



HELLENIC REPUBLIC



HELLENIC STATISTICAL AUTHORITY

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## PRESS RELEASE

### LABOUR FORCE SURVEY: December 2012

Hellenic Statistical Authority announces the seasonally adjusted unemployment rate for December 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.

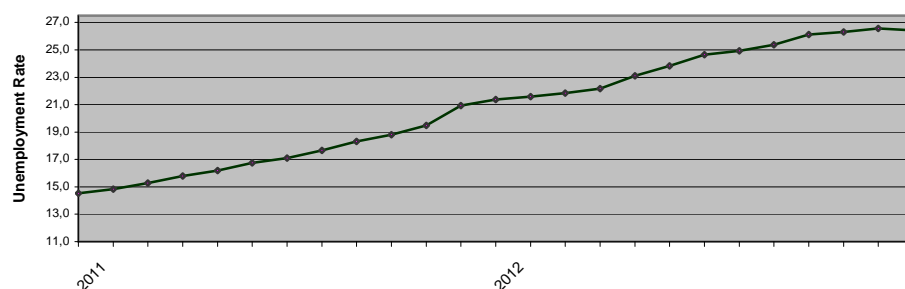
Unemployment rate in December 2012 was 26.4% compared to 21.4% in December 2011 and 26.6% in November 2012. The number of employed amounted to 3,679,074 persons. The number of unemployed amounted to 1,321,236 while the number of inactive to 3,341,863. The corresponding figures for December 2007 to 2012 are presented in Table 1.

The number of employed decreased by 208,953 persons compared with December 2011 (a 5.4% rate of decrease) and increased by 40,316 persons compared with November 2012 (a 1.1% rate of increase).

Unemployed increased by 263,596 persons (a 24.9% rate of increase) compared with December 2011 and by 4,584 persons compared with November 2012 (a 0.3% rate of increase).

Inactive persons –that is, persons that neither worked neither looked for a job– decreased by 4,584 persons (a 0.0% rate of decrease) compared with December 2011 and by 1,232 persons compared with November 2012 (no significant change).

#### Unemployment rate by month (December 2010 – December 2012)



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Tables 2 and 3 illustrate unemployment rate by gender and age groups from December 2007 to 2012. 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: December 2007-2012**

	December					
	2007	2008	2009	2010	2011	2012
Employed	4,510,944	4,515,765	4,461,544	4,257,762	3,888,026	3,679,074
Unemployed	390,670	422,868	521,143	724,069	1,057,641	1,321,236
Inactive	3,419,593	3,384,712	3,312,469	3,315,235	3,346,487	3,341,853
<b>Unemployment Rate</b>	<b>8.0</b>	<b>8.6</b>	<b>10.5</b>	<b>14.5</b>	<b>21.4</b>	<b>26.4</b>

**Table 2. Unemployment rate by gender: December 2007-2012**

Gender	December					
	2007	2008	2009	2010	2011	2012
Males	5.2	6.1	7.7	11.9	18.4	24.3
Females	12.0	12.0	14.3	18.2	25.4	29.3
<b>Total</b>	<b>8.0</b>	<b>8.6</b>	<b>10.5</b>	<b>14.5</b>	<b>21.4</b>	<b>26.4</b>

**Table 3: Unemployment rate by age groups: December 2007-2012<sup>2</sup>**

Age Group	December					
	2007	2008	2009	2010	2011	2012
15-24 years old	22.1	25.1	29.6	39.3	53.1	57.5
25-34 »	11.9	11.0	13.1	20.4	28.8	34.0
35-44 »	6.1	6.5	8.8	11.9	17.6	23.4
45-54 »	4.4	5.1	7.1	9.8	15.4	19.5
55-64 »	3.1	4.0	5.0	7.0	10.9	16.3
65-74 »	1.1	0.7	1.2	1.7	4.1	5.7
<b>Total</b>	<b>8.0</b>	<b>8.6</b>	<b>10.5</b>	<b>14.5</b>	<b>21.4</b>	<b>26.4</b>

<sup>1</sup> 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>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 December 2012 and the last 12 months, by Decentralized Administration**

