



Guideline 5: Workforce Analysis



Human Resources
Development Canada

Labour Program

Développement des
ressources humaines Canada

Programme du travail

Canada

TABLE OF CONTENTS

INTRODUCTION.....	1
PART A: LEGAL FRAMEWORK.....	1
The Goal.....	1
Conducting A Workforce Analysis.....	2
Determining Numbers Of Designated Group Members.....	2
<i>External Representation.....</i>	<i>2</i>
<i>“Grandparent” Clause.....</i>	<i>3</i>
New Employment Equity Plan.....	3
Summary	3
PART B: PRACTICAL APPLICATION.....	5
The Workforce Analysis.....	5
Flexible Approach in Regulations.....	6
What Is A Workforce Analysis?.....	7
Job Groupings.....	8
External Data Sources.....	9
Steps In A Workforce Analysis.....	13
1. <i>Compile Internal Data.....</i>	<i>14</i>
2. <i>Review Job Descriptions And Code Jobs.....</i>	<i>14</i>
3. <i>Design The Analysis Framework.....</i>	<i>17</i>
4. <i>Extract And/Or Calculate External Representation Rates.....</i>	<i>29</i>
5. <i>Calculate the Internal Representation Rate and Representation Gap.....</i>	<i>29</i>
Determining ‘Significant’ Under-Representation.....	31
<i>Size of percentage gap.....</i>	<i>31</i>
<i>Size of gap in terms of actual numbers of designated group members.....</i>	<i>32</i>
<i>The big picture.....</i>	<i>33</i>

Gray areas..... 34

6. Draw Conclusions And Prepare Summary..... 34

PART C:..... 41

INFORMATION DOCUMENTS.....41

APPENDIX A..... 41

EXAMPLES OF DIFFERENT METHODS USED IN CONDUCTING A
WORKFORCE ANALYSIS.....41

Specific Examples.....41

Example 1: Basic EEOG Comparison..... 41

Example 2: Basic NOC Unit Group Comparison..... 43

Example 3: Regional Comparison..... 45

APPENDIX B:..... 47

TABLES CONSTRUCTED USING BROWSER AND XV SOFTWARE.47

APPENDIX C..... 51

OTHER STATISTICAL TOOLS AVAILABLE TO ASSIST EMPLOYERS
.....51

Publications..... 51

Software Products..... 52

APPENDIX D..... 55

DEFINITIONS OF EMPLOYMENT EQUITY OCCUPATIONAL GROUPS55

APPENDIX E:..... 59

CENSUS METROPOLITAN AREAS.....59

APPENDIX F..... 61

DETAILED NOC CODING INSTRUCTIONS.....61

INTRODUCTION

This Guideline is one of a series intended to help employers, employee representatives, and other interested parties understand how to conduct an effective workforce analysis as required by the *Employment Equity Act*

Guidelines provide general direction and practical pointers which reflect best practices. They are not, however, a template. Readers should consider the specific circumstances of their own organizations as they use the Guidelines. Other documents to consult include the *Act* and *Regulations*, and documents available from the Canadian Human Rights Commission (CHRC) relating to the audit process.

PART A: LEGAL FRAMEWORK

The Goal

The goal of employment equity is to achieve equality in the workplace. [Act, section 2]

Numerically speaking, an employer would approach this goal when persons in designated groups in the employer's workforce have achieved a degree of representation in each occupational group in the employer's workforce that reflects their representation in the relevant labour market. The relevant labour market would be either:

- the entire Canadian workforce (*i.e., as defined in the Act, persons in Canada of working age who are willing and able to work*); or
- relevant segments of that workforce which are based on qualification, eligibility, or geography, and from which the employer would reasonably be expected to draw employees. [Act, s. 5(b)]

“Occupational group” means one of the fourteen groups listed in Schedule II of the Regulations. This list is based on the National Occupational Classification (NOC).

