

## LARGE EMPLOYMENT LOSSES IN MANUFACTURING

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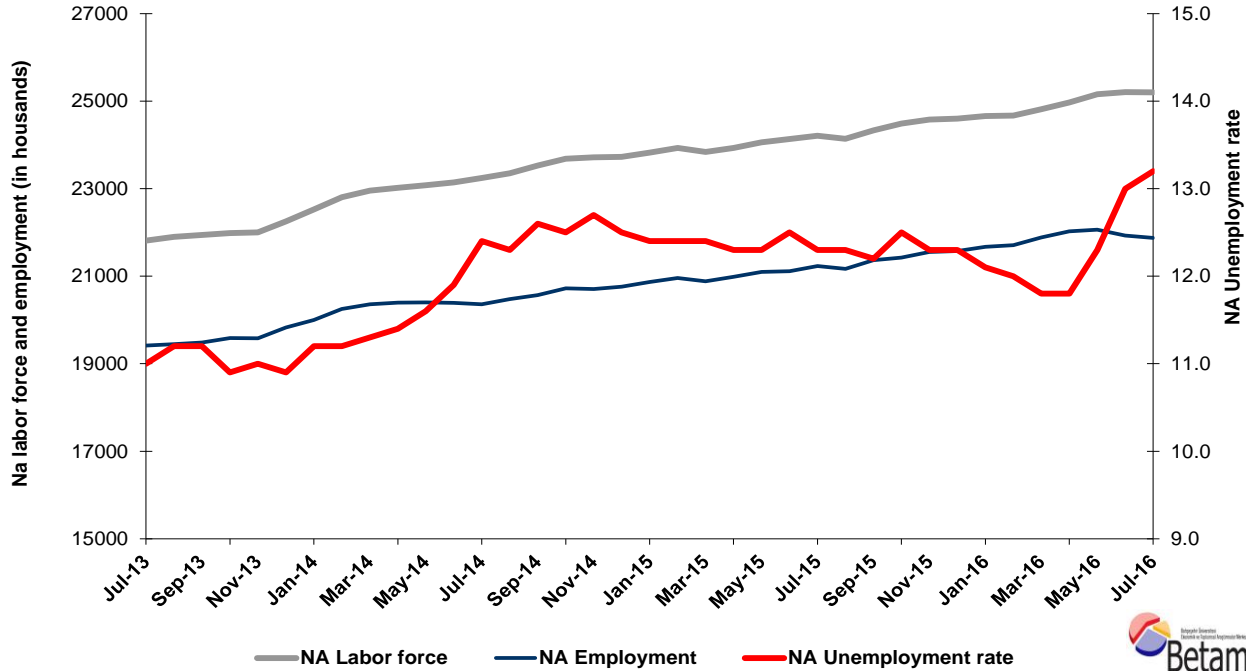
### Executive Summary

Seasonally adjusted labor market data show that nonagricultural unemployment rate increased by 0.6 percentage points and reached 13.2 percent in the period of July 2016. In this period, the number of people employed in agriculture, services and construction sectors increased by 76 thousand, 21 thousand and 5 thousand respectively. On the other hand, there is an employment loss by 76 thousand in the manufacturing sector. In line with these developments, the number of unemployed in non-agricultural sectors grew by 50 thousand in one month and reached 3 million 327 thousand. The unemployment rate which was 11.8 percent in the period of April 2016 increased by almost 1,5 percentage points and reached 13,2 percent in July 2016. Betam's forecasting model predicts that the increase in non-agricultural unemployment will continue in the period of August.

### Increase in non-agricultural unemployment continues

According to seasonally adjusted labor market data, non-agricultural labor force remained almost constant at 25 million 203 thousand while non-agricultural employment declined by 51 thousand compared to June 2016 period and reached 21 million 876 thousand (Figure 1, Table 1). The increase in non-agricultural unemployment continues in the period of July 2016, albeit at a slower pace. Compared to June, the number of non-agricultural unemployed increased by 50 thousand and is now over 3 million 300 thousand.

