

REVISIONS IN THE SPANISH INTERNATIONAL VISITORS ARRIVALS STATISTICS

Carlos Romero Dexeus¹

Abstract: This article concerns the revision in the Spanish international visitor arrivals statistics undertaken by the Spanish Tourism Administration in the past decade. As a consequence of the coming into force in Spain of the Schengen Convention in 1993 and the elimination of the passport control among most of the EU countries, figures of international arrivals in Spain began not to be as reliable as they were in the past. The article therefore analyses how a new system based on an Inbound Survey was established providing more accurate figures on international arrivals at national borders. The new figures obtained together with the need to implement the new definitions on tourism statistics recommended by the World Tourism Organization encourages the Spanish Tourism Administration to make a revision of the official figures previously published.

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¹ Carlos Romero is an economist specialized in tourism statistics. He is currently in charge of the Spanish Border Survey of Inbound Tourism (**FRONTUR**) and the Spanish Border Survey of Tourism Expenditure (**EGATUR**) at the Spanish Institute for Tourism Studies (Instituto de Estudios Turísticos)

PRECEDENTS

In 1993, Spain signed the *Schengen Convention*,² which provides for the abolition of controls at the internal borders of the signatory states. Until then, the information concerning the number of visitors and their nationality came from the police records obtained at the different border checks that existed in the different access routes into Spain. The only statistics task carried out by the Spanish Tourism Administration, in relation to the flows of visitors, was collecting and adding up that data.

The historical series of these statistics were published in the corresponding *Spanish Tourism Statistics Yearbooks* (published regularly from 1969 to 1993) and gave the chance of knowing how many visitors had entered the country by nationality. This information disappeared when border controls were removed (and, consequently, it meant the end of these statistical tasks by the National Security Forces).

At the same time as border checks were disappeared in the Schengen area, a whole lot of new concepts and statistical definitions in the field of tourism were approved by the United Nations Statistical Commission.³ These had already been adopted by the World Tourism Organisation in the 1991 Ottawa Conference. These new statistical criteria required, among other characteristics, the specification of whether the foreign visitor was a tourist or a same-day visitor; that distinction did not appear in the series obtained by the Spanish border police.

After the signature of the *Schengen Convention* in 1993, the Spanish Tourism Administration asked the Spanish Institute for Tourism Studies⁴ (*Instituto de Estudios Turísticos*) to find a new system for statistics on foreign visitors previously obtained from the police records. In other words, the Spanish Tourism Administration had to implement a new statistical survey, which would be till then part of the Spanish National Statistical Plan⁵ (its development and control corresponds to the National Statistical Office and its legal approval corresponds to the Parliament).

The Spanish Institute for Tourism Studies was then committed to design a statistical operation. During 1994 the results obtained from this new survey coexisted during the first months with the police records still available for some borders. Thus the new system was tested, improved, and put into practice.

It was not until the end of 1994 that estimated data on the number of incoming visitors based on access routes, nationality, destination and other travellers characteristics were obtained from the new survey.

² The *Schengen Agreement* was originally signed in 1985 by five European Union member states. It was signed in Schengen, a small town in Luxembourg on the border with France and Germany. Nowadays there are fifteen Schengen signatories: Austria, Belgium, Denmark, Finland, France, Germany, Iceland, Italy, Greece, Luxembourg, the Netherlands, Norway, Portugal, Spain and Sweden. Together, these countries are known as the *Schengen area*. The goal of the agreement is to end border checkpoints and controls within the Schengen area and harmonize external border controls.

³ *WTO Recommendations on Tourism Statistics*, 1993.

⁴ For further information: www.iet.tourspain.es

⁵ Currently in force the National Statistical Plan 2001-2004.

During 1995 the analysis and evaluation of the first results obtained during 1994 showed a clear overestimation in the numbers of visitors' arrivals. The overestimation was due to some deficiencies in the survey design and in the data collection system that not only affected the estimation of the number of international visitors but their distribution by nationalities as well.

Once the deficiencies were rectified, in 1996, the new survey became fully operative. The new survey was called the **Spanish Border Survey of Inbound Tourism (FRONTUR)**.⁶ This survey included several statistical operations related to the estimation of the number of international visitors (and its distribution between tourists and same-day visitors and other characteristics).

THE SPANISH BORDER SURVEY OF INBOUND TOURISM (FRONTUR)

One of the main virtues of **FRONTUR** is the fact that its main methodological principles have never changed, apart from yearly improvements, providing a comparable series of non-stop monthly results since 1996.

