

3. Human resources and social policies

KEPE, *Greek Economic Outlook*, issue 36, 2018, pp. 31-39

3.1. Recent developments in key labour market variables

Ioannis Cholezas

3.1.1. Introduction

This issue focuses on employment and, particularly, the rebound that has been recorded since 2014, which continued in the last quarter of 2017, at least on an annual basis. The topics discussed include the characteristics of the new jobs created and, especially, their geographic distribution, occupations and industries involved, the ethnic origin of employed individuals, the level of education attained, gender and age. Finally, the last section discusses the temporary increase in the unemployment rate reported in the last quarter of 2017, which, nevertheless, does not seem to compromise positive employment prospects.

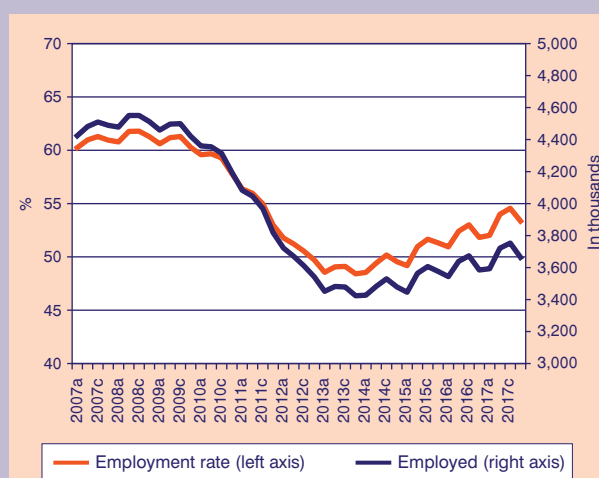
3.1.2. Employment

In the fourth quarter of 2017 the employment rate of individuals aged 15-64, which equals the ratio of the employed to the total population in the respective age band, was 53.4%. Thus, approximately eleven out of twenty individuals were employed or, in other words, there were 3.66 million employed individuals. This means that there were fewer employed compared to the third quarter of the year by 88.8 thousand individuals, probably due to the seasonal variation of employment. On the other hand, there were more employed compared to the same quarter in 2016 by approximately 79.1 thousand individuals. Therefore, on an annual basis the number of employed people continued to increase.

The employment rate typically was not this low (see Graph 3.1.1), although it always fell short of employment rates in other European countries. Note that the employment rate in Greece for individuals aged 15-64 has been fifteen percentage points lower than the EU average over the past few years, according to

Eurostat. Note also that before the crisis erupted, the gap between Greece and the European average, with respect to the employment rate, was down to approximately five percentage points. In the fourth quarter in 2008 the employment rate was 61.3% and there were 4.51 million employed individuals in Greece, when the EU average was 65.6%. The economic downturn, coupled with austerity policies, pushed the employment rate lower very fast and expanded the differential with the other European countries. In the fourth quarter in 2013, almost 3.42 million individuals were employed and the employment rate reached 48.4%, which is the lowest rate over the past few years. Consequently, within five years some 1.1 million jobs were destroyed (2008-2013), while in the following four years –due to the weak growth rate– barely 240.2 thousand jobs were created (2013-2017), which is less than a quarter of the jobs lost. It becomes obvious then that the rate of job creation falls short of the rate of job destruction, which suggests that creating new jobs is neither an easy nor a simple task. In accordance with the arguments in the previous issue of *Greek Economic Outlook*, new jobs are very different than those they replace in many qualitative characteristics that have to do with working hours, job contract duration, etc.

GRAPH 3.1.1
Number of the employed and the employment rate



Source: Labour Force Survey, ELSTAT, KEPE processing.

The type of new jobs created since 2014 is important. Therefore, it is interesting to look into their characteristics. It is often argued, for instance, that the recovery of the economy should be based on the transformation of the production base. But if the new jobs are mostly created in traditional industries, e.g. agriculture and trade, then the growth process is not going as wished. Likewise, if the new jobs are occupied by graduates from the lower levels of education and/or immigrants and/or unskilled workers, then this is likely to be a sign that the value added of goods and services to be produced could be considerably enhanced, given that it is probably based on cheap labour. Moreover, if the new jobs are occupied primarily by males or mature individuals, then we are not making good enough use of the female and youth labour force. In other words, these two groups do not contribute to the growth of the economy as much as they should. Furthermore, if a big share of the increase in employment is fueled by the increase in self-employment, then the economy probably does not create as many paid employment jobs as it should or small firms are being established. The thing is that such firms will most likely find it difficult to survive once they enter the highly competitive international, or even European, business environment.

