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## Regional Tourism Satellite Account (RTSA) in Finland - Data, Concepts, Methods and Key Results

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46th Congress of the European Regional Science Association

August 30th - September 3rd, 2006, Volos

## **Regional Tourism Satellite Account (RTSA) in Finland - Data, Concepts, Methods and Key Results**

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### **Abstract**

The aim of this paper is to describe how the Tourism Satellite Account (TSA) is made for Finnish regions. In addition, the key results are represented.

The TSA is a statistical system which depicts the financial importance and economic effects of tourism in an extensive and versatile manner. It is based on the European System of Accounts ESA 1995 and internationally given standards and norms of the TSA.

Among other aggregates, the TSA provides information on visitor consumption, tourism demand and supply and employment.

In Finland, the Tourism Satellite Account was first introduced in 1999. Since then, there have been two updates; the latest was published in December 2004. The TSA was partially regionalised for the first time in May 2005 based on data from 2002. The aim of this study is to fully regionalise the TSA at the NUTS 3 level.

**Keywords:** Tourism Satellite Account, Finland, region, tourism, demand, supply employment

# 1 Introduction

The aim of this paper is to describe how the Tourism Satellite Account (TSA) is made for the Finnish Regions at the NUTS 3 level<sup>1</sup>. Furthermore, the key results are represented and the regional effects in Finland are analysed.

Finland is a European Union country in Northern Europe with the total population of 5,2 million of which over one million people live in the Helsinki metropolitan area (Uusimaa region). Finland's total land area is 338,144 square kilometres, which makes it the seventh largest country in Europe. Therefore, population density is merely 17 inhabitants per square kilometre. Finland's economy has traditionally been based on wood which is its most plentiful natural source. The forest product industries are still important, but manufacturing industries, engineering and high technology have played a major economic role in recent decades<sup>2</sup>. Tourism can also be considered an economically important sector of the Finnish economy<sup>3</sup>.

The Tourism Satellite Account (TSA) is a statistical system, which depicts the financial importance and economic effects of tourism in a versatile and comprehensive manner. It was developed in wide-scoped international co-operation, which led to adoption of recommendation for a tourism satellite account by the United Nations, World Tourism Organization, OECD and the EU in 2000<sup>4</sup>.

In 1994, Statistics Canada released the first actual national Tourism Satellite Account based on the concepts of the TSA<sup>5</sup>. The TSA projects are, in 2006, well developed with many countries either having published a TSA, or making progress towards doing so.

However, tourism does not happen in countries, it happens in places. Therefore, it is obvious that within almost every country tourism is unevenly concentrated. More recently, a small number of countries have experimented with providing TSA-based results for regions. For example, Canada<sup>6</sup> and Norway<sup>7</sup> have moved towards regionalising key variables in the national TSA.

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<sup>1</sup> See Appendix 1. Finnish Regions, NUTS 3 level.

<sup>2</sup> See <http://www.stat.fi/>

<sup>3</sup> In Finland tourism value added as a share of gross value added at basic prices was 2.4 per cent in 2004.

<sup>4</sup> See OECD, WTO, UN, Commission of the European Communities 2001, Tourism Satellite Account: Recommended Methodological Framework.

<sup>5</sup> See Barber-Dueck, C. & Kotsovos, D. 2005, Canadian Tourism Satellite Account, 2000, <http://www.statcan.ca/>

<sup>6</sup> See Barber-Dueck, C. & Kotsovos, D. 2003, The Provincial and Territorial Tourism Satellite Accounts for Canada 1998, <http://www.statcan.ca/>

<sup>7</sup> See Braendvang, A., Dybedal, P., Johansen, S. & Sorensen, K. 2001, Regional Satellite Accounts for Tourism Data, Concepts, Methods and Applications, 41st Congress of the European Regional Science Association, Zagreb, August 2001.

In Finland, the Tourism Satellite Account was first introduced in 1999. Since then, there have been two updates; the latest was published in 2004<sup>8</sup>. The TSA was partially regionalised for the first time in May 2005 based on data from 2002<sup>9</sup>. The aim of this study to fully regionalise TSA for the Finnish regions at the NUTS 3 level for 2002.

## 2 Theoretical Issues

### 2.1 Regional Tourism Satellite Account (RTSA)

In March 2002, the United Nations Statistics Division approved the joint manual of the WTO, OECD and Eurostat on the Tourism Satellite Account (TSA)<sup>10</sup>. The manual laid the foundation for compilation of internationally comparable satellite accounts. Furthermore, the OECD published in September 2000 the manual, which in its main parts is uniform with the joint model approved by the UN<sup>11</sup>. The Regional Tourism Satellite Account (RTSA) is an extension of the TSA from which data is available by regional divisions.

The Regional Tourism Satellite Account (RTSA) is based on the methodology, definitions and classifications of the National and Regional Accounts. Among other aggregates, the RTSA provides information of tourism expenditure, tourism demand and supply and employment. Of the tables complying with the international tourism account recommendation, this study provides the following regional tables 1 (Consumption of foreign visitors in Finland), 2 (Consumption of domestic visitors in Finland), 4 (Consumption of visitors in Finland by product and by form of tourism), 5 (Production and income formation table of the tourism industry), 6 (Domestic tourism supply and demand by product), 7 (Labour in the tourism sectors) and 10 (Physical indicators of tourism).

### 2.2 Tourism and Visitor

According to the recommendation of the World Tourism Organization<sup>12</sup>, tourism is the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes. The usual environment is usually defined as the person's home, place of work and study or

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<sup>8</sup> See Ministry of Trade and Industry 2004, Final report of the Tourism Satellite Account project, <http://www.ktm.fi/>

<sup>9</sup> See Kontinen, J. 2005, Matkailun satelliittitilinpito ja aluetaloudelliset vaikutukset, Ministry of Trade and Industry, MTI Financed Studies 4/2005, <http://www.ktm.fi/>

<sup>10</sup> See OECD, WTO, UN, Commission of the European Communities 2001, Tourism Satellite Account: Recommended Methodological Framework.

<sup>11</sup> See OECD 2000, Measuring the Role of Tourism in OECD Economies: The OECD Manual on Tourism Satellite Accounts and Employment, <http://www.oecd.org/>

<sup>12</sup> See World Tourism Organization 1994, Recommendations on Tourism Statistics, <http://www.world-tourism.org/>

other regularly (and frequently) visited place. Travel and staying at a second home or a free-time residence are included in tourism as far as they fulfil the criteria for travel outside one's usual environment.

Tourism can be divided into three main groups by the following classification:

- Domestic tourism, which is defined as including travelling by persons permanently resident in Finland only within Finland but outside their usual environment,
- Inbound tourism, which is defined as including travelling by persons permanently resident abroad within Finland (and outside their usual environment),
- Outbound tourism, which is defined as including travelling by persons permanently resident in Finland outside Finland (and outside their usual environment).

By combining these groups the following groups can be obtained:

- Internal tourism including domestic tourism and inbound tourism to Finland
- National tourism comprising domestic tourism and outbound tourism from Finland
- International tourism including outbound tourism from Finland and inbound tourism to Finland

Furthermore, visitors can be broken down into two main groups:

- International visitors, who travel to Finland that is not their usual environment. International visitors can be further divided into the groups of those staying overnight and same-day visitors.
- Domestic visitors, who travel within the borders of Finland, which is the country of residence. Domestic visitors can also be further divided into the groups of those staying overnight and same-day visitors.

## 2.3 Consumption Related to Tourism

The economic impacts of tourism should be measured both according to the production of tourism industries and the demand of visitors because the tourism industry produces services and products for local needs as well. For example, the production of the restaurant sector is not caused by tourism but it also includes consumption of local residents.

Tourism expenditure is the value of goods or services the visitor uses for the trip, during the trip or immediately after the trip or which is used to satisfy the visitor's needs. Tourism consumption does not contain such as the following expenses:

- Payments not related to purchases of consumer goods and services, such as: taxes and payments not levied on products (value added tax is consumption), interests even if related to expenditure caused by the trip, purchase of monetary or fixed assets, e.g. land, real estate and works of art and donations to charity or private persons not related to payments of goods and services
- Acquisitions for commercial purposes such as products purchased for re-sale or production process.

## 2.4 Industries in the RTSA

The industrial classification of the Finnish national and regional supply and use tables is based on the Standard Industrial Classification (TOL 2002)<sup>13</sup>. The number of industries involved in the compilation of the supply and use tables is 182. However, the classification of service industries used in national and regional accounts is partly too rough for the purposes of the regional tourism account. Therefore the industries are adjusted to correspond to the delimitation of the tourism industry. The accuracy of the specification of the tourism industry has, though, been dependent on the accuracy of the data sources available. For example, in transport industries the parts corresponding to passenger transport are separated into tourism industries and those concerning goods transport are excluded from the tourism account. Similar delimitations are also made in the industry of other passenger transport, recreational, cultural and sporting activities.

