



19th International Conference of Labour Statisticians
Geneva, 2-11 October 2013

Room Document: **13**

**Issue: Proposal for Identifying
Characteristic Occupations of the Tourism
Industries as a Tourism Thematic View
within ISCO-08 and National Occupational
Classification Systems**

Issue: Proposal for Identifying Characteristic Occupations of the Tourism Industries as a Tourism Thematic View within ISCO-08 and National Occupational Classification Systems¹

ILO Department of Statistics

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¹ Prepared by David Hunter, Senior Statistician, ILO Department of Statistics.

This proposal is prepared for submission as a *room document* to the forthcoming discussion of recent activities and issues relating to the International Standard Classification of Occupations, 2008 (ISCO-08) at the 19th International Conference of Labour Statisticians to take place on 2-11 October 2013 in Geneva Switzerland.

Context

The proposal is a repurposed and revised version of an earlier draft proposal presented as a response to another proposal presented jointly by UNWTO and ILO at the 11th meeting of the United Nations World Tourism Organization (UNWTO) Committee on Statistics and the TSA, 25-26 March 2010 as part of an agenda item of the meeting programme, *Employment in the tourism industries and the use of ISCO-08*, entitled *Proposal to Develop a tourism view of the International Standard Classification of Occupations*.

The International Labour Organization (ILO) and the United Nations World Tourism Organization (UNWTO) jointly consider tourism to be one of the most dynamic sectors of economic activity in modern times, generating a wide range of benefits for tourism host and tourist-generating countries and destinations, including employment generation, foreign exchange earnings and contribution to GDP.² They also note that, despite recent measurement advances in the specialized fields of tourism statistics and tourism macroeconomics, employment in the tourism industries, and the economic value of tourism in terms of employment as a source of productive labour, remain inadequately measured and insufficiently studied.³

To fill this gap, the ILO and UNWTO have joined their efforts to improve statistical data on tourism related employment, and the initial joint ILO-UNWTO proposal to develop a tourism view of the ISCO was prepared within the framework of the established joint agreement.⁴

The 2010 UNWTO meeting discussion document noted that, “Following endorsement in 2008 of the International Standard Classification of Occupations (ISCO-08) by the Governing Body of the International Labour Organization (ILO), it is proposed to develop a set of ‘thematic groupings’ or ‘views’ of ISCO-08 for certain groups of occupations.”

The document described such “*thematic views*” of occupational classifications systems as “a standard alternative way of aggregating occupational data ... according to selected aspects of skill specialization, such as the kinds of goods or services produced or the field of knowledge required.”

It further noted that such thematic views of ISCO would be developed where there is an identified need, “in order to satisfy key analytical and policy requirements, to aggregate occupational data independently of skill level, the overriding criterion used to organize occupations into groups in ISCO.”

The joint document noted that tourism had been proposed as one of several such possible thematic views (others included Agriculture, Construction, Education, Health and Information and Communications Technology).

²*ILO/UNWTO Joint Project on employment in the tourism industries statistics component*, Chernyshev, I (2009).

Presented at the Fifth UNWTO International Conference on Tourism Statistics, Tourism an Engine for Employment Creation, Bali, Indonesia, 2 April, 2009.

³Ibid.

⁴ Ibid.

Lastly, the document proposed a four step process for moving forward towards a tourism view of ISCO-08, and invited the UNWTO Statistics Committee to consider:

- The main purposes of a predefined listing of ISCO-08 groups for occupations related to tourism;
- Whether a definition should focus on selected occupations that produce tourism characteristic products (or require specific skills necessary to produce those products) and whether this would facilitate the compilation of data that would inform these purposes; or,
- Whether an approach that relied on empirical analysis of occupations in tourism related industries would be preferable.

During the subsequent discussion of the 11th meeting of the UNWTO Statistics Committee, the Canadian delegation (i.e., representatives of Statistics Canada, the Canadian Tourism Human Resource Council, and the Canadian Tourism Commission) supported the proposal to develop a tourism view of the International Standard Classification of Occupations-08. Based on previous work in Canada, their preference was an approach that relied on empirical analysis of occupations that exist in tourism characteristic industries. These are the industries that primarily produce the products mainly purchased by visitors and account for the major share of them.

