HELLENIC REPUBLIC
HELLENIC STATISTICAL AUTHORITY

Piraeus, 7 September 2017

PRESS RELEASE

LABOUR FORCE SURVEY: June 2017

The Hellenic Statistical Authority (ELSTAT) announces the seasonally adjusted unemployment rate for June 2017.

- The **seasonally adjusted unemployment rate** in June 2017 was **21.2%** compared to 23.5% in June 2016 and the downward revised 21.5% in May 2017. The number of employed in June 2017 amounted to 3,775,939 persons. The number of unemployed amounted to 1,017,127 while the number of inactive to 3,220,317. The corresponding figures for June 2012 to 2017 are presented in Table 1.
- The **number of employed persons** increased by 87,099 persons compared with June 2016 (a 2.4% rate of increase) and by 16,857 persons compared with May 2017 (a 0.4% rate of increase).
- The **number of unemployed persons** decreased by 115,943 persons compared with June 2016 (a 10.2% rate of decrease) and by 13,867 persons compared with May 2017 (a 1.3% rate of decrease).
- The **number of inactive persons,** i.e., persons that neither work neither look for a job, decreased by 6,599 persons compared with June 2016 (a 0.2% rate of decrease) and by 5,768 persons compared with May 2017 (a 0.2% rate of decrease).

Seasonal adjustment is a statistical technique that removes the seasonal component of a time series, making more visible the underlying trend in the change of a characteristic. Users should take into account the fact that seasonal adjustment procedure requires data for many months in order to remove the seasonal component from a time series. As a result, several “observations” (that is a sufficient number of monthly results) are necessary so that the time series reflect a significant change in the trend of employment and unemployment.

The monthly estimates for the number of employed, unemployed and unemployment rate can be subject to revisions in the following months caused by updates to the seasonally adjusted series whenever new monthly data are added, inclusion of the most recent quarterly Labour Force Survey (LFS) data and update of seasonal adjustment model with complete annual data.

Users should also take into account that the first estimates of the most recent monthly unemployment rates are likely to be revised as they are produced with the collected and processed at the time of the press release survey data, which do not coincide with the finally collected and processed sample of the survey. For that reason monthly estimates are revised when the final quarterly estimates are known.

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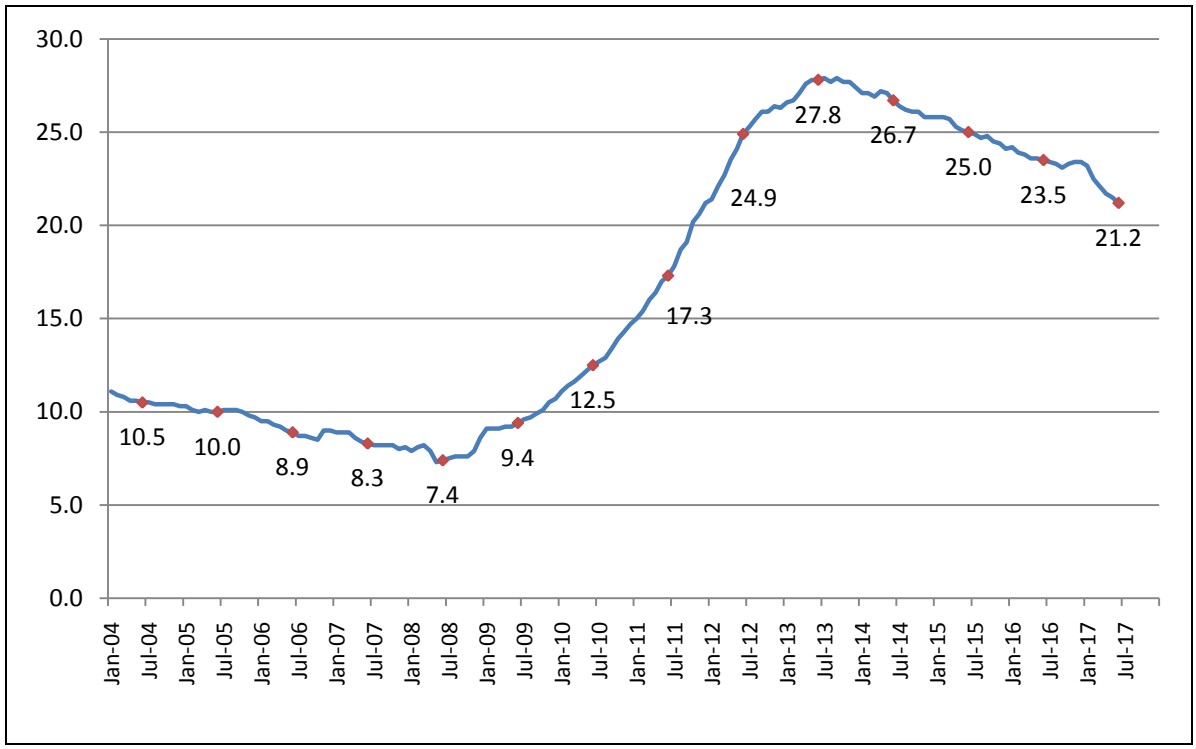
Table 1: Employed, unemployed, economically non-active persons and unemployment rate, June 2012 – 2017

