

UNEMPLOYMENT CONTINUOUS ITS DECREASE

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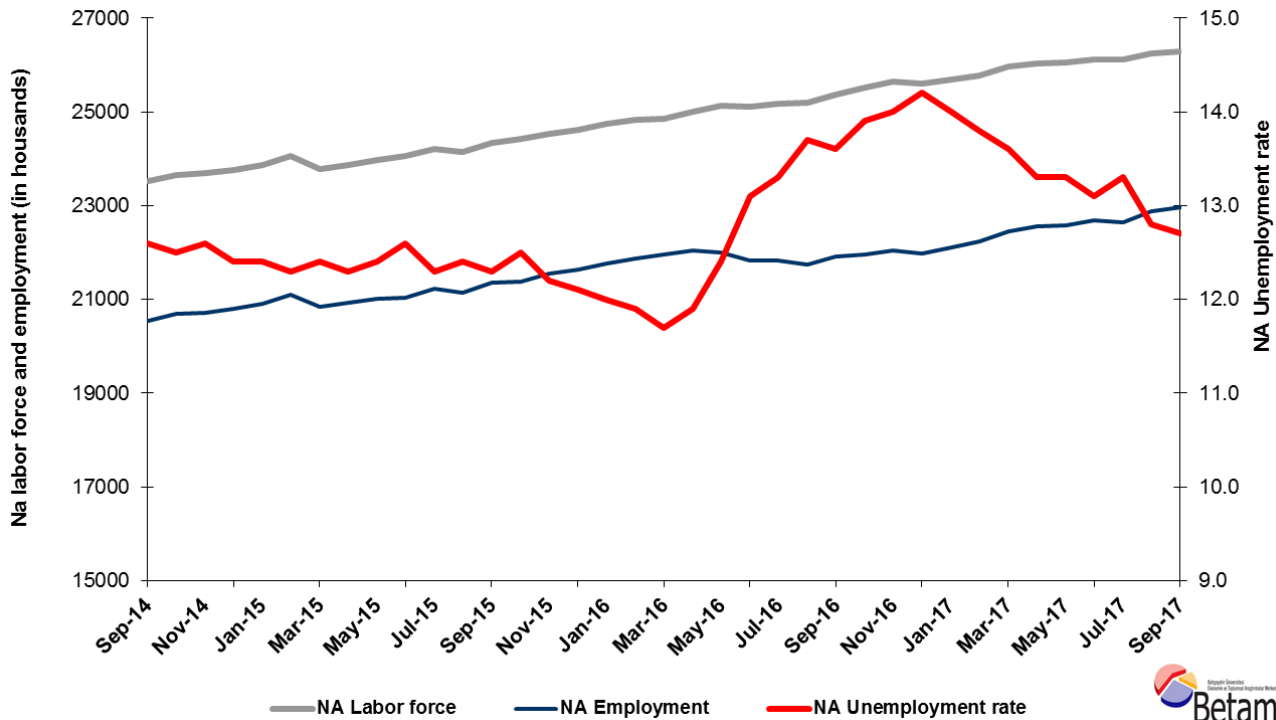
Executive Summary

Seasonally adjusted labor market data show that non-agricultural unemployment rate decreased by 0.1 points in the period of September from August reaching 12.7 percent. On the other hand, according to seasonally adjusted labor data, non-agricultural unemployment rate of females decreased while non-agricultural unemployment rate of males increased. Betam's forecasting model predicts that the non-agricultural unemployment will decrease at 12.5 percent in the period of October 2017.

Decline in unemployment continues

According to seasonally adjusted labor market data, in the period of September 2017 compared to August 2017, the non-agricultural labor force increased by 49 thousand and reached 26 million 296 thousand and the number people employed in non-agricultural sectors increased by 69 thousand and reached 22 million 956 thousand (Figure 1, Table 1). In this framework, the number of unemployed in non-agricultural sectors decreased by 20 thousand and recorded as 3 million 340 thousand, the non-agricultural unemployment rate decreased from 12.8 percent to 12.7 percent. In the period of August, the rate of non-agricultural unemployment had decreased from 13.3 percent to 12.8 percent.