They also presented an initial version of the following counter proposal regarding the need for, and basis of, such a “tourism view” of ISCO-08, as well as an alternative view of an associated development process.

Identified Needs and Purposes

The tourism policy requirement for quantitative tourism labour market information relating to occupations, skills and labour supply and demand has been identified in the recent 2011 Canadian Federal Tourism Strategy which recognizes the importance of skills and labour as one of the four pillars of the new all-of-government coordinated tourism development strategy. The strategy specifies “*Fostering an adequate supply of skills and labour to enhance visitor experiences through quality service and hospitality*” as a priority focus of current and future tourism-specific government policy initiatives.⁵

Tourism related human resource organizations, such as the Canadian Tourism Human Resource Council (a national coordinating membership organization spanning industry, government, education and labor) have pioneered tourism workforce development, producing relevant labour market information, tourism sector-specific occupational qualifications frameworks, occupational standards and education and training resources; all directed towards increased industry relevance and labor mobility throughout the tourism industries.

Within national and international systems of economic and social statistics, data and information on occupations relating to jobs observed in the tourism industries is the strategic link between existing statistical information on jobs in the tourism industries and access to related information on relevant skills-specific labour demand and supply in the tourism industries.

⁵Canada’s Federal Tourism Strategy: *Welcoming the World*. Industry Canada (2012). Ottawa: Government of Canada.

To compile data about occupations and skills related to jobs in the tourism industries, it is necessary to refer to existing national (NOC⁶) and international occupational classification standards (ISCO) that classify jobs by grouping them into categories of occupations on the basis of work tasks and duties performed and skill level. Currently however, such classification standards are of limited value for this application, since none of the existing international and national standards, such as ISCO and NOC, recognize and identify tourism occupations as such. In part, this is because of the special character of tourism as a cross-cutting economic activity as discussed elsewhere.

There is a need to develop a robust new concept, definitions and classification structure for *tourism characteristic occupations*, in order to assess and analyze these aspects of employment in the tourism industries for the purposes of informing policies and practices of tourism labour force development and compiling relevant data and information on the skills related aspects of jobs in the tourism industries. This development could be based on an approach similar to that previously proposed and subsequently applied for tourism characteristic commodities/products and activities/industries within CPC and ISIC (and their national classification equivalents) in the development of the Tourism Satellite Account (TSA) and the subsequent associated international standards developed and promulgated by UNWTO and ILO in the Tourism Satellite Account: Recommended Methodological Framework (TSA: RMF 2001, 2008)⁷ and the associated International Recommendations for Tourism Statistics (IRTS 1993, 2008).

Previous Canadian Experiences

Canada has developed one of the most advanced set of statistical procedures and applications for measuring and analyzing aspects of employment in the tourism industries in support of identified tourism policy and human resource development information requirements⁸. During past tourism-specific reviews of the National Occupational Classification as well as the feasibility study research for one of the new statistical instruments, the Canadian Human Resource Module extension of the Tourism Satellite Account (TSA:HRM)^{9 10}, a major issue that emerged was the need for a new conceptual framework and definitional standard relating to the core concept of a “tourism occupation”.

In both previous lines of work Canadian researchers and statisticians found that tourism, as a cross-cutting demand-side phenomenon, involves a broad range of occupations. Similarly, the earlier development of the Tourism Satellite Account (TSA) and the Tourism Satellite Account:

⁶ See *National Occupational Classification 2011*, Ottawa: Statistics Canada; and *National Occupational Classification – Statistics 2006*. Ottawa: Statistics Canada.

<http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVDPPage1&db=imdb&dis=2&adm=8&TVD=122372>

<http://www.statcan.gc.ca/subjects-sujets/standard-norme/soc-cnp/2006/noc2006-cnp2006-menu-eng.htm>

⁷ See *Tourism Satellite Account: Recommended Methodological Framework*. UN Statistics Division (UNSD) World Tourism Organization (UNWTO), (2008) Geneva: Statistical Commission; and also *International Recommendations on Tourism Statistics*, UN Statistics Division (UNSD) World Tourism Organization (UNWTO), 2008. Geneva: Department of Economic and Social Affairs.