	June					
	2012	**2013**	**2014**	**2015**	**2016**	**2017**
Employed	3,674,630	3,506,509	3,543,277	3,610,310	3,688,840	3,775,939
Unemployed	1,220,597	1,351,200	1,292,136	1,200,480	1,133,070	1,017,127
Inactive	3,354,105	3,327,876	3,301,454	3,276,972	3,226,916	3,220,317
Unemployment Rate	**24.9**	**27.8**	**26.7**	**25.0**	**23.5**	**21.2**

Graph 1: Unemployment rate by month, June 2004 – June 2017



The values of the curve refer to June of every year

Tables 2 and 3 illustrate unemployment rate by gender and age groups from June 2012 to 2017. Table 4 presents the evolution of unemployment rate during last 15 months by Decentralized Administrations. The complete time series for employed, unemployed, inactive and unemployment rate are available on ELSTAT's website.

Table 2: Unemployment rate by gender, June 2012-2017

Gender	**June**					
	2012	**2013**	**2014**	**2015**	**2016**	**2017**
Males	22.2	24.9	23.7	21.8	19.8	17.9
Females	28.5	31.5	30.6	28.8	28.0	25.3
Total	**24.9**	**27.8**	**26.7**	**25.0**	**23.5**	**21.2**

Table 3: Unemployment rate by age groups[1], June 2012-2017

Age Group	June					
	2012	2013	2014	2015	2016	2017
15-24	55.4	59.1	49.0	48.2	46.5	43.3
25-34	32.0	36.5	35.3	31.8	29.6	26.8
35-44	21.4	24.0	22.8	22.8	19.9	19.3
45-54	18.3	20.4	21.0	19.7	19.3	16.8
55-64	13.8	15.3	17.4	16.5	19.9	16.8
65-74	4.0	15.3	11.5	12.4	12.5	11.8
Total	**24.9**	**27.8**	**26.7**	**25.0**	**23.5**	**21.2**

Table 4: Unemployment rate during April 2016 - June 2017, by Decentralized Administration[2]

Decentralized Administration	4th 2016	5th 2016	6th 2016	7th 2016	8th 2016	9th 2016	10th 2016	11th 2016	12th 2016	1st 2017	2nd 2017	3rd 2017	4th 2017	5th 2017	6th 2017
Macedonia-Thrace	24.4	24.1	23.8	24.0	24.1	23.8	23.9	24.0	23.7	23.5	22.9	22.6	22.5	22.5	22.6
Epirus-Western Macedonia	27.6	27.7	27.2	26.9	27.1	27.4	27.3	27.6	27.4	27.5	27.7	27.7	27.4	27.1	26.9
Thessaly – Sterea Ellas	26.0	25.1	24.8	24.6	24.9	24.8	24.1	23.8	23.9	23.6	22.7	21.9	21.4	21.3	20.6
Peloponnese, Western Greece & Ionian Islands	23.9	24.3	23.7	23.3	23.6	23.6	23.9	23.9	23.9	23.5	23.1	21.7	20.8	20.5	20.6
Attica	22.6	22.6	23.2	23.1	22.9	22.4	22.8	22.9	23.1	22.3	22.1	21.8	21.9	21.8	21.3
Aegean Islands	16.3	21.4	18.3	18.6	18.9	17.4	19.0	17.2	20.1	19.0	18.3	18.2	18.0	16.4	17.8
Crete	23.7	21.6	22.1	22.2	22.0	22.6	19.9	20.9	23.2	21.2	20.1	21.3	16.3	17.2	17.4
Greece, Total	**23.6**	**23.6**	**23.5**	**23.4**	**23.3**	**23.1**	**23.3**	**23.4**	**23.4**	**23.2**	**22.5**	**22.1**	**21.7**	**21.5**	**21.2**

