A Guidance Pack from the **Department for Culture, Media and Sport**

GUIDANCE TOURISM

Measuring the Local Impact of Tourism

ENGLISH TOURIST BOARD

Scottish TOURIST BOARD

BWRDD CROESO CYMRU WALES TOURIST BOARD

Northern Ireland Tourist Board

Produced in association with the **National Tourist Boards**

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Minister for Tourism, Film and Broadcasting
Janet Anderson MP

FOREWORD BY JANET ANDERSON MP

The Government recognises that local authorities play a central role in the promotion, development and management of tourism and we want all local authorities to have in place a strategy for their tourism and leisure activities. Good strategies need to be built and evaluated on relevant and reliable statistics, collected cost-effectively. Although I have only recently taken up post I am already well aware of the difficulties in measuring the volume and value of tourism in the local authority areas, despite the advances that have been made by the providers of products and services to support this important work. I am therefore delighted to be able to introduce this guidance pack and to encourage everyone with an interest or a potential interest to read and follow its advice.

I am also pleased to thank all of those who have been involved in its preparation. A welcome start was made on this by the British Resorts Association, who commissioned Professor Victor Middleton to report on this subject. The Department and the national tourist boards have sought to build on that foundation and on the work they commissioned from Professor Robert Gilchrist and Dr Judy White of the University of North London. Much practical advice has been freely given by leading members of the industry and of local authorities, and by other researchers. I am particularly grateful to Geoff Broom and to David James for their considerable efforts in ensuring that this guidance pack provides sound and pertinent advice, addressed both to those just starting to consider local area tourism as well as to those rather more immersed in the topic.

The publication of this guidance is not the end of the matter. I encourage everyone concerned to continue to develop and exchange good practice, to support tourism at the local level and to contribute to the further growth of tourism and hospitality across the UK as a whole.

Janet Anderson MP

September 1998

Contents

This guidance is aimed specifically at officers in local authorities, development agencies, tourist boards and others who need to estimate the economic impact of tourism in their local area. We hope that the guidance will also be useful to providers of local area information and others with an interest in this important topic.

The pack contains:

- An introduction to the main issues in measuring the local impact of tourism. ***This is aimed at new or potential users of local area tourism statistics, or those who need an overview of the management issues.***

- A practical guide to measuring the local impact of tourism. ***This is aimed primarily at those with a more technical interest in delivering local area tourism statistics. It includes key variables and categories for tourism statistics.***

NB There is intentionally some duplication between these two documents, so that each can stand alone as a guidance note.

- A briefing note on the European Union Directive on tourism statistics. ***The Directive puts a responsibility on the Government to provide certain tourism statistics, mainly at the national or regional level. The Directive also provides a potential framework for the development of tourism statistics at the local level.***

- Contact details and suggestions for further reading.

Practical Guide to Local Area Tourism Models

This document is aimed primarily at those with a more technical interest in delivering local area tourism statistics. It includes key variables and categories for tourism statistics.

Details of publications and sources referred to are given in the separate note of useful addresses and suggestions for further reading.

1. Introduction

1.1 There is considerable and growing interest in the impact of tourism on local areas. Much of this interest has arisen from the role of tourism in economic regeneration but also from environmental and community concerns. We have a relative wealth of tourism statistics from national surveys, but these are not designed to give very local information. Indeed, it would be very costly to redesign and to run these national surveys to give reliable data for local areas.

1.2 The need for local area information is not unique to tourism. The options available to provide local tourism data mirror what is done in other subject areas in order to build a local information system. Such systems call on a range of sources and experiences during their development and operation. They may involve building a 'model' of the subject of interest in the local economy, to produce [illegible]imates out of the [illegible] inform[illegible] to fee[illegible] [illegible]ved locally, from [illegible]r othe[illegible]rative [illegible]ncentrate on co[illegible]ocal da[illegible]rveys, [illegible], as the way of [illegible]g the i[illegible]rism a[illegible]

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Tourism at the local level

1.6 Tourism activity at local level can bring benefits in terms of employment in tourism establishments and their suppliers, and support for local facilities such as shops, leisure facilities, pubs and catering outlets, transport services and cultural and social activities. Conversely, it can also result in adverse impacts on the local environment through development pressures, litter and pollution, erosion and disturbance to wildlife, as well as contributing to congestion and intrusion in local communities. In practice the level of benefit and costs will vary with the type of environment, the level of tourism activity, and the ability of the local community to absorb the additional number of visitors attracted to the locality.

