Bahçeşehir Üniversitesi Ekonomik ve Toplumsal Araştırmalar Merkezi
Betam

Labor Market Outlook: June 2013

BAHÇEŞEHİR ÜNİVERSİTESİ

17 June 2013

Non-agricultural unemployment has been stagnating

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Abstract

Seasonally adjusted labor market data shows that unemployment rate increased from 11.6 percent in the period of February 2013 to 11.7 percent in the period of March 2013. Labor market statistics are pointing towards a new trend since October 2012. Increases in both non-agricultural labor force and non-agricultural employment have surpassed one million. Hence, non-agricultural unemployment rates continue to stagnate between 11.6 percent and 11.9 percent. Employment in manufacturing continues to increase consistently during the same period.

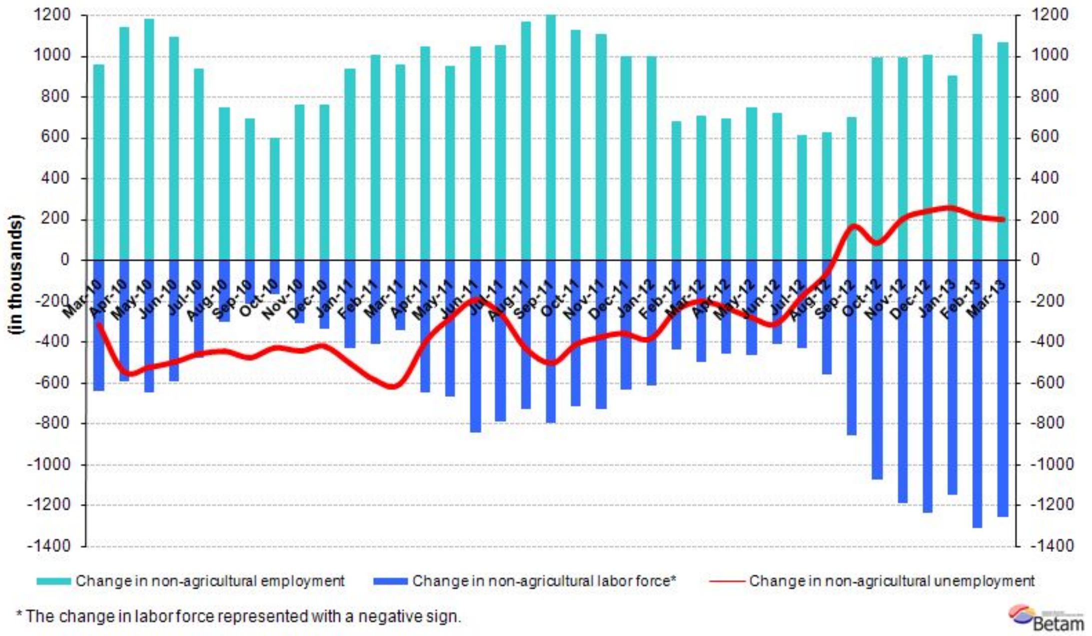
LABOR MARKET HIGHLIGHT

Industrial Map of Turkey

In order to maintain a high growth rate of per capita income and achieve convergence, Turkey needs to increase its share of manufacturing and decrease the share of agriculture in employment given that productivity is higher in manufacturing and lower in agriculture. We approach this topic from a regional perspective and study the regional distribution of employment in manufacturing. We find that many of the industrialized regions are clustered in the northwest. Trakya and Bursa-Bilecik-Eskişehir are the two most industrialized regions in Turkey. Gaziantep-Adıyaman-Kilis is an interesting exception. İzmir, Konya-Karaman and Kayseri-Sivas-Yozgat are moderate in terms of industrialization. Most of the least industrialized regions are in East Black Sea and East Mediterranean regions. Moreover, Central East and Southeast regions are generally even less industrialized. The least industrialized region is Van-Bitlis-Hakkari.

