

SHARP INCREASE IN UNEMPLOYMENT

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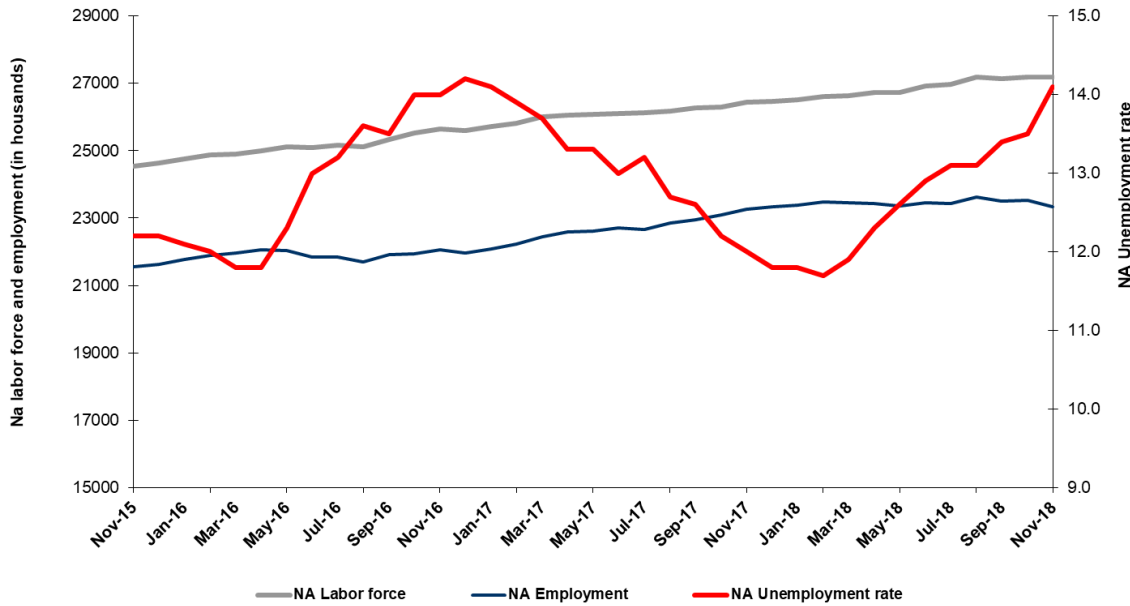
Executive Summary

Seasonally adjusted labor market data shows that in the period of November 2018, non-agricultural unemployment rate increased by 0.6 percentage points and reached 14.1 percent. In this period, employment decreased in all sectors albeit a decrease in labor force. Thus unemployment rate rose significantly. Employment in manufacturing decreased by 78 thousand in the last three periods combined. This decline parallel to the in the industrial production index which has been decreasing since July 2018. The decrease in employment in the construction sector has amounted to 363 thousand since the beginning of 2018. As for services, employment dropped by 87 thousand in the period of November 2018. With reference to Betam's growth estimate for the last quarter of 2018, which is noted as minus 3.5 percent, we expect the increase in non-agricultural unemployment rate to continue in the period of December 2018.

The number of unemployed is 3.8 million

According to seasonally adjusted labor market data, in the period of November 2018 compared to October 2018, the non-agricultural labor force decreased by 13 thousand to 27 million 179 thousand and also the number of employed in non-agricultural sectors decreased by 174 thousand and dropped to 23 million 347 thousand; and thereby non-agricultural unemployment rate rose to 14.1 percent (Figure 1, Table 1). Note that, in this period, we observe a decline in non-agricultural labor force. An increase of 0.6 percentage points in non-agricultural unemployment despite the decline in non-agricultural labor force is implies that the labor market outlook is bleak. Similar increases over the course of a single period were observed in 2008-2009 Global Recession and in the period of July 2016¹.

