

**Labor Market Outlook:**

**May 2020**

**12 May 2020**

**LABOR MARKET OUTLOOK BEFORE THE CORONA PANDEMIC:**

**DECREASE IN UNEMPLOYMENT**

**ALONG WITH DROP IN EMPLOYMENT AND LABOR FORCE**

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**Executive Summary**

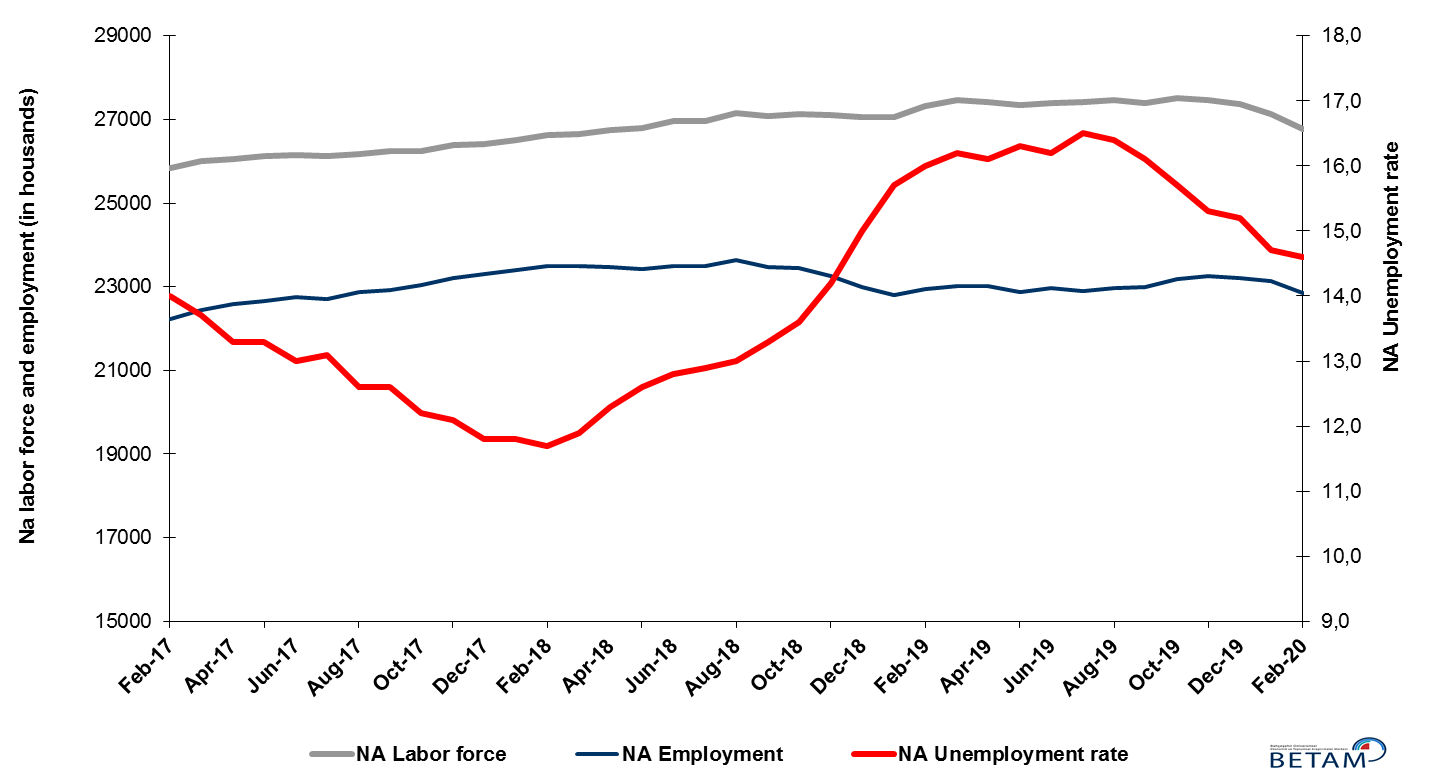
Seasonally adjusted labor market data shows that in the period of February 2020, non-agricultural unemployment rate turned out to be 14.6 percent, with 0.1 percentage point decrease compared to January 2020. In this period, non-agricultural employment decreased by 277 thousand while non-agricultural labor force decreased by 356 thousand. Consequently, the number of unemployed in non-agricultural sector decreased by 79 thousand. As a result of the extraordinary decrease in labor force and employment, seasonally adjusted LFPR and employment rate decreased by 1 percent and 0.9 percent, respectively, compared to the period of January 2020. The decrease in LFPR and employment rate has been the biggest in magnitude since the period of January 2005. According to sectorial data, employment losses occurred in all sectors. The most significant decreases in employment occurred in agriculture (by 218 thousand) and services (by 194 thousand). While construction employment decreased by 28 thousand, manufacturing employment decreased by 56 thousand. Seasonally adjusted data shows that the level of labor force and employed people decreased especially among men, which resulted by an increase in non-agricultural male unemployment rate, whereas female non-agricultural unemployment rate decreased. The decrease in female unemployment was the result of the limited decrease in female employment (by 42 thousand), along with relatively significant decrease in female labor force (by 132 thousand)

**Decreases in all non-agricultural labor market indicators**

Seasonally adjusted data shows that, non-agricultural labor force reached 26 million 763 thousand after the decrease of 356 thousand in February 2020 period (January-February-March) compared to January 2020 period (December-January-February). In the period of February 2020, the level of non-agricultural labor force decreased (by 2.6 percentage points) compared to the same month of the previous year. Year-over-year decrease in labor force occurred for the first time since January 2005, the beginning of the seasonally adjusted non-agricultural labor force series. Slow growth rate in labor force before the outbreak of COVID19 evolved into year-over-year decrease in labor force. Non-agricultural employment reached 22 million 856 thousand following a decrease of 277 thousand (Figure 1, Table 1). Despite declining employment, the number of non-agricultural unemployed decreased by 79 thousand and reached 3 million 907 thousand. Thus, non-agricultural unemployment rate dropped to 14.6 percent.

