

Tourism Employment Module (TEM): Case of the Czech Republic

Zdeněk Lejsek¹ | *Czech Statistical Office, Prague, Czech Republic*

Abstract

Tourism Employment Module (TEM) provides information on the significance and contribution of tourism for the national economy in terms of employment. It refers to a system of tables describing the main economic characteristics of tourism (i.e. number of jobs and people employed in tourism by industry, seasonality, working scheme, permanency of job, sex, age groups, level of education or nationality) and classifying thereby tourism as one of branches in the system of national accounts. The article describes basic methodological concept and structure of this tool (and approaches to measuring employment in the tourist industry in general), exploited data sources and provides a brief information on the type and form of publishing of the results as well as the data on principal macroeconomic indicators of tourism-related industries in the Czech Republic in 2003–2009.

Keywords

Tourism, employment, tourism employment module, tourism satellite account, measurement of employment, compilation of the TEM in the Czech Republic

JEL code

L83 (E24, J21)

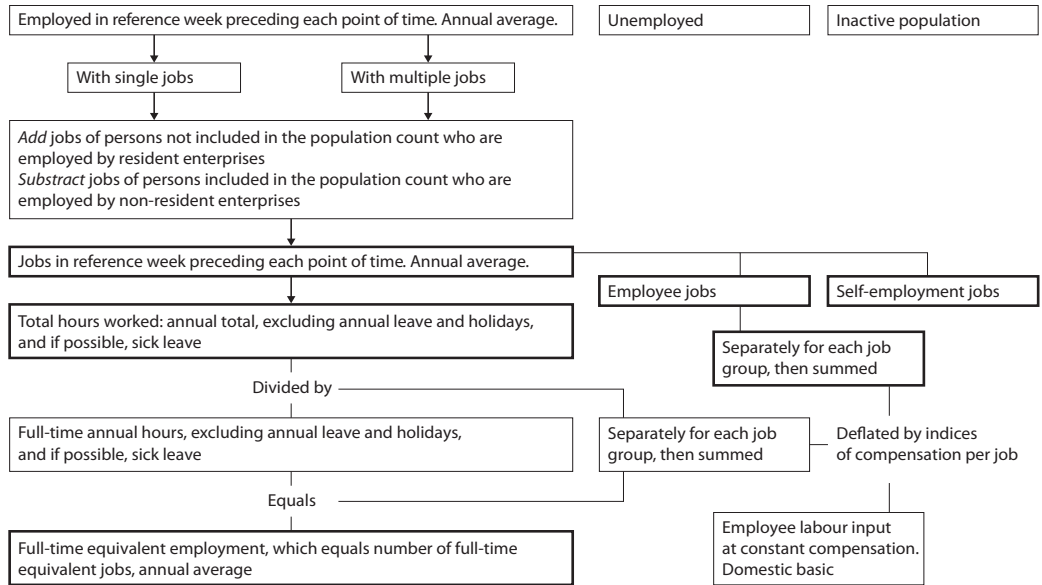
INTRODUCTION

Different countries tend to use different methodologies and sources to compile employment statistics in general. Concepts and definitions are not always clear-cut between countries. Countries are also in a different phase as it concerns the development of their employment statistics. Some countries are rather advanced, that is: they use a Labour Accounting System (LAS) to compile and present an integrated set of employment data, which are derived from different available sources. Other countries simply compile separate employment statistics from the different sources, meaning that there can be differences between figures describing the same employment phenomenon. A TSA encompasses the demand by visitors and supply of commodities by tourism producers as an integrated framework and relate them to other economic aspects such as investment, employment, balance of payments and government revenues. So, employment is an integrated part of the TSA (and TSA tables) although the scope of the employment issue in the TSA is limited to a homogeneous factor of production. Only little details of the composition of employment are provided. Therefore, there is a strong need for a broader view on the employment issue in tourism as a separate field of attention. A central idea for the long run is to develop an *employment*

¹ Tourism Statistics Unit, e-mail: zdenek.lejsek@czso.cz, phone: (+420) 377 612 276.

module as a labour extension to a TSA system (OECD, 2000). However, concepts and definitions used for tourism-related employment must have a link with the NA and the TSA.

Figure 1 Labour concepts of the system of National Accounts



Note: Boxes with bold lines relate to the concepts of the SNA.
Source: OECD (2000)

The collection and dissemination of tourism-related employment data should eventually provide better possibilities for (Eurostat, 2002b):

1. The description and analysis of the state and dynamics of the tourism labour market and its interaction with the rest of the economy, e.g. an overall picture of the employment status of the tourism labour force and its distribution over the various variables of interest; estimates of net changes which can be derived from successive situation descriptions; studies of the total amount of human resources, their change and allocation between different activities; and studies of the relationship between the cost of labour and the demand for it, on the one hand and the remuneration of labour and the supply of it on the other;
2. To predict and analyse the impact of (changes in) tourism flows and expenditures on employment levels or volumes in the different branches of industry related to tourism.