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



Source: Turkstat, Betam

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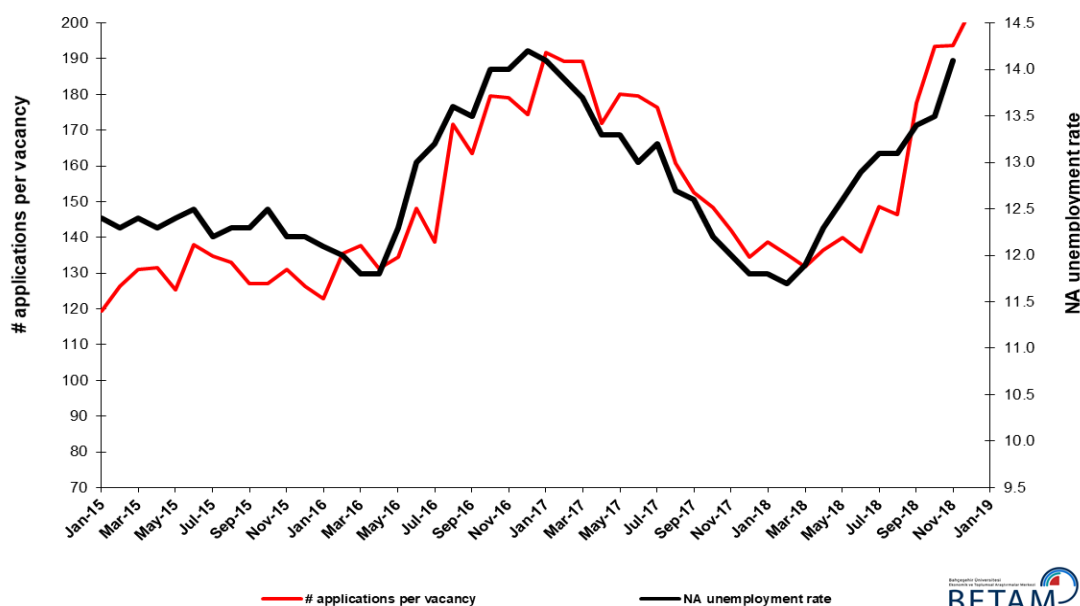
¹ Labor force statistics are published as the mean values of three months. Therefore, the first impact of the period of July 2016 is observed in the statistics of June 2016 which represents the mean of May, June and July 2016.

Note that the period of November 2018 is the average of October, November and December 2018, so it reflects the last quarter of 2018. In addition, Betam's growth estimate for the last quarter of 2018 is -3.5 percent. The rapid increase in non-agricultural unemployment rate is consistent with this expectation.

Unemployment rate is expected to increase by 0.2 percentage points in December 2018

Betam's forecasting model had predicted that the seasonally adjusted non-agricultural unemployment rate would increase by 0.2 percentage points to reach 13.7 percent in November 2018. In fact, non-agricultural unemployment increased by 0.6 percentage points and reached to 14.1 percent. Betam's forecasting model predicts that the seasonally adjusted non-agricultural unemployment rate will reach 14.3 percent in the period of December 2018. Forecasting model details are available on Betam's website.² Kariyer.net³ 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 losses in all sectors

According to seasonally adjusted sectoral labor market data, employment decreased significantly in the period of November 2018 compared to September 2018 (Figure 3, Table 2) in all sectors.⁴ While the employment in services decreased by 87 thousand in this period, employment losses in manufacturing, construction and agriculture were 40 thousand, 47 thousand and 54 thousand, respectively. The decrease in non-agricultural employment by 174 thousand is the most severe drop since the decrease by 190 thousand in July 2016 (Table 2). In manufacturing, employment decreased for three consecutive periods. As for construction, employment losses which began in the period of February 2018 continued and the total loss recorded since reached 363 thousand.

² 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/2014/06/kariyer-net-verisiyle-kisa-vadeli-tarim-disi-issizlik-tahmini/>