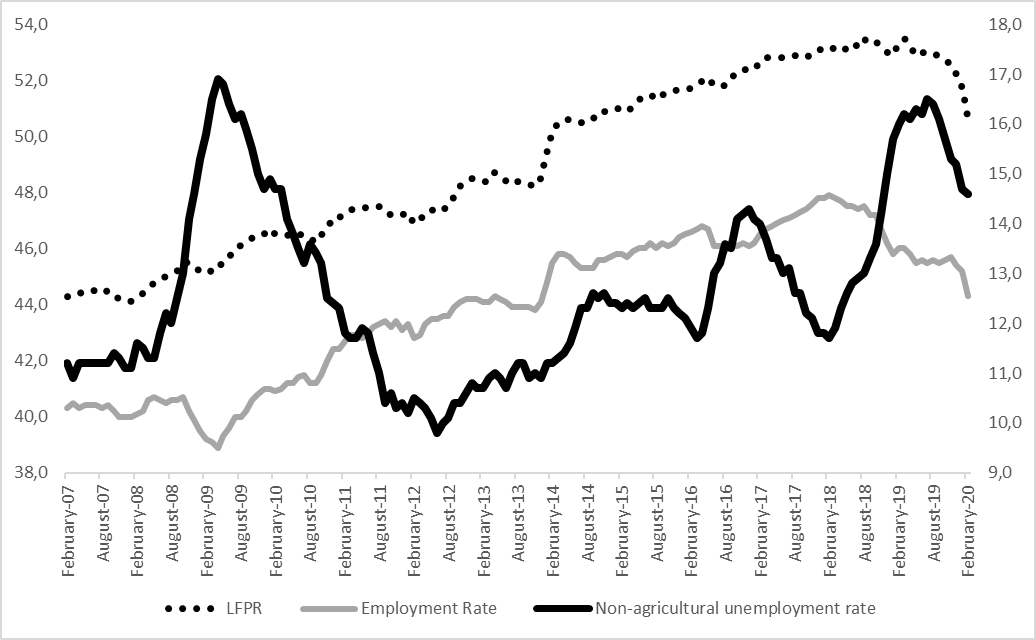
To better capture the extraordinary decrease in non-agricultural labor force, we added a new figure that features seasonally adjusted LFPR, employment rate and non-agricultural unemployment rate into our Labor Market Outlook reports. As can be seen from the figure, unemployment shock that occurred in the years of 2008-2009 resulted in the decrease in the employment rate and growth rate in the labor force participation rate (LFPR) along the trend line. This time, LFPR has been decreasing and the pace of the decrease is higher than that occurring in employment rate. While non-institutional population over 15-year-old keeps increasing, LFPR decreased by 2.6 percent in February 2020 compared to the same month of the previous year and reached 50.7 percent. Employment rate decreased by 1.7 percent in February 2020 compared to the same month of the previous year and reached 44.3 percent