⁸ See *Measuring Employment in the Tourism Industries Beyond the Tourism Satellite Account: A Case Study of Canada*. Prepared by S. Meis (2013) for ILO. Publication forthcoming.

⁹ See *Human Resource Module of the Tourism Satellite Account, 2012*, Catalogue No,13-604-M—No. 72. Martin , T. (2013) Ottawa: Statistics Canada, 2013.

¹⁰ This was a national application of an earlier generic conceptual framework developed and proposed by the OECD. See *Measuring the Role of Tourism in OECD Economies: The OECD Manual on Tourism Satellite Accounts and Employment*. Organization for Economic Cooperation and Development (2000). Paris: Author.

Recommended Methodological Framework (2000 and 2008) (TSA: RMF) found that tourism involves multiple products and multiple industries.

In CTHRC's first reviews of the NOC 2006, researchers focused on all occupations associated with jobs within the tourism industries as specified by the TSA. This approach assumed that all occupations related to jobs within the tourism sector are of equal interest to stakeholder organizations interested in tourism labour force development such as CTHRC. The rationale was that data users would be interested in data on the full range of occupations to be found within the tourism sector, and the associated skills and training requirements for those jobs.

Applying this approach and criterion to Statistics Canada census data for 2001, revealed that it produced too many tourism related occupations to be of practical use: 445 occupations at the 4-digit NOC-S level, the majority, or 85 per cent, of the 520 NOC occupational categories at that level of aggregation. This is mainly because the industry span of the tourism sector is so broad and inclusive. There was also a lot of noise in the observed Canadian data at this low level of aggregation. More than three quarters (345 or 78%) of the 445 occupational categories observed within the tourism industries have insufficient numbers (i.e. less than 500) to support stable trend analysis or in-depth analysis to justify special training or policy measures.

Since the number of occupations observed in the tourism industries was very large when classified to the lower levels of NOC, it was necessary to identify the most important jobs in terms of numbers and group the smaller ones below some cut-off point, into an "all other" category. This process reduced the number of initial occupations of interest to CTHRC to some 40 to 50 initial occupations for which it had previously developed tourism-specific national occupational standards in response to industry demands (See Appendix I, Table A1).

In dealing with the same issue in first building the TSA Human Resource Module, Statistics Canada used a different approach of first restricting the focus to tourism industries and then applying a "mechanical cut-off" of excluding occupations with less than 5000 employees in each major industry group. Occupation groups below this threshold produce samples of less than 1000 in Census data. Experience has shown that population groups of 1000 or less are too small to produce quality LFS sample data and stable tracking results. This solution resulted in 40 specific *tourism occupations* and 5 generic *all other occupations* categories for each of five major industry groups (i.e. transportation, accommodation, food and beverage services, recreation and entertainment and travel services) shown in Appendix II. Although practical, this somewhat mechanical approach lacks theoretical coherence.

Ideally, national and international users and compilers of tourism occupational data would benefit from a consistent conceptual framework for identifying relevant tourism related occupations that are theoretically coherent with other tourism references and standards. In this respect, UNWTO and ILO have successfully developed consistent conceptual definition criteria for tourism products and tourism industries using the concepts of "characteristic" and "specific" economic activities (industries) and products¹¹. It would be conceptually more credible and coherent to identify *tourism characteristic occupations* as those that are most significant in tourism industries.

¹¹ *Tourism Satellite Account: Recommended Methodological Framework (TSA:RMF 2001)*. UN Statistics Division (UNSD), World Tourism Organization (UNWTO) (2001). Madrid and New York: World Tourism Organization / United Nations.

A Proposed Approach

In order to determine *tourism characteristic occupations*, the following criteria can be used. A *tourism characteristic occupation* is one that would satisfy the following conditions:

- a. Occupations that involve direct contact with visitors or that involve the supervision or management of job holders in direct contact with visitors;
- b. The occupation is found within the tourism industries;
- c. The tourism industries (i.e. sector) account for a significant share of all jobs in that occupation;
- d. The occupation accounts for a significant share of all jobs in the tourism industries.

This raises three questions: 1) What do we mean by *direct contact*? 2) What would be considered a “significant share” in the case of criterion “c” and “d”? And, 3) on what basis and in what sequence would all four criteria be applied?

