UNEXPECTED INCREASE IN UNEMPLOYMENT

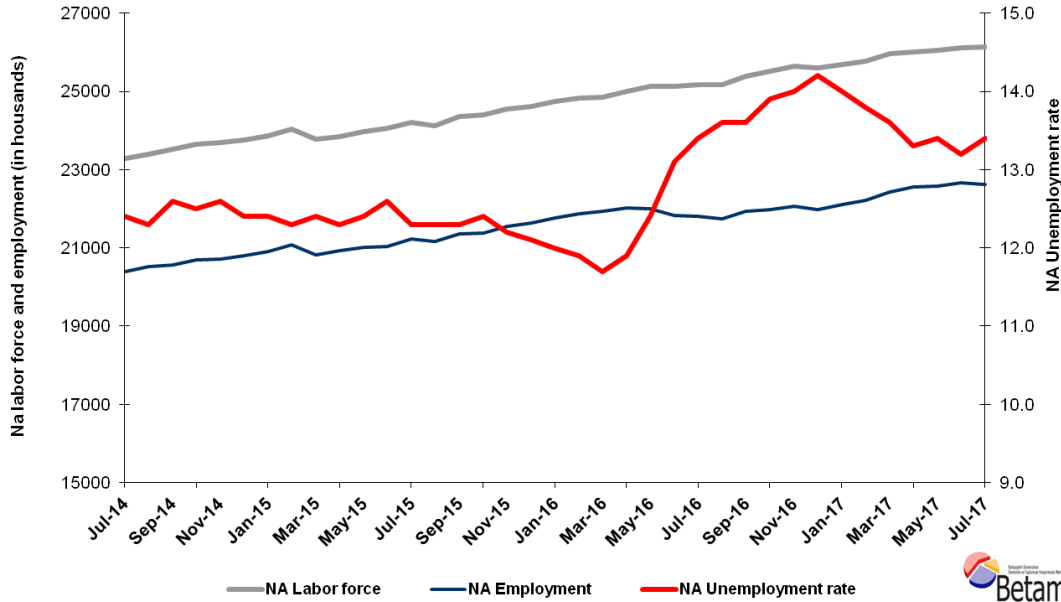**Seyfettin Gürsel[*], Mine Durmaz Aslan[**] and Yazgı Genç[***]**

Executive Summary

Seasonally adjusted labor market data show that declining non-agricultural unemployment rate since December 2016 increased by 0.2 points in the period of July from June reaching 13.4 percent. The most important reason behind this increase is a significant decrease in the non-agricultural employment in July compared to June. In that period, significant loss of employment was experienced in service sector. On the other hand, according to seasonally adjusted labor data, non-agricultural unemployment rate of males was increased by 0.5 points while non-agricultural unemployment rate of females was not changed. Betam's forecasting model predicts that the non-agricultural unemployment will remain at 13.4 percent in the period of August 2017.

Decrease in non-agricultural employment

According to seasonally adjusted labor market data, in the period of July 2017, the nonagricultural labor force increased by 12 thousand and reached 26 million 132 thousand and the number people employed in non-agricultural sectors decreased by 42 thousand and reached 22 million 630 thousand (Figure 1, Table 1). While the number of unemployed in nonagricultural sectors increased by 54 thousand and recorded as 3 million 502 thousand, the nonagricultural unemployment rate increased from 13.2 percent to 13.4 percent.

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

Source: Turkstat, Betam

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No change in unemployment is expected in the period of August 2017

Betam's forecasting model had predicted that the seasonally adjusted nonagricultural unemployment rate would decrease from 13,2 percent to 13,1 percent in the period of July 2017. Seasonally adjusted nonagricultural unemployment rate in July 2017 increased by 0,2 percentage points compared to the previous period. Betam's forecasting model predicts the seasonally adjusted August 2017 nonagricultural unemployment will remain constant at 13.4 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 nonagricultural unemployment rate will remain unchanged in the period of August 2017.

