HELLENIC REPUBLIC
HELLENIC STATISTICAL AUTHORITY

Piraeus, May 11, 2017

PRESS RELEASE

LABOUR FORCE SURVEY: February 2017

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

- The **seasonally adjusted unemployment rate** in February 2017 was **23.2%** compared to 23.9% in February 2016 and the downward revised 23.3% in January 2017. The number of employed in February 2017 amounted to 3,656,783 persons. The number of unemployed amounted to 1,104,604 while the number of inactive to 3,263,180. The corresponding figures for February 2012 to 2017 are presented in Table 1.
- The **number of employed persons** increased by 7,589 persons compared with February 2016 (a 0.2% rate of increase) and by 7,032 persons compared with January 2017 (a 0.2% rate of increase).
- The **number of unemployed persons** decreased by 43,387 persons compared with February 2016 (a 3.8% rate of decrease) and by 6,915 persons compared with January 2017 (a 0.6% rate of decrease).
- The **number of inactive persons,** i.e. persons that neither work neither look for a job, decreased by 804 persons compared with February 2016 (negligible change) and by 2,953 persons compared with January 2017 (a 0.1% 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.

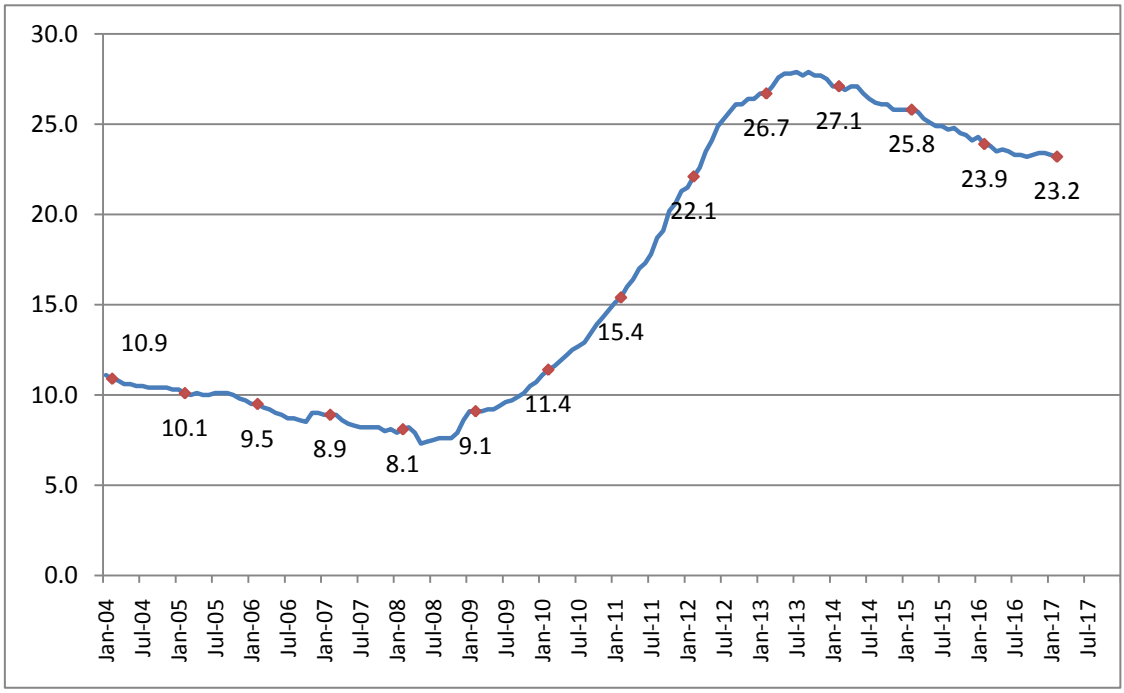
Users should also take into account that the first estimates of the most recent monthly unemployment rates are likely to be revised as they are produced with the collected and processed at the time of the press release survey data, which do not coincide with the finally collected and processed sample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

Information:
Population and Labour Market Statistics Division
Labour Force Statistics Section
Stelios Zachariou
Tel: +30 213 135 2173
Fax: +30 213 135 2948
E-mail : *lfs@statistics.gr*

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

	February					
	2012	**2013**	**2014**	**2015**	**2016**	**2017**
Employed	3,807,294	3,530,348	3,498,563	3,538,771	3,649,194	3,656,783
Unemployed	1,081,618	1,288,267	1,301,796	1,229,065	1,147,991	1,104,604
Inactive	3,388,224	3,381,844	3,354,235	3,334,095	3,263,984	3,263,180
Unemployment Rate	**22.1**	**26.7**	**27.1**	**25.8**	**23.9**	**23.2**

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



The values of the curve refer to February of every year

Tables 2 and 3 illustrate unemployment rate by gender and age groups from February 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 and inactive are available on ELSTAT's website.