In answer to the first question, TSA:RMF 2001, 3.27¹² said that “*direct contact* cannot be reduced to physical contact, but must be used in the broader sense, in accordance with the objective of measuring the economic impact of tourism”. From Statistics Canada’s perspective, *direct contact* means working in the establishment (or industry) that is directly serving visitors¹³. Light duty cleaners or chefs and cooks, for example, might not have direct contact with visitors – however, their work has a direct impact on visitor experiences.

The second question is an operational matter of how and where one draws the line between included and excluded occupations. In the case of criterion “c”, one possible option would be to consider all occupations where the tourism share is greater than tourism sector’s share of total employment in the Canadian economy, which in 2012 was estimated at 9.4%¹⁴. In other words, treat as characteristic occupations of the tourism industries any occupations within the sector of tourism industries where the sector uses this occupation more intensively than the rest of the economy. A related question is at what level of industry is criterion “c” applied – the tourism sector as a whole, major industry groups, or individual industries?

In applying criterion “d”, one could operationally define the concept of “a significant share” as any occupation that is between 10 and 15 per cent of all jobs in the tourism industries. As with the previous criterion, there is a related question of at what level of occupation one would apply the criterion. Clearly one could group similar occupations that would not each satisfy a 10% threshold, but combined together they would.

An initial early test of this approach showed that even applying only criteria “b” and “c” reduces the list of potential *tourism characteristic occupations* from 445 4-digit level NOC occupations to a much shorter list of 101 occupations.

¹² See TSA:RMF 2001, 3.27. Madrid and New York: World Tourism Organization / United Nations.

¹³ Note that application of this criterion literally would rule out a number of occupations currently included within the TSA:HRM. See highlighted occupations listed in Appendix III.

¹⁴ Martin, T., 2013 p. 4.

While 101 *tourism characteristic occupations* is a more manageable number, a close examination of the resulting list revealed that many occupations would still be of negligible interest and value to user organizations concerned primarily with improving the quality of labour in the sector and thereby improving the quality of the destination tourism experience and the overall international competitiveness of the sector.

An initial test of also including criterion “a” (thereby excluding occupations not associated directly providing services experiences to visitors) further reduced the list of characteristic tourism occupations. In Canada, this reduced the list to 71 occupations, comprising 80% of the jobs within the sector and 8% of the jobs within the overall economy¹⁵.

It is worth noting that for compilation purposes there would still be a catch all category for all other non-characteristic occupations in the tourism industries.

It is important also, to allow some flexibility in identifying the most relevant tourism occupations. It is possible that some occupational categories, such as, for example, corporate managers, would be of interest even if their numbers in the tourism industries are small.¹⁶

There may also be occupations not directly associated with the supply of tourism goods and services that are of interest to users because of their particular regional or strategic policy significance (e.g. conference and meeting planners).

A suggested approach is to separately identify, categorize and recognize such occupations and use terminology similar to that used in the UNWTO TSA standards by creating a category separate from the ISCO and NOC systems that would group these occupations together as *tourism specific occupations* to identify and preserve information on those regional and special cases.

For national compilation purposes, we need to identify for each tourism industry (1) particular tourism characteristic occupations of major interest, (2) a catch all category for “all other tourism characteristic occupations”; and another catch all category for “all other occupations”.

At the international level, we need a core set of internationally comparable tourism occupations, and a category to reflect “country-specific tourism characteristic occupations”.

We recommend that ILO and UNWTO consider adopting an approach and definition of *tourism characteristic occupations* similar to that used in identifying and specifying characteristic tourism products and characteristic tourism activities/industries. This would involve identifying, defining and specifying two new concepts of tourism characteristic and tourism specific occupations.

We recommend that tourism characteristic occupations be identified and specified in terms of four criteria:

- a) Occupations that involve direct contact with visitors;

¹⁵ *Final Report: National Occupational Classification Review*. The Trellis Group (2006) Unpublished working report to the Canadian Tourism Human Resource Council. Ottawa: Canadian Tourism Human Resource Council.

¹⁶ As noted previously, corporate managers could also be rolled up with all other managers for compilation purposes.

- b) Occupations found within the tourism industries;
- c) Occupations for which the tourism industries (i.e., sector) account for a significant share of all jobs in the occupation;
- d) Occupations that account for a significant share of all jobs in the tourism industries.

