

## NONAGRICULTURAL UNEMPLOYMENT CONTINUES TO DECREASE

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### Executive Summary

Seasonally adjusted labor market data shows that nonagricultural unemployment rate decreased from 12.1 percent to 11.9 percent (0.2 percentage points) in the period of February 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 March 2016. In this period, the driving force behind the decrease in nonagricultural unemployment is the almost constant labor force. While employment losses in manufacturing continue, employment in services and construction increased. Female nonagricultural labor force and employment continue to increase faster than male labor force and employment. However, due to the strong increase in the labor force, female unemployment increased while male unemployment continues to decrease.

### Decrease in seasonally adjusted employment

According to seasonally adjusted data in the period of February 2016, nonagricultural labor force increased by 2 thousand, and reached 24 million 635 thousand compared to the period of January 2016. Nonagricultural employment increased by 51 thousand, and reached 21 million 703 thousand (Figure 1 Figure 1, Table 1). In this period, nonagricultural labor force almost did not increase. Therefore, nonagricultural unemployment decreased in parallel to the increase in employment. It is striking that nonagricultural unemployment decreased by 154 thousand in last four periods, i.e. since November 2015,.

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



Source: Turkstat, Betam

### Nonagricultural unemployment will continue to decline

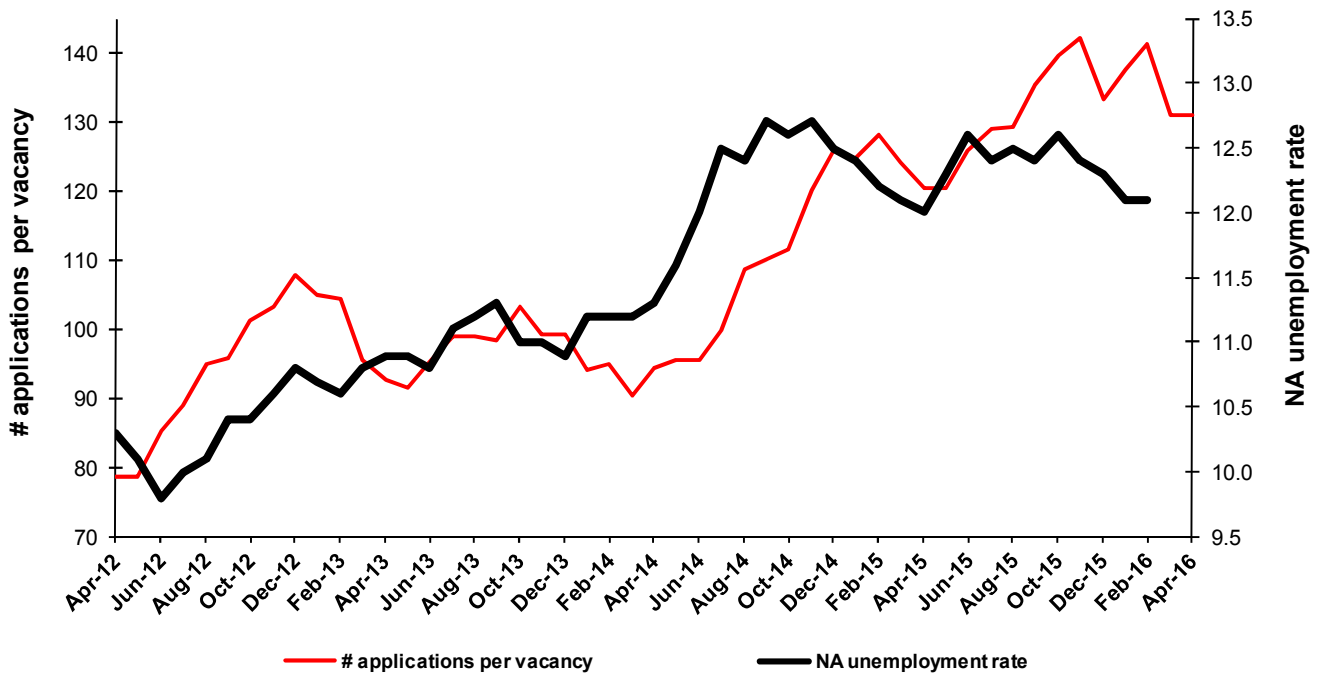
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Betam's forecasting model had predicted that the seasonally adjusted nonagricultural unemployment rate would decline from 12.1 percent to 12.0 percent in February 2016. In this period, nonagricultural unemployment declined by 0.2 percentage points from 12.1 percent to 11.9 percent. Betam's forecasting model predicts that seasonally adjusted nonagricultural unemployment rate will decrease from 11.9 percent to 11.8 percent (0.1 percentage point) in the period of March 2016. 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 **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