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

Gender	**February**					
Males	19.3	24.0	24.4	22.6	20.3	19.7
Females	25.9	30.3	30.6	29.8	28.4	27.5
Total	**22.1**	**26.7**	**27.1**	**25.8**	**23.9**	**23.2**

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

Age Group	February					
	2012	2013	2014	2015	2016	2017
15-24	52.8	59.9	56.5	51.8	50.6	47.9
25-34	29.3	34.7	35.7	32.8	30.5	30.4
35-44	18.8	23.2	24.4	22.5	20.6	20.3
45-54	16.6	20.3	20.5	20.9	19.8	18.2
55-64	11.7	16.0	17.9	18.3	20.2	19.7
65-74	3.5	8.1	14.6	10.5	11.2	14.8
Total	**22.1**	**26.7**	**27.1**	**25.8**	**23.9**	**23.2**

Table 4: Unemployment rate during December 2015 - February 2017, by Decentralized Administration[2]

Decentralized Administration	12th 2015	1st 2016	2nd 2016	3rd 2016	4th 2016	5th 2016	6th 2016	7th 2016	8th 2016	9th 2016	10th 2016	11th 2016	12th 2016	1st 2017	1st 2017
Macedonia-Thrace	24.6	24.5	24.6	24.4	24.3	24.1	23.7	24.0	24.1	23.9	24.1	24.4	23.7	23.8	23.3
Epirus-Western Macedonia	28.3	28.3	28.4	28.5	27.7	27.6	27.1	26.8	27.0	27.3	27.3	27.6	27.4	27.5	27.6
Thessaly – Sterea Ellas	27.5	29.2	26.5	26.4	25.9	24.9	24.6	24.5	24.9	24.8	24.2	24.0	24.0	24.2	24.0
Peloponnese, Western Greece & Ionian Islands	23.1	24.2	23.1	23.7	23.7	23.9	23.4	23.1	23.5	23.5	23.9	24.1	24.1	23.8	23.8
Attica	23.5	23.6	23.3	23.0	22.6	22.6	23.1	23.1	22.9	22.4	22.9	23.0	23.0	22.7	22.8
Aegean Islands	14.4	14.8	15.5	16.0	16.3	20.5	18.1	18.5	18.8	17.6	19.2	17.5	20.2	19.0	17.7
Crete	24.5	25.5	25.6	23.2	22.8	21.4	21.9	21.8	21.9	22.7	20.0	21.1	23.7	22.3	21.3
Greece, Total	**24.1**	**24.3**	**23.9**	**23.8**	**23.5**	**23.6**	**23.5**	**23.3**	**23.3**	**23.2**	**23.3**	**23.4**	**23.4**	**23.3**	**23.2**