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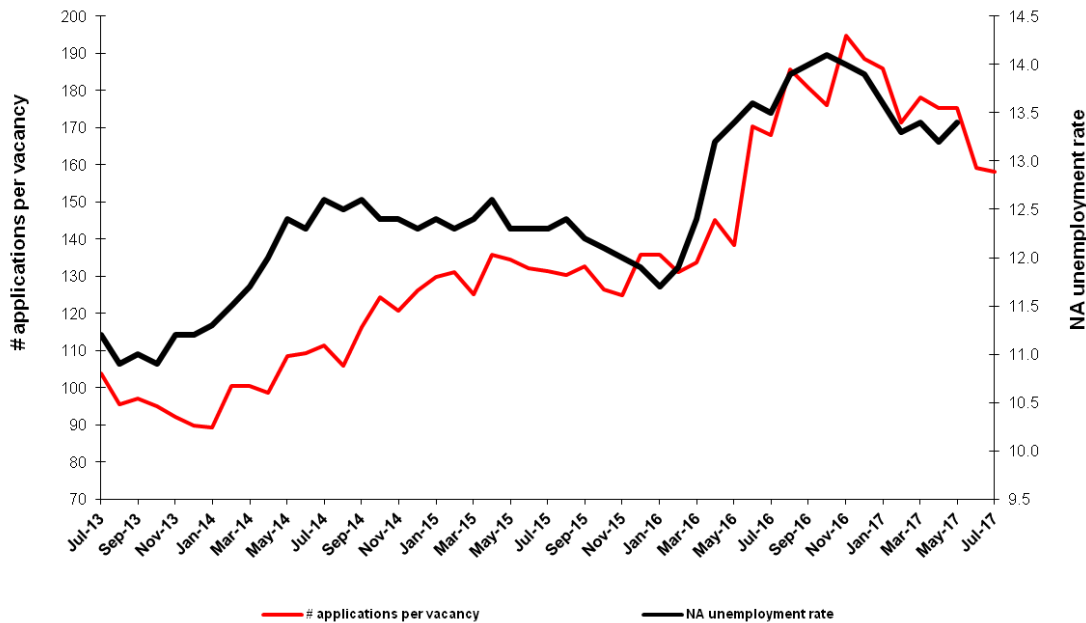
Source: Kariyer.net, Turkstat, Betam

Employment loss in services

According to seasonally adjusted sectoral labor market data, in July 2017 employment losses are observed in services and manufacture sector while the number of people employed in agriculture and construction sectors increased compared to June 2017. Employment in agriculture sector increased by 129 thousand in July while manufacture employment decreased by 20 thousand; the decrease in the manufacture has been limited to 3 thousand in the period of June 2017. On the other hand, Services lost 46 thousand employments for the first time since December 2016. Employment increased by 24 thousand in construction sector(**Error! Reference source not found.**,**Error! Reference source not found.**).[3]

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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] 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 thousands)