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



Source: Turkstat, Betam

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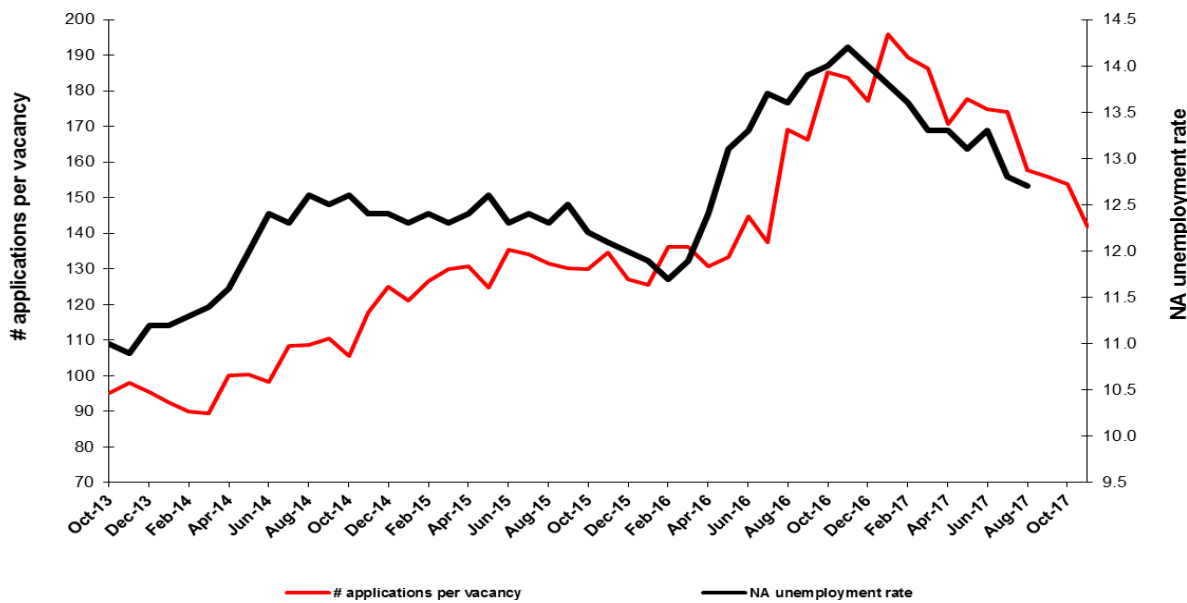
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Decline in unemployment is expected in the period of October 2017

Betam's forecasting model had predicted that the seasonally adjusted non-agricultural unemployment rate would remain constant at 12.8 percent in the period of September 2017. Seasonally adjusted non-agricultural unemployment rate in September 2017 decreased by 0,1 percentage points and reached 12.7 compared to the previous period. Betam's forecasting model predicts the seasonally adjusted October 2017 non-agricultural unemployment will decline by 0.2 percentage point and realize as 12,5. 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. Taken into account all these factors, Betam's forecasting model predicts that seasonally adjusted non-agricultural unemployment rate will decline in the period of October 2017.

Figure 2 Seasonally adjusted non-agricultural unemployment rate and application per vacancy



Source: Kariyer.net, Turkstat, Betam

A strong employment increase in services continues

According to seasonally adjusted sectoral labor market data, in September 2017 employment decreased in manufacturing and construction sectors while the number of people employed in agriculture and services sectors increased compared to August 2017. While employment increases were observed in construction and manufacture sectors in the period of August 2017, employment decreased in these sectors by 16 thousand and 22 thousand respectively in the period of September 2017. On the other hand, while employment in agriculture sector decreased by 33 thousand compared to previous period, in the period of September 2017 agricultural employment increased by 68 thousand. High employment growth observed in services during the period of August 2017 continued in the

