

INSTITUTO NACIONAL DE ESTADISTICA



Hotel Occupancy Survey 2013

Methodology

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1. Presentation

This publication presents the results corresponding to the Hotel Occupancy Survey (formerly the Survey on the Movement of Guests in Hotel Establishments).

The data provided offers information on the two aspects considered when analysing tourist trends: with regard to demand, there is information on guests, overnight stays and average stay, distributed by country of residence of the guests and category of the establishment they are staying in, or by Autonomous Community of origin in the case of Spanish guests. As regards supply, the information includes the estimated number of establishments open for the season, the estimated number of bedplaces, the occupancy rate, and the information on employment in the sector, in terms of the category of the establishment.

This information is offered monthly, on national, Autonomous Community, provincial and tourist area levels.

The National Statistics Institute owes a debt of gratitude to all the Managers and Owners of the Hotel Establishments that have taken part, for their help, without which this publication would not have been possible.

2. Objectives

The main objective of the Hotel Occupancy Survey is to ascertain the behaviour of a series of variables which allow us to describe the basic characteristics of the hotel sector.

3. Statistical unit

This statistical operation is monthly, and the data refers to the activity carried out by the hotel establishments located within the national territory.

The target population of the study consists of all the hotel establishments existing within the national territory, registered as such in the corresponding Tourist Offices of the Autonomous Communities. A hotel establishment is understood to be all units that render hotel accommodation services (hotel, apartment hotel, motel, hostel, B&B, boarding house, guest house), situated in the same geographic location and in which one or more persons work on behalf of the same company. Hotel establishments are classified according to their category, gold and silver, and within these, by the number of stars. The category of the establishment is assigned by the Tourist Offices of the Autonomous Communities, and this varies from one Autonomous Community to another.

4. Definitions

4.1 Estimated number of open hotel establishments

A hotel establishment open for the season is understood to be that establishment in which the month of reference is included within its opening period.

4.2 Estimated bedplaces

The number of bedplaces estimated by the survey of the hotel establishments open for the season.

The number of bedplaces is equal to the number of fixed beds in the establishment. Extra beds are not included and double beds are considered as two bedplaces.

4.3 Guests

All persons who stay for one or more consecutive nights in the same accommodation.

Guests are classified by their country of residence, and persons residing in Spain are classified by the Autonomous Community they regularly live in.

4.4 Overnight stays or occupied bedplaces

An overnight stay or occupied bedplace is understood to be each night that a guest stays in the establishment.

As occurs with guests, overnight stays are broken down according to place of residence.

4.5 Average stay

This variable is an approximation to the number of days which, on average, the guests stay at the establishments, and is calculated as the quotient between the overnight stays and the number of guests.

4.6 Occupancy rate by room

The ratio, as a percentage, between the average daily number of rooms occupied in the month and the total number of rooms available.

4.7 Occupancy rate by bedplaces

Ratio, as a percentage, between the total number of overnight stays and the product of the bedplaces, including extra beds, by the days the overnight stays refer to.

Extra beds are those that do not have a fixed nature and are not included in the bedplaces declared officially by the establishment but do appear in the directory.

4.8 Occupancy rate by bedplaces at weekends

Ratio, as a percentage, between overnight stays on Friday and Saturday that are in the reference week and the product of the bedplaces, including extra beds for those two days, by the days the overnight stays refer to, in this case, two.

4.9 Employed personnel

Defined as the group of paid and unpaid persons who contribute with their work to the production of goods and services in the establishment, during the reference period of the survey, even when they work outside the premises.

4.10 Tourist site

Municipality with a significant tourist offer.

4.11 Tourist area

The group of municipalities in which there is an abundance of tourists. Information on the main areas of tourist interest is offered.

Costa de Almería

Adra, El Ejido, Roquetas de Mar, Níjar, Carboneras, Mojácar, Vera, Cuevas del Almanzora, Pulpí, Almería, Garrucha.

Costa de la Luz de Cádiz

Barbate, Conil de la Frontera, Chiclana de la Frontera, Chipiona, El Puerto Sta María, Puerto Real, Rota, San Fernando, Sanlúcar de Barrameda, Tarifa, Vejer de la Frontera, Algeciras, Línea de la Concepción, San Roque, Cádiz.

Costa Tropical (Granada)

Almuñecar, Itrabo, Salobreña, Motril, Sorvilán, Gualchos, Lújar, Polopos, Albuñol.

Costa de la Luz de Huelva

Ayamonte, Isla Cristina, Lepe, Punta Umbría, Palos de la Frontera, Moguer, Almonte, Cartaya.

Costa del Sol (Málaga)

Manilva, Estepona, Marbella, Mijas, Fuengirola, Benalmádena, Torremolinos, Rincón de la Victoria, Vélez-Málaga, Algarrobo, Torrox, Nerja, Málaga.

Costa Verde (Asturias)

Avilés, Caravia, Carreño, Castrillón, Castropol, Coaña, Colunga, Cudillero, El Franco, Gijón, Gozón, Valdés, Llanes, Muros de Nalón, Navia, Ribadedeva, Ribadesella, Soto del Barco, Tapia de Casariego, Villaviciosa

Mallorca

Todos los de municipios de Baleares no incluidos en Menorca ni en Ibiza-Formentera.

Palma – Calviá

Andraitx, Calviá, Palma de Mallorca.

Menorca

Alaior, Es Castell, Ciutadella de Menorca, Ferreries, Mahon, Es Mercadal, Es Migjorn Gran, Sant Lluís.

Ibiza-Formentera

Eivissa, Formentera, San José, Sant Antoni de Portmany, San Joan de Labritja, Santa Eulalia del Río.

Gran Canaria

Agete, Agüimes, Artenara, Arucas, Firgas, Gáldar, Ingenio, Mogán, Moya, Las Palmas de G. Canaria, San Bartolomé de Tirajana, San Nicolás de Tolentino, Santa Brígida, Santa Lucía, Santa M^a de Guía de G.C., Tejada, Telde, Teror, Valsequillo de G.C., Valleseco, Vega de San Mateo.

Sur de Gran Canaria

San Bartolomé de Tirajana, Mogán.

Lanzarote

Arrecife, Haría, San Bartolomé, Teguise, Tías, Tinajo, Yaiza.

Fuerteventura

Antigua, Betancuria, La Oliva, Pajara, Puerto del Rosario, Tuineje.

Tenerife

Adeje, Arafo, Arico, Arona, Buenavista del Norte, Candelaria, Fasnía, Garachico, Granadilla de Abona, La Guancha, Guía de Isora, Güimar, Icod de los Vinos, La Laguna, La Matanza de Acentejo, La Orotava, Puerto de la Cruz, Los Realejos, El Rosario, San Juan de la Rambla, San Miguel, Santa Cruz de Tenerife, Santa Ursula, Santiago del Teide, Sauzal, Los Silos, Tacoronte, Tanque, Tegueste, Victoria de Acentejo, Vilaflor.

Sur de Tenerife

Adeje, Arico, Arona, Candelaria, Fasnía, Granadilla de Abona, Guía de Isora, Güimar, San Miguel, Santiago del Teide, Vilaflor.

La Gomera

Agulo, Alajeró, Hermigua, S. Sebastián de la Gomera, Valle Gran Rey, Vallehermoso.

La Palma

Barlovento, Breña Alta, Breña Baja, Fuencaliente de la Palma, Garafía, Los Llanos de Aridane, El Paso, Punta Gorda, Puntallana, San Andrés y Sauces, Santa Cruz de la Palma, Tazacorte, Tijarafe, Villa de Mazo.

Hierro

Frontera, Valverde.

Barcelona (Barcelona)

Badalona, Barcelona, Hospitalet de Llobregat, Sant Adrià de Besós, Santa Coloma de Gramenet.