AGRICULTURE

MANUFACTURING

CONSTRUCTION

SERVICES
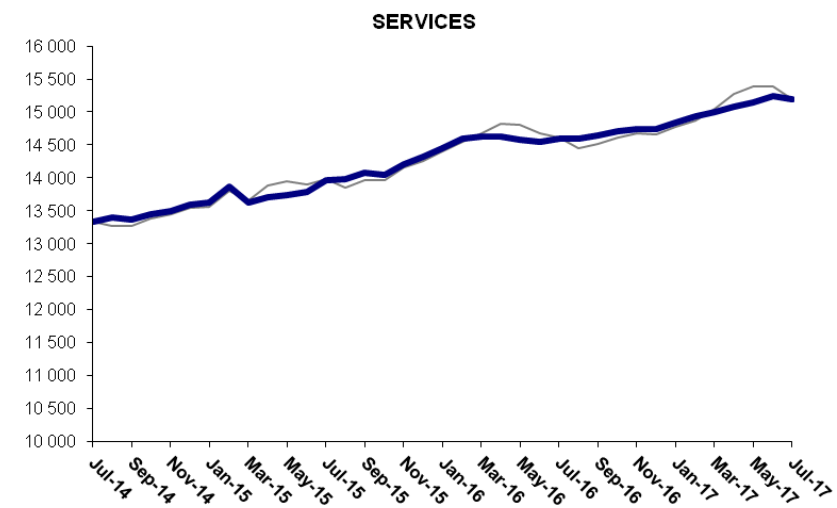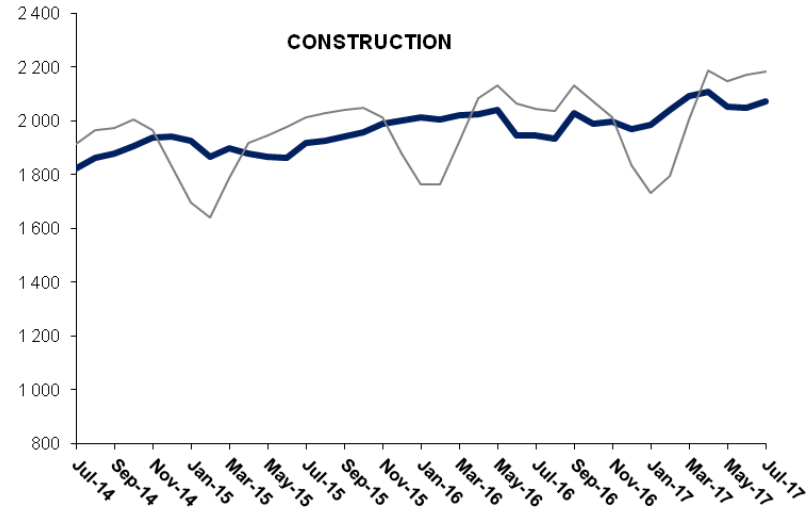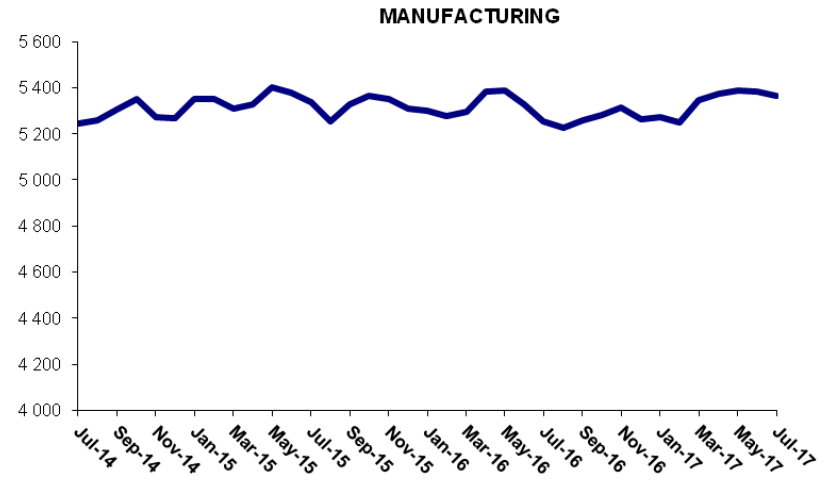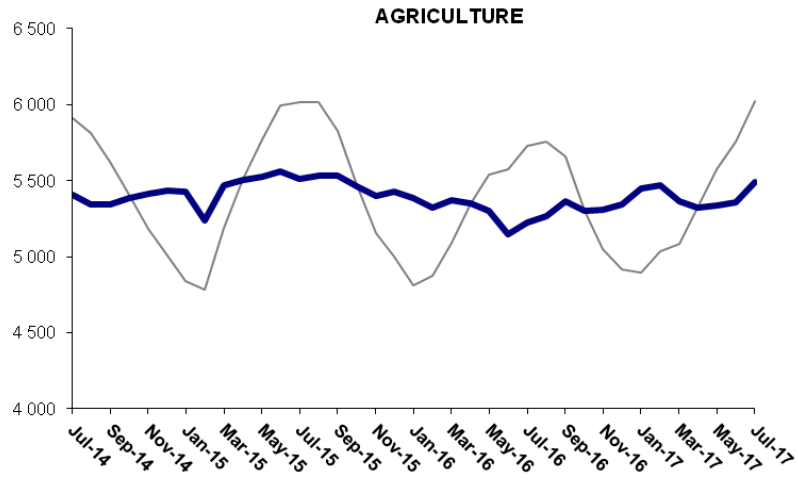
Source: Turkstat, Betam