To move the proposal forward we suggest the following process:

1. Review the Canadian concordance between NOC occupation groups, titles and definitions and ISCO-08 group definitions. Identify in terms of ISCO-08 the occupations in Canada that fit within the proposed criteria for tourism characteristic occupations.
2. Work with selected national best cases to compile and review data on employment in tourism industries from the few advanced countries that compile employment on occupations as well as jobs in the tourism industries (e.g. Canada, Austria, and Switzerland) and convert their summary data into ISCO categories.
3. Carry out sensitivity analyses using available national data sources to assess and validate the feasibility, consistency and relevance of applying the suggested operational criteria (and any others that emerge) for identifying tourism characteristic occupations.
4. Carry out this work at the international level as part of an extension of the current ongoing Joint ILO/UNWTO Project on the Measurement of Employment and Decent Work in the Tourism Industries, with the collaboration of interested national level statisticians and industry stakeholders and users responsible for development of employment, human resources management and skills in the tourism industries.
5. Recommend appropriate criteria, definitions and groups for international agreement on tourism characteristic occupations within ISCO and national occupation classification systems for national and international level research and development activities to measure the relationships between jobs, occupations and skills in the tourism industries.

Applying the criteria and associated research and development activities at the national level, and internationally for comparison purposes, would provide immediate aid to consistency in the development and implementation of other Tourism Human Resource Module extensions of national tourism satellite accounts.

Eventual Outcomes and Benefits

1. Comparable and consistent information on occupations and skills relating to jobs in the tourism industries (for an example, see Appendix IV).
2. Comparable and consistent results from national level research and development of Human Resource Module extensions of the TSA.
3. Comparable and consistent labour demand and supply forecasts of specific occupation groups (for an example, see Appendix V).
4. Comparable and consistent national and international research on skills gaps and surpluses.

5. Consistent terminology for describing occupations and skills as part of the development and promulgation of national and trans-national occupational standards as well as quality education and skills training standards for the tourism industries¹⁷.

Submitted by:

Scott Meis, Special Advisor, Labour Market Information and Research, Canadian Tourism Human Resource Council; and

Chris Jackson, Assistant Director, National Economic Accounts Division, Statistics Canada

¹⁷ See for example, *Trans-national Occupational Standards: Towards the Development of a Framework and Principles*. Mondor, P. (2009). Prepared for the International Network of Sector Skills Organizations (INSSO) and The Alliance of Sector Councils (TASK). Ottawa: Canadian Tourism Human Resource Council; as well as *Food and Beverage Management International Competency Standards* (July, 2012). Ottawa: Canadian Tourism Human Resource Council.

Appendix I: North American Industry Classification System (NAICS) industries identified as Canadian tourism industries

Accommodation

NAICS 7211-Traveller Accommodation
 NAICS 7212-RV (Recreational Vehicle) Parks & Recreational Camps

Food & Beverage Services

NAICS 7221-Full-Service Restaurants
 NAICS 7222-Limited-Service Eating Places
 NAICS 7224-Drinking Places (Alcoholic Beverages)

Recreation and Entertainment

NAICS 5121-Motion Picture & Video Industries
 NAICS 7111-Performing Arts Companies
 NAICS 7112-Spectator Sports
 NAICS 7115-Independent Artists, Writers & Performers
 NAICS 7121-Heritage Institutions
 NAICS 7131-Amusement Parks & Arcades
 NAICS 7132-Gambling Industries
 NAICS 7139-Other Amusement & Recreation Industries

Transportation

NAICS 4811-Scheduled Air Transportation
 NAICS 4812-Non-Scheduled Air Transportation
 NAICS 4821-Rail Transportation
 NAICS 4831-Deep Sea, Coastal & Great Lakes Water Transport
 NAICS 4832-Inland Water Transportation
 NAICS 4851-Urban Transit Systems
 NAICS 4852-Interurban & Rural Bus Transportation
 NAICS 4853-Taxi & Limousine Service
 NAICS 4854-School & Employee Bus Transportation
 NAICS 4855-Charter Bus Industry
 NAICS 4859-Other Transit & Ground Passenger Transportation
 NAICS 4871-Scenic & Sightseeing Transportation, Land
 NAICS 4872-Scenic & Sightseeing Transportation, Water
 NAICS 4879-Scenic & Sightseeing Transportation, Other
 NAICS 5321-Automotive Equip. Rental & Leasing

Travel Services

NAICS 5615-Travel Arrangement & Reservation Services

Source: Kotsovos, D., *Canadian Tourism Satellite. Account Handbook*. Ottawa: Statistics Canada, December 2007. Catalogue no. 13-604-MIE no. 52.