Costa de Barcelona

Abrera, Avinyonet del Penedés, Begues, Les Cabanyes, Canyelles, Castelldefels, Castellet i la Gornal, Castellví de la Marca, Castellví de la Rosanes, Cervelló, Collbató, Corbera de Llobregat, Cornellá de Llobregat, Cubelles, Esparreguera, Esplugues de Llobregat, Font-rubí, Gavá, Gelida, La Granada, Martorell, Mediona, Molins de Rei,

Olérdola, Olesa de Bonesvalls, Olesa de Montserrat, Olivella, Pacs del Penedés, Pallejá, El Papiol, El Pla del Penedés, Pontons, El Prat de Llobregat, Puigdàlber, Sant Andreu de la Barca, Sant Boi de Llobregat, Sant Climent de Llobregat, Sant Cugat Sesgarrigues, Sant Esteve Sesrovires, Sant Feliu de Llobregat, Sant Joan Despí, Sant Just Desvern, Sant Llorenç d'Hortons, Sant Martí Sarroca, Sant Pere de Ribes, Sant Pere de Riudebitlles, Sant Quintí de Mediona, Sant Sadurní d'Anoia, Santa Coloma de Cervelló, Santa Fe del Penedés, Santa Margarida i els Monjos, Sant Vicenç dels Horts, Sitges, Subirats, Torrelavit, Torrelles de Foix, Torrelles de Llobregat, Vallirana, Viladecans, Vilobi del Penedés, Villafranca del Penedés, Vilanova i la Geltrú, La Palma de Cervelló, Alella, Arenys de Mar, Arenys de Munt, Argentona, Cabrera de Mar, Cabrils, Caldes d'Estrac, Calella, Canet de Mar, Dosrius, Malgrat de Mar, El Masnou, Mataró, Montgat, Orrius, Palafolls, Pineda de Mar, Premiá de Mar, Sant Iscle de Vallalta, Sant Andreu de Llavaneres, Sant Cebrià de Vallalta, Vilassar de Dalt, Vilassar de Mar, Premiá de Dalt, Sant Pol de Mar, Santa Susanna, Sant Vicenç de Montalt, Teià, Tiana, Tordera.

Costa Brava (Girona)

Fogars de la Selva, Agullana, Aiguaviva, Albanyá, Albons, El Far d'Empordá, Amer, Anglés, Arbúcies, L'Armentera, Avinyonet de Puigventós, Begur, La Vajol, Banyoles, Bàscara, Belcaire d'Empordá, Bescanó, La Bisbal d'Empordá, Blanes, Bordils, Borrassá, Breda, Brunyola, Boadella i les Escaules, Cabanes, Cabanelles, Cadaqués, Caldes de Malavella, Calonge, Camós, Campllong, Canet d'Adri, Cantallops, Capmany, Cassá de la Selva, Castelló d'Empúries, Castell-Platja d'Aro, Celrá, Cervià de Ter, Cistella, Siurana, Colera, Colomers, Cornellá del Terri, Corçá, Crespià, Darnius, L'Escala, Espolla, Esponellá, Figueres, Flacá, Foixá, Fontanilles, Fontcoberta, Fornells de la Selva, Fortiá, Garrigás, Garrigoles, Garriguella, Girona, Gualta, Hostalric, Jafre, La Jonquera, Juiá, Lladó, Llagostera, Llambilles, Llançá, Llers, Lloret de Mar, Madremanya, Masarac, Massanes, Maçanet de Cabrenys, Maçanet de la Selva, Mollet de Peralada, Mont-ras, Navata, Ordís, Osor, Palafrugell, Palamós, Palau de Santa Eulàlia, Palau-saverdera, Palau-sator, Palol de Revardit, Pals, Parlavá, Pau, Pedret i Marzá, La Pera, Peralada, Pont de Molins, Pontós, Porqueres, Portbou, El Port de la Selva, Quart, Rabós, Regencós, Riells i Viabrea, Riudarenes, Riudellots de la Selva, Riumors, Roses, Rupió, Salt, Sant Andreu Salou, Sant Climent Sescebes, Sant Feliu de Buixalleu, Sant Feliu de Guíxols, Sant Gregori, Sant Hilari Sacalm, Sant Jordi Desvalls, Sant Joan de Mollet, Sant Julià de Ramis, Sant Llorenç de la Muga, Sant Martí de Llémena, Sant Martí Vell, Sant Miquel de Campmajor, Sant Miquel de Fluvià, Sant Mori, Sant Pere Pescador, Santa Coloma de Farners, Santa Cristina d'Aro, Santa Llogaia d'Alguema, Sarrià de Ter, Saus, Camallera i Llampàies, La Selva de Mar, La Celler de Ter, Serinyà, Serra de Daró, Sils, Susqueda, La Tallada d'Empordá, Terrades, Torrent, Torroella de Fluvià, Torroella de Montgrí, Tossa de Mar, Ultramort, Ullà, Ullastret, Vall-llobrega, Ventalló, Verges, Vidreres, Vilabertran, Vilablareix, Viladasens, Viladamat, Vilademuls, Vilafant, Vilaür, Vilajuïga, Vilamacolum, Vilamallà, Vilamaniscle, Vilanant, Vila-sacra, Vilopriu, Vilobí d'Onyar, Biure, Cruïlles, Monells i Sant Sadurní de l'Heur, Forallac, Sant Julià del Llor i Bonmat.

Costa Daurada (Tarragona)

Aiguamúrcia, Albinyana, L'Albiol, Alcover, L'Aleixar, Alforja, Alió, Almoster, Altafulla, Arbolí, L'Arboç, L'Argentera, Banyeres del Penedés, Barberá de la Conca, Bellmunt del Priorat, Bellvei, La Bisbal de Falset, La Bisbal del Penedés, Blancafort, Bonastre, Les Borges del Camp, Botarell, Bràfim, Cabacés, Cabra del Camp, Calafell, Cambrils, Capafonts, Capçanes, Castellvell del Camp, El Catllar, Colldejou, Conesa, Constantí, Cornudella de Montsant, Creixell, Cunit, Duesaigües, L'Espluga de Francolí, Falset, La Febró, La Figuera, Figuerola del Camp, Forés, Els Garidells, Gratallops, Els Guiamets, El Lloar, Llorac, Llorenç del Penedés, Margalef, Marça, Masllorenç, La Masó, Maspujols, El Masroig, El Milà, El Molar, Montblanc, Montbrió del Camp, Montferri, El Montmell, Mont-ral, Mont-roig del Camp, El Morell, La Morera de Montsant, La Nou de Gaià, Nulles, Els Pallaresos, Passanant i Belltall, Perafort, Les Piles, Pira, El Pla de Santa Maria, La Pobla de Mafumet, La Pobla de Montornés, Poboleda, El Pont d'Armentera, Porrera, Pradell de la Teixeta, Prades, Pratdip, Puigpelat, Querol, Renal, Reus, La Riba, La Riera de Gaià, Riudecanyes, Riudecols, Riudoms, Rocafort de Queralt, Roda de Barà, Rodonyà, El Rourell, Salomó, Sant Jaume dels Domenys, Santa Coloma de Queralt, Santa Oliva, Pontils, Sarral, Savallà del Comtat, La Secuita, La Selva del Camp, Senan, Solivella, Tarragona, La Torre de Fontaubella, Torredembarra, Torroja del Priorat, Ulldemolins, Vallclara, Vallfogona de Riucorb, Vallmoll, Valls, Vandellòs i L'Hospitalet de L'Infant, El Vendrell, Vespella de Gaià, Vilabella, Vilallonga del Camp, Vilanova d'Escornabou, Vilanova de Prades, Vilaplana, Vila-rodona, Vila-seca, Vilaverd, La Viella Alta, La Viella Baixa, Vimbodí i Poblet, Vinilos i els Arcs, Salou, La Canonja.

Terres de l'Ebre (Tarragona)

Alcanar, Aldover, Alfara de Carles, l'Ametlla de Mar, Amposta, Arnes, Ascó, Batea, Benifallet, Benissanet, Bot, Caseres, La Sénia, Corbera d'Ebre, Xerta, La Fatarella, Flix, Freginals, La Galera, Gadesa, Garcia, Ginestar, Godall, Horta de Sant Joan, Mas de Barberans, Masdenverge, Miravet, Móra d'Ebre, Móra la Nova, La Palma d'Ebre, Paüls, El Perelló, El Pinell de Brai, La Pobla de Massaluca, Prat de Comte, Rasquera, Riba-roja d'Ebre, Roquetes, Sant Carles de la Ràpita, Santa Bàrbara, Tivenys, Tivissa, La Torre de l'Espanyol, Tortosa, Ulldesona, Vilalba dels Arcs, Vinebre, Deltebre, Sant Jaume d'Enveja, Camarles, L'Aldea, L'Ampolla.