Other parameters may also lead to differential results of which policy-makers should be aware.

Table 3.1.1 breaks down the increase in employment in period 2013d-2017d according to various individuals attributes. The first attributes are gender, age, education and citizenship. Note that a wider definition for youth is adopted, in order to include individuals aged 15-29. We strongly feel that integration problems facing youth entering the labour market for the first time are mostly due to the lack of work experience rather than age. Therefore, it is considered crucial to include tertiary education graduates in the group of youth.

The number of employed men increased during period 2013d-2017d by 135.8 thousand people. This equals a 6.6% increase and falls short of the respective increase in the number of employed women. As a result, the employment rate of men increased by four percentage points and that of women by three percentage points, leading to the widening of the gender differential. Therefore, the increase in employment is unbalanced and favours men. Likewise, the increase in the number of the employed aged 30-64 is almost twice as big compared to the increase in employed youth (7.5% vs. 4%). During period 2013d-2017d the

TABLE 3.1.1 Changes in the number of employed according to specific attributes

	2013d-2017d		Employment rate		
	Change (in thousands)	Change (%)	2013d	2017d	Change (per. points)
Total	256.4	7.4	37.4	40.8	3.4
Men	135.8	6.6	45.6	49.4	3.8
Women	120.6	8.4	29.7	32.7	3.0
Youth (15-29)	17.7	4.0	25.3	28.5	3.2
Mature (30-64)	222.5	7.5	56.0	61.1	5.1
PhD or Master Degree	53.2	39.0	71.8	78.1	6.3
University Degree	45.8	6.5	59.6	60.0	0.4
Higher Technical Vocational Education*	148.4	23.6	54.4	60.6	6.2
Lyceum	127.2	10.9	40.2	44.0	3.8
Gymnasium	-1.3	-0.4	30.0	30.2	0.2
Primary or less	-117.0	-22.9	18.5	16.8	-1.7
Greek citizenship	316.6	9.8	36.9	40.5	3.6
Foreign citizenship	-60.2	-23.8	46.3	47.4	1.1

Source: Labour Force Survey, ELSTAT, KEPE processing.

* Higher Technical Vocational Education includes graduates from post-secondary non-tertiary education (IEK) and TEI graduates.

Note: Italics represent changes bigger than the country average.

employment rate went up for both age groups, but more so for the 30-64 group; their employment rate increased by more than five percentage points. Bear in mind that the increase in youth employment is much weaker, despite active labour market policies targeted at youth. It is likely that without these targeted policies youth would be worse off. Nevertheless, assessing their effectiveness and results would be welcome.

People are becoming increasingly better educated in every country of the world that has a positive growth record. Technology is an important driving factor. The presence of a skilled labour force, i.e. human capital of good quality, is a crucial input in the process of technological development and at the same time a skilled labour force fuels this development. It is also well established that the level of education is one of the two key components of human capital. The other one is work experience. In this context, it is interesting to note that the number of employed individuals holding a PhD and/or a Master degree exhibited a 40% increase during period 2013d-2017d, which is the biggest increase amongst education groups and corresponds to 53 thousand new jobs, i.e. 20% of total new jobs. It would come as no surprise if it turned out that a large part of the increase is due to lowering wages of this group, which made them even more attractive for high skilled jobs. Another interesting fact is that the number of employed technical vocational education graduates exhibited the second biggest increase. Coupled with the significance attached to technical vocational education in the country, this observation becomes even more important. If we further add the weak increase in the number of employed university graduates, which falls short even of the increase in the number of employed lyceum graduates, there seems to be signs pointing to the conclusion that the labour market is transforming in ways that unexpectedly benefit certain education groups over others. Nevertheless, a clear view can only come from the detailed examination of the matching quality between graduates and jobs. Lastly, the employment rate increases with education, which shows that education does improve employment prospects, at least until now. Note that

employment prospects got worse for graduates from the two bottom levels of education over the past four years, despite the overall increase in the number of the employed.

