



LABOUR FORCE SURVEY: December 2022

The Hellenic Statistical Authority (ELSTAT) announces the seasonally adjusted estimates of employment and unemployment for December 2022.

- The **seasonally adjusted unemployment rate** in December 2022 amounted to **11.6%** compared to the 12.9% in December 2021 and to the upwards revised 11.6% in November 2022.
- The **number of employed persons** amounted to 4,150,724 persons, increased by 78,907 persons as compared with December 2021 (+1.9%) and by 31,290 persons compared with November 2022 (+0.8%).
- The **number of unemployed persons** amounted to 545,372, decreased by 57,565 persons as compared with December 2021 (-9.5%) and increased by 6,170 persons compared with November 2022 (+1.1%).
- The **number of persons outside the labour force**, i.e., persons under the age of 75, that neither work nor look for a job, amounted to 3,119,710, decreasing by 52,195 persons as compared with December 2021 (-1.6%) and by 40,027 persons compared with November 2022 (-1.3%).

Graph 1 shows the evolution of the above figures as of January 2009.

The monthly estimates are subject to revisions due to the updates of the seasonally adjusted series whenever new monthly data are added, as well as to the 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 on the basis of the survey data collected and processed at the time of the press release publication, which do not coincide with the finally collected and processed data**. For this reason, the monthly estimates are revised when the final quarterly estimates are made available.