Both non-agricultural employment and non-agricultural labor force continue to increase

Figure 1 Year-on-year changes in non-agricultural labor force, employment and unemployment



Source: TurkSTAT, **Betam**

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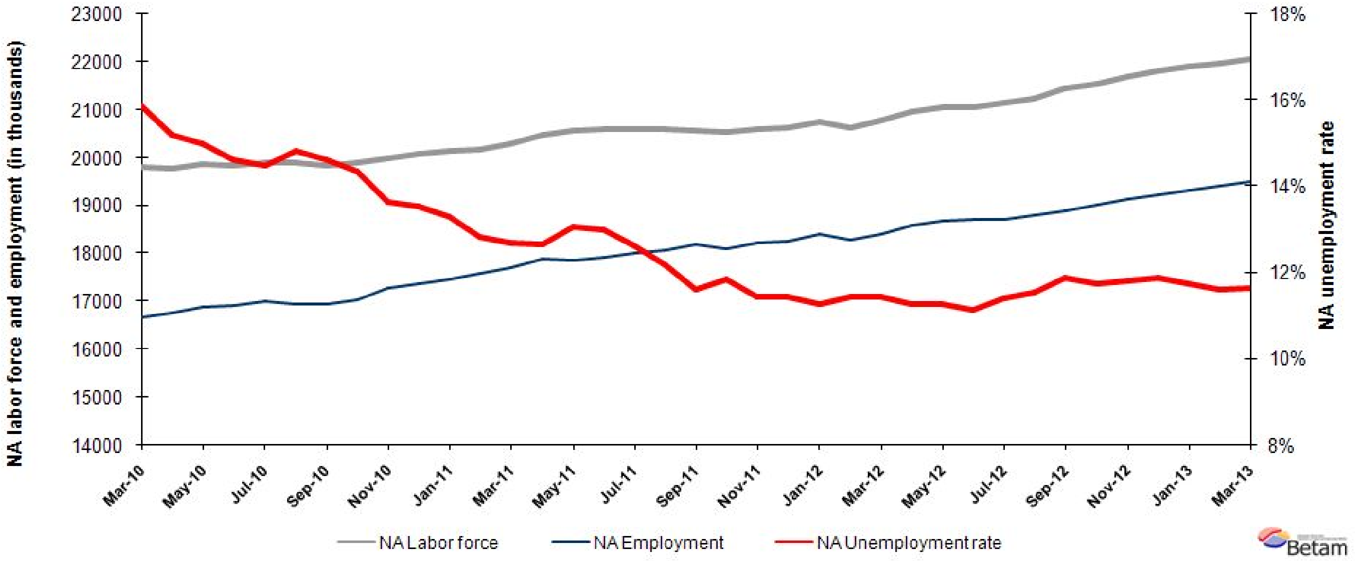
According to the data released by TurkSTAT, non-agricultural labor force increased by 1 million 258 thousand (6.1 percent) and non-agricultural employment increased by 1 million 62 thousand (5.8 percent) in the period of March 2013 (Figure 1). We observe that the increase in non-agricultural employment is about one million while the increase in non-agricultural labor force is about 1.2 million. Hence, non-agricultural unemployment rate continues to stagnate. Increases over one million of employment and labor force are both above trend and require deeper research.

Seasonally adjusted non-agricultural unemployment has been stagnating since September 2012

According to seasonally adjusted data, non-agricultural labor force increased by 91 thousand and reached 22 million 57 thousand in the period of March 2013 compared to the period of February 2013 (Figure 2, Table 1). Non-agricultural employment increased by 67 thousand and reached 19 million 486 thousand. Consequently, the number of persons unemployed in non-agricultural sectors decreased by 24 thousand and non-agricultural unemployment rate reached 11.7 percent. Non-agricultural labor market continues to stagnate. Non-agricultural unemployment rate has been moving within a tight band.

Figure 2 Seasonally adjusted non-agricultural labor force, employment and unemployment