Terres de Lleida (Lleida)

Àger, Agramunt, Els Alamús, L'Albagés, Albatarrac, Albesa, L'Albi, Alcanó, Alcarràs, Alcoletge, Alfarràs, Alfés, Algerri, Alguaire, Almacelles, Almatret, Almenar, Alós de Balaguer, Alpícat, Anglesola, Arbeca, Artesa de Lleida, Artesa de Segre, La Sentiu de Sió, Aspa, Les Avellanès i Santa Linya, Aitona, Balaguer, Barbens, La Baronia de Rialb, Belianes, Belcaire d'Urgel, Bell-lloc d'Urgel, Bellmunt d'Urgel, Bellpuig, Bellví, Benavent de Segrià, Biosca, Bovera, Les Borges Blanques, Cabanabona, Camarasa, Castelldans, Castelnou de Seana, Castelló de Farfanya, Castellserà, Cervera, Cervià de les Garrigues, Ciutadilla, El Cogul, Corbins, Cubells, L'Espluga Calba, Estaràs, La Floresta, Fondarella, Foradada, La Fuliola, Fullea, Golmés, La Granadella, La Granja d'Escarp, Granyanella, Grayena de Segarra, Grayena de les Garrigues, Quimera, Guissona, Ivars de Noguera, Ivars d'Urgell, Ivorra, Juncosa, Juneda, Lleida, Linyola, Llardecans, Maldà, Massalcoreig, Massoteres, Maials, Menàrguens, Miralcamp, Mollerussa, Montgai, Montoliu de Segarra, Montoliu de Lleida, Montornés de Segarra, Nalec, Oliola, Les Oluges, Els Omellons, Els Omells de na Gaia, Os de Balaguer, Ossó de Sió, El Palau de Anglesola, Penelles, El Poal, La Pobla de Cérvoles, Bellaguarda, Ponts, La Portella, Preixana, Preixens, Puiggròs, Puigverd d'Agramunt, Puigverd de Lleida, Roselló, Sanaüja, Sant Guim de Freixenet, Sant Ramon, Sant Guim de la Plana, Sarroca de Lleida, Serós, Sidamon, El Soleràs, Soses, Sudanell,

Sunyer, Talavera, Tárrega, Tarrés, Tarroja de Segarra, Térmens, Tiurana, Torá, Els Torms, Tornabous, Torrebesses, Torrefarrera, Torregrossa, Torrelameu, Torres de Segre, Torre-serona, Vallbona de les Monges, Vallfogona de Balaguer, Verdú, Vilagrassa, Vilanova de Bellpuig, Vilanova de l'Aguda, Vilanova de Meià, Vilanova de Segrià, Vila-sana, El Vilosell, Vilanova de la Barca, Vinaixa, Sant Martí de Riucorb, Ribera d'Ondara, Torrefeta i Florejacs, Els Plans de Sió, Gimènells i el Pla de la Font.

Catalunya Central

Aguilar de Segarra, Alpens, L'Ametlla del Vallés, Argençola, Artés, Avinyó, Aiguafreda, Balenyà, Balsareny, Bellprat, Bigues i Riells, El Bruc, El Brull, Cabrera d'Anoia, Calaf, Caldes de Montbui, Calders, Calonge de Segarra, Calldetenes, Callús, Campins, Canovelles, Cánoves i Samalús, Capellades, Cardedeu, Cardona, Carme, Castellar del Vallés, Castellbell i el Vila, Castellbisbal, Castellcir, Castellfollit del Boix, Castellfollit de Riubregós, Castellgali, Castellnou de Bages, Castellolí, Castellterço, Centelles, Collsuspina, Copons, L'Estany, Fogars de Montclús, Folgueroles, Fonollosa, Les Franqueses del Vallés, Gallifa, La Garriga, Gaià, Granera, Granollers, Gualba, Sant Salvador de Guardiola, Gurb, Igualada, Jorba, La Llacuna, La Llagosta, Llinars del Vallés, Lliçà d'Amunt, Lliçà de Val, Yuca, Malla, Manlleu, Manresa, Martorelles, Les Masies de Roda, Les Masies de Voltregà, Masquefa, Matadepera, Mollet del Vallés, Montcada i Reixac, Monistrol de Montserrat, Monistrol de Calders, Muntanyola, Montesquiu, Montmaneu, Figaró-Montmany, Montmeló, Montornés del Vallés, Montseny, Moià, Mura, Navarces, Navás, Ódena, Olost, Orís, Oristà, Orpí, Palau-Solit i Plegamans, Parets del Vallés, Perafita, Piera, Els Hospitalets de Pierola, La Pobla de Claramunt, Polinyà, Els Prats de Rei, Prats de Lluçanés, Pujalt, Rajadell, Rellinars, Ripollet, La Roca del Vallés, El Pont de Vilomara i Rocafort, Roda de Ter, Rubí, Rubió, Sabadell, Sant Pere Sallavinera, Sallent, Santpedor, Sant Agustí de Lluçanés, Sant Antoni de Vilamajor, Sant Bartomeu del Grau, Sant Boi de Lluçanés, Sant Celon, Sant Cugat del Vallés, Sant Esteve de Palautordera, Sant Fost de Campsentelles, Sant Feliu de Codines, Sant Feliu Sasserra, Sant Fruitós de Bages, Sant Hipòlit de Voltregà, Sant Joan de Vilatorrada, Sant Julià de Vilatorrada, Sant Llorenç Savall, Sant Martí de Centelles, Sant Martí d'Albars, Sant Martí de Tous, Sant Martí Sesgueioles, Sant Mateu de Bages, Sant Pere de Torello, Sant Pere de Vilamajo, Sant Quirze de Besora, Sant Quirze del Vallés, Sant Quirze Safaja, Sant Sadurní d'Osormor, Marganel, Santa Cecília de Voltrega, Santa Eugènia, de Berga, Santa Eulàlia de Riuprime, Santa Eulàlia de Ronçana, Santa Margarida de Montbui, Barberà del Vallés, Santa Maria de Besora, Santa Maria de Corco, Santa Maria demartorelles, Santa Maria de Miralles, Santa Maria d'Olot, Santa Maria de Palautordera, Santa Perpètua de Mogoda, Sant Vicenç de Castelle, Sant Vicenç de Torelló, Cerdanyola del Vallés, Sentmenat, Seva, Sobremunt, Sora, Súria, Tavérnoles, Tagamanent, talamanca, Taradell, Terrassa, Tavertet, Tona, Torelló, La Torre de Claramunt, Ullastrell, Vacarisses, Vallbona d'Anoia, Vallgorguina, Vallromanes, Veciana, Vic, Viladecavalls, Vilanova del Cam, Vilanova de Sau, Vilalba Sasserra, Rupit i Pruit, Vilanova del Vallés, Badia del Vallés, Espinelves, Vidrà, Viladrau.

Costa Blanca (Alicante)

Benidorm, Alfaz del Pí, Altea, Calpe, El Campello, Denia, Elche, Finestrat, Guardamar del Segura, Orihuela, Pilar de la Horadada, Santa Pola, Teulada, Torrevieja, El Verger, Villajoyosa, Javea, Alicante.

Costa de Castellón

Vinaroz, Benicarló, Peñíscola, Alcalá de Chivert, Torreblanca, Oropesa del Mar, Benicàssim, Castellón de la Plana, Almassora, Burriana, Nules, Moncófa, Chilches, Almenara, Cabanes, La Llosa.

Costa Valencia (Valencia)

Canet d'En Berenguer, Sagunto, La Pobla de Farnals, Cullera, Tavernes de la Valldigna, Gandía, Piles, Oliva.

Costa Da Morte (A Coruña)

Laracha, Carballo, Malpica, Ponteceso, Cabana, Laxe, Camariñas, Muxía, Cee, Fisterra, Corcubión, Carnota, Coristanco, Dumbría, Mazaricos, Vimianzo, Zas.

Rías Altas (A Coruña)

Mañón, Ortigueira, Cariño, Cedeira, Valdoviño, Ferrol, Mugargos, Ares, Cabanas, Pontedeume, Miño, Bergondo, Sada, Oleiros, A Coruña, Abegondo, Aranga, Arteixo, Betanzos, Cambre, Carral, Cesuras, Coirós, Culleredo, Irixoa, Oza dos Ríos, Paderne, A Capela, Cerdido, Fene, Moeche, Monferro, Narón, Neda, As Pontes de García Rodríguez, San Sadurniño, As Somozas, Vilarmador.

Costa A Mariña Lucense (Lugo)

O Vicedo, Viveiro, Xove, Cervo, Burela, Foz, Barreiros, Ribadeo, Alfoz, Lourenzá, Mondoñedo, Oulol, A Pontenova, Trabada, O Valadouro.

Rías Baixas (Pontevedra y A Coruña)

Muros, Outes, Noia, Porto do Son, Ribeira, Pobra do Caramiñal, Boiro, Rianxo, Vilagarcía de Arousa, Vilanova de Arousa, Cambados, Ribadumia, Meaño, O Grove, Sanxenxo, Poio, Pontevedra, Marín, Bueu, Cangas, Moaña, Vilaboa, Soutomaior, Redondela, Vigo, Nigrán, Baiona, Oia, O Rosal, A Guarda, Dodro, Catoira, Meis, Pontecesures, Valga, A Illa de Arousa, Lousame, Arbo, A Cañiza, Covelo, Crecente, Fornelos de Montes, Gondomar, Mondariz, Mondariz-Balneario, Mos, As Neves, Pazos, de Borbén, O Porriño, Ponteareas, Saceda de Caselas, Salvaterra de Miño, Tomiño, Tui, Barro, Caldas de Reis, Campo Lameiro, Cotobade, Cuntis, A Lama, Moraña, Portas, Ponte Caldelas.