Decentralized Administration	Period												
	2011	2012											
		12th	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th
Macedonia-Thrace	22.9	23.0	23.3	23.9	24.3	24.6	25.3	25.5	26.1	26.6	26.7	27.0	26.9
Epirus-Western Macedonia	23.0	23.3	23.6	24.3	24.9	25.1	26.4	26.5	27.4	27.4	27.9	27.9	28.1
Thessaly – Sterea Ellas	21.5	21.9	21.8	23.1	24.5	25.5	25.2	25.1	26.0	26.5	26.0	25.9	25.9
Peloponnese, Western Greece and Ionian Islands	18.3	19.0	18.8	18.8	19.7	21.2	22.4	22.7	23.4	24.0	23.6	23.6	23.7
Attica	22.7	22.9	23.1	23.1	23.5	23.7	24.5	26.0	26.7	27.9	28.2	28.6	28.4
Aegean	14.2	13.4	12.7	12.7	14.6	15.6	23.0	20.7	18.4	19.0	16.9	22.8	22.6
Crete	17.0	18.9	20.0	19.4	22.8	21.8	23.8	24.4	19.7	21.5	24.9	21.3	23.9
Greece, Total	21.4	21.6	21.8	22.2	23.1	23.8	24.7	24.9	25.4	26.1	26.3	26.6	26.4

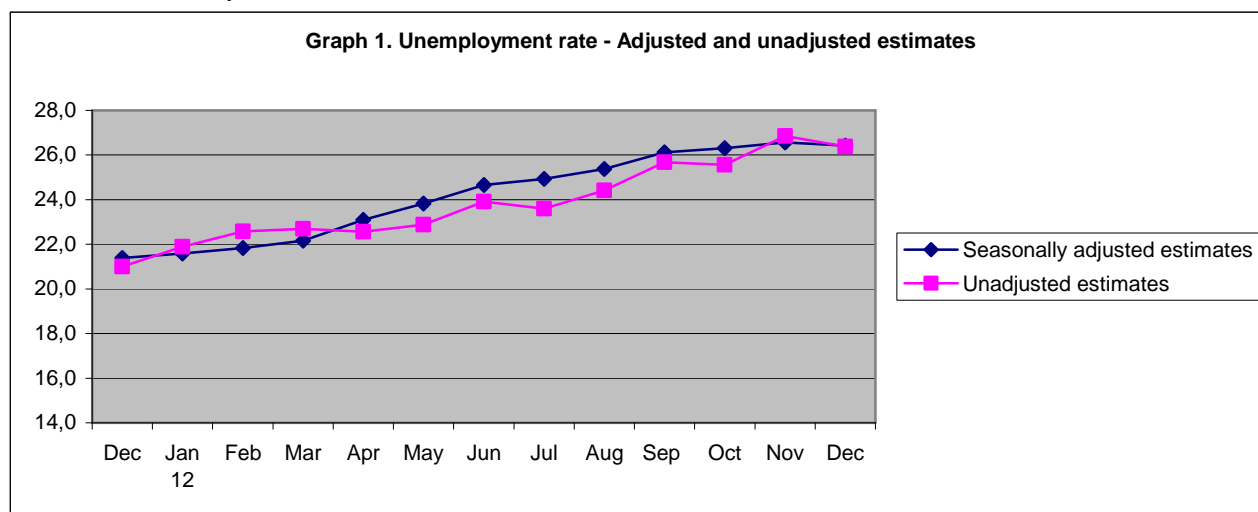
#### The effect of seasonal adjustment on the estimates of Labour Force Survey

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).

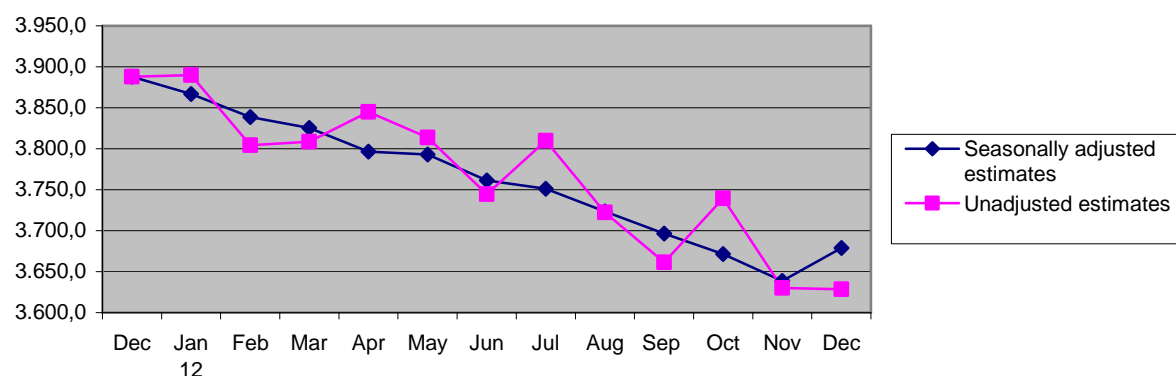
Seasonal adjustment is a statistical technique that removes the seasonal component of a time series, making more visible the underlying trend in the change of a characteristic.