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



Source: Turkstat, Betam

**Figure 2 Seasonally adjusted LFPR, employment rate and non-agricultural unemployment rate**

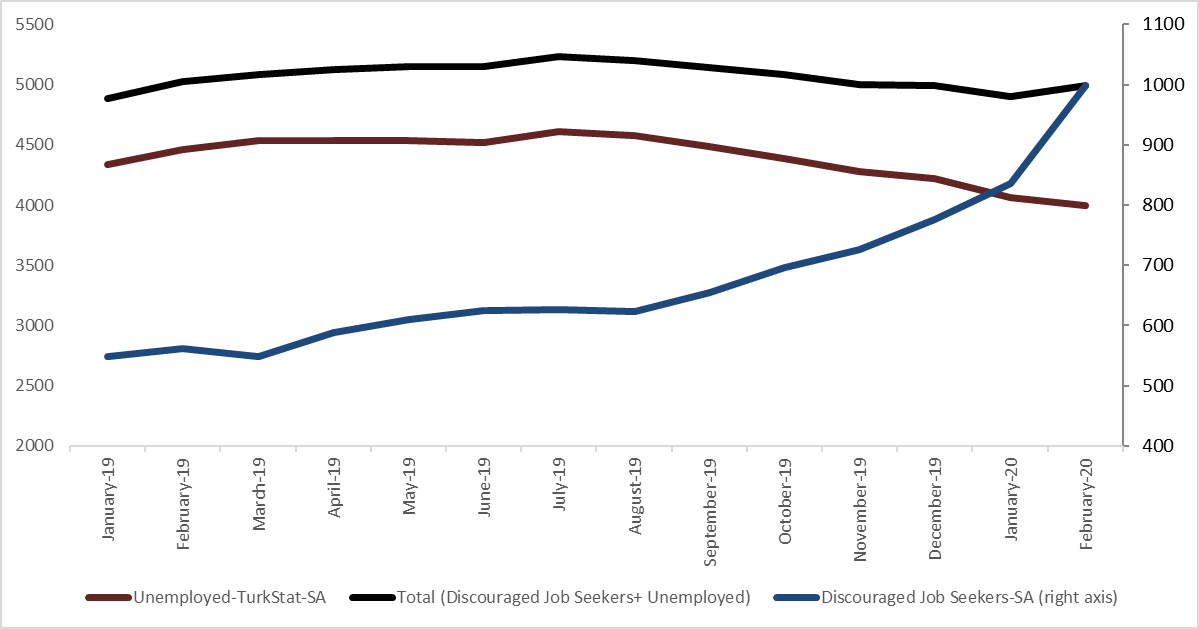


Source: Turkstat, Betam

**Significant increase in discouraged job seekers**

The level of labor force, by definition, is the summation of the level of employed people and the level of job seekers (unemployed). The unusual developments in the labor market, cause loss of confidence among individuals who desire to work but they are not actively seeking a job as they think that they could not find any job. Those individuals that quit seeking for jobs and labor force due to loss of confidence are referred as ‘Discouraged Job Seekers’ by TurkStat. As can be seen from another new Figure 3 that features discouraged job seekers, unemployed people and summation of both, the number of discouraged job seekers nearly doubles from the period of January 2019 while number of unemployed people has been decreasing for a while.

**Figure 3 The number of unemployed people, discouraged job seekers and summation of both, SA**

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Source: Turkstat, Betam

**Warning regarding the forecast of unemployment rate**

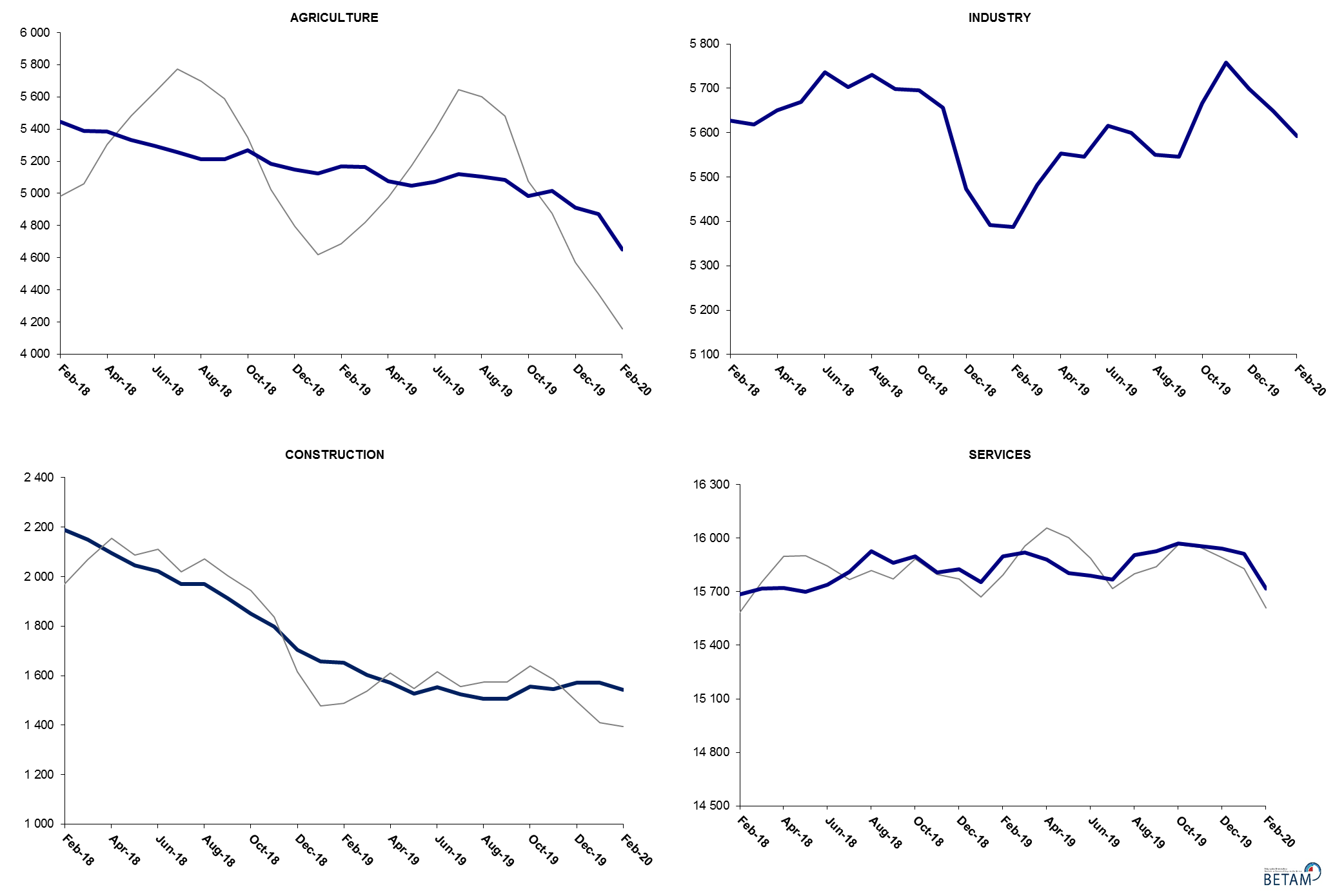
Betam’s forecasting model predicted that non-agricultural unemployment rate would be 14.4 for March 2020 if ever were COVID19 outbreak were non-existent. As the effects of the pandemic in April 2020 weren’t reflected in the variables that are used in the forecast model, we prefer not to publish our March 2020 forecast in our Labor Market Outlook report for the period of February 2020.