Costa Cálida (Murcia)

Águilas, Los Alcázares, Cartagena, Mazarrón, San Javier, San Pedro del Pinatar, La Unión.

Costa Guipuzcoana

Hondarribia, Pasaia, Donostia, Orio, Zarauzt, Getaria, Zumaia, Deba.

Costa Vizcaína

Ondarroa, Berriatua, Mendexa, Lekeitio, Ispaster, Ea, Ibarranguelua, Elantxobe, Mundaka, Bermeo, Bakio, Plentzia, Munguía, Lemoiz, Gorliz, Barrica, Sopelana, Getxo, Santurtzi, Abanto, Muskiz.

Pirineo Aragonés

Abiego, Abizanda, Adahuesca, Agüero, Aisa, Alquézar, Ansó, Aragüés del Puerto, Arén, Arguis, Azanuy-Alins, Baélls, Bailo, Baldellou, Bárcabo, Benabarre, Benasque,

Bielsa, Bierge, Biescas, Bisaurri, Boltaña, Bonansa, Borau, Broto, Caldearenas, Campo, Camporrélls, Canal de Berdún, Canfranc, Capella, Casbas de Huesca, Castejón de Sos, Castiello de Jaca, Castigaleu, Castillonroy, Colungo, Chía, Estopiñán del Castillo, Fago, Fanlo, Fiscal, Foradada del Toscar, La Fueva, Gistaín, El Grado, Graus, Hoz de Jaca, Isábena, Jaca, Jasa, Labuerda, Lascuarre, Laspaúles, Laspuña, Monesma y Cajigar, Montanuy, Naval, Nueno, Olvena, Palo, Panticosa, Las Peñas de Riglos, Peralta de Calasanz, Perarrúa, Plan, La Puebla de Castro, Puente de Montañana, Puértolas, El Pueyo de Araguás, Sabiñánigo, Sahún, Salas Altas, Sallent de Gállego, San Juan de Plan, Santa Cilia de Jaca, Santa Cruz de la Serós, Santaliestra y San Quílez, Secastilla, Seira, Sesué, Sopeira, Tella-Sin, Tolva, Torla, Torre la Ribera, Valle de Bardají, Valle de Lierp, Veracruz, Viacamp y Litera, Villanova, Villanúa, Yebra de Basa, Yésero, Valle de Hecho, Puente la Reina de Jaca, Santa María de Dulcis, Aínsa-Sobrarbe, Hoz y Costean, Artieda, Asín, Bagüés, El Frago, Isuerre, Lobera de Onsella, Longás, Luesia, Mianos, Murillo de Gállego, Navardún, Orés, Los Pintanos, Salvatierra de Esca, Santa Eulalia de Gállego, Sigüés, Sos del Rey Católico, Uncastillo, Undués de Lerda, Urriés, Biel-Fuencalderas.

Pirineus

Avià, Bagà, Berga, Borredà, Capolat, Caserres, Castellar del Riu, Castellar de n'Hug, Castell de l'Areny, L' Espunyola, Fígols, Gironella, Gisclareny, Guardiola de Berguedà, Montclar, Montmajor, La Nou de Berguedà, Olvan, La Pobla de Lillet, Puig-reig, La Quar, Sagàs, Saldes, Sant Jaume de Frontanyà, Santa Maria de Merlès, Cercs, Vallcebre, Vilada, Viver i Serrateix, Sant Julià de Cerdanyola, Alp, Argelaguer, Besalú, Beuda, Bolvir, Campdevàrol, Campelles, Camprodon, Queralbs, Castellfollit de la Roca, Das, Fontanals de Cerdanya, Ger, Gombrèn, Guils de Cerdanya, Isòvol, Llanars, Llívia, Les Llosses, Maià de Montcal, Meranges, Mieres, Molló, Montagut i Oix, Ogassa, Olot, Pardines, Les Planes d'Hostoles, Planols, Les Preses, Puigcerdà, Ribes de Freser, Ripoll, Riudaura, Sales de Llierca, Sant Feliu de Pallerols, Sant Ferriol, Sant Jaume de Llierca, Sant Joan de les Abadesses, Vallfogona de Ripollès, Sant Pau de Segúries, Sant Aniol de Finestres, Santa Pau, Sant Joan les Fonts, Setcases, Tortellà, Toses, Urús, La Vall d'en Bas, La Vall de Bianya, Vilallonga de Ter, Abella de la Conca, Ager, Alàs i Cerc, Alins, Alt Aneu, El Pont de Bar, Arsèguel, Baix Pallars, La Vall de Boí, Bassella, Bellver de Cerdanya, Cabó, Castellar de la Ribera, Cava, Clariana de Cardener, Coll de Nargó, Espot, Esterri d'Aneu, Esterri de Cardós, Estamariu, Farrera, Gavet de la Conca, Gósol, Guixers, Isona i Conca Dellà, Lladorre, Lladurs, Llavorsí, Lles de Cerdanya, Llimiana, Llobera, La Molsosa, Montellà i Martinet, Montferrer i Castellbò, Navès, Odèn, Oliana, Olius, Organyà, Conca de Dalt, La Coma i la Pedra, Peramola, Pinell de Solsonès, Pinós, La Pobla de Segur, El Pont de Suert, Prats i Sansor, Prullans, Rialp, Ribera d'Urgellet, Riner, Salàs de Pallars, Sant Llorenç de Morunys, Sant Esteve de la Sarga, Sarroca de Bellera, Senterada, La Seu d'Urgell, Solsona, Soriguera, Sort, Talarn, Tírvia, La Torre de Cabdella, Tremp, Les Valls de Valira, Vilaller, Vall de Cardós, La Guingueta i Jou, Castell de Mur, Les Valls d'Aguilar, Fígols i Alinyà, La Vansa i Fórnols, Josa i Tuixén, Riu de Cerdanya.

Val d'Aran

Naut Aran, Arres, Arsguel, Bausen, Es Bòrdes, Bossòst, Canejan, Les, Vielha e Mijaran, Vilamòs.

Pirineo Navarro

Abárzuza, Abaurregaina/Abaurrea Alta, Abaurrepea/Abaurrea Baja, Adiós, Aibar, Altsasu/Alsasua, Allín, Améscoa Baja, Anue, Añorbe, Aoiz/Agoitz, Araitx, Aranarache,

Arantza, Arano, Arakil, Arbizu, Arce, Areso, Aria, Aribere, Arruazu, Artazu, Atez, Bakaiku, Barásoain, Basaburua, Baztan, Belascoáin, Bertizarana, Betelu, Biurrun-Olcoz, Auritz/Burguete, Burgui, Cáseda, Castillonuevo, Ziordia, Cirauqui, Ciriza, Donamaria, Etxalar, Echarri, Etxarri-Aranatz, Elgorriaga, Enériz, Eratsun, Ergoiena, Erro, Ezcároz, Eslava, Esparza de Salazar, Esteribar, Eulate, Ezkurra, Ezprogui, Gallipienzo, Gallués, Garaioa, Garde, Garínoain, Garralda, Goizueta, Goñi, Güesa, Guesálaz, Guirguillano, Uharte-Arakil, Ibargoiti, Imotz, Irañeta, Isaba, Ituren, Iturmendi, Izagaondoa, Izalzu, Jaurrieta, Javier, Juslapeña, Beintza-Labaien, Lakuntza, Lana, Lantz, Larraona, Larraun, Leache, Legarda, Leitza, Leoz, Lerga, Lesaka, Lezáun, Liédena, Lizoáin, Lónguida, Lumbier, Mañeru, Metauten, Monreal, Muruzábal, Navascués, Obanos, Ochagavía, Odietza, Oitz, Olazti/Olazagutía, Olóriz, Ollo, Orbaitzeta, Orbara, Orísoain, Oronz, Oroz-Betelu, Petilla de Aragón, Puente la Reina/Gares, Pueyo, Romanzado, Roncal, Orreaga/Roncesvalles, Sada, Saldías, Salinas de Oro, Sangüesa, San Martín de Unx, Doneztebe/Santesteban, Sarriés, Sunbilla, Tiebas-Muruarte de Reta, Tirapu, Ucar, Ujué, Ultzama, Unciti, Unzué, Urdazubi/Urdax, Urdiain, Urraul Alto, Urraul Bajo, Urroz, Urrotz, Urzainqui, Uterga, Uztárroz, Luzaide/Valcarlos, Bera/Vera de Bidasoa, Vidángoz, Vidaurreta, Hiriberri/Villanueva de Aezkoa, Igantzi, Yerri, Yesa, Zabalza, Zubieta, Zugarramurdi, Urbasa-Andía, Lekunberri.