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



Source: Turkstat, Betam

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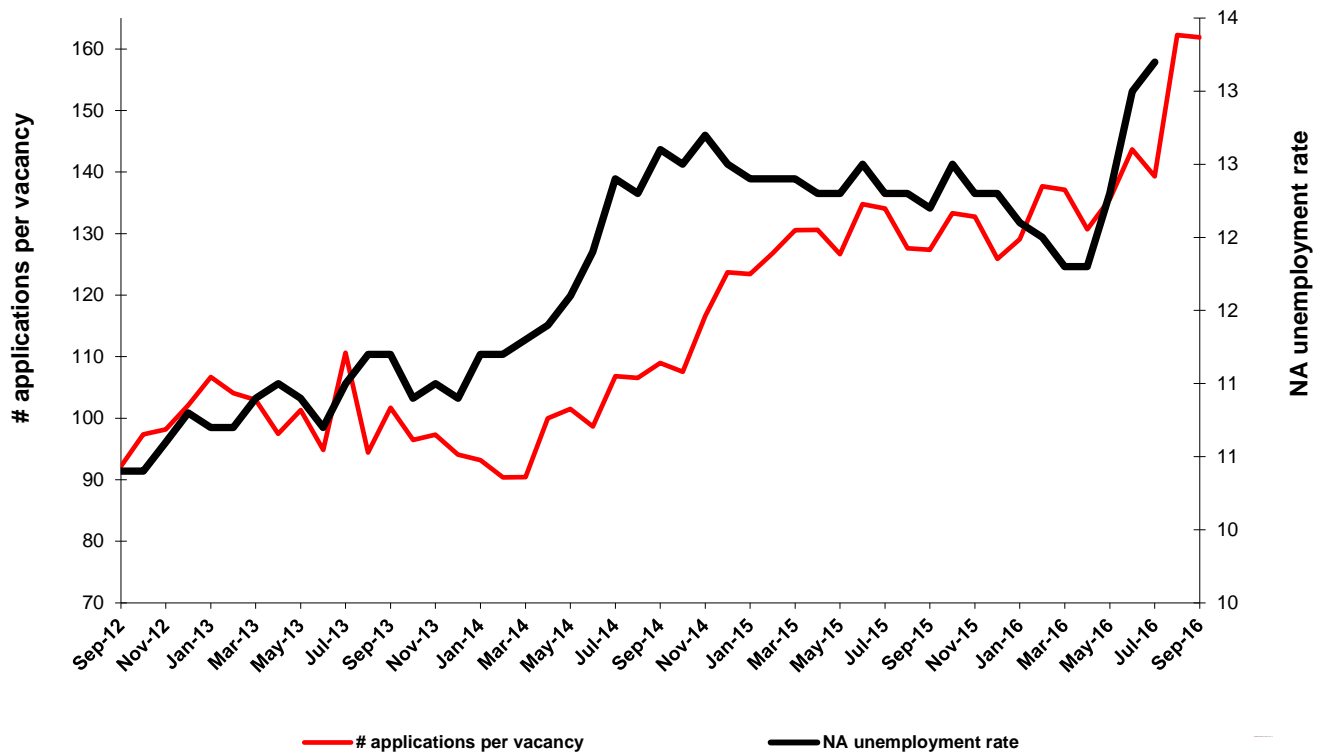
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## Nonagricultural unemployment rate is expected to increase in the period of August

Betam's forecasting model had predicted that the seasonally adjusted nonagricultural unemployment rate would increase by 0.2 percentage point and become 13.1 percent in July 2016. June 2016 nonagricultural unemployment rate is revised to 13 percent by Turkstat. In July 2016, non-agricultural unemployment rate increased by 0.2 percent and reached 13.2 percent compared to June 2016. Betam's forecasting model predicts the seasonally adjusted August 2016 nonagricultural unemployment rate will rise to 13.3 percent. 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 1. 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 continue to increase in the period of August 2016.