Tourism characteristic industries are such industries where the primary output is formed by tourism characteristic products (see the section “2.5 Products in the TSA”). Tourism characteristic and tourism-connected industries in the Finnish RTSA are presented in the table 1 (‘Inbound Tourism Consumption’). Other than the listed tourism characteristic industries and the tourism connected industries are considered to be tourism non-specific industries. For example, trade is thus a tourism non-specific industry although part of its services goes to visitor use. The products produced by trade and other tourism non-specific industries for tourism use are included in the calculation of the RTSA.

The delimitations of the industries for the RTSA are made on the basis of the basic data and calculations of Statistics Finland’s national accounts sector researchers and on the basis of the product-specific output distribution of the regional supply and use tables. In addition, the survey made for the tourism industry’s enterprises and several other sources are used in the estimations.

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<sup>13</sup> Standard Industrial Classification TOL 2002 is based on the European Union’s common industrial classification, NACE 2002, which is confirmed by a European Commission regulation. The regulation is binding to all Member States. TOL 2002 follows the principles and structure of NACE 2002.

Table 1. Tourism Characteristic and Tourism-connected Industries in the Finnish RTSA.

| <b>Tourism Characteristic Industries</b>              | <b>Correspondence in the Industrial Classification</b>                                    |
|---|---|
| 1. Hotels and similar                                 | TOL 551+552 Hotels etc.   |
| 2. Second home ownership                              | TOL 70201+70202 Letting and operation of dwellings, part                                  |
| 3. Restaurants and similar                            | TOL 553+554+555 Restaurants, etc.   |
| 4. Railway passenger transport                        | TOL 601 Transport via railways, part  |
| 5. Road passenger transport                           | TOL 6021+6023 Other scheduled passenger land transport, part, and TOL 6022 Taxi operation |
| 6. Water passenger transport                          | TOL 61 Water transport, part  |
| 7. Air passenger transport                            | TOL 62 Air transport, part  |
| 8. Passenger transport supporting services            | TOL 632 Other supporting transport activities, part                                       |
| 9. Passenger transport equipment rental; other rental | TOL 711+712, 71402 Renting automobiles, etc.  |
| 10. Travel agency and similar                         | TOL 633 Activities of travel agencies and tour operators, etc.                            |
| 11. Cultural services                                 | TOL 92 Recreational, cultural and sporting activities, part                               |
| 12. Sporting and other recreational services          | TOL 92 Recreational, cultural and sporting activities, part                               |
| <b>Tourism-connected industries</b>                   |   |
| Tourism connected industries                          | TOL 505+5151 Sale of automobile fuel  |

## 2.5 Products in the RTSA

Products are divided into three categories in the Finnish RTSA<sup>14</sup>:

1. Characteristic products are products that would not exist or whose consumption would reduce substantially without tourism.
2. Connected products are products that are used by visitors and that are significant for visitors or producers of tourism services but are not characteristic.
3. Non-specific products are products that are used by visitors but in whose consumption visitors have no significant role.

The products produced in the national economy are divided for the RTSA into tourism-specific products and tourism non-specific products. Furthermore, tourism-specific products are divided into tourism characteristic products and connected products.

The product classification used in the supply and use tables is the product classification of National Accounts (KTTL), which is derived from the EU's industry-based product classification, CPA (Statistical classification of products by activity in the European Economic Community). The classification contains 947 products proper and five combination products to help in balancing, in all 952 products.

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<sup>14</sup> See Konttinen J. 2005, Matkailun satelliittitilinpito ja aluetaloudelliset vaikutukset <http://www.ktm.fi/>

Table 2. Definitions of tourism-related products

| <i>Category</i>            | <i>Definition</i>   | <i>Example</i>   |
|----------------------------|---|--|
| 1. Characteristic products | a product whose consumption reduce significantly without tourism  | passenger air transport, accommodation services, travel agencies, certain leisure services |
| 2. Connected products      | a product that is significant to tourism but not dependent on it  | taxis, car rental, local transport, museums, theatres                                      |
| 3. Non-specific products   | a product that visitors may use but which is of only little significance to tourism and tourism has only little significance to the product in question | food, household products, newspapers   |

However, this product classification does not correspond at a sufficient accuracy to the level of product specification needed for the RTSA. For example, railway and bus and motor-coach transport tourism had to be separated from their product heading in the regional accounts because they had to be divided first into goods transport and passenger transport, and secondly, interurban and local passenger transport. More typical cases are those where two or more KTTL products are combined into one tourism product. For example, the RTSA product “Hotels and other lodging services” is formed of three different KTTL products. The products of RTSA and their delimitations are shown more precisely in the table 3.

Table 3. The Products of Finnish RTSA.

| <b>The Products of Finnish RTSA</b>    | <b>Corresponding KTTL headings national and regional accounts supply and use tables</b>   |
|--|---|
| A. Specific products                   |   |
| A.1 Characteristic products            |   |
| 1 - Accommodation services             |   |
| 1.1 Hotels and other lodging services  | 551000 Hotel services. Includes accommodation services of hotels, motels, apartment hotels, summer hotels, spa hotels, conference hotels, etc.            |
|  | 551000 Hotel services. Includes accommodation services of hotels, motels, apartment hotels, summer hotels, spa hotels, conference hotels, etc.            |
|  | 552000 Services of youth hostels, camping sites, holiday villages, etc. Accommodation services of lodging houses are also included here.                  |
|  | 702100 Operation and renting of dwellings, of which part: rented second homes   |
| 1.2 Second home services               | 702100 Operation and renting of dwellings, of which part: second homes on own account   |
| 2 - Food and beverage-serving services | 553000 Restaurant services. Includes catering services of restaurants, cafés, fast-food restaurants, hamburger restaurants and grill kiosks, for example. |
|  | 554000 Beverage-serving services. For example, services of various beer and drink bars.   |
|  | 555110 Staff and institutional catering services. For example, staff canteen services.  |
|  | 555200 Catering services. For example, catering   |



|  |  |
|--|--|
|  | services provided in parties and other occasions.  |
| 3 - Passenger transport services                                     |  |
| 3.1 Interurban railway transport services                            | 601010 Passenger transport via railways, of which the share of interurban railway transport  |
| 3.2 Road transport services  | 602120 Bus and motor-coach transport, of which the share of interurban passenger transport   |
|  | 602200 Taxi transport services   |
|  | 602300 Other land passenger transport (charter transport, etc.)  |
| 3.3 Water transport services   | 601010 Passenger transport via railways, of which the share of interurban railway transport  |
| 3.4 Air transport services   | 621000 Air passenger airport   |
| 3.5 Supporting passenger transport services                          | 632100 Other services supporting land transport: Share of travel services provided by travel service centres.  |
| 3.6 Passenger transport equipment rental                             | 711000 Renting services of automobiles   |
| 3.7 Maintenance and repair services of passenger transport equipment | The Product content was decided to be moved in this application to tourism non-specific products because the inquiry data do not show any tourism consumption corresponding to these services. |
| 4 - Travel agency, tour operator and tourist guide services          | 633000 Services of travel agencies and tour operators, net share of the service  |
| 5 - Cultural services  |  |
| 5.1 Performing arts  | 923200 Services of art institutions. Includes e.g. theatre and concert performances.   |
| 5.2 Museums and other cultural services                              | 925210 Services of museums and protection services of historical sites and buildings   |
|  | 925310 Services of botanical gardens, zoos and nature reserves   |
| 6 - Recreation and other entertainment services                      |  |
| 6.1 Sports and recreational sport services                           | 926210 Other sports-related services. Admission tickets to sports competitions, ski-lift tickets, track fees for sport fields, etc.  |
| 6.2 Other amusement and recreational services                        | 923310 Services of fairs and amusement parks. Amusement services, various activity parks provided at fixed locations.  |
|  | 923410 Other amusement services. Travelling circuses, fairs, dances, etc.  |
|  | 927210 Other recreational services   |
| 7 - Miscellaneous tourism services                                   |  |
| 7.1 Financial and insurance services                                 | 651210 Other bank services: Share of travel exchange commissions   |
|  | 660330 Other insurance services: Share of travel insurance   |
| 7.2 Other good rental services                                       | 714000 Renting services of personal and household goods: Share of renting of equipment intended for amusement and recreational use   |
| 7.3 Other tourism services   | 751100 General public administration services: Share of passport and visa fees   |
|  | 930400 Spa and other such services   |
| A.2 Connected products   |  |
| distribution margins (sale of fuels)                                 | 505000 Services of retail sale of automotive fuel  |
|  | 512000 Services of wholesale trade: Share of wholesale of fuels  |
| services (short-distance passenger transport)                        | 601010 Railway passenger transport: Share of short-distance transport by railways  |

|                              |   |
|------------------------------|---|
|                              | 602110 Tram and underground transport   |
|                              | 602120 Bus and motor-coach transport: Share of short-distance passenger bus and motor-coach transport |
| B. Non-specific products     |   |
| distribution margins (trade) | 521000 Services of retail trade   |
|                              | 512000 Services of wholesale trade: Share of wholesale other than wholesale of fuels                  |

### 3 Key Source Data for Tourism Demand and Supply

Several main data sources are used for the Finnish RTSA. Estimates for tourism supply are derived mainly from Statistic Finland's Regional Accounts and its supply and use tables. Demand estimates are derived from several sources, such as Border Interview Survey, Accommodation Statistics, Finnish Travel Survey and Industry Survey. In addition, estimates of tourism employment are derived from Labour Force Survey, Employment Statistics and Personal Tax Register. Most of these data are produced by Statistics Finland. There was also a survey made for tourism characteristic industries during the project.