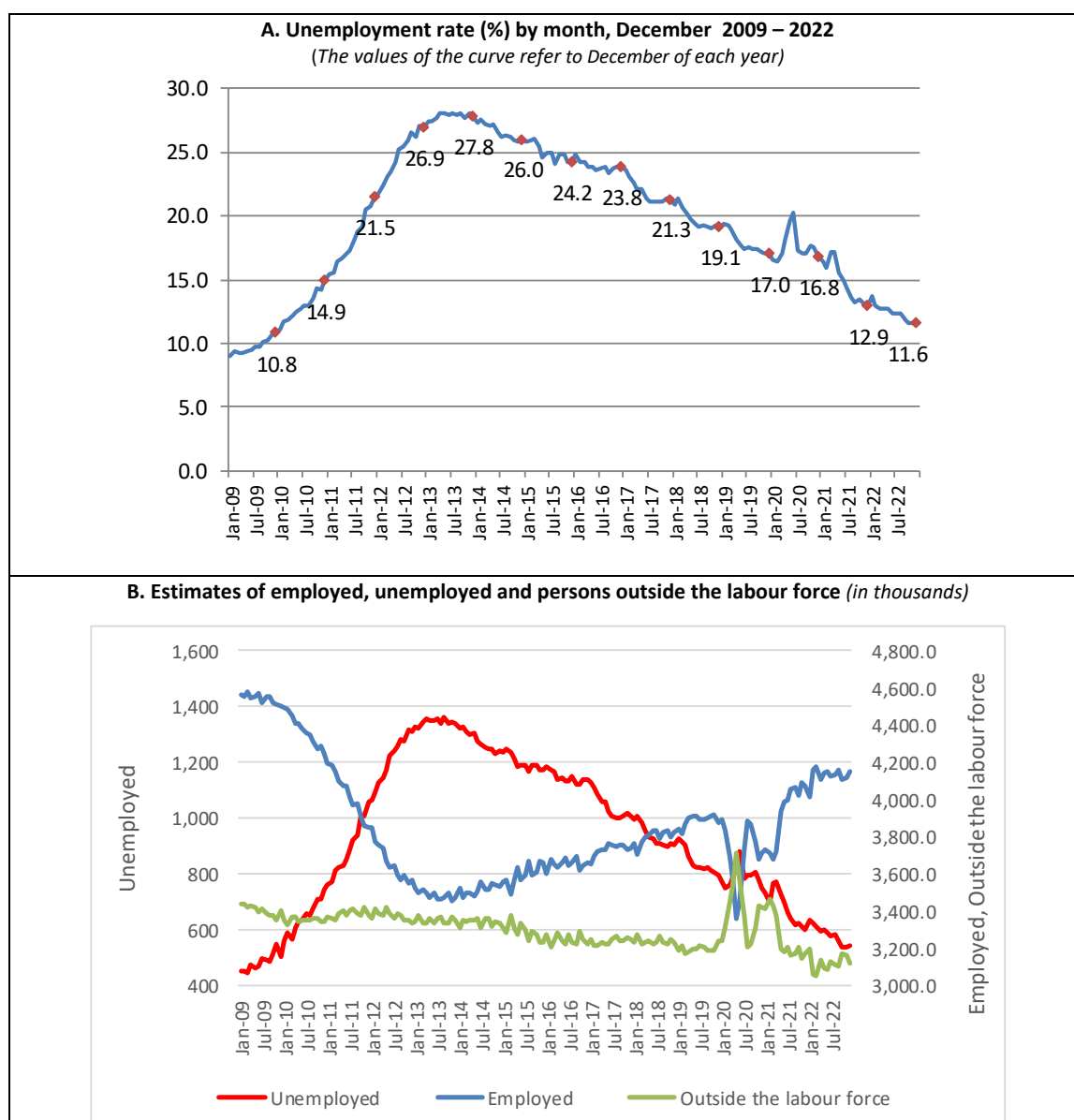
Information on methodological issues

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Graph 1: Evolution of employment and unemployment

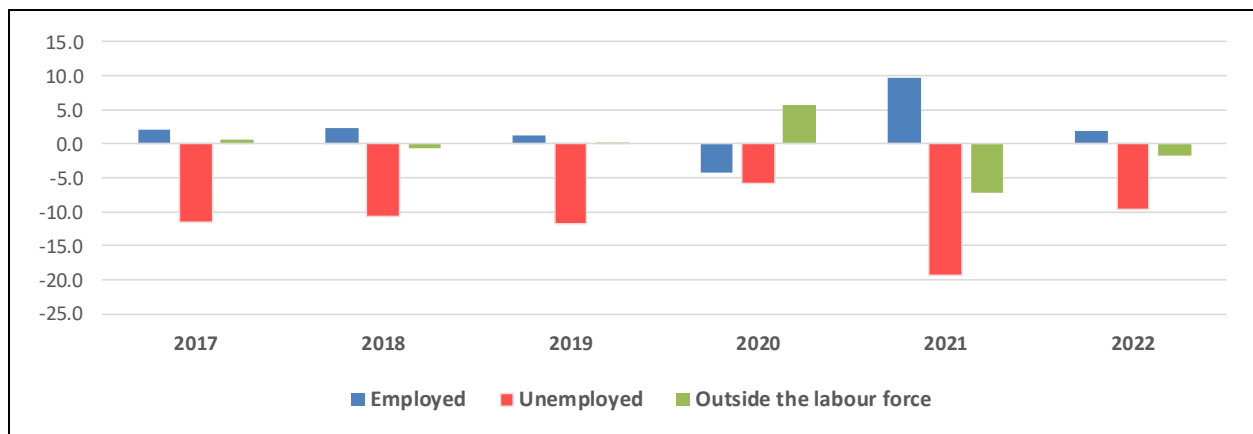


The figures and the changes of the estimates as regards the persons employed, the unemployed and the persons outside the labour force, as well as the unemployment rate for December of the years 2017-2022 are presented in Table 1. The complete data series for employed, unemployed and persons outside the labour force as well as the unemployment rate are published on ELSTAT's webpage. Graph 2 depicts the percentage changes in relation to the corresponding month of the previous year.

Table 1: Employed, unemployed, persons outside the labour force and unemployment rate (%), December 2017 – 2022

	December					
	2017	2018	2019	2020	2021	2022
Employed	3,739,518	3,824,943	3,877,211	3,709,513	4,071,817	4,150,724
Unemployed	1,009,104	901,140	795,155	748,544	602,937	545,372
Persons outside the labour force	3,248,464	3,230,250	3,237,125	3,421,216	3,171,905	3,119,710
Unemployment Rate	21.3	19.1	17.0	16.8	12.9	11.6

Graph 2: Annual changes of persons employed, unemployed and persons outside the labour force (percentage change in relation to the corresponding month of the previous year)



Tables 2 and 3 illustrate the unemployment rate by gender and age group from December 2017 to 2022.

Table 2: Unemployment rate (%) by gender, December 2017-2022

Gender	December					
	2017	2018	2019	2020	2021	2022
Males	17.3	15.2	13.6	13.6	9.6	8.3
Females	26.3	24.0	21.4	20.9	17.0	15.6
Total	21.3	19.1	17.0	16.8	12.9	11.6

Table 3: Unemployment rate (%) by aggregated age group, December 2017-2022

Age Group	December					
	2017	2018	2019	2020	2021	2022
15-24	44.2	40.7	34.3	35.5	29.7	28.9
25-74	19.9	17.8	16.1	15.8	12.1	10.7
Total	21.3	19.1	17.0	16.8	12.9	11.6

