

INCREASE IN NON-AGRICULTURAL UNEMPLOYMENT CONTINUES

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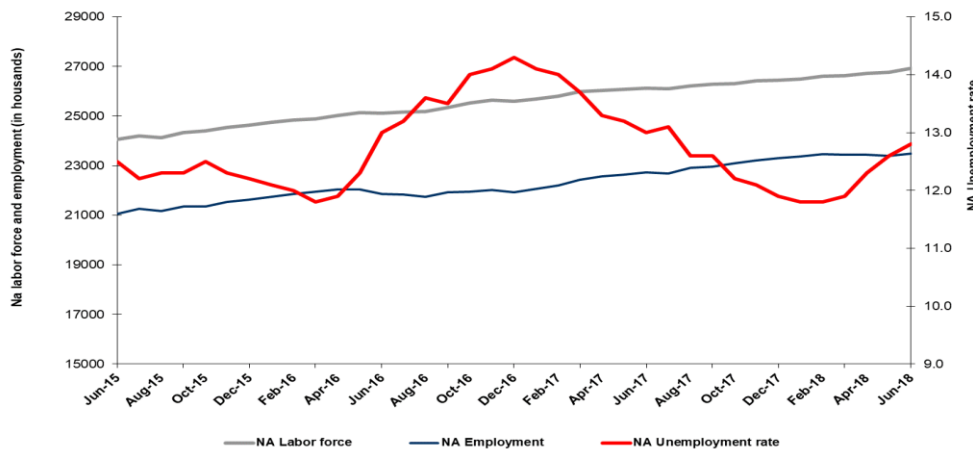
Executive Summary

Seasonally adjusted labor market data shows that in the period of June 2018 compared to May 2018, non-agricultural unemployment rate increased by 0.2 percentage points and reached 12.8 percent. The employment loses since March 2018 stopped in June 2018 and non-agricultural employment increased by 105 thousand. Sectoral data indicates that employment decreased in construction while it increased in manufacturing and services. The increase in non-agricultural labor force accelerated and non-agricultural labor force reached to 182 thousand. Thus, increase in non-agricultural unemployment continues. Betam's forecasting model predicts that the non-agricultural unemployment will rise to 12.9 percent in the period of July 2018. In the period of June 2018, the non-agricultural female unemployment rate increased by 0.3 percentage points to 18 percent while non-agricultural male unemployment rate decreased by 0.1 percentage points to 10.4 percent. Thus, the gender gap in non-agricultural unemployment rates have increased.

The strong increase in the non-agricultural labor force

According to seasonally adjusted labor market data, in the period of June 2018 compared to May 2018, the non-agricultural labor force increased by 182 thousand and reached 26 million 937 thousand while the number of employed in non-agricultural sectors decreased by 105 thousand and reached 23 million 489 thousand (Figure 1, Table 1). As result, the number of unemployed in non-agricultural sectors increased by 77 thousand and recorded as 3 million 448 thousand and the non-agricultural unemployment rate rose to 12.8 percent. The employment loses in the non-agricultural employment since March 2018 stopped in June 2018 whereas the increases in the non-agricultural labor force accelerated. The non-agricultural unemployment increased since the increase in employment is higher than the increase in the labor force. As result, the non-agricultural unemployment rate which was 11.8 percent in January 2018 increased steadily by 1 percentage points in a period of 6 months and reached 12.8 in June 2018.