The most appropriate of the above two standards should be chosen. [Regs, s. 6(1)(b)]

Conducting A Workforce Analysis

Every employer must conduct a workforce analysis to determine the degree of under-representation of designated group members in each occupational group in the employer's workforce. This analysis must be conducted according to requirements set out in the Regulations. [Act, s. 9(1)(a)]

The employer must determine the degree of under-representation by comparing the designated group representation in each occupational group in its workforce to the designated group representation in the relevant external labour pool.

The relevant external labour pool is that pool where the employer would normally be expected to draw or recruit employees.

Determining Numbers Of Designated Group Members

Based on employment records, the employer must determine the number of women in each occupational group in its workforce. [Regs. s. 6(1)(a)]

Based on information collected in the workforce survey, the employer must determine the following information for each occupational group in its workforce:

- the number of Aboriginal persons;
- the number of persons with disabilities; and
- the number of members of visible minorities.

The identification of members of the three above-mentioned designated groups must adhere to the voluntary and confidential self-identification process as well as the definitions set out in the *Act* and *Regulations*.

External Representation

For the purposes of this comparison, the employer shall use labour market information on members of designated groups who are qualified for jobs within each occupational group in the employer's workforce.

See Part C, Appendix B for a list of publications containing information and data on designated group members.

These estimates shall be for the geographic area where the employer would normally be expected to draw or to recruit employees. These statistics shall be based on information provided by the Minister of Labour (*i.e. the Employment Equity Data Report*), or on other information which the Minister has deemed to be relevant *and reliable*. [Regs., s. 6(2)]

“Grandparent” Clause

If an employer conducted a workforce analysis of all or part of its workforce before October 24, 1996, (the coming into force of the Act and Regulations), it need not conduct another workforce analysis if:

Note that the Regulations now require employers to conduct an analysis using the National Occupational Classification and that the analysis must take into account information on hirings, promotions and terminations.

- the analysis is up-to-date – that is, it takes account of up-to-date workforce survey results; and
- a new analysis would likely give the same results as the previous one. [Regs., s. 6(3)]

New Employment Equity Plan

An employer does not have to re-do its workforce analysis each time it prepares a new employment equity plan, provided that the previous analysis has been kept up to date by periodic revisions which take account of the updating of workforce survey results and new Census data. [Regs., s. 6(4)]

Summary

The employer must prepare a summary of the results of the workforce analysis. This summary is used subsequently in the preparation of the employment equity plan. [Regs., s. 7] This summary must be retained by the employer for two years after the period covered by the employment equity plan to which it relates. [Regs., s. 11(f) and s. 12(2)]

PART B: PRACTICAL APPLICATION

The Workforce Analysis

The workforce analysis is a key component of an effective employment equity program. The intention of the workforce analysis is to determine if designated group members are under-represented in any occupational group of the employer's workforce. Information about areas of under-representation identifies potential problem areas and provides *one* indication of barriers that may exist in the employer's employment systems, policies and practices.

An identification of under-representation in any of the fourteen designated Employment Equity Occupational Groups (EEOGs) is important for two other employer obligations under the *Act*:

1. **Employment Systems Review** It triggers the requirement to undertake a review of all employment systems, policies and practices related to that occupational group to identify any barriers that may be responsible for the under-representation of designated group members.
2. **Numerical Goals** It triggers the requirement to set numerical goals for the hiring and promotion of designated group members in that occupational group.

Not only does the workforce analysis identify potential problem areas in terms of employment systems, policies and practices, it also reveals the severity of the under-representation in any given occupational group. The degree of under-representation is one of the factors to be considered in setting hiring and promotion goals in the employer's employment equity plan. Therefore, the successful implementation of employment equity requires a sound and well-designed workforce analysis based on accurate employment data.

See **Part C, Appendix C** for a summary of the 14 EEOGs.

For further information please refer to **Guideline 6: Employment Systems Review**.

For further information please refer to **Guideline 6: Employment Systems Review** and **Guideline 7: Employment Equity Plan**.

Employment data includes total number of employees, representation of designated group employees by industrial sector, geographic location, employment status, occupational group, salary range, hirings, promotions and terminations.

Accurate data provides employers with information that is essential for conducting an effective employment systems review, for setting goals in the organization's employment equity plan and for monitoring progress.

