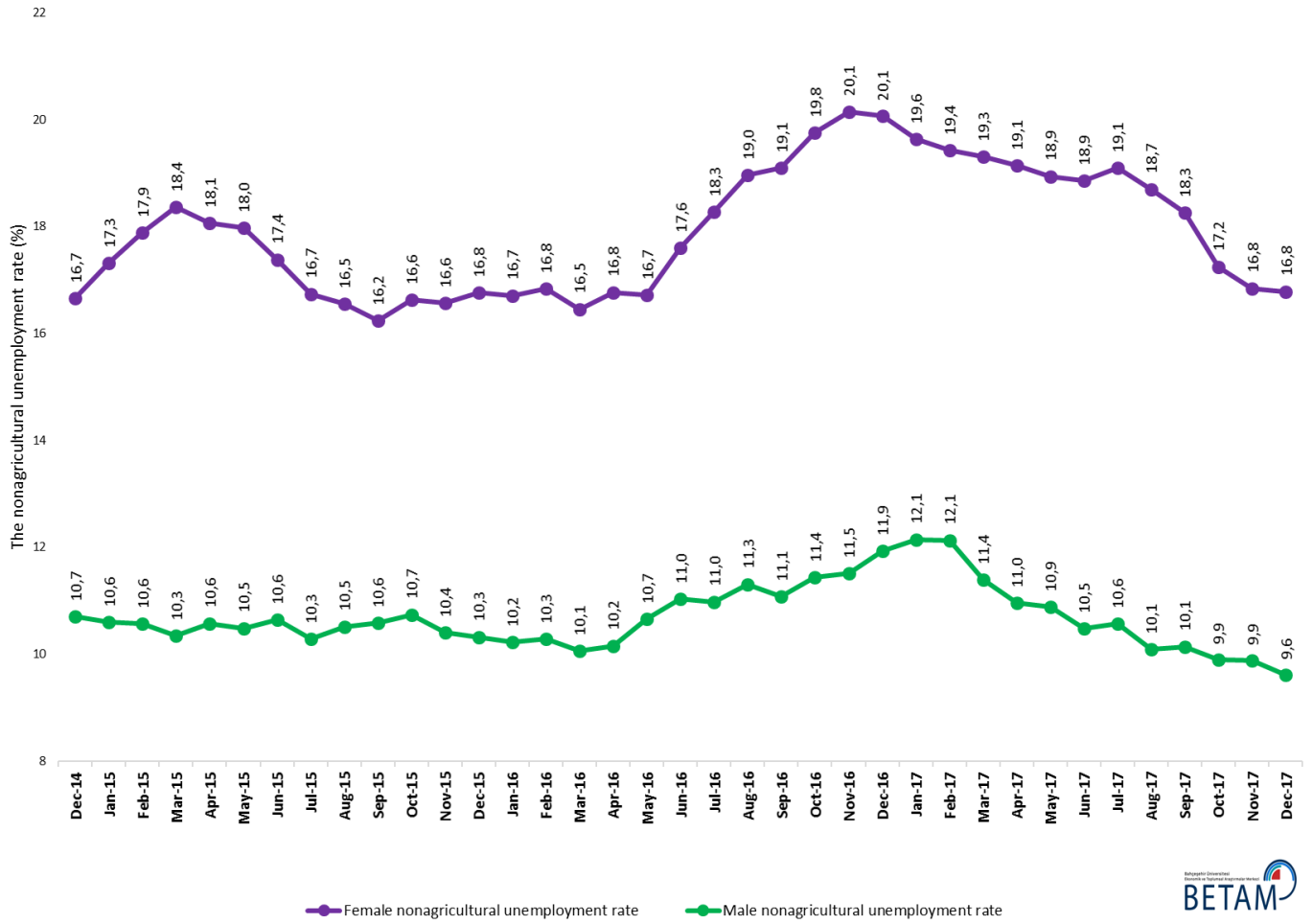
Source: Turkstat, Betam

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 November 2017 to the period of December 2017, the non-agricultural female unemployment rate remained at 16.8 percent while the non-agricultural male unemployment rate decreased by 0.3 percentage points and recorded as 9.6 percent. In the context of a rapid unemployment decrease at the aggregate the gender gap in unemployment has been widened since female unemployment remained constant while male unemployment decreased sizably.

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 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-14	23684	20700	2984	12,6%			
December-14	23745	20801	2944	12,4%	61	101	-40
January-15	23856	20898	2958	12,4%	111	97	14
February-15	24047	21089	2958	12,3%	191	191	0
March-15	23780	20831	2949	12,4%	-267	-258	-9
April-15	23855	20921	2934	12,3%	76	90	-14
May-15	23982	21008	2974	12,4%	127	87	40
June-15	24034	21030	3004	12,5%	53	22	31
July-15	24191	21240	2951	12,2%	157	210	-53
August-15	24123	21156	2967	12,3%	-68	-84	16
September-15	24345	21351	2994	12,3%	222	195	27
October-15	24421	21368	3053	12,5%	75	17	58
November-15	24558	21537	3021	12,3%	137	169	-32
December-15	24639	21633	3006	12,2%	81	96	-15
January-16	24758	21762	2996	12,1%	119	129	-10
February-16	24833	21878	2955	11,9%	75	116	-41
March-16	24881	21945	2936	11,8%	48	67	-19
April-16	25012	22036	2976	11,9%	132	91	41
May-16	25126	22010	3116	12,4%	113	-26	139
June-16	25122	21831	3291	13,1%	-4	-179	175
July-16	25176	21828	3348	13,3%	54	-3	57
August-16	25168	21745	3423	13,6%	-9	-83	74
September-16	25356	21933	3423	13,5%	188	188	0
October-16	25543	21967	3576	14,0%	187	34	153
November-16	25655	22038	3617	14,1%	112	71	41
December-16	25593	21959	3634	14,2%	-62	-79	17
January-17	25715	22089	3626	14,1%	122	130	-8
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	26051	22586	3465	13,3%	30	26	4
June-17	26114	22693	3421	13,1%	63	107	-44
July-17	26101	22656	3445	13,2%	-13	-37	24
August-17	26229	22898	3331	12,7%	128	242	-114
September-17	26281	22970	3311	12,6%	52	72	-20
October-17	26333	23120	3213	12,2%	51	150	-99
November-17	26410	23241	3169	12,0%	78	121	-43
December-17	26465	23342	3123	11,8%	55	101	-46