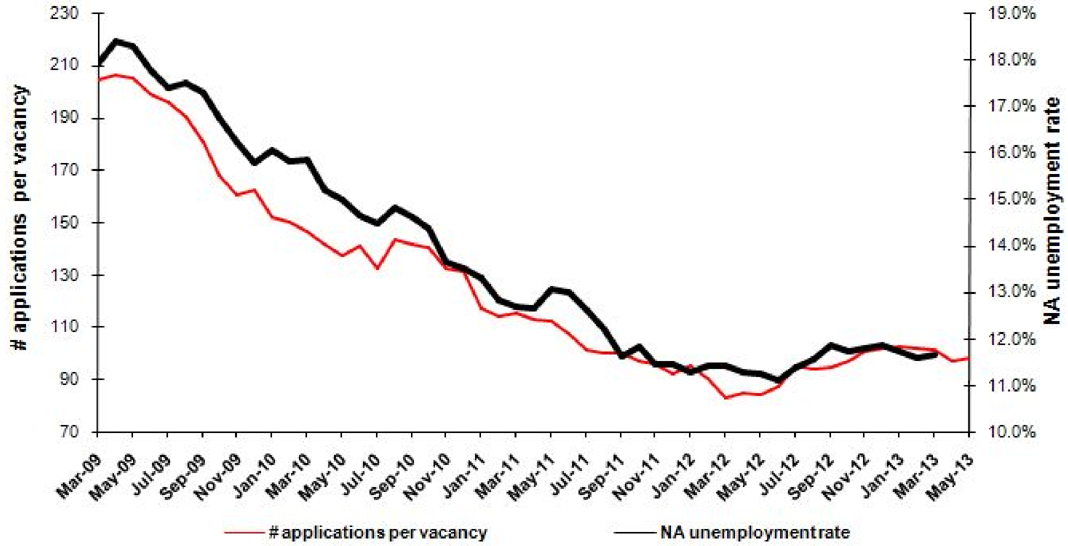
Source: TurkStat, **Betam**

According to Kariyer.net data, non-agricultural unemployment may decrease in the period of April 2013

Application per vacancy statistics calculated using Kariyer.net[1] series indicate that non-agricultural unemployment rate may decrease slightly in the period of April 2013. However, it is uncertain that whether the overall stagnation will come to an end.

[1] 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.

Figure 1 Seasonally adjusted non-agricultural unemployment rate and application per vacancy



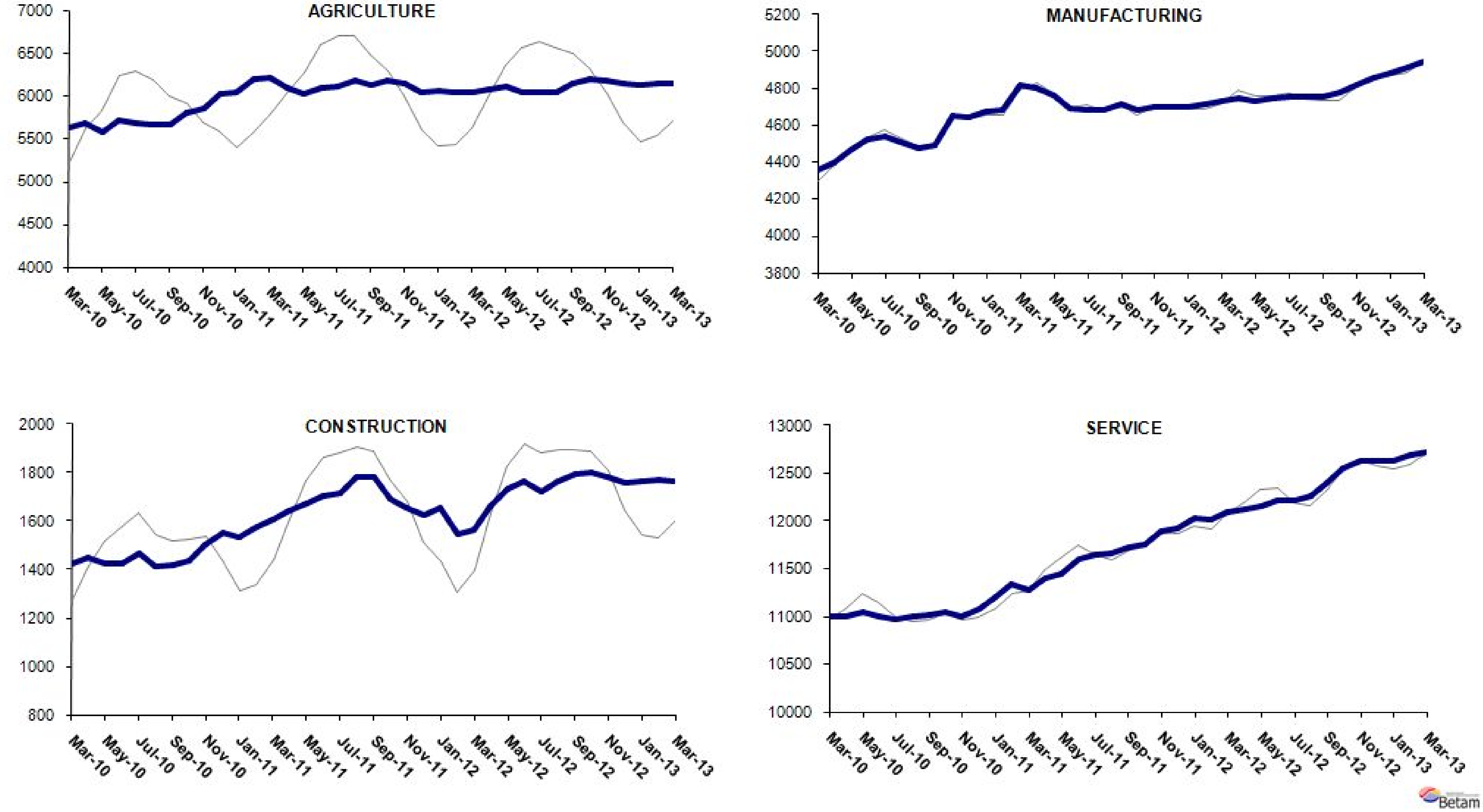
Source: Kariyer.net, TurkStat, **Betam**

