

18 June 2019

**Energy Consumption Survey 2017**  
Final data

**The mining and quarrying and manufacturing industries' energy consumption fell by 4.0% in 2017 compared to 2015**

**The branches of activity with the highest consumption were the chemical industry, food industry and metallurgy**

**The main energy product used is electricity, with 59.2% of the total consumption for the sector**

Industrial companies' energy consumption<sup>12</sup> reached 10,522 million euros in 2017, with a 4.0% decrease compared to 2015, the last year in which this biennial survey was conducted.

The main energy products used by industrial companies were electricity (59.2% of the total), gas (28.3%) and petroleum products (7.4%).

**Energy consumption in industry, by type of product. 2017**

Type of product	Consumption (thousands of euros)	% of the total	Variation 2017/2015 (%)
Electricity	6,227,459	59.2	0.8
Gas	2,981,674	28.3	-13.5
Petroleum products	780,010	7.4	3.5
- Gasoil	587,170	5.6	1.2
- Fueloil	85,978	0.8	-16.3
- Petrol and others	106,862	1.0	51.8
Coal and coke	151,522	1.4	0.2
Biofuels	27,910	0.3	-57.9
Heat and other products	353,763	3.4	-2.8
<b>TOTAL</b>	<b>10,522,338</b>	<b>100.0</b>	<b>-4.0</b>

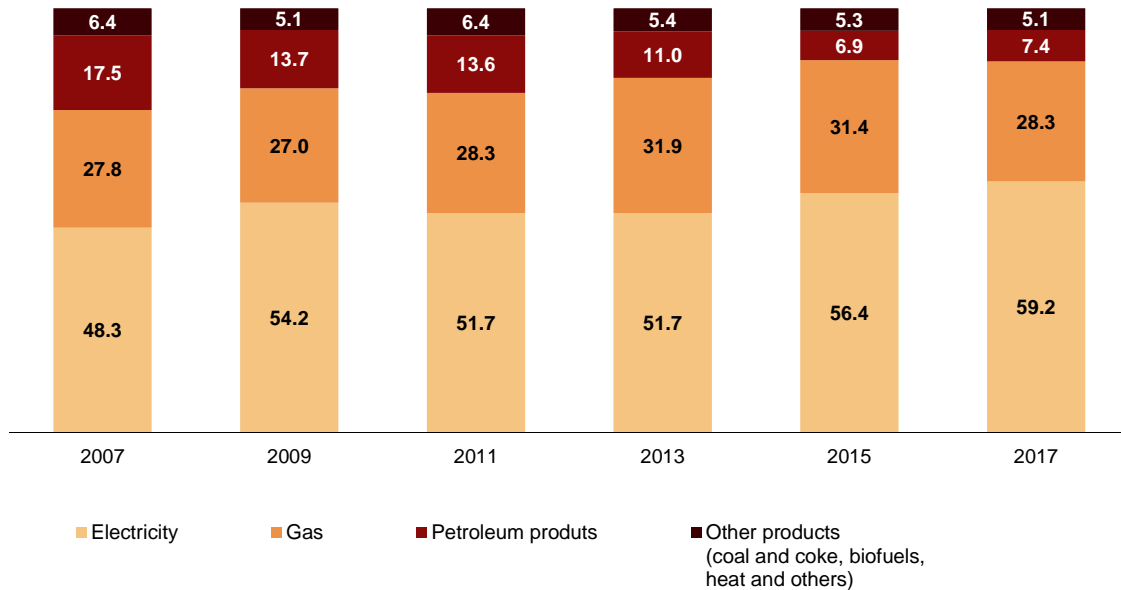
<sup>1</sup> Energy consumption is measured in monetary terms, at current prices. Therefore, its evolution takes into account both the amount consumed and the variation in different energy products' prices.

<sup>2</sup>The target population of study of the Energy Consumption Survey is companies with 20 or more employees, and whose main activity is described in Sections B and C of the 2009 CNAE.

In the last 10 years, electricity has remained the main energy product in terms of consumption, with percentages ranging from 48.3% of the total in 2007 to 59.2% in 2017.

