

# Compact datasets from the International Passenger Survey

## Contents

- 2 The International Passenger Survey
- 4 About *Travelpac* datasets
- 4 *Travelpac* variables
- 8 Using *Travelpac* datasets
- 9 Data analysis
- 11 Other sources of IPS data and analysis
- 13 IPS definitions

### Further information about the IPS

Further details about the IPS methodology and variables can be obtained from:

**Office for National Statistics**  
International Passenger Survey  
Room 2201  
Government Buildings  
Cardiff Road  
Newport  
NP10 8XG

**Telephone** +44 (0) 1329 444661  
**E-mail** [pop.info@ons.gov.uk](mailto:pop.info@ons.gov.uk)

**The Government Statistical Service**

The Government Statistical Service (GSS) is a network of professional statisticians and their staff operating both within the Office for National Statistics and across more than 30 other government departments and agencies.

**The Office for National Statistics**

The Office for National Statistics (ONS) is the executive office of the UK Statistics Authority, a non-ministerial department which reports directly to Parliament. ONS is the UK government's single largest statistical producer. It compiles information about the UK's society and economy, and provides the evidence-base for policy and decision-making, the allocation of resources, and public accountability. The Director-General of ONS reports directly to the National Statistician who is the Authority's Chief Executive and the Head of the Government Statistical Service.

## Travelpac

Travelpac consists of a series of data files that enable users to conduct analysis of overseas travel and tourism estimates within certain subgroups. The data files are derived from the International Passenger Survey (IPS).

## The International Passenger Survey

The IPS is a sample survey carried out by the Office for National Statistics (ONS). The results are based on face-to-face interviews with a sample of passengers as they enter or leave the United Kingdom (UK) by principal air, sea and channel tunnel routes. About 95 per cent of passengers have a chance of being selected. The remainder are either passengers travelling at night, when interviewing is suspended, or on those routes too small in volume or too expensive to be covered.

Travellers passing through passport control are randomly selected for interview which is carried out on a voluntary and anonymous basis and cover both adults and children. Each year approximately 250,000 interviews are achieved representing about 0.2 per cent of travellers. The overall response rate for the survey is typically a little over 70 per cent.

### The main aims of the IPS are to:

- collect data in order to measure travel expenditure and how it impacts on the UK balance of payments (on the travel account)
- provide detailed information about overseas visitors to the UK for tourism policy, and
- provide data to feed into estimates of international migration

Since its inception in 1961, the surveys' coverage has been extended to include all the main air, sea and tunnel ports or routes into and out of the UK. The only modes of transport excluded are sea routes to and from the Channel Islands, the land border with the Irish Republic, and cruise ships travelling to and from the UK.

The IPS data are weighted to produce national estimates of all international travellers to and from the UK on a quarterly basis. Annual national estimates are created by combining the four quarters of the year together.

The calculation of the weights on the IPS takes into account its complex sample design and information provided from other sources on, among other things, the non-sampled routes and time periods. For example, estimates of spending by travellers to and from the Channel Islands are provided by the Economic Advisor's Office in Jersey, and the Central Statistical Office in the Irish Republic provides information on travellers crossing the land border with Northern Ireland. NOTE: Data from April 2020 do not include any travel across the Irish Land Border.

An in-depth description of the IPS methodology can be found in <http://www.ons.gov.uk/ons/guide-method/method-quality/specific/travel-and-transport-methodology/international-passenger-survey-methodology/index.html>

### **Making the IPS accessible**

The main IPS dataset is complex and not very user friendly. However, with an increasing demand for information from users, Travelpac facilitates easier access to this valuable information. Travelpac is provided as a series of data files in both Excel and SPSS formats which allow users to examine the results in far greater depth than is possible from traditional printed sources. Data are available online for each year from 1993 onwards from this website: [Travelpac](#)

## About the Travelpac datasets

The Travelpac datasets provide information about overseas travel and tourism. Although one of the main aims of the IPS is to provide estimates for international migration, such estimates are handled separately and are not included in Travelpac.