FRONTUR provides reliable and solid results about the flows of international visitors' arrivals in Spain throughout the year by whatever access route. Its sophisticated estimation system combines information from administrative records – The Spanish Airport Authority (Aena), Spanish Road Traffic Authority (DGT), Spanish Train Traffic Authority (RENFE) and National Ports Authority (Puertos del Estado)- as well as from surveys operations and manual appraisals at national borders and airports (both arrivals and departures). The sample size is big enough to ensure the reliability of the statistical results published. Every year, **FRONTUR** carries out more than 2 million road counts and around 250,000 interviews at road border crossing points and at international airports.

As a result of the complexity of the described operation, as well as the limits of the budgetary resources assigned to it **FRONTUR** was introduced gradually and cumulatively, acquiring step by step experience.

FRONTUR's implementation steps:

- **FRONTUR** begins in 1996, it was a complete new statistical operation carried out at major road border crossing points in Spain (with France and with Portugal). The aim of this survey was to substitute a former survey implemented in 1995 that was not accurate enough. The new operation included automatic and manual counting of vehicles at roads and personal interviews at roads and airports.
- February 1997. The revision of the figures published on arrivals of international visitors by roads for the year 1995 was made. The great volume of statistical information cumulated during the first year of **FRONTUR** helped to improve the estimation of the number of visitors that

⁶ For further information see FRONTUR methodological document: www.iet.tourspain.es

had been available so far. As a consequence of these changes, the 1995 figures of international arrivals by road were revised and brought down finding a difference with the figures previously published of 4,905,000 visitors. The data improperly included among those others than visitors and same-day visitors that had been counted by the former system.

- January 1998. Once the new methodology had been successfully implemented at roads, it was decided, in January 1998, and after a pilot phase developed during the last months of 1997, to set it up also at airports. This new methodology provided more accurate data for both means of transports, the two most important ways of access (each year, roads and airports are used by 95% or more of the international tourists arriving into Spain).
- December 1999. The revision of the figures published on arrivals of international visitors by air published until then was made. After two years of data collection that guaranteed the correction of the estimations, the need for refining the series based on arrivals by air came up, similar to the refinement once made to the series of arrivals by road. In the case of airports jointly with the surveys, other administrative information provided by the Spanish Airport Authority (Aena) was also used (specifically the number of air passengers arrivals in international flights by airport of origin and destination).
- In 2000, instead of breaking the historical time series, it was decided to re-estimate the information previously published on visitors arrivals since 1995, and the new FRONTUR arrivals figures were published.

REVISION OF THE INTERNATIONAL VISITOR ARRIVALS AIR SERIES

Since the introduction of **FRONTUR**, the officially published figures on visitor arrivals by air in Spain corresponded to the international arrivals to Spanish airports that the public organism Aena provided with to the Spanish Tourist Administration by virtue of the Agreement undersigned.

Although the said administrative source has an official character and it is based on a census nature recount, the figures provided by Aena refer to the totality of air flows without taking into account the kind of passengers, if they are arrivals or departures, or if passengers are residents in Spain or same-day visitors, and they include passengers in transit who don't stay overnight in Spain. However, the Aena figures related to the passengers' nationality are based on the country of origin of the flight, which from a tourist point of view is absolutely unsatisfactory.

In January 1998 the collection of data based on arrivals by air was substantially improved thanks to the use of a questionnaire which allowed to identify if passengers were residents in Spain or, in the case of being non-residents, if they were tourists or same-day visitors.

It was a very simple questionnaire, with seven questions, that allowed to differentiate the three groups of passengers (data that didn't appear in the information provided by Aena), thus improving the estimation of our foreign visitors.

Also, it allowed to quantify the number of movements abroad by air of the Spanish citizens, as well as the number of short business trips (in and out of Spain) which were more and more significant each year.

The new questionnaire carried out at airports allowed for the distribution of the total figures on international passengers provided by Aena, taking into account residents in Spain and visitors; and among the visitors, the tourists and same-day visitors. In particular it allowed, through a questionnaire to each passenger of a statistically selected sample of flights, the characterisation per month, airport and kind of flight, regular or charter, of the global flows of arrivals by air based on the following variables:

- Kind of passenger (resident in Spain, tourist, same-day visitor)
- Country of residence
- Purpose of the visit
- Type of accommodation
- Package or not package
- Length of stay
- Age and sex

For the first time it was possible to differentiate among the passengers arriving to Spain in international flights those who were residents in Spain coming from their trips abroad, from those who were international visitors (tourist and same-day visitors and in-transit visitors).

At this point the operation is absolutely consolidated. The great volume of interviews available, the intense and rigorous statistical job done during the last year allowed the Spanish Institute for Tourism Studies to face the final revision of the series with total guaranty for the years 1995, 1996, 1997, 1998 and 1999.