Another thing that is different compared to the recent past is the reduction in the number of employed foreign citizens during period 2013d-2017d who are mostly employed in low skilled or unskilled jobs, like some agricultural or construction related tasks.¹ The phenomenon is partly due to the linguistic difficulties facing foreigners in the Greek labour market and the low value attached to degrees awarded abroad. In any case, the reduction in the number of foreign citizens, while in the meantime the number of the employed increases (note that the number of employed natives increased by approximately 10%), may be attributed to the reduction of employment opportunities for the specific population group. The fact that there are fewer foreigners² nowadays does not diminish the importance of this observation, but rather reinforces it. The reader should recall that the main cause for migration in the past was finding a job,³ which is probably why migrants typically have a higher employment rate than natives.

It is also interesting to look into the geographical distribution of the increase in the number of the employed. Table 3.1.2 consists of two parts. The first one presents the geographical distribution based on the degree of urbanity. In period 2013d-2017d the area around the capital city suffered from a 3.6% loss of jobs, which means that approximately 42 thousand jobs were lost. On the contrary, in the rest of the country new jobs were created. The biggest relative increase was recorded in Thessaloniki (22.4%), while the rest of the urban areas followed closely. Nevertheless, it should be noted that Thessaloniki exhibited the biggest decrease in the number of the employed in the previous period, i.e. 2008d-2013d.⁴ The smallest increase in the number of employed individuals was recorded in rural areas, but compared to Thessaloniki, they also exhibited a smaller decrease in the previous period. Therefore, it seems that in both cases, changes in the number of the employed in period 2013d-2017d counterbalanced movements that took place before, when the number

1. It is estimated that in the mid-2000s the one out of four foreign citizens was employed in construction, while one out of ten of those working in agriculture was a foreign citizen. See Cholezas, I. and P. Tsakloglou (2009), "The economic impact of immigration in Greece: taking stock of the existing evidence", *Southeast European and Black Sea Studies*, 9(1-2), pp. 77-104.

2. The interested reader can verify the claim by looking at ELSTAT's labour force data. It turns out that the number of migrants in the labour force declined between 2013 and 2017 by over 25%.

3. See Cholezas, I. and P. Tsakloglou (2009). Ibid.

4. The respective data are not presented here due to space constraints, but they are available by ELSTAT.

of the employed decreased. These facts suggest that the reduction in the number of the employed in the capital is more serious than originally thought, since it is the only area in which the number of the employed falls consistently for almost a decade. As a result, in the last quarter of 2017 semi-urban areas are the ones with the biggest employment rate. Note also that the smallest employment rate is typically reported in Thessaloniki.

Turning to the second part of Table 3.1.2, it is clear that the increase in the number of the employed is not equally distributed across regions. The first observation is the reduction in the number of the employed in the Ionian Islands, despite the increase reported in the

rest of the regions. The biggest increase is recorded in West Macedonia, followed by Continental Greece, the Peloponnese and East Macedonia & Thrace. There is a weak increase in the number of the employed in Attica, the North Aegean Islands and Epirus (4% or less). Note that during the downturn in employment, the number of the employed reduced the least in the North Aegean Islands and the most in Central Macedonia. Therefore, in the former, the number of the employed is less sensitive to economic conditions, while in the latter, it seems more sensitive. Attica, on the other hand, seems extremely sensitive to the worsening of economic circumstances in terms of employment, but it is less sensitive during the period of upturn.⁵ The Ionian Islands are a special case

TABLE 3.1.2 Change in the number of employed individuals by degree of urbanity and region

