INCREASE IN UNEMPLOYMENT CONTINUES

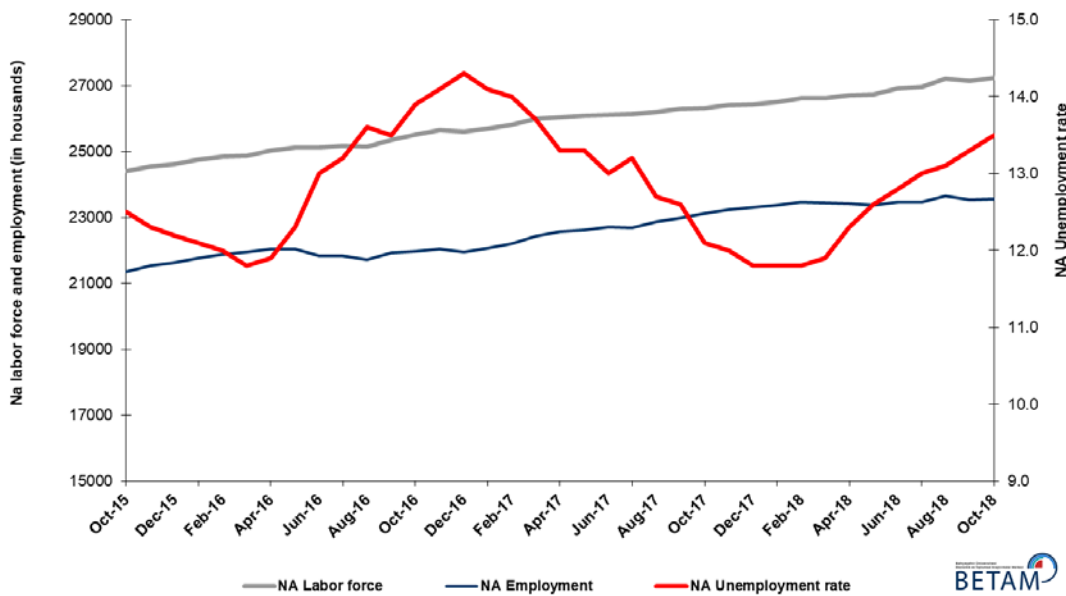**Seyfettin Gürsel[*], Gokce Uysal[**] and Yazgı Genç[***]**

Executive Summary

Seasonally adjusted labor market data shows that in the period of October 2018, non-agricultural unemployment rate increased by 0.2 percentage points and reached 13.5 percent. In this period, the higher increase in non-agricultural labor force compared to the increase in non-agricultural employment caused a sizable increase in the non-agricultural unemployment. In the period of October 2018, employment losses were recorded in manufacturing and construction while employment increased in agriculture and services. Employment decreased by 2 thousand in manufacturing, 26 thousand in construction and increased by 53 thousand in services. While non-agricultural male unemployment rate rose by 0.4 percentage points, non-agricultural female unemployment rate decreased by 0.1 percentage points in October 2018. Betam's forecasting model predicts that the non-agricultural unemployment will increase to 13.7 percent in the period of November 2018.

The increase in non-agricultural labor force

According to seasonally adjusted labor market data, in the period of October 2018 compared to September 2018, the non-agricultural labor force increased by 93 thousand and reached 27 million 229 thousand and also the number of employed in non-agricultural sectors increased by 26 thousand and reached 23 million 553 thousand (Figure 1, Table 1). As a result, the number of unemployed in non-agricultural sectors increased by 67 thousand and was recorded as 3 million 676 thousand. Thus, the non-agricultural unemployment rate increased to 13.5 percent.