Appendix II: Number of people in main NOC-S occupations in Canadian tourism industries and percentage shares of employees in tourism industries and total economy (1996)

NOC-S	Occupation	Number of People	% of employees in tourism industries	% of total employment
G961	Food counter attendants, kitchen helpers and related occupations	225,535	13.6%	1.8%
G513	Food and beverage servers	177,880	10.7%	1.2%
G412	Cooks	140,370	8.5%	1.2%
A221	Restaurant and food service managers	91,105	5.5%	0.6%
H712	Bus drivers and subway and other transit operators	66,930	4.0%	0.5%
G311	Cashiers	57,770	3.5%	1.9%
G931	Light duty cleaners	47,160	2.8%	1.3%
F154	Program leaders and instructors in recreation, sport and fitness	41,725	2.5%	0.4%
H713	Taxi and limousine drivers and chauffeurs	38,735	2.3%	0.3%
G512	Bartenders	36,185	2.2%	0.2%
G411	Chefs	31,910	1.9%	0.3%
G012	Food service supervisors	28,580	1.7%	0.2%
G711	Travel counsellors	25,645	1.5%	0.2%
G211	Retail salespersons and sales clerks	23,695	1.4%	4.3%
A222	Accommodation service managers	23,155	1.4%	0.2%
G715	Hotel front desk clerks	21,935	1.3%	0.1%
I212	Landscaping and grounds maintenance labourers	20,560	1.2%	0.6%
G723	Casino occupations	19,090	1.2%	0.1%
G511	Maitres d'hôtel and hosts	18,325	1.1%	0.1%
G933	Janitors, caretakers and building superintendents	17,700	1.1%	1.3%
G731	Operators and attendants in amusement, recreation and sport	16,755	1.0%	0.1%
A211	Retail trade managers	12,340	0.7%	2.1%
C171	Air pilots, flight engineers and flying instructors	11,305	0.7%	0.1%
G712	Pursers and flight attendants	10,920	0.7%	0.1%
G713	Airline sales and service agents	10,745	0.6%	0.1%
G942	Bakers	8,385	0.5%	0.2%
B531	Accounting and related clerks	8,025	0.5%	1.1%
A131	Sales, marketing and advertising managers	7,065	0.4%	1.0%
B553	Customer service, information and related clerks	6,430	0.4%	1.2%
A373	Transportation managers	5,965	0.4%	0.2%
G721	Tour and travel guides	4,435	0.3%	0.0%
F112	Technical occupations related to museums and art galleries	3,940	0.2%	0.0%
G732	Other attendants in accommodation and travel	3,775	0.2%	0.0%
G714	Ticket agents and related clerks (except airline)	3,360	0.2%	0.0%
G722	Outdoor sport and recreational guides	2,555	0.2%	0.0%
G011	Retail trade supervisors	2,480	0.1%	0.4%
B316	Conference and event planners	2,430	0.1%	0.1%
A112	Human Resource Managers	2,040	0.1%	0.2%
Subtotal		1,276,940	76.4%	8.0
All other tourism occupations		382,040	23.1%	2.9%
TOTAL TOURISM SECTOR EMPLOYMENT		1,656,940	100.0%	10.3%
Total Employed Labour Force in Canada		16,021,180	...	100.0%

Source: Canadian Tourism Human Resource Council, (2012). *Who's Working for You? A Demographic Profile of Tourism Sector Employees*. Ottawa: Author; Canadian Census 2006, custom tabulation of employed

Appendix III: Detailed list of HRM tourism occupations by National Occupational Classification for Statistics (NOC-S) 2006