Year-on-year Increase in non-agricultural unemployment

From July 2016 to July 2017 the non-agricultural labor force increased by 951 thousand (3.8 percent) and non-agricultural employment by 827 thousand (3.8 percent) (Figure 4). Thus the increase in non-agricultural unemployed reached 124 thousand within a year while unemployment did not change staying at 13 percent..

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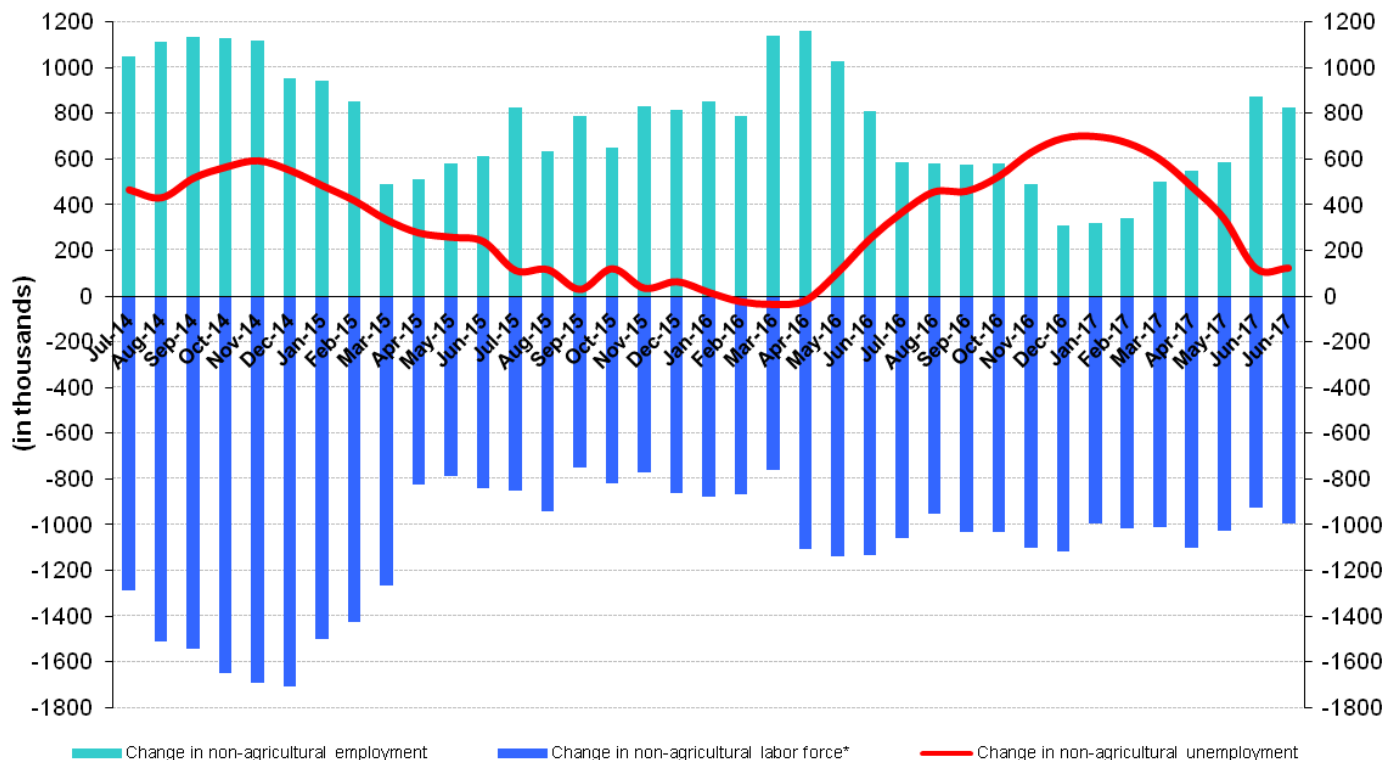
* The change in labor force represented with a negative sign.