	2013d-2017d		Employment rate		
	Change (in thousands)	Change (%)	2013d	2017d	Change (per. points)
Capital	-41.9	-3.6	39.2	41.7	2.5
Thessaloniki	57.3	22.4	33.1	38.8	5.7
Other urban areas	151.8	17.2	37.0	40.7	3.7
Semi urban	69.3	15.9	37.5	42.1	4.6
Rural	19.8	2.7	36.9	39.5	2.6
East Macedonia & Thrace	19.4	10.3	36.3	40.8	4.5
Central Macedonia	84.3	15.4	34.1	39.4	5.3
West Macedonia	5.6	7.1	32.7	36.0	3.3
Epirus	4.1	4.0	34.4	36.5	2.1
Thessaly	22.1	9.5	37.2	41.0	3.8
Ionian Islands	-5.9	-8.2	41.0	38.2	-2.8
West Greece	17.4	8.7	34.6	37.9	3.3
Continental Greece	20.7	12.3	35.3	39.9	4.6
Attica	41.7	3.2	39.1	41.5	2.4
Peloponnese	19.9	10.6	39.6	44.3	4.7
North Aegean	2.5	3.8	38.2	41.3	3.1
South Aegean	6.0	5.1	42.0	44.8	2.8
Crete	18.7	8.9	40.8	43.9	3.1

Source: Labour Force Survey, ELSTAT, KEPE processing.

Note: Italics represent changes bigger than the country average.

5. At this point it should be noted that the capital city is different than Attica, since the latter is much wider. Therefore, the reduction in the number of the employed in the former is not at odds with the increase in the number of the employed in the latter, since the difference can be attributed to areas outside Athens, but within Attica. More specifically, Athens exhibits a reduction in the number of the employed over the past four years.

TABLE 3.1.3 Change in the number of the employed by type of employment

	2013d-2017d		Employment composition	
	Change (in thousands)	Change (%)	2013d	2017d
Entrepreneurs	59.0	26.3	6.5	7.6
Self-employed	-37.5	-4.2	25.5	22.7
Employees	256.3	11.6	63.3	65.8
Assistant in family business	-21.3	-12.9	4.7	3.8

Source: Labour Force Survey, ELSTAT, KEPE processing.

on their own which should be more thoroughly investigated, in order to explain the continuous reduction in the number of the employed. Interestingly, the biggest employment rate was reported in the South Aegean Islands, the Peloponnese and Crete.

Another interesting fact is the type of employment of new employed individuals. Table 3.1.3 suggests that two types of employment increased and another two decreased during the past four years. More specifically, the number of entrepreneurs, i.e. self-employed with personnel, exhibited the biggest increase in period 2013d-2017d, followed by employees. On the contrary, the number of assistants in family businesses decreased the most, followed by the self-employed. The shares of each group increased or decreased accordingly. Moreover, it seems that the Greek economy converges to European standards which are characterised by a bigger share of employees and smaller shares of the remaining groups.⁶ Note that the share of employees in the EU28 was 85.6% in 2017d, while the share of self-employed individuals did not exceed 10%; the share of assistants in family businesses barely reached 1% over the past years, while entrepreneurs typically accounted for 4% of all the employed. Nevertheless, it should be made clear that employees are the group that is farthest away from its pre-crisis level.

In previous issues of the *Greek Economic Outlook*, it was made clear that the consequences of the crisis did not spread equally across industries. The recovery that started back in 2014 has similar characteristics in

the sense that some industries perform significantly better than others. In the past four years, most new jobs were created in the industry *Accommodation and food service activities* (more than 74 thousand jobs). *Wholesale and retail trade, etc.* and *Manufacturing* followed closely. Nevertheless, these industries are the biggest in the Greek economy (in terms of number of employed) and, thus, their sizeable contribution is, to some extent, expected. Taking size into account, it turns out that the number of employed individuals increased relatively more in *Mining and quarrying* and *Real estate property management*. The only issue is that these industries employ few individuals and, thus, the sample data may not be accurate. There is not a similar issue, though, for the industries of *Administrative and support activities* and *Hotels and restaurants service activities*, which exhibit a 30% increase in the number of the employed.