On the other hand, the consumption of petroleum products has been decreasing over this period, reaching 7.4% of the total, while 10 years earlier it represented 17.5% of total consumption.

## Percentage distribution of energy consumption in industry, by type of product. 2007-2017

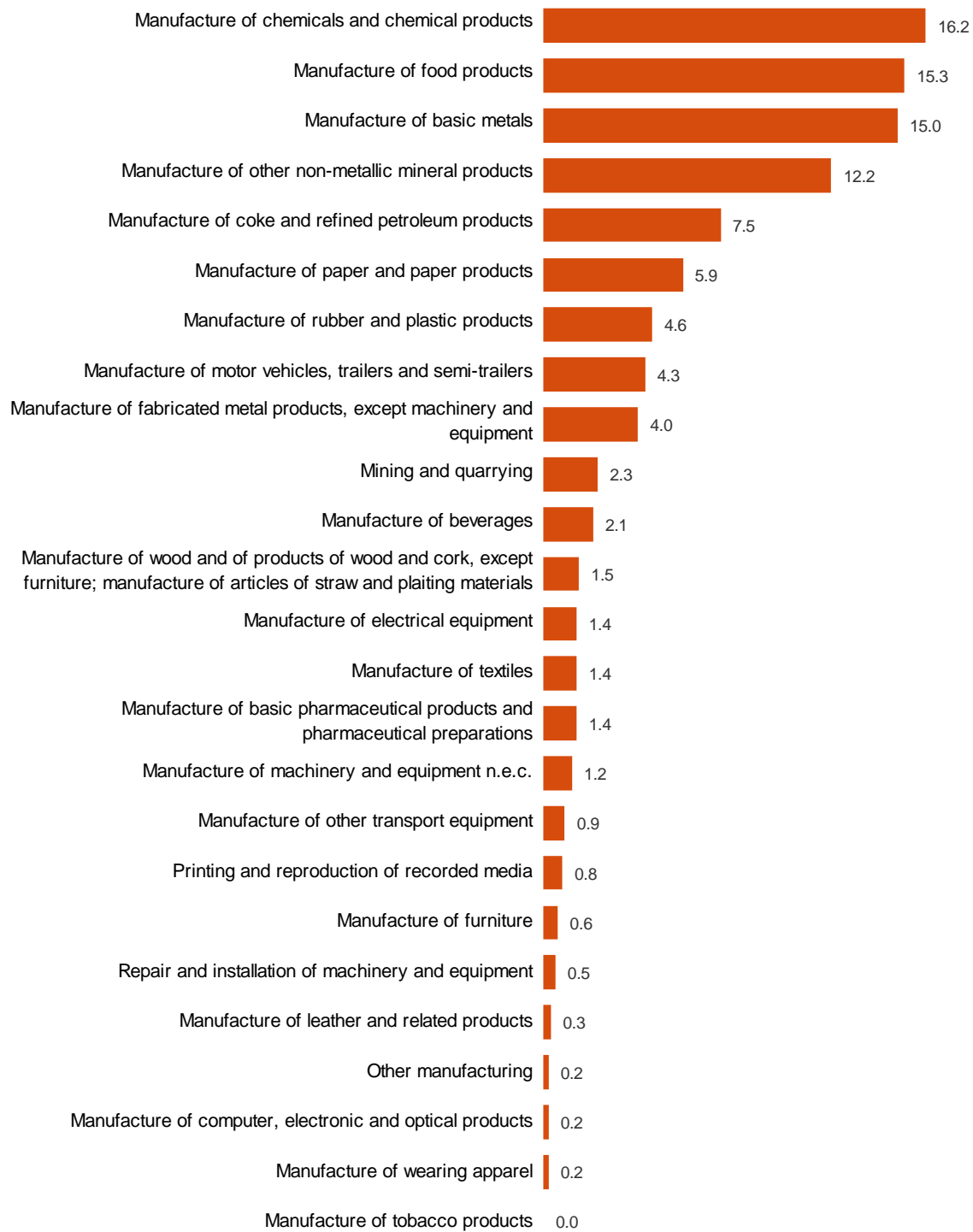


## Results by branch of activity

The industrial branches of activity with the highest consumption in 2017 were the *Chemical industry* (1,709 million euros, 16.2% of energy consumption in the sector), *Food industry* (1,614 million, 15.3%) and *Metallurgy; manufacture of iron, steel and ferro-alloy products* (1,578 million, 15.0%).