Occupations listed by tourism industry groups	NOC-S 2006
Accommodation	
Accommodation service managers.....	A222
Program leaders and instructors in recreation, sport and fitness.....	F154
Chefs.....	G411
Cooks.....	G412
Bartenders.....	G512
Food and beverage servers.....	G513
Hotel front desk clerks.....	G715
Light duty cleaners.....	G931
Janitors, caretakers and building superintendents.....	G933
Food counter attendants, kitchen helpers and related occupations.....	G961
All other accommodation occupations	
Transportation	
Air transportation	
Air pilots, flight engineers and flying instructors.....	C171
Pursers and flight attendants.....	G712
Airline sales and service agents.....	G713
Airline mechanics and aircraft inspectors.....	H415
Air transport ramp attendants.....	H737
All other air transportation occupations	
All other transportation	
Transportation managers.....	A373
Retail salespersons and sales clerks.....	G211
Automotive service technicians, truck and bus mechanics and mechanical repairers.....	H421
Bus drivers and subway operators and other transit operators.....	H712
Taxi and limousine drivers and chauffeurs.....	H713
Railway and yard locomotives engineers.....	H721
Railway conductors and brakemen/women.....	H722
Other transportation occupations	
Food and beverage services	G412
Restaurant and food service managers.....	A221
Food service supervisors.....	G012

Occupations listed by tourism industry groups	NOC-S
Cashiers.....	G311
Chefs.....	G411 ¹⁸
Cooks.....	G412
Maîtres d'hôtel and hosts/hostesses.....	G511
Bartenders.....	G512
Food and beverage servers.....	G513
Bakers.....	G942
Food counter attendants, kitchen helpers and related occupations.....	G961
Delivery and courier service drivers.....	H714
All other food and beverage services occupations	
Recreation and entertainment	
Recreation, sports and fitness program and service directors.....	A343
Technical occupations related to museums and art galleries.....	F112
Program leaders and instructors in recreation, sport and fitness.....	F154
Retail salespersons and sales clerks.....	G211
Cashiers.....	G311
Security guards and related occupations.....	G631
Casino occupations.....	G723
Operators and attendants in amusement, recreation and sport.....	G731
Janitors, caretakers and building superintendents.....	G933
Food counter attendants, kitchen helpers and related occupations.....	G961
Landscaping and grounds maintenance labourers.....	I212
All other recreation and entertainment occupations	
Travel services	
Retail trade managers.....	A211
Travel counsellors.....	G711
All other travel services occupations	

Source: *Human Resource Module of the Tourism Satellite Account, 2012*, Catalogue No,13-604-M—No. 72.

Martin, T. (2013) Ottawa: Statistics Canada, 2013.

Note: As noted earlier, a literal application of criterion “a” would exclude the occupations highlighted in grey in the above table that are currently included in the Canadian Human Resource Module of the TSA.

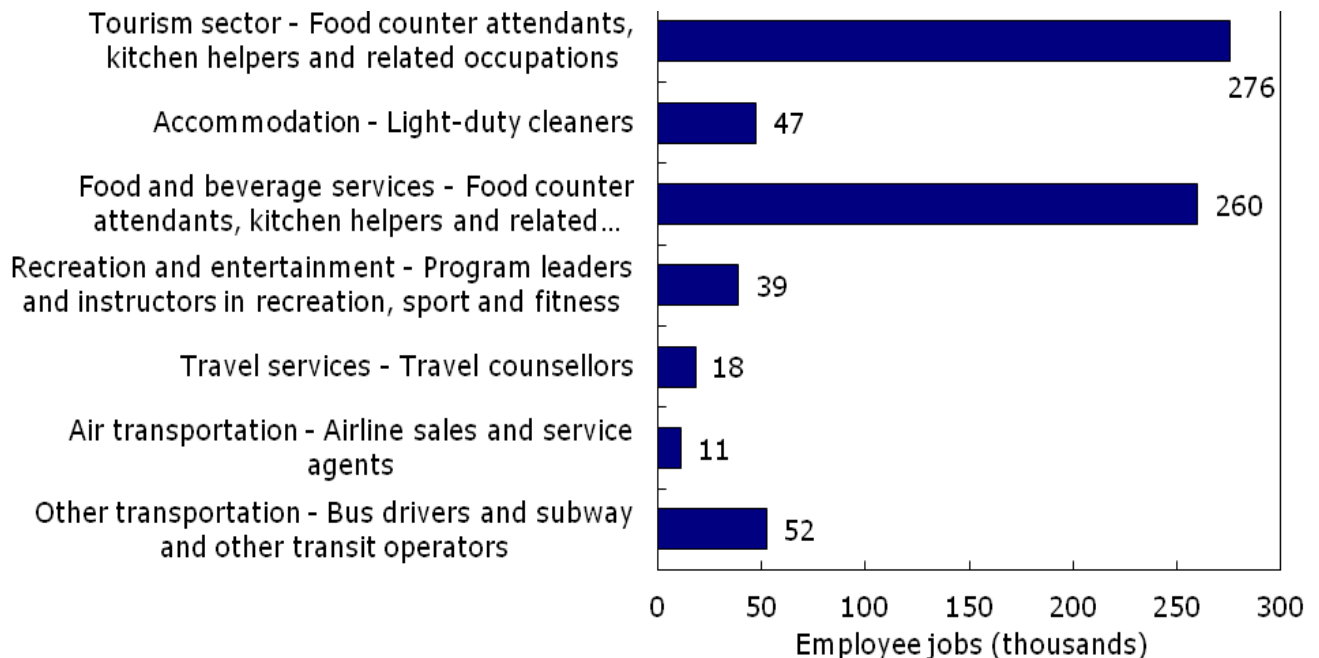
Appendix IV: Profile of Occupations of Employee Jobs in Canadian Tourism Industries