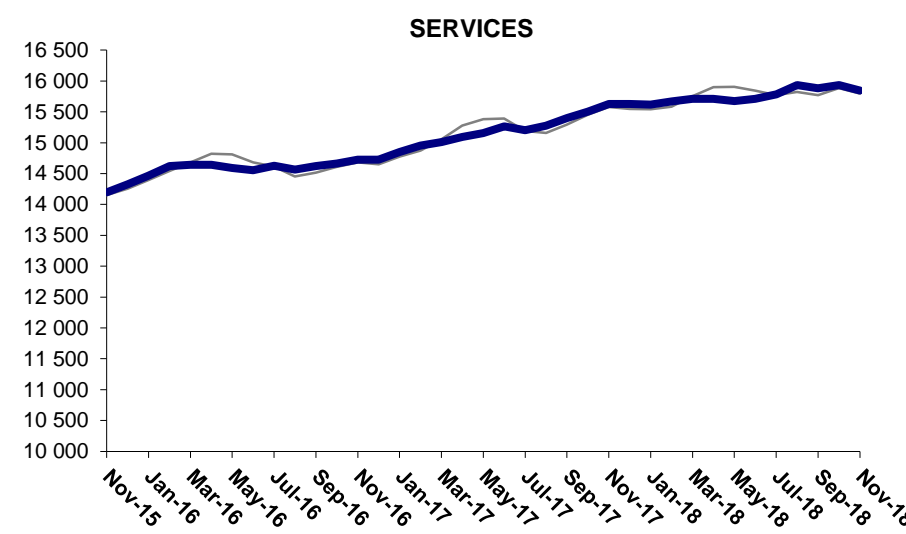
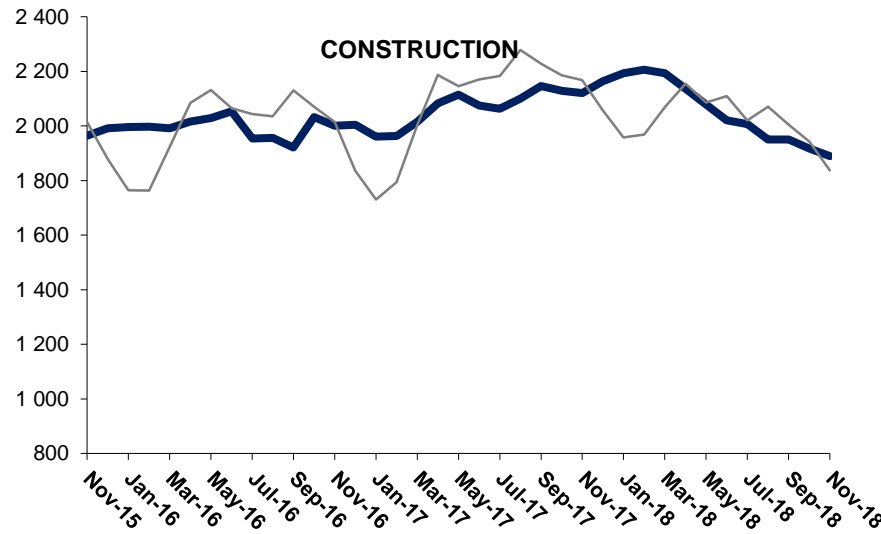
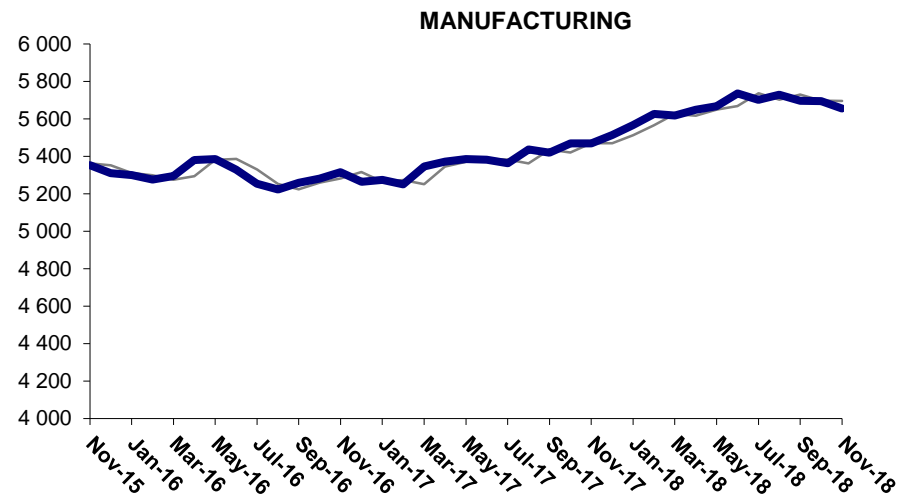
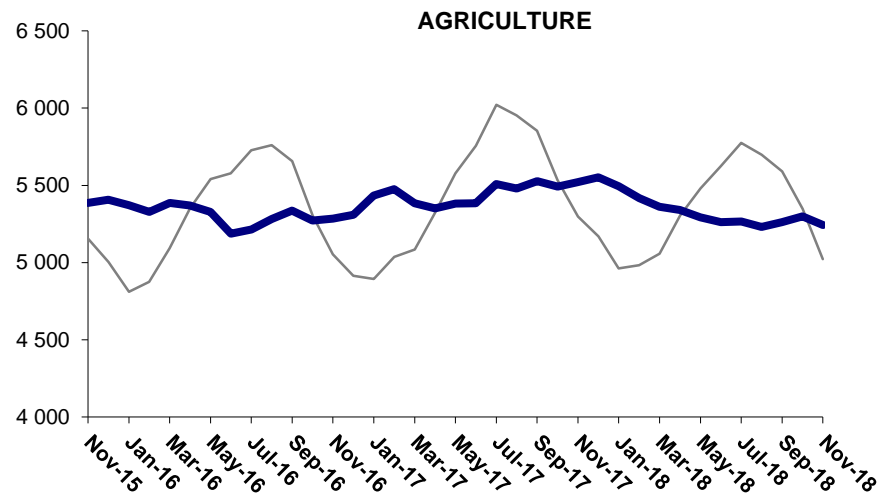
Soybilgen, B., "Mevsim Etkilerinden Arındırılmış İşsizlik Tahmini", Betam Research Brief 14