#### 3.1 National and Regional Accounts

The system of national accounts is an internationally uniform method for measuring economies of countries. The Finnish National Accounts compiled by Statistics Finland are in compliance with the UN's recommendation on National Accounts (SNA 1993<sup>15</sup>) and the EU's act-based European System of Accounts (ESA 1995<sup>16</sup>) founded on it. Regional Accounts is an extension of National Accounts from which data is available by sub-regional unit, region and major region, as well as by other regional divisions based on municipalities, if required.

Both National and Regional Accounts provide information about output, value added, development of price level, investments, employment and wages and salaries according to industry. In addition, for the purposes of the RTSA, various re-groupings, specifications and other editing are made to the national and regional accounts data, so that the actual core national accounts are made to correspond to the information needs of the RTSA. These data together with product-specific data form the framework for the RTSA.

#### 3.2 Supply and Use Tables

The supply and use tables are suitable for describing and analysing the structure of production activity and dependencies between industries. S&U tables are matrices by

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<sup>15</sup> See United Nation 1993, System of National Accounts, <http://unstats.un.org/>

<sup>16</sup> See Eurostat 1996, European System of National Accounts ESA 1995, <http://forum.europa.eu.int/>

industry and product describing the domestic production processes and the transactions in products of the national economy in great detail.

The supply tables describe by product group the production of goods and services used in different industries as well as their imports to Finland. The use tables depict by product group the use of the goods and services produced in Finland and imported to Finland for intermediate consumption by different industries and for domestic final consumption and exports. Regional supply and use tables are used as a framework for the specification of the use data of tourism products in the RTSA.

### 3.3 Finnish TSA

In addition to National and Regional Accounts, the Finnish national TSA provides the other framework for the RTSA. The tables that are produced in RTSA are also produced in national TSA. Thus both regional and national TSA are comparable.

### 3.4 Border Interview Survey

The main aim of the Border Interview Survey is to establish how many people resident in other countries visit Finland. The survey also aims to find out some basic information about these visitors, such as their country of residence, nationality, main reason for visiting Finland, duration of visit and possible type of accommodation. The special areas studied with the survey also include the visitor's use of money in Finland, the activities they participated in while in Finland and diverse things having to do with the planning of the trip<sup>17</sup>.

The Border Interview Survey is a joint project of the Finnish Tourist Board and Statistics Finland, conducted by Statistic Finland's border interview organisation. It forms the basic data for the calculation of tourism revenue for the travel balance and of total consumption of foreign visitors and consumption by expenditure item in the RTSA table 1 ('Inbound Tourism Consumption'). However, Åland, which is one of the NUTS 3 - regions in Finland, is excluded from the survey. Therefore, estimation of Åland's tourism revenue is based on the accommodation statistics data and a survey made in Åland (Statistics and Research Åland) in 2004<sup>18</sup>.

### 3.5 Finnish Travel Survey

The Finnish Travel Survey<sup>19</sup> is a monthly conducted sample-based telephone interview survey covering travel by permanent residents of Finland aged 15 to 74 in Finland and abroad, excluding domestic same-day trips. The survey also contains information on consumption related to tourism by specified expenditure group. These data are used in the product group specification of consumption in domestic travel in the RTSA table 2

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<sup>17</sup> See Finnish Tourism Board, Statistics Finland 2003, Border Interview Survey, MEK A:129 2003.

<sup>18</sup> See Åsub 2004, Turismens samhällsekonomiska betydelse för Åland 2003, Rapport 2004:2.

<sup>19</sup> See Statistics Finland 2003, Finnish Travel 2002, Transport and Tourism 2003:9, <http://www.stat.fi/>

(‘Domestic Tourism Consumption’) and for business trips in table 4 (‘Internal Tourism Consumption’).

### 3.6 Accommodation Statistics

Statistic Finland’s accommodation statistics<sup>20</sup> contain information about the capacity of accommodation establishments and use of the capacity and about the visitors arriving in them and overnight stays specified by mode of accommodation. The compilation of statistics covers accommodation establishments that have at least ten rooms, cottages or caravan pitches.

For the RTSA information is obtained from the accommodation statistics on the number of visitors and overnight stays in the accommodation establishments included in compilation of statistics, specified by country of residence and purpose of the trip. These data are used in travel balance calculations and as reference data on use of accommodation services in the RTSA calculations both in table 1 (‘Inbound Tourism Consumption’) and table 2 (‘Domestic Tourism Consumption’).

### 3.7 Industry Survey

During this project, there was an industry survey made for tourism enterprises. The main aim were to collect information of tourism consumption by groups (domestic tourists, foreign visitors and residents) and purchases of goods and services made by enterprises from regions. The sample size was circa 2,000 units and the weighted sample was made by sub-groups of regions and tourism industries. Missing values were imputed by nearest-neighbour method.

### 3.8 Labour Force Survey, Employment Statistics and Personal Tax Register

Labour force survey, employment statistics and personal tax register was used to estimate information about the employment effects of tourism in regions. Employment is a production-bound factor but for employment generated by tourism demand it should also taken consideration that the number of jobs in tourism cannot be directly derived from tourism value added or tourism output.

### 3.9 Other Data

There are also a number of data which is used in Finnish RTSA. The most important is the Passenger Transport Survey which is conducted around every five years at the commission of Ministry of Transport and Communication. It contains data used for describing the volume of domestic same-day tourism, which is excluded from the

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<sup>20</sup> See Statistics Finland 2003, Tourism Statistics 2003, Transport and Tourism 2003:11, <http://www.stat.fi/>

Finnish Travel Survey. The latest available survey was made between 2004 and 2005. In the Passenger Transport Survey same-day trips refer to domestic trips where the distance between the place of departure and destination is at least 100 km, and the return to the place of departure takes place within the same 24 hours. Outward and return trips together constitute one same-day trip.

In addition, various data, such as transportation statistics and regional tourism revenue and employment surveys were obtained as a result of the inquiry and they were used if other valid information covering the whole country was not available.

## 4 Key Results

### 4.1 Inbound Tourism Consumption

RTSA Table 1 ('Inbound Tourism Consumption') presents the distribution of consumption of foreign visitors by product. Visitors are divided into same-day visitors and visitors staying overnight. Total consumption of all foreign visitor groups is included in the TSA and this total consumption is derived from each year balance of payments.

The total sum of tourism revenue is divided into products in regions by means of the data derived from the Border Interview Survey concerning consumption, trips made in Finland and other activities. In addition, Accommodation Statistics and a number of regional surveys were used in estimating the consumption.

In 2002, foreigners' consumption expenditure in Finland rose to EUR 2,370 million. Total consumption is composed of the balance of payments (EUR 1,660 million) and international passenger transport (EUR 0,710 million).

The amount of characteristic products consumption was EUR 1,600 million (circa 68 per cent) from which the largest group was air transport services (EUR 0,457 million). In all, the share of accommodation services, food and beverage-serving services and passenger transport services was nearly 59 percent of the total inbound consumption. The amount of non-specific products was EUR 0,765 million from which the share of food and other purchases from shops was EUR 0.534 million and the share of distribution margins in wholesale and retail trade was EUR 0.231 million, which makes it the most important product group of inbound tourism consumption.<sup>21</sup>

As much as 59 per cent of the consumption of foreign visitors was directed to Uusimaa. Main reason for this was a significant share of inbound tourism and especially a great deal of arrivals by air and water transport services. In addition, both accommodation

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<sup>21</sup> In order that supply and demand products in the RTSA would correspond to one another, in connected and non-specific products consumption of goods is divided between the distribution margin and the actual product. The distribution margin stands for the distribution margin of sale of fuels (connected products) and the whole rest of trade (non-specific products), i.e. the share of output in turnover.