**Figure 2: Seasonally adjusted nonagricultural unemployment rate and application per vacancy**



Source: Kariyer.net, Turkstat, Betam

## Employment losses of 76 thousand in manufacturing sector

According to seasonally adjusted sectoral labor market data, the number of people employed in agriculture, services and construction sectors increased by 76 thousand, 21 thousand and 5 thousand respectively. On the other hand, there is an employment loss by 76 thousand in manufacturing (Figure 3, Table 2)<sup>3</sup>. The increase in service sector employment has decelerated in the last two periods. Construction sector employment increased only by 4 thousand after having recorded large employment losses in the previous period. On the other hand, the cumulative employment loss of employment in the last two periods in manufacturing sector is over 130 thousand.

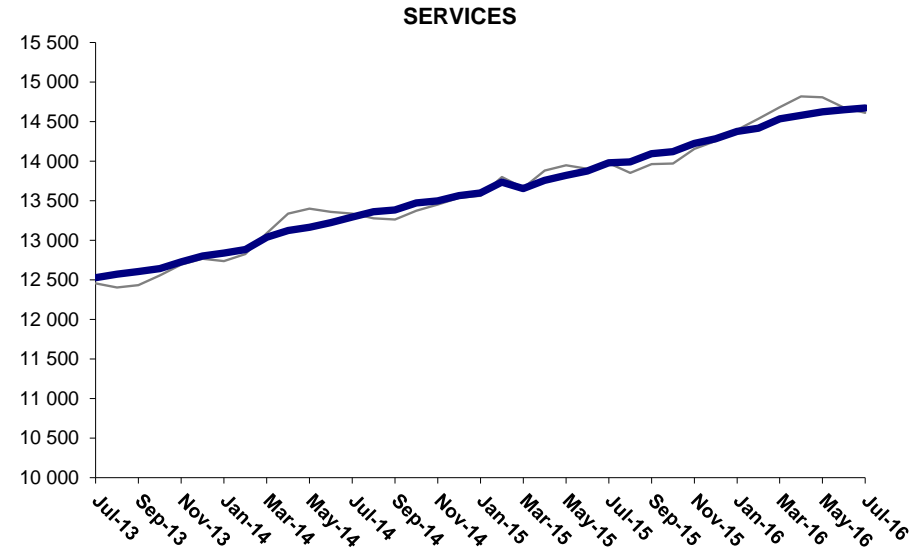
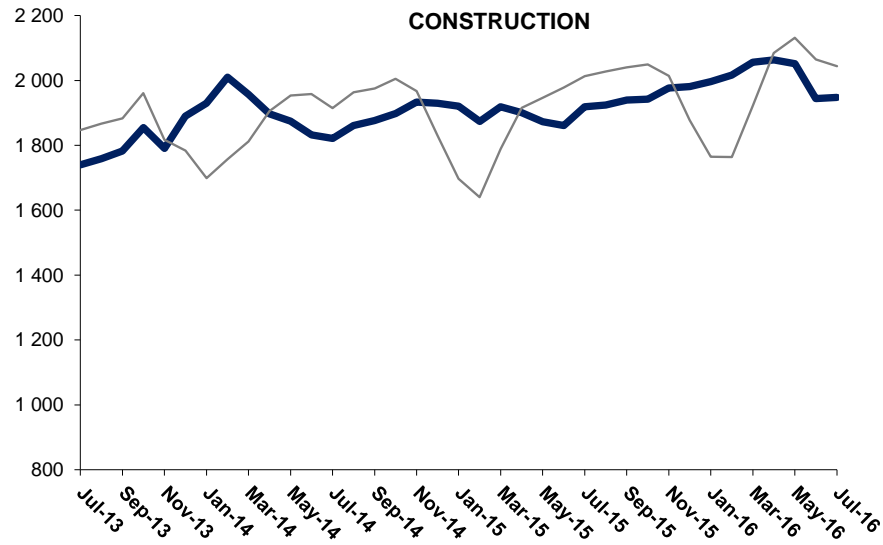
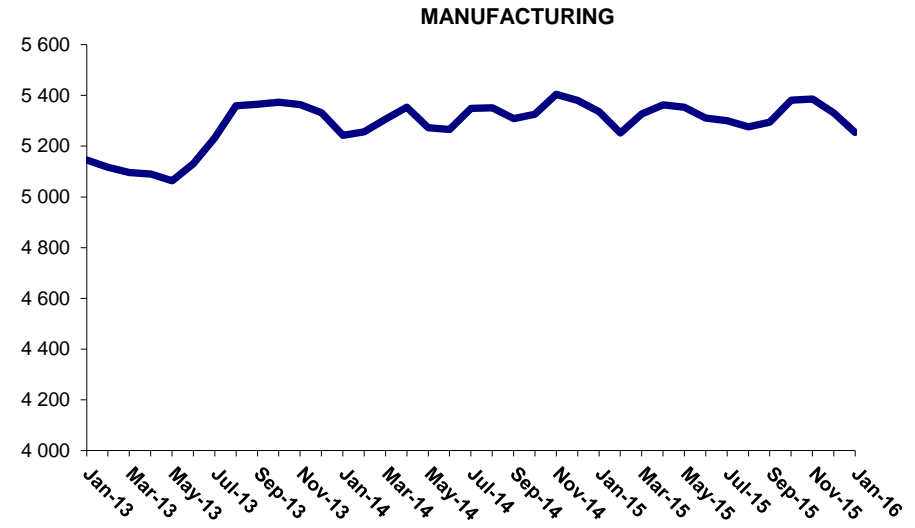
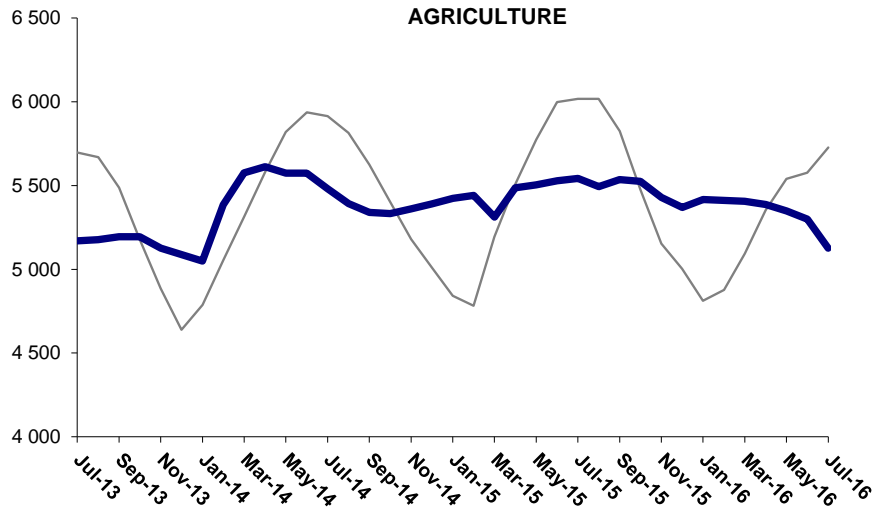
<sup>1</sup> For detailed information on Betam's forecasting model, please see Betam Research Brief 168 titled as "Kariyer.net Verisiyle Kısa Vadeli Tarım Dışı İşsizlik Tahmini"