In turn, the activities with the lowest consumption were the *Tobacco industry* (0.03%) and *Manufacture of clothing* and *Manufacture of computer, electronic and optical products* (both with 0.2%).

**Percentage distribution of energy consumption in industry, by branch of activity. 2017**



**Energy consumption in industry, by branch of activity. 2017**

Branches of activity	Energy consumption (thousands of euros)	Energy consumption / Purchases (%)
<b>Mining and quarrying</b>	<b>239,459</b>	<b>12.2</b>
<b>Manufacturing</b>	<b>10,282,879</b>	<b>2.9</b>
- Manufacture of food products	1,613,663	2.2
- Manufacture of beverages	221,253	2.0
- Manufacture of tobacco products	3,603	0.8
- Manufacture of textiles	145,613	4.6
- Manufacture of wearing apparel	21,015	0.8
- Manufacture of leather and related products	29,670	1.2
- Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	158,773	4.7
- Manufacture of paper and paper products	620,328	6.5
- Printing and reproduction of recorded media	83,439	3.8
- Manufacture of coke and refined petroleum products	785,326	2.2
- Manufacture of chemicals and chemical products	1,709,354	5.6
- Manufacture of basic pharmaceutical products and pharmaceutical preparations	144,950	1.6
- Manufacture of rubber and plastic products	486,801	3.5
- Manufacture of other non-metallic mineral products	1,285,551	11.1
- Manufacture of basic metals	1,577,710	5.9
- Manufacture of fabricated metal products, except machinery and	416,172	2.2
- Manufacture of computer, electronic and optical products	23,079	0.9
- Manufacture of electrical equipment	151,659	1.1
- Manufacture of machinery and equipment n.e.c.	122,853	1.0
- Manufacture of motor vehicles, trailers and semi-trailers	455,683	0.7
- Manufacture of other transport equipment	93,795	0.9
- Manufacture of furniture	58,761	2.2
- Other manufacturing	25,703	1.4
- Repair and installation of machinery and equipment	48,123	1.5
<b>TOTAL</b>	<b>10,522,338</b>	<b>2.9</b>

Energy consumption represented 2.9% of the total goods and services purchases (purchases, work done by other companies and external services) made by the industry in 2017.

The branches of activities with the highest percentages were Extractive industries (12.2%) and Manufacture of other non-metallic ore products (11.1%).