**Employment losses in all sectors**

According to seasonally adjusted sectorial labor market data, in the period of February 2020 compared to January 2020, employment losses occurred in all sectors (Figure 3, Table 2).[[2]](#footnote-2) After the decrease of 40 thousand in January 2020, employment in agriculture sector decreased by 218 thousand in February 2020. Following the decrease of 29 thousand in December 2019, the number of employed in services sector decreased by 194 thousand. Employment in manufacturing and construction sectors decreased by 56 and 28 thousand respectively in the period of February 2020.

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**Figure 4: Employment by sectors (in thousand)**

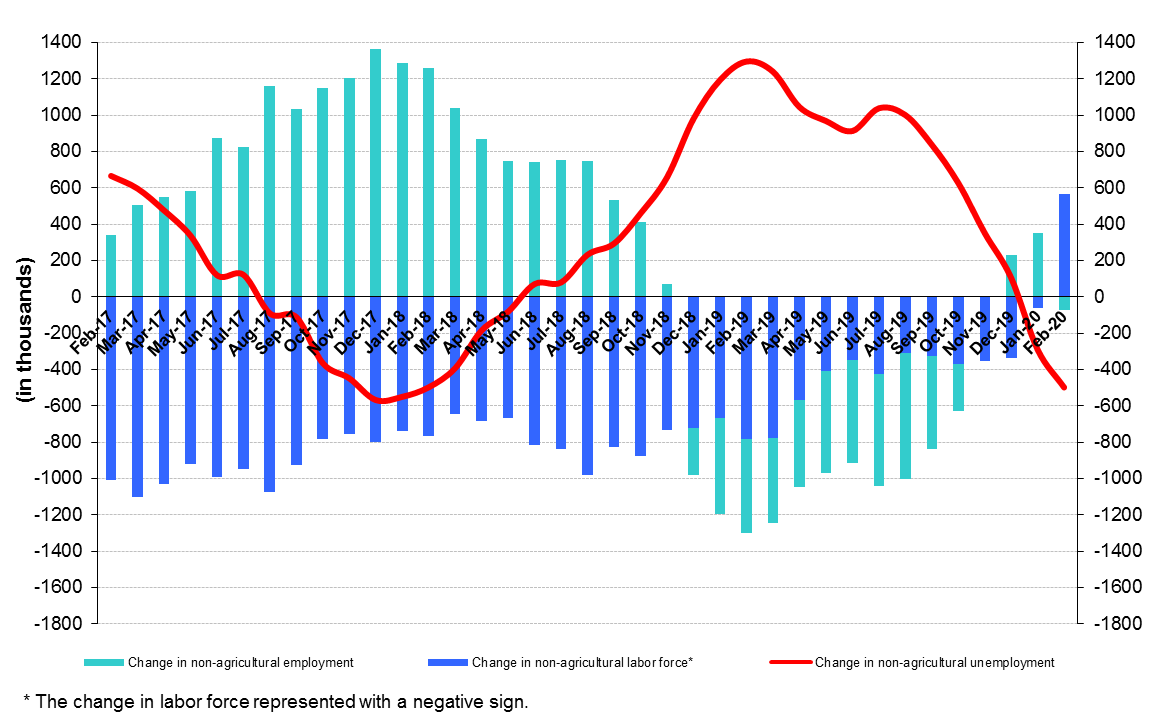


Source: TURKSTAT, Betam

**Slowdown in non-agricultural labor force participation, limited increase in employment**

Compared to February 2019, non-agricultural labor force decreased by 568 thousand (2.1 percent) in February 2020 (Figure 5, Table 3). Year-on-year level of change in non-agricultural labor force turned negative for the first time in February 2020, since January 2006. The decrease in year-on-year non-agricultural employment level was 71 thousand (0.3 percent). As a result, in the period of February 2020 compared to February 2019, the number of non-agricultural unemployed decreased by 497 thousand.

Figure 5 Year-on-year changes in non-agricultural labor force, employment, and unemployment

