SHARP DECLINE IN NONAGRICULTURAL UNEMPLOYMENT

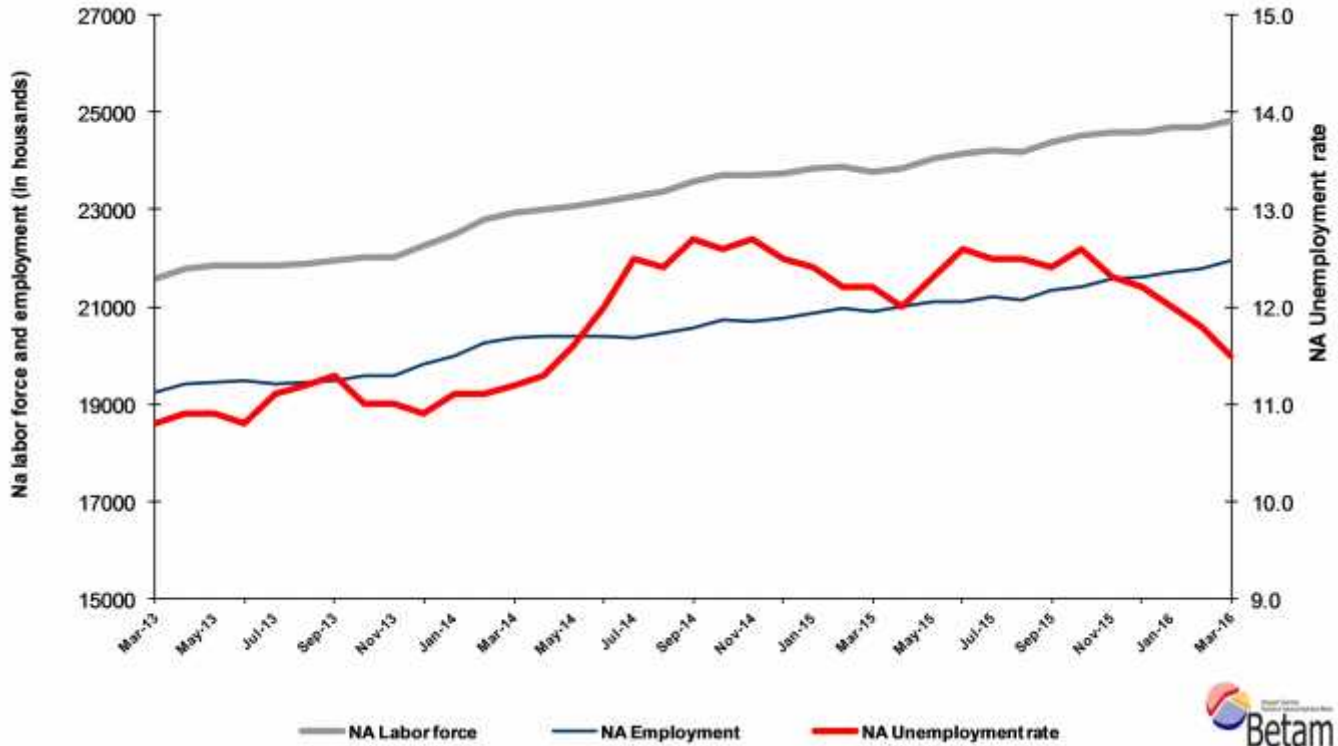**Seyfettin Gürsel[*] Gökçe Uysal[**] and Melike Kökkızıl [***]**

Executive Summary

Seasonally adjusted labor market data shows that nonagricultural unemployment rate decreased from 11.8 percent to 11.5 percent (0.3 percentage points) in the period of March 2016 compared to the previous period. Betam's forecasting model had predicted a 0.1 percent decrease for this period. We expect that the nonagricultural unemployment will continue to decline in the period of April 2016. In March 2016, increases in both non-agricultural labor force and non-agricultural employment strengthened. In addition, employment in manufacturing, construction and services increased by 19 thousand, 42 thousand and 140 thousand, respectively. In parallel, non-agricultural unemployment decreased. In this period, increases in the male labor force exceeded those in the female labor force and respective increases in employment were recorded at the same levels. Hence, female (male) unemployed decreased (slightly increased), annually.