Source: Turkstat, Betam

Jump in male unemployment

Figure 5 shows seasonal adjusted non-agricultural unemployment rate for males (green) and for females (purple)[4]. From the period of June 2017 to the period of July 2017, the non-agricultural male unemployment rate grew by 0.5 percentage points and the non-agricultural female unemployment rate did not change. Thus non-agricultural unemployment increased to 11.3 for males and remained constant at 19.0 percent for females.

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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
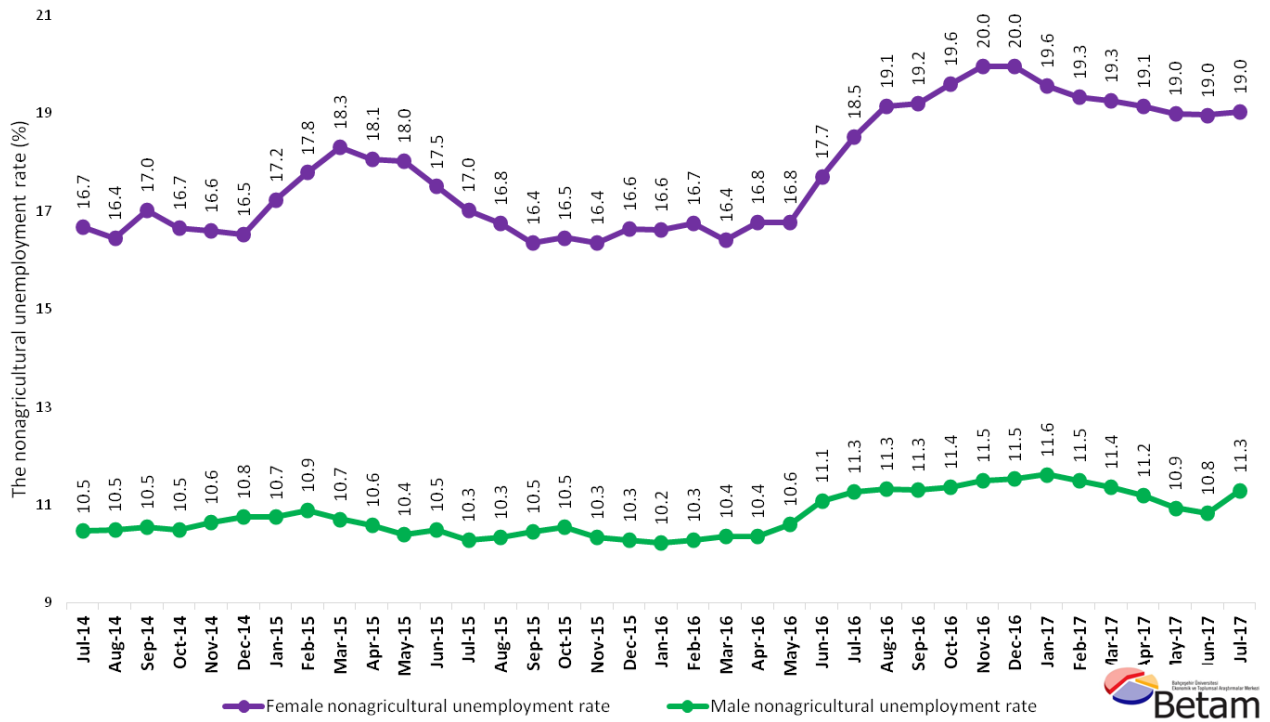
Source: Turkstat, Betam