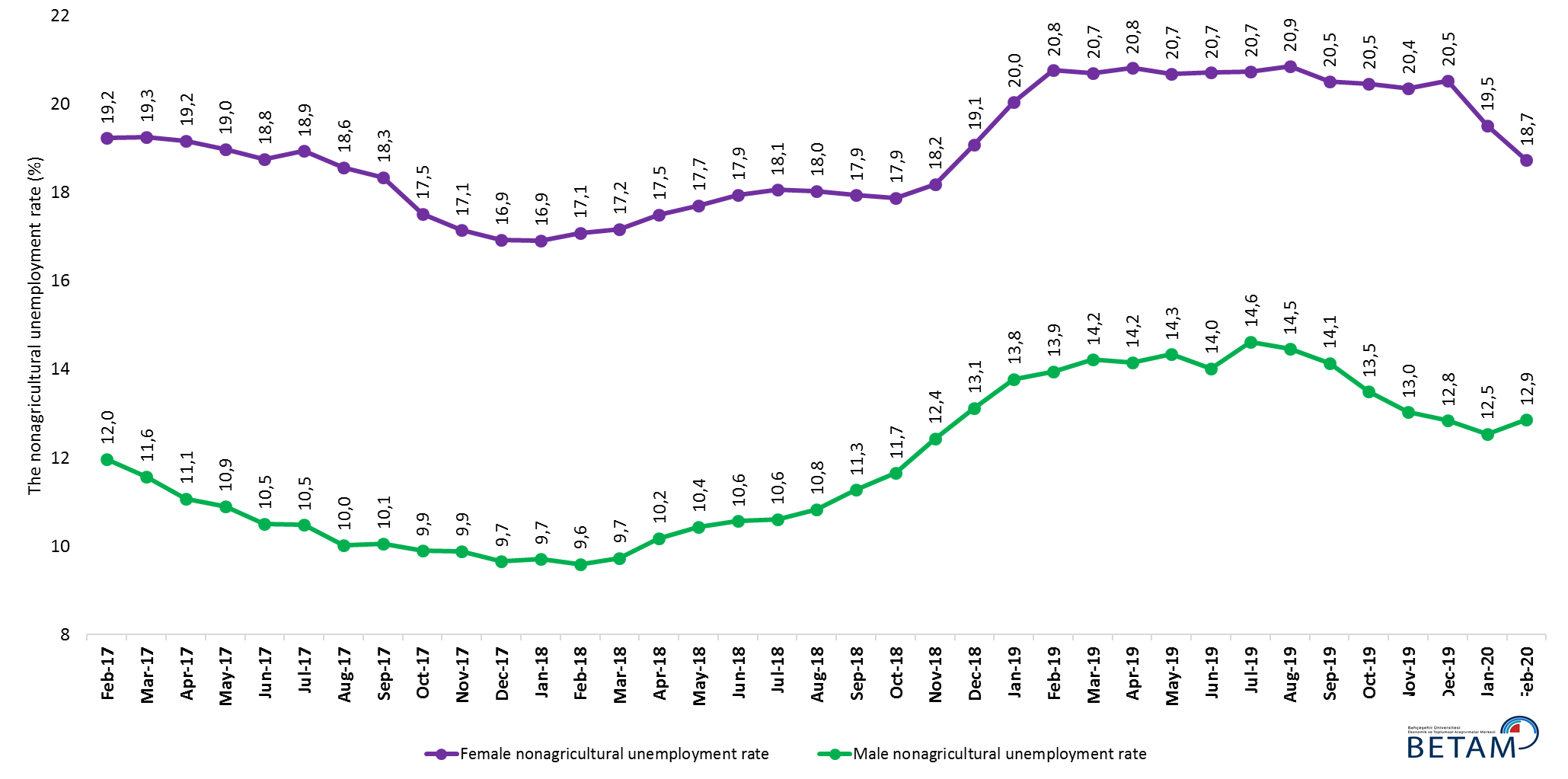


Source: TURKSTAT, Betam

**Decrease in female unemployment along with increase in male unemployment**

Figure 6 shows seasonally adjusted non-agricultural unemployment rate for males (green) and for females (purple)[[3]](#footnote-3). In the period of February 2020 compared to the previous period, female non-agricultural unemployment rate decreased by 0.8 percentage point to 18.7 percent. This significant decrease in female unemployment rate resulted from the decrease (132 thousand) in the female labor force while the decrease in employment has been limited to 42 thousand. Male unemployment rate turned out to be 12.9 with 0.4 percentage point increase. Even though male employment decreased by 312 thousand, male labor force decreased by 290 thousand. As a result, the gender gap in non-agricultural unemployment rates decreased from 7.0 percent to 5.9 percent points.

Figure 6: 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** | | |
| **February-17** | 25844 | 22226 | 3618 | 14,0% | **Labor force** | **Employment** | **Unemployment** |
| **March-17** | 26015 | 22451 | 3564 | 13,7% | 171 | 225 | -54 |
| **April-17** | 26063 | 22597 | 3466 | 13,3% | 48 | 146 | -98 |
| **May-17** | 26121 | 22647 | 3474 | 13,3% | 58 | 50 | 8 |
| **June-17** | 26145 | 22746 | 3399 | 13,0% | 24 | 99 | -75 |
| **July-17** | 26133 | 22710 | 3423 | 13,1% | -11 | -36 | 25 |
| **August-17** | 26172 | 22874 | 3298 | 12,6% | 38 | 164 | -126 |
| **September-17** | 26237 | 22931 | 3306 | 12,6% | 65 | 57 | 8 |
| **October-17** | 26241 | 23040 | 3201 | 12,2% | 5 | 109 | -104 |
| **November-17** | 26390 | 23197 | 3193 | 12,1% | 149 | 157 | -8 |
| **December-17** | 26412 | 23295 | 3117 | 11,8% | 21 | 98 | -77 |
| **January-18** | 26517 | 23388 | 3129 | 11,8% | 105 | 93 | 12 |
| **February-18** | 26616 | 23502 | 3114 | 11,7% | 99 | 114 | -15 |
| **March-18** | 26658 | 23486 | 3172 | 11,9% | 42 | -16 | 58 |
| **April-18** | 26756 | 23465 | 3291 | 12,3% | 98 | -21 | 119 |
| **May-18** | 26788 | 23413 | 3375 | 12,6% | 32 | -52 | 84 |
| **June-18** | 26948 | 23499 | 3449 | 12,8% | 160 | 86 | 74 |
| **July-18** | 26963 | 23485 | 3478 | 12,9% | 15 | -14 | 29 |
| **August-18** | 27160 | 23629 | 3531 | 13,0% | 197 | 144 | 53 |
| **September-18** | 27074 | 23473 | 3601 | 13,3% | -86 | -156 | 70 |
| **October-18** | 27137 | 23446 | 3691 | 13,6% | 63 | -27 | 90 |
| **November-18** | 27114 | 23264 | 3850 | 14,2% | -22 | -182 | 160 |
| **December-18** | 27062 | 23003 | 4059 | 15,0% | -52 | -261 | 209 |
| **January-19** | 27049 | 22802 | 4247 | 15,7% | -14 | -201 | 187 |
| **February-19** | 27307 | 22938 | 4369 | 16,0% | 259 | 136 | 123 |
| **March-19** | 27452 | 23005 | 4447 | 16,2% | 145 | 67 | 78 |
| **April-19** | 27422 | 23007 | 4415 | 16,1% | -30 | 2 | -32 |
| **May-19** | 27333 | 22878 | 4455 | 16,3% | -89 | -129 | 40 |
| **June-19** | 27396 | 22958 | 4438 | 16,2% | 63 | 80 | -17 |
| **July-19** | 27414 | 22891 | 4523 | 16,5% | 18 | -67 | 85 |
| **August-19** | 27467 | 22962 | 4505 | 16,4% | 52 | 71 | -19 |
| **September-19** | 27390 | 22980 | 4410 | 16,1% | -77 | 18 | -95 |
| **October-19** | 27511 | 23192 | 4319 | 15,7% | 122 | 212 | -90 |
| **November-19** | 27462 | 23260 | 4202 | 15,3% | -50 | 68 | -118 |
| **December-19** | 27373 | 23212 | 4161 | 15,2% | -89 | -48 | -41 |
| **January-20** | 27120 | 23133 | 3987 | 14,7% | -253 | -79 | -174 |
| **February-20** | 26763 | 22856 | 3907 | 14,6% | -356 | -277 | -79 |