Manufacturing employment continues to increase

Labor market series pertaining to March 2013 indicate that agricultural and construction employment continue to stagnate (Table 2, Figure 4).[2] On the other hand, employment in manufacturing and service increased by 38 thousand and 39 thousand respectively. Manufacturing employment continues to increase consistently since the last quarter of 2012. The average monthly increase in manufacturing is about 30 thousand since the last quarter of 2012.

[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.

Figure 2 Employment by sectors (in thousands)[3]



Source: TurkStat, **Betam**

[3] Grey lines indicate seasonally adjusted series, where dark blue lines represent raw data.

LABOR MARKET HIGHLIGHT

Map of Industrialization in Turkey

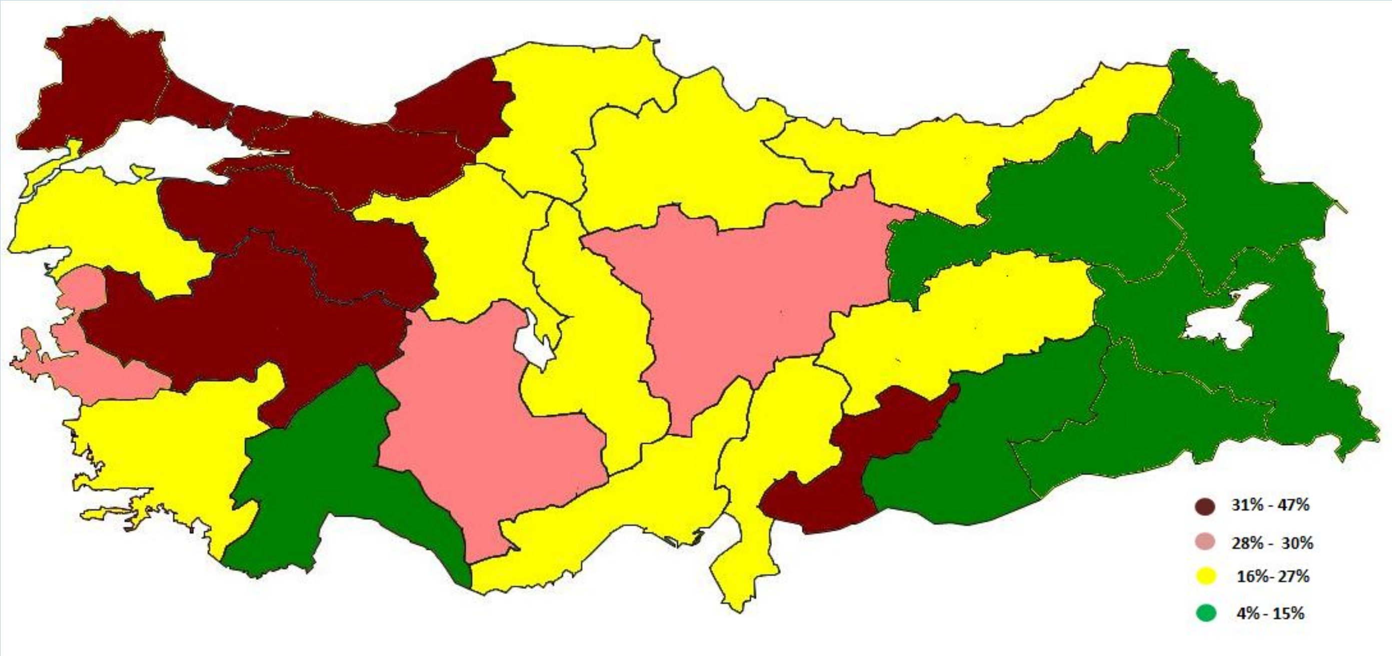
Turkey has not completed its industrialization yet. Historically, in countries that had started their industrialization earlier, we observe that the share of manufacturing in both GDP and employment, increased fast in what could be called a first phase. Moreover, industrialization begot productivity increases in agriculture, causing the share of agriculture in employment to fall in a parallel manner. In the second phase, the demand for services increased once the per capita income was high enough, and thus the share of services in the economy increased. Today, in countries where per capita income is over 30 thousand, the share of services in employment is 65-70 percent, the share of agriculture is 3-5 percent, and the share of manufacturing is 25-30 percent, (shares depending on their specific specialization in the global sphere). The respective shares in Turkey are 50 percent, 25 percent and 19 percent. These shares indicate that Turkey has skipped the first stage and entered the second phase directly when the share of services started to increase. This jump is not specific to Turkey, it is also observed in similar developing countries. However, the asymmetry is very clear in Turkey.