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



Source: Turkstat, Betam

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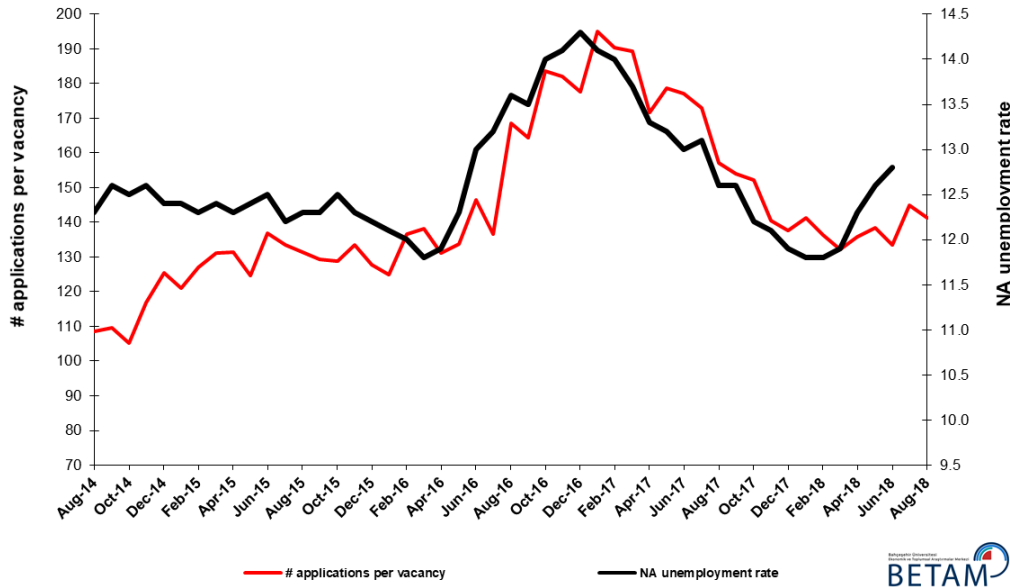
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Unemployment rate is expected to increase by 0.1 percentage points in the period of July 2018

Betam's forecasting model had predicted that the seasonally adjusted non-agricultural unemployment rate would increase by 0.2 percentage points to 12.7 percent in the June 2018. TURKSTAT revised the non-agricultural unemployment rate in May 2018 from 12.5 percent to 12.6 percent. The non-agricultural unemployment rate rose by 0.2 percentage points –as predicted- to 12.8 percent in the period of June 2018. Betam's forecasting model predicts that the non-agricultural unemployment rate will reach to 12.9 percent in the period of July 2018. 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.

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



Source: Kariyer.net, Turkstat, Betam

Employment increases in manufacturing and services

According to seasonally adjusted sectoral labor market data, employment decreased in agriculture and construction while it increased in manufacturing and services in June 2018 compared to May 2018 (Figure 3, Table 2).³ The employment increased by 68 thousand in manufacturing and 43 thousand in services while employment in agriculture and construction decreased by 30 and 6 thousand respectively. Industry production index increased in July while it decreased in the May and June. We would like recall that labor force statistics in the period of June 2018 is the average of the May, June and July. In this case, the increase in industrial production index in July is consistent with the increases in employment in manufacturing. The slowdown in the increase of employment in services since December 2017 is remarkable (Table 2). It has to be noted that employment losses in construction reached to 164 thousand from February to June. The construction sector lost the 7.5 percent of its employment in 5 months compared to January (Table 2).

