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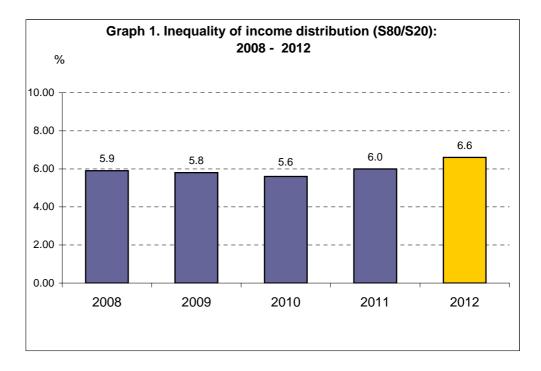
# PRESS RELEASE

# STATISTICS ON INCOME AND LIVING CONDITIONS 2012 (Income reference period 2011)

# Income inequality

The Hellenic Statistical Authority (ELSTAT) announces data on inequality in income distribution, based on the available results of the 2012 Survey on Income and Living Conditions of Households (EU-SILC), with reference income period the year 2011. Income inequality is mainly depicted by the indicators S80/S20 (income quintile share ratio) and the Gini coefficient (income inequality distribution). EU-SILC is the main source for comparable statistics on income distribution and social exclusion at European level.

The results of the 2013 survey, with reference income period the previous calendar year 2012, will be released in September 2014.



For further information: Population and Labor Market Statistics Division Household Surveys' Section Giorgos Ntouros: tel: 0030 213 1352174 fax: 0030 213 1352906 e-mail:

geodouro@statistics.gr

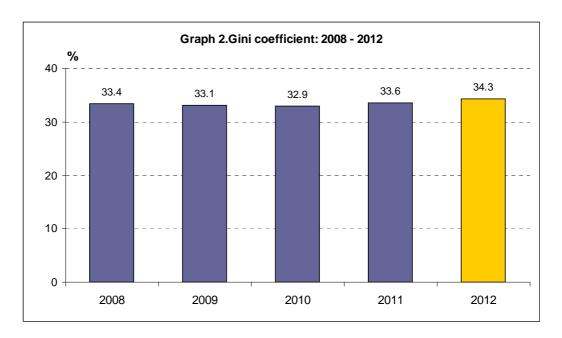
# A. Inequality of income distribution: income quintile share ratio (\$80/\$20 ratio)

- The income quintile share ratio or S80/S20 is the ratio of the total of equivalised disposable income received by the 20% of the country's population with the highest equivalised disposable income (top inter-quintile interval) to that received by the 20% of the country's population with the lowest equivalised disposable income (lowest interquintile interval).
- In 2012 the S80/S20 ratio, with reference income period the year 2011, rose to 6.6, meaning that the share of the income of the wealthiest 20% of the population is 6.6 times higher than the share of the income of the poorest 20% of the population. In 2008 the S80/S20 ratio, with reference income period the year 2007, rose to 5.9 and in 2010 the S80/S20 ratio, with reference income period the year 2009, rose to 5.6 (Graph 1, Table 1).
- Income inequality as measured by the S80/S20 ratio for persons aged 65 years and over is estimated at 4.5 and remained stable from 2011, while for persons under 65 years old it increased to 7.4 from 6.3 in the previous year (Table 1).
- Table 2 shows the distribution of income quartiles. The first quartile of households (25% of households with the lowest income) holds 8.7% of total national income, while in 2011 it held 9.4%. The fourth quartile of households with the highest income holds 47% of the total national income, while in 2011 it held 46.8%

# B. Inequality of income distribution: Gini coefficient

In order to depict more accurately income inequality, another indicator - the Gini coefficient - is complementarily used because as already mentioned, the S80/S20 ratio is affected by the extreme values of income distribution.

The Gini coefficient is defined as the relationship of cumulative shares of the population arranged according to the level of equivalised disposable income, to the cumulative share of the equivalised total disposable income received by them. If there was perfect income equality (i.e. all persons receive the same income), the Gini coefficient would be 0%. A Gini coefficient of 100% indicates that there is total income inequality and the entire national income is in the hands of one person. For example, a Gini coefficient of 30% means that choosing randomly 2 persons, the difference between their income is at 30% of the mean income.



- In 2012 the Gini coefficient reached 34.3%. This means that choosing randomly 2 persons, we expect that their income will differ by 34.3% of the mean income. In 2012 the Gini coefficient increased by 0.7 percentage points compared with 2011 when the Gini coefficient was 33.6% (Graph 2, Table 3).
- In comparison with 1994, when the survey begun, the overall inequality decreased by 3.1 pencentage points (37.4% in 1994).
- In comparison with 2008, the overall inequality increased by 0.9 pencentage points (33.4% in 2008).
- In comparison with 2010, the overall inequality increased by 1.4 pencentage points (32.9% in 2010).
- Inequality of income distribution in Europe, as depicted by the S80/S20 ratio and the Gini coefficient is shown in Table 4. At one extreme, the European country with the highest rates is Spain (S80/20: 7.2% and Gini coefficient: 35%). At the other extreme, the European country with the lowest rates is Norway (S80/20: 3.2% and Gini coefficient: 22.6%).