The decision of making a final revision of the **FRONTUR** arrivals of visitors series implied many associated works, such as:

1. The implementation of the final method of expansion by which the totality of arrivals by air is obtained by applying the distribution of arrivals and departures observed in the flights foreseen (GESLOT) or executed (CONOPER), instead of dividing by two the total figure of international passengers.
2. The transformation and adaptation of the original plan of tabulation to the new demands of contents and formats of published tables.
3. The requirement of homogeneity was imposed facing the existence of a series of non-homogeneous data due to different management that, at the beginning, had to be given to the statistical operations at different means of access.
4. The incorporation of the files to the new tourist database (DATATUR) together with a management of standardisation and identification that facilitates its general management.

As a consequence of this revision, the figures of arrivals of visitors published by the Spanish Institute for Tourism Studies register a significant downward trend. Concretely, for 1999, 1.5% of the published total figure of tourists actually corresponds to same-day visitors or travellers in transit arrived to Spain by air, while another 8.2% actually relates to residents in Spain in international flights. The variations observed with the revision of the series are similar in different years, for this reason the analysis in terms of index of growth does not suffer alterations at all.

In relation with this figure, two important matters must be taken into account:

- As the reduction in the number of tourists derived from the revision is of a similar magnitude in all the revised years, the annual growth rates of the number of visitors to Spain are almost the same.
- As a new category of visitors not considered before has appeared (same-day visitors by air), the totality of the same-day visitors increases exactly in the same quantity as the volume of that collective coming by air.

Finally, we want to mention the fact that this revision did not imply an interruption in the historical series of **FRONTUR** because an aspect of its design was precisely to be able to introduce successive revisions of the data as the quality of the estimations of this operation improved and as the collaborating bodies (such as Aena, RENFE, DGT and Puertos del Estado) could begin the refinement of the data monthly issued, which are the basis for the estimation of the global figure of visitors arrivals to Spain.⁷

T1. Size of the Spanish revisions on the official figures of international arrivals of visitors

Year	Visitors arrivals		Tourist arrivals		Sameday visitors	
	Before Revision	After Revision	Before Revision	After Revision	Before Revision	After Revision
1995	57.594.558	54.408.900	38.803.532	34.919.575	18.791.026	19.489.325
1996	60.654.506	57.270.534	40.541.331	36.221.008	20.113.175	21.049.526
96/95 % Change	5,3%	5,3%	4,5%	3,7%	7,0%	8,0%
1997	64.962.850	62.414.977	43.251.752	39.552.720	21.711.098	22.862.257
97/96 % Change	7,1%	9,0%	6,7%	9,2%	7,9%	8,6%
1998	70.766.925	67.761.833	47.402.642	43.396.083	23.364.283	24.365.750
98/97 % Chage	8,9%	8,6%	9,6%	9,7%	7,6%	6,6%
1999	76.391.883	72.060.219	51.771.783	46.775.869	24.620.100	25.284.422
99/98 % Change	7,9%	6,3%	9,2%	7,8%	5,4%	3,8%

Source: *The Spanish Border Survey of Inbound Tourism (FRONTUR)*. Instituto de Estudios Turísticos de España

⁷ See the revised figures of international arrivals by means of access in Annex I.

IMPROVEMENTS IN ESTIMATIONS SINCE THE REVISION OF THE SERIES

Besides dealing with the refinement of the series of arrivals, the new survey introduced at airports allowed for the implementation of other significant improvements in the estimation of the flows of visitors' arrivals, thus improving the quality of estimations and considerably broadening the volume of information used to characterise the flows of visitors. Improvements have been achieved, particularly, in the following aspects:

- Estimation of the country of residence of tourists: the new survey allows the estimation with rigorous statistical criteria of the distribution of the arrivals of tourists by air based on their country of residence, information that until that moment had only been available from the arrivals by road. This improvement allows the quantification in absolute terms of the size and evolution of our main outbound markets.
- The strengthening of the analysis of flows of visitors from a regional point of view, favouring its quantification and characterisation in relation to some of their main characteristics as their countries of origin, kind of accommodation used, purpose of the visit and length of stay depending on the region of destination.
- The creation of a new expanded visitors arrivals data file system through all the access routes, which gives monthly information, and the design of a new plan of management for the available information with a considerable degree of detail on characterisation of the flows of arrivals. Its monthly generation is obtained 15 days after the month of reference.
- The elevated arrivals data file is in itself a framework of expansion of sample results of great statistical reliability. This file it is used to expand the sample results obtain from other surveys made at national borders to visitor, as it is the case of the results obtain from the Spanish Inbound Survey on Tourism Expenditure (**EGATUR**). This new survey implemented in the year 2001 together with the Spanish National Statistical Office (*Instituto Nacional de Estadísticas*) and the Spanish Central Bank (*Banco de España*) is used for the estimation of incomes and payments for tourism from the current account of the Balance of Payments
- Finally, the new series included not only figures of international arrivals of visitor by means of access but also includes its distribution by *kind of accommodation* and *region of destination*. These are two variables of great importance for promotion purposes.