### Loss in manufacturing employment continues

According to seasonally adjusted labor market series, the increase in services employment slowed down and losses in manufacturing employment continued in the period of February 2016 compared to the period of January 2016 (Figure 3, Table 2)<sup>3</sup>. Employment in manufacturing employment decreased by 24 thousand in this period and cumulative loss in manufacturing employment since November 2015 is almost 90 thousand. In the period of February 2016, employment in services and in construction increased by 55 thousand and 19 thousand respectively. On the other hand, agricultural employment declined by 6 thousand.

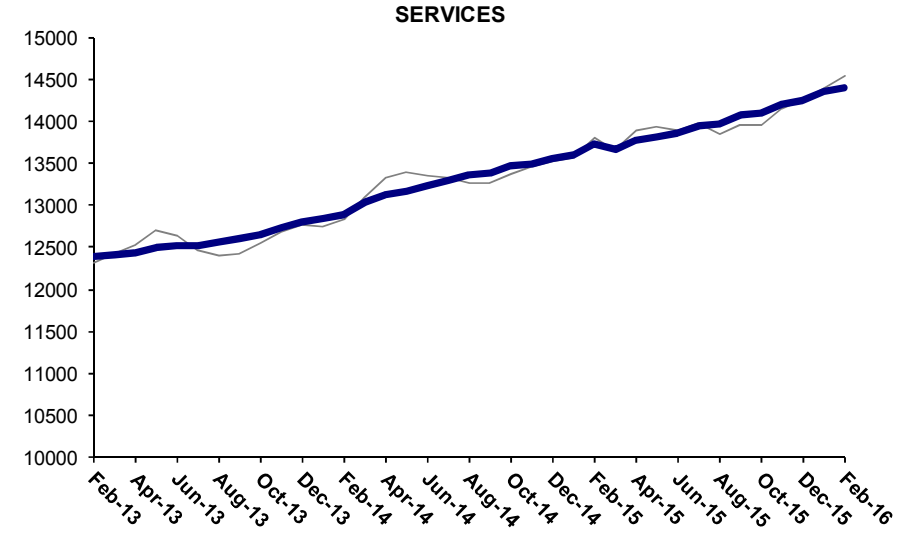
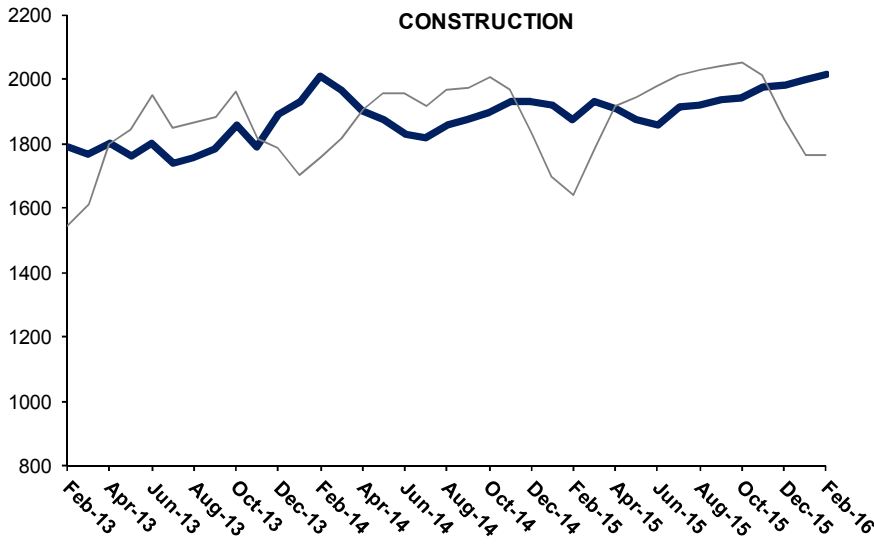
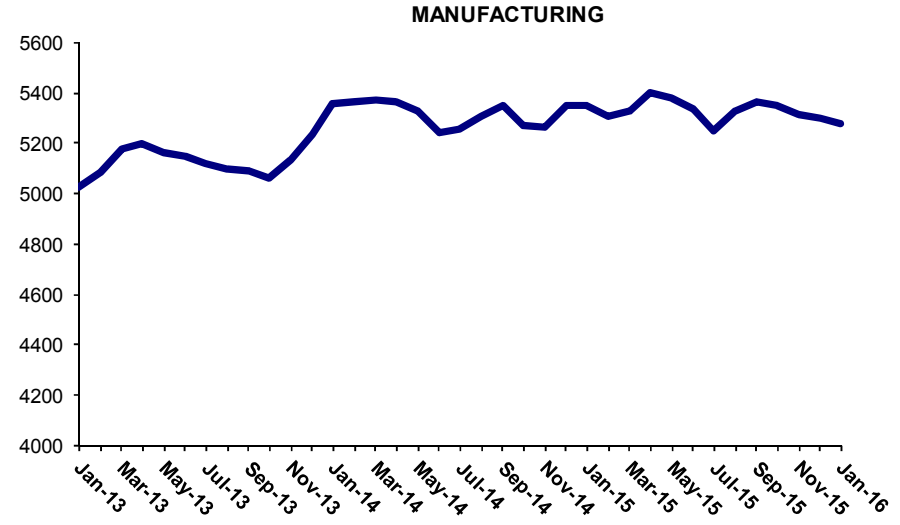
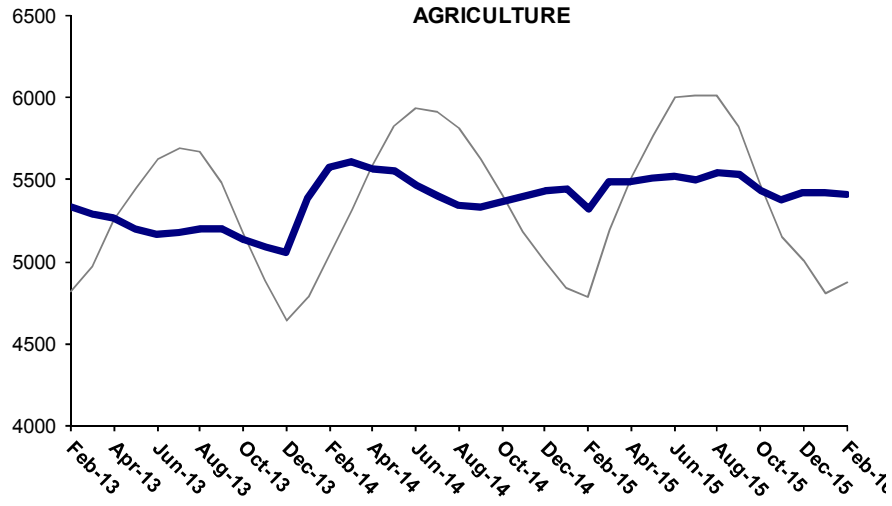
<sup>1</sup> For detailed information on Betam's forecasting model, please see Betam Research Brief 168 titled as "Kariyer.net Verisiyle Kısa Vadeli Tarım Dışı İşsizlik Tahmini"