1.7 If tourism activity is to be sustainable in the longer term, it should respect the balance between the needs of the visitor, the place and the host community. In particular, local authorities and other bodies with responsibility for tourism development should adopt policies which:

- minimise the impact of tourism development on the global environment by avoiding pollution and the depletion of natural resources, and by encouraging forms of tourism enterprise, operations and transport which are environmentally benign
- sustain the local environment by recognising the limits to the capacity of different locations to receive more visitors, avoiding congestion, erosion and disturbance to wildlife through better visitor management, and by encouraging forms of tourism which sustain the character and diversity of the area
- sustain the host community by increasing the opportunity for the local area to benefit economically from tourism, and by minimising nuisance and conflict from tourism in local communities, and involving local people in the planning and management of tourism in their areas
- sustain the visitor by recognising the visitor's right to enjoy and experience the area, and by providing visitors with a welcoming, meaningful and satisfying experience, and helping to increase their appre[illegible]f the area.

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2.2 Information on the levels and characteristics of tourism activity is available from a range of information sources at national and local level.

National data sources

2.3 There are a number of national surveys undertaken by Government and its agencies which provide information at national, regional and county levels (and equivalent). These include:

- the United Kingdom Tourism Survey (UKTS) which collects data on tourism trips involving a stay away from home by United Kingdom residents
- the International Passenger Survey (IPS) which gathers information on overseas visitors to the United Kingdom
- the UK Day Visitors Survey (DVS) which collects information on leisure day visits taken by residents of Great Britain
- national and regional occupancy surveys which seek to measure the occupancy levels of tourism accommodation, particularly in the hotel, guest house and B&B sectors
- the reports on 'Sightseeing in the UK' and on 'Visits to Attractions' which bring together information on the numbers of visitors to different types of attraction in Great Britain
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- information on the number of visitors to attractions and details of events are collected by the boards and often by local authorities. However, visitor numbers will include local users as well as tourists and visitors attracted from outside the area.
- the number of visits to Tourist Information Centres is available from TIC operators, although a proportion of such visits will be by local residents
- data on car parking use may also be available to the local authority particularly where it is the main operator of such facilities within the area. Again the profile of users will vary from site to site, and often over time.
- information on traffic flows may also be available from the Highway Authority which can help to inform the seasonal variation in leisure and tourism activity.

2.6 None of these indicators can by themselves provide a view of tourism activity, but collectively they can help to begin to build a picture of tourism activity in any particular area.

Local surveys

2.7 Local visitor surveys can provide valuable information on the visitor profile to an area. In particular, they can distinguish between tourists staying in the area and day visits from home or holiday accommodation outside the area. They can also collect a wide spectrum of information, including accommodation used, activities undertaken, group and personal characteristics and spending patterns. In conjunction with methodology to measure changes in volume over the year, they can provide an accurat[illegible]on of the volume and valu[illegible]within the loc[illegible]

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Mathematical models

3.4 A rather different kind of model applies mathematical formulae to the information that we do have available in order to determine some local information. For example, we might say that there should be a mathematical relationship between the home population in an area and the number of in-bound tourists who come to visit friends and relatives (VFR) in the area. Both VFR and population numbers are available for a region so we could apply the same relationship to the known population in a local area. However, this of course assumes that the relationship applies equally across all areas within the region and we may feel that this is not the case, for example because of demographic differences or differences in the attractiveness of particular areas as tourism destinations.

Statistical models

3.5 A third class of models are called statistical models because they acknowledge that the relationships are not exact but are subject to error. In the example above, the relationship between population size and the number of inbound VFR trips might then depend on the region and on other factors, some of which we should be able to identify explicitly and others that can only be taken account of as an error term in the equation.