Pirineo Vasco

Amurrio, Aramaio, Arrazua-Ubarrundia, Asparrena, Ayala, Barrundia, Zigoitia, Cuartango, Elburgo, Salvatierra o Agurain, San Millán, Urkabustaiz, Valle de Arana, Legutiano, Zaldondo, Zuya, Abaltzisketa, Aduna, Albiztur, Alegia, Alkiza, Altzo, Amezketa, Anoeta, Antzuola, Arama, Aretxabaleta, Asteasu, Ataun, Aia, Beasain, Beizama, Belauntza, Berastegi, Berrobi, Bidegoyan, Zegama, Zerain, Zizurkil, Elduain, Eskoriatza, Ezkio-Itsaso, Gainza, Gabiria, Hernialde, Ibarra, Idiazabal, Ikaztegieta, Irura, Itsasondo, Larraul, Lazkao, Leaburu, Legazpi, Legorreta, Lizartza, Mutiloa, Olaberria, Oñati, Orexa, Ormaiztegui, Oiartzun, Errezil, Leintz-Gatzaga, Segura, Tolosa, Villabona, Ordizia, Urretxu, Zaldibia, Zumárraga, Baliarrain, Alzaga, Orendain, Gaztelu, Abadiño, Zeanuri, Dima, Mañaria, Otxandio, Orduña, Orozko, Ubide, Atxondo.

5. Framework of the survey and sample design

As the framework for the selection of the sample the directories of the Tourist Offices of the Autonomous Communities and other sources will be used, in which, amongst others, the following data appears, for each establishment: name, address, category, normal opening period, number of bedplaces and rooms.

The survey is comprehensive in all the provinces, except in some categories for the provinces which are outlined below:

CPRO (province code)	Province	Island	3 gold		2 gold		1 gold		2 y 3 silver	1 silver
03	Alicante		2/3		2/3		1/2			<i>See the list below</i>
06	Badajoz								1/2	
07	Balears Illes	Mallorca	1/3	1/2	4/10		1/3		1/3	
		Menorca	2/3							
		Ibiza- Formentera	1/2		2/3				1/2	
08	Barcelona		1/2		2/5		2/5		1/5	
10	Cáceres								1/2	
11	Cádiz				2/3		2/3		1/2	
13	Ciudad Real								1/2	
15	A Coruña				1/2		2/3		1/3	
16	Cuenca								2/3	
17	Girona		1/2		4/10		4/10		1/3	
18	Granada		2/3		2/3		2/3		1/2	
20	Gipuzkoa						2/3		1/2	
22	Huesca				2/3		2/3		1/2	
24	León								1/2	
25	Lleida				2/3		2/3		1/2	
27	Lugo								1/2	
28	Madrid		1/2		2/3				1/5	
29	Málaga		1/2		1/2		2/3		1/2	
31	Navarra								1/3	
33	Asturias		1/2		1/3		1/2		1/2	
36	Pontevedra				1/2		1/2		4/10	
37	Salamanca								2/3	
38	S. C. Tenerife	Tenerife			1/2					
		La Palma								
		La Gomera								
		Hierro								
39	Cantabria				2/3		2/3		1/3	
41	Sevilla				2/3				2/3	
43	Tarragona				2/3		2/3		2/5	
44	Teruel								1/2	
45	Toledo								1/2	
46	Valencia		2/3		2/3					
50	Zaragoza								1/2	

The divisions of the islands of the province of Baleares indicate summer and winter distinctions respectively. Blank values indicate that they are comprehensive.

Sample strata for the category 1 silver star by number of elements.

CPRO	Province	Island	No. of elements	
01	Araba/Álava		12	
02	Albacete		24	
03	Alicante		30	
04	Almería		24	
05	Ávila		16	
06	Badajoz		24	
07	Balears Illes	Mallorca	16	24
		Menorca	8	8
		Ibiza-Formentera	16	24
08	Barcelona		40	
09	Burgos		20	
10	Cáceres		24	
11	Cádiz		36	
12	Castellón		24	
13	Ciudad Real		20	
14	Córdoba		16	
15	A Coruña		60	
16	Cuenca		24	
17	Girona		24	
18	Granada		30	
19	Guadalajara		20	
20	Gipuzkoa		16	
21	Huelva		16	
22	Huesca		16	
23	Jaén		16	
24	León		36	
25	Lérida		24	
26	La Rioja		24	
27	Lugo		61	
28	Madrid		56	
29	Málaga		16	
30	Murcia		12	
31	Navarra, Comunidad Foral de		20	
32	Ourense		30	
33	Oviedo		30	
34	Palencia		24	
35	Las Palmas	Gran Canaria	12	
		Lanzarote	4	
		Fuerteventura	4	
36	Pontevedra		32	

37	Salamanca		30
38	S. C. de Tenerife	Tenerife	8
		La Palma	4
		La Gomera	8
		Hierro	4
39	Santander		36
40	Segovia		20
41	Sevilla		24
42	Soria		20
43	Tarragona		8
44	Teruel		8
45	Toledo		20
46	Valencia		24
47	Valladolid		20
48	Vizcaya		8
49	Zamora		16
50	Zaragoza		24
51	Ceuta		8
52	Melilla		4

The divisions of the islands of the province of Baleares indicate summer and winter distinctions respectively.

Blank values indicate that they are comprehensive.

6. Estimates

VARIABLES USED

The variables used in the Hotel Occupancy Survey are as follows:

E = number of establishments open during the month, existing in the directory

e = number of establishments that respond to the survey by means of the usual method, (incidents 1 and 2)

e' = number of establishments that answer the monthly survey by means of the usual method, (with incidents 1 and 2 in the monthly questionnaire)

e'' = number of establishments sending the XML file (incidences 1 and 2)

c = number of sample establishments that are closed within their opening period and responding by means of the usual method (incident 3)

c' = number of establishments that are closed within their opening period and responding by means of the usual method (with incident 3 in the monthly questionnaire)

P = number of bedplaces according to the directory

P' = number of supplementary bedplaces used

H = number of rooms according to the directory

V = number of guests checked in

VM = number of guests checked in during the whole month

N = number of occupied bedplaces (overnight stays)

NM = number of occupied bedplaces (overnight stays) during the whole month

B = number of occupied rooms

T = employed personnel

EM = average stay

GP = occupancy rate by bedplaces

GH = occupancy rate by rooms

D = number of days of the reference month (28, 29, 30, 31)

dm = number of days the establishment has been open during the reference month

The subindices used are:

i = establishment (hotel, campsite, apartment)

j = province

k = category (5, 4, 3, 2, 1 gold: 3, 2 and 1 silver)

m = modality (professional situation, place of residence, month, etc.)

We distinguish between two groups of estimators:

- Weekly information plus XML (for all strata).
- Weekly information, monthly information plus XML (only 3, 4 and 5 gold-star establishments plus Galicia).

Group A estimators: Weekly information plus XML (for all strata)

A) Estimate of the number of establishments open in the month

$$\hat{E}_{jk} = E_{jk} \frac{\left(e_{jk} + \sum_{i=1}^{e''_{jk}} \frac{dm_{ijk}}{D} \right)}{\left(e_{jk} + e''_{jk} \right) + c_{jk}}$$

B) Estimate of the number of bedplaces in the establishments open in the month

$$\hat{P}_{jk} = \sum_{i=1}^{E_{jk}} P_{ijk} \cdot \frac{\left(\sum_{i=1}^{e_{jk}} P_{ijk} + \sum_{i=1}^{e''_{jk}} P_{ijk} \cdot \frac{dm_{ijk}}{D} \right)}{\left(\sum_{i=1}^{e_{jk}} P_{ijk} + \sum_{i=1}^{e''_{jk}} P_{ijk} \right) + \sum_{i=1}^{c_{jk}} P_{ijk}}$$