1 CONCEPTUAL (METHODOLOGICAL) FRAMEWORK OF EMPLOYMENT IN TOURISM

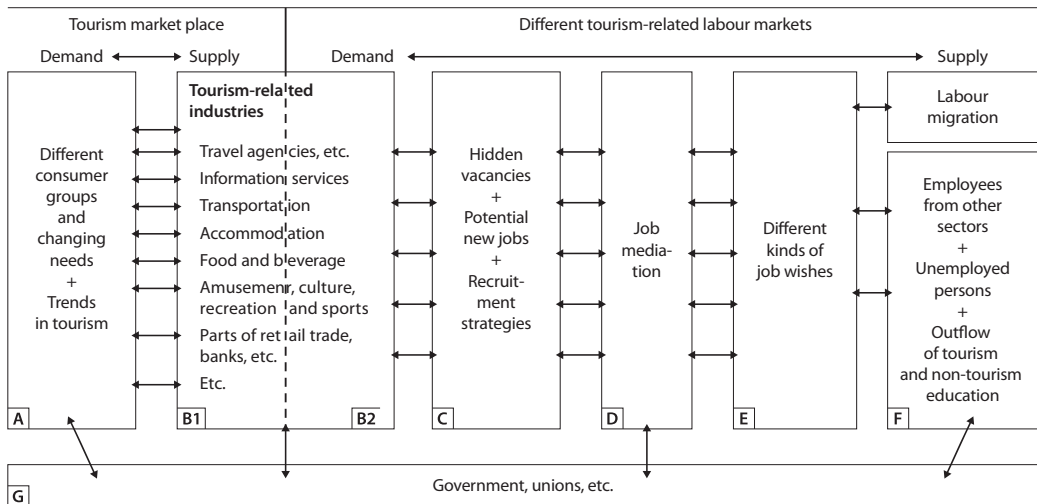
Tourism is a heterogeneous concept and it is difficult to agree on an exhaustive measure of its labour force. Employment in tourism generally includes persons who work in branches linked with the industry. However, the extent of the link varies between fields of activity and between products. As regards fields of activity, a distinction is generally made between primary characteristic tourist activities (accommodation, air travel, travel agencies, etc.), and connected activities (which are not by definition part of the tourist industry but which become a de facto part of it because of the demand for specific products: examples include tourist restaurants or bars, and banks acting as foreign exchange offices).

1.1 Characteristics of tourism industry

Besides the fact that tourism activities, and thereby tourism employment, take place throughout the whole economy, some specific characteristics of the primary branches of the tourism industry are:

- Fluctuations in demand (seasonality), among others, leading to numerical and functional flexibility in a part of the tourism labour force (e.g. higher portions of part-time workers with ‘small jobs’ and a higher labour turnover);
- High labour intensity because of the character of services (e.g. production and consumption are difficult to separate). For example, empty hotel rooms, empty aeroplane seats or empty restaurant chairs cannot be put in store to be sold another day. Also meaning, for example, relatively high labour costs and a very strong relationship between the wage costs and prices;
- Above-average share of self-employment and small family firms;
- Image of poor labour conditions, especially for the jobs on the ‘low-side’ of the tourism labour market. However, these labour conditions can fit in with the needs of certain groups;
- (The image of) the use of immigrant and illegal labour, including students and seasonal workers;
- Little attention for education and vocational training. Reasons, such as seasonal work, high proportions of part-time workers, high labour turnover and limited career opportunities, do not always invite the employer and the employee to invest in education and vocational training;
- Governments are often overlooked as major ‘tourism employers’. Only few data are available on this issue.

Figure 2 General framework of employment in tourism



Source: OECD (2000)

2 THEORETICAL APPROACHES TO MEASUREMENT OF EMPLOYMENT IN TOURISM

There are two possible approaches to measuring employment in the tourist industry. The first is based on demand, or tourist expenditure. The sector is defined by the goods and services purchased by tourists and visitors. The second approach functions on the same lines, but is seen from the perspective of the supply or production of the goods and services on offer to tourists and visitors. Finally, another specific approach to describe tourism-related employment is the occupational approach.

2.1 Demand-side approach

This approach is also known as the expenditure approach. As said, the main reason for this is, that tourism is also a demand-side concept. In very simple words, this approach translates the total amount of expenditure of visitors in a tourism-related branch of industry in a reference period into the number of jobs or full-time equivalents by using some kind of labour-coefficient for that branch of industry. Then, an estimation of the amount or volume of the total direct employment related to tourism can be calculated by the sum of the results of all branches of industry directly related to tourism (specific tourism activities). The basis for this approach are, mostly, multiplier and in- and output techniques, which are strongly related to the methods used in the National Accounts (NA) or in Tourism Satellite Accounts (TSA).

The advantages of this approach are that it is simple, it focuses on the expenditure of visitors (so there is no need for a difficult selection of tourism-related activities), there are many examples available and foremost it can relate directly to other (employment) data in the NA and hence the TSA (Eurostat, 2002b). This makes, for example, a good comparison with other industries and the total economy possible. This approach cannot only present some kind of volume of direct tourism-related employment in a reference period, but it can also provide the possibility to get insight in the indirect employment effects of tourism demand and production through the in- and output tables. These tables provide the intermediate relationships between the main tourism-related industries and other industries (intermediate producers; secondary tourism activities).