3.6 One of the main features of any statistical model is that there is uncertainty about the information that it produces. We need to be aware that there is such uncertainty and use methods to reduce it to within acceptable and defined limits.

The range of information required

3.7 Information on tourism activity may be required for a range of purposes, eg to assess the economic impact and contribution that tourism makes to the local economy, the environmental impacts of tourism activity or the benefits and disadvantages for local communities. However a starting point for considering these specific elements has to be an assessment of the volume and value of tourism activity in the area.

Volume and value

3.8 The volume of tourism in any particular area will depend on the capacity of the area represented by the stock of facilities and infrastructure available to the tourist, and the level of use made by visitors (as opposed to local resident use) of that stock. It will be helpful therefore to consider the supply of tourism facilities available at a given point together with the use made of the facilities (tourism demand). See tables 1 and 2 opposite.

3.9 On the supply side, it may be helpful to classify the area by type, in order to make comparisons with areas of a similar type. On the demand side, it may be helpful to define main catchment areas for inbound tourism and to classify these areas. One suitable classification is the Office for National Statistics classification of local and health authorities of Great Britain, in which families, groups and clusters of areas are presented (details of publication given in the notes for further reading included in this pack).

3.10 We have mentioned day visits as part of tourism but they are one of the most difficult aspects of tourism to define and to measure. We recommend that the definition that best captures the 'outside usual environment' concept underlying all of tourism is that day visits are:

- visits taken for leisure or business purposes, and
- lasting for three or more hours away from home, and
- not undertaken on a regular basis.

3.11 Tourism leisure day visits defined in this way are a minority of all the leisure day trips that people take. Data from the 1996 UK Day Visits Survey show that tourism trips are 20% of the total reported leisure day trips, with many 'day trips' either lasting less than three hours, or taken regularly, or both.

3.12 Day visitors to an area are defined on a different basis from this in the context of the Standard Spending Assessment. For SSA purposes, length and regularity of visit are not measured directly: it is those day visits into an area made by people from outside that are counted as contributing to the enhanced population. This confirms that you must determine why you need statistical information on day visitors before collecting the data.

Table 1

Supply side items	Key variables
Stock of tourism accommodation	Number of establishments on reference dates *(eg open peak/low seasons)* Capacity (number of bed places or units) *See Appendix 1 for definitions of categories*
Visitor attractions	Number open on reference dates *See Appendix 2*
Tourist services	Number of tourism information centres, information points, accommodation booking agencies, travel agencies and tour operators
Resident population	At reference dates; may be used to estimate the number of inbound visits to friends and relatives in the area

Table 2

Demand side items	Key variables
Inbound trips to the area by people resident outside the area	By month of departure from area, length of stay, purpose of visit, home location, main mode of transport used to reach area, transport used within area, main type of accommodation used while in area *See appendix 3 for breakdowns*
Domestic trips within the area by people resident within the area	By month of end of trip, length of stay away from home, purpose of visit, transport used within area, main type of accommodation used while away from home *See appendix 3 for breakdowns*
Arrivals at tourism accommodation	By month, type of accommodation; separately for overseas, other inbound and domestic arrivals
Nights spent at tourism accommodation	By type of accommodation; separately for overseas, other inbound and domestic arrivals
Occupancy rates	Separately for hotels *(and similar establishments)* and for other collective accommodation establishments
Tourism spending	In total in the area, and for main components *(accommodation, travel, catering, admission charges, other),* separately for package trips and for all other trips
Inbound tourists *(people not trips)*	Profiles such as sex, age, life cycle, socio economic group *See appendix 4 for breakdowns*
Domestic tourists *(people not trips)*	Profiles such as sex, age, life cycle, socio economic group *See appendix 4 for breakdowns*

Economic

3.13 Indicators of the economic effects of tourism activity in the local area are likely to include estimates of local income, jobs and business linkages.

