



Piraeus, September 12, 2013

## PRESS RELEASE

## LABOUR FORCE SURVEY: June 2013

The Hellenic Statistical Authority announces the seasonally adjusted unemployment rate for June 2013.

In the context of the program undertaken by ELSTAT for the improvement of dissemination and presentation of statistics, and in order to harmonize the presentation of monthly unemployment rate estimates with the presentation of monthly estimates provided by Eurostat, ELSTAT, since January 2012, announces the monthly results of the LFS seasonally adjusted, for persons 15 – 74 years old. Unadjusted data are still available on ELSTAT's website.

The seasonally adjusted unemployment rate in June 2013 was 27.9% compared to 24.6% in June 2012 and 27.6% in May 2013. The number of employed amounted to 3,628,421 persons. The number of unemployed amounted to 1,403,698 while the number of inactive to 3,334,690. The corresponding figures for June 2008 to 2013 are presented in Table 1.

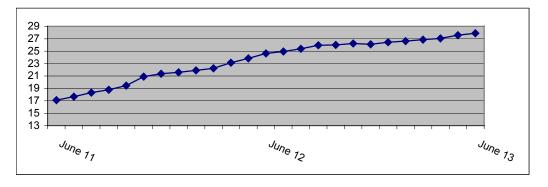
The number of employed decreased by 128,998 persons compared with June 2012 (a 3.4% rate of decrease) and by 2,390 persons compared with May 2013 (a 0.1% rate of decrease).

Unemployed increased by 174,709 persons (a 14.2% rate of increase) compared with June 2012 and by 20,254 persons compared with May 2013 (a 1.5% rate of increase).

Inactive persons –that is, persons that neither worked neither looked for a job–decreased by 23,155 persons (a 0.7% rate of decrease) compared with June 2012 and increased by 14,844 persons compared with May 2013 (a 0.4% rate of increase).

According to the seasonally <u>unadjusted</u> results there is a significant decrease in the unemployment rate in June 2013, by 1.2 percentage points. Users should take in to account that this change can affect the seasonally adjusted estimates only to the extent that it will continue in the following months (see below for more details).

## Unemployment rate by month (June 2011 – June 2013)



Contact Person: Stelios Zachariou Tel: 213 135 2173 , Fax: 213 135 2948

E-mail: Ifs@statistics.gr http//www.statistics.gr Tables 2 and 3 illustrate unemployment rate by gender and age groups from June 2008 to 2013. Table 4 presents the evolution of unemployment rate during last 12 months by Decentralized Administrations<sup>1</sup>.

Table 1. Employed, unemployed, economically non-active and unemployment rate: June 2008-2013

			June			
	2008	2009	2010	2011	2012	2013
Employed	4,561,728	4,513,405	4,406,266	4,125,153	3,757,420	3,628,421
Unemployed	361,482	460,648	616,569	850,695	1,228,989	1,403,698
Inactive	3,405,187	3,333,444	3,291,602	3,352,208	3,357,844	3,334,690
Unemployment Rate	7.3	9.3	12.3	17.1	24.6	27.9

Table 2. Unemployment rate by gender: June 2008-2013

Gender	June								
Gender	2008	2009	2010	2011	2012	2013			
Males	4.9	6.7	9.8	14.3	21.9	24.9			
Females	11.0	12.9	15.7	20.9	28.4	31.9			
Total	7.3	9.3	12.3	17.1	24.6	27.9			

Table 3: Unemployment rate by age groups: June 2008-2013<sup>2</sup>

Age Group	June									
Age Group	2008	2009	2010	2011	2012	2013				
15-24 years old	20.0	23.2	31.3	44.4	54.8	58.8				
25-34 »	10.7	12.4	16.7	23.9	32.5	37.4				
35-44 »	5.8	7.7	10.3	14.0	21.3	24.0				
45-54 »	4.2	6.2	8.5	11.8	18.1	20.4				
55-64 »	2.9	4.5	6.2	8.1	13.9	14.7				
65-74 »	1.3	1.0	1.5	2.4	4.6	11.2				
Total	7.3	9.3	12.3	17.1	24.6	27.9				

\_

Decentralized Administrations are the lowest geographical areas for which Labour Force Survey publishes estimates. LFS results are not published at lower level (NUTS II – "Perifereiakes Enotites" or NUTS III – "Perifereies") because, due to small population and sample size, estimates in these areas have large sampling errors. We should note 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

<sup>&</sup>lt;sup>2</sup> 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 June 2013 and the last 12 months, by Decentralized Administration

	Period												
Decentralized Administration	2012						2013						
	6th	7th	8 <sup>th</sup>	9th	10th	11th	12th	1st	2nd	3rd	4th	5th	6th
Macedonia-Thrace	25.4	25.6	26.0	26.5	26.6	27.1	27.0	27.7	27.9	28.1	28.7	28.7	29.5
Epirus-Western Macedonia	26.5	26.6	27.5	27.5	27.7	28.1	28.0	29.0	28.9	30.0	29.9	30.1	29.7
Thessaly – Sterea Ellas	25.2	25.1	26.0	26.5	26.2	25.8	25.8	26.0	27.7	26.4	26.6	26.9	27.0
Peloponnese, Western Greece and Ionian Islands	22.5	22.8	23.4	23.9	23.6	23.2	22.7	22.6	22.7	22.9	23.9	24.7	25.8
Attica	24.4	26.0	26.7	27.8	27.7	28.2	27.8	28.4	27.8	28.3	27.9	28.2	27.7
Aegean	22.7	20.8	18.3	19.5	17.9	20.0	20.0	19.7	19.9	22.6	20.3	22.1	21.6
Crete	24.1	24.3	19.4	21.4	24.4	20.6	23.1	23.7	22.9	21.7	25.4	24.0	22.9
Greece, Total	24.6	24.9	25.4	26.0	26.0	26.2	26.1	26.4	26.6	26.9	27.1	27.6	27.9

