HELLENIC REPUBLIC

HELLENIC STATISTICAL AUTHORITY

Piraeus, May 12, 2016

PRESS RELEASE

LABOUR FORCE SURVEY: February 2016

The Hellenic Statistical Authority (ELSTAT) announces the seasonally adjusted unemployment rate for February 2016.

The seasonally adjusted unemployment rate in February 2016 was 24.2% compared to the upward revised 25.8% in February 2015 and 24.4% in January 2016. The number of employed amounted to 3,625,262 persons. The number of unemployed amounted to 1,158,731 while the number of inactive to 3,277,146. The corresponding figures for February 2011 to 2016 are presented in Table 1.

The number of employed increased by 86,015 persons compared with February 2015 (a 2.4% rate of increase) and by 10,692 persons compared with January 2016 (a 0.3% rate of increase).

Unemployed decreased by 70,220 persons (a 5.7% rate of decrease) compared with February 2015 and by 7,524 persons compared with January 2016 (a 0.6% rate of decrease).

Inactive persons –that is, persons that neither worked neither looked for a job – decreased by 56,587 persons (a 1.7% rate of decrease) compared with February 2015, and by 6,353 persons compared with January 2016 (a 0.2% rate of increase).

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.

Unemployment rate by month (February 2014 – February 2016)
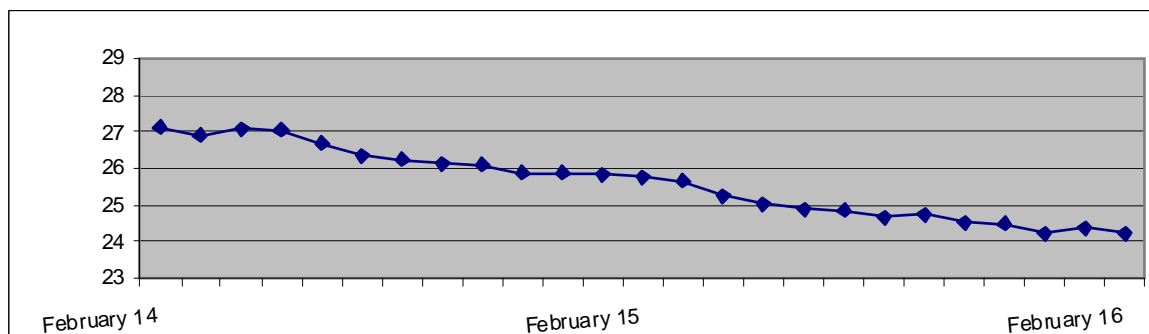
Contact Person: *Stelios Zachariou*
Tel: 213 135 2173
Fax: 213 135 2948
E-mail : *lfs@statistics.gr*, http//www.statistics.gr

Tables 2 and 3 illustrate unemployment rate by gender and age groups from February 2011 to 2016. 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 1. Employed, unemployed, economically non-active and unemployment rate: February 2011-2016

	February					
	2011	**2012**	**2013**	**2014**	**2015**	**2016**
Employed	4,192,237	3,807,588	3,530,646	3,498,916	3,539,247	3,625,262
Unemployed	764,351	1,081,636	1,288,453	1,301,978	1,228,951	1,158,731
Inactive	3,364,484	3,387,911	3,381,360	3,353,700	3,333,733	3,277,146
Unemployment Rate	**15.4**	**22.1**	**26.7**	**27.1**	**25.8**	**24.2**

Table **2. Unemployment rate by gender: February 2011-2016**

Gender	February					
	2011	**2012**	**2013**	**2014**	**2015**	**2016**
Males	12.7	19.3	24.0	24.4	22.6	20.6
Females	19.0	25.8	30.3	30.6	29.8	28.7
Total	**15.4**	**22.1**	**26.7**	**27.1**	**25.8**	**24.2**

Table 3. Unemployment rate by age groups: February 2011-2016[1]

Age Group	February					
	2011	**2012**	**2013**	**2014**	**2015**	**2016**
15-24 years old	39.9	52.8	59.9	56.5	51.8	51.4
25-34 »	21.0	29.3	34.8	35.8	32.9	31.6
35-44 »	12.7	18.8	23.2	24.4	22.4	21.4
45-54 »	10.3	16.6	20.3	20.5	20.9	19.6
55-64 »	7.7	11.7	16.0	17.9	18.2	19.3
65-74 »	2.5	3.5	8.1	14.6	10.4	12.0
Total	**15.4**	**22.1**	**26.7**	**27.1**	**25.8**	**24.2**

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[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*