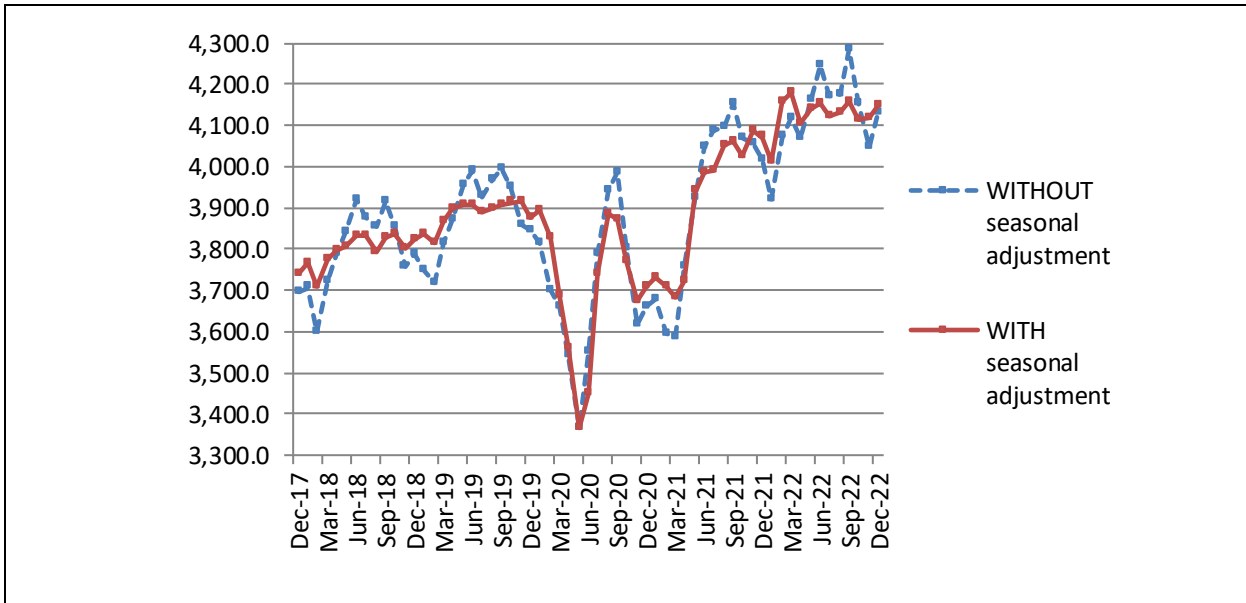
The effect of seasonal adjustment on the estimates of Labour Force Survey

The characteristics surveyed by the Labour Force Survey (number of employed, unemployed, etc.) have large seasonal variation. For example, in Greece, employment normally increases during the summer months 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. Whenever new data are added, the monthly estimates are subject to revisions due to the update of the seasonally adjusted time series.

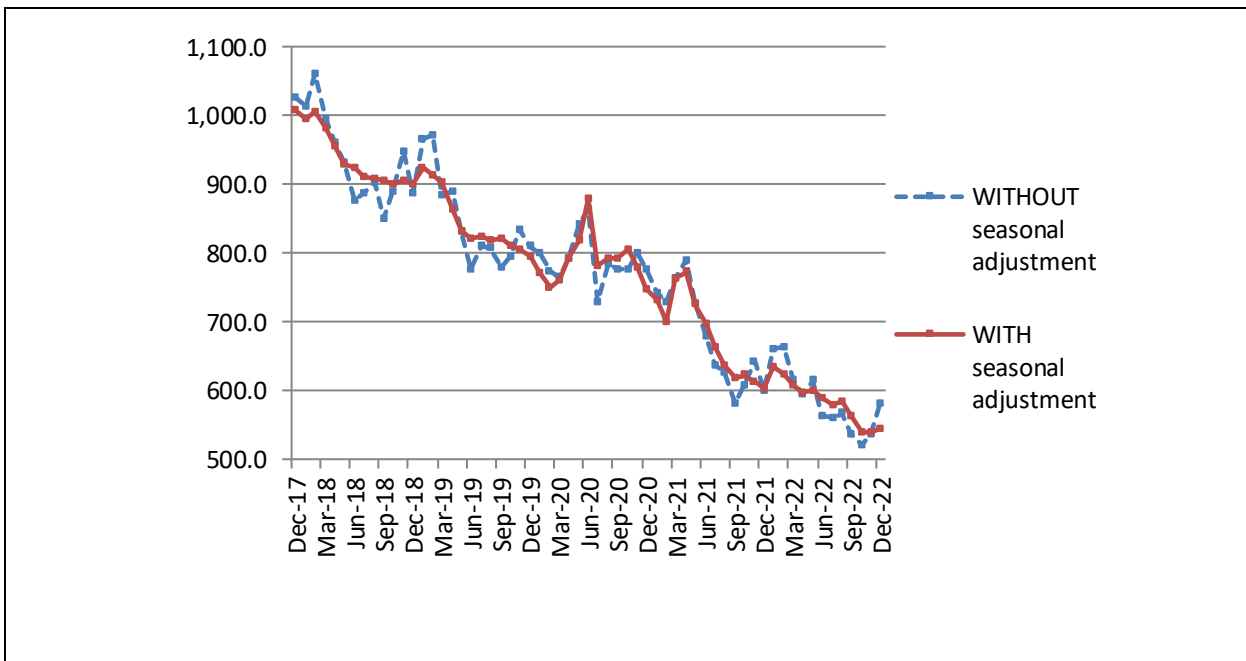
Graphs 3, 4 and 5 present the adjusted and unadjusted time series for employed and unemployed persons, and the unemployment rate as of 2017.