Besides the lack of data, the limited amount of detail available and methodological deficiencies, the main disadvantage of this approach is that it cannot produce any good information about the composition or structure of tourism-related employment, especially when it accounts for socio-demographic characteristics (e.g. people employed), such as age, gender, education and nationality.

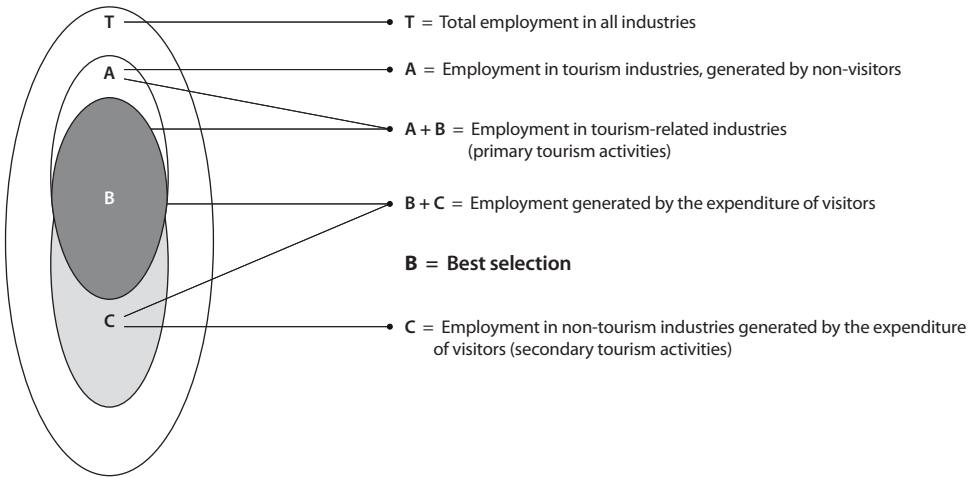
2.2 Supply-side approach

Main economic activity of an enterprise or organisation on the basis of the NACE (ISIC) is used. This approach counts all the people employed or all the jobs in the branches of industry that deliver goods and services directly to visitors (primary tourism activities) and the branches of industry that are indirectly related to tourism (secondary tourism activities). Besides the fact that this approach can produce data on the composition of tourism-related employment, major advantages are that it fits in with most employment statistics, sufficient good and detailed data is available and it can produce information on people employed. If a good selection can be made of which industries belong to 'the tourism industry', then existing data sources and figures can be used quite easily (Eurostat, 2002b). However, the selection of primary and secondary tourism activities is the main problem of this approach.

The major problem for a supply-side approach is the question of which characteristic tourism industries should be included and selected? Only a few industries depend heavily on tourism (A+B in Figure 3), while there are many other industries that also depend, but only partly, on the expenditure of visitors. For example, retail, banks and communication (C in Figure 3). The degree of dependence can also differ strongly in time (seasonality) and location (region). For example, a supermarket in a seaside resort (mainly visitors) or in a residential area. Or the difference between the same seaside supermarket in summer (mainly visitors) and in winter (mainly local residents). On the other hand the branches of industry defined as those which compromise the 'tourism industry' (A+B in Figure 3) can also cater to the needs of non-visitors (A in Figure 3). Therefore only a proportion of the employment in these branches of industry can be associated with tourism. The Standards International Classification of Tourism Activities (SICTA) of the WTO provides some indications of which branches of industry should be allocated totally to tourism activities and which branches of industry are only partly connected to tourism activities.

So the employment in tourism-related branches of industry (A+B in Figure 3), seen from a supply-side approach, does not match exactly the total employment generated by the expenditures of visitors (B+C in Figure 3) (OECD, 2000). First, the selected tourism branches of industry can also provide goods and services to non-visitors (A in Figure 3). And secondly, visitors spend their money not only on products and services of the selected tourism branches of industry, but also on a variety of other industries (C in Figure 3).

Figure 3 Demarcation of tourism-related employment



Source: Own construction by OECD (2000) and Eurostat (2002b)

2.3 Occupational approach

This approach is also a (tourism) supply-side approach, which does not use the NACE classification as a basis to describe tourism-related employment, but the International Standard Classification of Occupations (ISCO). One can think for example of occupations, like hotel manager, airline pilot, waiter, tour-operator and museum-guard. With this approach there are, more or less, the same problems as with the supply-side approach. First a selection has to be made of tourism-related occupations (Eurostat, 2002b). Or the occupations, which can be found in the selected tourism-related branches of industry, can be chosen. Then again, it is difficult to know which occupations to select. We cannot simply know if people who have these kinds of occupations serve to visitors or non-visitors. And, of course, people with occupations not directly connected to tourism also will work in that industry.

3 THE METHOD OF MEASURING EMPLOYMENT IN THE CZECH REPUBLIC

The *Tourism Employment Module* is used in the Czech Republic to assess the significance of the tourist industry to the economy from the perspective of employment. This tool is generally closely linked to the tourism satellite account (TSA) and can be considered a methodical part of this mathematical / statistical model.