Travelpac contains information gathered from people who were interviewed on the IPS on the return leg of their journey, i.e. overseas residents returning home and UK residents arriving in the UK. These are known as mainflow passengers. Travelpac contains data only for a subgroup of these travellers termed tourists. This selection ensures results from Travelpac will be in keeping with other published overseas travel and tourism information.

All the variables in Travelpac datasets have been re-coded from the full IPS database. The data are then aggregated to form a highly efficient yet compact data file. This enables Travelpac data files to be used with most modern spreadsheets and statistical packages. While some detail within some of the categories is inevitably lost during the aggregation process, the information considered to be most important remains available for analysis.

## The Travelpac variables

Travelpac is a simplified version of the IPS database containing 14 of the most widely used categorical and continuous variables. The categorical variables give counts of trips falling into various categories and include the year or the quarter. Categorical variables are described on pages 4-7. In addition, there are four continuous variables which are described below.

### Travelpac continuous variables

**VISITS** shows how many visits are represented by a particular record. The values can be summed to give the total number of visits. A visit is usually a complete round trip, e.g. for UK residents it represents both a departure and an arrival in the UK. On the IPS overseas residents' visits are actually measured at the time of their departure from the UK, while UK residents' visits abroad are measured at the time of their arrival back to the UK.

**NIGHTS** relates to the total number of nights spent whilst on a visit. In the full IPS dataset, each record has its own NIGHTS variable, representing the nights stayed for that record. In Travelpac datasets, the nights have been weighted<sup>3</sup> and summed together so one row in a dataset can represent the total nights for one or more actual IPS interviews. Summing the values given in the NIGHTS variable will produce the number of nights spent on all visits.

**SPEND** shows the total expenditure made abroad (for UK residents) or in the UK (for overseas residents) during the visit. Amounts are given in £UK at current prices, i.e. the value of money at the time the visits were made. As with NIGHTS, the data are already weighted and so can be summed to give spending

estimates.

**SAMPLE** is the number of contacts from the main IPS used to support each row of information in the Travelpac dataset. This can be used as an indication of the reliability of the data being examined.

For simplicity and convenience, the values of all continuous variables in Travelpac files have been limited to three places of decimals. This means at extreme levels, results produced by summing values may differ marginally from IPS information produced or published elsewhere.

#### Travelpac categorical variables

Variable	Description	Codes and labels
<b>YEAR</b>	Year of interview	Coded as 4 digit year
<b>QUARTER</b>	Period of year	<b>1</b> Jan–Mar <b>2</b> Apr–Jun <b>3</b> Jul–Sep <b>4</b> Oct–Dec
<b>UKOS</b>	Where contact lives	<b>1</b> UK residents <b>2</b> Overseas residents
<b>MODE</b>	Main method of travel	<b>1</b> Air <b>2</b> Sea <b>3</b> Tunnel
<b>PURPOSE</b>	Main purpose of visit	<b>1</b> Holiday <b>2</b> Business <b>3</b> Study <b>4</b> VFR (visit friends or relatives) <b>5</b> Miscellaneous <sup>4</sup> <b>6</b> Transits <sup>5</sup>
<b>PACKAGE</b>	Package or independent	<b>1</b> Independent <b>2</b> Non-Independent (i.e. package trip)
<b>SEX</b>	Sex of respondent	<b>1</b> Male <b>2</b> Female <b>9</b> Sex unknown
<b>AGE</b>	Age group of respondent	<b>1</b> 0–15 <b>2</b> 16–24 <b>3</b> 25–34 <b>4</b> 35–44 <b>5</b> 45–54 <b>6</b> 55–64 <b>7</b> 65 & over <b>9</b> Age not known
<b>DURATION</b>	Length of the visit	<b>0</b> Nil Stay <b>1</b> 1–3 nights <b>2</b> 4–13 nights <b>3</b> 14–27 nights <b>4</b> 28–90 nights <b>5</b> 91–182 nights (3-6 months) <b>6</b> 183 nights – 1 year <b>9</b> Stay not known