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

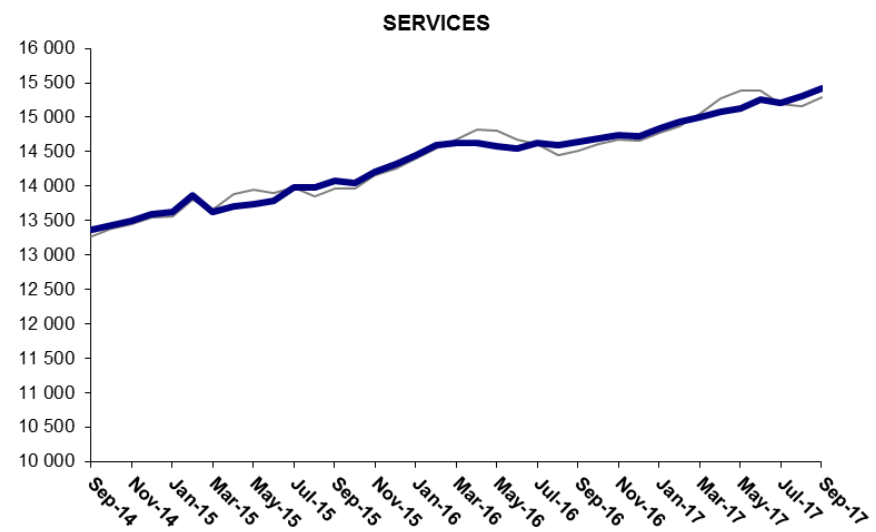
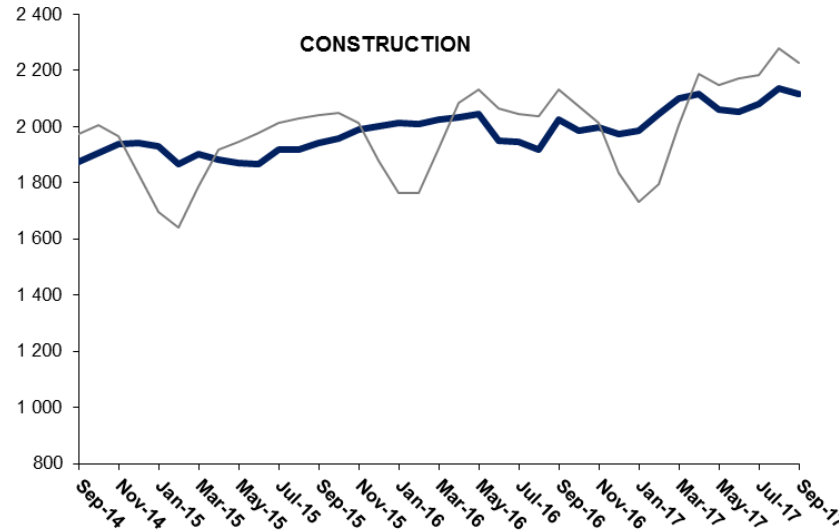
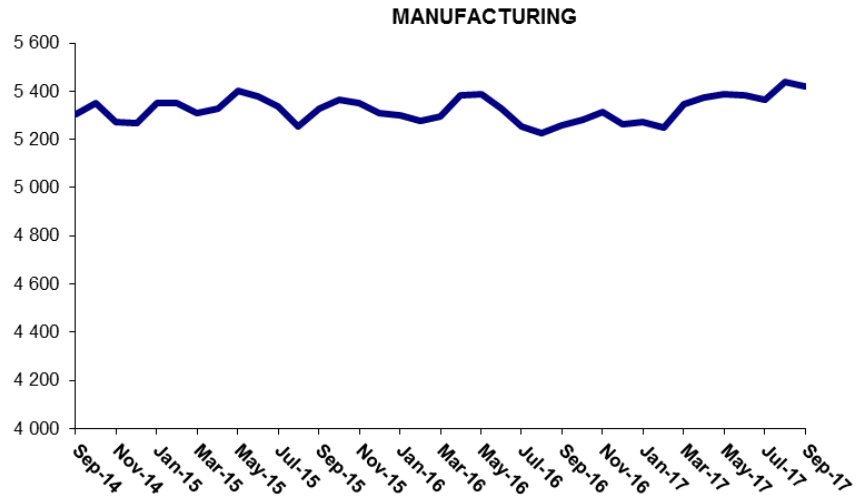
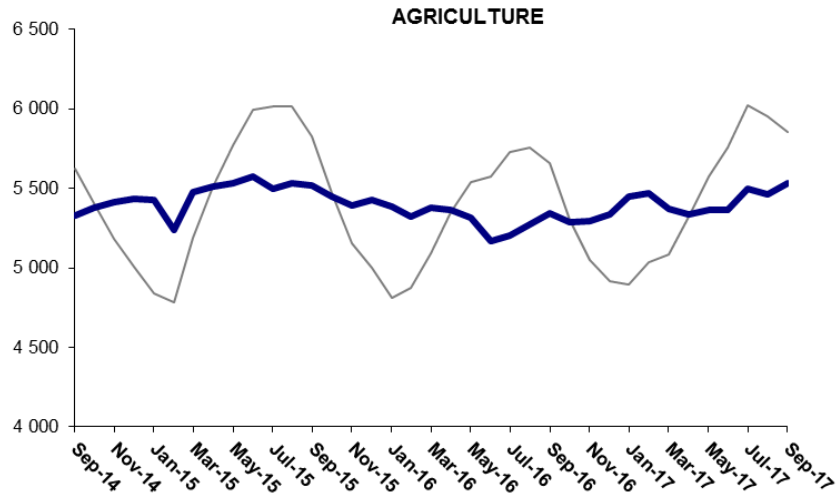
<http://betam.bahcesehir.edu.tr/2015/08/mevsim-etkilerinden-arindirilmis-tarim-disi-issizlik-tahmini/>