Flexible Approach in Regulations

The *Regulations* were intentionally drafted in order to allow employers flexibility in adapting the legal requirements to suit their own particular organizational culture and structure. The *Regulations* provide a broad framework for undertaking a workforce analysis, but do not provide details about what employers must do in particular circumstances.

Flexible concepts of “reasonableness,” “appropriateness,” and “relevance” are measuring rods in several key areas in the legislation. This means that employers are required to use their best judgement in implementing the legal requirements.

For example, in a workforce analysis an employer must determine what is:

- the “appropriate” external workforce, and
- the “relevant” recruitment area,

that should be used in the workforce analysis for purposes of comparison?

What is appropriate or relevant will vary from one organization to another, and from one situation to another. Organizations vary in size, geographic location, occupational distribution, skill levels, and workplace culture, among other things. A decision must be based on the facts of a specific situation. This is one reason why it was not possible nor desirable to define such terms as “appropriate” or “relevant” in the legislation itself.

*The section in this Guideline on “**Design the Analysis Framework**”, page 12, provides further information about using judgement in structuring an effective workforce analysis.*

For example, employers would usually advertise nation-wide when recruiting for highly-skilled senior positions. On the other hand, for unskilled or very junior positions the employer might only advertise locally. Based on these two examples, the employer would likely use national representation data when comparing internal representation of senior positions to external representation data and metropolitan or local level data when comparing internal representation of unskilled positions. It should be noted, however, that for junior “entry-level” positions, the employer may also wish to advertise nationally, depending on the tasks and the expected career progression associated with the position.

Where little or no experience is required for certain positions, the employer might also choose to compare internal representation data on it’s workforce to external data based on educational attainment. Statistics on the working age population (aged 15 and over) provides a broader analysis than the NOC unit group data which only includes persons who have had some work experience in a seventeen month period. Thus, what is “appropriate” in and given situation should be based on a thorough knowledge of the skill or educational levels required for the positions in the employer’s workforce.

The best strategy for ensuring compliance is to make an honest and thorough effort to implement the purpose clause of the *Employment Equity Act*, when fulfilling the specific requirements of the *Act*

What Is A Workforce Analysis?

A workforce analysis is essentially a comparison of two separate labour force data sets. The representation of designated group members by occupational group in the employer’s internal workforce is compared to the availability of qualified designated group members in the external workforce in the relevant recruitment area.

The relevant recruitment area is that geographic area where the employer would reasonably be expected to draw or recruit employees. It is critical to give careful consideration to the external workforce that is being used for the purposes of comparison. Not using the relevant external workforce data could be costly in terms of time and human resources and could result in the setting of inappropriate employment equity goals.

*The relevant recruitment area can be national, provincial or metropolitan. See **Appendix D** for a listing of Census Metropolitan Areas.*

Recruiting areas vary depending upon the level of responsibility and the degree of specialization of the occupation. Usually, the higher the degree of responsibility or specialization required for the job, the wider the recruiting area.

Job Groupings

"Occupational group" is a defined term in the *Regulations*, and refers to one of the fourteen Employment Equity Occupational Groups (EEOG's) listed in Column I of Schedule II of the *Regulations*.

The fourteen EEOG's are groupings of 522 individual jobs (occupational unit groups) which have been classified according to the new system, the National Occupational Classification (NOC). Each of the 522 different jobs has been assigned a four-digit NOC code. These coded jobs have been grouped together into the fourteen broad EEOG's ranging from "Senior Managers" to "Other Manual Workers".

*See **Part C, Appendix C** for an overview of the 14 EEOGs.*

The new National Occupational Classification (NOC) is a comprehensive system that reflects the current occupations in the Canadian labour market. It classifies and describes jobs according to "skill type" (the type of work performed) and "skill level" (the minimum level of education or experience required for the job).

Sometimes employment equity practitioners speak of a workforce analysis at *the EEOG level* or the four-digit NOC level. In practice, this refers to the level of detail of the analysis:

An analysis at the *EEOG* level indicates a very general analysis, examining large groupings of jobs in each of the fourteen *EEOG*'s.