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/>

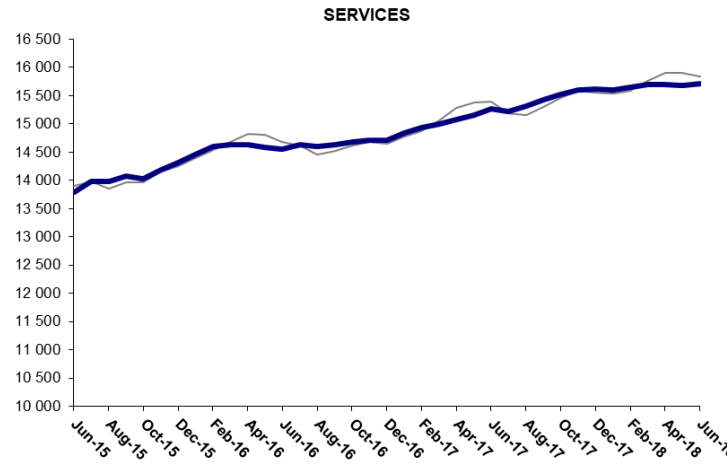
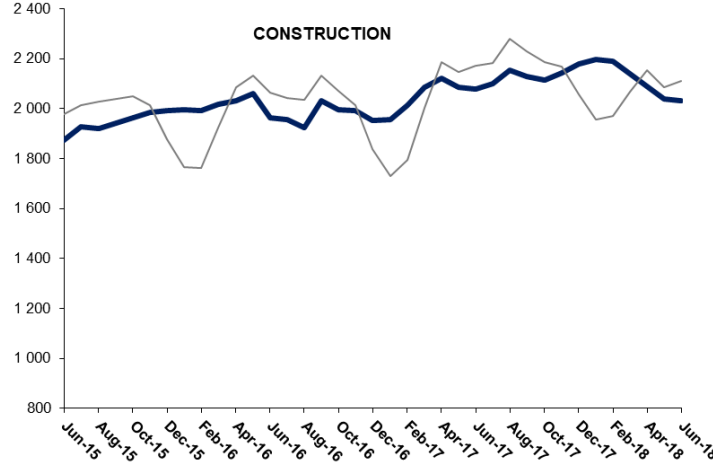
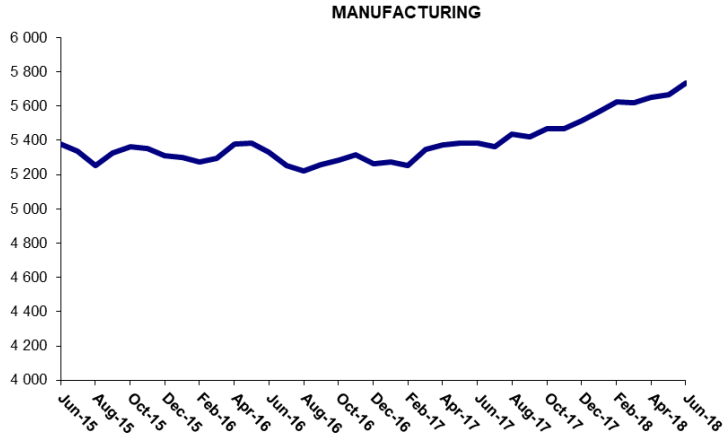
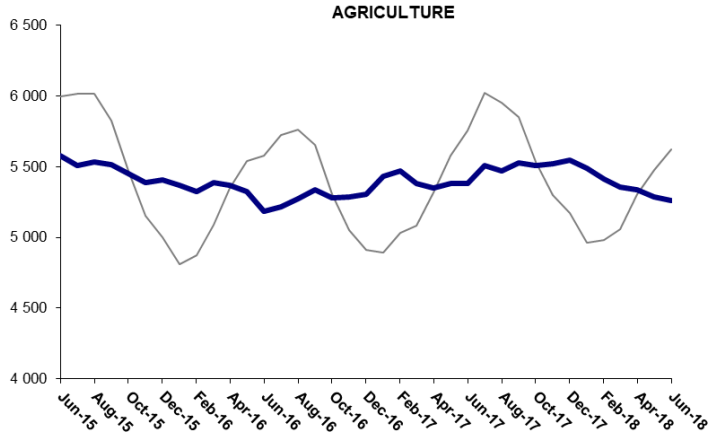
Soybilgen, B., "Mevsim Etkilerinden Arındırılmış İşsizlik Tahmini", Betam Research Brief 14

<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 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 thousand)