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

³ 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.

⁴ 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)

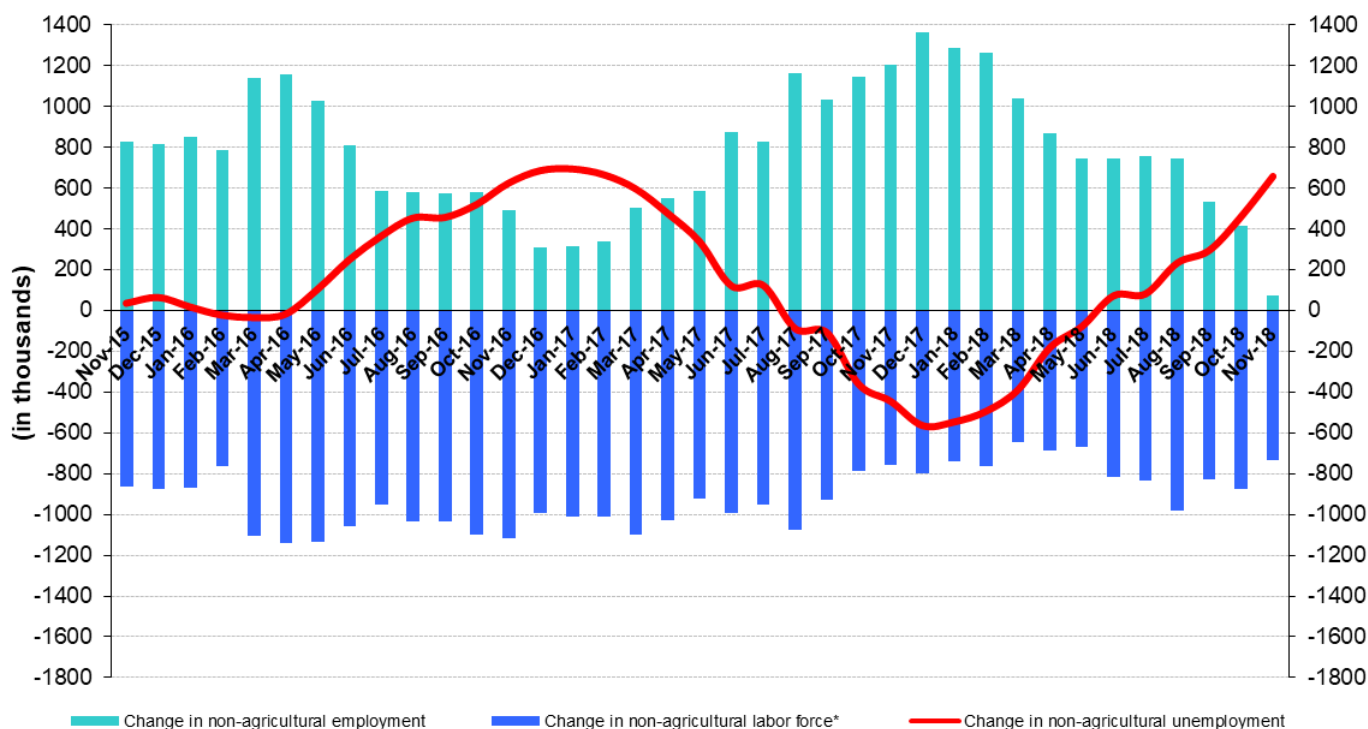


Source: TURKSTAT, Betam

The number of non-agricultural unemployed within a year increased

From October 2017 to October 2018 non-agricultural labor force decreased by 732 thousand (2.8 percent) and non-agricultural employment increased by 72 thousand (0.3 percent) (Figure 4). The slowdown of the increase in employment becomes more evident, while year on year increase in labor force continues its normal trend. Thus, non-agricultural unemployed increased by 660 thousand and reached 3 million 886 thousand.

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



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