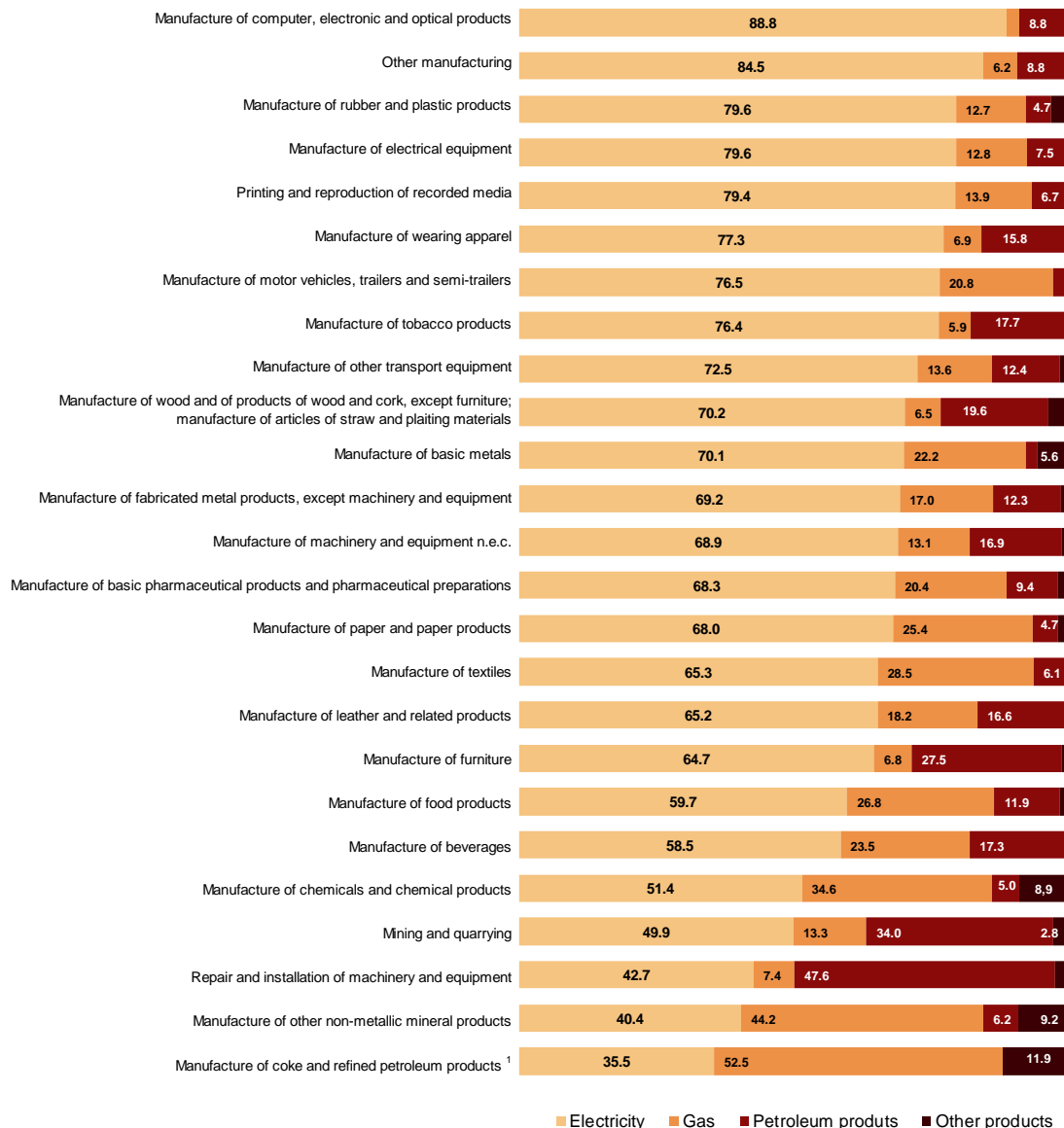
## Results by branch of activity and type of energy product

Regarding the use of the different types of energy sources, it is worth noting the high percentage in the consumption of electricity registered by the following branches of activity: *Manufacture of computer, electronic and optical products* (88.8% of its total energy consumption), *Other manufacturing industries* (84.5%) and *Manufacture of rubber and plastic products* and *Manufacture of electronic material and equipment* (both 79.6%)

In turn, the use of gas accounted for 52.5% of the total energy consumption for the *Manufacture of coke and refined petroleum products*, and 44.2% for the *Manufacture of other non-metallic ore products*.

Petroleum products consumption represented 47.6% of the total in the branch of *Repair and installation of machinery and equipment*, 34.0% in *Extractive industries* and 27.5% in the *Manufacture of furniture*.

