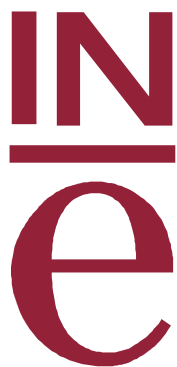


INSTITUTO NACIONAL DE ESTADISTICA



**Rural Tourism
Accommodation
Price Index (IPTR).
Base 2002**

Methodological note

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1 Background

The *Rural Tourism Accommodation Price Index, RTAPI*, is a statistical measurement of the monthly evolution of prices applied by those running this type of establishment to their clients.

Information from the **Tourist Accommodation Occupancy Survey is used to obtain this. Rural Tourism Accommodation (RTOS)** with the information compiled, monthly, of around 5,000 establishments to which a questionnaire has been sent. Information is provided by this survey on occupancy of this type of establishment (arriving travellers, overnight stays, degree of occupancy, etc.), their structure (bedplaces, staff, etc.) and other variables of interest to the operation, with a vast geographical breakdown. In the questionnaire it is asked for the prices applied to the different types of clients per ensuite double room and/or complete dwelling (by rent modality), as well as the percentage of application of every rate. The questionnaire requests the following rates:

- Normal rate
- Weekend rate
- Others rate

that are garnered for the different types of dwelling renting: shared use modality (per room rent) and complete use modality (rent of entire dwelling).

2 Sample design

As the framework for the selection of the informant units, the survey uses the directories of the Tourist Offices of the Autonomous Communities and other sources, which include, amongst other data, the following information: name, address, normal opening period, number of bed places, number of rooms, type of establishment and category in some cases.

The survey is exhaustive in all provinces, except in some modalities, for the provinces detailed hereunder:

	Provinces	Active tourism	Youth Hostels and rural campsites	Rural holiday dwellings	Country cottages	Large buildings	Rural hotels	Other
01	Araba/Álava	1			1/2			
02	Albacete	1			1/8			1
03	Alicante/Alacant		1		1/4			
04	Almería				1/2			
05	Ávila	2/3			1/9		2/3	
06	Badajoz			1	1/2		1	
	Balears, Illes							
	Mallorca	1/3			1/2(sum); E (wint)		1	
	Menorca	1			1		1	
	Ibiza-Formentera	1					1	
08	Barcelona				1/5			
09	Burgos	2/5			1/5		1	
10	Cáceres			3/10	1/4		1	
11	Cádiz				1/2	1	1	1
12	Castellón/Castelló		1		1/6			
13	Ciudad Real	1			3/10			
14	Córdoba				2/7		1	
15	Coruña, A	1			1/3	1		1
16	Cuenca	1	1		1/5			
17	Girona				1/6			
18	Granada				2/5	1		
19	Guadalajara	1	1		3/10		1	
20	Gipuzkoa	2/5			1/2			
21	Huelva				1/3	1	1	
22	Huesca			1/4	1/6			
23	Jaén				3/10			
24	León	2/5			1/6		1	
25	Lleida				1/6			
26	Rioja, La				2/5			
27	Lugo	1			1/3	1		
28	Madrid, Comunidad de			2/5	1/3		1/2	

29	Málaga				1/9		1	
30	Murcia, Región de				2/5			1
31	Navarra, Comunidad Foral de				1/8			
32	Ourense	1			2/3	1		
33	Oviedo			1/7	1/10		1/3	1
34	Palencia	1			3/10		1	
35	Palmas, Las							
	Gran Canaria				1/2		1	
	Lanzarote				1		1	
	Fuerteventura				1		1	
36	Pontevedra	1			1/3	1		1
37	Salamanca	1/2			1/7		1	
38	S. C. de Tenerife							
	Tenerife				2/5		1	
	La Palma				1/5			
	La Gomera				1/2		1	
	Hierro				1/2			
39	Santander	1			1/3	1	1/4	
40	Segovia	2/3			1/5		1	
41	Sevilla	1			1/3			
42	Soria	1			1/5		1	
43	Tarragona				3/10			
44	Teruel			2/3	1/5			
45	Toledo				3/10			
46	Valencia		1		1/5			
47	Valladolid	1			1/3		1	
48	Bizkaia	1			2/5			
49	Zamora	1/2			1/3		1	
50	Zaragoza			1	3/10			

Blank values indicate that the type does not exist in the selected province.