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



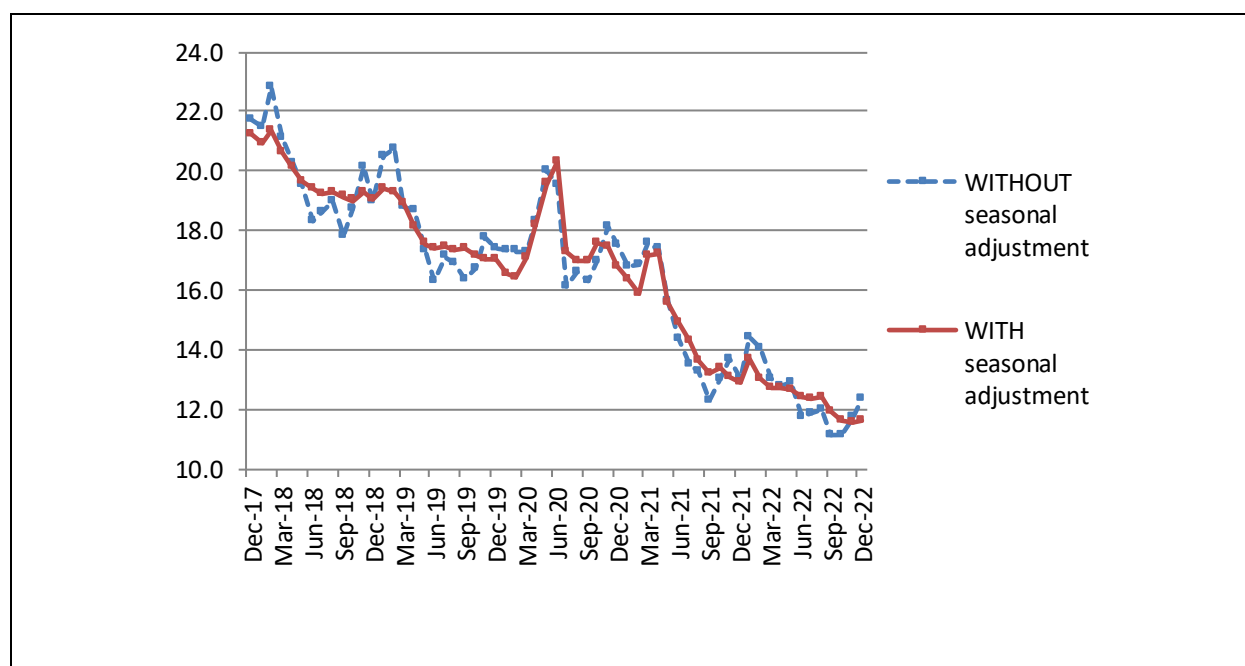
(in thousands)

Graph 4: Number of Unemployed Persons - Adjusted and Non-adjusted Estimates



(in thousands)

Graph 5: Unemployment Rate (%) - Adjusted and Non-adjusted Estimates



Revisions of monthly estimates

The monthly estimates for the number of employed and unemployed persons and the unemployment rate can be subject to revisions in the following months due to the updates to the seasonally adjusted series whenever new monthly data are added, to the inclusion of the most recent quarterly Labour Force Survey data, and the update of the seasonal adjustment model with complete annual data. In this press release the estimation of unemployment rate for the period October 2021 – November 2022 has been revised (compared to the estimation published in the previous press-release) as follows:

Table 4: Comparison of seasonally adjusted estimates

	Estimations published on January 10, 2023	Estimations published in the current press release
October 2021	13.4	13.4
November 2021	13.1	13.1
December 2021	12.9	12.9
January 2022	13.7	13.7
February 2022	13.1	13.0
March 2022	12.7	12.7
April 2022	12.7	12.7
May 2022	12.7	12.7
June 2022	12.4	12.4
July 2022	12.3	12.3
August 2022	12.3	12.4
September 2022	12.0	11.9
October 2022	11.5	11.6
November 2022	11.4	11.6
December 2022	-	11.6

EXPLANATORY NOTES

Labour Force Survey The Labour Force Survey has been conducted since 1981. Until 1997 the results were produced on an annual basis with reference to the second quarter of each year. From 1998 onwards it is a continuous quarterly survey. The main statistical objective 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 persons outside the labour force. 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 fully harmonized with European legislation. The basic act is Regulation (EC) No 2019/1700 of the European Parliament and of the Council establishing a common framework for European statistics relating to persons and households, which is in force since 1/1/2021 and replaced Regulation (EC) 577/98. Implementing Regulation (EU) 2019/2240 sets out the design and characteristics of the survey and Implementing Regulation (EU) 2019/2241 lays down the technical elements of the monthly unemployment data.

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 is used.

Definitions **Employed:** comprise persons aged 15 to 89 (in completed years at the end of the reference week) who, during the reference week, were in one of the following categories:

a) persons who during the reference week worked for at least 1 hour for pay or profit, including contributing family workers

b) persons with a job or business who were temporarily not at work during the reference week but had an attachment to their job, where the following groups have a job attachment:

- persons not at work due to holidays, working time arrangements, sick leave, maternity or paternity leave;

- persons in job-related training;

- persons on parental leave, either receiving and/or being entitled to job-related income or benefits, or whose parental leave is expected to be 3 months or less;

- seasonal workers during the off-season, where they continue to regularly perform tasks and duties for the job or business, excluding fulfilment of legal or administrative obligations;

- persons temporarily not at work for other reasons where the expected duration of the absence is 3 months or less.

Note: contributing family workers, persons in own-use production work, voluntary workers, unpaid trainees and individuals involved in other forms of work are defined in the 19th International Conference of Labour Statisticians (ICLS) Resolution concerning statistics of work, employment and labour underutilisation, adopted on 11 October 2013.

Unemployed persons comprise persons aged 15 to 74 who were, during the reference week, (a) not employed, (b) currently available for work, and (c) actively seeking work, or found a job to start within a period of at most 3 months from the end of the reference week.

Persons outside the labour force comprise persons who were in one of the following categories: (a) aged below 15, (b) aged above 89, or (c) aged 15 to 89 and neither employed nor unemployed during the reference week, according to the definitions of employment and unemployment described above.

Economically active population (labour force) are persons either employed or unemployed.

Unemployment Rate is the ratio of unemployed divided by total labour force.

**Changes in
Labor Force
Survey as of
2021**

	Up to 2020	From 2021 onwards
Data collection	Paper questionnaires	By electronic means (CAPI)
Questionnaire	The number of the surveyed characteristics and the relevant questions remained the same for every quarter of the year.	The number of the surveyed characteristics and the relevant questions changes every quarter. For specific characteristics, only annual estimates are produced.
Definition of employed	<p>Population: Persons aged 15 years and over.</p> <p>Persons who reported that they did not work in the reference week but had a job from which they were temporarily absent are classified as employed, except in the following cases:</p> <ul style="list-style-type: none"> • Employees who are non-active, are absent for more than 3 months and receive less than 50 % of their salary. • Employees who are absent from work due to seasonality. <p>Self-employed persons are employed in all cases (including family workers).</p>	<p>Population: Persons aged 15-89 years.</p> <p>Persons who reported that they did not work in the reference week but had a job from which they were temporarily absent are considered to be employed only if the duration of their absence is less than 3 months or if they continue to receive income from their work.</p> <ul style="list-style-type: none"> • Sick leave, maternity/paternity leave, and educational leave are excluded, and in these cases, persons are classified as employed. <p>Seasonal workers, regardless of professional status, who reported that they did not work in the reference week but had a job from which they were temporarily absent due to seasonality are considered to be employed only if they perform tasks related to their work (e.g. renovation, business trip) excluding legal or administrative obligations.</p>

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 JDemetra+ 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 10,000 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 into 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. For reasons of public health protection from the COVID-19 pandemic, data were collected mainly by way of telephone interviews.

References More information about the monthly Labor Force Survey can be found on the ELSTAT website, at the link: <https://www.statistics.gr/en/statistics/-/publication/SJO02/->