<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)**

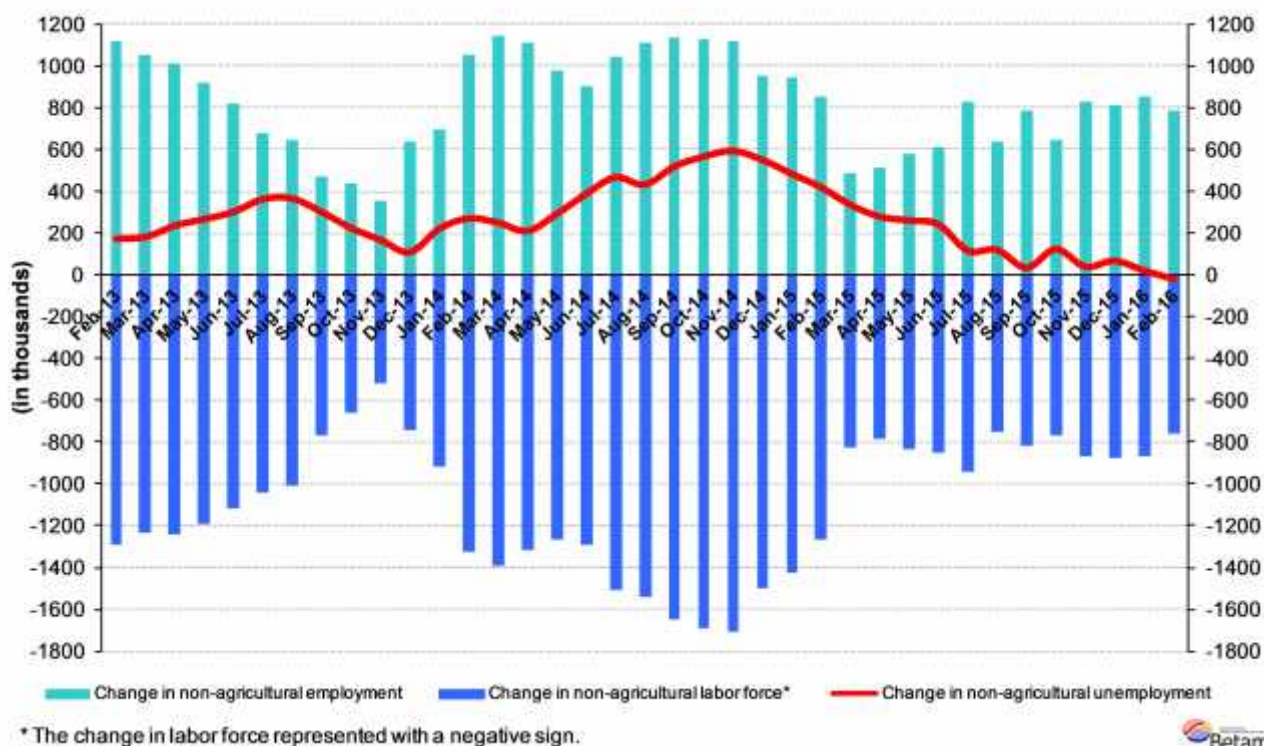


Source: Turkstat, Betam

## Similar year-on-year increases in labor force and employment

In the period of February 2016, nonagricultural labor force increased by 763 thousand (3.2 percent), nonagricultural employment increased by 786 thousand (3.8 percent) and nonagricultural unemployment decreased by 23 thousand compared to the same period in the previous year (Figure 4).

