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# PRESS RELEASE

# **LABOUR FORCE SURVEY:** July 2012

Hellenic Statistical Authority announces the seasonally adjusted unemployment rate for July 2012.

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.

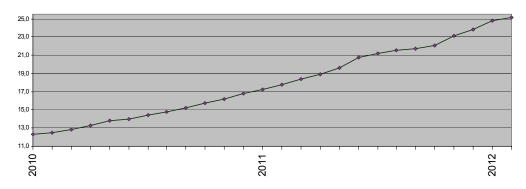
Unemployment rate in July 2012 was 25.1% compared to 17.8% in July 2011 and 24.8% in June 2012. The number of employed amounted to 3,763,142 persons. The number of unemployed amounted to 1,261,604 while the number of inactive to 3,356,276. The corresponding figures for July 2007 to 2012 are presented in Table 1.

The number of employed decreased by 329,086 persons compared with July 2011 (a 8.0% rate of decrease) and increased by 5,364 persons compared with June 2012 (a 0.1% rate of increase).

Unemployed increased by 377,991 persons (a 42.8% rate of increase) compared with July 2011 and by 23,255 persons compared with June 2012 (a 1.9% rate of increase).

Inactive persons –that is, persons that neither worked neither looked for a job–decreased by 2,236 persons (a 0.1% rate of decrease) compared with July 2011 and by 3,406 persons compared with June 2012 (a 0.1% rate of decrease).

# Unemployment rate by month (July 2010 - July 2012)



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<sup>&</sup>lt;sup>1</sup> We note that monthly results of July incorporate the final estimates for employment and unemployment of the quarterly Labour Force Survey for the 2<sup>nd</sup> quarter 2012, and as a result, the monthly estimates for the corresponding months (April – May – June) have been revised.

Tables 2 and 3 illustrate unemployment rate by gender and age groups from July 2007 to 2012. Table 4 presents the evolution of unemployment rate during last 12 months by Decentralized Administrations<sup>2</sup>.

Table 1. Employed, unemployed, economically non-active and unemployment rate: July 2007-2012

			July			
	2007	2008	2009	2010	2011	2012
Employed	4,519,914	4,559,976	4,506,575	4,401,324	4,092,228	3,763,142
Unemployed	400,946	364,164	472,813	629,663	883,613	1,261,604
Inactive	3,411,283	3,406,467	3,328,726	3,290,326	3,358,512	3,356,276
Unemployment Rate	8.1	7.4	9.5	12.5	17.8	25.1

Table 2. Unemployment rate by gender: July 2007-2012

Gender	July								
Gender	2007	2008	2009	2010	2011	2012			
Males	5.1	4.9	6.8	10.0	15.1	22.3			
Females	12.5	11.0	13.3	16.0	21.4	29.0			
Total	8.1	7.4	9.5	12.5	17.8	25.1			

Table 3: Unemployment rate by age groups: July 2007-2012<sup>3</sup>

Age Group	July									
Age Group	2007	2008	2009	2010	2011	2012				
15-24 years old	21.7	22.1	24.3	31.9	42.6	54.2				
25-34 »	11.8	10.4	12.8	16.2	24.4	31.4				
35-44 »	6.4	5.9	7.9	10.5	14.5	21.3				
45-54 »	4.5	4.1	6.4	8.6	12.3	18.2				
55-64 »	3.1	2.9	4.7	5.9	8.7	14.2				
65-74 »	1.1	1.5	1.0	1.5	2.8	5.0				
Total	8.1	7.4	9.5	12.5	17.8	25.1				

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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>3</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 July 2012 and the last 12 months, by Decentralized Administration