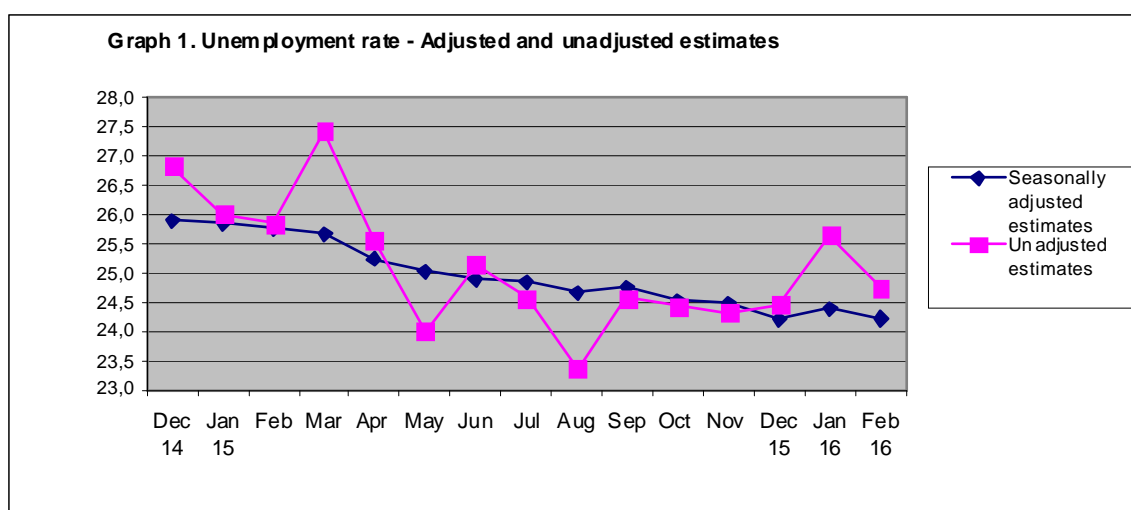**Table 4. Unemployment rate during December 2014 - February 2016, by Decentralized Administration[1]**

Decentralized Administration	12th 2014	1st 2015	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	1st 2016	2nd 2016
Macedonia-Thrace	26.9	26.3	26.3	25.9	25.6	25.1	25.2	25.3	25.3	25.4	25.1	25.0	24.7	25.0	25.2
Epirus-Western Macedonia	26.5	26.7	26.5	27.1	26.5	27.0	26.8	27.6	27.5	27.8	27.9	27.6	28.6	28.1	28.7
Thessaly – Sterea Ellas	26.2	26.2	26.5	26.3	26.0	26.0	26.1	26.2	26.6	26.8	27.0	27.9	27.9	30.3	27.6
Peloponnese. Western Greece and Ionian Islands	25.7	25.8	25.6	25.9	25.2	25.2	25.0	25.4	24.3	24.1	23.7	24.1	23.2	23.3	23.0
Attica	27.0	26.9	26.6	26.3	25.7	25.3	24.8	24.8	24.8	25.1	24.8	24.1	23.7	23.8	23.5
Aegean	16.4	18.0	16.8	20.7	16.5	15.2	17.7	16.7	15.6	13.6	14.5	12.5	14.2	12.8	13.1
Crete	24.4	23.4	24.5	23.9	23.8	23.4	24.1	24.2	23.4	24.2	25.4	25.8	25.6	26.9	26.9
Greece, Total	**25.9**	**25.8**	**25.8**	**25.7**	**25.2**	**25.0**	**24.9**	**24.8**	**24.7**	**24.7**	**24.5**	**24.5**	**24.2**	**24.4**	**24.2**

[1]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 because of tourism (if there are no other countervailing factors).