There is a wide consensus among economists that Turkey needs to increase the employment share of manufacturing, a sector where productivity increases are high, and to decrease the share of agriculture, where labor productivity is low, in order to increase per capita income and achieve convergence. However, exactly how it will be done remains open for discussion. We study the regional distribution of manufacturing to shed some light on this discussion. We also examine how the regional distribution changes over time. We focus on the share of wage employment in manufacturing in non-agricultural employment as a measure of industrialization. We would like to exclude the self-employed given that many of them are working as craftsman in manufacturing and we would like to focus on “modern” employment. We also choose to exclude agricultural employment from this analysis as agricultural employment differs widely across regions; moreover, the regional differences are not always caused by differences in development. For example, the share of agriculture in employment is high in East Black Sea and low in Southeast Anatolia. However, Southeast Anatolia is more developed that East Black Sea. Map 1 provides the shares of wage employment in manufacturing in non-agricultural employment by 26 NUTS2 regions in 2011.

The East-West conflict in Industrialization

The average share of wage employment in manufacturing in non-agricultural employment is 28.3 percent in Turkey in 2011. We form 4 groups of regions: first, highly industrialized regions (shares between 31-47 percent); second, regions with above average industrialization rates (28-30 percent); third, regions with below average industrialization rates (16-27 percent); fourth, regions with the lowest industrialization rates (4-15 percent). See Map 1. Note that the highly industrialized regions are clustered in the northwest. The most industrialized regions in Turkey are Trakya and Bursa-Bilecik-Eskişehir. Gaziantep-Adıyaman-Kilis region is an interesting exception. 3 regions have moderate industrialization rates: İzmir, Konya-Karaman and Kayseri-Sivas-Yozgat. There are 10 regions in the third group and most of them are in East Black Sea and East Mediterranean regions. It may seem surprising that Balıkesir-Çanakkale is in this group. The remaining 6 regions are in the fourth group, i.e. they have the lowest industrialization rates. As expected, all of these are in the Central East and Southeast Anatolia, except for Antalya. Remember that Antalya is the leader in tourism, and thus does not need to industrialize further. The lowest industrialization rate is 4.5 percent in Van-Muş-Bitlis-Hakkâri (Table 1). Note that the industrialization rate in Trakya is almost 10 times higher than that in Hakkari (46.3 percent and 4.5 percent respectively).

Map1: Industrialization levels by region (2011)