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For further information on the survey please visit ELSTAT's webpage <u>Survey on income and living</u> conditions (EU-SILC)

**TABLES** 

Table 1. Inequality of income distribution: S80/S20 ratio by age groups: 2008 - 2012

Age groups	2008	2009	2010	2011	2012
Total	5.9	5.8	5.6	6.0	6.6
65+	4.5	4.1	4.1	4.5	4.5
0- 64	6.2	6.2	6.0	6.3	7.4

*Table 2.* Distribution of income by quartiles: 2008 - 2012

Quartiles	2008	2009	2010	2011	2012
Quartile 1 (lowest income)	9.6	9.8	9.9	9.4	8.7
Quartile 2	17.9	18	17.9	17.7	17.9
Quartile 3	25.6	25.5	25.7	26.1	26.4
Quartile 4 (highest income)	46.9	46.7	46.5	46.8	47.0

Table 3. Gini coefficient: 2008 - 2012

%					
Total	2008	2009	2010	2011	2012
Total	33.4	33.1	32.9	33.6	34.3

Table 4. Inequality of income distribution: S80/S20 ratio and Gini coefficient in Europe: 2012

Countries	S80/S20	Gini Coefficient (%)	
Spain	7.2	35.	
Greece	6.6	34.3	
Latvia	6.5	35.9	
Romania	6.3	33.2	
Bulgaria	6.1	33.6	
Portugal	5.8	34.5	
Italy	5.6	32.1	
Estonia	5.4	32.5	
Croatia	5.4	30.5	
Lithuania	5.3	32.0	
Poland	4.9	30.9	
Cyprus	4.7	31.0	
Denmark	4.5	28.1	
France	4.5	30.5	
Germany	4.3	28.3	
Luxembourg	4.1	28.0	
Hungary	4.0	26.9	
Malta	3.9	27.2	
Slovakia	3.7	25.3	
Finland	3.7	25.9	
Netherlands	3.6	25.4	
Sweden	3.7	24.9	
Netherlands	3.6	25.4	
Czech Republic	3.5	24.9	
Slovenia	3.4	23.7	
Iceland	3.4	24.0	
Norway	3.2	22.6	

#### **EXPLANATORY NOTES**

## European Union -Statistics on Income and Living Conditions - EU-SILC

The Survey on Income and Living Conditions (EU-SILC) is part of a European Statistical Programme to which all Member States participate and which replaced in 2003 the European Household Panel Survey with a view to improving the quality of statistical data concerning poverty and social exclusion. The basic aim of the survey is to study, both at national and European level, the household's living conditions mainly in relation to their income. This survey is the basic source for comparable statistics on income distribution and social exclusion at European level. The use of commonly accepted questionnaires, primary target variables and concepts – definitions ensures data comparability.

#### Legal basis

The survey is in compliance with the Regulation (EC) No 1177/2003 of the European Parliament and of the Council concerning Community Statistics on Income and Living Conditions (EU-SILC) and is being conducted upon the decision of the Ministry of Economy and Finance.

# Income reference period used

The income reference period is a fixed twelve-month period, namely the previous calendar year.

#### Coverage

The survey covers all private households throughout the country irrespective of their size or socioeconomic characteristics. The following are excluded from the survey:

- Institutional households of all types (boarding houses, elderly homes, hospitals, prisons, rehabilitation centers, camps, etc.) More generally, households with more than five lodgers are considered institutional households.
- Households with foreigners serving in diplomatic missions.

#### Methodology

The survey is a *simple rotational design* survey, which was selected as the most suitable for single cross- sectional and longitudinal survey. The final sampling unit is the household. The sampling units are the households and their members.

The sample for any year consists of 4 replications, which have been in the survey for 1-4 years. With the exception of the first three years of survey, any particular replication remains in the survey for 4 years. Each year, one of the 4 replications from the previous year is dropped and a new one is added. In order to have a complete sample the first year of survey, the four panels began simultaneously. For the EU-SILC longitudinal component. The people who were selected initially are interviewed for a period of four years, equal to the duration of each panel.

EU-SILC survey is based on a two-stage stratified sampling of households from a frame of sampling which has been created on the basis of the results of the 2001 population census and covers completely the reference population.

There are two levels of area stratification in the sampling design.