[1] Estimates of "rare" characteristics, that is estimates of characteristics that refer to 10,000 persons or less are accompanied by large sampling errors, as for example in the case of unemployment rate in the age group of 65 – 74 years old

[2] Decentralized Administrations are the lowest geographical areas for which the Labour Force Survey (LFS) publishes estimates. LFS results are not published at lower level (NUTS 2 or NUTS 3) because, due to small population and sample size, estimates in these areas have large sampling errors. It should be noted that the same problem of small populations and sample sizes exist also in certain Decentralized Administrations and as a result, estimates in these areas have large sampling errors

The effect of seasonal adjustment on the estimates of Labour Force Survey

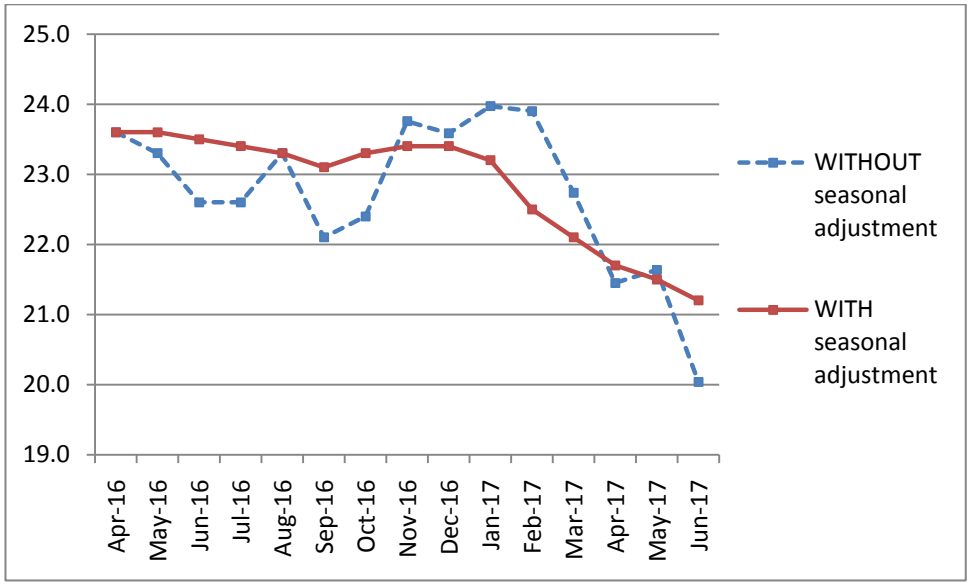
The characteristics surveyed by Labour Force Survey (number of employed, unemployed, etc.) have large seasonal variation. For example, in Greece, employment increases during summer months because of tourism (if there are no other countervailing factors).

Table 5 presents the change in monthly estimates of employed and unemployed because of seasonal adjustment for the period April 2016 – June 2017 while Graphs 2, 3 and 4 present adjusted and unadjusted time series for employed persons, unemployed persons and the rate of unemployment for the same period.