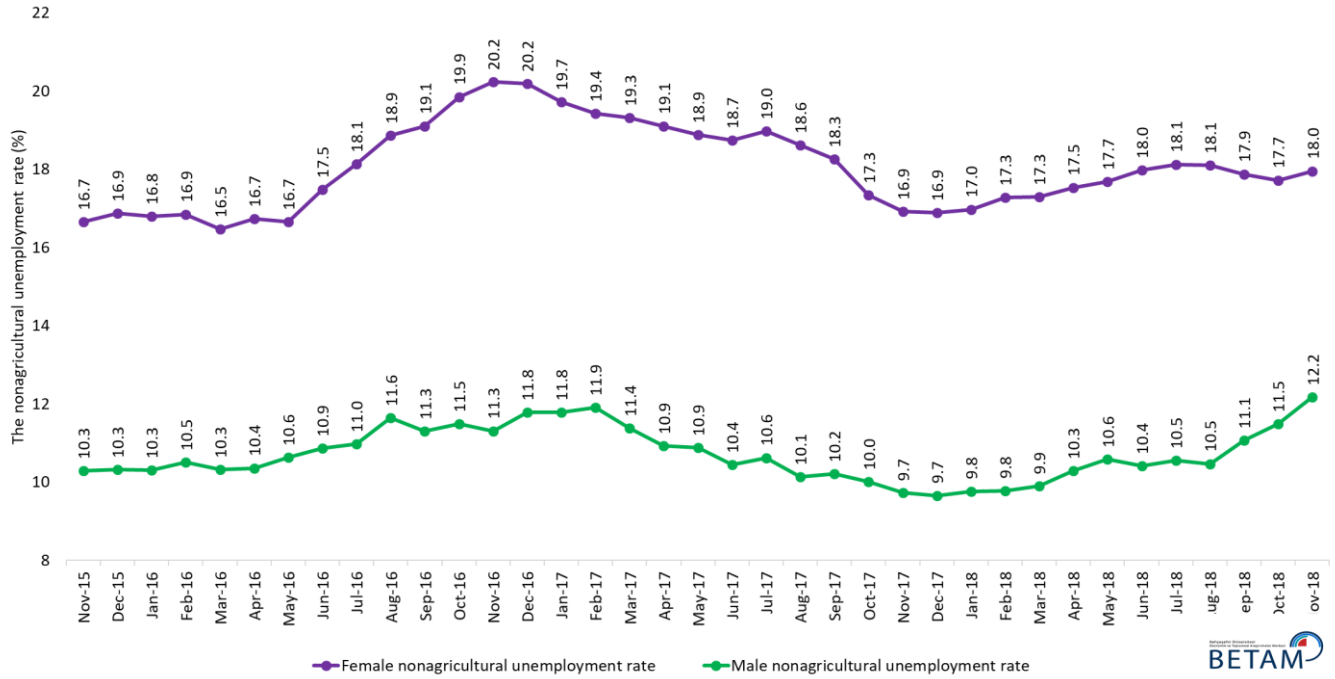
Source: Turkstat, Betam

The increase in non-agricultural male unemployment rate

Figure 5 shows seasonally adjusted non-agricultural unemployment rate for males (green) and for females (purple)⁵. In the period of November 2018, the non-agricultural female unemployment rate increased by 0.3 percentage points and reached 18 percent while the non-agricultural male unemployment rate increased by 0.7 percentage points to 12.2 percent. The increase in the male non-agricultural unemployment rate is due to employment losses. Male employment decreased by 113 thousand in November 2018 compared to October 2018 (Table 3). The gender gap in non-agricultural unemployment rates decreased from 6.2 to 5.8 percentage points in the period of November 2018.