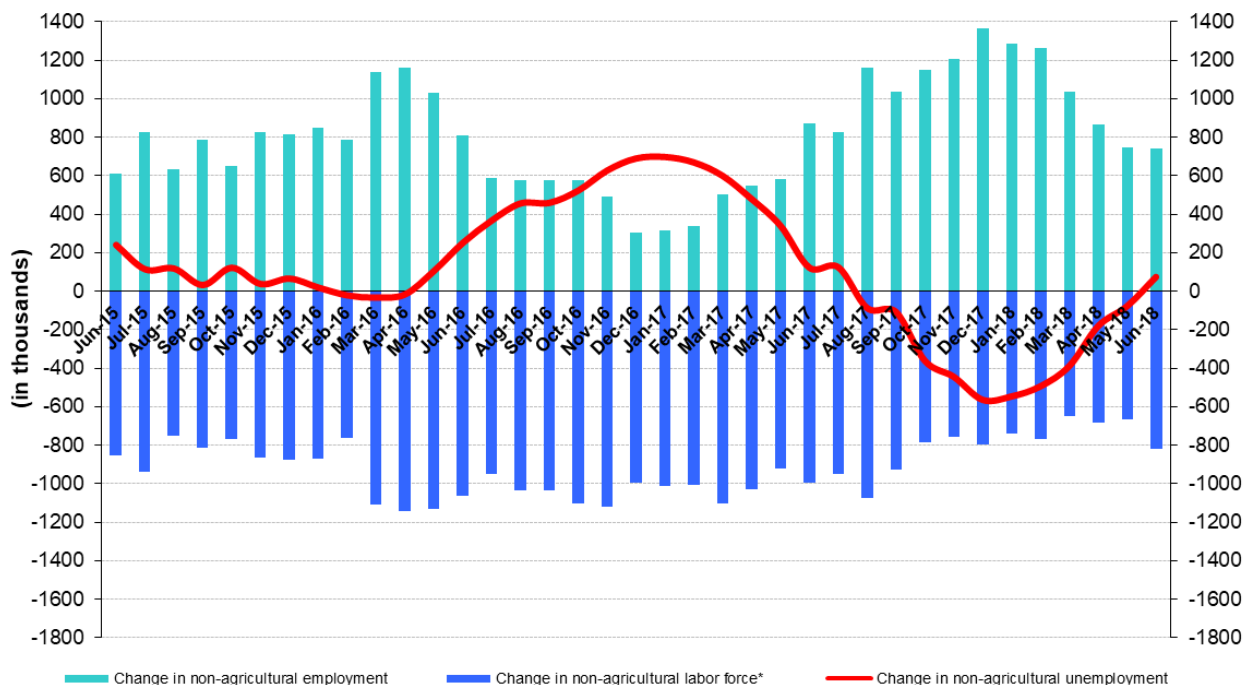


Source: TURKSTAT, Betam

The number of non-agricultural unemployed within a year increased

From June 2017 to June 2018 non-agricultural labor force increased by 817 thousand (3.1 percent) and non-agricultural employment increased by 744 thousand (3.2 percent) (Figure 4). Thus, non-agricultural unemployed decreased by 73 thousand and reached 3 million 261 thousand. Looking at annual changes, a slowdown in unemployed decrease ended in June 2018 and unemployment rate increased to 12.1 percent and closed to the unemployment in June 2017 (12.2 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.