The Tourism Employment Module identifies the main macro-economic aggregates (the number of persons employed, the number of jobs, the number of hours worked) and examines employment from various socio-economic and demographic perspectives (status in employment, seasonality, type and permanency of job, sex, age, level of education and nationality). It is in line with the concepts and definitions used in other areas of socio-economic statistics and tourism statistics, in particular the European system of accounts (ESA) 1995, the standards of the International Labour Organisation (ILO) and

other documents to concern tourism statistics issued by world and European organisations (Eurostat, UNWTO, OECD, UN).

The Czech Statistical Office started to compile Tourism Employment Module in 2008 (with data since reference year 2003) and currently this module includes a total of 11 qualitatively different tables (see Annex 2).

In the following sections of this chapter is a detailed description of the methodology of TEM in the Czech Republic (CZSO, 2011b).

3.1 Sources of data

The Tourism Employment Module uses source materials from two main sources:

- Data about employment in National Accounts (NA);
- The labour force sample survey (LFSS).

3.1.1 Data about employment in National Accounts

Data about employment in National Accounts are sourced from business statistical reporting (statistical reports P5-01, P4-01, Pen5-01, Poj5-01, VI1-01, Zdp P5-01, NI1-01). Data to concern the average registered number of employees and the number of working company owners (entrepreneurs) and co-operating members of the household whose activity at the company is their main job (entrepreneurs) are considered in these reports.

Data on employees are available from the survey in natural persons and in converted persons in full-time work (primary and secondary labour relations). Data about self-employed persons are available in natural persons and therefore to identify the converted number of self-employed persons these data for natural persons are multiplied by coefficients from the LFSS which indicate the relationship between converted and natural persons. These coefficients are used in individual branches (in the NACE A17 classification).

Another source of National Accounts used is a survey of employment in a labour force sample survey, to which data on overall employment in national accounting, linked to the LFSS, corresponds.

3.1.2 Labour force sample survey (LFSS)

Carried out continually on a randomly selected sample of households and focuses on identifying the economic position of the population throughout the country. The extent of the survey and employment and unemployment indicators fully correspond to the definitions of the International Labour Organisation (ILO) and the methodical recommendations of Eurostat. The results of the LFSS are published according to the place of residence of the respondents.

All persons usually living in private households are considered in the survey. The survey does not relate to persons living long-term in collective accommodation facilities. For this reason the information for certain groups of the population, in particular foreign nationals living and working in the Czech Republic, is available only to a limited extent.

3.2 Work procedure

Work on all sources of data in the Tourism Employment Module is done at the most detailed possible level of reliability, represented by the NACE classification groups (three-digit classification).² These data

² Selected branches of transport are categorised over and above this since for the needs of tourism it is necessary to delineate passenger transport usually defined in what is known as the classes (4-digit numerical code) of the classification mentioned.

are for work purposes only and are not published in the detail mentioned. Data from NA are used to express the absolute level of employment (they are therefore fully comparable with the data regularly published by the Division of Quarterly National Accounts). Data sources from the LFSS are by contrast used to divide and illustrate employment according to various socio-economic and demographic characteristics as recommended by international manuals. The applied ratio of tourism in employment in individual NACE classifications is bound to the share of tourism production.³

3.3 Character of published data

All data in the Tourism Employment Module present the so-called domestic concept of employment, meaning that it concerns persons working on the economic territory of the Czech Republic. In contrast to the national concept, this concept includes non-residents working in the Czech Republic, but not residents working abroad. Most data is published in a classification of working persons into employed and self-employed. The fundamental unit is the number of natural persons. In terms of the number of jobs, this is increased by all secondary and other employment.

The tables in the module are divided according to the individual characteristic tourism industries (11 basic branches). The values for sectors connected with tourism and the sectors non-specific to tourism are then presented as overall values. The reference period is 2003 to 2009.

4 RESULTS OF THE TOURISM EMPLOYMENT MODULE IN THE CZECH REPUBLIC

4.1 The significance of tourism in the national economy from the perspective of employment between 2003 and 2009

Some 239 500 people were employed in tourism in 2009. Nearly 79 % of this figure accounts for employees and the remainder, almost 1/5, were self-employed. These are the working owners of companies and cooperating members of the household for whom activity at the company is their main job.

Persons working in the tourism sector in 2009 accounted for 4.6 % of the total employment in the national economy, in that there was a clear difference in percentages according to employment status. The percentage of employees was 4.4 % and of self-employed persons 5.2 % (invariably the share in total employment in the relevant category). In comparison with 2003, the share of tourism in total employment from the perspective of employed persons fell by 0.2 percentage points. The share of self-employed persons fell faster than the number of employees (0.7 percentage points and 0.1 percentage points respectively).