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

	Labor force	Employment	Unemployment	Unemployment rate	Monthly changes		
					Labor force	Employment	Unemployment
May-14	23107	20427	2680	11.6%			
June-14	23185	20403	2782	12.0%	78	-24	102
July-14	23289	20401	2888	12.4%	104	-2	106
August-14	23390	20513	2877	12.3%	101	112	-11
September-14	23518	20555	2963	12.6%	128	42	86
October-14	23656	20699	2957	12.5%	138	144	-6
November-14	23691	20706	2985	12.6%	35	7	28
December-14	23748	20803	2945	12.4%	57	97	-40
January-15	23858	20900	2958	12.4%	111	97	14
February-15	24046	21088	2958	12.3%	187	188	-1
March-15	23779	20830	2949	12.4%	-267	-258	-9
April-15	23851	20917	2934	12.3%	72	87	-15
May-15	23981	21007	2974	12.4%	130	90	40
June-15	24063	21031	3032	12.6%	82	24	58
July-15	24197	21221	2976	12.3%	134	190	-56
August-15	24128	21160	2968	12.3%	-70	-61	-9
September-15	24348	21353	2995	12.3%	220	193	27
October-15	24400	21374	3026	12.4%	52	21	31
November-15	24541	21547	2994	12.2%	141	173	-32
December-15	24619	21640	2979	12.1%	78	93	-15
January-16	24733	21765	2968	12.0%	114	125	-11
February-16	24830	21875	2955	11.9%	97	110	-13
March-16	24848	21941	2907	11.7%	19	66	-47
April-16	25006	22030	2976	11.9%	157	89	68
May-16	25122	22007	3115	12.4%	116	-23	139
June-16	25120	21829	3291	13.1%	-2	-178	176
July-16	25174	21801	3373	13.4%	55	-28	83
August-16	25176	21752	3424	13.6%	2	-49	51
September-16	25387	21934	3453	13.6%	211	182	29
October-16	25520	21973	3547	13.9%	134	39	95
November-16	25644	22054	3590	14.0%	124	81	43
December-16	25608	21972	3636	14.2%	-36	-82	46
January-17	25693	22096	3597	14.0%	85	124	-39
February-17	25776	22219	3557	13.8%	83	123	-40
March-17	25965	22434	3531	13.6%	189	215	-26
April-17	26013	22553	3460	13.3%	47	119	-72
May-17	26061	22569	3492	13.4%	49	16	33
June-17	26120	22672	3448	13.2%	59	103	-44
July-17	26132	22630	3502	13.4%	12	-42	54