Source: Turkstat, Betam

Table 2 seasonally adjusted employment by sectors (in thousands) \*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Agriculture** | **Manufacturing** | **Construction** | **Service** | **Monthly changes** | | | |
| **February-17** | 5488 | 5251 | 2010 | 14965 | **Agriculture** | **Manufacturing** | **Construction** | **Service** |
| **March-17** | 5397 | 5346 | 2089 | 15016 | -91 | 95 | 79 | 51 |
| **April-17** | 5376 | 5372 | 2123 | 15102 | -21 | 26 | 34 | 86 |
| **May-17** | 5405 | 5386 | 2086 | 15175 | 29 | 14 | -37 | 73 |
| **June-17** | 5414 | 5383 | 2080 | 15284 | 9 | -3 | -6 | 109 |
| **July-17** | 5509 | 5363 | 2121 | 15225 | 95 | -20 | 41 | -59 |
| **August-17** | 5472 | 5437 | 2169 | 15269 | -37 | 74 | 48 | 44 |
| **September-17** | 5491 | 5421 | 2121 | 15389 | 19 | -16 | -48 | 120 |
| **October-17** | 5470 | 5470 | 2090 | 15480 | -21 | 49 | -31 | 91 |
| **November-17** | 5480 | 5470 | 2128 | 15598 | 10 | 0 | 38 | 118 |
| **December-17** | 5533 | 5514 | 2176 | 15605 | 53 | 44 | 48 | 7 |
| **January-18** | 5476 | 5567 | 2199 | 15622 | -57 | 53 | 23 | 17 |
| **February-18** | 5445 | 5627 | 2190 | 15685 | -31 | 60 | -9 | 63 |
| **March-18** | 5387 | 5618 | 2151 | 15717 | -58 | -9 | -39 | 32 |
| **April-18** | 5385 | 5650 | 2095 | 15721 | -2 | 32 | -56 | 4 |
| **May-18** | 5334 | 5669 | 2045 | 15700 | -51 | 19 | -50 | -21 |
| **June-18** | 5296 | 5737 | 2023 | 15739 | -38 | 68 | -22 | 39 |
| **July-18** | 5258 | 5703 | 1970 | 15812 | -38 | -34 | -53 | 73 |
| **August-18** | 5211 | 5730 | 1971 | 15928 | -47 | 27 | 1 | 116 |
| **September-18** | 5212 | 5698 | 1912 | 15864 | 1 | -32 | -59 | -64 |
| **October-18** | 5267 | 5696 | 1849 | 15900 | 55 | -2 | -63 | 36 |
| **November-18** | 5185 | 5656 | 1798 | 15810 | -82 | -40 | -51 | -90 |
| **December-18** | 5150 | 5474 | 1704 | 15825 | -35 | -182 | -94 | 15 |
| **January-19** | 5124 | 5392 | 1657 | 15754 | -26 | -82 | -47 | -71 |
| **February-19** | 5167 | 5388 | 1652 | 15898 | 43 | -4 | -5 | 144 |
| **March-19** | 5164 | 5482 | 1602 | 15922 | -3 | 94 | -50 | 24 |
| **April-19** | 5078 | 5553 | 1572 | 15882 | -86 | 71 | -30 | -40 |
| **May-19** | 5048 | 5546 | 1528 | 15804 | -30 | -7 | -44 | -78 |
| **June-19** | 5073 | 5616 | 1553 | 15789 | 25 | 70 | 25 | -15 |
| **July-19** | 5120 | 5600 | 1524 | 15767 | 47 | -16 | -29 | -22 |
| **August-19** | 5104 | 5551 | 1506 | 15905 | -16 | -49 | -18 | 138 |
| **September-19** | 5086 | 5546 | 1506 | 15928 | -18 | -5 | 0 | 23 |
| **October-19** | 4985 | 5666 | 1555 | 15971 | -101 | 120 | 49 | 43 |
| **November-19** | 5016 | 5758 | 1546 | 15956 | 31 | 92 | -9 | -15 |
| **December-19** | 4911 | 5699 | 1571 | 15942 | -105 | -59 | 25 | -14 |
| **January-20** | 4871 | 5649 | 1572 | 15913 | -40 | -50 | 1 | -29 |
| **February-20** | 4653 | 5593 | 1544 | 15719 | -218 | -56 | -28 | -194 |