Tourism is an industry with lower work productivity, since its share in the creation of gross value added in the economy was 2.7 % in the same period according to the results of tourism satellite accounts (share in the creation of GDP was 2.9 %) (CZSO, 2011c). Only CZK 369 thousand of gross value added pertained to one employee in tourism in 2009, whereas the average employee in the economy as a whole produced an value added of CZK 623 thousand (and therefore around 2/3 more). Employees in tourism, on the other hand, worked some 41 hours (2.3 %) more than the average for the entire domestic economy. Company owners and their family members surpassed the average by 43 hours (2.0 %). The facts identified support the fact that most services and activities associated with tourism are more demanding on the quantity of labour, but do not demand highly-qualified labour force. This is the reason for the lower productivity of work than the average in the Czech Republic (Lejsek, 2011).

Apart from determining the number of persons employed, the Tourism Employment Module also offers information about the number of jobs in tourism. This information includes secondary and other

³ For more detail see Table 5 in the TSA – “Production accounts of individual tourism industries and other industries” (CZSO, 2011c).

Table 1 Key indicators of the employment in tourism in the Czech Republic in 2003–2009*

	2003	2004	2005	2006	2007	2008 ³⁾	2009 ⁴⁾	2009 / 2008 (in %)
Number of people employed in tourism	237 753	236 649	236 682	235 935	236 024	241 236	239 499	99.3
incl.: Self-employed ¹⁾	54 711	56 551	53 884	50 853	51 348	51 635	51 155	99.1
Employees	183 042	180 098	182 798	185 082	184 676	189 601	188 344	99.3
Tourism ratio on total employment								
People employed (%)	4.8	4.8	4.7	4.6	4.5	4.6	4.6	0.0 p.p.
Number of jobs in tourism²⁾	233 507	232 870	233 704	231 476	233 481	236 376	236 588	100.1
incl.: Self-employed ¹⁾	54 040	55 904	53 648	50 625	52 542	51 015	52 411	102.7
Employees	179 467	176 966	180 055	180 851	180 939	185 360	184 177	99.4
Tourism ratio on total employment								
jobs (%)	4.7	4.7	4.7	4.6	4.5	4.5	4.6	-0.1 p.p.

¹⁾ It includes a number of owners of enterprises and their family members whose activity in the enterprise is main job.

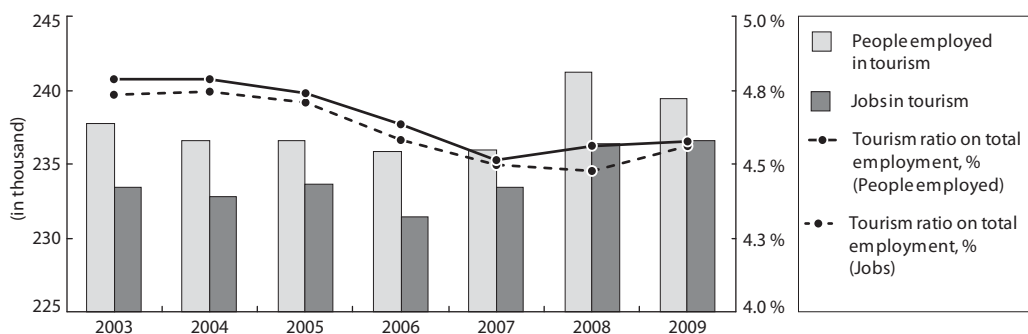
²⁾ Number of jobs in full-time equivalents.

³⁾ Semi-definitive data.

⁴⁾ Preliminary data.

* Annual average number of people employed in main job.

Source: CZSO (2011a)

Figure 4 Employment in tourism and share in the national economy of the Czech Republic


Source: Own construction

employment and is also converted into the equivalent of full working hours (full-time equivalents / ftes). There were 236 600 jobs in tourism in 2009. Of this figure some 184 200 jobs were taken by employees and there were 52 400 self-employed persons. The share of tourism in total employment in terms of the number of jobs in that same year was 4.6 %, by some 0.2 percentage points lower than in 2003. Nonetheless, the number of jobs during the reference period in question rose by an absolute 3 000. This contradiction was caused by the even faster growth of the total number of jobs in the national economy than in tourism, whose significance fell slightly in relative terms.

4.2 The specifics of employment in tourism

4.2.1 The structure of employment in tourism by industry

In terms of the structure of the industry, most people (74 %) worked in branches characteristic for tourism in 2009. This primarily means branches such as accommodation services, food and beverage serv-

ing services, passenger transport, travel agencies, cultural, sporting and other recreation services. Some 68 thousand persons worked in catering and boarding thanks to tourism and some 42 thousand in accommodation services. Almost 14 thousand worked in sector of travel agencies and tour operators. In comparison with 2003, the biggest drop in the number of staff came in rail passenger transport (34 % fewer people) and water passenger transport (28 % fewer people). Other sectors saw an increase in the number of persons employed, most of all supplementary passenger transport services (38 % more people) and air transport (28 % more).