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

Source: Turkstat, Betam

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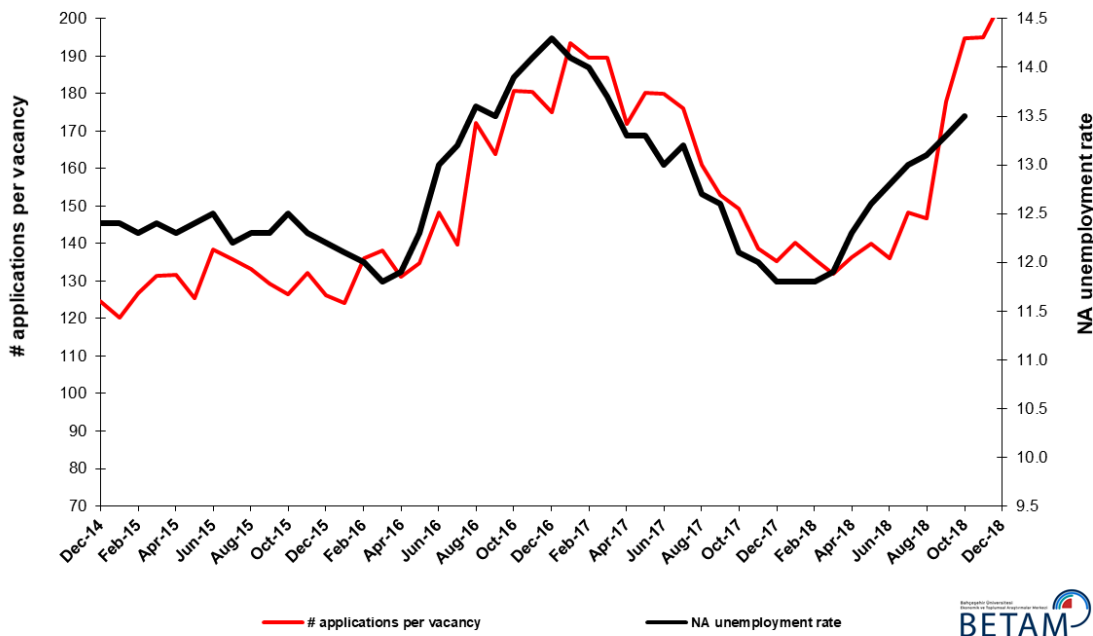[**] Assoc. Prof. Gökçe Uysal, Betam, Deputy Director, gokce.uysal@eas.bau.edu.tr
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Unemployment rate is expected to increase by 0.2 percentage points in the period of November 2018

Betam's forecasting model had predicted that the seasonally adjusted non-agricultural unemployment rate would increase by 0.1 percentage points to 13.4 percent in October 2018. In fact, the non-agricultural unemployment increased by 0.2 percentage points and reached to 13.5 percent. Betam's forecasting model predicts that the non-agricultural unemployment rate will reach 13.7 percent in the period of November 2018. 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 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 construction continues

According to seasonally adjusted sectorial labor market data, employment decreased in manufacturing and construction while it increased in agriculture and services in October 2018 compared to September 2018 (Figure 3, Table 2).[3] The employment increased by 53 thousand in services and decreased by 2 thousand in manufacturing, 26 thousand in construction. Note that employment losses in construction recorded since the period of February 2018 reached almost 300 thousand (Table 2). It is remarkable that employment losses in services in the period of September 2018 (50 thousand) made way to an increase in the period of October 2018 (Table 2).