ANNEX I

Revised number of international visitors by month, by type of visitor and by means of access.

Thousands

	TOTAL	Tourist					Sameday visitors	
		Total	Roads	Airports	Trains	Ports	Roads	Airports
Year 1995	54409	34920	9037	23934	241	1707	18804	686
January	2698	1397	133	1158	14	93	1212	89
February	2822	1494	212	1202	11	69	1277	51
March	3310	1978	310	1545	14	109	1279	53
April	4587	2803	746	1899	21	137	1715	69
May	4517	3262	621	2491	16	134	1233	23
June	4899	3555	894	2515	19	127	1259	85
July	7550	5376	2217	2958	27	175	2102	72
August	8089	5044	1880	2748	35	380	2984	61
September	5344	3643	770	2615	23	235	1637	64
October	4297	2860	618	2128	24	91	1399	38
November	2949	1665	261	1304	20	80	1247	36
December	3348	1843	376	1372	19	77	1460	45
Year 1996	57271	36221	9369	24658	379	1815	20310	740
January	2691	1455	125	1243	22	66	1143	93
February	2884	1631	186	1374	21	50	1197	56
March	3814	2265	366	1798	27	73	1488	60
April	4580	2731	724	1850	33	124	1779	70
May	4891	3372	667	2538	29	138	1494	25
June	5185	3623	955	2511	33	125	1469	93
July	7464	5193	2178	2822	45	149	2194	76
August	8837	5410	2087	2886	54	383	3360	68
September	5474	3703	822	2616	37	228	1702	69
October	4582	3070	561	2155	29	326	1471	40
November	3303	1836	279	1453	22	83	1426	40
December	3567	1931	420	1413	28	70	1588	48
Year 1997	62415	39553	9454	27677	409	2012	22007	856
January	2967	1590	131	1364	25	70	1269	109
February	3205	1766	212	1470	23	61	1372	67
March	4389	2606	486	2004	33	83	1710	72
April	4675	2692	562	1963	34	134	1904	79
May	5706	3883	769	2927	34	152	1792	31
June	5492	3689	756	2772	38	123	1698	106
July	8171	5653	2215	3163	54	221	2432	86
August	9569	6051	2103	3365	68	516	3436	82
September	6050	4125	876	2915	33	301	1846	79
October	4913	3320	624	2484	25	188	1548	45
November	3461	2061	320	1630	18	94	1354	45
December	3817	2115	401	1621	24	69	1646	55
Year 1998	67762	43396	10581	30457	422	1936	23373	993
January	3356	1768	163	1524	21	61	1474	114
February	3492	1981	278	1623	18	62	1441	70
March	4104	2508	387	2021	25	74	1524	72
April	5354	3367	828	2388	33	118	1890	97
May	6298	4377	861	3286	31	199	1883	38
June	5983	4040	836	2999	40	165	1813	130
July	8670	5973	2345	3408	58	162	2607	91
August	10344	6363	2302	3529	70	463	3844	136
September	6476	4481	986	3187	46	261	1904	91
October	5633	3844	753	2872	32	187	1735	54
November	3858	2336	370	1844	21	102	1469	53
December	4195	2358	474	1776	27	82	1787	49
Year 1999	72060	46776	11522	32574	428	2252	24493	792
January	3596	1967	227	1641	24	74	1528	101
February	3729	2166	370	1704	20	72	1493	70
March	4613	2905	568	2205	30	103	1645	63
April	5627	3412	845	2363	38	166	2129	87
May	6570	4566	944	3416	34	172	1944	60
June	6271	4362	864	3290	38	170	1862	47
July	9501	6678	2599	3799	52	229	2775	48
August	10399	6644	2298	3766	63	516	3708	48
September	6907	4762	959	3445	41	317	2051	94
October	6319	4430	870	3320	32	207	1828	62
November	4228	2519	403	1963	23	130	1667	42
December	4301	2365	575	1662	31	96	1864	72

Source: Spanish Border Survey of Inbound Tourism (FRONTUR)