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.

period of September 2017; an increase of 107 thousand in both periods has been observed (**Error! Reference source not found.,Error! Reference source not found.**)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)

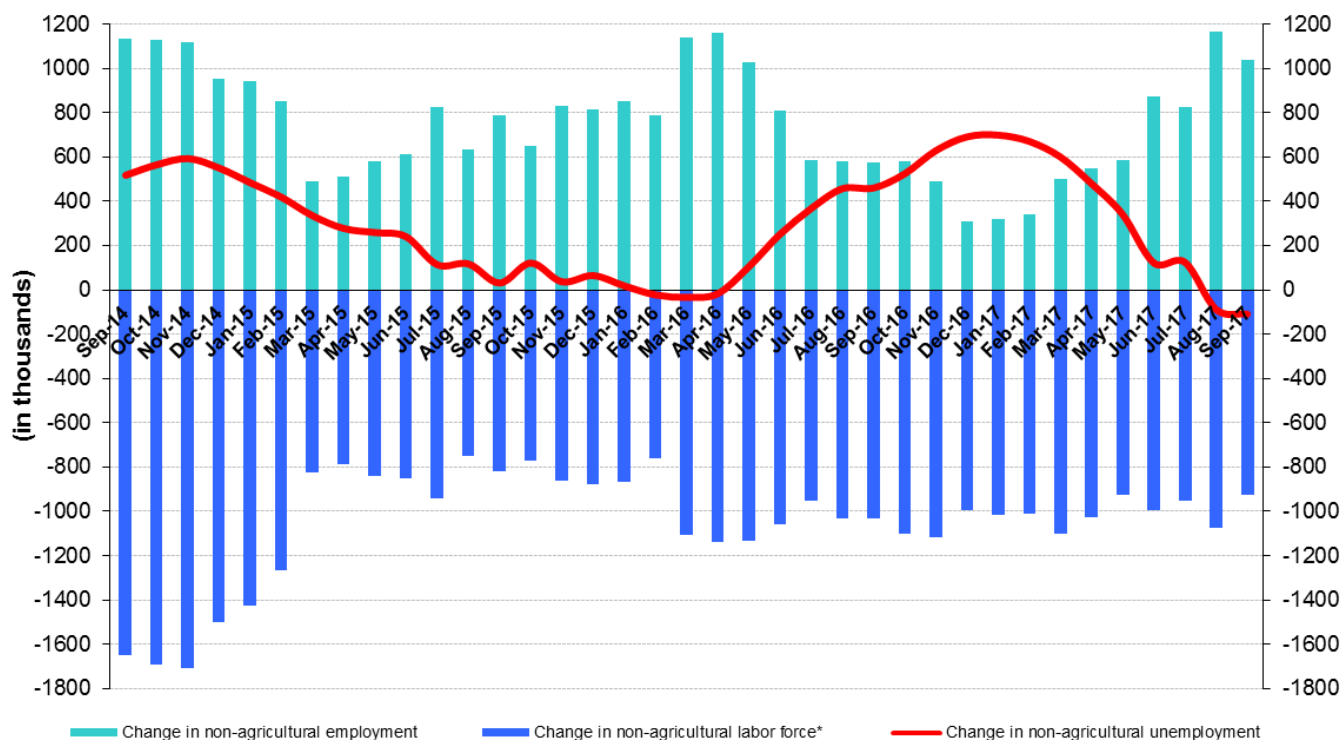


Source: TURKSTAT, Betam

The number of non-agricultural unemployed has decreased by 110 thousand in the last year

From September 2016 to September 2017 non-agricultural labor force increased by 926 thousand (3.6 percent) and non-agricultural employment by 1 million 36 thousand (4.7 percent) (Figure 4). Thus, the increase in non-agricultural unemployed decreased by 110 thousand and attained 3 million 368 thousand. Nevertheless, the number of non-agricultural unemployed declining since January is still higher than its lowest level reached at 2 million 754 thousand, in April 2016 (Figure 4).