## COUNTRY

Place of residence for overseas residents or of visit for UK residents

### Europe

- 10 Austria
- 11 Belgium
- 12 Bulgaria
- 13 Croatia
- 14 Czech Republic
- 15 Cyprus EU
- 16 Cyprus Non EU
- 17 Denmark
- 18 Estonia
- 19 Finland
- 20 France
- 21 Germany
- 22 Gibraltar
- 23 Greece
- 24 Hungary
- 25 Iceland
- 26 Irish Republic<sup>o</sup>
- 27 Italy
- 28 Latvia
- 29 Lithuania
- 30 Luxembourg
- 31 Malta
- 32 Netherlands
- 33 Norway
- 34 Poland
- 35 Portugal
- 36 Romania
- 37 Russia
- 38 Spain
- 39 Slovakia
- 40 Slovenia
- 41 Sweden
- 42 Switzerland
- 43 Turkey
- 44 Channel Islands<sup>l</sup>
- 45 Other Europe

### Africa

- 50 Egypt
- 51 Tunisia
- 52 Other North Africa
- 53 South Africa
- 54 Other Africa

### Middle East

- 60 Israel
- 61 United Arab Emirates
- 62 Other Middle East

### Asia

- 70 China – Hong Kong
- 71 China – Other
- 72 India
- 73 Japan
- 74 Pakistan
- 75 Sri Lanka
- 76 Thailand
- 77 Other Asia

<b>America and Caribbean</b>	<b>80</b>	Canada
	<b>81</b>	USA
	<b>82</b>	Mexico
	<b>83</b>	Other Central & South America
	<b>84</b>	Barbados
	<b>85</b>	Jamaica
	<b>86</b>	Other Caribbean
<b>Rest of the world</b>	<b>90</b>	Australia
	<b>91</b>	New Zealand
	<b>92</b>	Other countries

Most countries are uniquely identified by the COUNTRY variable. However, to ensure that analyses will be compatible with other ONS overseas travel and tourism published information, some codes in the country variable include more than one country depending on sovereignty. Care should be taken where more than one country is included under a single title. The combined countries presented in this database are:

<b>Category of COUNTRY</b>	<b>Additional territories included</b>
<b>Portugal</b>	Azores and Madeira
<b>Spain</b>	Canary Islands
<b>Switzerland</b>	Liechtenstein
<b>Other Europe</b>	Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia Herzegovina, Faroe Isl, Georgia, Kosova, North Macedonia, Monaco, Moldova, Montenegro, San Marino, Serbia, Ukraine, Vatican City
<b>Other North Africa</b>	Algeria, Libya, Morocco, Sudan, South Sudan and Western Sahara
<b>Other Africa</b>	All other continental Africa plus Cape Verde, Comoros, Madagascar, Mauritius, Mayotte, the Seychelles, and Sao Tome and Principe.
<b>Canada</b>	Greenland and St. Pierre et Miquelon
<b>USA</b>	Puerto Rico and US Virgin Islands
<b>Other Middle East</b>	Bahrain, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, Syria and Yemen.
<b>Other China</b>	Taiwan
<b>Other Asia</b>	Afghanistan, Bangladesh, Bhutan, Brunei, Burma, Cambodia, Timor-Leste, Indonesia, Kazakhstan, Kyrgyzstan, Korea (N&S), Laos, Macau, Malaysia, Maldives, Mongolia, Nepal, Philippines, Singapore, Tajikistan, Turkmenistan, Uzbekistan and Vietnam



