Structural Business Survey on shipping companies
TYPE
Sampling survey

The enterprises were selected from the sampling frame that was based on the updated business register of the NSSG. The enterprises included in the survey were stratified as following:

a) By region-NUTS II

b) By size class of the enterprises. In each of the major strata (geography x size class), the enterprises were stratified into H=6 size strata, according to their size, determined by their annual turnover, as follows:

Class	Turnover description (amounts in Euros)		
1	1	Through	49.999
2	50.000	Through	199.999
3	200.000	Through	599.999
4	600.000	Through	1.999.999
5	2.000.000	Through	4.999.999
6	5.000.000	Through	Highest

The enterprises belonging to size class 6 were surveyed exhaustively.

Survey characteristics estimation
a. Symbols

In each stratum let:

y_{hi}: the value of the characteristic y of enterprise of order i belonging to the stratum h

N_h: the total number of enterprises belonging to the stratum h

n_h: the number of the respondent enterprises

Y_h: the total of the variable y for all enterprises in stratum h

Y: the total of the variable y for all enterprises in all strata. That is:

$$Y = \sum_h Y_h$$

b. Estimation process

The estimation of Y_h and Y is given by the following formulas:

$$\hat{Y}_h = \frac{N_h}{n_h} \sum_{i=1}^{n_h} y_{hi}$$

$$\hat{Y} = \sum_h \hat{Y}_h$$

c. Variance estimation

The variance estimation of $\hat{Y}_h$ and $\hat{Y}$ is given by:

$$V\left(\overset{\jmath}{Y}_h\right)=\frac{N_h\left(N_h-n_h\right)}{n_h}S_h^2,$$

Where:

$$S_h^2=\frac{1}{n_h-1}\left[\sum_{i=1}^{n_h}y_{hi}^2-\frac{\left(\sum_{i=1}^{n_h}y_{hi}\right)^2}{n_h}\right],$$

$$V\left(\overset{\jmath}{Y}\right)=\sum_h V\left(\overset{\jmath}{Y}_h\right)$$

The coefficient of variation (%) of total estimation $\overset{\jmath}{Y}$ is given by:

$$CV\left(\overset{\jmath}{Y}\right)=\frac{\sqrt{V\left(\overset{\jmath}{Y}\right)}}{\overset{\jmath}{Y}}*100$$

The coefficients of variation (%) of the basic survey characteristics are depicted at the following tables by economic activity, employment size class and region:

Table 1: *Coefficient of variation (%) by economic activity*

NACE Rev. 1	Number of enterprises	Turnover	Value - added at factor cost	Personnel costs	Gross investments in tangible goods	Number of employees
I	-	0,0	0,0	0,1	0,0	0,0
61	-	0,8	1,8	1,3	12,0	3,2
611	0,0	0,8	1,8	1,3	12,8	3,2
612	0,0	7,3	15,1	6,2	27,8	18,2

Table 2: *Coefficient of variation (%) by economic activity and employment size class*

NACE3 Rev. 1	Employment size class	Number of enterprises	Turnover	Value - added at factor cost
611	<= 19.00	0,0	17,8	10,8
611	19.01 - 249.00	0,0	2,6	6,2
611	249.01 - 999.00	0,0	0,0	0,0
611	999.01+	0,0	0,0	0,0
612	<= 19.00	0,0	24,3	24,5
612	19.01 - 249.00	0,0	6,5	9,0
612	249.01 - 999.00	0,0	0,0	0,0
612	999.01+	0,0	0,0	0,0

Table 3: *Coefficient of variation (%) by economic activity and region*

NACE2 Rev. 1	Region (NUTS II)	Number of local units	Wages and salaries
61	Eastern Macedonia & Thrace	0,0	8,7
61	Central Macedonia	0,0	3,4
61	Western Macedonia	0,0	0,0
61	Thessaly	0,0	3,6
61	Epirus	0,0	2,1
61	Ionian islands	0,0	3,8
61	Western Greece	0,0	3,7
61	Central Greece	0,0	2,9
61	Peloponnese	0,0	0,6
61	Attica	0,0	3,7
61	North Aegean	0,0	2,7
61	South Aegean	0,0	3,8
61	Crete	0,0	0,3