Table 2 Number of jobs and people employed in tourism in the Czech Republic by industries in 2009

	Number of people employed in tourism			Number of jobs in tourism ¹⁾		
	Self-employed ²⁾	Employees	Total	Self-employed ²⁾	Employees	Total
Accommodation services	7 399	34 906	42 305	8 944	34 385	43 329
Food and beverage serving services	17 753	50 048	67 801	17 551	48 300	65 851
Railway passenger transport	0	14 370	14 370	0	14 334	14 334
Road passenger transport	1 575	11 081	12 656	1 555	11 227	12 782
Water passenger transport	5	47	52	5	47	51
Air passenger transport	10	6 445	6 455	10	6 396	6 407
Passenger transport supporting services	81	2 465	2 546	94	2 452	2 545
Passenger transport equipment rental	44	96	140	39	97	136
Travel agency / tour operator services	4 489	9 347	13 836	4 446	9 341	13 787
Cultural services	2 377	10 730	13 107	2 389	10 104	12 493
Sporting and recreational services	825	2 172	2 997	920	2 075	2 995
Characteristic tourism industries	34 558	141 707	176 265	35 953	138 757	174 710
Connected tourism industries	15 962	43 828	59 790	15 821	42 641	58 462
Non-specific tourism industries	635	2 809	3 443	637	2 779	3 416
Total	51 155	188 344	239 499	52 411	184 177	236 588

¹⁾ Number of jobs in full-time equivalents.

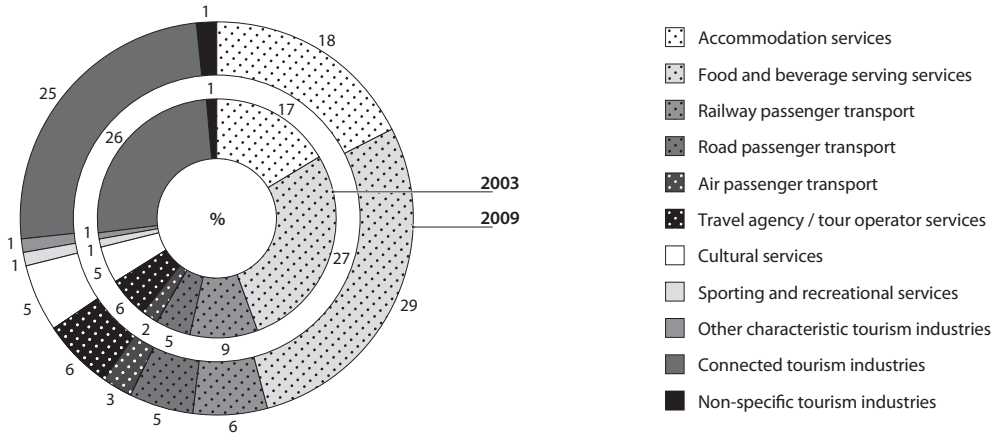
²⁾ It includes a number of owners of enterprises and their family members whose activity in the enterprise is main job.

Source: CZSO (2011a)

Apart from characteristic industries, people were also employed in industries connected with tourism (almost 60 thousand) or in industries non-specific to tourism (over 3 thousand). It does not therefore stand that if an industry is not specific to tourism, it does not employ certain personnel that are involved in tourism. In fact even here you can find activities directly related to tourism (for example the production of maps or souvenirs). The share of branches associated with tourism in overall employment in the industry fell during the reference period from 25.6 % to 25.0 %, whereas the share in activities characteristic for tourism rose (by 0.5 percentage points).

An evaluation of the impacts of the economic crisis on changes in the structure of employment is still a bit premature, but the results to date have confirmed a fall in the number of people working in accommodation facilities (employment in this sector fell by 4.2 % between 2008 and 2009) and in the activities of travel agencies (a fall of 6.1 %). By contrast, the number of persons employed in restaurants and similar facilities rose in 2009 (by 2.4 % year-on-year), as did those in cultural, sporting and other recreation services (by 3.5 %). Some 0.7 % fewer people than in the previous year worked in tourism as a whole in 2009.