- i) The first level is the geographical stratification based on the division of the total country area into thirteen (13) standard administrative regions corresponding to the European NUTS 2 level. The two major city agglomerations of Greater Athens area and Greater Thessaloniki area constitute two separate major geographical strata.
- ii) The second level of stratification entails grouping municipalities and communes within each NUTS 2 Regions by degree of urbanization. i.e. according to their population size. The scaling of urbanization was finally designed in four groups:
  - >= 30.000 inhabitants
  - 5.000-29.999 inhabitants
  - 1.000-4.999 inhabitants
  - 0-999 inhabitants

# Sample selection schemes

- i) In this stage, from any ultimate stratum (crossing of Region with the degree of urbanization). -say stratum h,  $n_h$  primary units were drawn; where the number  $n_h$  of draws was approximately proportional to the population size  $X_h$  of the stratum (number of households according to the 2001 population census).
- ii) In this stage from each primary sampling unit (selected area) the sample of ultimate units (households) is selected. Actually, in the second stage we draw a sample of dwellings. However, in most cases, there is one to one relation between household and dwelling. If the selected dwelling consists of one or more households, then all of them are interviewed.

#### Sample size

In 2012, the survey was conducted on a final sample of 5,626 households and on 13,689 members of those households, 11,698 of them are aged 16 years and over. The average is calculated at 2.5 members per household.

#### Weightings

For the estimation of the characteristics of the survey the data of each person and household of the sample were multiplied by a reductive factor. The reductive factor results as product of the following three factors (weights):

- a. The reverse probability of choice of an individual, that coincides with the reverse probability of choice of a household.
- b. Reverse of the response rate of households inside the strata.
- c. A corrective factor. which is determined in a way that:
- i) The estimation of persons by gender and age groups that will result by geographic region coincides with the corresponding number, which was calculated with projection for the survey reference period and was based on vital statistics (2001 population census, births. deaths. immigration).
- ii) the estimation of households by size order (1, 2, 3, 4 or 5+ members) and by tenure status coincides with the reference year that was calculated with projection that was based on the longitudinal tendency of the 1991 and 2001 population censuses.

### **Equalised income**

According to the methodology for measuring poverty, the poverty line is calculated with its relative concept (poor in relation to others) and it is defined at 60% of the median total equivalised disposable income of the household, using the modified OECD equivalised scale.

Total equivalised disposable income of the household is considered the total net income (that is, income after deducting taxes and social contributions) received by all household members.

More specifically the income components included in the survey are:

- Income from work
- Income from property
- Social transfers and pensions
- Monetary transfers from other households and
- Imputed income from the use of a company car.

Equivalent available individual income is considered the total available income of household after being divided by the equivalent size of household. The equivalent size of household is calculated according to the modified scale of OECD.

It is pointed out that in the distribution per person it is suggested that each member of the household possesses the same income that corresponds to the equivalised disposable income. This means that each member of the household enjoys the same level of living. Consequently, in the distribution per person, the income that is attributed to each person does not represent wages, but an indicator of level of living.

The total available income of the household is calculated as the sum of income of the household's members (income from salaried services, from self-employment, pensions, benefits of unemployment income from property, familial benefits, regular pecuniary transfers etc) that is to say, the total of net earnings coming from all the sources of income after the abstraction of by any benefits to other households. To this sum the tax should also be added pertaining to also the tax that what potentially was returned and concerned the income declaration of the previous year.

# Equivalence scale

Equivalent size refers to the OECD modified scale which gives a weight of 1.0 to the first adult, 0.5 to other persons aged 14 or over who are living in the household and 0.3 to each child aged under 14. Example: The income of household with two adults and two children under 14 years of age is divided by 1+0.5+2\*0.3=2.1. Accordingly, the income of the household with 2 adults is divided by 1+0.5=1,5 and the income of a household with 2 adults and 2 children aged 14 and over is divided by 1+0.5+(2x0.5)=2.5, etc.

# **Indicators**

- 1. Income quintile share ratio (S80/S20 ) Inequality of income distribution
- 2. Gini coefficient (inequality of income distribution)

#### **Indicators' definition**

### 1. Income quintile share ratio

The 'S80/S20 income quintile share ratio' is the ratio of the total of equivalised disposable income received by the 20% of the country's population with the highest equivalised disposable income (top inter-quintile interval) to that received by the 20% of the country's population with the lowest equivalised disposable income (lowest inter-quintile interval).

# 2. Gini coefficient (inequality of income distribution)

The Gini coefficient is defined as the relationship of cumulative shares of the population arranged according to the level of equivalised disposable income. to the cumulative share of the equivalised total disposable income received by them. If there was perfect income equality (i.e. all persons receive the same income) the Gini coefficient would be 0%. A Gini coefficient of 100% indicates that there is total income inequality and the entire national income is in the hands of one person. For example, a Gini coefficient of 30% means that choosing randomly 2 persons, the difference between their income is at 30% of the mean income.

#### References

More information on the survey is available on the webpage of El.STAT: <a href="www.statistics.gr">www.statistics.gr</a>, Section: Statistical Themes> Income – Expenditure> Income and Living Conditions».