



# National Occupational Classification

## *Training Tutorial*

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# Introduction

## Overview

The *National Occupational Classification* (NOC) is a system for describing the occupations of Canadians. It gives statisticians, labour market analysts, career counsellors, employers and individual job seekers a standardized way of describing and understanding the nature of work. The system includes a series of publications that help these people to organize and use statistics and other labour market facts.

*Putting it to Work* is a companion to these publications and a training resource for anyone who is using or intends to use the NOC. By the end of this training, you will be able to:

- understand the structure and components of the NOC
- understand the importance and applications of the NOC
- properly classify occupations according to the NOC

To facilitate the learning process, voluntary quizzes are available to help you understand the material. At the end of your session, we encourage you to take the NOC Challenge. Similar to the quizzes, the NOC Challenge is designed to provide feedback on your understanding and ability to effectively use all components of the NOC. More information about these quizzes and the NOC Challenge will be discussed later.

Note: The quizzes and the NOC challenge are only available on the Internet.

In order to complete this training you will need to have access to the NOC *Occupational Descriptions* binder<sup>1</sup>, the NOC *Matrix* and the *Index of Titles* either in hardcopy format or via the Internet at: [www.hrdc-drhc.gc.ca/noc](http://www.hrdc-drhc.gc.ca/noc).

The structure of this tutorial is based on a progressive learning format. We will first look at the origin of the NOC, its importance and its uses and examine the structure of the NOC. You will learn the meaning of the digits of NOC codes and how they relate directly to the structure. By the end of this training you will know how to use the NOC for looking up occupational titles, finding occupational descriptions, for coding purposes and for other applications.

Let us start by understanding the origin of the NOC and its significance in Canada.

## History

The NOC was implemented in 1992 as a replacement for the *Canadian Classification and Dictionary of Occupations* (CCDO). It was created through an extensive program of research, collecting information from employers, workers, educators and associations. Analyses and consultations were also conducted with providers and users of labour market data across the country. *Human Resources Development Canada* (HRDC) worked closely with *Statistics Canada* to ensure strong links between the NOC and their parallel document, *Standard Occupational Classification* (SOC), for the collection and use of labour market data.

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<sup>1</sup> This includes the *Occupational Descriptions*, information that is available over the Internet in electronic format.

This training guide introduces the revised edition of the NOC. NOC 2001 replaces the original publication and the parallel 1991 SOC produced by *Statistics Canada*. The revised SOC is now entitled the *National Occupational Classification for Statistics* (NOC-S). NOC 2001 and the NOC-S fill the gaps that have been identified as shortcomings of the NOC system. These include a missing technical level for information technology occupations, inconsistencies in relation to the statistical structure and the challenges in capturing the emergence of new ways of working and new titles used in the labour market. NOC 2001, while conservative with respect to structural change, reflects the evolution occupations have undergone over the past decade in Canada.

The goal of the NOC is to make it easier for users at all levels to achieve a better understanding of the world of work. For this reason, there are two main NOC publications:

- The *Occupational Descriptions* binder provides formal descriptions of 520 occupational groups. These descriptions are identified by codes and titles organized in a three-level numerical hierarchy.

The NOC ensures that labour market statistics are collected and assembled in a standard way that will be meaningful to users. At the same time, the descriptions allow technical users, such as economists and business analysts, to understand exactly what the statistics mean.

- The *Career Handbook* is the counselling version of the NOC. It links work performed in occupations with worker characteristics. This two-volume set provides details of aptitudes and interests as well as physical activities and educational requirements for nearly 900 occupations, along with information about career opportunities in each. This resource is intended primarily for guidance and employment counsellors, but individuals seeking to plan their own careers will also find it useful.

**It is important to note** that the *Career Handbook* is currently under revision. Winter of 2003 is the projected release for the revised Handbook. Consequently, prior to the 2003 release of the *Career Handbook*, the current version should be used in conjunction with the 1992 version of the NOC structure to ensure proper concordance.

The NOC publications support a variety of career information resources published by the Government of Canada and others. For example, *Job Futures*, the widely-used source of information about occupational outlooks, and the national *Job Bank*, an electronic listing of jobs, work or business opportunities provided by Canadian employers are both organized according to the structure of the NOC. By providing a standard way of organizing labour market information, the NOC helps all Canadians to be better informed about the world of work.

## **Applications**

The NOC provides a standardized language for describing the work performed by Canadians. It is used at all stages of the process from defining and collecting data, to managing information databases, to analyzing labour market trends and extracting practical career planning information.

### ***Data Collection***

The hierarchical coding structure of the NOC is used in the collection of occupational information. For example, economists and statisticians use the NOC to guide the collection and compilation of data. And, the Government of Canada uses the NOC-S for the analysis of occupational data collected from the Census, Labour Force Survey and other surveys.