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



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



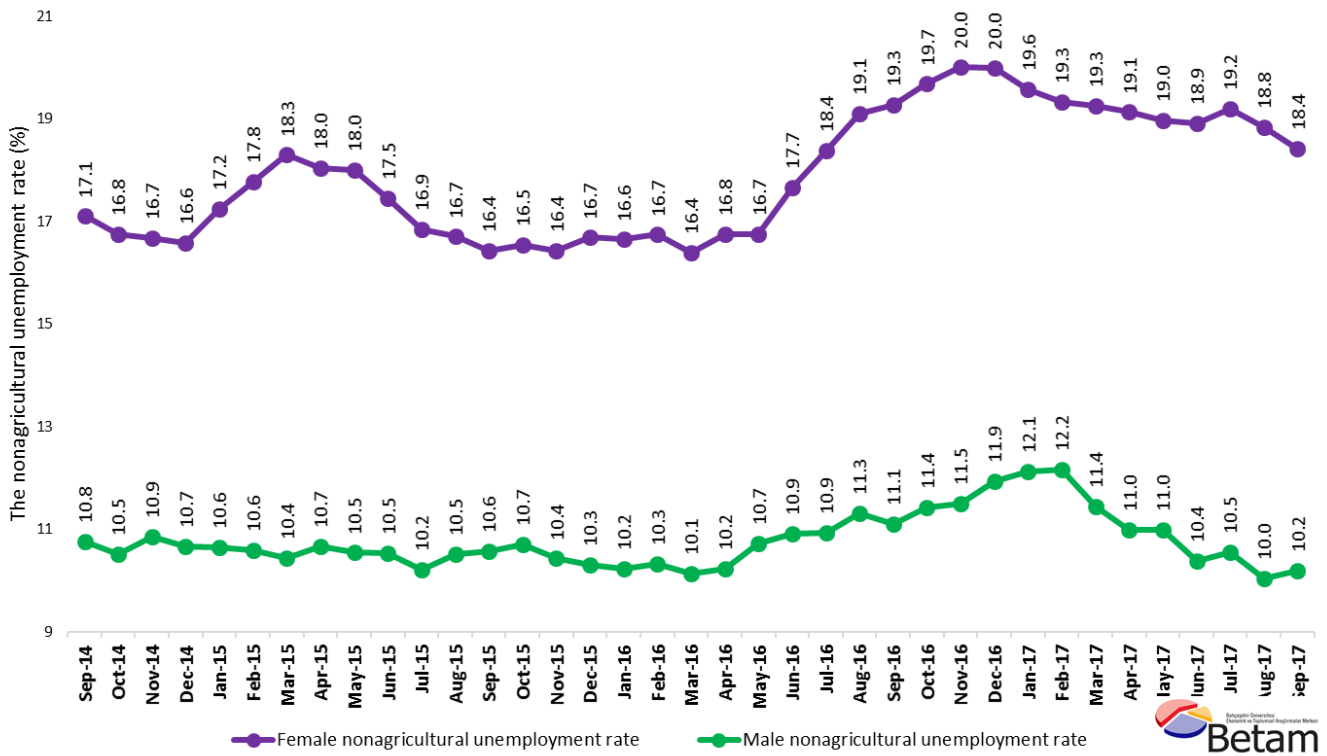
Source: Turkstat, Betam

Female and male unemployment

Figure 5 shows seasonally adjusted non-agricultural unemployment rate for males (green) and for females (purple)⁴. From the period of August 2017 to the period of September 2017, the non-agricultural female unemployment rate decreased by 0,1 percentage points while male unemployment rate has increased by 0,2 percentage points. Thus, non-agricultural unemployment decreased to 18.4 percent for females and increased to 10.2 percent for males.

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
August-14	23384	20508	2876	12.3%			
September-14	23511	20549	2962	12.6%	127	41	86
October-14	23651	20695	2956	12.5%	140	146	-6
November-14	23691	20706	2985	12.6%	40	11	29
December-14	23749	20804	2945	12.4%	58	98	-40
January-15	23860	20901	2959	12.4%	111	97	14
February-15	24049	21091	2958	12.3%	189	190	-1
March-15	23781	20832	2949	12.4%	-268	-259	-9
April-15	23855	20921	2934	12.3%	74	89	-15
May-15	23981	21007	2974	12.4%	125	86	39
June-15	24059	21028	3031	12.6%	79	21	58