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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" . 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.
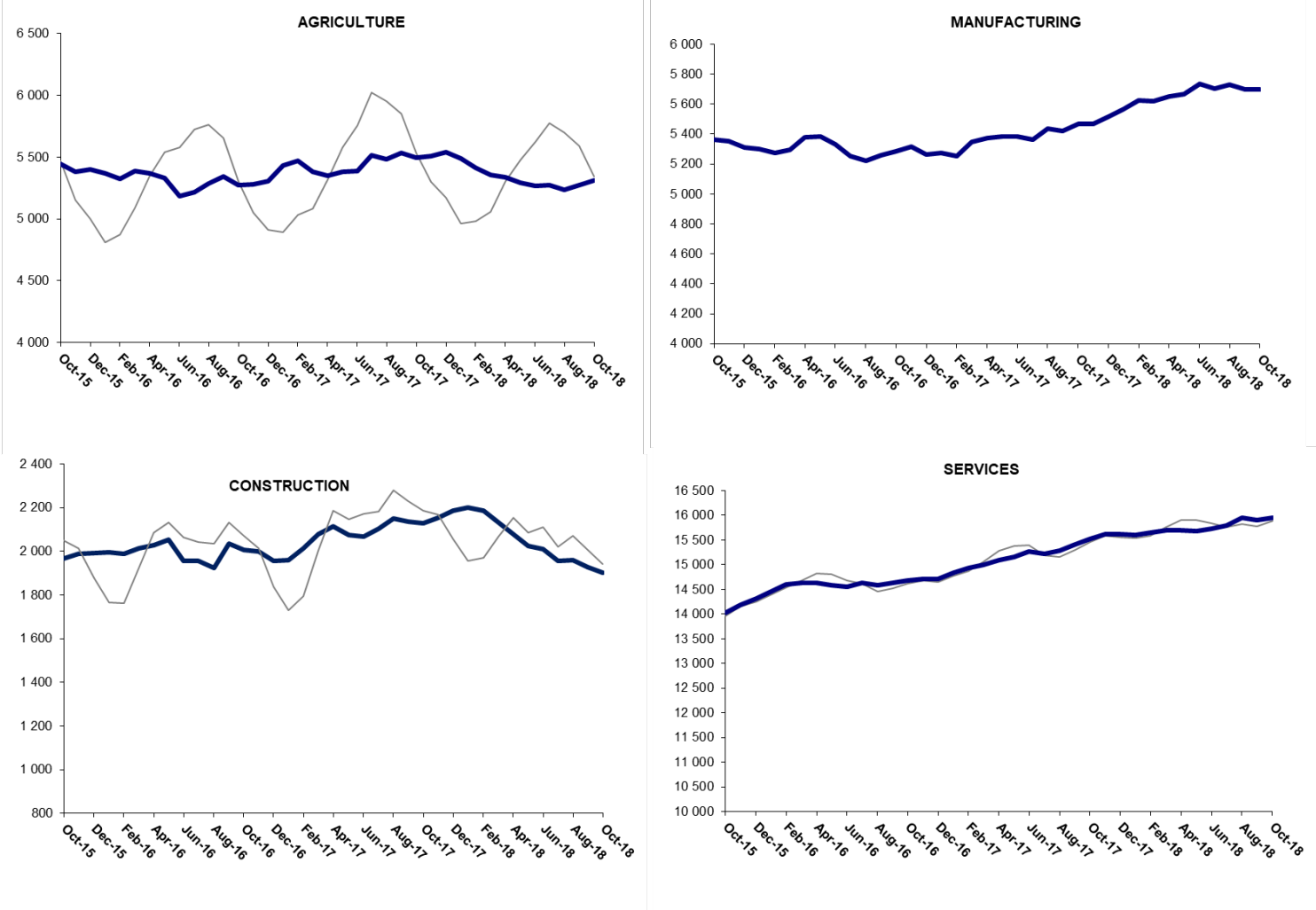http://betam.bahcesehir.edu.tr/tr/2014/06/kariyer-net-verisiyle-kisa-vadeli-tarim-disi-issizlik-tahmini/
Soybilgen, B., "Mevsim Etkilerinden Arındırılmış İşsizlik Tahmini", Betam Research Brief 14
http://betam.bahcesehir.edu.tr/2015/08/mevsim-etkilerinden-arindirilmis-tarim-disi-issizlik-tahmini/

[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.