The following graphs (Graph 1 – 3) present adjusted and unadjusted time series for employed, unemployed and rate of unemployment for the period December 2014 – February 2016, while Table 5 presents, for the same period, the change in monthly estimates of employed and unemployed because of seasonal adjustment.
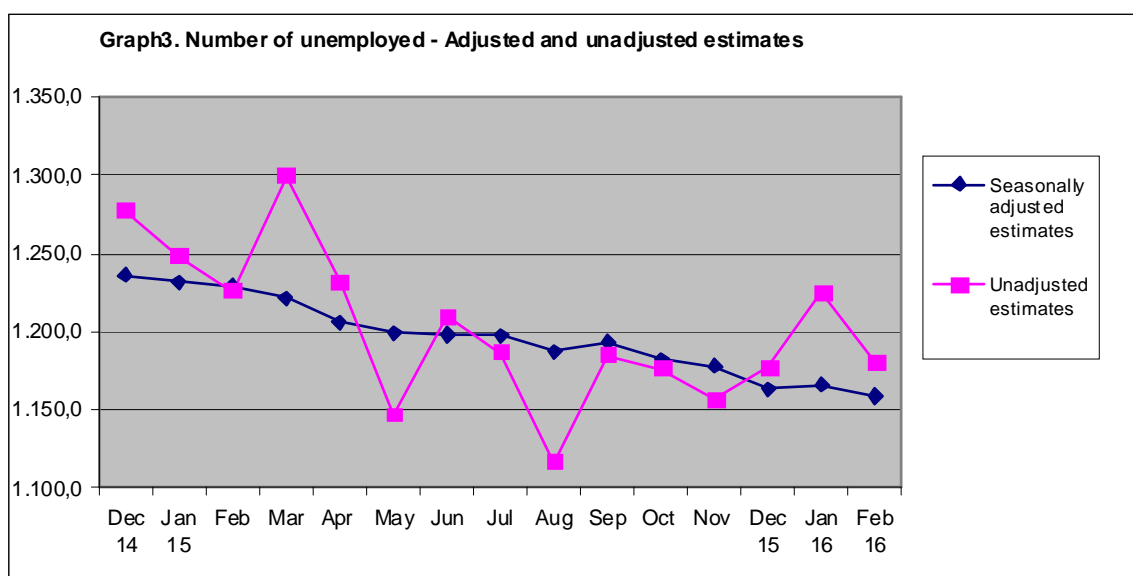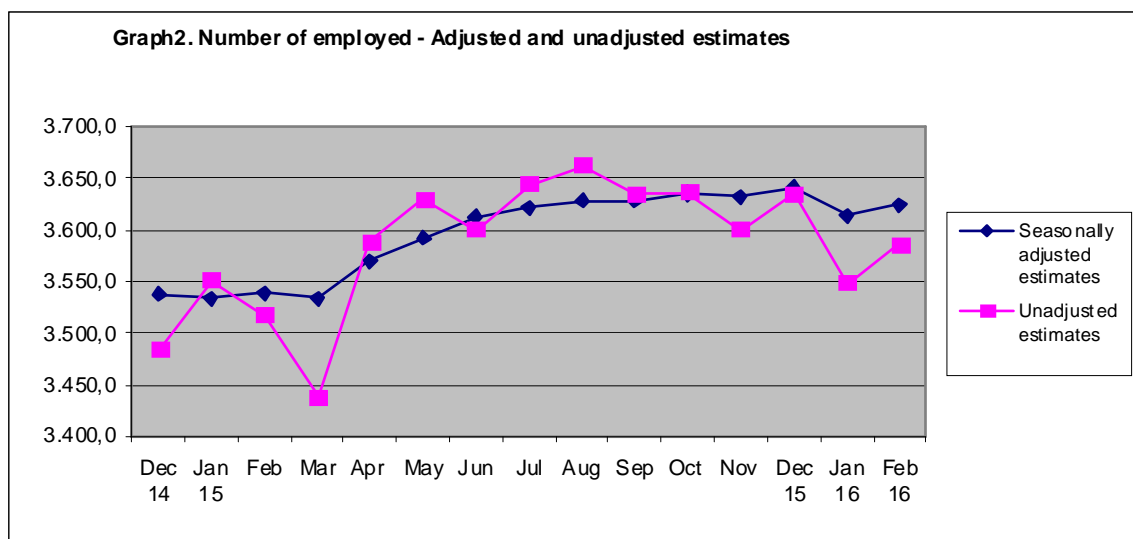

Graph 1. Unemployment rate - Adjusted and unadjusted estimates

Graph2. Number of employed - Adjusted and unadjusted estimates

Graph3. Number of unemployed - Adjusted and unadjusted estimates

Table 5. Change in monthly estimates of employed and unemployed because of seasonal adjustment

	Estimated number of employed without seasonal adjustment (in thousands)	Change due to seasonal adjustment (in thousands)	% of change	Estimated number of unemployed without seasonal adjustment (in thousands)	Change due to seasonal adjustment (in thousands)	% of change
December 2014	**3,483.5**	54.6	1.6	**1,277.3**	-41.5	-3.2
January 2015	**3,550.5**	-16.6	-0.5	**1,248.5**	-16.7	-1.3
February	**3,516.7**	22.6	0.6	**1,225.9**	3.0	0.2
March	**3,438.1**	96.7	2.8	**1,299.4**	-78.1	-6.0
April	**3,588.8**	-18.4	-0.5	**1,231.5**	-25.7	-2.1
May	**3,630.0**	-37.4	-1.0	**1,146.7**	53.0	4.6
June	**3,599.9**	13.8	0.4	**1,209.8**	-11.9	-1.0
July	**3,643.9**	-22.1	-0.6	**1,186.9**	10.3	0.9
August	**3,662.2**	-33.9	-0.9	**1,116.4**	71.2	6.4
September	**3,634.6**	-6.0	-0.2	**1,184.5**	8.8	0.7
October	**3,637.1**	-1.3	0.0	**1,176.3**	6.1	0.5
November	**3,600.1**	31.9	0.9	**1,156.8**	21.0	1.8
December	**3,634.6**	6.8	0.2	**1,177.1**	-13.6	-1.2
January 2016	**3,548.2**	66.4	1.9	**1,224.7**	-58.5	-4.8
February	**3,585.7**	39.6	1.1	**1,180.2**	-21.5	-1.8

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 LFS 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 2014 – January 2016 has been revised (compared to the estimation published in the previous press-release) as follows:

	Seasonally adjusted unemployment rate	
	Estimations published April 2016 (Monthly results for January 2016)	Estimations published in the current press release (Monthly results for February 2016)
December 2014	26.1	25.9
January 2015	25.7	25.8
February	25.7	25.8
March	26.0	25.7
April	25.2	25.2
May	24.8	25.0
June	24.9	24.9
July	24.9	24.8
August	24.6	24.7
September	24.7	24.7
October	24.5	24.5
November	24.5	24.5
December	24.3	24.2
January 2016	24.4	24.4
February 2016	-	24.2

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/el/statistics/-/publication/SJO02/-.   .