<http://betam.bahcesehir.edu.tr/tr/2014/06/kariyer-net-verisiyle-kisa-vadeli-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)**

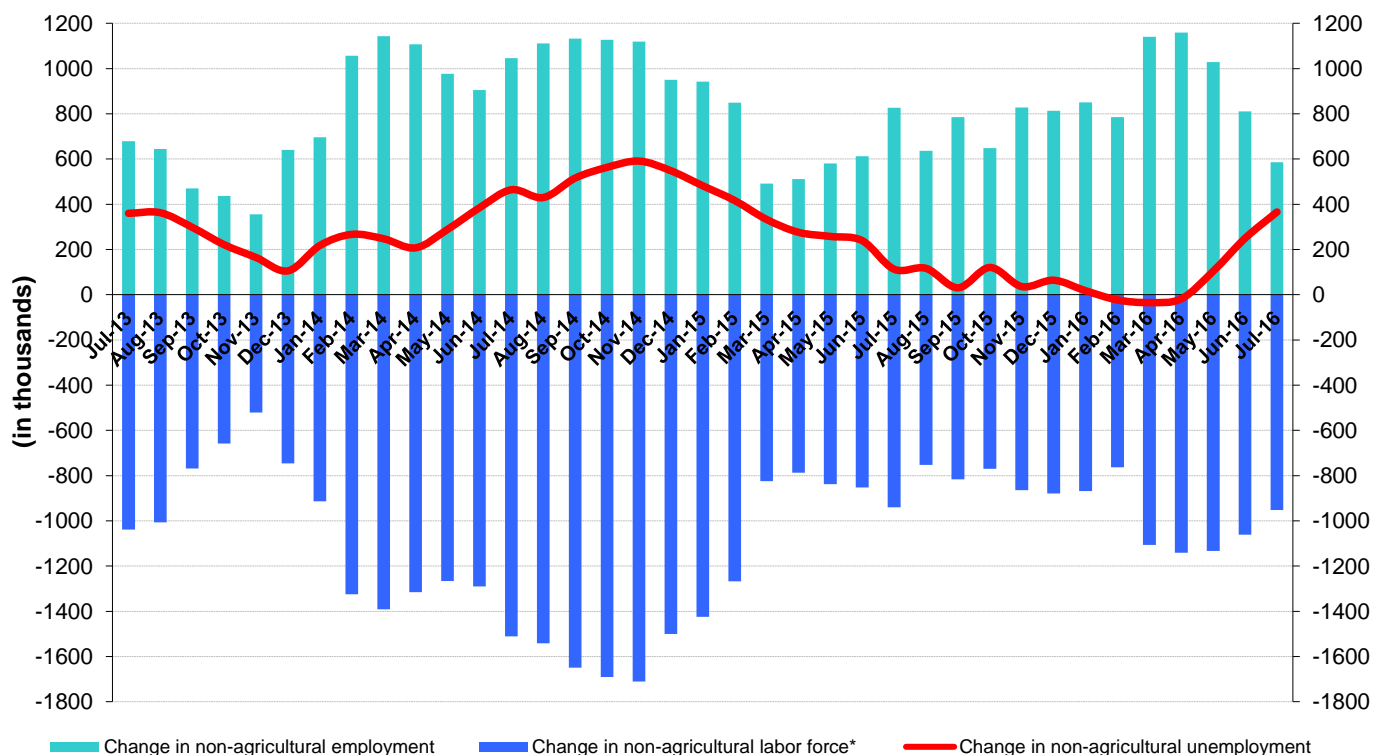


Source: Turkstat, Betam

## Year-on-year unemployment keeps on increasing

From July 2015 to July 2016 the nonagricultural labor force increased by 952 thousand (3.9 percent) and nonagricultural employment increased by 586 thousand (2.7 percent). Thus, the number of non-agricultural unemployed increased by 366 thousand in the period of July 2016. It is striking that the annual increase in non-agricultural employment has slowed down. Nevertheless, the increase in non-agricultural labor force continues. Parallel to these developments, we observe an increase in the number of unemployed people in non-agricultural sectors.