Decrease in seasonally adjusted employment

According to seasonally adjusted data in the period of March 2016, nonagricultural labor force increased by 143 thousand, and reached 24 million 821 thousand compared to the period of February 2016. Due to the strong increases in employment, nonagricultural unemployed decreased by 58 thousand (Figure 1Figure 1, Table 1).

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

Source: Turkstat, Betam

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Nonagricultural unemployment will continue to decline

Betam's forecasting model had predicted that the seasonally adjusted nonagricultural unemployment rate would decline from 11.9 percent to 11.8 percent in March 2016. In this period, nonagricultural unemployment declined by 0.3 percentage points to 11.5 percent. Betam's forecasting model predicts that seasonally adjusted nonagricultural unemployment rate will decrease from 11.5 percent to 11.4 percent (by 0.1 percentage point) in the period of April 2016. 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 **Error! Reference source not found.**. 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 decrease in the period of March 2016.

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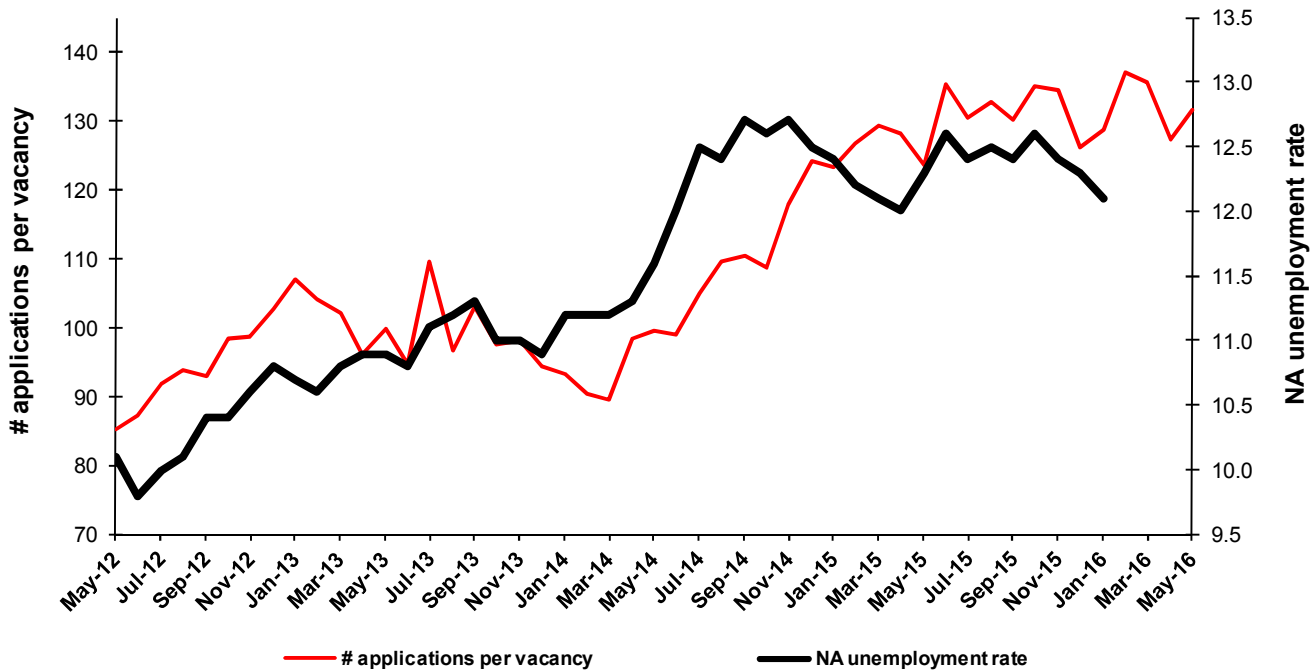
Source: Kariyer.net, Turkstat, Betam