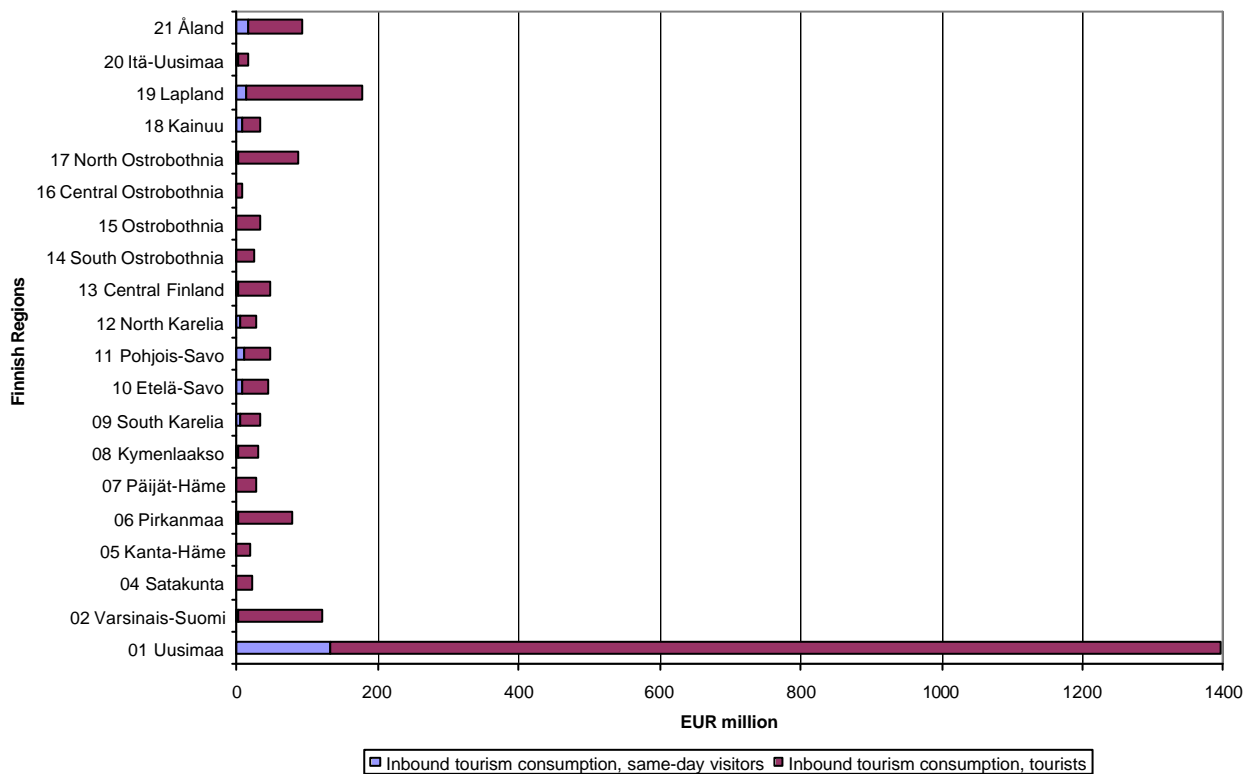
and food and beverage serving services are more expensive in Uusimaa than in other regions.

Foreign visitors spent the next largest amount in Lapland (7.5 per cent), Varsinais-Suomi (5.1 per cent) and Åland (3.9 per cent). In addition, North Ostrobothnia (3.6 per cent) and Pirkanmaa (3.3 per cent) were relative flourishing attracting foreign visitors.

In Lapland the main reason for this was a considerably large number of foreign visitors coming to Finland particularly in package tours. Lapland is also traditionally a successful region by means of inbound tourism in Finland. Varsinais-Suomi and Åland were prosperous predominantly because of the water transport services.

First of all, inbound tourism consumption is concentrated clearly on air and water transport hubs (Uusimaa, Varsinais-Suomi and Åland) and, secondly, on traditionally relative flourishing regions (Lapland, North Ostrobothnia and Pirkanmaa) by means of tourism.

Figure 1. Inbound tourism consumption, TOTAL 2002, EUR million.



## 4.2 Domestic Tourism Consumption

RTSA Table 2 ('Domestic Tourism Consumption') presents consumption generated by Finnish domestic tourism by product. Visitors are divided into same-day visitors and visitors staying overnight. In addition, domestic consumption includes a part of the

consumption of outbound tourism directed to Finland. Volume and consumption data for domestic tourism for trips including overnight stay were obtained from the Finnish Travel Survey.

The numbers of same-day trips were estimated on the basis of the Passenger Transport Survey commissioned by the Ministry of Transport and Communications in 2004-2005. Consumption data for the same-day trips were evaluated from various regional surveys and other data. From outbound tourism consumption expenditure directed to Finland was estimated on the basis of the numbers of foreign trips and cruises derived from the Finnish Travel Survey. In addition, final consumption expenditures of the Household were estimated with help of household budget survey from the years 2001-2002. Results were regionalised to NUTS 3 level by small area estimation.

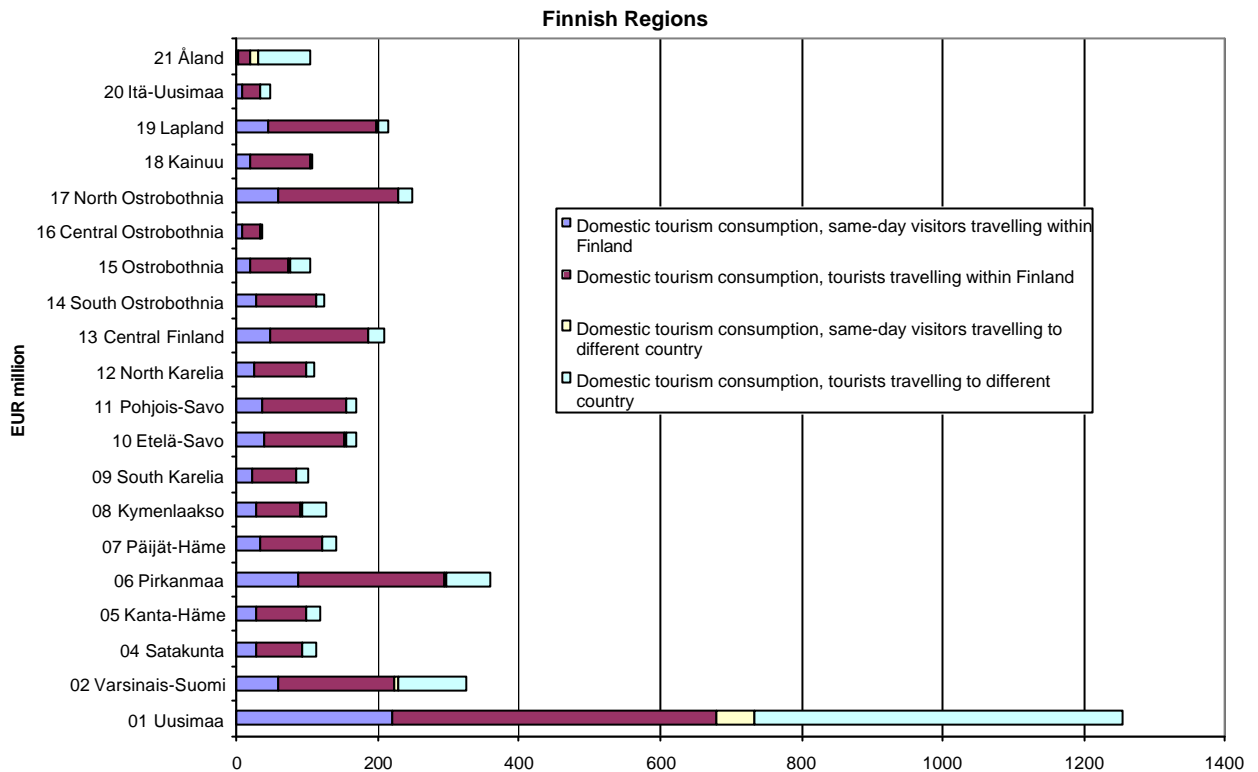
In 2002 visitor consumption on domestic trips rose to EUR 3,074 million, which included the expenditure of overnight stays (EUR 2,242 million) and the expenditure of same-day trips (EUR 0,832 million). Moreover, outbound tourism consumption expenditure directed to Finland was EUR 1,110 million. The expenditure of same-day trips was EUR 0,082 million and the expenditure of overnight stays was EUR 1,022 billion. In total, domestic visitor consumption was EUR 4,194 million in 2002.

The share of characteristic products was almost 80.0 per cent, which is substantially larger amount than in inbound tourism consumption. The most important product group was food and beverage services (EUR 0,885 million) followed by accommodation services (EUR 0,380 million), road passenger transport (EUR 0,320 million) and air passenger transport (EUR 0,308 million). Of the connected and non-specific products the most notable were food and other purchases from shops including distribution margins (EUR 0,849 million) and purchases of fuel including distribution margins (EUR 0,713 million).

Uusimaa was also the most successful region attracting domestic visitors. The share of domestic tourism consumption in Uusimaa was nearly 30.0 per cent, which is relatively less than in inbound tourism consumption. In general, margins between all regions were lesser than in inbound tourism consumption. The most important reason to this is evenly distributed number of domestic visitors between Finnish regions.

Nevertheless, the same regions were successful in attracting both inbound and domestic tourism, although Varsinais-Suomi (7,8 per cent) and Pirkanmaa (8,6 per cent) attracted more visitors relatively from Finland than from foreign countries.

Figure 2. Inbound tourism consumption, TOTAL 2002, EUR million.



### 4.3 Internal Tourism Consumption

RTSA Table 4 ('Internal Tourism Consumption') is a summary of foreign and domestic visitors' consumption expenditure in Finland contained in tables 1 and 2 and it can be regarded as one of the most vital RTSA tables. Furthermore, the table presents in a separate column other components of tourism consumption, of which the most important are expenses caused by business travel paid by the employer. These are specified as intermediate consumption in national and regional accounts and not recorded in table 2. Another important component in the column is the imputed consumption of second homes used by the owner. Tourism consumption includes the use of those second homes in which the owner's actual place of residence is located in another municipality than the second home.