3.14 The direct measurement of tourism activity, especially of tourism expenditure, presents only a partial picture of the economic impact of the tourism activity in an area.

- The gross *direct* economic impact of tourism is the total value of tourism spending in the area. This covers the 'front-line' effects, looking at tourism spending in hotels, restaurants, shops, taxis, ie any business that receives visitor expenditure directly. The net direct impact however needs to take into account the value of goods and services that are imported into the area in order to supply the tourist with goods and services.

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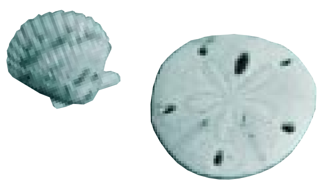
- support from visitors for the conservation and presentation of 'heritage' features from historic castles to landscape or nature conservation sites where visitors are charged for entry or other services such as car parking.
- damage to sites or footpath networks arising from over use or badly managed use. Such damage is often limited in extent and seriousness but nevertheless should be addressed where it occurs.
- pollution arising from car usage by visitors, litter and pressure on local sewage disposal works.

3.17 The measurement of activity by area and by mode of transport can therefore be an essential element in monitoring impact and the effects of policy and management decisions.



Community

3.18 As with economic and environmental impacts, the effects of tourism activity on local communities can bring benefits and disadvantages. These include:

- local employment both directly and indirectly
- increased range of local facilities and services which would not otherwise exist (see for example the recent studies by the Rural Development Commission on the effect of tourism in rural areas. Details are given in the further reading document)
- increased congestion and intrusion arising from visitors, mainly impacting during particular times of the year.

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3.22 All models depend on information from national and/or local surveys. A number of factors need to be considered in assessing the robustness of the information generated from such surveys. These include:

- The accuracy of the universe being included in the survey. Surveys seeking data from a resident population or passengers entering a country by air and sea can generally be relatively confident that they have an accurate count of people. Other survey universes may not be so easy to identify. Thus the total amount of accommodation available in an area is often difficult to identify given that some establishments such as informal camp sites or casual B&B accommodation may move in and out of the market.

- The degree to which the response to any survey is representative of the universe. Any survey may be subject to bias. That is, it may be that the way in which the estimate was produced will ensure that it is bound to be some distance away from the true (but unknown) value. A classic example of bias was the early use of surveys conducted over the telephone, which led to results biased in favour of the more affluent sections of society. Another example is the relative frequency with which different types of tourist are likely to be caught in on-street surveys, with business tourists and people visiting friends and relatives normally substantially under-represented compared to holidaymakers. Bias can not usually be measured, but we need to look out for the possibility that it is present, for example by examining any non-response patterns in surveys
- Another aspect of accuracy is the precision of the estimate. One way of thinking of this is to realise that repeating a statistical survey on a different sample of people, drawn from the same population, will invariably give a numerically different result. There are ways of measuring this inherent variability in statistical data, usually reported in terms of the standard error of the estimate. (This is why small differences in opinion poll results are sometimes described as having no statistical significance).
- The accuracy of the information supplied by survey respondents can also sometimes be a cause of uncertainty. In some cases this can arise as a result of imperfections of memory, such as those arising as a result of the length of time since the event on which information is being sought took place. In other cases, there may be reluctance to give an accurate response because of fears of confidentiality, or because information is not recorded accurately.

3.23 Thus there are potential sources of error in any model. In some cases it is possible to give an indication of the possible range through such techniques as the standard error of an estimate, whereas in other cases such measurements are not applicable. An awareness of the possible sources and an assessment of their significance is however essential in making judgements on the robustness and suitability of model outputs as a basis for policy development.

Current Development

3.24 A number of models have been developed to use local and/or nationally available information to generate estimates of activity in local areas. In particular two approaches have been relatively widely used to date, the STEAM and Cambridge models.* Both of which may be described as statistical models rather than mathematical models. Both have acknowledged weaknesses, but provide estimates which would not otherwise be available. It is known that a number of other models are in the process of development but are not yet widely available in the public domain.