[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

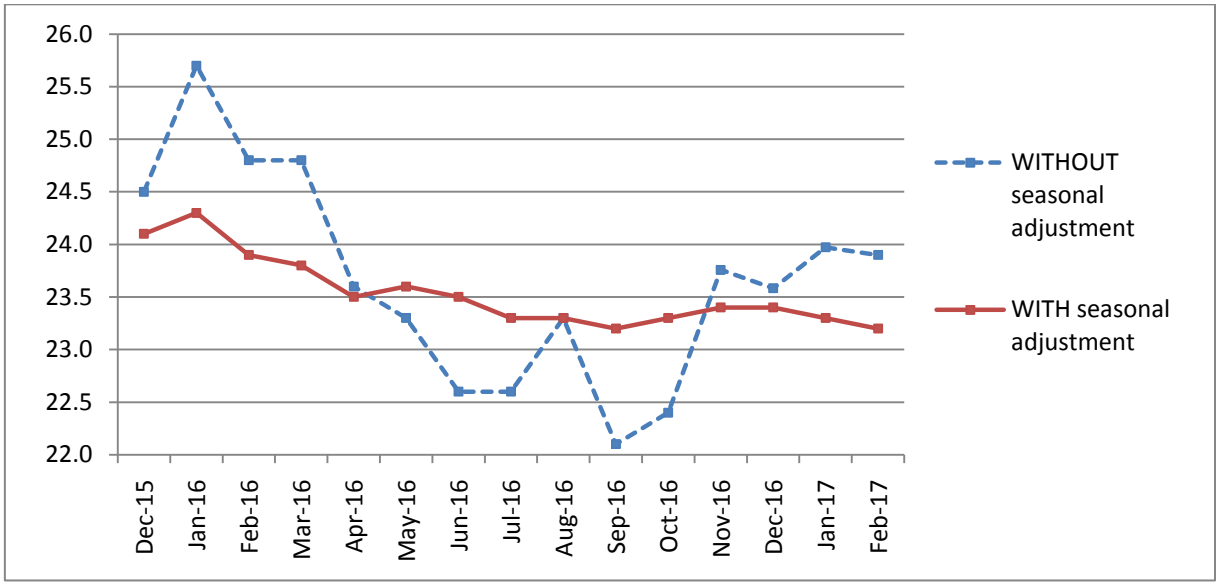
The characteristics surveyed by Labour Force Survey (number of employed, unemployed, etc.) have large seasonal variation. For example, in Greece, employment increases during summer months because of tourism (if there are no other countervailing factors).

Table 5 presents the change in monthly estimates of employed and unemployed because of seasonal adjustment for the period December 2015 – February 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

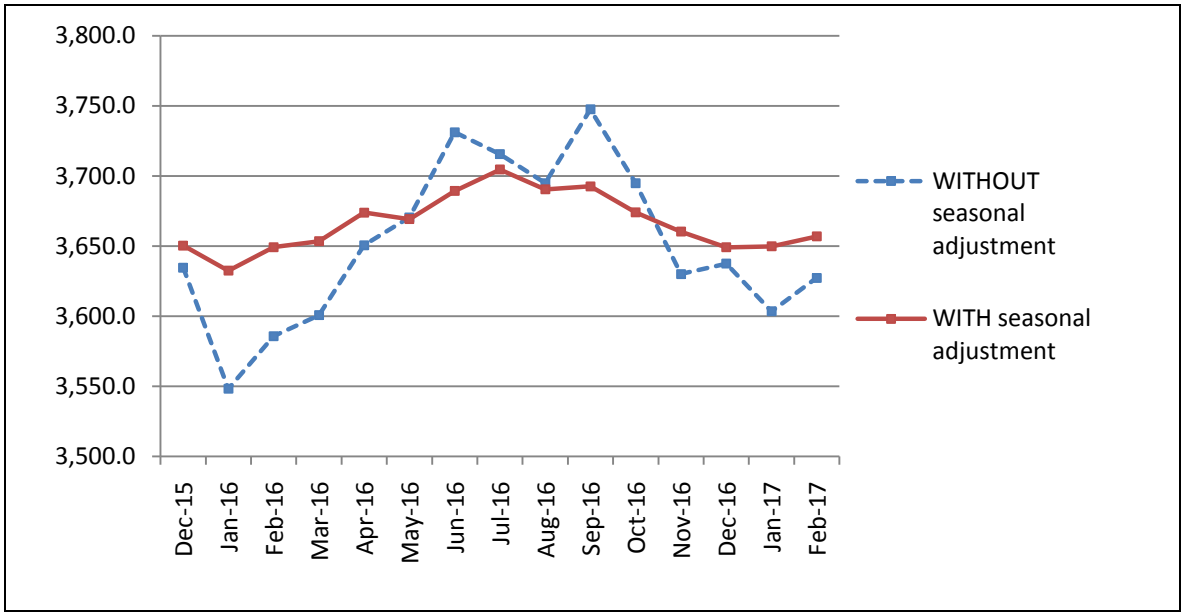
	Estimated number of employed without seasonal adjustment (in thousands)	Change due to seasonal adjustment (in thousands)	Change (%)	Estimated number of unemployed without seasonal adjustment (in thousands)	Change due to seasonal adjustment (in thousands)	Change (%)
December 2015	**3,634.6**	15.7	0.4	**1,177.1**	-17.2	-1.5
January 2016	**3,548.2**	84.2	2.4	**1,224.7**	-60.0	-4.9
February	**3,585.7**	63.5	1.8	**1,180.2**	-32.2	-2.7
March	**3,600.7**	52.7	1.5	**1,189.9**	-49.3	-4.1
April	**3,650.5**	23.3	0.6	**1,125.7**	4.4	0.4
May	**3,670.4**	-1.2	0.0	**1,116.6**	16.4	1.5
June	**3,731.1**	-41.9	-1.1	**1,086.9**	44.4	4.1
July	**3,715.5**	-11.0	-0.3	**1,084.3**	42.6	3.9
August	**3,694.8**	-4.4	-0.1	**1,121.7**	2.5	0.2
September	**3,747.5**	-54.9	-1.5	**1,060.7**	54.4	5.1
October	**3,694.7**	-20.7	-0.6	**1,068.4**	46.1	4.3
November	**3,630.0**	30.3	0.8	**1,131.2**	-12.3	-1.1
December	**3,637.4**	11.7	0.3	**1,122.5**	-5.9	-0.5
January 2017	**3,603.4**	46.4	1.3	**1,136.2**	-24.7	-2.2
February	**3,627.2**	29.6	0.8	**1,141.5**	-36.9	-3.2