July-15	24216	21237	2979	12.3%	156	209	-53
August-15	24146	21152	2994	12.4%	-69	-85	16
September-15	24340	21346	2994	12.3%	194	194	0
October-15	24419	21367	3052	12.5%	80	21	59
November-15	24539	21545	2994	12.2%	119	178	-59
December-15	24618	21639	2979	12.1%	79	94	-15
January-16	24734	21766	2968	12.0%	116	127	-11
February-16	24837	21881	2956	11.9%	102	115	-13
March-16	24854	21946	2908	11.7%	17	65	-48
April-16	25011	22035	2976	11.9%	157	89	68
May-16	25124	22009	3115	12.4%	113	-26	139
June-16	25119	21828	3291	13.1%	-6	-181	175
July-16	25172	21824	3348	13.3%	53	-4	57
August-16	25189	21738	3451	13.7%	17	-86	103
September-16	25375	21924	3451	13.6%	186	186	0
October-16	25509	21963	3546	13.9%	134	39	95
November-16	25640	22050	3590	14.0%	131	87	44
December-16	25604	21968	3636	14.2%	-36	-82	46
January-17	25693	22096	3597	14.0%	89	128	-39
February-17	25783	22225	3558	13.8%	90	129	-39
March-17	25972	22440	3532	13.6%	189	215	-26
April-17	26021	22560	3461	13.3%	49	120	-71
May-17	26047	22583	3464	13.3%	27	23	4
June-17	26108	22688	3420	13.1%	61	105	-44
July-17	26122	22648	3474	13.3%	14	-40	54
August-17	26247	22887	3360	12.8%	124	239	-115
September-17	26296	22956	3340	12.7%	49	69	-20