Source: Turkstat, Betam

Table 3 Seasonally unadjusted non-agricultural labor market indicators (in thousands) \*\*

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Non-Agricultural Labor Force** | **Non-Agricultural Employment** | **Non-Agricultural Unemployed** |
| **Feb-17** | 25728 | 21920 | 3808 |
| **Mar-17** | 25959 | 22403 | 3556 |
| **Apr-17** | 26068 | 22836 | 3232 |
| **May-17** | 26095 | 22911 | 3184 |
| **Jun-17** | 26134 | 22946 | 3188 |
| **Jul-17** | 26133 | 22736 | 3397 |
| **Aug-17** | 26234 | 22876 | 3358 |
| **Sep-17** | 26311 | 22943 | 3368 |
| **Oct-17** | 26351 | 23110 | 3241 |
| **Nov-17** | 26444 | 23218 | 3226 |
| **Dec-17** | 26360 | 23118 | 3242 |
| **Jan-18** | 26422 | 23066 | 3356 |
| **Feb-18** | 26494 | 23182 | 3312 |
| **Mar-18** | 26607 | 23441 | 3166 |
| **Apr-18** | 26754 | 23704 | 3050 |
| **May-18** | 26762 | 23658 | 3104 |
| **Jun-18** | 26951 | 23690 | 3261 |
| **Jul-18** | 26970 | 23491 | 3479 |
| **Aug-18** | 27213 | 23621 | 3592 |
| **Sep-18** | 27138 | 23474 | 3664 |
| **Oct-18** | 27227 | 23524 | 3703 |
| **Nov-18** | 27176 | 23290 | 3886 |
| **Dec-18** | 27085 | 22860 | 4225 |
| **Jan-19** | 27091 | 22540 | 4551 |
| **Feb-19** | 27278 | 22668 | 4610 |
| **Mar-19** | 27386 | 22977 | 4409 |
| **Apr-19** | 27321 | 23223 | 4098 |
| **May-19** | 27172 | 23096 | 4076 |
| **Jun-19** | 27298 | 23121 | 4177 |
| **Jul-19** | 27393 | 22873 | 4520 |
| **Aug-19** | 27522 | 22926 | 4596 |
| **Sep-19** | 27462 | 22958 | 4504 |
| **Oct-19** | 27599 | 23266 | 4333 |
| **Nov-19** | 27532 | 23292 | 4240 |
| **Dec-19** | 27420 | 23088 | 4332 |
| **Jan-20** | 27153 | 22890 | 4263 |
| **Feb-20** | 26710 | 22597 | 4113 |

Table 4: Seasonally adjusted non-agricultural labor force by gender (thousands)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Female Labor Force** | **Female Employment** | **Female Unemployed** | **Male Labor Force** | **Male Employment** | **Male Unemployed** |
| **February-17** | 7535 | 6086 | 1449 | 18252 | 16068 | 2184 |
| **March-17** | 7645 | 6173 | 1472 | 18351 | 16227 | 2124 |
| **April-17** | 7644 | 6179 | 1465 | 18423 | 16383 | 2039 |
| **May-17** | 7691 | 6231 | 1460 | 18434 | 16425 | 2009 |
| **June-17** | 7691 | 6249 | 1443 | 18456 | 16516 | 1940 |
| **July-17** | 7665 | 6214 | 1452 | 18447 | 16514 | 1934 |
| **August-17** | 7671 | 6246 | 1425 | 18505 | 16651 | 1855 |
| **September-17** | 7716 | 6300 | 1415 | 18508 | 16646 | 1862 |
| **October-17** | 7742 | 6386 | 1356 | 18488 | 16658 | 1831 |
| **November-17** | 7818 | 6477 | 1341 | 18542 | 16709 | 1833 |
| **December-17** | 7861 | 6530 | 1331 | 18558 | 16767 | 1791 |
| **January-18** | 7944 | 6600 | 1344 | 18605 | 16799 | 1806 |
| **February-18** | 7983 | 6619 | 1364 | 18624 | 16836 | 1787 |
| **March-18** | 7989 | 6617 | 1372 | 18642 | 16827 | 1815 |
| **April-18** | 8042 | 6635 | 1407 | 18716 | 16811 | 1905 |
| **May-18** | 8080 | 6648 | 1431 | 18739 | 16783 | 1956 |
| **June-18** | 8111 | 6655 | 1456 | 18869 | 16875 | 1994 |
| **July-18** | 8083 | 6623 | 1460 | 18887 | 16884 | 2003 |
| **August-18** | 8139 | 6671 | 1467 | 19003 | 16944 | 2058 |
| **September-18** | 8110 | 6655 | 1455 | 18944 | 16809 | 2135 |
| **October-18** | 8193 | 6727 | 1465 | 18906 | 16703 | 2203 |
| **November-18** | 8214 | 6720 | 1494 | 18886 | 16537 | 2348 |
| **December-18** | 8300 | 6716 | 1584 | 18757 | 16294 | 2463 |
| **January-19** | 8382 | 6702 | 1681 | 18708 | 16131 | 2577 |
| **February-19** | 8491 | 6728 | 1763 | 18792 | 16170 | 2621 |
| **March-19** | 8563 | 6789 | 1773 | 18852 | 16171 | 2681 |
| **April-19** | 8520 | 6747 | 1774 | 18920 | 16240 | 2680 |
| **May-19** | 8458 | 6708 | 1750 | 18902 | 16192 | 2710 |
| **June-19** | 8452 | 6702 | 1751 | 18959 | 16301 | 2657 |
| **July-19** | 8400 | 6658 | 1742 | 19057 | 16271 | 2787 |
| **August-19** | 8403 | 6650 | 1752 | 19043 | 16289 | 2753 |
| **September-19** | 8345 | 6633 | 1712 | 19015 | 16326 | 2689 |
| **October-19** | 8409 | 6688 | 1721 | 19048 | 16477 | 2570 |
| **November-19** | 8360 | 6658 | 1702 | 19079 | 16593 | 2486 |
| **December-19** | 8353 | 6638 | 1715 | 19024 | 16582 | 2443 |
| **January-20** | 8292 | 6674 | 1618 | 18868 | 16501 | 2367 |
| **February-20** | 8160 | 6632 | 1529 | 18578 | 16189 | 2389 |