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



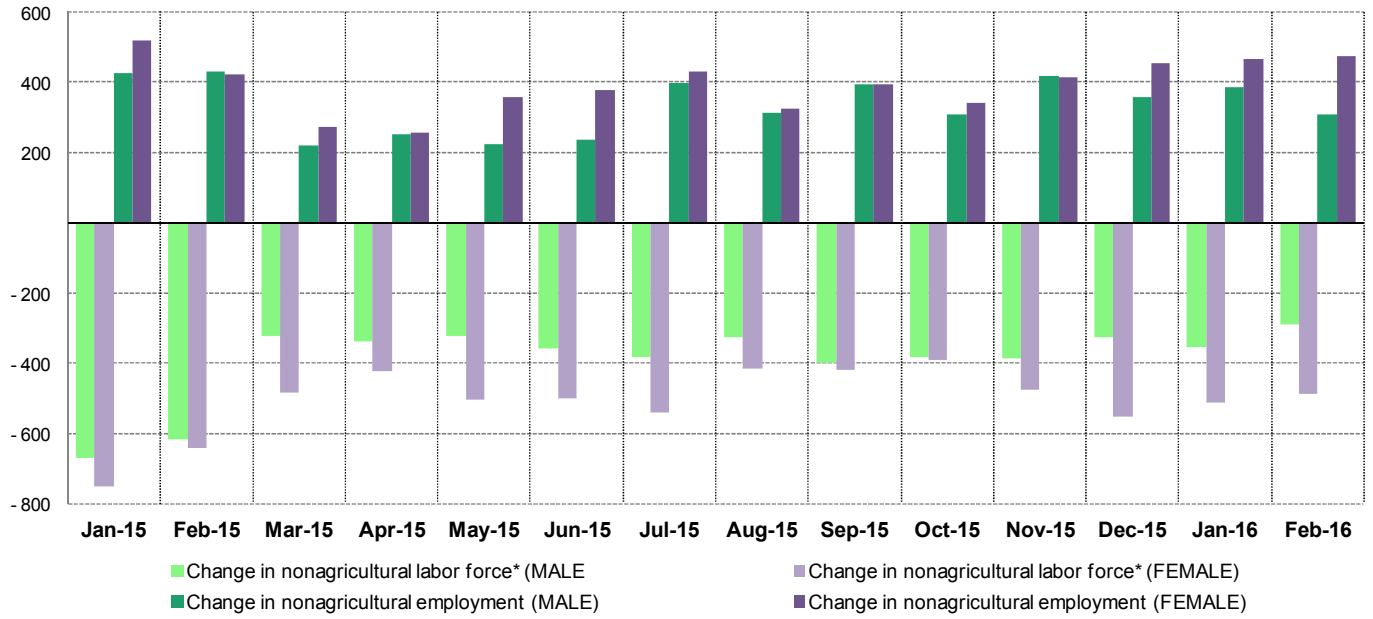
Source: Turkstat; Betam

## Number of unemployed women increased, number of unemployed men decreased

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).

The nonagricultural female labor force increased by 488 thousand and nonagricultural male labor force increased only by 291 thousand in February 2016 compared to February 2015. Female employment increased by 475 thousand and male employment increased by 310 thousand in the same period. Hence, the number of unemployed women increased by 13 thousand while number of unemployed men decreased by 19 thousand. Both female labor force and female employment increases are higher relative to those for males in the same period. Furthermore, it can be said that the difference between male and female labor force year-on-year increases expands in favor of females. However, note that the number of female unemployed increases due to strong increases in female labor force.

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



Source: Turkstat; Betam

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

	İşgücü	İstihdam	İşsizlik	İşsizlik Oranı	Aylık değişimler		
					İşgücü	İstihdam	İşsizlik
<b>Ocak 13</b>	21520	19217	2303	10.7%			
<b>Şubat 13</b>	21474	19198	2276	10.6%	-45	-19	-26
<b>Mart 13</b>	21589	19257	2332	10.8%	114	59	55
<b>Nisan 13</b>	21778	19404	2374	10.9%	189	147	42
<b>Mayıs 13</b>	21842	19461	2381	10.9%	64	57	7
<b>Haziran 13</b>	21846	19487	2359	10.8%	5	26	-21
<b>Temmuz 13</b>	21836	19412	2424	11.1%	-11	-75	64
<b>Ağustos 13</b>	21901	19448	2453	11.2%	65	36	29
<b>Eylül 13</b>	21965	19483	2482	11.3%	64	35	29
<b>Ekim 13</b>	22010	19589	2421	11.0%	45	106	-61
<b>Kasım 13</b>	22001	19581	2420	11.0%	-9	-8	-1
<b>Aralık 13</b>	22251	19826	2425	10.9%	250	245	5
<b>Ocak 14</b>	22501	20003	2498	11.1%	249	177	72
<b>Şubat 14</b>	22809	20254	2555	11.2%	308	251	57
<b>Mart 14</b>	22936	20367	2569	11.2%	127	113	14
<b>Nisan 14</b>	22998	20399	2599	11.3%	62	32	30
<b>Mayıs 14</b>	23079	20402	2677	11.6%	81	3	78
<b>Haziran 14</b>	23169	20389	2780	12.0%	90	-13	103
<b>Temmuz 14</b>	23265	20357	2908	12.5%	96	-32	128
<b>Ağustos 14</b>	23376	20477	2899	12.4%	110	120	-10
<b>Eylül 14</b>	23557	20565	2992	12.7%	181	88	93
<b>Ekim 14</b>	23711	20723	2988	12.6%	154	158	-4
<b>Kasım 14</b>	23717	20705	3012	12.7%	7	-18	25
<b>Aralık 14</b>	23727	20761	2966	12.5%	10	56	-46
<b>Ocak 15</b>	23825	20871	2954	12.4%	98	110	-12
<b>Şubat 15</b>	23892	20953	2939	12.3%	66	82	-16
<b>Mart 15</b>	23820	20914	2906	12.2%	-72	-39	-33
<b>Nisan 15</b>	23872	21007	2865	12.0%	52	93	-41
<b>Mayıs 15</b>	24064	21104	2960	12.3%	192	97	95
<b>Haziran 15</b>	24150	21107	3043	12.6%	86	3	83
<b>Temmuz 15</b>	24205	21204	3001	12.4%	56	97	-41
<b>Ağustos 15</b>	24137	21144	2993	12.4%	-68	-60	-8
<b>Eylül 15</b>	24358	21338	3020	12.4%	221	194	27
<b>Ekim 15</b>	24487	21402	3085	12.6%	129	64	65
<b>Kasım 15</b>	24578	21530	3048	12.4%	90	128	-38
<b>Aralık 15</b>	24575	21552	3023	12.3%	-3	22	-25
<b>Ocak 16</b>	24633	21652	2981	12.1%	58	100	-42
<b>Şubat 16</b>	24635	21703	2932	11.9%	2	51	-49