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



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

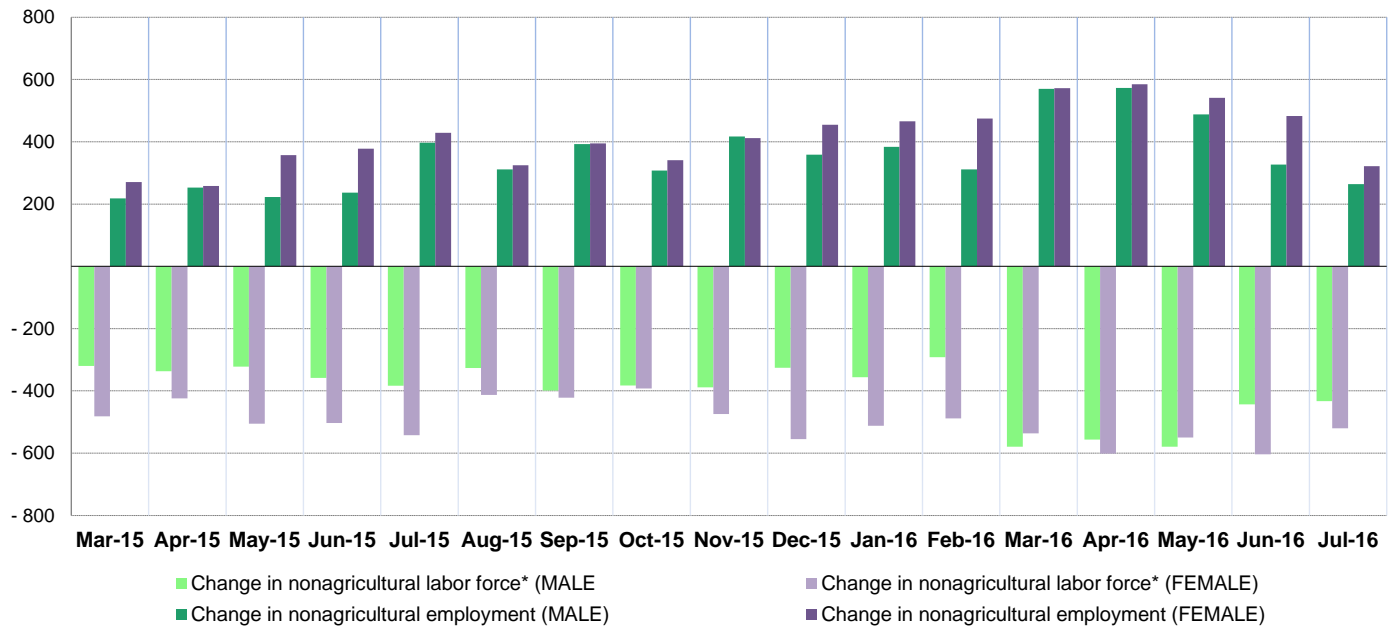


Source: Turkstat, Betam

## Non-agricultural unemployment increases both in female and male

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. Under these circumstances, we use the year-on-year changes in male and female labor market statistics to study the latest developments in the labor market. Figure 5 shows yearly non-agricultural employment (dark colors), non-agricultural labor force (light colors) for males (green) and for females (purple).

**Figure 5 Year-on-year changes in nonagricultural labor force and employment by gender**



Source: Turkstat, Betam

In July 2016, nonagricultural female labor force and nonagricultural male labor force increased by 520 thousand and 433 thousand respectively compared to July 2015. On the other hand, nonagricultural female employment increased by 322 thousand whereas the increase in nonagricultural male employment was limited to 264 thousand. The number of non-agricultural unemployed women and men increased by 198 thousand and 169 thousand respectively. Compared to July 2015, the non-agricultural male unemployment rate grew from 9.9 percent to 10.7 percent and the non-agricultural female unemployment rate rose from 17.6 percent to 19.1 percent.