The NOC is also used for a variety of special surveys with respect to worker mobility, technological change, administrative data and other indicators of labour market behaviour. In addition, provincial governments and private survey companies use the NOC to ensure that the information they collect will be directly comparable to data they get from other sources.

### ***Labour Market Analysis***

Labour market researchers use the NOC to understand the underpinnings of the statistics they use, and more importantly, to interpret them correctly. The NOC provides the context for the interpretation of statistical information. These users analyze the Canadian labour market to understand emerging trends, to guide policy decisions and to develop systems for training, recruiting and job matching. National, regional, and local labour market information can be accessed by visiting [www.hrdc-drhc.gc.ca](http://www.hrdc-drhc.gc.ca).

Labour market analyses include work done within the government to set policy and make the labour market work more efficiently. For example, the federal government uses this type of analysis to allocate spending for labour market programs, to manage its systems for matching jobs with people and for immigration selection procedures. Provincial and municipal governments have similar applications.

### ***Career Planning and Job Seeking***

Career developers, counsellors and students use the NOC and the *Career Handbook* for career planning. An understanding of occupational definitions, requirements and opportunities is central to their goal of matching the interests and aptitudes of individuals to the requirements and opportunities associated with occupations.

Job seekers, employment counsellors and employers rely on the NOC to make effective use of labour market information services provided by the federal government and other sources. An important application is the national *Job Bank*, which is accessible over the Internet and can be viewed at [www.jobbank.gc.ca](http://www.jobbank.gc.ca).

## Exploring the NOC

In a nutshell, the NOC is a tool that is used to classify occupations according to their skill level and skill type. A four-digit code, called the “NOC code”, identifies the occupation. Each digit of this code reflects an important trait of the occupation it represents.

Let’s begin by looking at each digit and the significance it has with respect to the NOC.

### ***Skill Type***

Skill type is based on the type of work performed, but it also reflects the field of training or experience that is normally required for entry into the occupation. This includes the educational area of study required, as well as the industry of employment in cases where experience within an internal job ladder is required for entry. These categories are intended to indicate easily understood segments of the world of work.

The first digit of the NOC code normally designates the skill type (see chart below). For example, *Occupations Unique to Processing, Manufacturing and Utilities* start with the digit 9. *Management Occupations*, which are found across all skill types, start with 0. Remember that an occupation that is coded with a first digit of 1 through 9 refers to the skill type of that occupation. An occupation that has a 0 as the first digit indicates management.

Chart: The 10 skill types that make up the first digit of an NOC code.

<b>NOC Skill Types</b>	
<b>Skill Type</b>	<b>Occupation</b>
0	Management Occupations
1	Business, Finance and Administration Occupations
2	Natural and Applied Sciences and Related Occupations
3	Health Occupations
4	Occupations in Social Sciences, Education, Government Service and Religion
5	Occupations in Art, Culture, Recreation and Sport
6	Sales and Service Occupations
7	Trades, Transport and Equipment Operators and Related Occupations
8	Occupations Unique to Primary Industry
9	Occupations Unique to Processing, Manufacturing and Utilities

Let us look at each skill type in more detail.

### ***0. Management Occupations***

This skill type category contains legislators, senior management occupations and middle and other management occupations. These occupations span all skill type categories.

### ***1. Business, Finance and Administration Occupations***

This category contains occupations that are concerned with providing financial and business services, administrative and regulatory services and clerical supervision and support services. Some occupations in this category are unique to the financial and business service sectors; however, most are found in all industries.

### ***2. Natural and Applied Sciences and Related Occupations***

This category contains professional and technical occupations in the sciences, including physical and life sciences, engineering, architecture and information technology.

### ***3. Health Occupations***

This category includes occupations concerned with providing health care services directly to patients and occupations that provide support to professional and technical health care staff.

### ***4. Occupations in Social Science, Education, Government Service and Religion***

This skill type category includes occupations that are concerned with law, teaching, counselling, conducting social science research, developing government policy, and administering government and other programs.

### ***5. Occupations in Art, Culture, Recreation and Sport***

This skill type category includes professional and technical occupations related to art and culture, including the performing arts, film and video, broadcasting, journalism, writing, creative design, libraries and museums. It also includes occupations in recreation and sport.

### ***6. Sales and Service Occupations***

This skill type category contains sales occupations, personal and protective service occupations and occupations related to the hospitality and tourism industries.

### ***7. Trades, Transport and Equipment Operators and Related Occupations***

This skill type category includes construction and mechanical trades, trades supervisors and contractors and operators of transportation and heavy equipment. These occupations are found in a wide range of industrial sectors, with many occurring in the construction and transportation industries.