Source: Turkstat, Betam

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

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
November-14	5415	5273	1940	13487				
December-14	5432	5266	1937	13598	17	-7	-3	111
January-15	5424	5349	1926	13624	-8	83	-11	26
February-15	5237	5351	1866	13872	-187	2	-60	248
March-15	5474	5308	1900	13624	237	-43	34	-248
April-15	5509	5326	1882	13713	35	18	-18	89
May-15	5535	5404	1871	13734	26	78	-11	21
June-15	5574	5380	1866	13784	39	-24	-5	50
July-15	5501	5336	1919	13985	-73	-44	53	201
August-15	5535	5252	1917	13987	34	-84	-2	2
September-15	5519	5327	1942	14082	-16	75	25	95
October-15	5458	5363	1964	14041	-61	36	22	-41
November-15	5399	5353	1989	14195	-59	-10	25	154
December-15	5423	5311	1997	14325	24	-42	8	130
January-16	5380	5300	2009	14453	-43	-11	12	128
February-16	5321	5276	2005	14597	-59	-24	-4	144
March-16	5376	5295	2023	14626	55	19	18	29
April-16	5360	5381	2029	14625	-16	86	6	-1
May-16	5316	5386	2046	14579	-44	5	17	-46
June-16	5173	5330	1950	14551	-143	-56	-96	-28
July-16	5208	5254	1946	14629	35	-76	-4	78
August-16	5272	5224	1919	14602	64	-30	-27	-27
September-16	5342	5260	2029	14643	70	36	110	41
October-16	5295	5282	1998	14686	-47	22	-31	43
November-16	5304	5316	1999	14723	9	34	1	37
December-16	5331	5265	1963	14731	27	-51	-36	8
January-17	5444	5274	1979	14836	113	9	16	105
February-17	5466	5251	2038	14930	22	-23	59	94
March-17	5369	5346	2095	14995	-97	95	57	65
April-17	5338	5372	2114	15074	-31	26	19	79
May-17	5363	5386	2060	15139	25	14	-54	65
June-17	5366	5383	2055	15254	3	-3	-5	115
July-17	5498	5363	2082	15211	132	-20	27	-43
August-17	5466	5437	2142	15318	-32	74	60	107
September-17	5535	5421	2123	15426	69	-16	-19	108
October-17	5524	5470	2117	15533	-11	49	-6	107
November-17	5547	5470	2153	15618	23	0	36	85
December-17	5583	5514	2197	15631	36	44	44	13

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-14	6416	5347	1069	17365	15506	1859
January-15	6505	5378	1126	17354	15515	1839
February-15	6565	5390	1174	17453	15607	1846
March-15	6520	5323	1197	17210	15430	1780
April-15	6540	5359	1181	17272	15445	1827
May-15	6623	5432	1190	17329	15511	1817
June-15	6654	5498	1157	17413	15560	1853
July-15	6747	5618	1129	17483	15685	1798
August-15	6712	5601	1111	17482	15644	1838
September-15	6758	5661	1097	17589	15727	1861
October-15	6780	5653	1127	17637	15743	1894
November-15	6877	5737	1139	17644	15807	1837
December-15	6971	5802	1168	17691	15865	1826
January-16	7017	5844	1173	17710	15900	1811
February-16	7053	5865	1188	17745	15919	1826
March-16	7056	5895	1161	17789	15999	1790
April-16	7141	5944	1197	17828	16017	1811
May-16	7173	5973	1199	17909	15999	1909
June-16	7258	5981	1277	17856	15887	1969
July-16	7267	5940	1328	17916	15949	1967
August-16	7325	5936	1389	17915	15889	2026
September-16	7375	5967	1408	17989	15996	1992
October-16	7441	5971	1470	18070	16004	2066
November-16	7460	5957	1503	18170	16078	2091
December-16	7460	5962	1497	18183	16014	2169
January-17	7456	5992	1464	18291	16069	2222
February-17	7518	6058	1460	18285	16067	2219
March-17	7612	6142	1470	18346	16255	2090
April-17	7598	6144	1455	18383	16369	2014
May-17	7649	6200	1449	18354	16355	1998
June-17	7666	6221	1446	18453	16519	1934
July-17	7678	6212	1466	18455	16505	1950
August-17	7731	6285	1446	18574	16700	1874
September-17	7765	6348	1417	18532	16652	1880
October-17	7791	6447	1344	18506	16675	1831
November-17	7829	6510	1319	18566	16731	1835
December-17	7889	6565	1324	18561	16776	1785

Source: Turkstat, Betam