Structure of earnings survey (SES)
TYPE
  Sampling survey

  The survey covered all local units belonging to enterprises with average annual employment 10 persons or more in the areas of economic activity defined by sections C-K and M-O of NACE Rev.1. The sampling frame that was used for the selection of the primary sampling units (enterprises) was the updated register of enterprises of the NSSG.
  At first, the enterprises were selected from the sampling frame, in order to trace the local units for data collection, since the survey units are the local units and those were not included in the register of the enterprises. Then, all local units of the enterprises were surveyed exhaustively.
  The enterprises with average annual employment 10 persons or more included in the survey were stratified by:

  a.   Great Geographic Area – NUTS I (Northern Greece, Central Greece, Attica, Aegean Islands and Crete)
  b.   Two-digit NACE Rev.1 code of economic activity within each geographical region   (Geography x Economic Activity = Major stratum), and
  c.   Size class of the enterprise. In each of the major strata, the enterprises were stratified into 8 size strata, according to their size, determined by their average annual number of employees in the business register, as follows.

Size class 1		10-19	Employees
"	2	20-49	"
"	3	50-99	"
"	4	100-249	"
"	5	250-499	"
"	6	500-999	"
"	7	1.000-4999	"
"	8	5.000 or more	"

For size classes 4-8 all enterprises were included in the sample (census classes).
In each one of the final strata (let h = Geography x Economic Activity x Size Class) the sampling units were selected as follows:

1st stage: Firstly, a sample n_h of primary units (enterprises) was selected out of the N_h in the stratum. As for size classes 4-8 all enterprises were included in the sample $N_h = n_h$.

2nd stage: In each selected primary unit, let i, n_{hi} local units were equal to N_{hi} local units (secondary units).

3rd stage: In each selected secondary unit ij, a sample m_{hij} of employees was selected out of the M_{hij} employees included in the secondary unit during the survey period (j =1,2, ..., n_{hi})

Estimation process

Extrapolation factor of local units in stratum h

The extrapolation factor of each local unit was based on the inverse of the probability of selection of the primary units. More specifically:
The extrapolation factor of the local units coincides with the extrapolation factor of the enterprise because $N_{hi} = n_{hi}$, that is:

$$W_{hij} = W_{hi} = \frac{N_h}{n_h} \times [r_h]^{-1}$$

where r_h = the response rate of enterprises in stratum h

Extrapolation factor of employees in stratum h

The extrapolation factor of each employee k that was surveyed (employed in local unit j of enterprise i in stratum h), was calculated using the formula:

$$W_{hijk} = W_{hij} \times \frac{M_{hij}}{m_{hij}}$$

Estimation of the basic characteristics

In each stratum, the estimation $\widehat{Y}_h$ of the characteristic y of the survey was calculated using the following formula

$$\widehat{Y}_h = \sum_{i-1}^{n_h} \sum_{j-1}^{n_{hi}} \sum_{k=1}^{m_{hij}} W_{hijk} \cdot y_{hijk}$$

where

y_{hijk} : The value of the characteristic y of the employee of order k in the sample in the local unit j of the enterprise i in stratum h

In case the characteristic y is a qualitative variable (e.g. we are interested in the category "full time employees"), then the specific variable takes the following values:

y_{hijk} = 1, if the surveyed employee belongs to the category of interest

y_{hijk} = 0, if the surveyed employee does not belong to the category of interest

Estimation of a basic characteristic in country level

The estimation of a characteristic y in country level, Y_{ctot} (e.g. variable y in country level of a two-digit NACE Rev.1 code of economic activity), is calculated by adding up the estimations $\widehat{Y}_h$ of every stratum that contains the local units belonging to the specific two-digit NACE Rev.1 code economic activity.