This category includes most of the apprenticeable trades, including all of those related to the construction industry. Other occupations in this category usually require completion of college or other programs combined with on-the-job training. Progression to supervisory or self-employed contractor status is possible with experience. There is limited mobility or transferability of skills among occupations in this category due to specific apprenticeship, training and licensing requirements for most occupations.

### ***8. Occupations Unique to Primary Industry***

This category contains supervisory and equipment operation occupations in the natural resource-based sectors of mining, oil and gas production, forestry and logging, agriculture, horticulture and fishing. Most occupations in this category are industry specific and do not occur outside of the primary industries.

### ***9. Occupations Unique to Processing, Manufacturing and Utilities***

This category contains supervisory and production occupations in manufacturing, processing and utilities.

You now know how occupations are classified according to a work domain that is called “skill type”. We will now learn how the NOC further categorizes occupations according to different levels of skill required within each skill type.

### ***Skill Level***

In the context of the NOC, skill level corresponds to the type and/or amount of training or education typically required to work in an occupation. The NOC consists of four skill levels identified A through D and each is assigned a numerical value ranging from 1 to 6. To illustrate this concept, have a look at the following chart to see the relationship between the alphabetical value of each skill level and its accompanying numerical value.

Skill level is primarily based on the nature of education and training required to work in an occupation. This criterion also reflects the experience required for entry and the complexity of the responsibilities involved in the work, compared with other occupations. In most cases, progression to skill level A, from B, is not usually possible without completion of additional formal education, whereas progression from skill level D to skill level C is often achievable through on-the-job training and experience.

Each skill level is intended to reflect commonly accepted paths to employment in an occupation. Where there are several paths to employment, the skill level most commonly identified by employers is used, considering the context of the occupation and the trends in hiring requirements.

For *Trades, Transport and Equipment Operators and Related Occupations*, skill level B occupations may be coded with either a 2 or a 3. The reason for this is that there are more than 9 minor groups within the major group. When there are more than 9 minor groups within a major group, the skill level digit is increased by one, but corresponds to the same alphabetical character. The same applies for skill level C in *Occupations Unique to Processing, Manufacturing and Utilities*, where the second digit can be either 4 or 5. We will discuss Major and Minor Groups in more detail shortly. For now, just understand that the second digit of the NOC code represents the skill level of an occupation.

Chart: The 4 skill levels (both alphabetic characters and numerical values) used in the NOC.

<b>NOC Skill Levels</b>		
<b>Skill Level</b> (alpha)	<b>Skill Level</b> (digit)	<b>Nature of Education/Training</b>
<b>A</b> Occupations usually require university education.	<b>1</b>	<ul style="list-style-type: none"> <li>□ University degree at the bachelor's, master's or doctorate level.</li> </ul>
<b>B</b> Occupations usually require college education or apprenticeship training.	<b>2 or 3</b>	<ul style="list-style-type: none"> <li>▪ Two to three years of post-secondary education at a community college, institute of technology or CEGEP <i>or</i></li> <li>▪ Two to five years of apprenticeship training <i>or</i></li> <li>▪ Three to four years of secondary school and more than two years of on-the-job training, specialized training courses or specific work experience.</li> <li>▪ Occupations with supervisory responsibilities and occupations with significant health and safety responsibilities, such as firefighters, police officers and registered nursing assistants are all assigned the skill level B.</li> </ul>
<b>C</b> Occupations usually require secondary school and/or occupation-specific training.	<b>4 or 5</b>	<ul style="list-style-type: none"> <li>▪ One to four years of secondary school education <i>or</i></li> <li>▪ Up to two years of on-the-job training, specialized training courses or specific work experience.</li> </ul>
<b>D</b> On-the-job training is usually provided for occupations.	<b>6</b>	<ul style="list-style-type: none"> <li>▪ Short work demonstration or on-the-job training <i>or</i></li> <li>▪ No formal educational requirements.</li> </ul>

### **Review**

By now, you understand the importance and the practical nature of the NOC. You also know the two basic concepts that make up the structure of the NOC – Skill Type and Skill Level – and understand the purposes for each.

To facilitate your learning, visit: [www23.hrdc-drhc.gc.ca/2001/e/tutorial/levelc.shtml](http://www23.hrdc-drhc.gc.ca/2001/e/tutorial/levelc.shtml) to [try the first online quiz](#). This quiz is designed to help you identify areas of difficulty you may be experiencing with the material. It is comprised of 15 multiple-choice questions that review the material you have learned up to this point. You are encouraged to use all the NOC resources you have available, or the NOC Website. Please note that the quiz is voluntary and no personal information about you is recorded. It's fun, give it a try.

### **Management Occupations**

Management occupations are not assigned to a skill level category. Factors other than education and training (e.g., previous experience, ownership of real property and capital, ownership of intellectual property, inherent decision-making skills and organizational capabilities) are often more significant determinants for employment in management occupations.