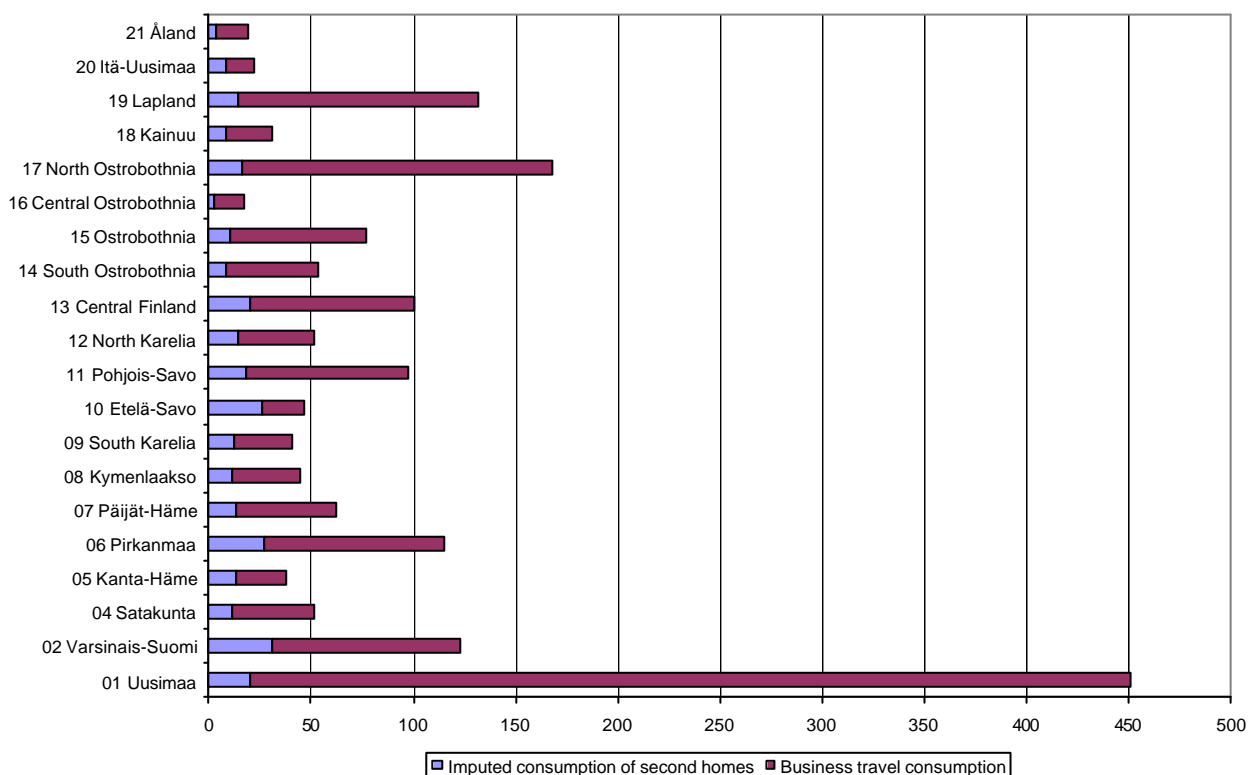
Altogether, in 2002 foreign and domestic visitors consumed EUR 6559 million for leisure trips in Finland. In addition, the other components of visitors' consumption were EUR 1,744 million from which the consumption of business travel was EUR 1,456 million and the imputed consumption of second homes was EUR 0,288 million. Hence, total internal tourism consumption in Finland was EUR 8,303 million in 2002 from which the proportion of domestic visitors was 50.5 per cent and the part of foreign visitors was 28.5 per cent. The share of other components (business travel and imputed consumption of second homes) was therefore 21.0 per cent.



Finland is sometimes referred to as the ‘land of the thousand lakes’ and, therefore the imputed consumption of second homes was concentrated, as expected, evenly near the largest inland waterways (Pirkanmaa 9.3 per cent and Etelä-Savo 8.9 per cent) and archipelagos (Varsinais-Suomi 10.8 per cent).

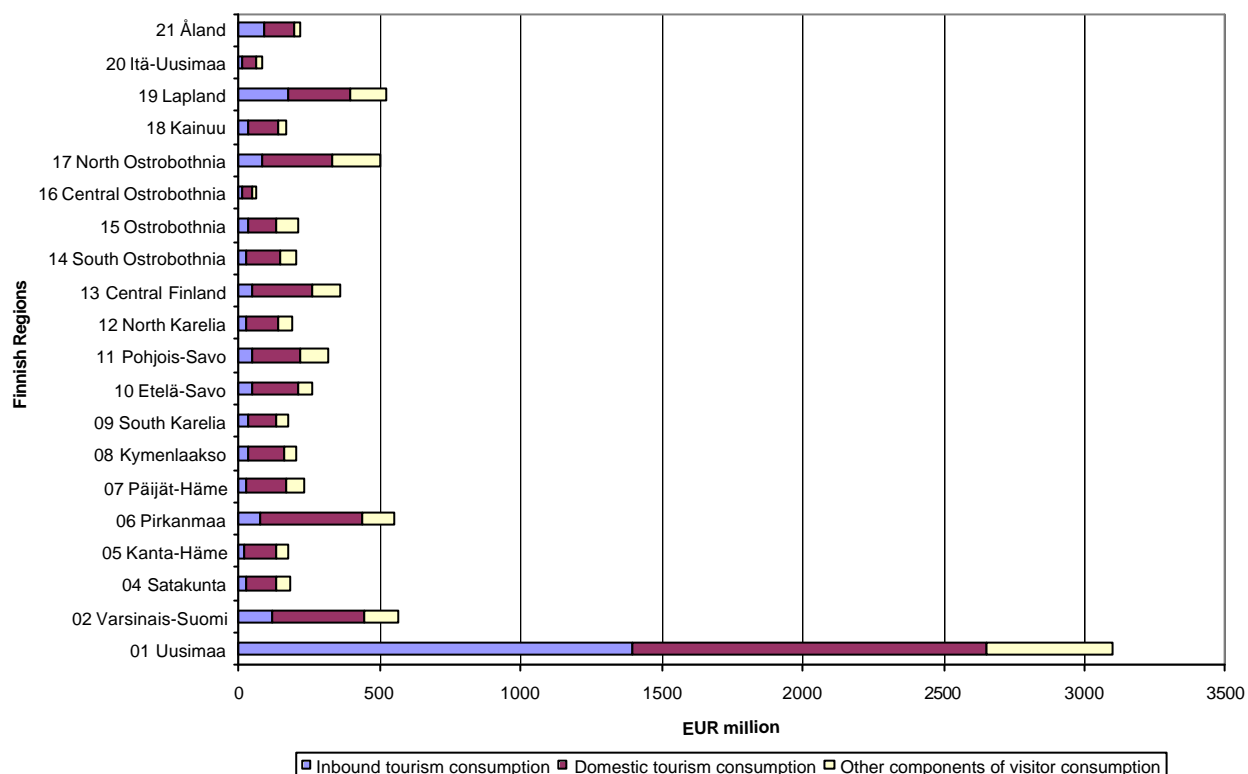
The largest cities attracted business travellers. Therefore, Uusimaa (29.7 per cent) was once again the biggest beneficiary in business travel consumption. Other notable regions were North Ostrobothnia (10.5 per cent), Lapland (8.1 per cent), Varsinais-Suomi (6.3 per cent) and Pirkanmaa (6.1 per cent). The main reason for success was, first of all, a great number of business travellers and, secondly, the high rate of the use of air passenger transport services.

Figure 3. Other Components of Visitor Consumption in Finnish Regions 2002, EUR million



The amount of internal visitor consumption in Uusimaa was approximately EUR 3,102 million (37.4 per cent) of all consumption in Finland. Other successful regions were Varsinais-Suomi EUR 0,567 million (6.8 per cent), Pirkanmaa EUR 0,551 million (6.7 per cent), Lapland EUR 0.525 million (6.3 per cent) and North Ostrobothnia EUR 0,503 million (6.1 per cent).

Figure 4. Internal Tourism Consumption in Finnish Regions 2002, EUR million



#### 4.4 Domestic Supply and Internal Tourism Consumption

In RTSA Table 6 (Domestic Supply and Internal Tourism Consumption) the supply and demand for tourism meet. The proportion of tourism related consumption in the supply of tourism products is calculated. The industries' output<sup>22</sup> at basic prices<sup>23</sup> is divided by products according to the supply and use table data. The total output of the industries is divided into intermediate consumption<sup>24</sup> at purchasers' prices<sup>25</sup> and into gross value added at basic prices<sup>26</sup>. The value added and GDP share of tourism are also calculated in Table 6.

<sup>22</sup> Output is composed of the products (goods and services) produced during the accounting period which is here calendar year.

<sup>23</sup> Basic price = the price paid to the producer for the product (excluding taxes on products but including subsidies on products).

<sup>24</sup> Intermediate consumption comprises the products used as inputs in production (e.g. raw materials, energy, rents and other purchased services).