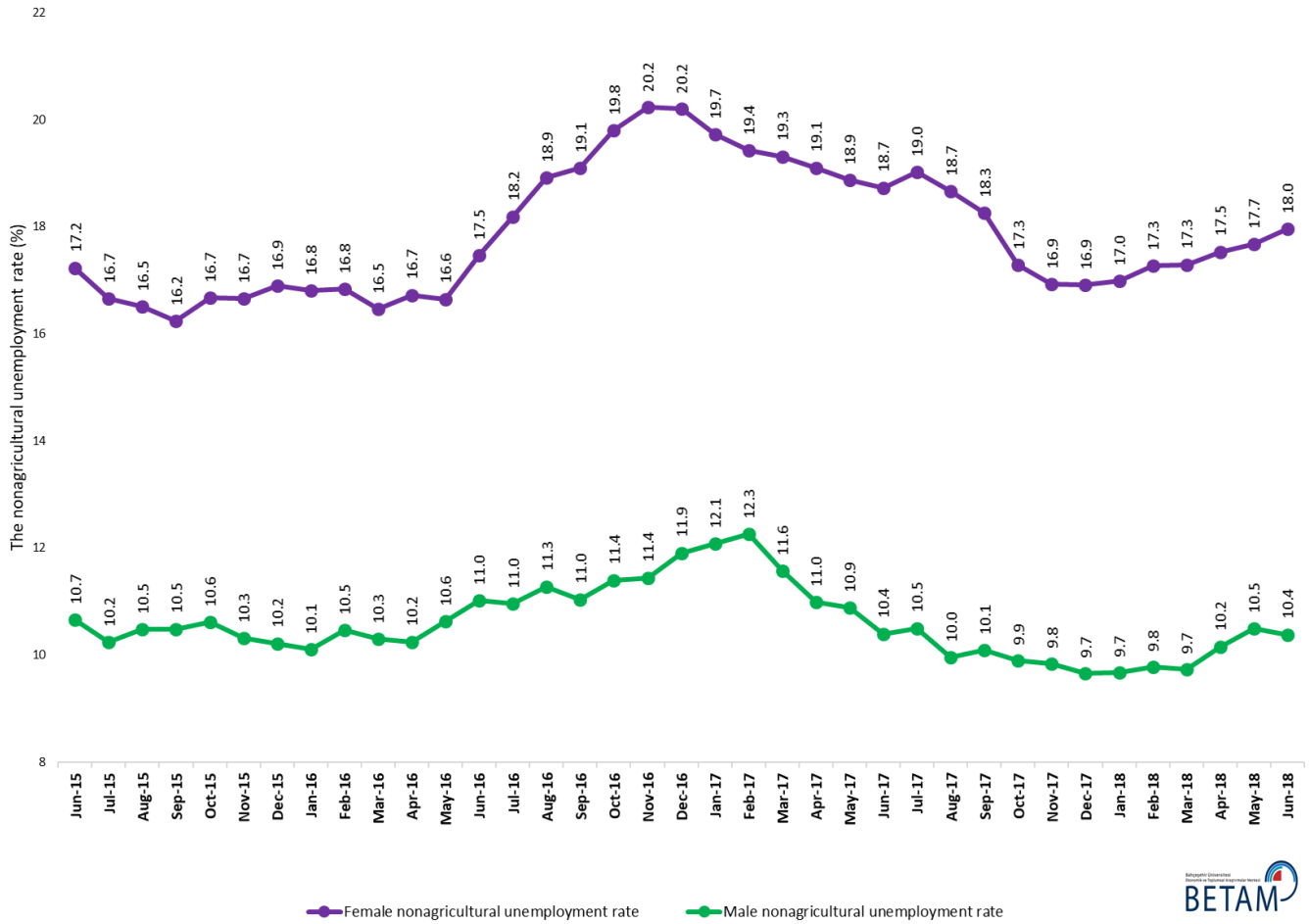
Source: Turkstat, Betam

Unemployment rate difference between female and male increased

Figure 5 shows seasonally adjusted non-agricultural unemployment rate for males (green) and for females (purple)⁴. In the period of June 2018, the non-agricultural female unemployment rate increased by 0.3 percentage points to 18.0 percent while non-agricultural male unemployment rate increased by 0.1 percentage points to 10.4 percent. In a period when the non-agricultural unemployment rate increases, a decrease in male unemployment rate while female unemployment rate increases should be underlined. As a result, the gender gap in non-agricultural unemployment rates increased from 7.2 percent in May 2018 to 7.6 percent in June 2018.

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 generated 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 non-agricultural 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-15	24000	21024	2976	12.4%			
June-15	24051	21045	3006	12.5%	51	21	30
July-15	24204	21251	2953	12.2%	152	206	-54
August-15	24125	21158	2967	12.3%	-78	-93	15
September-15	24341	21347	2994	12.3%	216	189	27
October-15	24410	21359	3051	12.5%	69	12	57
November-15	24545	21526	3019	12.3%	135	167	-32
December-15	24622	21618	3004	12.2%	77	92	-15
January-16	24744	21750	2994	12.1%	122	132	-10
February-16	24850	21868	2982	12.0%	106	118	-12
March-16	24874	21939	2935	11.8%	24	71	-47
April-16	25023	22045	2978	11.9%	149	106	43
May-16	25127	22036	3091	12.3%	104	-9	113
June-16	25118	21853	3265	13.0%	-8	-183	175
July-16	25165	21843	3322	13.2%	46	-10	56
August-16	25172	21749	3423	13.6%	8	-94	102
September-16	25353	21930	3423	13.5%	180	181	-1
October-16	25531	21957	3574	14.0%	179	27	152
November-16	25639	22024	3615	14.1%	108	67	41
December-16	25596	21936	3660	14.3%	-43	-88	45
January-17	25692	22069	3623	14.1%	95	133	-38
February-17	25813	22199	3614	14.0%	121	130	-9
March-17	25986	22426	3560	13.7%	173	227	-54
April-17	26037	22574	3463	13.3%	51	148	-97
May-17	26069	22628	3441	13.2%	32	54	-22
June-17	26128	22731	3397	13.0%	58	103	-45
July-17	26100	22681	3419	13.1%	-27	-50	23
August-17	26209	22907	3302	12.6%	109	226	-117
September-17	26280	22969	3311	12.6%	71	62	9
October-17	26318	23107	3211	12.2%	37	138	-101
November-17	26415	23219	3196	12.1%	97	112	-15
December-17	26452	23304	3148	11.9%	37	85	-48
January-18	26493	23367	3126	11.8%	41	63	-22
February-18	26603	23464	3139	11.8%	110	97	13
March-18	26617	23450	3167	11.9%	14	-14	28
April-18	26721	23434	3287	12.3%	103	-16	119
May-18	26755	23384	3371	12.6%	35	-50	85
June-18	26937	23489	3448	12.8%	182	105	77