An analysis at the four-digit level indicates a very fine-tuned analysis, examining representation of designated group members in the 522 individual jobs (also known as occupational unit groups) which make up the fourteen *EEOG*s.

The most effective workforce analysis will examine data at both levels.

Since employers must code their job titles according to the *NOC* at the four-digit level and then regroup the *NOC*s into the fourteen *EEOG*s anyway, it would be wise to retain to retain this occupational data at the four-digit level for eventual review purposes.

External Data Sources

The Minister of Labour publishes reliable and detailed employment equity data for workforce analysis purposes. These data provide information by occupation (e.g., the *EEOG* or detailed four-digit *NOC* unit group levels) and the highest level of schooling by field of study for the working age population (aged 15 and over), including designated group members.

See **Part C, Appendix B** for further information on the list of data available.

Depending on the size, occupational distribution as well as the occupational skill levels and requirements of the employer's workforce, an employer may choose to base the workforce analysis on:

*A fuller discussion of these options is provided below under **Step 3: Design the Analysis Framework***

- *EEOG*-level comparisons;
- *NOC* level comparisons;
- a comparison of *EEOG* categories which have been "tailored" to suit the particular *NOC* codes found in the employer's workforce; or
- the working age population (aged 15 and over).

WORKFORCE ANALYSIS CHECKLIST

1. Compile and tabulate data on designated group employees.
2. Code all individual job titles according to the NOC four-digit level and regroup these into the fourteen EEOGs.
3. Design the analysis framework bearing in mind, for example, the relevant geographic recruiting area and the required educational, professional and skill levels required in the organization.
4. Calculate the internal and external representation rates of each designated group by occupational category.
5. Calculate the representation gap by comparing the actual number of designated group employees in the organization with the expected number based on the external representation rate by occupational group.
6. Prepare a summary of the findings of the workforce analysis.

A “tailored” EEOG would only include those NOC unit groups in a specific EEOG actually present in the employer’s workforce. For example, the “Professional” EEOG contains eighty-four NOC four-digit unit groups. If only fifty percent of these unit groups are represented in the employer’s workforce, these unit groups should be totalled to construct a “tailored” EEOG for Professionals.

Geographically, representation statistics are available for Canada, the provinces, the territories and the Census Metropolitan Areas (CMAs). Further detailed geographic level data will also be available in 1999, upon request, which give representation statistics for the geographic areas serviced by particular Human Resource Canada Centres (HRCCs).

The source of these data is the Census of Canada that is conducted every five years, as well as the Health Activity Limitation Survey (HALS), conducted in 1991 by Statistics Canada.

New employment equity data based on the 1996 Census of Canada will be released by the Minister of Labour in late 1998.

Steps In A Workforce Analysis

There are **six** basic steps necessary for an effective workforce analysis.

1. Compile internal data.
2. Review job descriptions and code jobs.
3. Design the analysis framework.
4. Extract and/or calculate external representation rates.
5. Calculate the internal representation rate and representation gap.
6. Draw conclusions and prepare summary.

These six steps are elaborated below.

1. Compile Internal Data

The first step involves compiling data on the employer's internal workforce.

*For further information please refer to **Guideline 4: Collection of Workforce Information.***

Data obtained from the workforce survey and other sources (e.g. employment records for women) on designated group members must be compiled and tabulated.

2. Review Job Descriptions And Code Jobs

All internal jobs, identified by essential duties and responsibilities, should be coded according to the National Occupational Classification (NOC) at the four-digit level and then regrouped into one of the fourteen NOC-based Employment Equity Occupational Groups (EEOGs).

Please note that this coding work must be done for the annual employment equity reports filed by June 1 of each year with the Minister of Labour. These new NOC-based EEOGs replace the previous twelve SOC-based EEOGs.