**Contact details are in the useful addresses insert.*

4. The Way Forward

4.1 This final section of the guidance note sets out some good practice in the development and use of local area tourism information systems. Getting the user requirement right will enable you to identify the data that you will need. We urge that the following good practice is followed, so that your requirements for local tourism data can be met effectively and efficiently. Only then can you be sure that your tourism policy and operations are being run and evaluated using data that are relevant, reliable and robust enough for the task in hand.

Transparency

4.2 All local area information systems should be as transparent as possible, while respecting commercially confidential material and intellectual property rights. This can be achieved in a number of ways through, for example, writing up and presenting local area analyses, scrutiny by other users, the tourism community, the government agencies etc. DCMS and the national tourist boards will continue to liaise with the local area tourism model providers, similarly to promote as open a culture as possible.

4.3 All data sources should be made explicit and routinely listed in reports. Any use of subjective judgement should be made explicit and any sensitivity analysis for such judgement should be reported.

Identifying the gaps

4.4 Where gaps in basic data are identified, attempts should be made to collect information to overcome the problem. For instance, existing information on accommodation establishments will often be incomplete or out of date. It may be possible to use other data sources such as the rate valuation record of commercial premises and the register of caravan site licences to cross check particular aspects to identify or fill gaps in the record. The degree of effort to overcome deficiencies in basic information will need to take account of the significance of the gap in terms of the model outputs against the resources needed to collect the information.

Comparability

4.5 It is desirable that estimates for one local area should allow some comparison with other areas, and for the same area over time. Such comparison will be greatly assisted by the adoption of standard terms and definitions. (Further guidance on such definitions is set out in the appendices). Information on the implementation of any local surveys which yielded data used in the modelling process should also be recorded to allow replication of the survey at a later date to allow comparisons over time.

Reliability

4.6 All estimates should be accompanied by statements of associated standard errors wherever possible. The basis for the calculation of these errors should be explicit. Any use of subjective judgement in the calculation of such error should be made clear together with any sensitivity analysis for any such judgement of error should be reported.

4.7 Estimates should be based upon data collected according to good survey practice and avoiding unwelcome design effects, such as those introduced by clustering the survey at too few collection points. The data sources, sampling frames and sample sizes of all surveys used should be explicit. We strongly encourage the depositing of surveys with The Data Archive or with other appropriate organisations, so that they are available for re-analysis by others. A related point is that there are standardised questions for use in tourism surveys. These bring efficiency savings in the design of subsequent surveys as well as adding to comparability. There are also some standardised questions for use generally in social surveys. These are primarily intended to ensure that questions about basic demographic and household characteristics are harmonised with and between the major official surveys (further details of the tourism and the demographic questions are in the notes for further reading).

4.8 Survey and model estimates should be constructed to aim for the narrowest confidence intervals consistent with the requirements of the exercise and the resources available. Ideally, standard errors should not exceed 10% for any measure (which means that a difference of up to 20% from the true value would not be statistically significant). It should be noted however that where statistical models use a range of data sources, some of which contain an unknown element of bias as well as some uncertainty about the accuracy of survey data, the measurement of standard error may prove difficult and the outcome possibly misleading. In such circumstances, transparency in the construction and operation of the model becomes even more important.

Local authority boundaries

4.9 Local areas should normally be defined according to local authority boundaries. One benefit of this is to ensure compatibility with those national tourism estimates that are required under the European Union Directive on Tourism Statistics to be supplied using areas defined by the 'NUTS' geography. (This aspect of good practice will be most beneficial when the current list of NUTS areas has been updated by the Office for National Statistics, including local authority boundary changes. Further details are given in the briefing note on the EU Directive included in this pack. The revised list of NUTS areas will be issued in due course).

4.10 It should also be recognised that outputs for non-standard areas will occasionally be needed for monitoring or supporting European Union or national programmes which do not use local authority boundaries.