Source: Turkstat, Betam

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

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
May-14	5571	5364	1872	13191				
June-14	5494	5332	1834	13237	-77	-32	-38	46
July-14	5409	5243	1824	13333	-85	-89	-10	96
August-14	5344	5257	1864	13392	-65	14	40	59
September-14	5342	5306	1877	13372	-2	49	13	-20
October-14	5386	5353	1906	13441	44	47	29	69
November-14	5417	5273	1939	13494	31	-80	33	53
December-14	5437	5266	1940	13597	20	-7	1	103
January-15	5426	5349	1927	13623	-11	83	-13	26
February-15	5238	5351	1867	13870	-188	2	-60	247
March-15	5472	5308	1899	13622	234	-43	32	-248
April-15	5504	5326	1880	13712	32	18	-19	90
May-15	5526	5404	1868	13736	22	78	-12	24
June-15	5558	5380	1864	13787	32	-24	-4	51
July-15	5511	5336	1919	13966	-47	-44	55	179
August-15	5533	5252	1927	13981	22	-84	8	15
September-15	5532	5327	1942	14085	-1	75	15	104
October-15	5462	5363	1958	14053	-70	36	16	-32
November-15	5403	5353	1989	14206	-59	-10	31	153
December-15	5430	5311	2002	14327	27	-42	13	121
January-16	5384	5300	2012	14453	-46	-11	10	126
February-16	5322	5276	2007	14593	-62	-24	-5	140
March-16	5372	5295	2022	14624	50	19	15	31
April-16	5351	5381	2026	14623	-21	86	4	-1
May-16	5301	5386	2041	14581	-50	5	15	-42
June-16	5149	5330	1945	14554	-152	-56	-96	-27
July-16	5222	5254	1946	14602	73	-76	1	48
August-16	5270	5224	1935	14593	48	-30	-11	-9
September-16	5362	5260	2029	14645	92	36	94	52
October-16	5301	5282	1989	14702	-61	22	-40	57
November-16	5309	5316	1998	14741	8	34	9	39
December-16	5343	5265	1971	14736	34	-51	-27	-5
January-17	5451	5274	1984	14838	108	9	13	102
February-17	5467	5251	2040	14928	16	-23	56	90
March-17	5362	5346	2094	14994	-105	95	54	66
April-17	5323	5372	2109	15072	-39	26	15	78
May-17	5340	5386	2051	15142	17	14	-58	70
June-17	5360	5383	2050	15239	20	-3	-1	97
July-17	5489	5363	2074	15193	129	-20	24	-46

Source: Turkstat, Betam

Table 1: Seasonally adjusted non-agricultural labor force by gender (thousands)

	Female Labor Force	Female Employment	Female Unemployed	Male Labor Force	Male Employment	Male Unemployed
July-14	6200	5166	1034	17083	15295	1787
August-14	6300	5264	1036	17157	15356	1801
September-14	6337	5259	1079	17183	15372	1812
October-14	6386	5322	1064	17238	15429	1809
November-14	6400	5338	1062	17277	15437	1840
December-14	6421	5360	1061	17353	15487	1867
January-15	6507	5386	1121	17382	15514	1868
February-15	6561	5394	1167	17459	15559	1900
March-15	6519	5326	1193	17225	15380	1845
April-15	6540	5359	1181	17286	15456	1830
May-15	6624	5430	1194	17331	15528	1803
June-15	6656	5491	1165	17392	15569	1823
July-15	6742	5595	1147	17460	15665	1795
August-15	6713	5589	1125	17497	15687	1810
September-15	6759	5654	1106	17580	15741	1839
October-15	6779	5663	1115	17616	15759	1857
November-15	6875	5750	1124	17641	15817	1825
December-15	6975	5815	1160	17683	15865	1818
January-16	7019	5852	1167	17714	15901	1812
February-16	7049	5869	1180	17754	15928	1827
March-16	7055	5898	1157	17799	15957	1843
April-16	7141	5944	1197	17839	15990	1849
May-16	7174	5971	1203	17920	16020	1901
June-16	7260	5974	1285	17834	15857	1976
July-16	7262	5917	1345	17900	15884	2017
August-16	7326	5924	1403	17957	15923	2034
September-16	7376	5960	1417	18007	15972	2035
October-16	7440	5981	1458	18069	16014	2054
November-16	7458	5970	1488	18152	16064	2088
December-16	7464	5975	1489	18179	16084	2095
January-17	7459	6000	1458	18261	16139	2122
February-17	7514	6062	1453	18284	16180	2103
March-17	7610	6145	1466	18335	16252	2083
April-17	7599	6144	1454	18376	16321	2055
May-17	7651	6198	1452	18379	16369	2010
June-17	7668	6214	1454	18434	16437	1996
July-17	7700	6234	1466	18473	16388	2086

Kaynak: TÜİK, Betam