A statistical grouping has been carried out for similar accommodation establishments, based on their location, capacity (bedplaces), etc. In said grouping of modalities, each one contains the following types of establishment:

- rural hotel.- inn, rural hotel, rural hospice, inns in Castilla-La Mancha.
- rural holiday dwelling.- rural holiday dwelling.
- country cottage.- country cottage, hamlet cottage, domestic tourism, rural dwelling, village house, independent rural accommodation, rural tourist accommodation dwelling.

- rural inn.- touristic hostel, rural campsite.
- active tourism.- farm house, agrotourism, rural tourism center.
- large buildings.- palaces, casonas cántabras, pazos, large houses, resctorship houses.
- Other.- rural tourism resorts, rural tourism hamlets, unique accommodations)

3 Estimators

In order to compute the RTAPI, for the year 2002, in month s of year T , the operation uses a chain-linked Laspeyres price index, consisting of referring the prices of the current period to the prices of the previous year, based on the following general formula:

$${}_{s,02}IPTR^{sT} = \left(\sum_{j,a,t,k} {}_{s(T-1)}I_{jatk}^{sT} \cdot {}_{s(T-1)}W_{jatk} \right) \cdot \frac{{}_{s,02}IPTR^{s(T-1)}}{100}$$

where ${}_{s(T-1)}I_{jatk}^{sT} = \frac{\bar{M}_{jatk}^{sT}}{\bar{M}_{jatk}^{s(T-1)}} \cdot 100$, and the weighting: ${}_{s(T-1)}W_{jatk} = \frac{\bar{M}_{jatk}^{s(T-1)} \cdot BT_{jatk}^{s(T-1)}}{\sum_{j,a,t,k} \bar{M}_{jatk}^{s(T-1)} \cdot BT_{jatk}^{s(T-1)}}$

that represents the percentage of income received by rural tourism accommodation establishments by rooms and/or independent accommodations occupied using a specific rate, rent modality of the dwelling, by type of accommodation (Rural hostel, Rural apartment, Rural house, Rural inn, Active tourism and Large buildings) and in a province regarding the total income obtained; and where,

\bar{M}_{jatk}^{sT} : average price of rooms and/or independent accommodations of a rent modality average price of the dwellings of a certain modality a , accommodation type k and province j (without VAT) using rate t in months of the year T .

$BT_{jatk}^{s(T-1)}$: total number of rooms and/or independent accommodations in establishments of a rent modality a , accommodation type k and province j using rate t in month s of the year $T-1$.

$\bar{M}_{jatk}^{s(T-1)}$: average price of rooms and/or independent accommodations of a certain modality a , accommodation type k and province j (without VAT) using rate t in months of the year $T-1$.

Weightings (W) are calculated considering the province, rent modality, type of dwelling, type of accommodation and rate, and are then aggregated by rates, type of accommodation, rent modality or provinces and Autonomous Communities according to the aggregate index to be obtained.

For the T year the weightings used have been calculated with the most updated data available (year $T-1$). Moreover, and given the high seasonal adjustment that is applicable throughout the year, different weightings are calculated for each month. In other words, from January to December the income structure by province/rate/rent modality/type of the establishments differs from month to month. The chain-linked index ensures that the updating of the weightings, which are performed annually, does not create a break in the RTAPI series,

4 Dissemination and statistical secrecy

Until year 2011 the Index was only disseminated at a general national level and broken down by rates (total, normal and weekend) and by dwelling rent modality: Shared use modality (per room rent) and complete use modality (rent of entire dwelling)

From 2001 onwards, the general index (RTPI) is also disseminated for the 17 Autonomous Communities.