Alignment with national totals

4.11 As both a matter of principle and a pragmatic step, we recommend that local area estimates should be compatible with the published regional and national totals in the national statistical sources. We understand that estimates from the main local area tourism models can be aligned with published regional and national totals and we suggest that this provides a mechanism by which local area estimates can be seen and compared on the correct scale. National and regional totals from national surveys are themselves estimates which are subject to confidence limits. Estimates from a complete set of good quality local surveys covering a region might be more precise, as well as giving a richer local data set. However, they are still subject to confidence limits and better precision may not always be obtained. If local surveys depend on untested assumptions then alignment with national totals would remove one element of uncertainty, although it would not be reasonable to expect it to be done in the case of purely local exercises that are conducted to examine very local economic effects and for which benchmarking is not appropriate.

Making the good practice work

4.12 As a result of our study and discussions we are clear on the need for and the value of good practice along the lines outlined above. We are equally clear that this good practice is demanding and that present practice may fall short, in particular over the treatment of the error and uncertainty inherent in models. We are therefore committed to continuing our dialogue with the providers and with users of local area information systems in order to raise standards and to reap the benefits for tourism policy and operations.

If you have any comments on any aspect of this practical guidance then please get in touch with the Department for Culture, Media and Sport or one of the national tourist boards. Their addresses are given in the contacts list included in this pack.

Appendix 1: Accommodation categories for statistical purposes

This listing is based on the list used in the EU Directive on tourism statistics and may therefore provide a framework for the comparison of data when a breakdown by type of accommodation is required *(eg of stock, arrivals, visitor nights, occupancy rates).*

1. **Hotels and similar establishments:**
1.1 Hotel/motel
1.2 Guest house
1.3 Farmhouse or other private house offering at least bed & breakfast

2. **Tourist campsites:**
2.1 Camping site *(exclusively or predominantly tents)*
2.2 Site for touring caravans

3. **'Holiday dwellings' *(European phrase)* meaning:**
3.1 Holiday camp *(self catering/service)*
3.2 Holiday village
3.3 Site with static caravans *(owned by operator)*

4. **Other collective accommodation**
4.1 Youth hostel
4.2 University/school offering tourism accommodation
4.3 Marina
4.4 Establishment reserved for specified types of visitor *(workers, students etc)*
4.5 Specialised health care or religious/spiritual establishment

5. **Private accommodation:**
5.1 Rented self-catering accommodation
5.2 Secondary residence *(houses, caravans, pitches and moorings)*
5.3 Homes of friends or relatives
5.4 Other types of accommodation

Note that private accommodation is not usually measured on the supply side. Tourism arrivals and occupancy rates will invariably only be available at most for hotels, campsites and holiday dwellings. Bedspaces are taken as four to a camping pitch.

APPENDIX

Appendix 2. Categories for visitor attractions

The national tourist boards use the following breakdown:

Historic houses and monuments
Cathedrals and churches
Gardens
Museums & galleries
Wildlife attractions
Country parks
Farms
Leisure parks (and piers)
Steam railways
Visitor centr
Workplace a
Venues for s
Miscellaneo

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Length of s EU Directive re me d
Same day tr *lly in order to e om s Directive)*
1–3 nights *(nal tourist boar ourism shows each du parate*
4–7 nights *(*
8–14 nights *ves 8–10, 11*
15–28 night
?9–91 night 18 or mo
2–365 nigh

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Appendix 4. Tourist profiles

Age breakdowns in EU Directive are
0–14 years *(optional to include in Directive data)*
15–24 years
25–44 years *(UKTS uses 25–34 and 35–44)*
45–64 years *(UKTS uses 45–54 and 55–64)*
65 years and over

Socio economic group breakdown used in UKTS are those of the Institute of Practitioners in Advertising:
AB *(Professional and managerial)*
C1 *(nd sup*
C2 *(anual)*
DE *(, state*

Life eakdow
15– with no under 15
15– d with n under 15
15– or marr children under 1
35– d or sin no children unde
35– d or sin children under 15
55+

App 5. ouri lated indus

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at tries *(eg e 1.14, page S22 Market vember 1997*

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9 activit
92.7 Other recreational activities

(Note that some of these categories are combined in the ONS tables but the data may be available from NOMIS)