Increase in service employment brought down unemployment

According to seasonally adjusted labor market series, employment in services increased by 140 thousand in the period of March 2016 compared to the period of February 2016 (Figure 3,Table 2)[3]. This increase is the largest since March 2014 when the increase was recorded at 154 thousand. Losses of employment in manufacturing that have been continuing since November 2015 seem to have come to a halt. Thereby employment increased by 19 thousand in manufacturing. In the period of March 2016, agricultural employment decreased by 21 thousand. On the other hand, employment in construction increased by 42 thousand.

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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"
http://betam.bahcesehir.edu.tr/tr/2014/06/kariyer-net-verisiyle-kisa-vadeli-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] 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

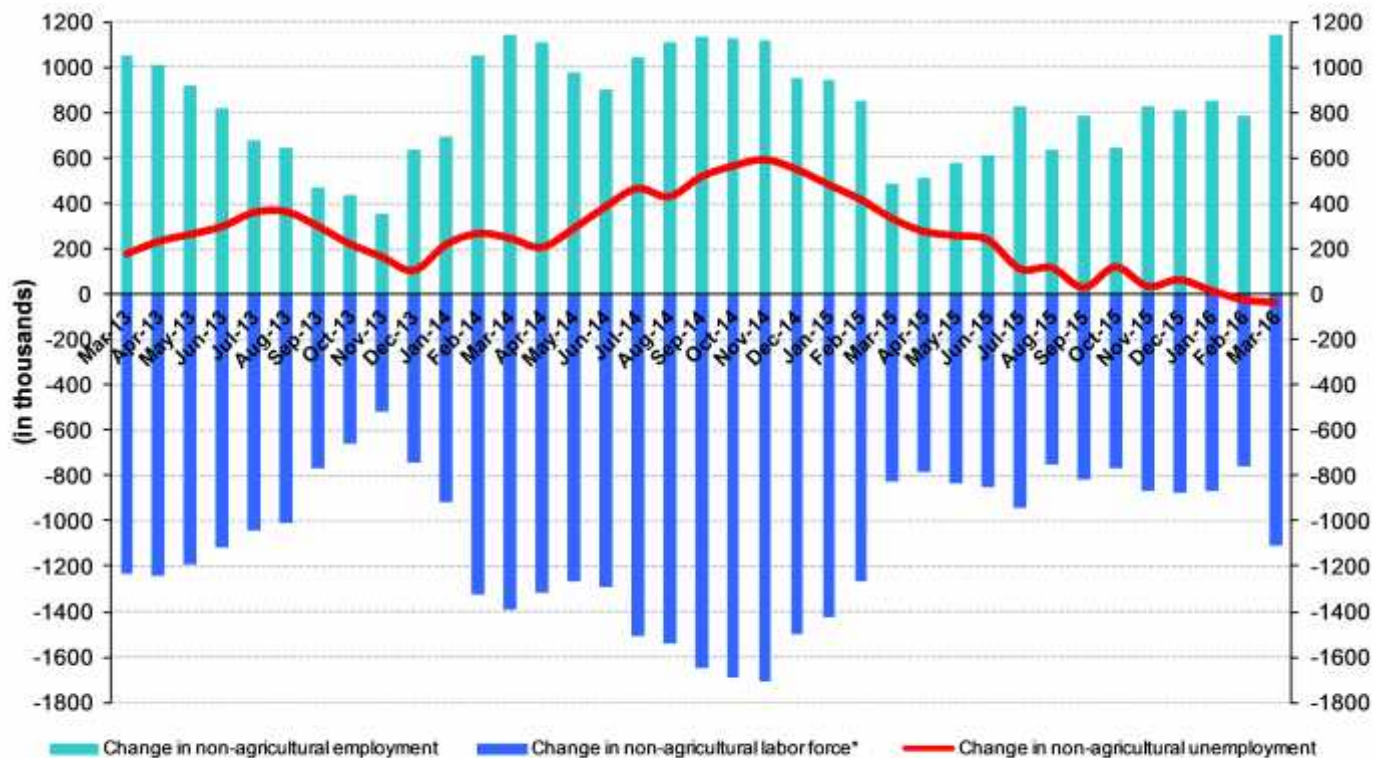**Figure 3 Employment by sectors (in thousands)**