Management occupations span the skill types of the entire classification structure and are found in all areas of the labour market. All NOC codes that begin with a zero represent management occupations. When the second digit is zero, this represents “senior” management occupations. To identify all other management occupations, the *second digit* (1 through 9) is the corresponding skill type.

To illustrate this concept let us look at the following:

- Management occupations in sales and services begin with 06. The 0 indicates that it is a management level occupation and the 6 indicates that the occupation falls under the Sales and Service skill type.
- Now consider an NOC code that has a zero as its *first* and *second* digit. Similar to the example above, we know that this occupation is a management occupation because it begins with zero. We also know that the second digit for management occupations may reflect the skill type. However, because there is no skill type 0, we can conclude that this is a senior management occupation.

### **Major Groups**

A *major group* is simply the first two digits of an NOC code. It is a roll-up, or, an aggregation of minor groups (which we will look at shortly). There are 26 major groups in the NOC and these are classified as follows:

<b>MANAGEMENT OCCUPATIONS</b>
<b>00</b> Senior Management Occupations
<b>01-09</b> Middle and Other Management Occupations

<b>BUSINESS, FINANCE AND ADMINISTRATION OCCUPATIONS</b>
<b>11</b> Professional Occupations in Business and Finance
<b>12</b> Skilled Administrative and Business Occupations
<b>14</b> Clerical Occupations

<b>NATURAL AND APPLIED SCIENCES AND RELATED OCCUPATIONS</b>
<b>21</b> Professional Occupations in Natural and Applied Sciences
<b>22</b> Technical Occupations Related to Natural and Applied Sciences

<b>HEALTH OCCUPATIONS</b>
<b>31</b> Professional Occupations in Health
<b>32</b> Technical and Skilled Occupations in Health
<b>34</b> Assisting Occupations in Support of Health Services

<b>OCCUPATIONS IN SOCIAL SCIENCE, EDUCATION, GOVERNMENT SERVICE AND RELIGION</b>
<b>41</b> Professional Occupations in Social Science, Education, Government Services and Religion
<b>42</b> Paraprofessional Occupations in Law, Social Services, Education and Religion

<b>OCCUPATIONS IN ART, CULTURE, RECREATION AND SPORT</b>
<b>51</b> Professional Occupations in Art and Culture
<b>52</b> Technical and Skilled Occupations in Art, Culture, Recreation and Sport

<b>SALES AND SERVICE OCCUPATIONS</b>
<b>62</b> Skilled Sales and Service Occupations
<b>64</b> Intermediate Sales and Service Occupations
<b>66</b> Elemental Sales and Service Occupations

<b>TRADES, TRANSPORT AND EQUIPMENT OPERATORS AND RELATED OCCUPATIONS</b>
<b>72-73</b> Trades and Skilled Transport and Equipment Operators
<b>74</b> Intermediate Occupations in Transport, Equipment Operation, Installation and Maintenance
<b>76</b> Trades Helpers, Construction Labourers and Related Occupations

<b>OCCUPATIONS UNIQUE TO PRIMARY INDUSTRY</b>
<b>82</b> Skilled Occupations in Primary Industry
<b>84</b> Intermediate Occupations in Primary Industry
<b>86</b> Labourers in Primary Industry

<b>OCCUPATIONS UNIQUE TO PROCESSING, MANUFACTURING AND UTILITIES</b>	
<b>92</b>	Processing, Manufacturing and Utilities Supervisors and Skilled Operators
<b>94-95</b>	Processing and Manufacturing Machine Operators and Assemblers
<b>96</b>	Labourers in Processing, Manufacturing and Utilities

As we have learned, the first digit represents the skill type for an occupation and the second digit of the code generally separates occupations according to skill level, or the type and duration of training required. Therefore, we can have several major groups within each skill type. In the example of *Sales and Service Occupations*, there are three major groups:

- 62** Skilled Sales and Service Occupations
- 64** Intermediate Sales and Service Occupations
- 66** Elemental Sales and Service Occupations

### ***Minor Groups***

At the three-digit level, the major groups are further divided into 140 *minor groups*. For example, major group 64, Intermediate Sales and Service occupations, includes eight minor groups:

- 641 Sales Representatives, Wholesale Trade
- 642 Retail Salespersons and Sales Clerks
- 643 Occupations in Travel and Accommodation
- 644 Tour and Recreational Guides and Casino Occupations
- 645 Occupations in Food and Beverage Service
- 646 Other Occupations in Protective Service
- 647 Childcare and Home Support Workers
- 648 Other Occupations in Personal Service

By now you have probably realized that each digit of the NOC code helps to further specify an occupation. At the minor group level, you can pinpoint a domain in which an occupation is carried out. However, we need to go one step further to identify an actual occupational group.