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.

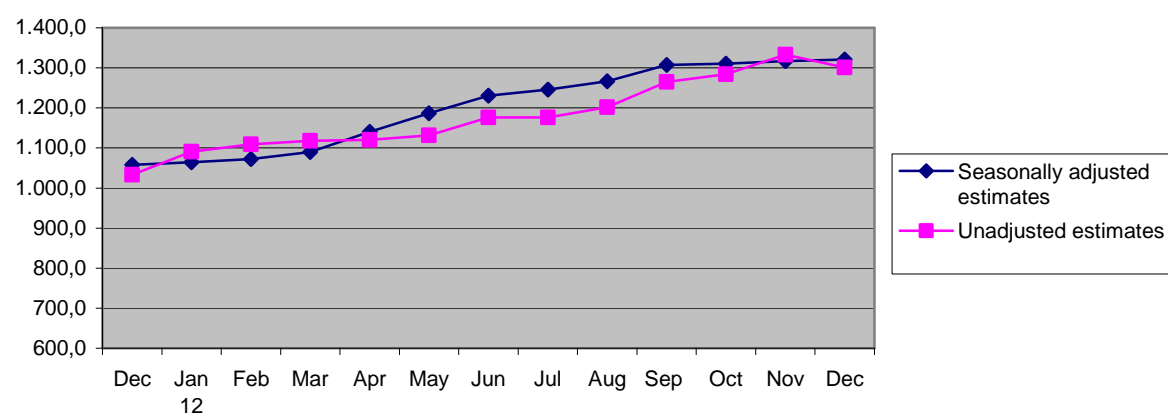
The following graphs (Graph 1 – 3) present adjusted and unadjusted time series for employed, unemployed and rate of unemployment for the period December 2011 – December 2012, while Table 5 presents, for the same period, the change in monthly estimates of employed and unemployed because of seasonal adjustment.



**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 2011	<b>3,888.1</b>	0.0	0.0	<b>1,033.5</b>	24.1	2.3
December	<b>3,889.9</b>	-23.3	-0.6	<b>1,090.5</b>	-25.9	-2.4
January 2012	<b>3,804.2</b>	34.3	0.9	<b>1,109.3</b>	-37.0	-3.3
February	<b>3,808.7</b>	16.8	0.4	<b>1,117.9</b>	-28.2	-2.5
March	<b>3,844.7</b>	-48.1	-1.3	<b>1,120.1</b>	20.1	1.8
April	<b>3,813.5</b>	-20.4	-0.5	<b>1,131.4</b>	55.0	4.9
May	<b>3,744.7</b>	16.5	0.4	<b>1,176.5</b>	54.3	4.6
June	<b>3,809.6</b>	-58.4	-1.5	<b>1,176.2</b>	69.4	5.9
July	<b>3,722.3</b>	1.2	0.0	<b>1,201.8</b>	64.6	5.4
August	<b>3,661.2</b>	35.3	1.0	<b>1,265.0</b>	42.1	3.3
September	<b>3,739.5</b>	-67.9	-1.8	<b>1,284.1</b>	26.3	2.0
October	<b>3,630.1</b>	8.6	0.2	<b>1,333.0</b>	-16.3	-1.2
December	<b>3,628.6</b>	50.5	1.4	<b>1,300.6</b>	20.6	1.6

## EXPLANATORY NOTES

<b>Labour Force Survey</b>	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.
<b>Legislation</b>	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.
<b>Reference Period</b>	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.
<b>Coverage</b>	For the monthly estimates, a sub-sample of the quarterly Labour Force survey's sample was used.
<b>Definitions</b>	<p><b>Employed</b> 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.</p> <p><b>Unemployed</b> 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.</p> <p><b>Inactive</b> are those persons who are neither classified as employed nor as unemployed.</p> <p><b>Economically active population (labour force)</b> are persons either employed or unemployed.</p>
<b>Seasonal adjustment</b>	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.
<b>Sampling errors</b>	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.
<b>Methodology</b>	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).
<b>References</b>	Analytical description of the Labour Force Survey's methodology and definitions can be found at <a href="http://www.statistics.gr">www.statistics.gr</a> .