So far, tourism seems to be responsible for increasing employment over the period examined, both in relative and absolute terms. On the other hand, given that the demand for tourism services comes primarily from abroad, there are factors that can be only partially influenced by a single country's policies. Contrary to tourism, other industries shrank and continue to do so. For example, the number of employed individuals in *Agriculture, forestry and fishing* decreased by 26 thousand (5.4%), while in *Construction* the decrease in the number of the employed that started in 2008 still continues. At this point it seems noteworthy to refer to the industry of *Household activities as employers*,

6. Recall that in 2017 the self-employed with one or two employers were reclassified in the social security system as employees by Law 4387/2016. That may have driven the share of the employees upward. Nevertheless, the reform seems to have adapted to the labour market's practices, since this group of employed individuals were called quasi employees, i.e. they were not actually self-employed, and it was argued that Greece exhibited a big share of self-employed due to this group of employed individuals. This could be true as long as interviewees reported the change in their status, since LFS relies on their answers.

TABLE 3.1.4 Change in the number of the employed by industry

	2013d-2017d		Employment composition	
	Change (in thousands)	Change (%)	2013d	2017d
Agriculture, forestry and fishing	-25.8	-5.4	13.8	12.1
Mining and quarrying	3.0	34.1	0.3	0.3
Manufacturing	42.5	13.3	9.2	9.7
Electricity, gas, steam and air conditioning supply	1.7	5.8	0.8	0.8
Water supply; sewerage, waste management and remediation activities	5.0	21.0	0.7	0.8
Construction	-9.3	-6.1	4.4	3.9
Wholesale and retail trade; repair of motor vehicles and motorcycles	67.7	11.0	17.7	18.3
Transportation and storage	15.6	8.9	5.0	5.1
Accommodation and food service activities	74.2	29.5	7.2	8.7
Information and communication	14.0	18.4	2.2	2.4
Financial and insurance activities	-15.9	-15.1	3.0	2.4
Real estate activities	1.0	31.3	0.1	0.1
Professional, scientific and technical activities	12.9	6.6	5.6	5.6
Administrative and support service activities	20.5	31.2	1.9	2.3
Public administration and defence; compulsory social security	-1.1	-0.3	9.4	8.8
Education	12.2	4.3	8.1	7.9
Human health and social work activities	32.2	15.4	6.0	6.5
Arts, entertainment and recreation	4.2	9.2	1.3	1.3
Other service activities	18.1	28.2	1.8	2.2
Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	-16.1	-33.1	1.4	0.9
Activities of extraterritorial organizations and bodies	0.2	12.5	0.0	0.0

Source: Labour Force Survey, ELSTAT, KEPE processing.

since, despite the small number of the employed, it typically employs more foreign citizens. The decrease in the number of the employed reported is in accordance with the reduction in foreign citizens discussed in Table 3.1.1.

To sum up, employment expanded in some industries and shrank in others, causing changes in employment shares. Nevertheless, in either case, state policies should be suitable. In the first case, they should

support those losing their job and accommodate their transition to a new job⁷. In the second case, they should refrain from actions that could jeopardise the favourable course so far, but at the same time make sure that employers fully comply with the tax regime and labour laws.

Table 3.1.5 presents the occupations which exhibited an increase in the number of the employed. *Managers* suffered the biggest decrease, which exceeded 40%.

7. Note that those who leave work are not automatically classified as unemployed, since they may retire, look for a job abroad or even drop out of the labour force (especially when alternate sources of income are available).

TABLE 3.1.5 Change in the number of the employed by occupation

	2013d-2017d		Employment composition	
	Change (in thousands)	Change (%)	2013d	2017d
Managers	-73.5	-42.4	5.0	2.7
Professionals	50.6	7.4	19.7	19.7
Technicians and associate professionals	19.3	7.1	7.8	7.8
Clerical support worker	60.9	17.9	9.8	10.7
Services and sales workers	163.1	23.1	20.3	23.2
Skilled agricultural, forestry and fishery workers	-30.5	-6.8	12.9	11.2
Craft and related trades workers	2.5	0.7	9.7	9.1
Plant and machine operators and assemblers	36.4	16.6	6.3	6.9
Elementary occupations	27.9	12.1	6.6	6.9
Other	-0.3	-0.5	1.9	1.8

Source: Labour Force Survey, ELSTAT, KEPE processing.