**Other countries**

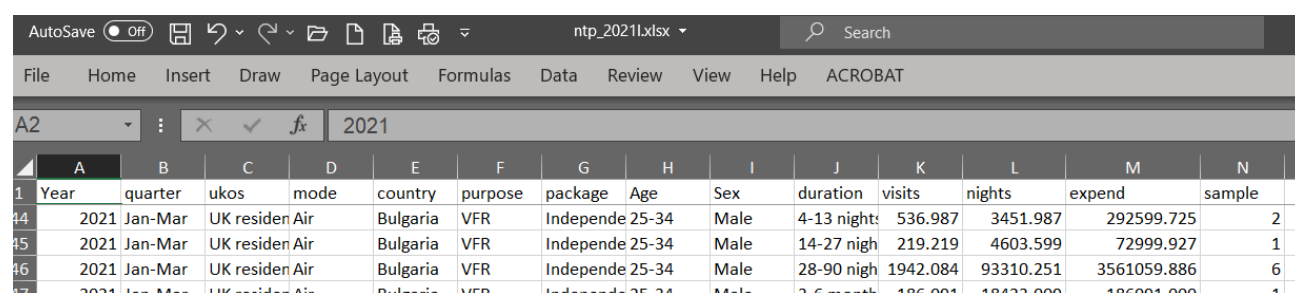
Rest of Pacific, country unknown and UK residents on cruises<sup>8</sup>

## Cyprus

Since the expansion of the European Union in May 2004, Cyprus has uniquely been coded in two parts to allow members of the new EU to be identified. Before May 2004 a single code for Cyprus is used.

## Understanding Travelpac datasets

The cases in the datasets are aggregated (or grouped) by the categorical variables. For example, in line 44 of the 2021, there are 2 cases in quarter 1 (January to March) of a male UK resident aged 25-34 travelling by air to Bulgaria on an independent holiday which lasts for 4-13 nights. The next row has one case (male; aged 25-34) with a similar profile. Estimates for visits, nights and spend represent weighted data.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Year	quarter	ukos	mode	country	purpose	package	Age	Sex	duration	visits	nights	expend	sample
44	2021	Jan-Mar	UK residen	Air	Bulgaria	VFR	Independe	25-34	Male	4-13 night	536.987	3451.987	292599.725	2
45	2021	Jan-Mar	UK residen	Air	Bulgaria	VFR	Independe	25-34	Male	14-27 nigh	219.219	4603.599	72999.927	1
46	2021	Jan-Mar	UK residen	Air	Bulgaria	VFR	Independe	25-34	Male	28-90 nigh	1942.084	93310.251	3561059.886	6
47	2021	Jan-Mar	UK residen	Air	Bulgaria	VFR	Independe	25-34	Male	3-6 month	186.001	18473.000	186001.000	1

## Using Travelpac datasets

Users will need to select suitable software to perform analyses from Travelpac files. Two formats of data file are provided to give users a choice of software for analysis. You will need to download the data files from the National Statistics website to your own system before you can use them.

### For SPSS® users

The datasets are supplied as SPSS SAV files which can also be read and used in SAS®. The files are fully labelled thus making data tabulation very easy using the SPSS TABLES or CTABLES modules.

### For spreadsheet users

Files are provided in Microsoft Excel® format. Each file contains three worksheets, one in numeric format and another in a fully labelled format. The third worksheet contains metadata which gives a description of the variables.

Note that Excel files may not import fully into other spreadsheets (including earlier versions of Excel) due to the row limitations of some packages.

## Other software users

For users of other software, please ask our technical support about other file formats which may be made available on request. Please contact [pop.info@ons.gov.uk](mailto:pop.info@ons.gov.uk) for details of availability.

## Combining files for time series analysis

Datasets from 1993 to 2022 are compatible from year to year for all variables and can be combined to allow time series analyses. In order to perform time series analysis, a complete set of the Travelpac files will need to be downloaded.

## The status and timing of the release of files

IPS data are released by quarter to a pre-announced timetable and at the same time new Travelpac files will be made available on the National Statistics website. The latest files will contain records for the current year to date and their status will be flagged as “provisional” as results will be revised later in the year. Once IPS data are finalised and released each year, a new annual Travelpac files will replace ones marked as provisional.