## **Unit Groups**

At the four-digit level, the system is expanded into 520 occupational groups identified as *unit groups*. Unit groups represent further specificity within an occupational domain. To continue with the same example from above, minor group 643, *Occupations in Travel and Accommodation*, is further divided into five unit groups:

6431	Travel Counsellors
6432	Pursers and Flight Attendants
6433	Airline Sales and Service Agents
6434	Ticket Agents, Cargo Service Representatives and Related Clerks (Except Airline)
6435	Hotel Front Desk Clerks

You have now learned the structure of the NOC and how codes are related to skill level and skill type. The question now is: how do you find these codes and use them in practical terms? This will be addressed in the following section, which will introduce you to the NOC tools that you can use to code and describe occupations. We will begin by looking at the *Occupational Descriptions* binder that contains all of the information that you need to code occupations. We will then look at the *NOC Matrix* – a tool to help you see the entire NOC structure. Finally, we will discuss the importance and usefulness of the *Index of Titles*.

## **Occupational Descriptions**

By now, you understand the need for occupational descriptions. Whether you are an economist analyzing labour market data for a specific occupation or an employment counselor helping someone determine what type of training to take, occupational descriptions help us understand an occupation using a standardized language.

Occupational descriptions are published for each of the 520 unit groups included in the NOC. Each description is referred to as an “NOC group”. Each description includes the following important elements:

### **Lead Statement**

The lead statement provides a general description of the occupation and the boundaries of the unit group. It also indicates the kinds of industries, workplaces or establishments where the occupation is found.

### **Example Titles**

Example titles are the occupational titles commonly found within the group. This list is not exhaustive. A more complete listing of alphabetical job titles can be found in the *NOC Index of Titles*.

## ***Main Duties***

The main duties section describes the most significant duties of the occupations in the group. It may include:

- ❑ a series of statements that can be applied to all occupations in the group;
- ❑ two or more sub-sets of occupations with statements that apply to each component; and/or
- ❑ a series of brief statements that are linked to specific occupations, that, while similar enough to be in the same group, can be described separately.

Statements in *Italics*, at the end of this section, identify a specialization that may exist within the occupation.

## ***Employment Requirements***

Employment requirements are prerequisites generally needed to enter the occupation. Several types of requirements are listed:

- ❑ type and level of education, starting with the lowest possible requirement for entry into the occupation;
- ❑ specific training required, including apprenticeship, on-the-job or internal training;
- ❑ experience in a related occupation, especially for supervisory or managerial occupations;
- ❑ licences, certificates or affiliations; and/or
- ❑ other requirements not dependent on formal education, such as athletic abilities, artistic talent or presentation of a portfolio.

While some occupations have very specific employment requirements, others have a wide range of acceptable requirements. The following terminology is used to indicate the level of the requirement:

- ❑ “*Is required*” indicates a definite requirement.
- ❑ “*Is usually required*” means that the qualification is generally expressed as required by a majority of employers, but not always mandatory.
- ❑ “*May be required*” describes requirements that some employers may impose, but are not universal.

Qualities related to personal suitability that may have an impact on employability are not described in this publication. These factors are subjective and are best assessed during the hiring process.

## Additional Information

Some descriptions include additional information to give details on:

- ❑ mobility patterns;
- ❑ progression to another occupation;
- ❑ trends and anticipated changes in employment requirements; and/or
- ❑ other information that may clarify the occupational description.

## Classified Elsewhere

The classified elsewhere section helps to clarify the boundaries of the unit group by identifying similar groups or occupations that are separately classified.

The diagram shows a box representing the occupational description for '1241 Secretaries (Except Legal and Medical)'. The text inside the box is as follows:

**1241 Secretaries (Except Legal and Medical)**  
Secretaries perform a variety of administrative duties in support of managerial and professional employees. They are employed throughout the private and public sectors.

**Examples of titles classified in this unit group**  
Executive Secretary  
Private Secretary  
Secretary  
Technical Secretary

**Main duties:**  
Secretaries perform some or all of the following duties:  
• Type correspondence, reports, minutes, notices and related material from shorthand, machine dictation and handwritten copy using a computer, word processor or typewriter.  
• Open and distribute incoming mail and other material and co-ordinate the flow of information internally and with other departments and organizations.  
• Schedule and confirm employer's appointments and meetings.  
• Answer telephone enquiries and relay telephone calls.  
• Set up and maintain information filing systems.  
• Grant visitors, ascertain status of business and direct visitors to employer or appropriate person.  
• Take shorthand and record and prepare minutes of meetings.  
• Arrange employer's travel schedules and make reservations.  
• Prepare routine correspondence and compile data, statistics and other information.  
• May supervise other office workers.