Figure 5 Structure of employment in tourism by industries in 2003 and 2009

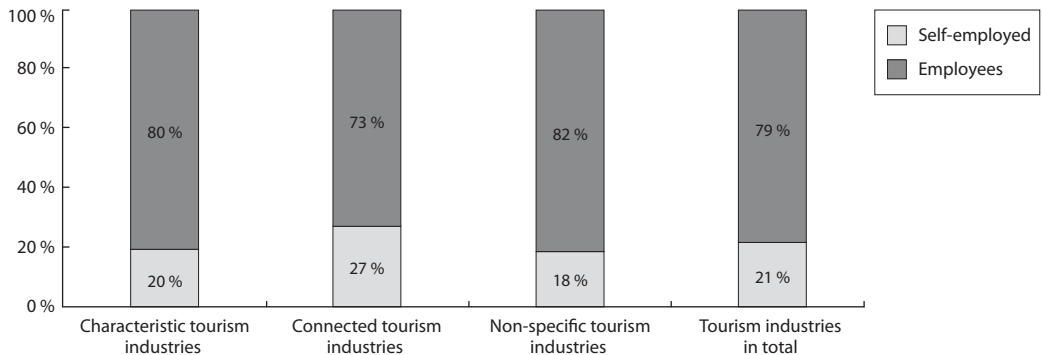


Source: Own construction

4.2.2 Status in employment and work scheme (full-time / part-time)

It is clear from employment status that there is a higher concentration of self-employed persons in tourism than there is in the national economy as a whole. This relates to the fact that tourism is mainly the realm of small companies where the general rule is that the owners and / or family members are involved in the running of the business. Whilst self-employment accounted for over 21 % of all persons working in tourism in 2009, this figure in the economy as a whole was less than 19 %. If we look at individual sectors of the industry, the highest share of self-employed persons was found in travel agencies (32 %), with a higher share also present in restaurants and catering facilities (26 %). By contrast, almost all workers in rail or air transport were employees and the share of entrepreneurs in these sectors was practically zero given the dominance of major companies. The share of self-employed persons fell on average by 2 percentage points in comparison with 2003, again the fastest rate seen at travel agencies (from 6.0 to 4.5 thousand people) or gastronomy (from 20.3 thousand to 17.8 thousand). By contrast, the number of entrepreneurs in sporting and other recreation services rose very quickly (from 0.5 thousand to 0.8 thousand), as was the case in culture (from 1.6 thousand to 2.4 thousand).

Figure 6 Employment in tourism by status in employment in 2009



Source: Own construction

From the perspective of full-time / part-time work it is clear that most people in tourism are employed on a full-time basis (over 93 %), although the ratio of part-time work rose slightly during the reference period (from 6 % to 7 %). This ratio practically remained the same in the economy as a whole at 5.0 % from 2003 onwards. An above-average share of part-time work in activities characteristic for tourism is found in culture (12 %), in sporting and recreation services (10 %) or in the hotel business (9 %). It also ensues from the data that most employees had permanent contracts for an indeterminate period (91 %) and that only in cultural, sporting or catering facilities was employment for a temporary period more common (16 %, 13 % and 12 % respectively). The reason for this is the seasonality of tourism, whereby people are employed with a greater degree of frequency for only a few months in the summer or winter seasons, for example.

4.2.3 Structure by sex and age

The tourism industry is typical for its higher levels of employing women than in the national economy as a whole. Women made up 52 % of all employed persons in tourism in 2008, whereas their share in employment in the economy as a whole was almost 10 percentage points lower. The highest percentage of women were employed in industries connected with tourism (67 %), whereas in the characteristic industries they found greater application than men particularly in culture and accommodation services. Women also prevailed at travel agencies / tour operators, where 66 % women were employed in 2008, men only accounting for 34 % of all the staff. By contrast, the distinctly male sectors included road passenger transport (88 %), water transport (76 %) and of course rail passenger transport (74 %). In comparison with 2003 the number of women in tourism fell somewhat in relative terms (by 1 percentage point), something caused mainly by the decline in the participation of women in employment at travel agencies / tour operators or air passenger transport (both by 8 percentage points).

Tourism can be considered a relatively “young” industry in terms of age groups; in other words, it is an industry in which there is a larger percentage of young people than is the case in the national economy. Employed persons of up to 35 years of age made up 35 % of the total economy in 2008, whereas the same age group made up 41 % of all people in tourism. At the same time it applied in both cases that employed persons gradually shifted from the youngest category (15–24 years) to the older category of 25–34 years. In terms of sector, younger employees were prevalent in food and beverage serving services (56 %) or in sporting and recreation services (47 %). Older employees of over 45 years were mainly involved in rail passenger transport and culture.

4.2.4 Education structure

Characteristic of the education structure in tourism is that people with secondary school education prevail in the period under consideration, with the share of such people reaching 83 % in 2009. University graduates took a share of 11 % in employment in this industry, whereas the figure in the national economy as a whole stood at 18 %. Within the industry the highest percentage of university graduates worked in culture (where around 35 % of the people have university education) and there is an above-average concentration of university-educated people at travel agencies (1/3) and in air passenger transport. By contrast, the highest number of people with primary education in 2009 worked in accommodation services (10 %).

Positive from the perspective of the future quality of services in tourism is the finding that the percentage of university graduates rose by 2.6 percentage points from 2003. The share of people with this education rose most quickly in the activities of travel agencies and tour operators (62 % more university graduates worked here in 2009 than at the beginning of the period under consideration) and in catering services (85 % more than in 2003).

4.2.5 Nationality

The Tourism Employment Module also monitors information about non-residents in overall employment. Such people made up 4 % of the persons employed in tourism in 2009, whereas some 6 % non-residents worked in the economy as a whole. What is more, the ratio of non-residents in the national

Table 3 Summary of key indicators of the employment in the national economy and tourism in the Czech Republic in 2009*