Moreover, customised petitions can be requested as long as they do not break statistical secrecy (there has to be at least three establishments provided with data).

5 Variation quotients

In order to calculate a variance estimation of the Hotel Price Index we apply the JACKKNIFE technique. The elementary indexes are calculated as quotients of geometric averages, and then they are added by using weightings.

We have 2 price fees (t) per client for the 2 rent modalities (a) per establishment (i), type (k) and province (j). Out of them 2 elementary indexes are built this way:

$${}_{m(14)}I_{jka}^{m(15)} = 100 \times \frac{\sqrt[n_{jka}]{P_{jka1}^{m(15)} \times P_{jka2}^{m(15)} \times \dots \times P_{jk \tan jka}^{m(15)}}}{\sqrt[n_{jka}]{P_{jka1}^{m(14)} \times P_{jka2}^{m(14)} \times \dots \times P_{jk \tan jka}^{m(14)}}}$$

Where n_{jka} corresponds to the number of clients or establishments of a certain t fee of the a modality, k type and j province.

For each fee and each stratum made up by province and category the Jackknife variance is calculated as follows:

$$\hat{V}(\hat{\theta}) = \sum_{h=1}^L \frac{n_h - 1}{n_h} (1 - f_h) \times \sum_{k=1}^{n_h} (\hat{\theta}_{h(k)} - \hat{\theta}_{h(\cdot)})^2$$

where the $\hat{\theta}_{h(k)}$ subindex indicates that unit k is left out and $\hat{\theta}_{h(\cdot)} = \frac{\sum_{k=1}^{n_h} \hat{\theta}_{h(k)}}{n_h}$

The variation quotient given by the following expression is published:

$$\hat{CV}(\hat{\theta}) = \frac{\sqrt{\hat{V}(\hat{\theta})}}{\hat{\theta}} \times 100$$

When analysed the results, which are provided as %, it is important to bear in mind the following things:

1. It is a rough calculation of the sampling error;
2. As it is a survey analysing exhaustively a great part of the population, sampling errors are inexistent or almost negligible. In this type of surveys non-sampling errors prevail;
3. The calculation of the variance is carried out in strata with 5 or more sample units.

6 Collection of the information. XML Tourism

With the objective of alleviating wherever possible the work of the informants, the basic data on rural tourism accommodation refers to seven consecutive days of each month, chosen randomly, in such a way that all establishments combined cover the whole month.

Information is provided monthly by holiday dwelling establishments or operating companies, using a questionnaire, to the National Statistics Institute. Likewise, it is possible to submit the information telematically or by uploading an XML file or over an Internet connection by means of the ARCE system, by completing the questionnaire directly on-screen.

Annex. Questionnaire

Prices (in euros, does not include VAT)

Indicate the price in euros of a double bedroom and/or the dwelling unit, VAT is not included and neither are complements such as breakfast, complementary activities, etc.

Also, fill the questions related to the prices whether there have been or not overnights during the reference week according to the dwelling renting modality.

If you offer the possibility of renting you dwelling/s by bedrooms and for full use, please, fill both sections. .

7.1 If you usually rent your dwelling by bedroom, what price have you applied for a double bedroom?

	Prices per day (in euros)	% of occupied rooms
- Normal rate (from Monday to Thursday) in the reference month	_____	_____
- Weekend rate (one day only, Friday or Saturday)	_____	_____
- Other rates (long-term rates of over one month)	_____	_____
		100%

7.2* If you usually rent your dwelling for full use, what has been the price applied irrespective to the persons that occupy it?

	Prices per day (in euros)	% occupied individual accommodations
- Normal rate (from Monday to Thursday) in the reference month	_____	_____
- Weekend rate (one day only, Friday or Saturday)	_____	_____
- Other rate (long-term rates of over one month)	_____	_____
		100%

* If you own more than one independent accommodation and rent them for their full use, please, indicate the prices for only one of them in the section 7.2.