Source: Turkstat, Betam

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

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
August-14	5345	5257	1857	13393				
September-14	5333	5306	1876	13367	-12	49	19	-26
October-14	5379	5353	1905	13436	46	47	29	69
November-14	5412	5273	1939	13493	33	-80	34	57
December-14	5434	5266	1941	13597	22	-7	2	104
January-15	5426	5349	1928	13623	-8	83	-13	26
February-15	5240	5351	1868	13871	-186	2	-60	248
March-15	5477	5308	1902	13623	237	-43	34	-248
April-15	5511	5326	1883	13712	34	18	-19	89
May-15	5536	5404	1871	13732	25	78	-12	20
June-15	5574	5380	1866	13782	38	-24	-5	50
July-15	5500	5336	1918	13982	-74	-44	52	200
August-15	5534	5252	1916	13984	34	-84	-2	2
September-15	5518	5327	1940	14079	-16	75	24	95
October-15	5451	5363	1957	14046	-67	36	17	-33
November-15	5396	5353	1988	14204	-55	-10	31	158
December-15	5426	5311	2003	14325	30	-42	15	121
January-16	5384	5300	2013	14453	-42	-11	10	128
February-16	5325	5276	2009	14596	-59	-24	-4	143
March-16	5379	5295	2026	14625	54	19	17	29
April-16	5362	5381	2031	14624	-17	86	5	-1
May-16	5316	5386	2046	14577	-46	5	15	-47
June-16	5172	5330	1949	14548	-144	-56	-97	-29
July-16	5206	5254	1945	14625	34	-76	-4	77
August-16	5271	5224	1916	14598	65	-30	-29	-27
September-16	5341	5260	2026	14639	70	36	110	41
October-16	5285	5282	1987	14694	-56	22	-39	55
November-16	5298	5316	1997	14736	13	34	10	42
December-16	5337	5265	1972	14731	39	-51	-25	-5
January-17	5451	5274	1986	14836	114	9	14	105
February-17	5472	5251	2044	14929	21	-23	58	93
March-17	5372	5346	2100	14994	-100	95	56	65
April-17	5340	5372	2117	15072	-32	26	17	78
May-17	5363	5386	2061	15136	23	14	-56	64
June-17	5364	5383	2054	15250	1	-3	-7	114
July-17	5497	5363	2079	15206	133	-20	25	-44
August-17	5464	5437	2137	15313	-33	74	58	107
September-17	5532	5421	2115	15420	68	-16	-22	107

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
September-14	6335	5252	1083	17191	15341	1850
October-14	6385	5315	1070	17238	15428	1810
November-14	6399	5333	1067	17260	15386	1874
December-14	6420	5356	1064	17352	15500	1851
January-15	6506	5384	1122	17359	15512	1847
February-15	6560	5394	1167	17451	15605	1847
March-15	6519	5326	1193	17227	15429	1798
April-15	6540	5360	1180	17288	15446	1842
May-15	6624	5432	1192	17341	15514	1828
June-15	6656	5495	1162	17396	15564	1833
July-15	6749	5612	1137	17473	15689	1783
August-15	6713	5592	1121	17487	15650	1837
September-15	6757	5647	1110	17591	15734	1858
October-15	6777	5656	1121	17621	15736	1885
November-15	6873	5745	1129	17643	15803	1839
December-15	6974	5811	1164	17681	15860	1821
January-16	7019	5850	1168	17708	15896	1812
February-16	7049	5869	1180	17746	15916	1830
March-16	7055	5898	1157	17802	15999	1804
April-16	7141	5945	1196	17842	16018	1824
May-16	7174	5973	1201	17924	16002	1922
June-16	7260	5978	1282	17837	15890	1947
July-16	7269	5934	1336	17910	15953	1957
August-16	7326	5927	1399	17920	15894	2025
September-16	7374	5953	1421	18000	16002	1998
October-16	7438	5974	1464	18060	15997	2063
November-16	7457	5965	1493	18163	16074	2089
December-16	7463	5971	1492	18176	16008	2168
January-17	7458	5998	1460	18280	16066	2215
February-17	7514	6062	1452	18286	16064	2223
March-17	7610	6145	1465	18353	16255	2098
April-17	7599	6145	1454	18391	16370	2021
May-17	7651	6200	1451	18375	16358	2018
June-17	7668	6218	1451	18436	16522	1914
July-17	7680	6206	1474	18455	16509	1946
August-17	7732	6276	1456	18570	16706	1864
September-17	7764	6334	1430	18548	16658	1890

Source: Turkstat, Betam