Given that the overall number of employed individuals increased, the reduction in the number of those at the top of the administrative hierarchy, although it seems relevant to cutting cost, it entails risks for the future, as long as it cannot be attributed to firms closing down, but to a firm choice. The second biggest reduction involves those working as *Skilled agricultural, forestry and fishery workers*, which seems to be in accordance with the reduction reported earlier in *Agriculture, forestry and fishing*, although much smaller in size. The number of the employed increased in the remaining occupational groups over the past four years. The biggest increase is reported for those employed in *Services and sales workers*, *Clerical support worker* and *Plant and machine operators and assemblers*. The first two groups seem to be at odds with the increase in the number of graduates from technical vocational education discussed earlier. But, there is reason to discard the possibility that these hires involve sizable mismatching, i.e. they are hired to do jobs that require a different set of skills. A safer conclusion can be reached only if richer data are analysed.

Moreover, it seems that the strongest increases in the number of the employed are reported in industries that could be termed “labour intensive”. Although that means more jobs, at the same time it could prove problematic in the future, since it does not seem to

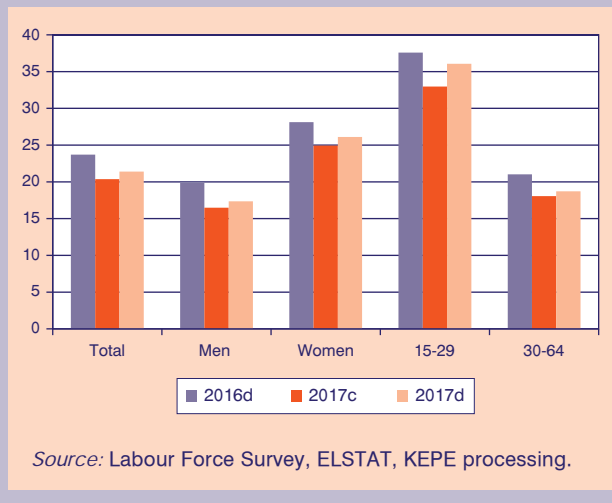
align with increasing the economy’s competitiveness through innovation and technological development, both of which can create sustainable jobs. Therefore, it would be desirable to increase the pace of creating new jobs in the capital intensive industries through shaping a suitable economic and business environment, in order to attract domestic and foreign investment. To that end, collaboration between the government and the social partners would be necessary.

3.1.3. Unemployment

The decrease in the number of the employed reported in the last quarter of the year due to seasonal variation was accompanied by an increase in the unemployment rate to 21.4% for individuals aged 15-64. Compared to the same quarter in 2016, the number of the unemployed decreased by 116 thousand and reached 997.8 thousand. In particular, on an annual basis, unemployed men decreased by 67.3 thousand and unemployed women decreased by 49.8 thousand. Moreover, unemployed youth aged 15-29 decreased by 25.3 thousand, while the unemployed aged 30-64 decreased by 90.7 thousand over the past year. Thus, the reduction in the number of the unemployed is mostly due to the reduction of unemployed men (share: 57%) and individuals aged 30-64 (77%).⁸