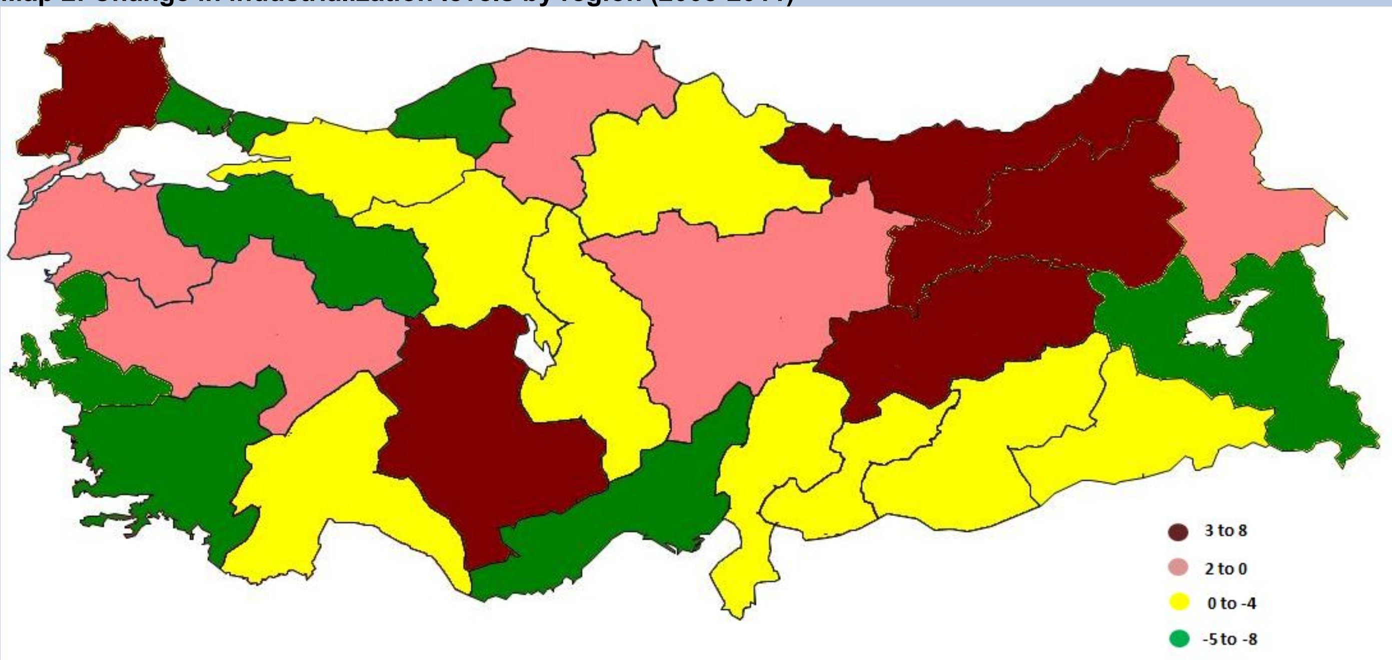


Source: Household Labor Force Survey; TurkStat, **Betam**

Improvement and Decline in Industrialization

There have been significant changes from 2005 to 2011 in terms of industrialization. Compared to 2005, some of the regions are more industrialized; some are less in 2011. First observe that the share of wage employment in manufacturing in non-agricultural employment has decreased by 3.4 percentage points from 31.6 percent to 28.3 percent. Taking this decline as benchmark, we form four new groups. 1) regions that increased their industrialization rates by 3 to 8 percentage points, 2) regions that increased their rates by 0 to 2 percentage points, 3) regions where the decrease in industrialization rates were the same as the overall change (0 to -4 percentage points), 4) regions where industrialization rates fell drastically (-5 to -8 percentage points).

Map 2: Change in industrialization levels by region (2005-2011)



Source: Household Labor Force Survey; TurkStat, **Betam**

Trakya is the most striking region in the first group. Trakya was in fourth place in terms of industrialization in 2005 with a rate of 38.5 percent, sharing its place with Izmir. However, Trakya managed to increase its industrialization rate to 46.3 percent in 2011 and became the most industrialized region in Turkey. The fact that Istanbul is saturated and the factories are shifting westward, may be the major cause of this strong increase. A decrease of 4.8 percent in Istanbul's industrialization rate during this period, confirms this intuition. Konya-Karaman, East Black Sea and Malatya-Elazığ are other regions in the first group. This is surprising, especially given that they still have low industrialization rates in 2011.

It is not surprising that Balıkesir-Çanakkale, Central West Anatolia (including Manisa), Kayseri and Samsun are in the second group. On the other hand, Northeast Anatolia (Ağrı-Kars-Iğdır-Ardahan) is interestingly also in this group. Note that the increase in the share of employment in manufacturing has been limited, i.e. from 8.6 to 8.9 percent in 6 years.

The third group has been stagnating in terms of industrialization. Kocaeli-Sakarya region seems to have reached a saturation point in industrialization. Bursa-Bilecik-Eskişehir stands out in the fourth group, in which regions had decreasing industrialization rates during the period under study. Bursa-Bilecik-Eskişehir was the most industrialized region in 2005 with a rate of 51.9. It has regressed back to 45 percent and to second place in 2011. This decline indicates that demand for services soared as income levels increased, just like in Istanbul. On the other hand, there was a fall in the industrialization rate in Van-Muş-Bitlis also. This region already had a low industrialization rate, and unfortunately it has declined by 7.8 percentage points.