C) Estimate of number of guests checked in during the month

$$\hat{V}_{jkm} = \left[\left(\sum_{i=1}^{e_{jk}} V_{ijkm} \cdot \frac{D}{7} \right) + \sum_{i=1}^{e''_{jk}} V_{ijkm} \right] \cdot \frac{\hat{P}_{jk}}{\left(\sum_{i=1}^{e_{jk}} P_{ijk} + \sum_{i=1}^{e''_{jk}} P_{ijk} \cdot \frac{dm_{ijk}}{D} \right)} = \left[\left(\sum_{i=1}^{e_{jk}} V_{ijkm} \cdot \frac{D}{7} \right) + \sum_{i=1}^{e''_{jk}} V_{ijkm} \right] \cdot \rho_{jk}$$

m = place of residence

D) Estimate of occupied bedplaces(Overnight stays)

$$\hat{N}_{jkm} = \left[\left(\sum_{i=1}^{e_{jk}} N_{ijkm} \cdot \frac{D}{7} \right) + \sum_{i=1}^{e''_{jk}} N_{ijkm} \right] \cdot \frac{\hat{P}_{jk}}{\left(\sum_{i=1}^{e_{jk}} P_{ijk} + \sum_{i=1}^{e''_{jk}} P_{ijk} \cdot \frac{dm_{ijk}}{D} \right)} = \left[\left(\sum_{i=1}^{e_{jk}} N_{ijkm} \cdot \frac{D}{7} \right) + \sum_{i=1}^{e''_{jk}} N_{ijkm} \right] \cdot \rho_{jk}$$

m = place of residence

E) Estimated average stay

a) Average stay per category

$$E\hat{S}_{jk} = \frac{\sum_m \hat{N}_{jkm}}{\sum_m \hat{V}_{jkm}}$$

b) Average stay by country of residence

$$E\hat{S}_{jm} = \frac{\sum_k \hat{N}_{jkm}}{\sum_k \hat{V}_{jkm}}$$

m = place of residence

F) Estimate of employed personnel

$$\hat{T}_{jkm} = \left(\sum_{i=1}^{e_{jk}} T'_{ijkm} + \sum_{i=1}^{e''_{jk}} T'_{ijkm} \right) \cdot \rho_{jk}$$

where $T'_{ijkm} = T_{ijkm} \cdot AC_{ijk}$, where AC_{ijk} is the percentage of employed personnel dedicated to the activity of the accommodation

m = professional situation

G) Estimate of the occupancy rate (percentage)

a) Occupancy rate by capacity

$$\hat{GP}_{jk} = \frac{\hat{N}_{jk}}{D \cdot \hat{P}_{jk} + \hat{N}'_{jk}} \cdot 100$$

For the set of categories

$$\hat{GP}_j = \frac{\sum_k \hat{GP}_{jk} \cdot \hat{P}_{jk}}{\sum_k \hat{P}_{jk}}$$

m = place of residence

b) Level of occupation by rooms

Beforehand, it was necessary to calculate the number of rooms in establishments open:

$$\hat{H}_{jk} = \sum_{i=1}^{E_{jk}} H_{ijk} \cdot \frac{\left(\sum_{i=1}^{e_{jk}} H_{ijk} + \sum_{i=1}^{e''_{jk}} H_{ijk} \cdot \frac{dm_{ijk}}{D} \right)}{\left(\sum_{i=1}^{e_{jk}} H_{ijk} + \sum_{i=1}^{e''_{jk}} H_{ijk} \right) + \sum_{i=1}^{c_{jk}} H_{ijk}}$$

and the number of rooms occupied:

$$\hat{B}_{jk} = \left[\left(\sum_{i=1}^{e_{jk}} B_{ijk} \cdot \frac{D}{7} \right) + \sum_{i=1}^{e''_{jk}} B_{ijk} \right] \cdot \frac{\hat{H}_{jk}}{\sum_{i=1}^{e_{jk}} H_{ijk} + \sum_{i=1}^{e''_{jk}} H_{ijk} \cdot \frac{dm_{ijk}}{D}} = \left[\left(\sum_{i=1}^{e_{jk}} B_{ijk} \cdot \frac{D}{7} \right) + \sum_{i=1}^{e''_{jk}} B_{ijk} \right] \cdot \beta_{jk}$$

then,

$$\hat{GH}_{jk} = \frac{\hat{B}_{jk}}{D \cdot \hat{H}_{jk}} \cdot 100$$

and for the set of categories

$$\hat{GH}_j = \frac{\sum_k \hat{GH}_{jk} \cdot \hat{H}_{jk}}{\sum_k \hat{H}_{jk}}$$

c) Weekend occupancy rate

$$\hat{GP}^{fs}_{jk} = \frac{\hat{N}^{fs}_{jk}}{D^{fs} \cdot \hat{P}_{jk} + \hat{N}^{fs}_{jk}} \cdot 100$$

where:

$$\hat{N}^{fs}_{jk} = \left[\left(\sum_{i=1}^{e_{jk}} N^{fs}_{ijk} \cdot \frac{D^{fs}}{2} \right) + \sum_{i=1}^{e''_{jk}} N^{fs}_{ijk} \right] \cdot \rho_{jk}, \text{ bedplaces occupied at weekends:}$$

$$\hat{N}'^{fs}_{jk} = \left[\left(\sum_{i=1}^{e_{jk}} N'^{fs}_{ijk} \cdot \frac{D^{fs}}{2} \right) + \sum_{i=1}^{e''_{jk}} N'^{fs}_{ijk} \right] \cdot \rho_{jk}, \text{ supplementary beds occupied at weekends}$$

m = place of residence

For the set of categories

$$\hat{GP}^{fs}_j = \frac{\sum_k \hat{GP}^{fs}_{jk} \cdot \hat{P}_{jk}}{\sum_k \hat{P}_{jk}}$$

Group B estimators: Weekly information, monthly information plus XML

The following variables are used:

VM = number of guests checked in during the whole month

NM = number of occupied bedplaces (overnight stays) during the whole month

dm = number of days the establishment has been open during the reference month

BD = number of occupied double rooms

BI = number of occupied single rooms

e' = number of establishments that answer the monthly survey (with incidents 1 and 2 in the monthly questionnaire)

e'' = number of establishments that answer the monthly survey (with incidents 1 and 2 in the monthly questionnaire);

c' = number of establishments that are closed within their opening period (with incident 3 in the monthly questionnaire). Always less than or equal to c .

A) Estimate of the number of establishments open in the month

$$\widehat{EM}_{jk} = E_{jk} \frac{\left(\sum_{i=1}^{e'_{jk}} \frac{dm_{ijk}}{D} + \sum_{i=1}^{e''_{jk}} \frac{dm_{ijk}}{D} \right)}{(e'_{jk} + e''_{jk}) + c'_{jk}}$$

B) Estimate of the number of bedplaces in the establishments open in the month

$$\widehat{PM}_{jk} = \sum_{i=1}^{E_{jk}} P_{ijk} \cdot \frac{\sum_{i=1}^{e'_{jk}} P_{ijk} \cdot \frac{dm_{ijk}}{D}}{\sum_{i=1}^{e'_{jk}} P_{ijk} + \sum_{i=1}^{c'_{jk}} P_{ijk}}$$

C) Estimate of number of guests checking in during the month

$$\widehat{VM}_{jk} = \left(\sum_{i=1}^{e'_{jk}} VM_{ijk} + \sum_{i=1}^{e''_{jk}} V_{ijk} \right) \cdot \frac{\widehat{PM}_{jk}}{\left(\sum_{i=1}^{e'_{jk}} P_{ijk} \cdot \frac{dm_{ijk}}{D} + \sum_{i=1}^{e''_{jk}} P_{ijk} \cdot \frac{dm_{ijk}}{D} \right)} = \left(\sum_{i=1}^{e'_{jk}} VM_{ijk} + \sum_{i=1}^{e''_{jk}} V_{ijk} \right) \cdot \alpha_{jk}$$

m = Place of residence (as before)

α_{jk} , the raising factor by vacancy for that of province j and category k

D) Estimate of occupied bedplaces (Overnight stays)

$$\widehat{NM}_{jk} = \left(\sum_{i=1}^{e'_{jk}} NM_{ijk} + \sum_{i=1}^{e''_{jk}} N_{ijk} \right) \cdot \frac{\widehat{PM}_{jk}}{\left(\sum_{i=1}^{e'_{jk}} P_{ijk} \cdot \frac{dm_{ijk}}{D} + \sum_{i=1}^{e''_{jk}} P_{ijk} \cdot \frac{dm_{ijk}}{D} \right)} = \left(\sum_{i=1}^{e'_{jk}} NM_{ijk} + \sum_{i=1}^{e''_{jk}} N_{ijk} \right) \cdot \alpha_{jk}$$

m = Place of residence (as before)