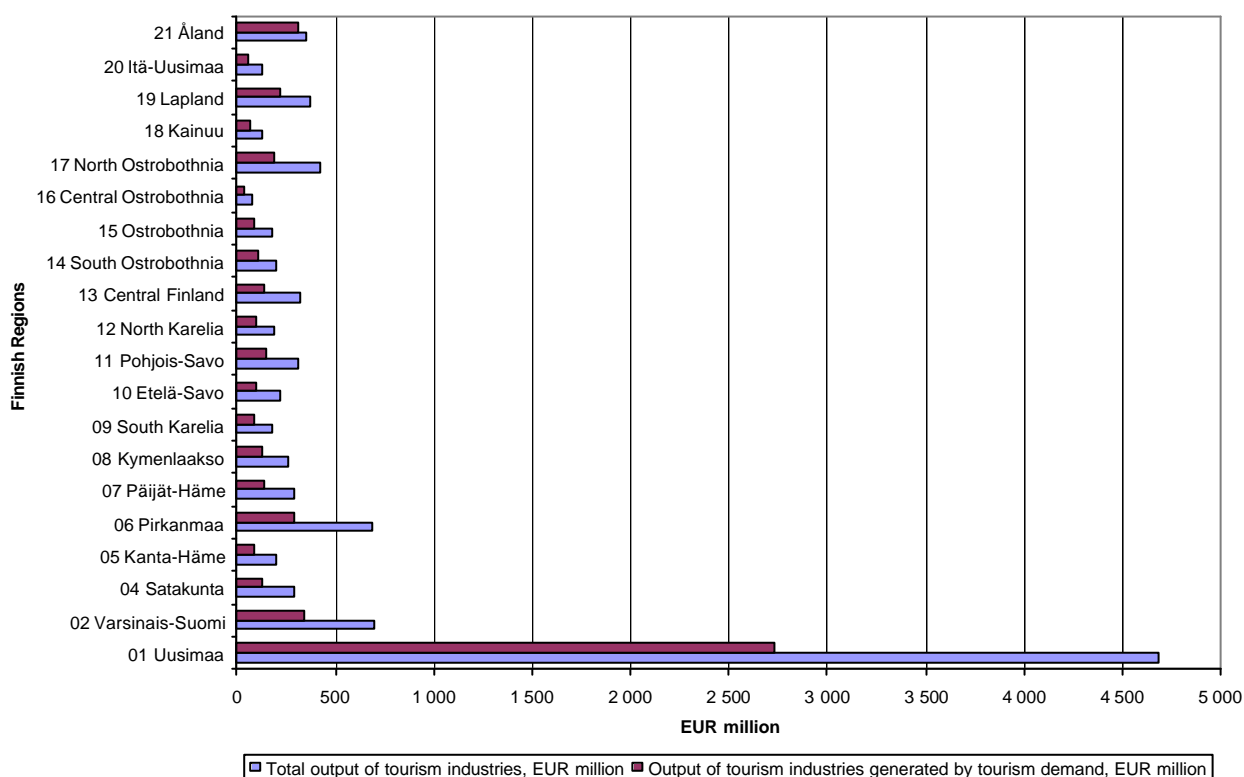
<sup>25</sup> Purchasers' prices (market prices) = basic prices + taxes on products - subsidies on products.

<sup>26</sup> Gross value added at basic prices = output at basic prices - intermediate consumption at purchasers' prices.

Total output of tourism industries was circa EUR 10,232 million from which the output of tourism industries generated by tourism demand was EUR 5,497 million (53,7 per cent). The latter stands for the output, which is directly caused by tourism consumption and not by residents' consumption. The output generated by tourism in each industry is derived by adding up the outputs generated by tourism for the products produced by the industry.

The amount of the output generated by tourism was EUR 2,734 million (49,7 per cent) in Uusimaa. The other notables regions were Varsinais-Suomi (EUR 0,315 million), Åland (EUR 0,314 million) and Pirkanmaa (EUR 0,287 million).

Figure 5. Total Output of Tourism Industries and Output Generated by Tourism in Finnish Regions 2002, EUR million



Value added of tourism industries was circa EUR 4,783 million from which value added generated by tourism demand was EUR 2,611 million. The value added produced by tourism is calculated in each industry by deducting the share of the intermediate consumption generated by tourism from the above-derived output generated by tourism. It is assumed that in each industry the share due to tourism of intermediate consumption is equal to its share of output.

The results concerning value added generated by tourism were similar than in output generated by tourism since the same regions were also successful in this area. Nevertheless, results are slightly different when they are being compared relatively. The most significant figure describing the importance of tourism is value added generated by tourism demand of all industries as a share of gross domestic product at basic prices.

In Åland, it is as much as 21,1 per cent of the total GDP. Besides Åland, only Uusimaa (2,9 per cent), Kainuu (2,5 per cent) and Lapland (3,0 per cent) were the regions that topped the national mean of tourism value added as a share of GDP at basic prices (2,4 per cent).

Figure 6. Value Added of Tourism Industries and Value Added Generated by Tourism in Finnish Regions 2002, EUR million.

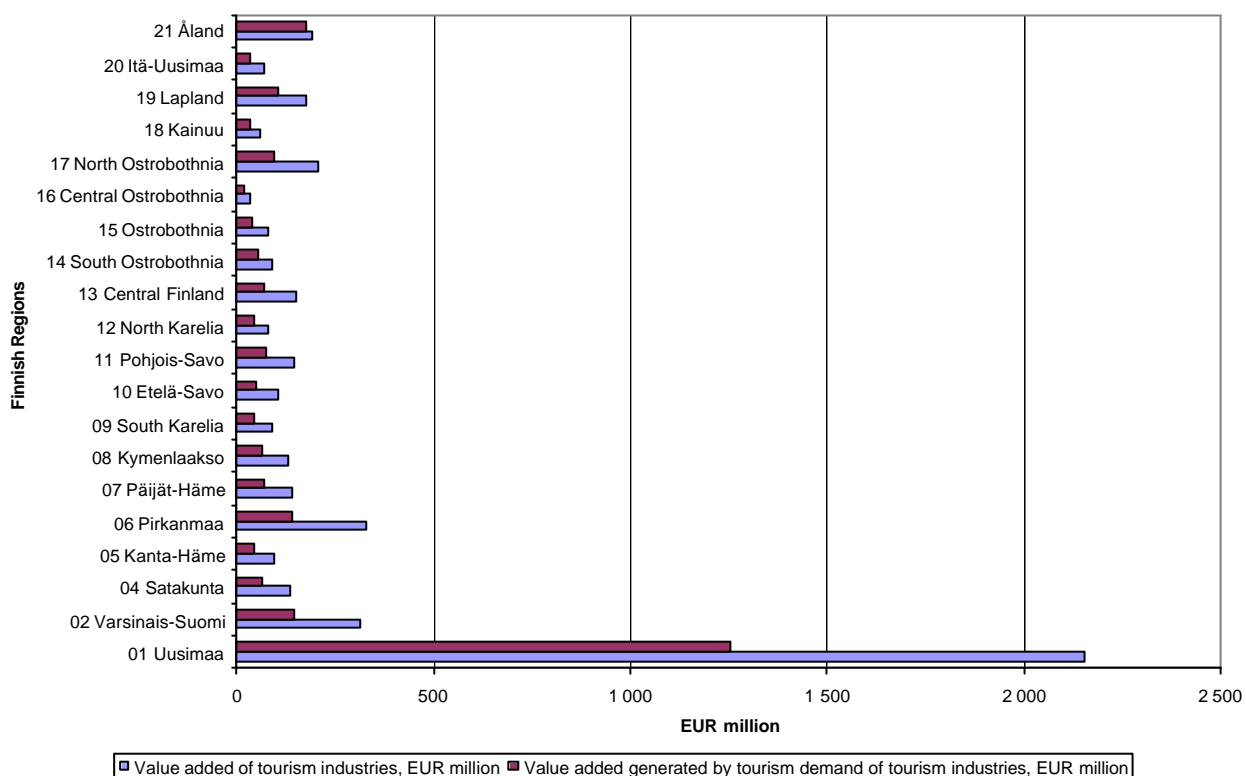
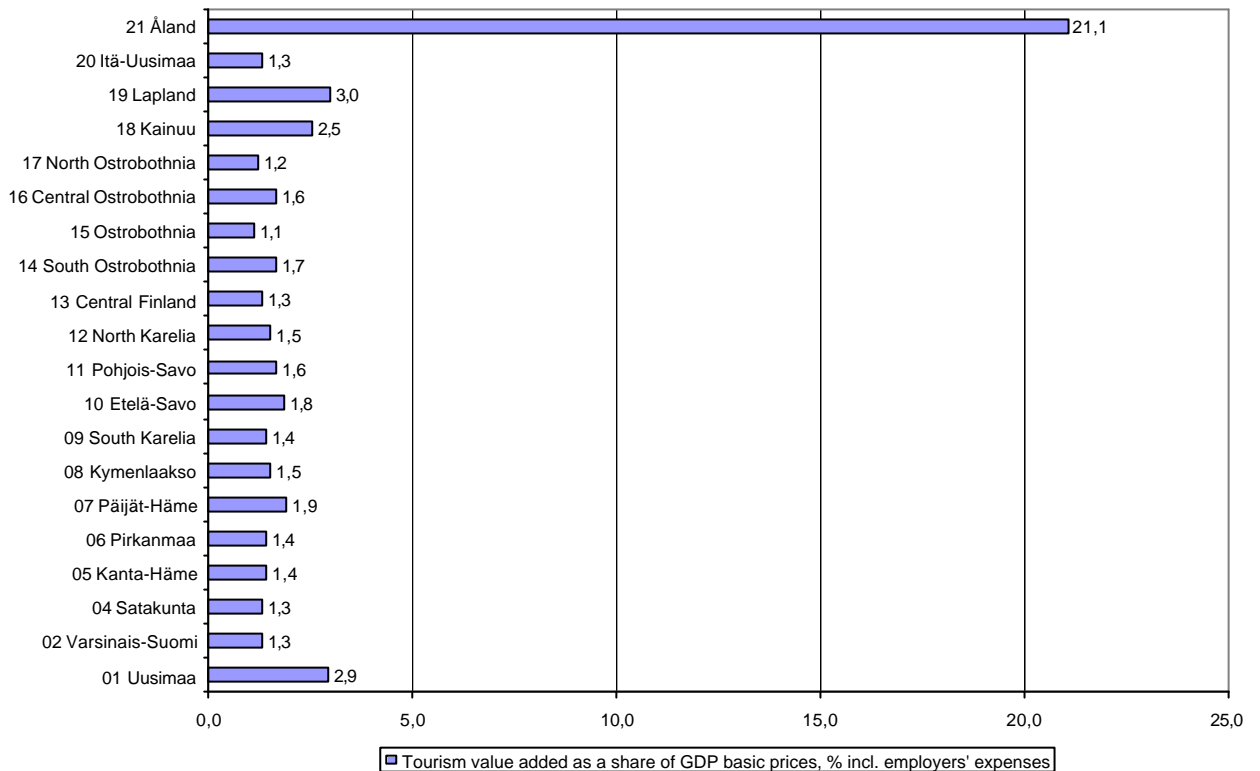