Table A: Change in the share of wage earners in manufacturing employment in non-agricultural employment by region (2005-2011)

	2005			2011			
NUTS2 regions	Manufacturing employment	Non-agricultural employment	Manufacturing employment / Non-agricultural employment	Manufacturing employment	Non-agricultural employment	Manufacturing employment / Non-agricultural employment	2005-2011 (Percentage points)
TR10 (İstanbul)	1,177	2,880	40.9	1,239	3,441	36.0	-4.8
TR21 (Tekirdağ, Edirne, Kırklareli)	109	282	38.5	184	397	46.3	7.8
TR22 (Balıkesir, Çanakkale)	48	206	23.1	62	260	23.9	0.7
TR31 (İzmir)	277	719	38.5	292	965	30.3	-8.3
TR32 (Aydın, Denizli, Muğla)	124	400	31.1	119	524	22.8	-8.3
TR33 (Manisa, Afyon, Kütahya, Uşak)	141	385	36.7	171	460	37.1	0.4
TR41 (Bursa, Eskişehir, Bilecik)	401	772	51.9	410	913	45.0	-6.9
TR42 (Kocaeli, Sakarya, Düzce, Bolu, Yalova)	207	527	39.3	295	759	38.9	-0.4
TR51 (Ankara)	159	943	16.8	199	1,226	16.2	-0.6
TR52 (Konya, Karaman)	65	260	25.0	101	354	28.4	3.5
TR61 (Antalya, Isparta, Burdur)	58	427	13.6	51	501	10.2	-3.4
TR62 (Adana, Mersin)	121	502	24.1	118	662	17.9	-6.2
TR63 (Hatay, Kahramanmaraş, Osmaniye)	80	319	25.0	109	443	24.5	-0.4
TR71 (Kırıkkale, Aksaray, Niğde, Nevşehir, Kırşehir)	32	152	20.9	46	230	20.1	-0.7
TR72 (Kayseri, Sivas, Yozgat)	86	299	28.6	103	353	29.3	0.7
TR81 (Zonguldak, Karabük, Bartın)	68	169	40.2	58	180	32.3	-7.9
TR82 (Kastamonu, Çankırı, Sinop)	17	78	22.2	25	116	21.6	-0.6
TR83 (Samsun, Tokat, Çorum, Amasya)	62	303	20.4	89	421	21.3	0.8
TR90 (Trabzon, Ordu, Giresun, Rize, Artvin, Gümüşhane)	45	322	14.0	66	374	17.8	3.8
TRA1 (Erzurum, Erzincan, Bayburt)	8	94	8.7	17	138	12.0	3.3
TRA2 (Ağrı, Kars, Iğdır, Ardahan)	7	78	8.6	10	111	8.9	0.3
TRB1 (Malatya, Elazığ, Bingöl, Tunceli)	28	164	16.9	53	261	20.2	3.4
TRB2 (Van, Muş, Bitlis, Hakkari)	14	115	12.2	10	223	4.5	-7.8
TRC1 (Gaziantep, Adıyaman, Kilis)	106	272	38.9	130	358	36.3	-2.6
TRC2 (Şanlıurfa, Diyarbakır)	22	192	11.2	38	341	11.0	-0.2
TRC3 (Mardin, Batman, Şırnak, Siirt)	24	147	16.2	33	242	13.6	-2.6
Turkey	3,483	11,009	31.6	4,029	14,253	28.3	-3.4

Source: Household Labor Force Survey; TurkStat, **Betam**

Table 1 Seasonally adjusted non-agricultural labor force indicators (in thousands)