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

	Labor force	Employment	Unemployment	Unemployment rate	Monthly changes		
					Labor force	Employment	Unemployment
June-13	21822	19487	2335	10.7%			
July-13	21812	19413	2399	11.0%	-10	-74	64
August-13	21901	19448	2453	11.2%	89	35	54
September-13	21940	19483	2457	11.2%	39	35	4
October-13	21984	19588	2396	10.9%	44	105	-61
November-13	22002	19582	2420	11.0%	18	-6	24
December-13	22250	19825	2425	10.9%	248	243	5
January-14	22524	20001	2523	11.2%	273	176	97
February-14	22806	20252	2554	11.2%	283	251	32
March-14	22953	20359	2594	11.3%	146	107	39
April-14	23018	20394	2624	11.4%	65	35	30
May-14	23080	20403	2677	11.6%	62	9	53
June-14	23144	20390	2754	11.9%	64	-13	77
July-14	23242	20360	2882	12.4%	98	-30	128
August-14	23350	20478	2872	12.3%	108	118	-10
September-14	23531	20566	2965	12.6%	181	88	93
October-14	23683	20723	2960	12.5%	153	157	-4
November-14	23718	20706	3012	12.7%	35	-17	52
December-14	23727	20761	2966	12.5%	9	55	-46
January-15	23824	20870	2954	12.4%	97	109	-12
February-15	23928	20961	2967	12.4%	104	91	13
March-15	23838	20882	2956	12.4%	-90	-79	-11
April-15	23928	20985	2943	12.3%	90	103	-13
May-15	24057	21098	2959	12.3%	129	113	16
June-15	24133	21116	3017	12.5%	76	18	58
July-15	24211	21233	2978	12.3%	78	117	-39
August-15	24137	21168	2969	12.3%	-74	-65	-9
September-15	24333	21364	2969	12.2%	196	196	0
October-15	24488	21427	3061	12.5%	155	63	92
November-15	24578	21555	3023	12.3%	90	128	-38
December-15	24602	21576	3026	12.3%	24	21	3
January-16	24658	21674	2984	12.1%	56	98	-42
February-16	24668	21708	2960	12.0%	11	34	-23
March-16	24814	21886	2928	11.8%	146	178	-32
April-16	24973	22026	2947	11.8%	159	140	19
May-16	25156	22062	3094	12.3%	183	36	147
June-16	25203	21927	3276	13.0%	47	-135	182
July-16	25203	21876	3327	13.2%	-1	-51	50

Source: Turkstat, Betam

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

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
June-13	5170	5163	1802	12522				
July-13	5177	5146	1740	12527	7	-17	-62	5
August-13	5195	5117	1759	12572	18	-29	19	45
September-13	5194	5096	1782	12605	-1	-21	23	33
October-13	5126	5090	1855	12643	-68	-6	73	38
November-13	5088	5064	1791	12727	-38	-26	-64	84
December-13	5050	5131	1890	12804	-38	67	99	77
January-14	5386	5232	1930	12839	336	101	40	35
February-14	5576	5359	2010	12883	190	127	80	44
March-14	5613	5365	1957	13038	37	6	-53	155
April-14	5574	5373	1897	13123	-39	8	-60	85
May-14	5574	5364	1875	13164	0	-9	-22	41
June-14	5482	5332	1832	13226	-92	-32	-43	62
July-14	5393	5243	1821	13295	-89	-89	-11	69
August-14	5340	5257	1861	13360	-53	14	40	65
September-14	5332	5306	1876	13385	-8	49	15	25
October-14	5360	5353	1898	13473	28	47	22	88
November-14	5391	5273	1933	13500	31	-80	35	27
December-14	5423	5266	1930	13565	32	-7	-3	65
January-15	5442	5349	1921	13599	19	83	-9	34
February-15	5312	5351	1874	13736	-130	2	-47	137
March-15	5487	5308	1919	13655	175	-43	45	-81
April-15	5505	5326	1901	13757	18	18	-18	102
May-15	5528	5404	1873	13821	23	78	-28	64
June-15	5543	5380	1861	13875	15	-24	-12	54
July-15	5494	5336	1919	13979	-49	-44	58	104
August-15	5535	5252	1924	13992	41	-84	5	13
September-15	5525	5327	1940	14097	-10	75	16	105
October-15	5429	5363	1942	14121	-96	36	2	24
November-15	5369	5353	1977	14225	-60	-10	35	104
December-15	5416	5311	1981	14284	47	-42	4	59
January-16	5411	5300	1997	14377	-5	-11	16	93
February-16	5406	5276	2016	14416	-5	-24	19	39
March-16	5387	5295	2056	14535	-19	19	40	119
April-16	5349	5381	2063	14582	-38	86	7	47
May-16	5300	5386	2052	14625	-49	5	-11	43
June-16	5126	5330	1944	14652	-174	-56	-108	27
July-16	5202	5254	1948	14673	76	-76	4	21

Source: Turkstat, Betam