Figure 7. Tourism Value Added as a Share of GDP at Basic Prices in Finnish Regions 2002, %



#### 4.5 Employment in the Tourism Industries

RTSA Table 7 ('Employment in the Tourism Industries') presents the employment in the tourism characteristic industries. When examining the economic effects of tourism, its impact on employment is a significant factor. However, its measurement is not finalised yet. The indicator used in this study simply the number of jobs worked in each industry. Finland's tourism industry has a few characteristics that should be remembered when calculating total employment in tourism in regions. For example, in hotels and restaurants the share of rented labour force is about five per cent of the hours worked for pay in the sector. This creates even greater impact in some regions (especially in Lapland) because rented labour force is being used relatively more in the northern regions than in the southern regions. Rented labour force is not yet included in the figures of restaurant and those of other tourism characteristic industries. In addition, jobs in trade are not included in the employment calculations of the tourism industries. The employment figures are mainly derived from Regional Accounts.

In 2002, tourism industries employed over 126,600 persons, of whom 19,100 were self employed and 107,500 employees. The most significant industry was restaurant and similar which employed 59,300 persons. Other notable industries were hotels and similar (16,500 persons) and road passenger transport (22,100 persons).

Uusimaa was the region which employed most persons in tourism industries, total of 51 110 persons (40,4 per cent). Behind Uusimaa were Pirkanmaa (11 470 persons) and Varsinais-Suomi (10 140 persons).

Figure 8. Employment in the Tourism Industries in Finnish Regions 2002, persons

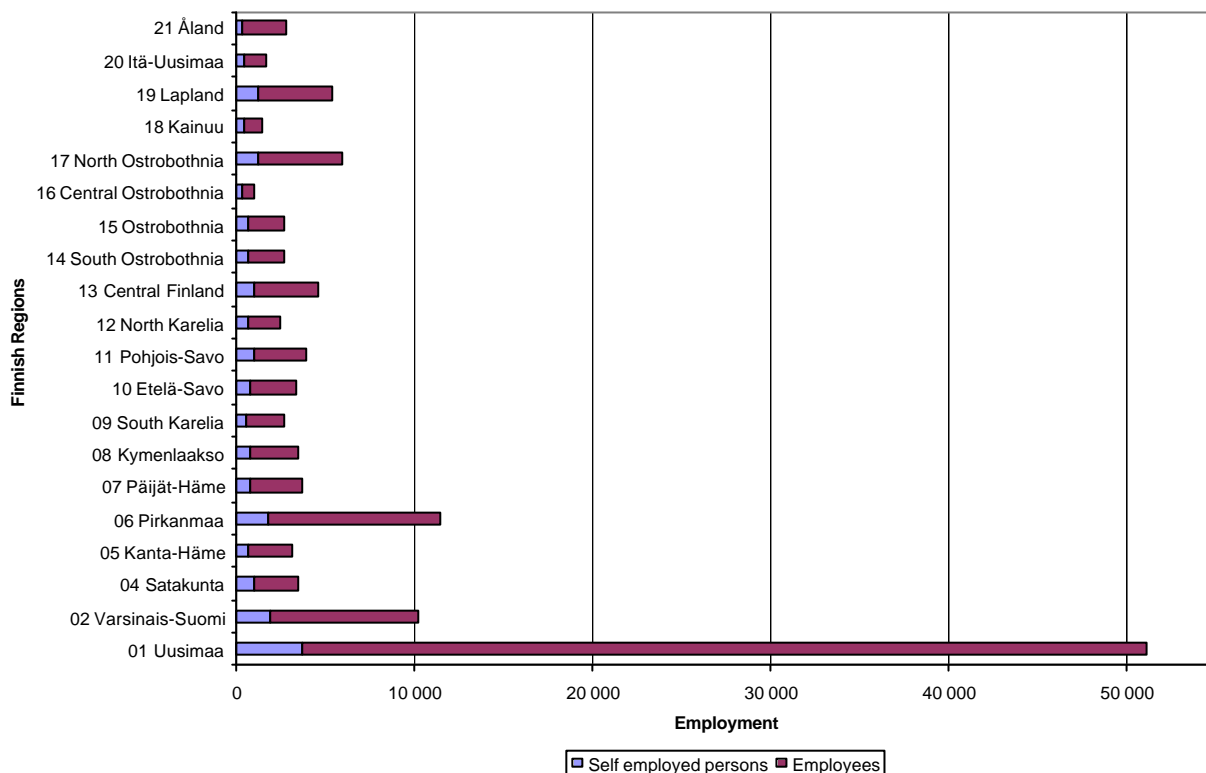
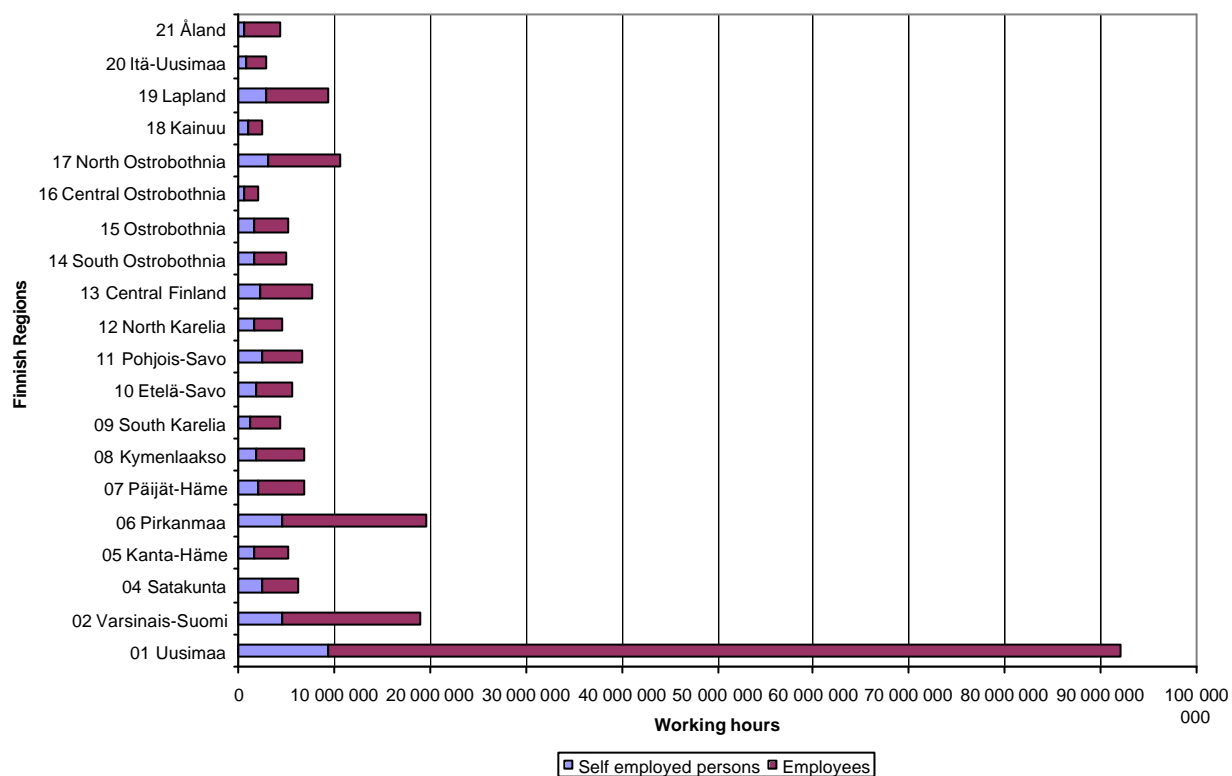


Figure 9. Working hours in the Tourism Industries in Finnish Regions 2002, working hours



## 4.6 Summary

The Regional Tourism Satellite Account produces economic key figures describing the extent of Finland's tourism industry in regions. In the following tables key figures for the year 2002 are presented separately for tourism demand and supply.