E) Estimate of occupied extra bedplaces or overnight stays in said extra bedplaces

$$\widehat{NM}'_{jk} = \left[\left(\sum_{i=1}^{e'_{jk}} N'_{ijk} \cdot \frac{D}{7} \right) + \sum_{i=1}^{e''_{jk}} N'_{ijk} \right] \cdot \frac{PM_{jk}}{\left(\sum_{i=1}^{e'_{jk}} P_{ijk} + \sum_{i=1}^{e''_{jk}} P_{ijk} \cdot \frac{dm_{ijk}}{D} \right)} = \left[\left(\sum_{i=1}^{e'_{jk}} N'_{ijk} \cdot \frac{D}{7} \right) + \sum_{i=1}^{e''_{jk}} N'_{ijk} \right] \cdot \varpi_{jk}$$

F) Estimate of the average stay

a) Average stay by category

$$ESM_{jk} = \frac{NM_{jk}}{VM_{jk}}$$

b) Average stay by country of residence

$$ESM_{jm} = \frac{\sum_k NM_{jkm}}{\sum_k VM_{jkm}}$$

m = place of residence

G) Estimate of employed personnel

$$\widehat{T}_{jkm} = \left(\sum_{i=1}^{e'_{jk}} T'_{ijkm} + \sum_{i=1}^{e''_{jk}} T'_{ijkm} \right) \cdot \varpi_{jk}$$

where: $T'_{ijkm} = T_{ijkm} \cdot AC_{ijk}$, with AC_{ijk} the percentage of employed personnel dedicated to the activity of accommodation¹

m = professional situation

H) Occupied rooms

Previously it is necessary to calculate the number of rooms existing in the open establishments:

$$\widehat{HM}_{jk} = \sum_{i=1}^{E_{jk}} H_{ijk} \cdot \frac{\left(\sum_{i=1}^{e'_{jk}} H_{ijk} \cdot \frac{dm_{ijk}}{D} + \sum_{i=1}^{e''_{jk}} H_{ijk} \cdot \frac{dm_{ijk}}{D} \right)}{\left(\sum_{i=1}^{e'_{jk}} H_{ijk} + \sum_{i=1}^{e''_{jk}} H_{ijk} \right) + \sum_{i=1}^{c'_{jk}} H_{ijk}}$$

¹ In the base of establishments sending the XML file, it is assumed that the percentage is equal to 100

a) Total of occupied rooms:

$$\widehat{BM}_{jk} = \left[\left(\sum_{i=1}^{e_{jk}} B_{ijk} \cdot \frac{D}{7} \right) + \sum_{i=1}^{e''_{jk}} B_{ijk} \right] \cdot \frac{\widehat{HM}_{jk}}{\left(\sum_{i=1}^{e_{jk}} H_{ijk} + \sum_{i=1}^{e''_{jk}} H_{ijk} \cdot \frac{dm_{ijk}}{D} \right)} = \left[\left(\sum_{i=1}^{e_{jk}} B_{ijk} \cdot \frac{D}{7} \right) + \sum_{i=1}^{e''_{jk}} B_{ijk} \right] \cdot \delta_{jk}$$

Note: B_{ijk} for establishments sending the questionnaire by XML, it is the result of adding double rooms occupied by two persons, double rooms occupied by one person and others.

b) Occupied double rooms:

$$\widehat{BDM}_{jk} = \left[\left(\sum_{i=1}^{e_{jk}} BD_{ijk} \cdot \frac{D}{7} \right) + \sum_{i=1}^{e''_{jk}} BD_{ijk} \right] \cdot \delta_{jk}$$

δ_{jk} , the raising factor by vacancy for that of province j and category k ;

c) Occupied single rooms:

$$\widehat{BIM}_{jk} = \left[\left(\sum_{i=1}^{e_{jk}} BI_{ijk} \cdot \frac{D}{7} \right) + \sum_{i=1}^{e''_{jk}} BI_{ijk} \right] \cdot \delta_{jk}$$

I) Estimate of the occupancy rate (percentage)

a) Net occupancy rate by bedplaces

$$\widehat{GPM}_{jk} = \frac{\widehat{NM}_{jk}}{D \cdot \widehat{PM}_{jk} + \widehat{NM}'_{jk}} \cdot 100$$

For the set of categories

$$\widehat{GPM}_j = \frac{\sum_k \widehat{GPM}_{jk} \cdot \widehat{PM}_{jk}}{\sum_k \widehat{PM}_{jk}}$$

b) Net occupancy rate by rooms

$$\widehat{GHM}_{jk} = \frac{\widehat{BM}_{jk}}{D \cdot \widehat{HM}_{jk}} \cdot 100$$

and for the set of categories

$$\widehat{GHM}_j = \frac{\sum_k \widehat{GHM}_{jk} \cdot \widehat{HM}_{jk}}{\sum_k \widehat{HM}_{jk}}$$

7. Collection of the information

The enquiry pertaining to basic data refers to one full week of each month, randomly selected, in such a way that all the establishments cover the whole month between them.

A second enquiry is performed regarding the total number of guests checked in and overnight stays caused during the month the data refer to, in the strata of three, four and five gold stars.

Information is provided monthly by hotel establishments, via a questionnaire which is forwarded to the National Statistics Institute.

8. Dissemination of the information

The information is presented on different levels of geographical breakdown: national, Autonomous Community, provincial, tourist areas and tourist sites. All areas have been considered (group of municipalities) as well as the municipalities in which there is an abundance of tourists.

9. Statistical secrecy and significance

RULES FOR STATISTICAL SECRECY

Information may be provided about all those strata (or data geographical groups) where the number of establishments with an incidence of 1 (open with movement) is greater than or equal to 3.

In this way, if in a stratum (province-category), the condition of statistical secrecy is not fulfilled, establishments from that stratum will be aggregated to those in the category immediately below (except for 1 gold, which aggregates to 2 gold), until reaching the condition necessary in order to be able to offer data (gold categories will not be aggregated to silver categories)¹.

This stands with the exception of Ceuta and Melilla, about which information for two groups can be provided: silver stars and gold stars.

STATISTICAL SIGNIFICANCE RECOMMENDATIONS

Results of the main variables estimated by the surveys are statistically significant if, within the domain in which the information is provided, the following conditions are met, in general:

At least 12 establishments with an incidence of 1 (with data) or 2 (without movement) must be in the monthly module for categories 5, 4 and 3 gold stars, and in the weekly module for the rest of the categories, in which at least 3 of them will have an incidence of 1 in the monthly module.

The sampling error must be lower than 20%, or where it is higher than 20%, the collection percentage must be higher than 80%.

¹From January 2005, gold and silver categories can be joined.

10. Variation coefficients

Computation of the sampling errors of the following monthly variables:

\hat{VM}_{jk} ; \hat{NM}_{jk} in the case of both "without dm" and "with dm".

Where:

- a) Guests checked in (V for the weekly questionnaire and XML and VM for the monthly questionnaire)
- b) Occupied bedplaces (Overnight stays) (N for the weekly questionnaire and XML and NM for the monthly questionnaire)

\hat{Y}_{jkm} is the estimator of any of these variables (see Estimation file). The estimation of the relative sampling error (%) will be computed for every month as follows:

$$\hat{E}(\hat{Y}) = \frac{\sqrt{\hat{V}_{ar}(\hat{Y})}}{\hat{Y}} \cdot 100; \hat{E}(\hat{Y}_j) = \frac{\sqrt{\hat{V}_{ar}(\hat{Y}_j)}}{\hat{Y}_j} \cdot 100; \hat{E}(\hat{Y}_{jk}) = \frac{\sqrt{\hat{V}_{ar}(\hat{Y}_{jk})}}{\hat{Y}_{jk}} \cdot 100$$

to estimate the variation coefficients of guests and total overnight stays. The following will be used to compute the resident and non-resident coefficients:

$$\hat{E}(\hat{Y}_m) = \frac{\sqrt{\hat{V}_{ar}(\hat{Y}_m)}}{\hat{Y}_m} \cdot 100 \quad \text{where } m = \text{modality (residents or non-residents)}$$

where:

$$\hat{V}_{ar}(\hat{Y}) = \sum_j \hat{V}_{ar}(\hat{Y}_j); \hat{V}_{ar}(\hat{Y}_j) = \sum_k \hat{V}_{ar}(\hat{Y}_{jk}); \hat{V}_{ar}(\hat{Y}_{jk}) = \sum_m \hat{V}_{ar}(\hat{Y}_{jkm})$$

$$\hat{V}_{ar}(\hat{Y}_m) = \sum_j \sum_k \hat{V}_{ar}(\hat{Y}_{jkm})$$

and $\hat{V}_{ar}(\hat{Y}_{jkm})$ will be computed as follows:

A) Estimators of group A: Weekly information plus XML. without dm

For $Y = V$ (guests) or N (overnight stays)

$$\hat{V}_{ar} \left(\hat{Y}_{jkm} \right) = (1 - f_{jk}) \cdot \frac{e_{jk} + e_{jk}''}{(e_{jk} + e_{jk}'') - 1} \cdot \frac{\hat{P}_{jk}^2}{\left(\sum_{i=1}^{e_{jk}} P_{ijk} + \sum_{i=1}^{e_{jk}''} P_{ijk} \cdot \frac{dm}{D} \right)^2} \cdot \sum_s (Y_{ijkm} - \hat{R}_{jkm} P_{ijk})^2$$

where

$$f_{jk} = \frac{e_{jk} + e_{jk}'' + c_{jk}}{E_{jk}}$$

and $s = e + e''$, so:

$$Y_{ijkm} = \begin{cases} Y_{ijkm} & \text{if } i \in e'' \\ Y_{ijkm} \cdot \frac{D}{7} & \text{if } i \in e \end{cases}$$

$$\hat{R}_{jkm} = \frac{\sum_{i=1}^{e_{jk}} Y_{ijkm} \cdot \frac{D}{7} + \sum_{i=1}^{e_{jk}''} Y_{ijkm}}{\sum_{i=1}^{e_{jk}} P_{ijk} + \sum_{i=1}^{e_{jk}''} P_{ijk}}$$

B) Estimators of group B: Monthly information plus XML (only 3-, 4- and 5-star establishments). with dm

For Y = VM (guests) or NM (overnight stays)

$$\hat{V}_{ar}(\hat{Y}_{jkm}) = (1 - f'_{jk}) \cdot \frac{e'_{jk} + e''_{jk}}{(e'_{jk} + e''_{jk}) - 1} \cdot \frac{P \hat{M}_{jk}^2}{\left(\sum_{i=1}^{e'_{jk}} P_{ijk} \cdot \frac{dm_{ijk}}{D} + \sum_{i=1}^{e''_{jk}} P_{ijk} \cdot \frac{dm_{ijk}}{D} \right)^2} \cdot \sum_s (Y_{ijkm} - \hat{R}_{jkm} P_{ijk})^2$$

where

$$f_{jk} = \frac{e'_{jk} + e''_{jk} + c'_{jk}}{E_{jk}}$$

and $s = e' + e''$, so:

$$Y_{ijkm} = \begin{cases} Y_{ijkm} & \text{if } i \in e'' \\ YM_{ijkm} & \text{if } i \in e' \end{cases}$$

$$\hat{R}_{jkm} = \frac{\sum_{i=1}^{e'_{jk}} YM_{ijkm} + \sum_{i=1}^{e''_{jk}} Y_{ijkm}}{\sum_{i=1}^{e'_{jk}} P_{ijk} + \sum_{i=1}^{e''_{jk}} P_{ijk}}$$

11. Linking coefficients

Methodological changes or extraordinary updates of the directories constituting the survey framework imply that the data published introducing said changes is not directly comparable to the previously published data.

In order to avoid this break in the series, and allow for comparability, linking coefficients are calculated to be applied to the published data before introducing the improvements.

Linking coefficients

Given the strong seasonal nature of these series, we have decided to obtain different linking coefficients for each month, thus maintaining the interannual variation rates of the series, although the same does not apply to the inter-monthly rates.

For each month, the linking coefficient for a variable X is obtained as the quotient between the estimated value of said variable in said month of year T, considering all of the available information (methodological changes and/or improvements in the directory) and the estimated value in the same month without considering the innovations.

$$CX_{i,T} = \frac{X_{i,T}^{conmejoras}}{X_{i,T}^{sin mejoras}}$$

where:

$i=1...12$ months

$X_{i,T}^{conmejoras}$ = Estimated value of variable X in month i of year T, using all of the information available.

$X_{i,T}^{sin mejoras}$ = Estimated value of variable X in month i of year T without considering the innovations.

Linked series

The series that are linked and comparable with the data published are calculated by multiplying the published series (prior to the date on which the improvements are introduced) by the linking coefficient of the corresponding month.

$$X_{i,T-j}^{enlazada} = X_{i,T-j}^{pub} \times CX_{i,T}$$

where:

$i = 1..12$ months

$X_{i,T-j}^{pub}$ = Published estimated value of variable X in month i of year $T-j$
(where $j \geq 0$)

$CX_{i,T}$ = Linking coefficient for variable X in month i

Given that the linking coefficients are calculated independently for each geographical breakdown, each category or each nationality, the linked series lose their additivity.

12. Treatment of partial non-response

TREATMENT OF THE EMPTY STRATA OF THE HOS

For provinces, tourist areas and tourist sites, by category:

- 1) If there are only refusals and closed establishments for a stratum, the estimation is ZERO, due to the fact that all refusals are considered as closed.
- 2) If there are only refusals, all refusals are considered as open (since we do not have any record of any closed) and said stratum has to be imputed as a figure in point 4.
- 3) If there are open establishments in an area or a site in a stratum, but any of them are in the sample, that stratum is imputed in line with the following point.
- 4) The imputation stratum is the first non-empty stratum that is found decreasing by category to 1 silver, and if not, it is found increasing to 5 gold. Once the estimators of the donor stratum have been computed, the imputation to the empty stratum is carried out, according to the bedplaces open in the directory of the empty stratum, as we have considered that there are not closed bedplaces.

For example:

Assuming stratum k of province j to be empty, and that it will be imputed by the data of stratum k':

- The estimation of the variables: number of establishment open in the month, number of bedplaces and number of rooms of the establishments open in the month, coincides with the item of data in the directory.
- For the rest of the variables:

$$\hat{V}_{jk} = \sum_{i=1}^{e_{jk'}} V_{ijk'} \cdot \frac{D}{7} \cdot \frac{\hat{P}_{jk}}{\sum_{i=1}^{e_{jk'}} P_{ijk'}} = \underbrace{\left(\sum_{i=1}^{e_{jk'}} V_{ijk'} \cdot \frac{D}{7} \cdot \frac{1}{\sum_{i=1}^{e_{jk'}} P_{ijk'}} \right)}_{\text{Stratum k' information.}} \cdot \underbrace{\hat{P}_{jk}}_{\text{Stratum k}}$$

Although for an empty stratum the number of establishments is greater than or equal to 3, its estimation will be aggregated to the donor stratum.

(From December 2004 onward)

It is necessary that, due to the treatment of the empty strata in provinces, areas and sites, the totals, by category, are not distorted by the increase of the variable in the recipient category, and by the decrease of the donor category. Thus, it is necessary to compute the contribution of the empty stratum as a difference between the estimation of the recipient stratum and that of said stratum if it had not received the population of the empty stratum.

If there is more than one empty category from the same province or area, the difference will be distributed proportionally to the number of bedplaces in the directory of the empty strata (similar to the procedure carried out for Campsites, for national data by category).

In turn, if empty strata are found for provinces or the rest of the geographical breakdowns with the monthly questionnaire, the weekly estimations will be used in these strata.

(From July 2005 onward, for the province, area and site strata of the HOS)

inci = Incidence of the weekly questionnaire

inci1 = Incidence of the monthly module

In turn, the following cases will require a specific treatment, due to the fact that they have a monthly module:

1.- In a stratum where:

- (No. establishments with inci1=1)≠0 (there may be other closed establishments, 3, or refusals, 4)
- y (No. establishments with inci=1)=0 (there may be closed establishments, 3, or refusals, 4).

The monthly modules are used to compute the total guests and overnight stays in order to distribute them by nationality, and to compute the rest of the variables, it is necessary to look for a "donor stratum" of estimations obtained with the week. The donor stratum will be obtained within the same province, and it will be the first non-empty stratum, and with movement of guests (in the week information) that is found following the aforementioned order (in the HOS).

2.- In a stratum where:

- (No. establishments with inci1=1)≠0
- and (No. establishments with inci=1)=0
- and (No. establishments with inci1=2)≠0 (there are more establishments in the stratum but some of them have an incidence of 2)

The monthly modules are used to compute the total guests and overnight stays. In order to distribute them by nationality and to compute the rest of the variables, it is necessary to look for a "donor stratum" of estimations obtained with the week, but only to apply it to the establishment or establishments with a monthly incidence=1. The donor stratum will be obtained within the same province, and it will be the first non-empty stratum (in the week information) that is found following the aforementioned order (in the HOS).

3.- In a stratum where there are no establishments with inci=1 in the week and there is one or more with: inci=2 or 3 in the weekly questionnaire and inci=1 in the monthly questionnaire, the incidence in the weekly questionnaire will be reassigned as a *refusal*, 4. This will leave us in cases 1 or 2, then, and this case will be solved by either of those two ways. (This case will be checked first).