**Employment requirements**  
• Completion of secondary school is required.  
• Completion of a one or two-year college or other program for secretaries or  
• Previous clerical experience is required.

**Classified elsewhere**  
• Executive Assistants (1222)  
• Legal Secretaries (1242)  
• Medical Secretaries (1243)  
• Court Reporters and Medical Transcriptionists (1244)  
• Office managers (in 1227 Administrative Officers)

Annotations with arrows point to the following parts of the diagram:  
- **Lead Statement** points to the title '1241 Secretaries (Except Legal and Medical)'.  
- **Example Titles** points to the list of titles under 'Examples of titles classified in this unit group'.  
- **Main Duties** points to the 'Main duties' section.  
- **Employment Requirements** points to the 'Employment requirements' section.  
- **Classified Elsewhere** points to the 'Classified elsewhere' section.

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## The Matrix

A chart called the NOC *Matrix* shows the Major and the Minor groups, and the relationship between skill types and skill levels. This provides an overview of the entire classification structure. The *Matrix* is included in the NOC and it may also be viewed on the Internet by visiting [www.hrdc-drhc.gc.ca/noc](http://www.hrdc-drhc.gc.ca/noc). The skill types are represented in the columns while the skill levels are found in rows. Managerial occupations are found in the top portion of the chart, indicating the presence of management across all segments of the labour market.

While the Matrix can be helpful in identifying *major* and *minor* groups, it does not identify *unit* groups.

## Index of Titles

As useful as the unit group headings are, they do not always correspond with the real-world job titles we use every day. For this reason, the *Index of Titles* is a tool used to search for occupational titles that do not appear in the occupational descriptions.

### ***Scope of the Index of Titles***

The Index contains thousands of titles classified within the 520 occupational groups of NOC 2001. With millions of people in the employed labour force, it is impossible to capture all of the individualized job titles that could potentially exist. While the listing in the Index is not meant to be exhaustive, it does provide extensive coverage of commonly used and understood titles in the economy, as well as the more obscure and specific titles found in many occupational areas. Some of the more commonly used titles in an occupation are listed within each NOC unit group description.

Approximately 20,000 titles included in the Index have been carried forward from the original NOC, published in 1992, as they are still currently used in the labour market. Many new and additional titles are contained in the revised NOC 2001. These titles have been collected in ongoing occupational research conducted throughout the decade, since the implementation of the first edition.

To assist users, the Index includes both formally recognized occupational titles (e.g., radiography technologist) and less formal titles that are commonly used (e.g., X-ray technician). Some titles represent *occupations* (e.g., librarian; chef), while other titles refer to *specialisations* within an occupation (e.g., music librarian; pastry chef). Still, others correspond to a range of jobs (e.g., furniture assembler; sawmill machine operator).

### ***Inversions***

Occupational titles appear in the Index both in natural order (e.g., travel agent) and in inverted order (e.g., agent, travel). Inverted titles use a comma as a separator in the title string. To facilitate the location of particular generic titles, such as clerk, director, supervisor, etc., many inversions have been included.

However, when an occupational title is modified to provide more specificity, such as *criminal* lawyer, *tax* lawyer and *real estate* lawyer, and are all classified in the same NOC unit group, the Index includes the modified titles in natural order. It also includes the generic title, *lawyer*, but does not list all the inversions. When the modified titles are classified in different NOC unit groups (e.g., chemical engineer, civil engineer and industrial engineer), inversions are included in the Index to assist users in finding the appropriate unit group from the range of choices.

### **Modifiers**

Industry, institution or subject matter modifiers are added to many titles. This information is attached to the title following a dash (e.g., customer service supervisor – retail; electronics mechanic – avionics) to provide a means of differentiation among titles. Often, the extensions provide further information to clarify the placement of titles in the classification structure (e.g., painter – visual arts; painter – motor vehicle manufacturing). These modifiers should be considered when coding an occupational title.

### **Military Titles**

Titles of military occupations are indicated by adding the modifier *military* after a dash (e.g., sonar technician – military). In a very few cases where military appears in the title itself (i.e., military police officer; military pilot), the modifier is not added.

When a military occupation includes more than one NOC unit group, the title has been given a descriptive modifier in brackets as well as the military modifier, for example, medical officer (specialist) – military.

### **Concordance Between Languages**

The terminological research conducted for the translation and adaptation of the titles contained in this revised *Index of Titles* has dealt with a component that was not previously addressed. Concordances for all titles in both official languages have been identified, where two levels of concordance between English and French titles have been established. On one level, there is a unique, one-to-one correspondence between a title in one language and a title in the other language. The other level of concordance identifies correspondence between one title (or several where there are equivalent titles) to many titles in the other language.