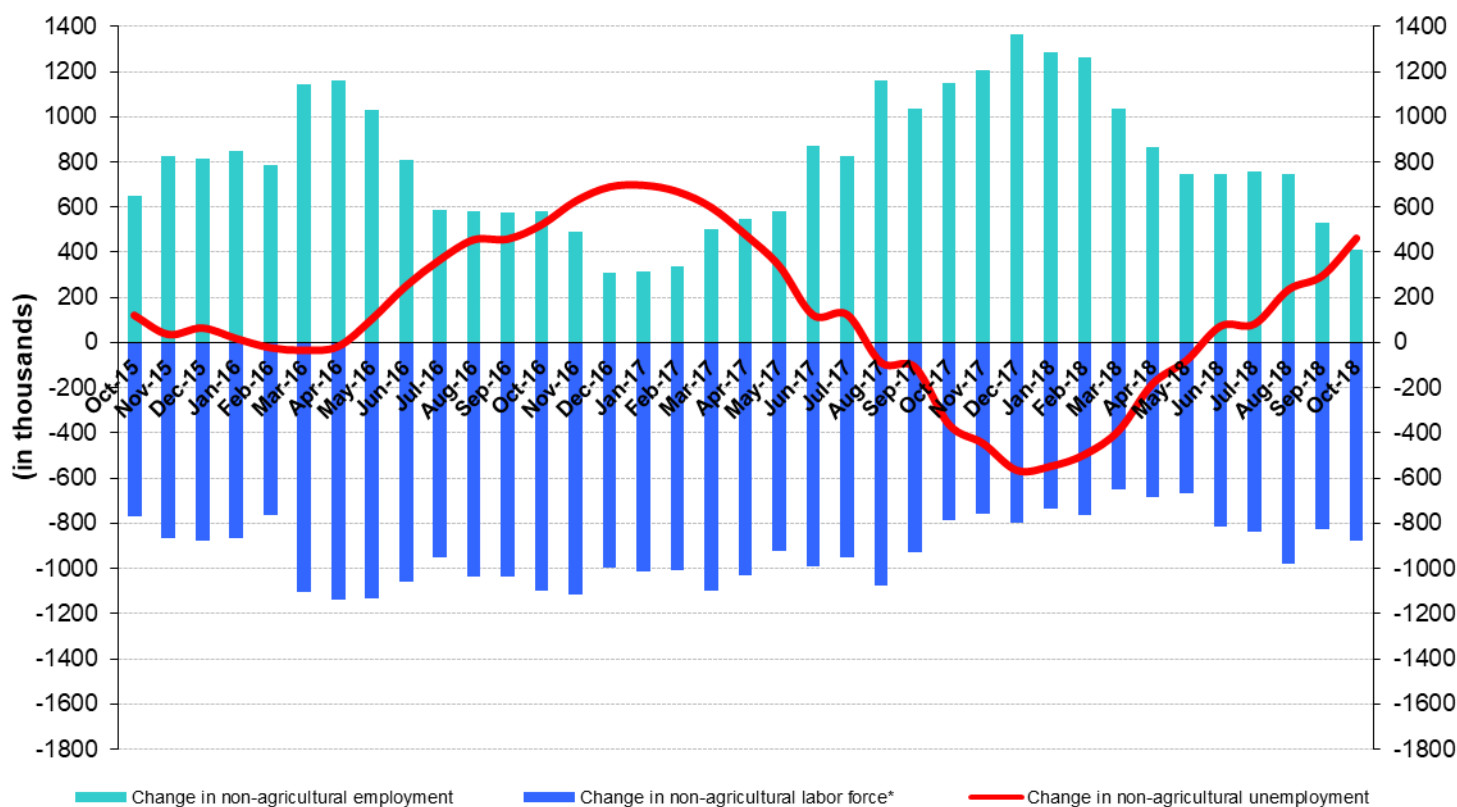**Figure 3: Employment by sectors (in thousand)**

AGRICULTURE

MANUFACTURING

CONSTRUCTION

SERVICES

Source: TURKSTAT, Betam

The number of non-agricultural unemployed within a year increased

From October 2017 to October 2018 non-agricultural labor force increased by 876 thousand (3.3 percent) and non-agricultural employment increased by 414 thousand (1.8 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 462 thousand and reached 3 million 703 thousand.