⁵ 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
October-15	24397	21347	3050	12.5%			
November-15	24538	21544	2994	12.2%	141	197	-56
December-15	24639	21633	3006	12.2%	101	89	12
January-16	24762	21766	2996	12.1%	123	133	-10
February-16	24873	21888	2985	12.0%	110	122	-12
March-16	24891	21954	2937	11.8%	18	66	-48
April-16	25005	22054	2951	11.8%	113	100	13
May-16	25119	22029	3090	12.3%	114	-25	139
June-16	25102	21839	3263	13.0%	-16	-190	174
July-16	25156	21835	3321	13.2%	53	-4	57
August-16	25127	21710	3417	13.6%	-28	-125	97
September-16	25333	21913	3420	13.5%	206	203	3
October-16	25515	21943	3572	14.0%	182	30	152
November-16	25638	22049	3589	14.0%	123	106	17
December-16	25589	21955	3634	14.2%	-50	-94	44
January-17	25712	22087	3625	14.1%	124	132	-8
February-17	25807	22220	3587	13.9%	95	133	-38
March-17	26003	22441	3562	13.7%	196	221	-25
April-17	26045	22581	3464	13.3%	42	140	-98
May-17	26084	22615	3469	13.3%	39	34	5
June-17	26103	22710	3393	13.0%	19	95	-76
July-17	26116	22669	3447	13.2%	13	-41	54
August-17	26183	22858	3325	12.7%	67	189	-122
September-17	26261	22952	3309	12.6%	78	94	-16
October-17	26305	23096	3209	12.2%	44	144	-100
November-17	26433	23261	3172	12.0%	128	165	-37
December-17	26457	23335	3122	11.8%	24	74	-50
January-18	26523	23393	3130	11.8%	66	58	8
February-18	26602	23490	3112	11.7%	80	97	-17
March-18	26635	23465	3170	11.9%	32	-25	57
April-18	26724	23437	3287	12.3%	90	-28	118
May-18	26730	23362	3368	12.6%	6	-75	81
June-18	26931	23457	3474	12.9%	201	95	106
July-18	26974	23440	3534	13.1%	42	-17	59
August-18	27176	23616	3560	13.1%	203	176	27
September-18	27134	23498	3636	13.4%	-42	-118	76
October-18	27192	23521	3671	13.5%	58	23	35
November-18	27179	23347	3832	14.1%	-13	-174	161