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



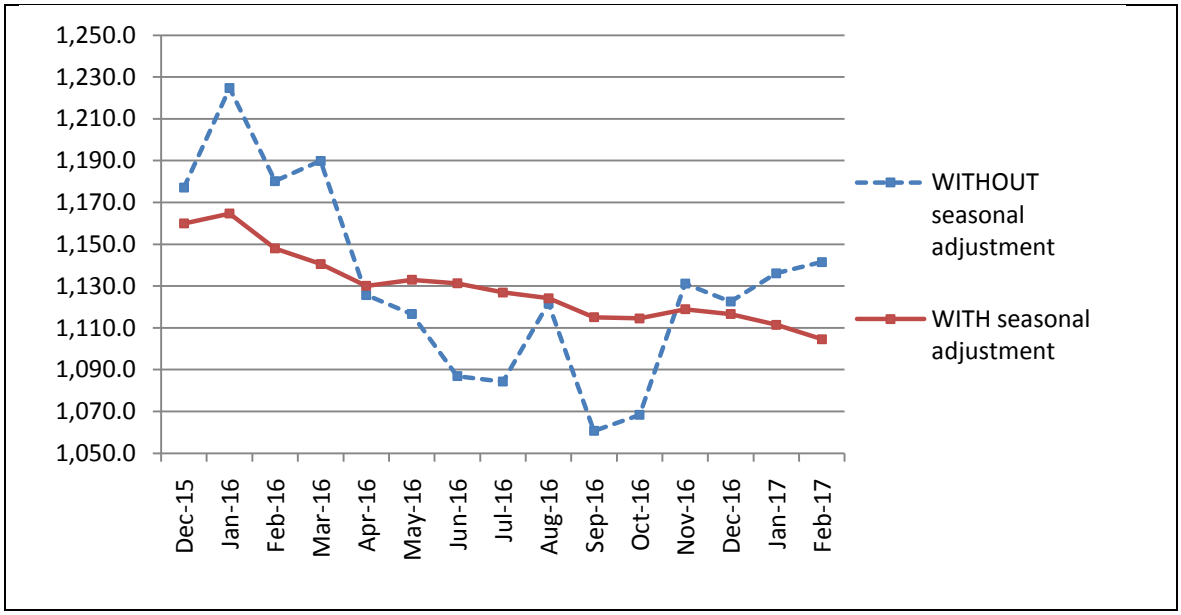
Graph 3: Number of Employed Persons - Adjusted and Non-adjusted Estimates

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 December 2015 – January 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 April 2017	Estimations published in the current press release
December 2015	24.1	24.1
January 2016	24.3	24.3
February	23.9	23.9
March	23.8	23.8
April	23.5	23.5
May	23.6	23.6
June	23.5	23.5
July	23.3	23.3
August	23.3	23.3
September	23.2	23.2
October	23.3	23.3
November	23.4	23.4
December	23.5	23.4
January 2017	23.5	23.3
February	-	23.2

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/-