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

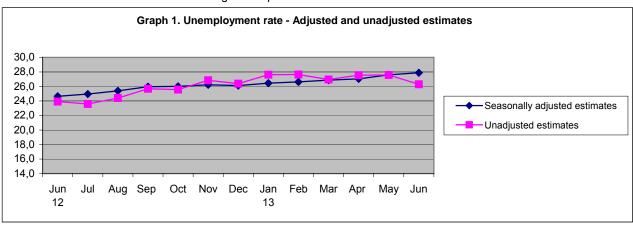
The characteristics surveyed by Labour Force Survey – number of employed, unemployed, etc.– have large seasonal variation: for example, in Greece, employment increases during summer because of tourism (if there are no other countervailing factors).

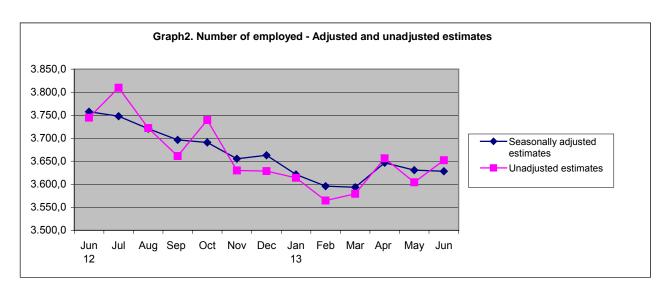
Seasonal adjustment is a statistical technique that removes the seasonal component of a time series, making more visible the underlying trend in the change of a characteristic.

Eurostat is publishing seasonally adjusted monthly results since 2000. These results are based either solely in Labour Force Survey results either in estimations that are based in the most recent results of the Labour Force Survey and in registered unemployment.

The following graphs (Graph 1-3) present adjusted and unadjusted time series for employed, unemployed and rate of unemployment for the period June 2012 – June 2013, while Table 5 presents, for the same period, the change in monthly estimates of employed and unemployed because of seasonal adjustment.

We can observe that according to the unadjusted results we have a significant decrease by 1,2% of unemployment rate in June 2013 which is not reflected in the seasonally adjusted results. The reason for this is the fact that seasonal adjustment requires a sufficient number of observations (monthly results) in order to diagnose a change evolution of a characteristic. For example, a similar drop in unemployment rate was observed, according to the unadjusted results, in May 2009 and in June 2011, but that trend did not continue during subsequent months.





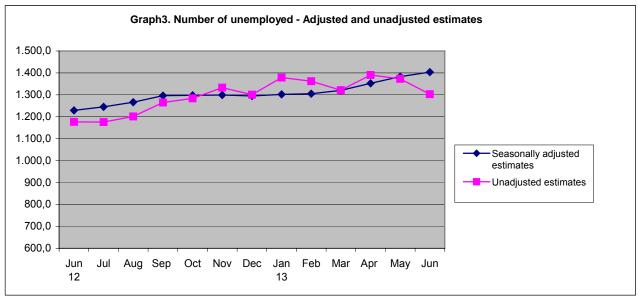


Table 5. Change in monthly estimates of employed and unemployed because of seasonal adjustment

	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
June 2012	3,744.7	12.8	0.3	1,176.5	52.5	4.5
July	3,809.6	-61.9	-1.6	1,176.2	69.4	5.9
August	3,722.3	-1.7	0.0	1,201.8	64.5	5.4
September	3,661.2	35.3	1.0	1,265.0	31.3	2.5
October	3,739.5	-48.6	-1.3	1,284.1	13.8	1.1
November	3,630.1	25.3	0.7	1,333.0	-33.4	-2.5
December	3,628.6	34.4	0.9	1,300.6	-5.9	-0.5
January 2013	3,614.0	7.4	0.2	1,378.8	-76.6	-5.6
February	3,564.5	31.6	0.9	1,362.0	-56.6	-4.2
March	3,579.4	14.3	0.4	1,321.0	-0.6	0.0
April	3,656.3	-9.7	-0.3	1,390.8	-38.4	-2.8
May	3,604.2	26.6	0.7	1,372.7	10.7	8.0
June	3,652.4	-24.0	-0.7	1,302.8	100.9	7.7

## **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 <u>Council Regulation (EC) No. 577/98</u> 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.

# 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. We note 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. As an indication of the magnitude of survey's sampling errors, we note 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% (an analysis of Labour Force Survey sampling errors can be found at the address <a href="http://www.statistics.gr/portal/page/portal/ESYE/PAGE-themes?p\_param=A0101">http://www.statistics.gr/portal/page/portal/ESYE/PAGE-themes?p\_param=A0101</a> at the link "Methodology"). 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 June 2012, 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 <a href="https://www.statistics.gr">www.statistics.gr</a>.