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

Change in non-agricultural employment   Change in non-agricultural labor force*   Change in non-agricultural 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)[4]. In the period of October 2018, the non-agricultural female unemployment rate increasing by 0.4 percentage points reached 11.5 percent while non-agricultural female unemployment rate decreased by 0.1 percentage points to 17.7 percent. The male employment decreased by 45 thousand in October 2018 compared to September 2018. In the same period, an increase in female employment was recorded (Table 3). As female and male unemployment rates moved in opposite directions the gender gap in non-agricultural unemployment rates decreased from 6.7 to 6.2 percentage points in the period of October 2018.

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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
September-15	24341	21347	2994	12.3%			
October-15	24413	21361	3052	12.5%	72	14	58
November-15	24552	21532	3020	12.3%	139	171	-32
December-15	24626	21622	3004	12.2%	75	90	-15
January-16	24750	21755	2995	12.1%	123	133	-10
February-16	24857	21874	2983	12.0%	107	119	-12
March-16	24879	21943	2936	11.8%	22	69	-47
April-16	25026	22048	2978	11.9%	147	105	42
May-16	25122	22032	3090	12.3%	96	-16	112
June-16	25110	21846	3264	13.0%	-12	-186	174
July-16	25165	21843	3322	13.2%	54	-3	57
August-16	25145	21725	3420	13.6%	-20	-118	98
September-16	25354	21931	3423	13.5%	209	206	3
October-16	25509	21963	3546	13.9%	155	32	123
November-16	25650	22033	3617	14.1%	141	70	71
December-16	25603	21942	3661	14.3%	-46	-91	45
January-17	25697	22074	3623	14.1%	94	132	-38
February-17	25820	22205	3615	14.0%	122	131	-9
March-17	25988	22428	3560	13.7%	169	223	-54
April-17	26036	22573	3463	13.3%	47	145	-98
May-17	26089	22619	3470	13.3%	53	46	7
June-17	26114	22719	3395	13.0%	25	100	-75
July-17	26131	22682	3449	13.2%	18	-37	55
August-17	26205	22877	3328	12.7%	74	195	-121
September-17	26286	22974	3312	12.6%	81	97	-16
October-17	26305	23122	3183	12.1%	19	148	-129
November-17	26403	23235	3168	12.0%	99	113	-14
December-17	26433	23314	3119	11.8%	30	79	-49
January-18	26501	23374	3127	11.8%	68	60	8
February-18	26610	23470	3140	11.8%	109	96	13
March-18	26617	23450	3167	11.9%	8	-20	28
April-18	26716	23430	3286	12.3%	99	-20	119
May-18	26738	23369	3369	12.6%	22	-61	83
June-18	26914	23469	3445	12.8%	176	100	76
July-18	26962	23457	3505	13.0%	48	-12	60
August-18	27204	23640	3564	13.1%	242	183	59
September-18	27136	23527	3609	13.3%	-68	-113	45
October-18	27229	23553	3676	13.5%	93	26	67

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

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
September-15	5518	5327	1946	14074				
October-15	5446	5363	1967	14031	-72	36	21	-43
November-15	5383	5353	1989	14190	-63	-10	22	159
December-15	5404	5311	1993	14318	21	-42	4	128
January-16	5369	5300	1996	14459	-35	-11	3	141
February-16	5325	5276	1990	14608	-44	-24	-6	149
March-16	5386	5295	2014	14634	61	19	24	26
April-16	5368	5381	2028	14638	-18	86	14	4
May-16	5329	5386	2055	14591	-39	5	27	-47
June-16	5188	5330	1955	14561	-141	-56	-100	-30
July-16	5218	5254	1958	14631	30	-76	3	70
August-16	5285	5224	1924	14577	67	-30	-34	-54
September-16	5341	5260	2036	14634	56	36	112	57
October-16	5277	5282	2005	14675	-64	22	-31	41
November-16	5279	5316	2000	14717	2	34	-5	42
December-16	5303	5265	1957	14719	24	-51	-43	2
January-17	5430	5274	1959	14840	127	9	2	121
February-17	5471	5251	2013	14941	41	-23	54	101
March-17	5383	5346	2080	15002	-88	95	67	61
April-17	5350	5372	2114	15088	-33	26	34	86
May-17	5382	5386	2076	15157	32	14	-38	69
June-17	5387	5383	2066	15269	5	-3	-10	112
July-17	5513	5363	2105	15214	126	-20	39	-55
August-17	5484	5437	2152	15288	-29	74	47	74
September-17	5533	5421	2135	15418	49	-16	-17	130
October-17	5499	5470	2130	15522	-34	49	-5	104
November-17	5512	5470	2154	15611	13	0	24	89
December-17	5542	5514	2185	15615	30	44	31	4
January-18	5487	5567	2199	15608	-55	53	14	-7
February-18	5413	5627	2188	15655	-74	60	-11	47
March-18	5359	5618	2133	15699	-54	-9	-55	44
April-18	5339	5650	2077	15703	-20	32	-56	4
May-18	5293	5669	2023	15678	-46	19	-54	-25
June-18	5266	5737	2012	15721	-27	68	-11	43
July-18	5272	5703	1957	15797	6	-34	-55	76
August-18	5238	5730	1959	15951	-34	27	2	154
September-18	5272	5698	1929	15901	34	-32	-30	-50
October-18	5310	5696	1903	15954	38	-2	-26	53