	Labor force	Employment	Unemployment	Unemployment rate	Monthly changes		
February-10	19673	16561	3111	15.8%	**Labor force**	**Employment**	**Unemployment**
March-10	19814	16672	3142	15.9%	141	111	30
April-10	19775	16768	3007	15.2%	-39	96	-135
May-10	19850	16877	2973	15.0%	75	109	-34
June-10	19824	16924	2900	14.6%	-26	47	-73
July-10	19881	17002	2879	14.5%	57	78	-21
August-10	19888	16941	2947	14.8%	7	-61	68
September-10	19841	16940	2901	14.6%	-47	-1	-46
October-10	19880	17026	2854	14.4%	40	87	-47
November-10	19993	17264	2729	13.6%	112	238	-125
December-10	20073	17358	2715	13.5%	80	94	-14
January-11	20130	17451	2679	13.3%	57	92	-36
February-11	20176	17588	2588	12.8%	46	137	-91
March-11	20288	17717	2571	12.7%	112	129	-16
April-11	20462	17871	2591	12.7%	173	154	19
May-11	20551	17869	2682	13.0%	89	-2	91
June-11	20585	17913	2672	13.0%	34	44	-10
July-11	20598	17998	2600	12.6%	13	85	-72
August-11	20589	18079	2510	12.2%	-9	81	-90
September-11	20576	18186	2390	11.6%	-13	107	-120
October-11	20524	18094	2430	11.8%	-52	-92	40
November-11	20587	18231	2356	11.4%	62	136	-74
December-11	20618	18258	2360	11.4%	31	27	4
January-12	20746	18409	2337	11.3%	129	152	-23
February-12	20630	18272	2358	11.4%	-116	-137	21
March-12	20787	18410	2377	11.4%	157	138	19
April-12	20950	18588	2362	11.3%	163	177	-15
May-12	21036	18668	2368	11.3%	86	81	6
June-12	21062	18719	2343	11.1%	25	51	-25
July-12	21129	18721	2408	11.4%	68	3	65
August-12	21243	18790	2453	11.5%	114	69	45
September-12	21433	18887	2546	11.9%	190	97	93
October-12	21535	19008	2527	11.7%	101	120	-19
November-12	21691	19129	2562	11.8%	156	121	35
December-12	21810	19222	2588	11.9%	119	93	26
January-13	21899	19329	2570	11.7%	89	107	-18
February-13	21966	19419	2547	11.6%	67	90	-22
March-13	22057	19486	2571	11.7%	91	67	24

Source: TurkStat, **Betam**

Table 2 Seasonally adjusted employment by sector (in thousands)

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
February-10	5664	4349	1373	10897	**Agriculture**	**Manufacturing**	**Construction**	**Service**
March-10	5624	4355	1426	10994	-40	6	53	97
April-10	5675	4397	1447	10998	52	42	21	4
May-10	5579	4470	1424	11050	-97	73	-23	52
June-10	5712	4524	1423	11006	134	54	-1	-44
July-10	5681	4538	1469	10968	-32	13	47	-38
August-10	5659	4509	1414	10997	-22	-28	-55	29
September-10	5655	4478	1416	11010	-5	-31	1	13
October-10	5792	4494	1437	11045	137	16	21	35
November-10	5847	4651	1506	11003	55	157	69	-42
December-10	6030	4643	1552	11071	184	-8	46	67
January-11	6040	4676	1534	11193	9	33	-17	123
February-11	6188	4685	1578	11339	149	9	44	146
March-11	6208	4820	1603	11283	20	135	25	-56
April-11	6087	4806	1640	11403	-121	-14	36	120
May-11	6025	4760	1676	11447	-62	-46	36	44
June-11	6085	4690	1706	11602	59	-70	30	155
July-11	6106	4684	1716	11652	22	-6	11	50
August-11	6185	4683	1780	11660	79	-1	64	8
September-11	6127	4712	1784	11730	-58	29	3	69
October-11	6169	4680	1688	11752	41	-32	-96	22
November-11	6148	4695	1654	11900	-21	15	-34	148
December-11	6048	4702	1622	11928	-100	7	-32	28
January-12	6059	4702	1656	12031	11	0	35	103
February-12	6044	4711	1546	12016	-15	9	-110	-15
March-12	6039	4732	1563	12098	-5	20	17	82
April-12	6071	4747	1660	12119	32	15	96	21
May-12	6115	4733	1735	12159	44	-13	75	40
June-12	6043	4750	1764	12209	-72	16	29	50
July-12	6043	4753	1719	12211	0	3	-44	2
August-12	6047	4756	1763	12257	4	3	44	46
September-12	6151	4756	1792	12393	103	0	28	135
October-12	6192	4775	1799	12548	41	19	7	155
November-12	6180	4818	1781	12628	-12	43	-18	80
December-12	6135	4858	1757	12628	-45	40	-24	0
January-13	6118	4885	1761	12637	-17	27	5	9
February-13	6149	4911	1770	12691	30	25	9	54
March-13	6136	4948	1766	12730	-12	38	-4	39

Source: TurkStat, **Betam**