AGRICULTURE

MANUFACTURING

CONSTRUCTION

SERVICES
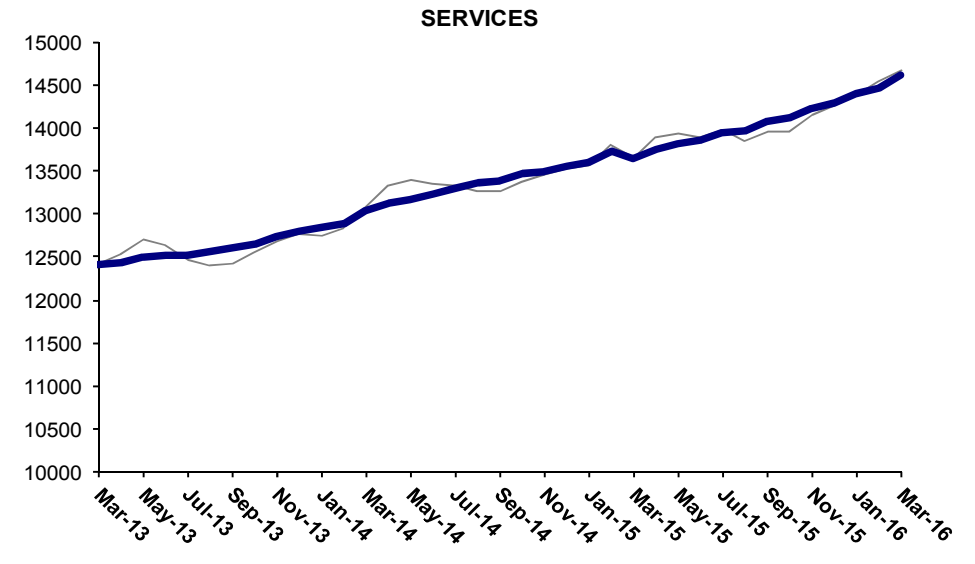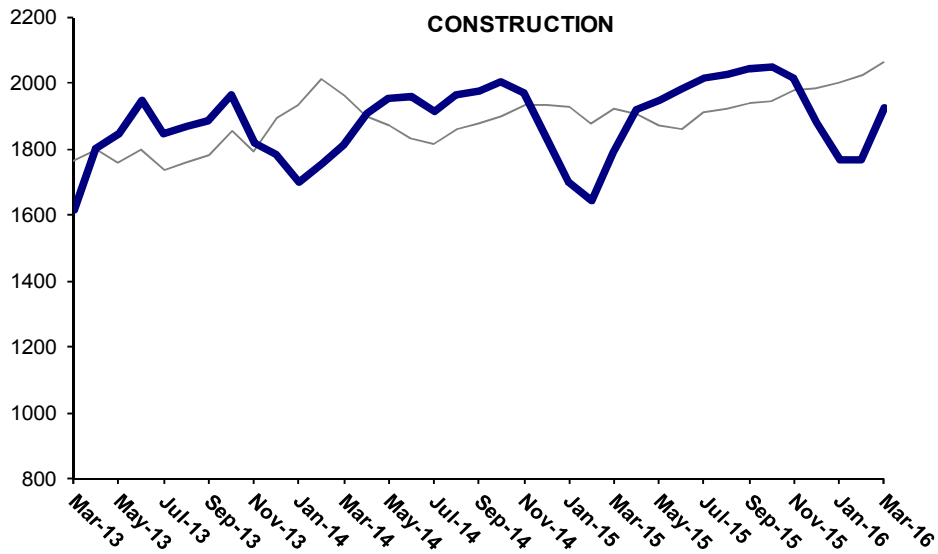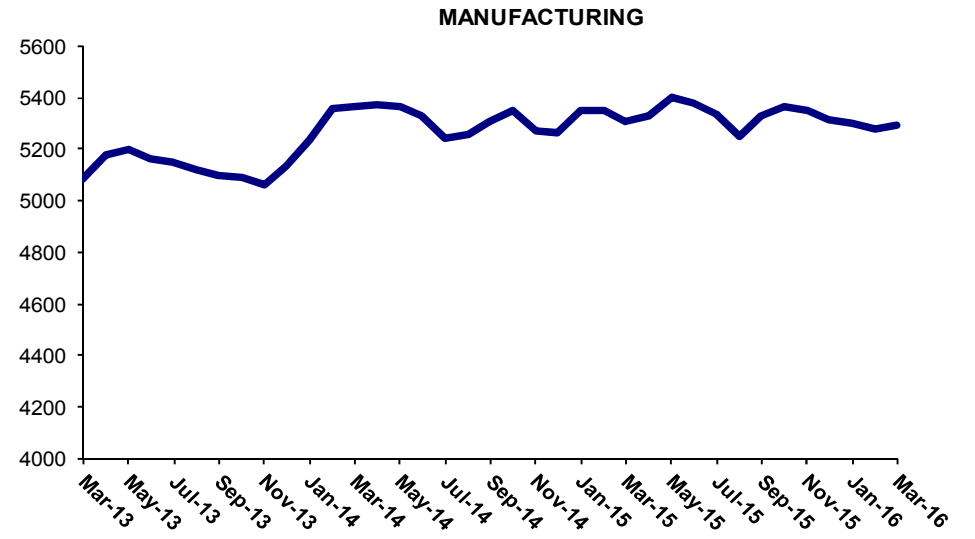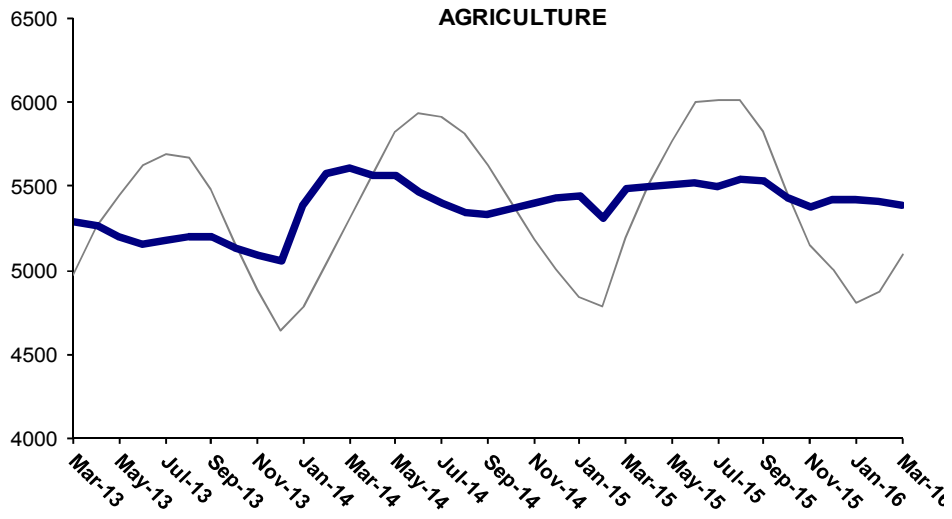
Source: Turkstat, Betam

Increases in labor force and employment accelerate

In the period of March 2016, nonagricultural labor force increased by 1 million 106 thousand (4.7 percent), nonagricultural employment increased by 1 million 141 thousand (5.5 percent) and nonagricultural unemployment decreased by 35 thousand compared to the same period in the previous year (Figure 4). It is striking that year-on year increases in employment and in labor force exceed 1 million in the period of March 2016.