## Data analysis

Most types of analysis can be performed in simple cross tabulations or nested tabulations.

In the following example it is assumed we want to find out how many visits were made to the UK by overseas residents in the current year, their expenditure, the reason why they travelled, in what period of the year, and whether they were on a package trip or travelled independently. This requires an analysis of the variables VISITS and SPEND according to YEAR, QUARTER, UKOS, PURPOSE and PACKAGE.

Samples of this analysis using SPSS and Excel on 2009 data are reproduced on pages 9 and 10.

## Example using SPSS (Versions 7 onwards)

First the SPSS file for the current year is loaded into SPSS. Then run the following syntax to create the data. In later versions of SPSS the new CTABLES command could also be used.

```
var lab purpose "".
var lab visits"".
var lab spend "".
var lab package "".
var lab quarter "".
var lab ukos"".
var lab year "".

tables /observation visits spend
      /table purpose>package>(visits+spend)
      by quarter by ukos> year
      /statistics sum(visits "Visits" (comma9.0))
      sum(spend "Spend" (comma9.0)).
```

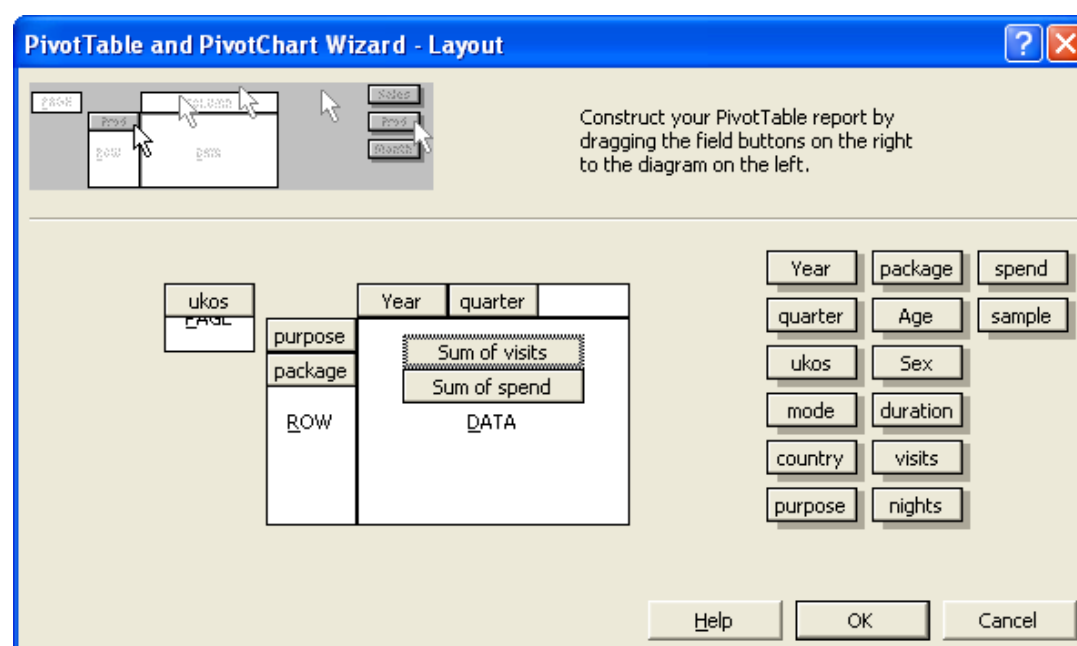
Note that the syntax will in fact produce two pages of tabulation – one for UK residents and one for overseas residents. Output from the latter is shown overleaf.