Source: Turkstat, Betam

**Table 5: Seasonally adjusted LFPR, employment rate and non-agricultural unemployment rate (%)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **LFPR** | **Employment Rate** | **Non-agricultural unemployment rate** |
|  |
|  |
| **Feb-17** | 52,7 | 46,5 | 14,0 |
| **Mar-17** | 52,8 | 46,7 | 13,7 |
| **Apr-17** | 52,8 | 46,8 | 13,3 |
| **May-17** | 52,8 | 46,9 | 13,3 |
| **Jun-17** | 52,8 | 47,0 | 13,0 |
| **Jul-17** | 52,9 | 47,1 | 13,1 |
| **Aug-17** | 52,9 | 47,2 | 12,6 |
| **Sep-17** | 52,9 | 47,3 | 12,6 |
| **Oct-17** | 52,8 | 47,4 | 12,2 |
| **Nov-17** | 53,0 | 47,6 | 12,1 |
| **Dec-17** | 53,1 | 47,8 | 11,8 |
| **Jan-18** | 53,1 | 47,8 | 11,8 |
| **Feb-18** | 53,2 | 47,9 | 11,7 |
| **Mar-18** | 53,1 | 47,8 | 11,9 |
| **Apr-18** | 53,2 | 47,7 | 12,3 |
| **May-18** | 53,1 | 47,5 | 12,6 |
| **Jun-18** | 53,3 | 47,5 | 12,8 |
| **Jul-18** | 53,2 | 47,4 | 12,9 |
| **Aug-18** | 53,5 | 47,5 | 13,0 |
| **Sep-18** | 53,3 | 47,2 | 13,3 |
| **Oct-18** | 53,4 | 47,2 | 13,6 |
| **Nov-18** | 53,2 | 46,7 | 14,2 |
| **Dec-18** | 53,0 | 46,2 | 15,0 |
| **Jan-19** | 52,9 | 45,8 | 15,7 |
| **Feb-19** | 53,3 | 46,0 | 16,0 |
| **Mar-19** | 53,5 | 46,0 | 16,2 |
| **Apr-19** | 53,2 | 45,8 | 16,1 |
| **May-19** | 52,9 | 45,5 | 16,3 |
| **Jun-19** | 53,0 | 45,6 | 16,2 |
| **Jul-19** | 53,0 | 45,5 | 16,5 |
| **Aug-19** | 53,0 | 45,6 | 16,4 |
| **Sep-19** | 52,8 | 45,5 | 16,1 |
| **Oct-19** | 52,7 | 45,6 | 15,7 |
| **Nov-19** | 52,6 | 45,7 | 15,3 |
| **Dec-19** | 52,2 | 45,4 | 15,2 |
| **Jan-20** | 51,7 | 45,2 | 14,7 |
| **Feb-20** | 50,7 | 44,3 | 14,6 |

**Source: Turkstat**

**Table 6: Seasonally adjusted discouraged job-seekers, unemployed and sum of both**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Discouraged Job Seekers-SA** | **Unemployed-TurkStat-SA** | **Total (Discouraged Job Seekers + Unemployed)** |
| **Jan-19** | 548 | 4338 | 4886 |
| **Feb-19** | 562 | 4462 | 5024 |
| **Mar-19** | 548 | 4534 | 5082 |
| **Apr-19** | 588 | 4534 | 5122 |
| **May-19** | 610 | 4536 | 5146 |
| **Jun-19** | 624 | 4522 | 5146 |
| **Jul-19** | 626 | 4606 | 5232 |
| **Aug-19** | 623 | 4574 | 5197 |
| **Sep-19** | 654 | 4485 | 5139 |
| **Oct-19** | 696 | 4383 | 5079 |
| **Nov-19** | 726 | 4275 | 5001 |
| **Dec-19** | 776 | 4218 | 4994 |
| **Jan-20** | 836 | 4063 | 4899 |
| **Feb-20** | 998 | 3996 | 4994 |

Source: Turkstat, Betam

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2. 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. [↑](#footnote-ref-2)
3. 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. [↑](#footnote-ref-3)