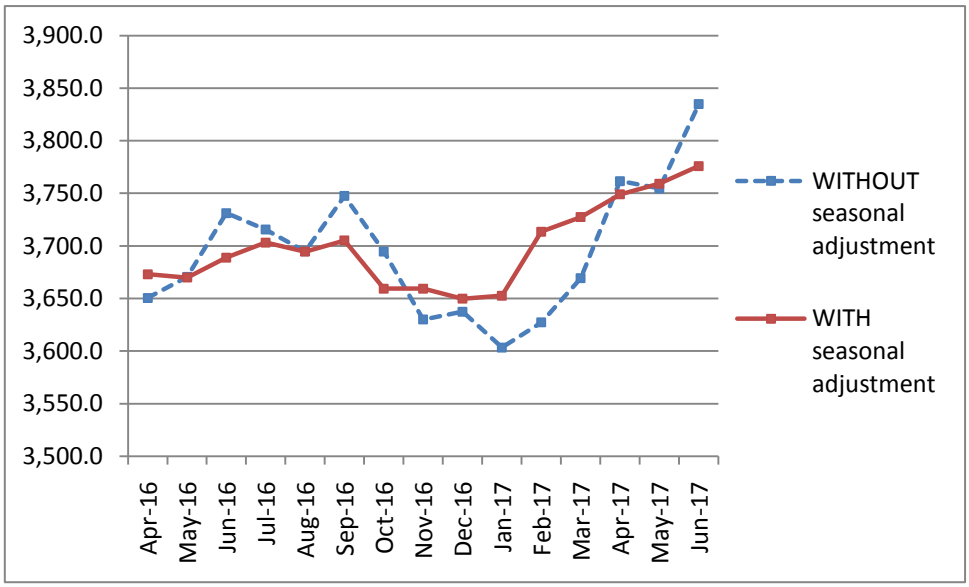
Table 5: Change in monthly estimates of employed and unemployed persons due to seasonal adjustment

	Estimated number of employed without seasonal adjustment (in thousands)	Change due to seasonal adjustment (in thousands)	Change (%)	Estimated number of unemployed without seasonal adjustment (in thousands)	Change due to seasonal adjustment (in thousands)	Change (%)
April 2016	**3,650.5**	22.6	0.6	**1,125.7**	7.7	0.7
May	**3,670.4**	-0.6	0.0	**1,116.6**	18.7	1.7
June	**3,731.1**	-42.3	-1.1	**1,086.9**	46.2	4.3
July	**3,715.5**	-12.4	-0.3	**1,084.3**	43.8	4.0
August	**3,694.8**	-0.3	0.0	**1,121.7**	3.1	0.3
September	**3,747.5**	-42.3	-1.1	**1,060.7**	54.0	5.1
October	**3,694.7**	-35.4	-1.0	**1,068.4**	45.0	4.2
November	**3,630.0**	29.3	0.8	**1,131.2**	-15.2	-1.3
December	**3,637.4**	12.3	0.3	**1,122.5**	-5.7	-0.5
January 2017	**3,603.4**	49.2	1.4	**1,136.2**	-34.6	-3.0
February	**3,627.2**	86.3	2.4	**1,141.5**	-63.8	-5.6
March	**3,669.2**	58.2	1.6	**1,079.7**	-25.1	-2.3
April	**3,761.5**	-12.6	-0.3	**1,027.1**	11.9	1.2
May	**3,754.6**	4.5	0.1	**1,036.6**	-5.6	-0.5
June	**3,834.8**	-58.9	-1.5	**961.0**	56.1	5.8