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

Source: Turkstat; Betam

Increase in male labor force is greater than increase in female labor force

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

Change in nonagricultural labor force* (MALE)
Change in nonagricultural labor force* (FEMALE)
Change in nonagricultural employment (MALE)
Change in nonagricultural employment (FEMALE)
* The change in labor force represented with a negative sign.
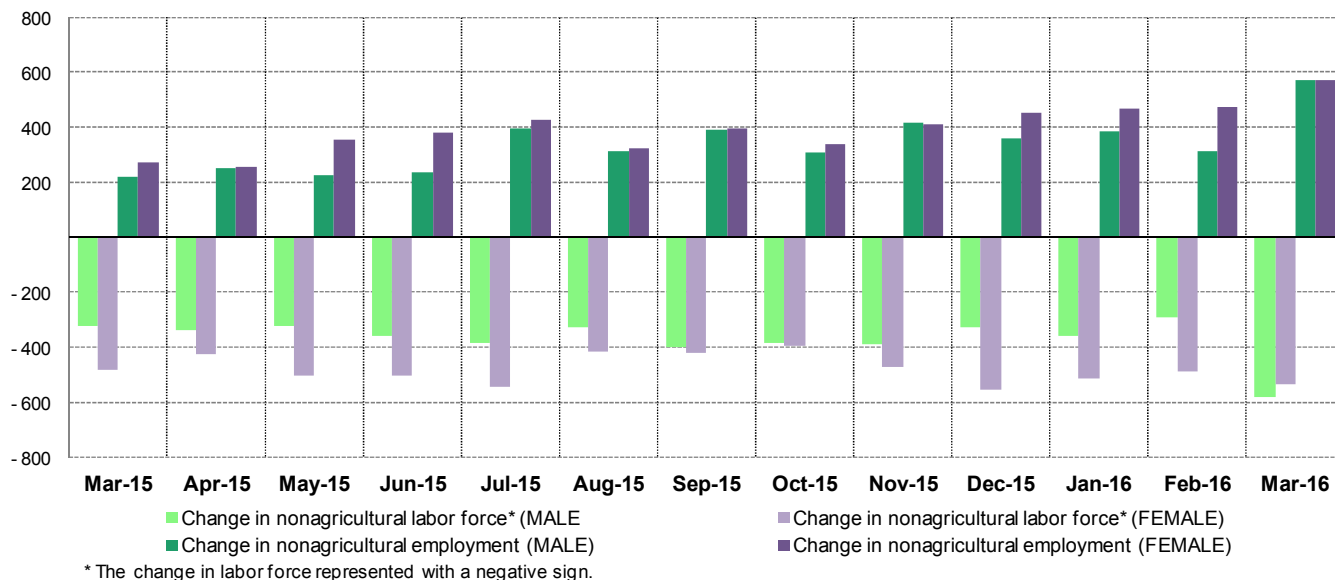
Source: Turkstat; Betam

The nonagricultural female labor force increased by 536 thousand and nonagricultural male labor force increased by 579 thousand in March 2016 compared to March 2015. Female employment increased by 572 thousand and male employment increased by 570 thousand in the same period. In parallel, the number of unemployed women decreased by 36 thousand while number of unemployed men increased by 9 thousand. In the period of March 2016, the increase in male labor force is higher than female labor force for the first time this year. Generally, the increases in female employment are greater than those in male employment. In this period, there are no clear gender differences in employment increases. Finally, no clear difference between the increase in female and male non-agricultural employment has been observed in the period of March 2016.