	Tourism		National economy	
	People employed	Percentage	People employed	Percentage
Number of people employed	239 499	100.0 %	5 231 822	100.0 %
By sex				
Males	114 491	47.8 %	3 003 999	57.4 %
Females	125 008	52.2 %	2 227 823	42.6 %
By age				
15–24	27 154	11.3 %	394 916	7.5 %
25–34	70 640	29.5 %	1 437 053	27.5 %
35–44	58 344	24.4 %	1 374 141	26.3 %
45–55	50 384	21.0 %	1 244 183	23.8 %
55+	32 977	13.8 %	781 529	14.9 %
By level of education¹⁾				
ISCED 1 and 2	15 111	6.3 %	307 575	5.9 %
ISCED 3 and 4	198 767	83.0 %	3 999 547	76.4 %
ISCED 5 and 6	25 620	10.7 %	924 700	17.7 %
By status in employment				
Self-employed ²⁾	51 155	21.4 %	977 891	18.7 %
Employees	188 344	78.6 %	4 253 931	81.3 %
By working scheme				
Full-time	223 218	93.2 %	4 955 468	94.7 %
Part-time	16 281	6.8 %	276 354	5.3 %
By permanency of job				
Job for determinate period	17 037	9.0 %	382 805	9.0 %
Permanent job	171 307	91.0 %	3 871 126	91.0 %
By nationality				
Residents	229 608	95.9 %	4 914 525	93.9 %
Non-residents	9 891	4.1 %	317 297	6.1 %

¹⁾ ISCED – Used International Standard Classification of Education.

²⁾ It includes a number of owners of enterprises and their family members whose activity in the enterprise is main job.

* Annual average number of people employed in main job.

Source: CZSO (2011a)

economy as a whole rose at a faster rate. Figures here rose by 3.2 percentage points from 2003 onwards and by 1.8 percentage points in tourism. Almost ten thousand non-residents were employed in tourism industry in 2009. In absolute terms the highest numbers worked in the accommodation and boarding services (1.9 thousand each) and in travel agencies (1.7 thousand). Over 55 % of all non-residents in tourism worked in these three branches. In relative terms, there was clearly higher representation of the same people mainly in the activities of travel agencies, tour operators and in booking and guide activities, where 12 % of all employees did not have resident status.

CONCLUSION

Tourism is an important economic activity with a very positive impact on economic growth and employment at the national and regional level. In the Czech Republic, tourism directly contributes about 3 % of the GDP and directly employs 240 000 people. At the same time, determination of the level and

description of selected characteristics of employment is one of the most important tasks in the process of examination of the economic importance and status of tourism in national economy. Statistical framework and methodological guidance in this process are provided by models for quantification of employment in tourism (employment modules), which are generally closely associated with the tourism satellite accounts. Czech Statistical Office started to compile Tourism Employment Module in 2008 (with data since reference year 2003) and currently this module includes a total of 11 qualitatively different tables (see Annex 2). The Czech Republic belongs to a few countries that compiled and published detailed data on employment in tourism. Due to the mentioned range of measurement could be statistical research in this area even considered as unique in international comparison.

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ANNEXES

ANNEX 1 | Terminology⁴

Employees — are defined as all persons, who are working based on a contract for another residential institutional unit and accept a reward (recorded as “employee reimbursements”). Persons are included in employees in the event that they do not also have their own profit-making activity, which represents their fundamental activity. Persons, who temporarily do not work, are also considered employees with the presumption that they have formal employment.

Self-employed — are persons, who are the sole owners or a co-owners of non-associated companies, where they are working, with the exception of non-associated companies classified as quasi-companies. They are doing business and work with paid employees or without them. Self-supportive persons are classified here in the case that they are not also in a paid employment, which represents their main activity; in such a case they are classified as employees. On the other hand these include cooperating members of company owner’s household, for whom the activity in the company is the main employment.

Job (or rather working position) — is defined as explicit or implicit contract between a person and a residential institutional unit on work performance for the determined period or until further notice — termination notice. Included here are second and other employments of the same person. On the contrary who is excluded are persons, who are temporarily not working, but they have a so-called formal employment (formal relation to employment).

Amount of work during working hours — represents a total number of hours actually worked by the employee and self-employed person during an accounting period in the event that their production is within the scope of defined production borders.

Equivalent of full time working hours — equals number of full time employments and is defined as a share of the total number of hours worked and average annual number of hours worked in full time employment within the economic territory.

ANNEX 2 | List of tables in TEM of the Czech Republic⁵

- *TEM T1* Number of jobs and people employed in tourism in the Czech Republic by industries
- *TEM T2* Number of people employed in tourism in the Czech Republic by seasonality
- *TEM T3* Number of people employed in tourism in the Czech Republic by working scheme
- *TEM T4* Number of employees in tourism in the Czech Republic by permanency of job
- *TEM T5* Number of people employed in tourism in the Czech Republic by sex
- *TEM T6* Number of people employed in tourism in the Czech Republic by age groups
- *TEM T7* Number of people employed in tourism in the Czech Republic by level of education
- *TEM T8* Number of people employed in tourism in the Czech Republic by nationality
- *TEM T9* The link with the TSA — Employment output in tourism in the Czech Republic
- *TEM T10* Aggregate indicators of employment in the national economy and tourism in the Czech Republic
- *TEM T11* Aggregate indicators of employment in tourism in the Czech Republic

⁴ CZSO, 2011b.

⁵ CZSO, 2011a.