Graph 2: Unemployment Rate - Adjusted and Non-adjusted Estimates

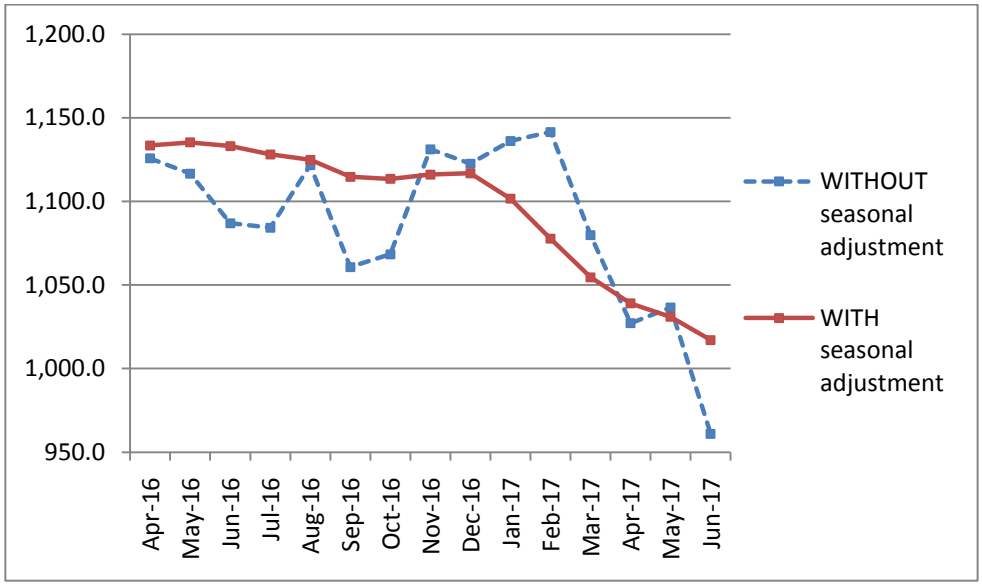


Graph 3: Number of Employed Persons - Adjusted and Non-adjusted Estimates



in thousands

Graph 4: Number of Unemployed Persons - Adjusted and Non-adjusted Estimates



in thousands

Revisions of monthly estimates

The monthly estimates for the number of employed, unemployed and unemployment rate can be subject to revisions in the following months caused by updates to the seasonally adjusted series whenever new monthly data are added, inclusion of the most recent quarterly Labour Force Survey data and update of seasonal adjustment model with complete annual data. In the current press release the estimation of unemployment rate for the period April 2016 – May 2017 has been revised (compared to the estimation published in the previous press-release) as follows:

Table 6: Comparison of seasonally adjusted estimates

	Estimations published in August 2017	Estimations published in the current press release
April 2016	23.6	23.6
May	23.6	23.6
June	23.5	23.5
July	23.3	23.4
August	23.4	23.3
September	23.2	23.1
October	23.3	23.3
November	23.3	23.4
December	23.4	23.4
January 2017	23.2	23.2
February	22.5	22.5
March	22.0	22.1
April	21.8	21.7
May	21.7	21.5
June	-	21.2

EXPLANATORY NOTES

Labour Force Survey Labour Force Survey produces estimates since 1981 (second quarter of the year). From 1998 onwards it is a continuous quarterly survey. The main statistical objectives of the Labour Force Survey is to divide the population of working age (15 years and over) into three mutually exclusive and exhaustive groups - persons in employment, unemployed persons and inactive persons**.** In addition, the Labour Force Survey collects information on demographic characteristics, on main job characteristics, on the existence and characteristics of a second job, on educational attainment, on participation in education, on previous working experience and on search of job.

Legislation The current survey is completely harmonized with European legislation. The principal legal act is the Council Regulation (EC) No. 577/98 that stipulates the provisions on design, survey characteristics and decision-making processes.

Reference Period The sample of Labour Force Survey is equally allocated to the 4 (or 5) weeks of the month. Every selected household is assigned to a specific week, the reference week, running from Monday to Sunday.

Coverage For the monthly estimates, a sub-sample of the quarterly Labour Force survey's sample was used.

Definitions **Employed** are persons aged 15 years or older, who during the reference week worked, even for just one hour, for pay or profit or they were working in the family business, or they were not at work but had a job or business from which they were temporarily absent.

Unemployed are persons aged 15-74 who were without work during the reference week (they were not classified as employed), were currently available for work and were either actively seeking work in the past four weeks or had already found a job to start within the next three months.

Inactive are those persons who are neither classified as employed nor as unemployed.

Economically active population (labour force) are persons either employed or unemployed.

Unemployment Rate is the ratio of unemployed divided by total labour force.

Seasonal adjustment Seasonal adjustment is a statistical technique that removes the seasonal component of a time series, making more visible the underlying trend in the change of a characteristic. Hellenic Statistical Authority is using Demetra 2.0 for seasonal adjustment. Seasonally adjusted series are produced by TRAMO&SEATS algorithm. It should be noted that due to seasonal adjustment the whole series with monthly estimates is recalculated every time a new month is added in time series. As a result, estimations for the previous months are often revised.

Sampling errors The monthly results of Labour Force Survey are estimations that are based in a relatively small sample size and have large sampling errors. An indication of the magnitude of survey's sampling errors is that estimations of characteristics that refer to 25,000 persons at the total country are accompanied by a coefficient of variation of at least 15%. More accurate estimates and detailed analysis of the changes in employment can be based on the quarterly results of the survey.

Methodology Labour Force Survey's estimates are produced by a suitable unbiased estimator which takes in to account a) the probability of selection of every sampled household, b) the response rate in every primary sampling unit, c) the estimated population, for the corresponding month, allocated by NUTS II areas, gender and age group.

References Analytical description of the Labour Force Survey's methodology and definitions can be found at http://www.statistics.gr/en/statistics/-/publication/SJO02/-