Source: Turkstat, Betam

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

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
May-15	5543	5404	1879	13741				
June-15	5582	5380	1875	13790	39	-24	-4	49
July-15	5506	5336	1926	13989	-76	-44	51	199
August-15	5537	5252	1922	13985	31	-84	-4	-4
September-15	5517	5327	1943	14078	-20	75	21	93
October-15	5450	5363	1963	14034	-67	36	20	-44
November-15	5387	5353	1986	14188	-63	-10	23	154
December-15	5407	5311	1991	14316	20	-42	5	128
January-16	5371	5300	1995	14455	-36	-11	4	139
February-16	5326	5276	1991	14601	-45	-24	-4	146
March-16	5386	5295	2017	14627	60	19	26	26
April-16	5368	5381	2032	14632	-18	86	15	5
May-16	5327	5386	2060	14590	-41	5	28	-42
June-16	5185	5330	1963	14560	-142	-56	-97	-30
July-16	5216	5254	1956	14634	31	-76	-7	74
August-16	5275	5224	1925	14600	59	-30	-31	-34
September-16	5339	5260	2032	14638	64	36	107	38
October-16	5283	5282	1997	14677	-56	22	-35	39
November-16	5285	5316	1994	14714	2	34	-3	37
December-16	5308	5265	1954	14717	23	-51	-40	3
January-17	5433	5274	1958	14836	125	9	4	119
February-17	5473	5251	2014	14933	40	-23	56	97
March-17	5383	5346	2085	14995	-90	95	71	62
April-17	5349	5372	2121	15081	-34	26	36	86
May-17	5379	5386	2086	15156	30	14	-35	75
June-17	5382	5383	2080	15268	3	-3	-6	112
July-17	5510	5363	2100	15218	128	-20	20	-50
August-17	5470	5437	2153	15317	-40	74	53	99
September-17	5530	5421	2127	15421	60	-16	-26	104
October-17	5508	5470	2115	15522	-22	49	-12	101
November-17	5521	5470	2143	15606	13	0	28	84
December-17	5549	5514	2178	15612	28	44	35	6
January-18	5492	5567	2197	15603	-57	53	19	-9
February-18	5416	5627	2191	15646	-76	60	-6	43
March-18	5359	5618	2141	15691	-57	-9	-50	45
April-18	5338	5650	2089	15695	-21	32	-52	4
May-18	5289	5669	2039	15676	-49	19	-50	-19
June-18	5259	5737	2033	15719	-30	68	-6	43

Source: Turkstat, Betam

Table 3: Seasonally adjusted non-agricultural labor force by gender (thousands)

	Female Labor Force	Female Employment	Female Unemployed	Male Labor Force	Male Employment	Male Unemployed
June-15	6654	5507	1147	17422	15565	1858
July-15	6749	5625	1124	17482	15691	1791
August-15	6714	5606	1108	17483	15651	1832
September-15	6759	5662	1097	17573	15730	1843
October-15	6781	5651	1130	17609	15740	1869
November-15	6876	5730	1146	17618	15800	1818
December-15	6968	5790	1178	17655	15851	1804
January-16	7011	5832	1179	17684	15896	1788
February-16	7046	5859	1186	17769	15909	1860
March-16	7060	5898	1162	17820	15985	1835
April-16	7145	5950	1195	17850	16021	1829
May-16	7176	5981	1195	17935	16028	1907
June-16	7258	5990	1267	17859	15890	1968
July-16	7270	5947	1322	17919	15956	1964
August-16	7327	5941	1386	17913	15893	2020
September-16	7376	5968	1409	17983	15997	1986
October-16	7442	5969	1473	18061	16002	2058
November-16	7460	5950	1509	18147	16070	2077
December-16	7457	5950	1507	18164	16002	2163
January-17	7450	5980	1470	18275	16069	2207
February-17	7511	6052	1459	18306	16062	2245
March-17	7615	6145	1471	18364	16240	2124
April-17	7602	6150	1452	18393	16372	2021
May-17	7652	6208	1444	18390	16388	2001
June-17	7666	6230	1436	18437	16520	1917
July-17	7680	6219	1461	18449	16511	1938
August-17	7733	6290	1443	18548	16700	1847
September-17	7766	6349	1418	18519	16651	1868
October-17	7792	6445	1347	18503	16672	1831
November-17	7828	6503	1325	18545	16721	1824
December-17	7887	6553	1333	18555	16763	1793
January-18	7923	6577	1345	18555	16759	1796
February-18	7954	6580	1374	18618	16796	1822
March-18	7950	6576	1375	18661	16845	1816
April-18	7987	6587	1400	18703	16803	1900
May-18	8023	6604	1418	18707	16744	1962
June-18	8070	6620	1449	18829	16874	1955

Source: Turkstat, Betam