[Try the second online quiz](http://www23.hrdc-drhc.gc.ca/2001/e/tutorial/levelb.shtml) ([www23.hrdc-drhc.gc.ca/2001/e/tutorial/levelb.shtml](http://www23.hrdc-drhc.gc.ca/2001/e/tutorial/levelb.shtml))

## **Putting It All Together**

Now that you have a better understanding of the structure and concepts surrounding the NOC, it is time to put what you have learned into practice. The remainder of your learning will bridge the gap between theory and application. We will concentrate on learning how to code an occupation based on minimal criteria. This will enable you to better understand the uses of the NOC. Finally, we will learn advanced tips and strategies to classify some of the more difficult occupations. So, let's go...

## ***Learning to Code***

The numerical hierarchy upon which the NOC is based is familiar to regular users of statistics; it offers the convenience of describing the entire structure, and all its underlying definitions, with one number.

It is important that all users learn how to properly code. Accurate coding is especially important to users who depend on data that is collected using the NOC. For example, when analyzing Census occupational data, an economist must be aware of the potential impacts of coding error.

Understanding how coding works will help users recognize errors, why they are made and how to avoid making the same errors in the future.

Before we start learning how to code, let us recapitulate what we have learned up to now.

The usefulness of the NOC occupational descriptions are enhanced by the fact that each occupational code reflects the skills required; this means that the NOC is directly focused on the work performed. Each occupation is defined in terms of the *type* and *level* of skill required.

The type of skill is assigned based on 10 broad occupational areas (0 to 9). These areas combine work type – such as management, work sectors – such as health or sales, and some other characteristics of work – for example, subject matter domains such as natural and applied sciences. The first digit of an occupational code normally reflects the skill type.

The level of skill required is based on the type of education or training needed to perform the work. There are four basic levels where occupations require either university, college/technical school or apprenticeship/training, high school/on-the-job training, or short demonstration training. Skill level is shown as the second digit of the NOC code, except for management occupations.

Together, the first and second digit make up the Major Group. The first, second, and third digit make up the Minor Group, with the third digit representing more specificity related to the area in which an occupation is carried out.

Unit group refers to the four-digit NOC code. The four-digit code represents the occupation within the area represented by the Minor Group.

If you're thinking, "Ok, I already know all of this" that's great – you are almost an expert in the NOC! Now, your last challenge will be to apply what you have learned.

## ***Classification Criteria***

As much as a classification system is important, it cannot deliver valid results without having a reliable method for organizing data. This is the point where learning how to properly classify occupations is critical.

Often, the easiest way to classify occupations is achieved by using the *Index of Titles*. While this is an easy method, it is not necessarily the most reliable method. The person coding an occupation must always keep in mind that occupational titles defined by only one source does not always coincide with the NOC definition.

For example, most private companies create their own occupational titles without consulting the NOC. Therefore, a “customer service representative” who works for a particular company may in fact be a “telemarketer” according to the NOC. This case exemplifies one of the major fallacies of the coding practice – the assumption that all occupational titles and descriptions are universal or standardized – they are not and the coder must recognize this fact.

Unfortunately, there is no simple formula or recipe to identify whether an occupational title or description is the same as the title and description in the NOC. However, we will discuss the most important criteria to consider when assigning codes. You may inevitably come across any of the following challenges when coding:

## **Coding Examples**

### **1. Coding an occupation with only a job description**

A personnel administrator in a large corporation wants to find the occupational code for a proposed new position within the company. The duties indicate the new position is assistant to a senior executive and it has been decided that a community college diploma in business administration will be required. The company wants to use the NOC to classify their new position. The NOC may also be used to assign a title to the position. Here is how the administrator would locate the occupational code for the position.

The administrator identifies the skill type and skill level specified in the job description and consults the *Occupational Descriptions* binder. Starting with the skill type, she concludes that the occupation is part of the group called *Business, Finance and Administration Occupations*, all of which start with the digit 1.

Next, she considers that community college graduation indicates skill level B, which can be reflected as either a 2 or a 3 in the second digit of the code. She finds three *major groups*: professional (11), skilled (12) and clerical (14), so the position will be in Major Group 12: *Skilled Administrative and Business Occupations*.

Next, she considers the four minor groups in this category, which are delineated by area or domain of work:

- 121 Clerical Supervisors
- 122 Administrative and Regulatory Occupations
- 123 Finance and Insurance Administrative Occupations
- 124 Secretaries, Records and Transcriptionists

The new position is not supervisory and does not involve finance or insurance, so the choice is narrowed down to *minor groups* 122 and 124. After reviewing the 8 *unit groups* included in *Administrative and Regulatory Occupations*, the administrator finds that the most relevant unit group is 1222 Executive Assistants. The NOC description of duties includes such elements as analysis, research and meeting independently with clients. However, the proposed position is oriented more towards handling correspondence and scheduling meetings on behalf of the executive and therefore, she decides that this is not the appropriate code.