Source: Turkstat, Betam

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

	Tarım	Sanayi	İnşaat	Hizmetler	Aylık değişimler			
					Tarım	Sanayi	İnşaat	Hizmetler
Ocak 13	5327	5073	1794	12350				
Şubat 13	5335	5023	1787	12389	8	-50	-7	39
Mart 13	5286	5083	1768	12407	-49	60	-19	18
Nisan 13	5268	5176	1802	12427	-18	93	34	20
Mayıs 13	5198	5200	1760	12501	-70	24	-42	74
Haziran 13	5162	5163	1801	12523	-36	-37	41	22
Temmuz 13	5181	5146	1738	12528	19	-17	-63	5
Ağustos 13	5200	5117	1757	12574	19	-29	19	46
Eylül 13	5199	5096	1781	12606	-1	-21	24	32
Ekim 13	5130	5090	1854	12644	-69	-6	73	38
Kasım 13	5094	5064	1790	12728	-36	-26	-64	84
Aralık 13	5056	5131	1890	12805	-38	67	100	77
Ocak 14	5391	5232	1930	12840	335	101	40	35
Şubat 14	5578	5359	2011	12884	187	127	81	44
Mart 14	5608	5365	1964	13038	30	6	-47	154
Nisan 14	5564	5373	1902	13123	-44	8	-62	85
Mayıs 14	5557	5364	1874	13164	-7	-9	-28	41
Haziran 14	5469	5332	1830	13227	-88	-32	-44	63
Temmuz 14	5397	5243	1818	13296	-72	-89	-12	69
Ağustos 14	5345	5257	1858	13362	-52	14	40	66
Eylül 14	5338	5306	1874	13386	-7	49	16	24
Ekim 14	5367	5353	1896	13474	29	47	22	88
Kasım 14	5400	5273	1931	13501	33	-80	35	27
Aralık 14	5431	5266	1929	13566	31	-7	-2	65
Ocak 15	5449	5349	1921	13601	18	83	-8	35
Şubat 15	5318	5351	1874	13729	-131	2	-47	128
Mart 15	5483	5308	1930	13677	165	-43	56	-52
Nisan 15	5493	5326	1910	13771	10	18	-20	94
Mayıs 15	5505	5404	1872	13828	12	78	-38	57
Haziran 15	5524	5380	1859	13868	19	-24	-13	40
Temmuz 15	5498	5336	1915	13954	-26	-44	56	86
Ağustos 15	5540	5252	1921	13971	42	-84	6	17
Eylül 15	5531	5327	1937	14074	-9	75	16	103
Ekim 15	5438	5363	1940	14099	-93	36	3	25
Kasım 15	5381	5353	1975	14202	-57	-10	35	103
Aralık 15	5426	5311	1979	14262	45	-42	4	60
Ocak 16	5421	5300	1995	14357	-5	-11	16	95
Şubat 16	5415	5276	2014	14412	-6	-24	19	55

Source: Turkstat, Betam