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

	Labor force	Employment	Unemployment	Unemployment rate
February-13	21477	19200	2277	10.6%
March-13	21587	19256	2331	10.8%
April-13	21777	19403	2374	10.9%
May-13	21841	19460	2381	10.9%
June-13	21845	19486	2359	10.8%
July-13	21835	19411	2424	11.1%
August-13	21900	19447	2453	11.2%
September-13	21964	19482	2482	11.3%
October-13	22009	19588	2421	11.0%
November-13	22003	19583	2420	11.0%
December-13	22253	19827	2426	10.9%
January-14	22502	20004	2498	11.1%
February-14	22786	20257	2529	11.1%
March-14	22932	20364	2568	11.2%
April-14	22994	20396	2598	11.3%
May-14	23078	20401	2677	11.6%
June-14	23167	20387	2780	12.0%
July-14	23264	20356	2908	12.5%
August-14	23374	20476	2898	12.4%
September-14	23557	20565	2992	12.7%
October-14	23711	20723	2988	12.6%
November-14	23718	20706	3012	12.7%
December-14	23729	20763	2966	12.5%
January-15	23828	20873	2955	12.4%
February-15	23878	20965	2913	12.2%
March-15	23790	20888	2902	12.2%
April-15	23853	20991	2862	12.0%
May-15	24048	21090	2958	12.3%
June-15	24138	21097	3041	12.6%
July-15	24230	21201	3029	12.5%
August-15	24167	21146	3021	12.5%
September-15	24370	21348	3022	12.4%
October-15	24510	21422	3088	12.6%
November-15	24587	21563	3024	12.3%
December-15	24599	21598	3001	12.2%
January-16	24674	21713	2961	12.0%
February-16	24678	21766	2912	11.8%
March-16	24821	21967	2854	11.5%

Source: Turkstat, Betam

Table 2 Seasonally adjusted employment by sectors (in thousands)

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
February-13	5336	5023	1788	12388				
March-13	5290	5083	1766	12407	-46	60	-22	19
April-13	5271	5176	1800	12427	-19	93	34	20
May-13	5199	5200	1758	12502	-72	24	-42	75
June-13	5161	5163	1800	12523	-38	-37	42	21
July-13	5179	5146	1737	12527	18	-17	-63	4
August-13	5198	5117	1757	12572	19	-29	20	45
September-13	5197	5096	1781	12605	-1	-21	24	33
October-13	5129	5090	1855	12643	-68	-6	74	38
November-13	5091	5064	1791	12727	-38	-26	-64	84
December-13	5053	5131	1891	12804	-38	67	100	77
January-14	5389	5232	1932	12840	336	101	41	36
February-14	5578	5359	2014	12884	189	127	82	44
March-14	5614	5365	1960	13038	36	6	-54	154
April-14	5570	5373	1900	13124	-44	8	-60	86
May-14	5560	5364	1872	13165	-10	-9	-28	41
June-14	5470	5332	1829	13227	-90	-32	-43	62
July-14	5396	5243	1817	13296	-74	-89	-12	69
August-14	5344	5257	1858	13361	-52	14	41	65
September-14	5336	5306	1874	13385	-8	49	16	24
October-14	5365	5353	1897	13473	29	47	23	88
November-14	5396	5273	1933	13500	31	-80	36	27
December-14	5428	5266	1932	13566	32	-7	-1	66
January-15	5447	5349	1925	13600	19	83	-7	34
February-15	5316	5351	1878	13736	-131	2	-47	136
March-15	5490	5308	1924	13655	174	-43	46	-81
April-15	5499	5326	1905	13759	9	18	-19	104
May-15	5510	5404	1868	13818	11	78	-37	59
June-15	5526	5380	1857	13860	16	-24	-11	42
July-15	5497	5336	1913	13952	-29	-44	56	92
August-15	5540	5252	1921	13973	43	-84	8	21
September-15	5531	5327	1938	14084	-9	75	17	111
October-15	5435	5363	1942	14117	-96	36	4	33
November-15	5375	5353	1978	14232	-60	-10	36	115
December-15	5422	5311	1984	14303	47	-42	6	71
January-16	5417	5300	2002	14412	-5	-11	18	109
February-16	5412	5276	2021	14469	-5	-24	19	57
March-16	5391	5295	2063	14609	-21	19	42	140

Source: Turkstat, Betam