Turning to minor group 124, the administrator finds that *unit group* 1241 Secretaries (Except Legal and Medical) is a possibility, since the other unit groups in that category are specialized.

The duties for NOC 1241 Secretaries listed in the *Occupational Descriptions* closely match those listed in the new job description. Also, the description indicates that completion of a one- or two-year college diploma is a typical requirement. She checks the “Classified elsewhere” section and finds that none of them are appropriate, so codes the position as 1241 Secretaries. Using the example titles, she assigns the “executive secretary” title to the company’s new position.

## **2. Coding an occupation using the title and description**

In this example, a paralegal in an immigration lawyer’s office wants to find the occupational classification code for a client who is seeking to immigrate to Canada. He knows that the client assists with patient care in a dentist’s office, and that she will be seeking similar work in Canada. Here is how he would locate the code for her occupation.

The paralegal knows that the title of the client’s previous job in another country was “Clinical Assistant”. He uses his copy of the NOC *Index of Titles* and looks at the listings. Clinical Assistant is shown with a reference to unit group 3414. The paralegal locates the entry for classification 3414 in the NOC *Occupational Descriptions* binder, and he discovers that this group does not include dental occupations. He looks in the Index again, this time under “dental”. There are nearly 40 titles beginning with the word “dental”. There are a number of assistants listed in the dental field and he finds *dental assistant* and *dental clinical assistant* titles, both referring to the same unit group, 3411.

In the NOC, the paralegal locates unit group 3411 Dental Assistant. The duties and education requirements are very similar to the experience and qualifications outlined in the client’s resume. The paralegal checks the “Classified elsewhere” section and sees that there is also a related occupation called 3223 Dental Technicians. He reviews that description and notes that the duties relate to the manufacture of dentures, which he realizes is not relevant to his client. After reviewing all of the dental related occupations and their descriptions, the paralegal concludes to code the occupation as 3411 Dental Assistant.

## **3. Coding an occupation with only the title**

Occasionally, the only information you will have in order to assign an NOC code is the title of an occupation. In this case, when there is no way of obtaining additional information, use the Index to search for the occupational title or for the closest approximation, and use the corresponding NOC code. Be sure to look at possible inversions as well.

When titles do not appear in the *Index of Titles*, assign an NOC code that reflects as closely as possible the essence of the work. For example, the title *forensic scientist* or its inversion *scientist, forensic* does not appear in the Index. In this example, we would assign a 2 (Natural and Applied Sciences) for the first digit given that scientist forms part of the occupation title. Secondly, we can assign digit 1 as the second digit of the code because scientists are classified in skill level 1 of the NOC. Thirdly, we narrow our search by looking at the minor groups for Major group 21. We have several options, however, there are two that relate much more to the occupation that we are trying to code: 211 – Physical Science Professionals and 212 – Life Science Professionals. At this point, you must exercise your own judgement as to which minor group and unit group you choose.

Remember that the NOC is only as good as the person using it. Guessing should be avoided unless it is absolutely necessary.

## Coding Tips

- ❑ Apprentices are coded in the same group as qualified workers.
- ❑ Residents and articling students are coded in their respective professional groups.
- ❑ Supervisors of professionals are usually classified within the occupational group they supervise, in skill level A.
- ❑ Supervisors of other occupations are usually classified in specific unit groups in skill level B within the same skill type as those supervised.
- ❑ Self-employed contractors and supervisors in most industries are usually classified as skill level B.
- ❑ Management occupations start with 0, and for middle and other management occupations, the second digit (1 to 9) of the major group classification indicates the skill type, rather than skill level.
- ❑ In certain cases, you may consider the wage that a person is making to help you code their occupation. For example, a person may indicate that they work as a manager in a retail store. If the person is making minimum wage, this may be an indication that the occupation is supervisory rather than managerial.

## NOC Challenge

Congratulations, you have completed the NOC Training Tutorial! You are now invited to [take the NOC Challenge](http://www23.hrdc-drhc.gc.ca/2001/e/tutorial/levela.shtml). ([www23.hrdc-drhc.gc.ca/2001/e/tutorial/levela.shtml](http://www23.hrdc-drhc.gc.ca/2001/e/tutorial/levela.shtml)) Similar to the two quizzes, the NOC Challenge provides you with feedback about your knowledge and ability to apply the NOC. The NOC Challenge is comprised of 25 multiple-choice questions directly related to what you have learned. Users who take the Challenge and score 75% or more will receive a Completion Certificate at the end of their online session. While the Challenge is voluntary, we strongly urge you to try it. Other than your name and e-mail address, no other personal information is recorded and your score is only for you to see.

## For more information...

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