	Period												
Decentralized Administration	2011						2012						
	7th	8th	9th	10th	11th	12th	1st	2nd	3rd	4th	5th	6th	7th
Macedonia-Thrace	19.7	20.2	20.3	21.3	22.7	22.6	22.7	23.4	23.9	24.2	24.5	25.1	24.9
Epirus-Western Macedonia	19.0	19.6	20.2	21.1	22.0	22.6	22.9	23.3	24.2	24.8	25.6	26.5	27.1
Thessaly – Sterea Ellas	18.3	18.7	19.1	20.3	21.1	21.5	21.8	21.8	23.0	24.5	26.1	24.7	24.2
Peloponnese, Western Greece and Ionian Islands	16.0	16.4	17.0	17.0	18.0	18.4	19.1	18.9	18.9	19.8	21.2	22.5	22.9
Attica	17.5	18.5	19.2	20.4	21.7	22.7	22.9	23.1	23.1	23.5	23.8	24.6	25.2
Aegean	13.5	15.7	14.5	14.4	13.8	14.5	13.5	12.9	12.7	14.2	14.9	24.7	22.4
Crete	14.6	17.6	17.7	17.7	17.7	17.9	21.0	21.3	21.1	24.7	21.8	22.6	22.8
Greece, Total	17.8	18.4	18.9	19.6	20.7	21.2	21.5	21.7	22.1	23.1	23.9	24.8	25.1

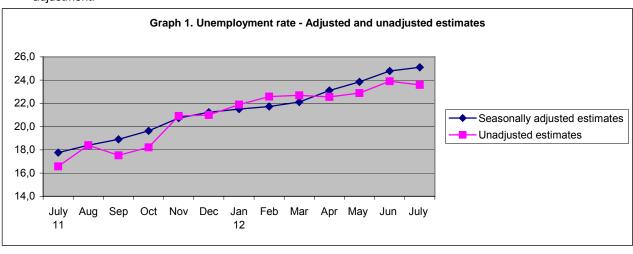
## The effect of seasonal adjustment on the estimates of Labour Force Survey

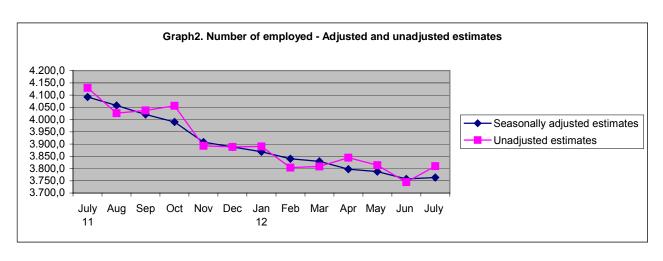
The characteristics surveyed by Labour Force Survey – number of employed, unemployed, etc.– have large seasonal variation: for example, in Greece, employment increases during summer because of tourism (if there are no other countervailing factors).

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 July 2011 – July 2012, while Table 5 presents, for the same period, the change in monthly estimates of employed and unemployed because of seasonal adjustment.





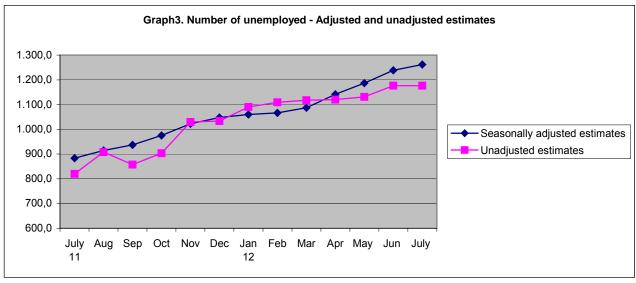


Table 5. Change in monthly estimates of employed and unemployed because of seasonal adjustment

	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
July 2011	4,129.6	-37.4	-0.9	820.3	63.3	7.7
August	4,026.4	31.1	8.0	908.0	6.3	0.7
September	4,037.1	-16.4	-0.4	857.7	79.6	9.3
October	4,056.3	-65.8	-1.6	903.5	71.4	7.9
November	3,892.8	14.9	0.4	1,029.6	-7.2	-0.7
December	3,888.1	-0.1	0.0	1,033.5	14.5	1.4
January 2012	3,889.9	-21.4	-0.6	1,090.5	-30.8	-2.8
February	3,804.2	35.8	0.9	1,109.3	-43.1	-3.9
March	3,808.7	20.7	0.5	1,117.9	-30.5	-2.7
April	3,844.7	-47.6	-1.2	1,120.1	21.2	1.9
May	3,813.5	-25.7	-0.7	1,131.4	55.2	4.9
June	3,744.7	13.1	0.4	1,176.5	61.8	5.3
July	3,809.6	-46.4	-1.2	1,176.2	85.4	7.3

# **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>.