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
October-15	6772	5644	1128	17600	15752	1848				
November-15	6871	5724	1147	17636	15810	1826	99	80	36	58
December-15	6964	5785	1179	17683	15853	1829	93	61	47	44
January-16	7009	5829	1180	17742	15893	1849	44	43	59	39
February-16	7050	5858	1192	17781	15903	1877	42	29	38	11
March-16	7064	5898	1166	17825	15976	1849	13	40	44	73
April-16	7148	5951	1197	17862	16004	1859	85	53	37	28
May-16	7180	5984	1196	17932	16012	1920	32	33	69	8
June-16	7262	5994	1268	17830	15890	1940	82	10	-102	-122
July-16	7276	5958	1317	17906	15950	1955	14	-35	76	60
August-16	7315	5938	1377	17885	15876	2009	39	-21	-21	-75
September-16	7381	5975	1406	17966	16002	1965	66	37	81	126
October-16	7433	5962	1471	18053	16027	2026	52	-13	87	25
November-16	7455	5944	1511	18132	16081	2051	22	-18	79	54
December-16	7453	5945	1508	18177	16025	2152	-2	1	45	-56
January-17	7448	5977	1471	18324	16091	2233	-5	31	146	66
February-17	7516	6051	1465	18331	16089	2242	68	74	8	-2
March-17	7619	6145	1475	18361	16233	2129	103	94	30	144
April-17	7605	6151	1454	18386	16354	2033	-14	6	25	121
May-17	7656	6211	1445	18392	16388	2004	51	60	6	34
June-17	7670	6234	1436	18432	16500	1932	14	23	39	112
July-17	7686	6230	1456	18455	16497	1958	16	-3	23	-3
August-17	7721	6287	1434	18474	16632	1843	35	56	20	135
September-17	7771	6356	1415	18508	16646	1861	50	69	33	15
October-17	7783	6438	1345	18526	16706	1820	12	82	18	60
November-17	7824	6497	1327	18549	16732	1816	41	59	23	26
December-17	7883	6548	1335	18577	16785	1792	59	51	28	52
January-18	7920	6574	1347	18604	16783	1821	37	25	27	-2
February-18	7959	6579	1380	18633	16823	1810	38	5	29	40
March-18	7954	6576	1379	18653	16833	1820	-5	-3	20	10
April-18	7990	6588	1402	18678	16792	1886	36	12	25	-41
May-18	8026	6607	1419	18703	16764	1939	36	19	25	-28
June-18	8074	6624	1450	18857	16845	2012	48	17	154	80
July-18	8092	6627	1465	18883	16849	2034	18	4	26	4
August-18	8200	6719	1481	18920	16911	2009	108	91	37	62
September-18	8171	6714	1457	18929	16821	2108	-29	-5	10	-89
October-18	8264	6804	1460	18949	16776	2172	93	90	19	-45

Source: Turkstat, Betam