Overseas residents 2009

			Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
Holiday	Independent	Visits	1,727,903	2,590,339	3,235,015	1,986,720
		Spend	921,729,343	1431172516	1969769056	1,077,495,311
	Non-Independent	Visits	274,702	734,265	559,916	315,517
		Spend	128,987,586	335,847,784	349,150,634	161,661,839
Business	Independent	Visits	1,566,737	1,674,374	1,593,392	1,699,717
		Spend	835,820,139	893,368,552	914,793,748	1,012,092,330
	Non-Independent	Visits	6,649	12,347	14,356	11,089
		Spend	6,951,009	8,424,796	7,630,216	7,290,002
Study	Independent	Visits	68,796	80,319	155,593	99,249
		Spend	169,700,292	241,141,993	472,093,276	312,179,175
	Non-Independent	Visits	18,920	18,757	53,723	7,726
		Spend	20,662,221	22,855,215	123,464,841	8,091,052
VFR	Independent	Visits	1,959,052	2,171,746	2,460,013	2,168,957
		Spend	839,863,107	838,081,730	1150599567	935,322,638
	Non-Independent	Visits	7,396	3,831	3,325	8,608
		Spend	4,548,363	3,410,095	5,486,910	3,528,858
Miscellaneous	Independent	Visits	541,031	609,241	669,590	602,617
		Spend	252,240,743	295,215,170	391,852,255	307,603,943
	Non-Independent	Visits	41,598	47,467	35,119	53,366
		Spend	33,858,325	17,370,412	19,914,337	24,424,940
Transit	Independent	Visits	.	.	.	.
		Spend	6,458,865	10,059,709	13,077,711	6,469,027

### Example using Excel (Versions from 97 onwards)

The same analysis can be conducted using the pivot tables feature of Excel. The Excel pivot table data selection is illustrated below. It shows how the analysis variables should be entered into the table specification to produce output similar to that of the SPSS example.



			ukos	Year	quarter	
			Overseas residents			
			2009			
purpose	package	Data	Apr-Jun	Jan-Mar	Jul-Sep	Oct-Dec
Business	Independent	Sum of visits	1674374	1566737	1593392	1699717
		Sum of spend	893368552	835820139	914793748	1012092330
	Non-Independent	Sum of visits	12347	6649	14356	11089
		Sum of spend	8424796	6951009	7630216	7290002
Holiday	Independent	Sum of visits	2590339	1727903	3235015	1986720
		Sum of spend	1431172516	921729343	1969769056	1077495311
	Non-Independent	Sum of visits	734265	274702	559916	315517
		Sum of spend	335847784	128987586	349150634	161661839
Miscellaneous	Independent	Sum of visits	609241	541031	669590	602617
		Sum of spend	295215170	252240743	391852255	307603943
	Non-Independent	Sum of visits	47467	41598	35119	53366
		Sum of spend	17370412	33858325	19914337	24424940
Study	Independent	Sum of visits	80319	68796	155593	99249
		Sum of spend	241141993	169700292	472093276	312179175
	Non-Independent	Sum of visits	18757	18920	53723	7726
		Sum of spend	22855215	20662221	123464841	8091052
Transit	Independent	Sum of visits	0	0	0	0
		Sum of spend	10059709	6458865	13077711	6469027
VFR	Independent	Sum of visits	2171746	1959052	2460013	2168957
		Sum of spend	838081730	839863107	1150599567	935322638
	Non-Independent	Sum of visits	3831	7396	3325	8608
		Sum of spend	3410095	4548363	5486910	3528858

Note that the variables in the Excel pivot table are listed in alphabetical order and not, as in the SPSS example, in the order in which they are coded. If tabulations in code order are required, you will need to use the numeric versions of the data files. However, if you do this you will then lose all the labels information.

When used correctly, tabulations made using Travelpac data files will give results which are in keeping with the IPS information published in the latest editions of *Travel Trends and Quarterly Overseas Travel and Tourism*.

### Other sources of IPS data and analysis

IPS data and analyses of results are available from the ONS, Migration Statistics Division, Stakeholder Engagement and Impact Team at a commercial rate dependent on the subject content and the time taken to produce the information. A wide range of ready-to-use analyses is available in printed and electronic formats at reasonable cost.

IPS staff can also offer information and guidance on the use of IPS data and variables.