## Percentage distribution, by type of energy and branch of activity. 2017



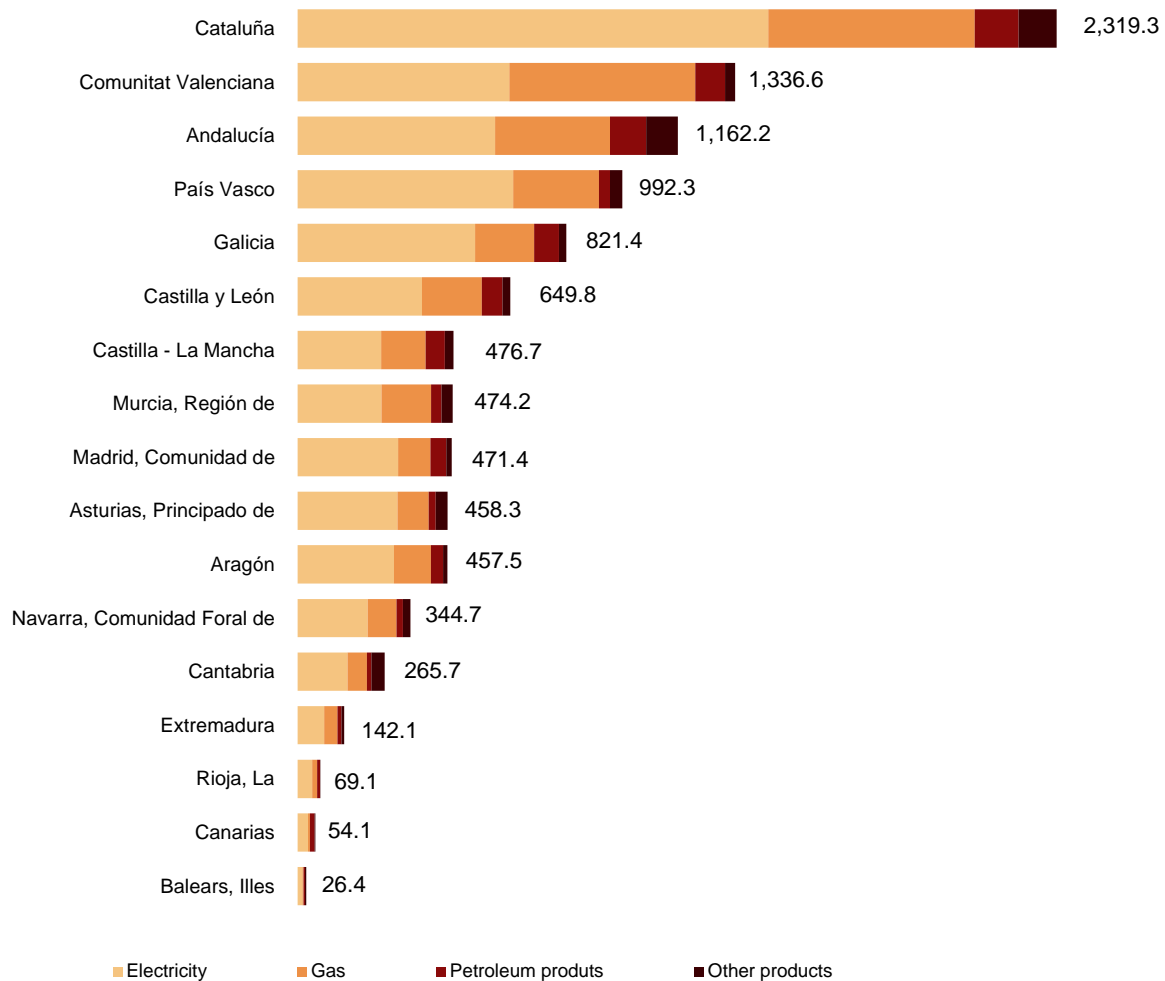
<sup>1</sup> Coke and refined petroleum products use petroleum products as a raw material

### Results by Autonomous Community

The autonomous communities with the highest industrial energy consumption in 2017 were Cataluña (with 2,319 million euros, 22.0% of the national total), Comunitat Valenciana (12.7%) and Andalucía (11.0%).

Conversely, Illes Balears (0.3%), Canarias (0.5%) and La Rioja (0.7%) presented the lowest percentages.

### Energy consumption (million euros) in industry, by Autonomous Community. 2017



Regarding the different energy sources used, the consumption of electricity accounted for more than half of the total energy consumption in 16 Autonomous Communities and more than 60% in eight.