(Excerpt from the ILO Working Paper, *Measuring Employment in the Tourism Industries Beyond the Tourism Satellite Account*. S. Meis (2013) Forthcoming publication. ILO, Geneva. P. 48.

...
 Five occupation groups dominate employee jobs in tourism industries, accounting for approximately half of all employee jobs, namely: food-counter attendants, kitchen helpers and related occupations with 276,000 jobs; food and beverage servers with 188,000 jobs; cooks with 150,000 jobs; cashiers with 71,000 jobs; and restaurant and food service managers with 67,000 jobs in 2012. Furthermore, these occupations also dominated the food and beverage services industry group. In fact, of the jobs in the five top occupations, more than nine out of ten are concentrated in the food and beverage services industries (Martin, 2013:11).

From another perspective, as shown in Figure 9, a different main occupation predominates in each industry group within the tourism industries: food-counter attendants, kitchen helpers and related occupations (276,000 jobs) is the main occupation in the food and beverage services industry; light duty cleaners (47,000 jobs) for the accommodation industry group; program leaders and instructors in recreation, sport and fitness (39,000 jobs) predominate in the recreation and entertainment industry group; travel counselors (18,000 jobs) predominate in the travel services industry group; airline sales and service agents (11,000 jobs) predominate in the air transportation industry group; and bus drivers and subway and other transit operators(52,000 jobs) predominate in the other transportation industry group.

Figure 9: Main occupation in each tourism industry group in Canada, 2012



Source: Martin, T., *Human Resource Module of the Tourism Satellite Account 2012*, Ottawa: Statistics Canada, 2013.

Appendix V: Forecast of Occupation-specific Labour Shortages (Jobs) in Canadian Tourism Industries

(Excerpt from the ILO Working Paper, *Measuring Employment in the Tourism Industries Beyond the Tourism Satellite Account*. S. Meis (2013) Forthcoming publication. ILO, Geneva. P. 63.

Table 18: Potential major occupation-specific labour shortages in Canadian tourism industries (jobs)¹⁹

Occupations	2007	2010	2015	2020	2025
Food-counter attendants & kitchen helpers	2,894	-3,579	13,120	33,478	49,564
Food and Beverage Servers	2,468	-2,778	11,928	27,782	42,655
Cooks	1,617	-2,252	3,528	10,497	16,791
Bartenders	463	-342	2,478	5,606	8,784
Program leaders & instructors in recreation & sport	757	-834	2,529	5,789	7,779

Source: Canadian Tourism Research Institute, Conference Board of Canada, 2012.

¹⁹ See *The Future of Canada's Tourism Sector: Shortages to Resurface as Labour Markets Tighten*. Canadian Tourism Research Institute, Conference Board of Canada, (2012). Ottawa: Canadian Tourism Human Resource Council.