Table 4. Key figures for tourism demand

|   | 01    | 02  | 04  | 05  | 06  | 07  | 08  | 09  | 10  | 11  | FINLAND |
|---|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|
| Inbound tourism demand, EUR million   | 1 395 | 120 | 22  | 18  | 78  | 28  | 30  | 33  | 44  | 49  | 2 365   |
| Inbound tourism demand share of total tourism demand %  | 45    | 21  | 12  | 10  | 14  | 12  | 15  | 19  | 17  | 15  | 50      |
| Domestic leisure tourism demand, EUR million  | 1 255 | 324 | 111 | 117 | 358 | 142 | 128 | 101 | 168 | 170 | 4 178   |
| Domestic leisure tourism demand, share of total tourism demand %  | 40    | 57  | 60  | 68  | 65  | 61  | 63  | 58  | 65  | 54  | 29      |
| Other domestic leisure demand (compensated business trips, own free time residences), EUR million                     | 452   | 123 | 52  | 38  | 115 | 62  | 44  | 40  | 47  | 97  | 1 741   |
| Other domestic leisure demand (compensated business trips, own free time residences), share of total tourism demand % | 15    | 22  | 28  | 22  | 21  | 27  | 22  | 23  | 18  | 31  | 21      |
| TOTAL tourism demand in Finland, EUR million  | 3 102 | 567 | 185 | 173 | 551 | 232 | 202 | 174 | 259 | 316 | 8 284   |

|   | 12  | 13  | 14  | 15  | 16 | 17  | 18  | 19  | 20 | 21  | FINLAND |
|---|-----|-----|-----|-----|----|-----|-----|-----|----|-----|---------|
| Inbound tourism demand, EUR million   | 28  | 48  | 24  | 33  | 9  | 86  | 32  | 178 | 15 | 93  | 2 365   |
| Inbound tourism demand share of total tourism demand %  | 15  | 14  | 12  | 16  | 14 | 17  | 19  | 34  | 17 | 43  | 50      |
| Domestic leisure tourism demand, EUR million  | 110 | 209 | 122 | 103 | 37 | 249 | 105 | 216 | 48 | 105 | 4 178   |
| Domestic leisure tourism demand, share of total tourism demand %  | 58  | 58  | 61  | 48  | 58 | 50  | 62  | 41  | 56 | 48  | 29      |
| Other domestic leisure demand (compensated business trips, own free time residences), EUR million                     | 51  | 100 | 54  | 77  | 18 | 168 | 31  | 131 | 22 | 19  | 1 741   |
| Other domestic leisure demand (compensated business trips, own free time residences), share of total tourism demand % | 27  | 28  | 27  | 36  | 28 | 33  | 19  | 25  | 26 | 9   | 21      |
| TOTAL tourism demand in Finland, EUR million  | 189 | 357 | 200 | 213 | 63 | 503 | 169 | 525 | 85 | 217 | 8 284   |

Table 5. Key figures of tourism supply

|   | 01     | 02     | 04    | 05    | 06     | 07    | 08    | 09    | 10    | 11    | FINLAND |
|---|--------|--------|-------|-------|--------|-------|-------|-------|-------|-------|---------|
| Total output of tourism industries, EUR million                                 | 4 678  | 697    | 289   | 201   | 692    | 294   | 266   | 183   | 225   | 316   | 10 232  |
| Output of tourism industries generated by tourism demand, EUR million           | 2 734  | 338    | 129   | 88    | 287    | 136   | 124   | 87    | 102   | 151   | 5 497   |
| Value added of tourism industries, EUR million                                  | 2 153  | 315    | 134   | 94    | 331    | 141   | 130   | 88    | 106   | 148   | 4 783   |
| Value added generated by tourism demand of tourism industries, EUR million      | 1 255  | 147    | 63    | 43    | 140    | 69    | 64    | 43    | 49    | 72    | 2 611   |
| GDP at basic prices, EUR million  | 42 887 | 11 219 | 4 860 | 3 027 | 9 982  | 3 609 | 4 194 | 3 070 | 2 676 | 4 426 | 122 090 |
| Tourism value added as a share of GDP basic prices, % incl. employers' expenses | 2,9    | 1,3    | 1,3   | 1,4   | 1,4    | 1,9   | 1,5   | 1,4   | 1,8   | 1,6   | 2,4     |
| Employment in tourism industries, persons                                       | 51 110 | 10 140 | 3 390 | 3 160 | 11 470 | 3 710 | 3 450 | 2 670 | 3 300 | 3 890 | 126 600 |

|   | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | FINLAND |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| Total output of tourism industries, EUR million                                 | 189   | 323   | 205   | 180   | 82    | 427   | 126   | 378   | 132   | 349   | 10 232  |
| Output of tourism industries generated by tourism demand, EUR million           | 98    | 143   | 109   | 84    | 40    | 185   | 71    | 217   | 60    | 314   | 5 497   |
| Value added of tourism industries, EUR million                                  | 80    | 153   | 92    | 79    | 36    | 208   | 59    | 175   | 69    | 190   | 4 783   |
| Value added generated by tourism demand of tourism industries, EUR million      | 43    | 68    | 54    | 40    | 20    | 93    | 35    | 106   | 32    | 175   | 2 611   |
| GDP at basic prices, EUR million  | 2 845 | 5 197 | 3 272 | 3 586 | 1 220 | 7 807 | 1 384 | 3 560 | 2 438 | 831   | 122 090 |
| Tourism value added as a share of GDP basic prices, % incl. employers' expenses | 1,5   | 1,3   | 1,7   | 1,1   | 1,6   | 1,2   | 2,5   | 3,0   | 1,3   | 21,1  | 2,4     |
| Employment in tourism industries, persons                                       | 2 420 | 4 550 | 2 650 | 2 660 | 940   | 5 950 | 1 430 | 5 380 | 1 600 | 2 720 | 126 600 |

In practise, the most significant figure describing the importance of tourism is value added generated by tourism demand of all industries.

## 5 Conclusions

Tourism can be considered as a significant industry in Finnish regions. However, tourism is unequally distributed in Finland. A few regions, such as Uusimaa, account for the majority of tourist arrivals and hence, the majority of tourism consumption and value added, while other areas are less visited. In summary, tourist arrivals and tourism consumption are concentrated in regions in which also population and production are concentrated. For example, the share of the output generated by tourism in Uusimaa, Varsinais-Suomi, Pirkanmaa and North Ostrobothnia is nearly 63,5 per cent of the national output generated by tourism. Moreover, the share of Uusimaa is as much as 45,7 per cent.



On the other hand, regions that are traditionally considered as flourishing in tourism, such as Lapland and Åland were also successful in terms of attracting tourism consumption and generating output and value added in tourism industries and therefore, overpowering the observed trend. This shows that it is possible to attract visitors even to peripheries. In a relative examination, the results are interesting. For example, Åland, Lapland, Kainuu and Uusimaa were the only regions to top the national mean of tourism value added as a share of GDP at basic prices (2,4 per cent) from which Lapland and Kainuu can be regarded as peripheries. Hence, tourism can be considered as an important industry also in remote areas.

The results indicate that there are a few explanatory variables which govern the distribution of tourism income in Finland. First of all, tourism consumption concentrate in regions where also population and production are concentrated. In addition, these areas attract also a large number of business travellers. Secondly, number of arrivals and overnights in inbound tourism seem to effect more on tourism income than number of overnights in domestic tourism. This is especially important in passenger transport industries.

In summary, tourism is rather important industry in Finland but only in few regions.

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## Appendixes

Appendix 1. Finnish regions, NUTS 3 level.

|                    |                       |                         |
|--------------------|-----------------------|-------------------------|
| 01 Uusimaa         | 08 Kymenlaakso        | 15 Ostrobothnia         |
| 20 Itä-Uusimaa     | 09 South Karelia      | 16 Central Ostrobothnia |
| 02 Varsinais-Suomi | 10 Etelä-Savo         | 17 North Ostrobothnia   |
| 04 Satakunta       | 11 Pohjois-Savo       | 18 Kainuu               |
| 05 Kanta-Häme      | 12 North Karelia      | 19 Lapland              |
| 06 Pirkanmaa       | 13 Central Finland    | 21 Åland                |
| 07 Päijät-Häme     | 14 South Ostrobothnia |                         |