8. Note that a person can be a member of both groups.

GRAPH 3.1.2
Unemployment rate for selected population groups

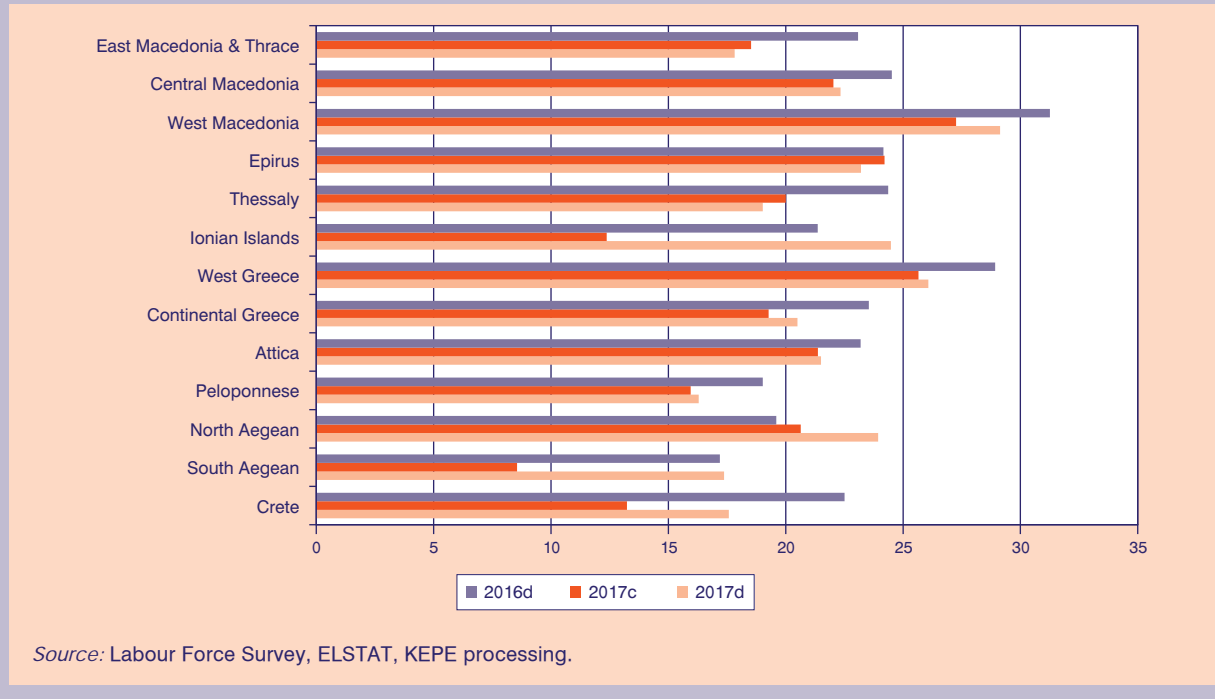


On a quarterly basis, the number of the unemployed increased by 37.4 thousand, when last year the increase had been marginally over 31 thousand. This means that unemployment increased more this year due to seasonality. Indeed, a thorough look at the data reveals that this year's bigger increase is due to the bigger increase in the number of unemployed females (than men) compared to last year, i.e. the number of unemployed women increased by 3.5% this

year compared to 1.8% last year. To sum up, despite the bigger seasonal increase in the unemployment rate in the last quarter of 2017, it seems that on an annual basis the downward trend of the unemployment rate still holds, which is encouraging for the labour market prospects.

Unemployment did not change uniformly across the country. Graph 3.1.3 shows that the number of the unemployed decreased on an annual basis in almost all regions. The North Aegean Islands, the Ionian Islands and the South Aegean Islands are exceptions to the rule. Recall that the North Aegean Islands are facing unusual circumstances due to the increased inflow of refugees; thus, it would come as no surprise if part of the unemployment increase was fueled by the fall in tourism activity due to refugee inflows. In defense of the argument, note that in the last quarter of the year the unemployment rate for individuals over 15 years of age in the North Aegean increased by 3.3 percentage points, when in other tourism-dependent regions the increase was much bigger. This fact shows that the North Aegean exhibited a smaller sensitivity to seasonal variation than other similar regions. To further demonstrate this point, note that the unemployment rate increased by 8.8 percentage points in the South Aegean Islands and by 12.1 percentage points in the Ionian Islands. Moreover, on an annual basis, the unemployment rate in the South Aegean

GRAPH 3.1.3
Unemployment rate by administrative region



Islands increased by 4.3 percentage points. The respective figure in the Ionian Islands is 3.1 percentage points. The evolution of the unemployment rate in the Ionian Islands is hard to explain, since there are no obvious excuses like in the case of the North Aegean. On the other hand, the unemployment rate decreased significantly in East Macedonia & Thrace and in Thessaly. The reduction equals 24.2% fewer unemployed

individuals in the former (14.4 thousand) and 21.4% fewer unemployed individuals in the latter (16.3 thousand). In Attica, where half of the country's population resides, the de-escalation of the unemployment rate was weak in the past year; it fell by nearly 1.7 percentage points. Nevertheless, due to its size, this reduction is responsible for about 1/3 of the country-wide decrease in the number of the unemployed.