The Communities that registered the highest percentages of gas use were Comunitat Valenciana (42.5% of the total energy consumption of the industry in the community) and Region de Murcia (32.1%).

On the other hand, Canarias (26.6%) and Illes Balears (15.6%) presented the highest consumption of petroleum products in percentage terms.

In terms of the use of coal and coke, although this was already significantly reduced in the majority of Autonomous Communities, it is worth noting the consumption in Illes Balears (13.9% of the total), and Cantabria (9.2%).

## Percentage distribution of energy consumption, by type of energy and Autonomous Community. 2017

Autonomous Community	Electricity	Gas	Petroleum products	Coal and coke	Biofuels	Others
Andalucía	51.9	30.2	9.5	1.8	0.3	6.2
Aragón	64.3	24.6	8.3	1.5	0.3	0.9
Asturias, Principado de	66.5	20.8	4.9	2.0	0.1	5.8
Balears, Illes	55.0	14.2	15.6	13.9	0.8	0.5
Canarias	59.0	10.1	26.6	3.9	0.1	0.3
Cantabria	57.5	22.2	5.1	9.2	0.2	5.8
Castilla y León	58.5	28.1	9.8	1.8	0.2	1.6
Castilla - La Mancha	53.6	28.5	12.3	0.8	0.4	4.4
Cataluña	62.0	27.2	5.7	0.7	0.1	4.2
Comunitat Valenciana	48.4	42.5	6.8	0.6	0.1	1.6
Extremadura	57.2	28.5	8.4	3.8	0.2	1.9
Galicia	66.1	21.9	9.2	0.3	0.6	1.9
Madrid, Comunidad de	65.2	20.8	10.3	2.6	0.2	0.8
Murcia, Región de	54.0	32.1	6.7	0.1	0.2	7.0
Navarra, Comunidad Foral de	62.1	25.5	5.7	4.8	0.7	1.2
País Vasco	66.4	26.4	3.4	0.7	0.5	2.6
Rioja, La	64.6	21.4	13.1	0.0	0.1	0.8
Ceuta	(*)	(*)	(*)	(*)	(*)	(*)
Melilla	(*)	(*)	(*)	(*)	(*)	(*)
<b>TOTAL</b>	<b>59.2</b>	<b>28.3</b>	<b>7.4</b>	<b>1.4</b>	<b>0.3</b>	<b>3.4</b>

(\*) Data protected by statistical secrecy

## Review and updating of data

The data published today are final. The results are available at INEBase.

## Methodological note

The Energy Consumption Survey is a biennial survey targeting companies with 20 or more employees whose main activity is included in Sections B (extractive industries) or C (manufacturing industry) of the 2009 CNAE.

This statistical survey provides information on the consumption of different types of energy products. These products are understood to mean those products acquired to be used as fuel (energy products used as a commodity or intended for resale without transformation are excluded). Energy consumption is quantified in monetary terms. Detailed results are offered at the national level and by Autonomous Community.

The Energy Consumption Survey's sample is chosen as a sub-sample of the total Structural Business Statistics: Industrial Sector sample, with the aim of achieving greater integration in the results of both investigations. Both operations are totally coordinated and share many of their methodological aspects, recollection procedures and treatment of the information.

Type of survey: biennial continuous survey, for odd reference years.

Population scope: companies with 20 or more employees, whose main activity is included in Sections B (extractive industries) or C (manufacturing industry) of the 2009 CNAE.

Geographical scope: the entire national territory.

Reference period of the results: The calendar year.

Sample size: Approximately 5,400 companies.

Type of sampling: sampling stratified according to main activity and company size.

Collection method: completion of the questionnaire by the respondent, mainly via the Internet (IRIA system).

For further details, please see the general methodology for this survey on the INE website:

[http://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica\\_C&cid=1254736146240&menu=ultiDatos&idp=1254735576715](http://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736146240&menu=ultiDatos&idp=1254735576715)

And the standardised methodological report at:

<https://www.ine.es/dynt3/metadatos/es/RespuestaDatos.html?oe=30070>

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