Source: Turkstat, Betam

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

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
October-15	5442	5363	1965	14019				
November-15	5386	5353	1992	14199	-56	-10	27	180
December-15	5407	5311	1996	14326	21	-42	4	127
January-16	5372	5300	1998	14468	-35	-11	2	142
February-16	5327	5276	1992	14620	-45	-24	-6	152
March-16	5387	5295	2016	14643	60	19	24	23
April-16	5369	5381	2029	14644	-18	86	13	1
May-16	5328	5386	2054	14589	-41	5	25	-55
June-16	5187	5330	1954	14556	-141	-56	-100	-33
July-16	5215	5254	1956	14625	28	-76	2	69
August-16	5282	5224	1921	14565	67	-30	-35	-60
September-16	5337	5260	2033	14621	55	36	112	56
October-16	5272	5282	2001	14661	-65	22	-32	40
November-16	5284	5316	2005	14728	12	34	4	67
December-16	5309	5265	1961	14728	25	-51	-44	0
January-17	5434	5274	1963	14850	125	9	2	122
February-17	5475	5251	2015	14954	41	-23	52	104
March-17	5384	5346	2083	15012	-91	95	68	58
April-17	5350	5372	2115	15094	-34	26	32	82
May-17	5381	5386	2075	15154	31	14	-40	60
June-17	5385	5383	2063	15264	4	-3	-12	110
July-17	5509	5363	2101	15205	124	-20	38	-59
August-17	5479	5437	2147	15274	-30	74	46	69
September-17	5526	5421	2129	15402	47	-16	-18	128
October-17	5491	5470	2121	15505	-35	49	-8	103
November-17	5520	5470	2164	15627	29	0	43	122
December-17	5551	5514	2193	15628	31	44	29	1
January-18	5494	5567	2206	15620	-57	53	13	-8
February-18	5418	5627	2193	15670	-76	60	-13	50
March-18	5361	5618	2137	15710	-57	-9	-56	40
April-18	5340	5650	2078	15709	-21	32	-59	-1
May-18	5292	5669	2021	15673	-48	19	-57	-36
June-18	5262	5737	2007	15713	-30	68	-14	40
July-18	5266	5703	1951	15786	4	-34	-56	73
August-18	5231	5730	1951	15935	-35	27	0	149
September-18	5262	5698	1918	15882	31	-32	-33	-53
October-18	5298	5696	1890	15934	36	-2	-28	52
November-18	5244	5656	1843	15847	-54	-40	-47	-87

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	Change in female labor force	Change in female employment	Change in male labor force	Change in male employment
November-15	6876	5730	1145	17632	15819	1813				
December-15	6966	5790	1176	17684	15859	1825	91	60	52	40
January-16	7010	5832	1178	17723	15896	1827	44	42	39	38
February-16	7048	5861	1188	17771	15905	1866	38	28	48	8
March-16	7063	5900	1163	17815	15976	1839	15	39	44	71
April-16	7148	5952	1196	17851	16001	1849	85	53	35	25
May-16	7180	5984	1196	17914	16009	1905	32	32	64	8
June-16	7262	5993	1270	17826	15888	1938	82	9	-89	-121
July-16	7276	5956	1320	17912	15946	1966	13	-37	87	58
August-16	7314	5934	1380	17962	15871	2091	38	-22	50	-75
September-16	7379	5969	1410	18029	15993	2037	65	35	67	122
October-16	7430	5955	1475	18093	16014	2079	51	-15	64	22
November-16	7460	5950	1509	18151	16099	2052	30	-4	58	84
December-16	7455	5950	1505	18180	16038	2142	-4	0	29	-60
January-17	7449	5980	1469	18253	16102	2151	-6	30	73	64
February-17	7514	6054	1460	18274	16098	2176	64	73	21	-4
March-17	7618	6146	1472	18320	16236	2084	105	93	46	138
April-17	7606	6152	1453	18360	16353	2007	-13	6	40	117
May-17	7657	6211	1446	18386	16385	2000	51	59	26	32
June-17	7671	6233	1438	18417	16493	1924	14	22	31	107
July-17	7686	6228	1458	18446	16486	1960	16	-5	29	-7
August-17	7720	6283	1437	18488	16615	1873	34	55	42	129
September-17	7769	6350	1419	18516	16626	1890	49	67	29	11
October-17	7780	6430	1349	18535	16680	1855	10	80	19	54
November-17	7828	6503	1325	18575	16769	1806	48	73	40	89
December-17	7885	6553	1332	18606	16809	1797	57	50	31	40
January-18	7922	6577	1345	18621	16803	1819	37	24	15	-6
February-18	7957	6581	1375	18663	16837	1825	35	4	41	35
March-18	7953	6577	1376	18690	16840	1849	-3	-4	27	3
April-18	7991	6589	1401	18721	16794	1926	37	12	31	-46
May-18	8027	6607	1420	18747	16762	1985	36	18	26	-33
June-18	8075	6623	1452	18786	16831	1955	48	16	39	69
July-18	8092	6625	1467	18810	16826	1984	18	2	25	-4
August-18	8199	6715	1484	18848	16875	1973	107	90	38	49
September-18	8169	6708	1460	18868	16780	2087	-31	-7	19	-95
October-18	8260	6796	1464	18900	16730	2170	91	88	32	-51
November-18	8243	6763	1480	18919	16617	2303	-17	-33	19	-113

Source: Turkstat, Betam