### More comprehensive data

The most comprehensive IPS datasets available have up to 310,000 cases per year. The datasets contain all interview records whether fully or partially coded and therefore require work from users to recreate estimates that match estimates published in ONS overseas travel and tourism outputs.

For overseas residents who have visited the UK and stayed at least one-night, additional information is provided regarding the towns in which they stayed.

**Access to IPS data**

IPS data users have two options if they would like to do further analysis.

The Stakeholder Engagement and Impact Team can be contacted in ONS.

**Telephone** +44 (0) 1329 444661

**E-mail** [pop.info@ons.gov.uk](mailto:pop.info@ons.gov.uk)

IPS databases are available for academics through the Data Archive at Essex University.

**Telephone** +44 (0) 1206 872143

**Web** [www.data-archive.ac.uk](http://www.data-archive.ac.uk)

## IPS definitions

- <sup>1</sup> **MAINFLOW** This term describes passengers who are on the return leg of their trip and includes UK residents returning to the UK and overseas residents leaving the UK. Passengers who are beginning their trip are termed 'contraflow'. Travelpac and other published tourism estimates are based on information from mainflow rather than contraflow passengers (though contraflow estimates are important for IPS weighting). This is because it is not until the end of passengers' trips that information about their visits can be collected reliably.
- <sup>2</sup> **TOURISTS** Published IPS tourism information always relates to tourists. In IPS datasets, a tourist is considered to be a person whose trip does not exceed a year. A tourist does not include a person who is migrating, military personnel on duty, or crews of aircraft travelling to collect/deliver craft. Tourists do include people on business trips, students and those looking for work or travelling for medical treatment.
- <sup>3</sup> **WEIGHT** Each record of a Travelpac dataset represents visits made by people interviewed on the IPS who have similar characteristics. A number, or weight, is then applied to each record so that it correctly represents the actual number of trips made by people with those characteristics. The values given in the SPEND and NIGHTS variables are also weighted and can be summed to give totals of expenditure or nights spent. By simple division, the weighted variables can be used to calculate new variables such as average length of stay, average expenditure per visit and average expenditure per day.
- <sup>4</sup> **MISCELLANEOUS** Visits for miscellaneous purposes include travel to attend sporting events, for shopping, health, religious or other purposes, together with visits for more than one purpose when none predominates (e.g. visits both on business and on holiday). Overseas visitors staying overnight in the UK en route to other destinations are also included in the miscellaneous purposes category.
- <sup>5</sup> **TRANSITS** Some records are coded as 'transit' under purpose of visit. This applies to overseas residents who arrive at an airport and cross the IPS counting line but are not visiting the UK. Their purpose of visit is to change planes and they leave the UK again during the same day. These cases are not counted as tourist visits to the UK but their expenditure is included within tourist spending. Transit cases therefore have values in the SPEND variable but are coded as zero in the VISITS and NIGHTS variables. People who visit the UK to change flight but stay overnight are included as tourists and coded under the 'miscellaneous' category of PURPOSE.
- <sup>6</sup> **IRISH RECORDS** Until 1999, the IPS did not interview on routes to the Irish Republic and so there was no sample for travel to or from this country for these years. The main IPS sample was supplemented by 'pseudo' records which represented the estimated total number of visits to and from this country. Therefore, prior to this change, much of the categorical data relating to visits to or from the Irish Republic is coded as 'unknown'. From 1999 to 2019, full information appears for the passengers travelling to and from ports in the Irish Republic. Data for this route has not been available since 2020.
- <sup>7</sup> **CHANNEL ISLANDS** Apart from YEAR, QUARTER and MODE, IPS datasets only contain information on SPEND for visitors to and from the Channel Islands. All such spending is assumed to be for holiday purposes.
- <sup>8</sup> **CRUISE RECORDS** Due to the difficulty in interviewing for cruise trips, only very basic information exists for UK residents on cruises and so this sector are included with "Other Countries".