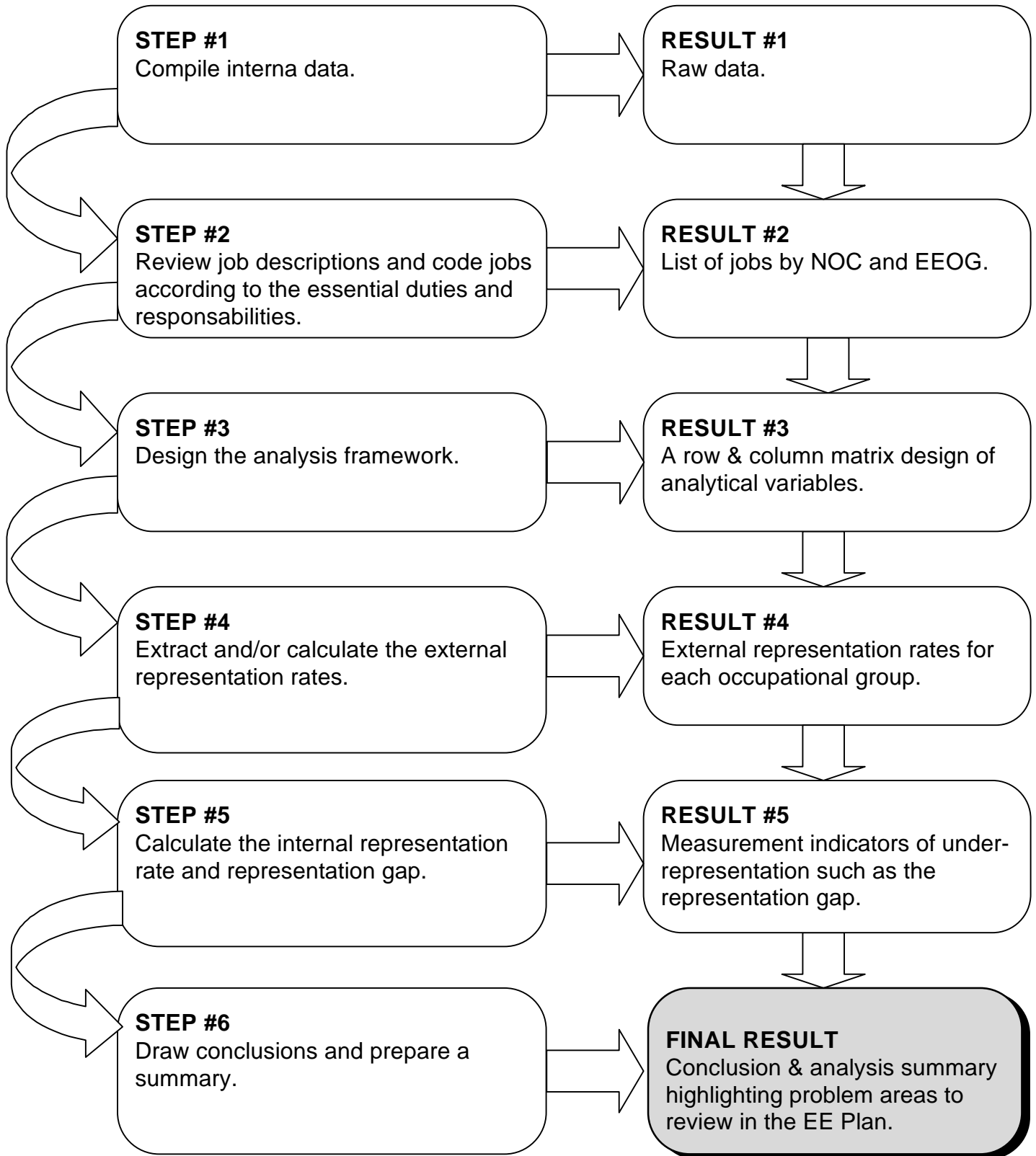
This is a very important step, since it identifies the skill levels or education required for the jobs in the employer's workforce, which in turn will, in part determine:

- the appropriate external population for comparison purposes; and
- the appropriate geographic area from which the employer would normally be expected to recruit employees.

The following diagram indicates the process involved in coding. Essentially, jobs should be coded according to the highest skill required for the job. In cases where the tasks performed are multiple (possibly reflecting more than one NOC) and equal in terms of skill level, the NOC should be assigned according to the largest percentage of time devoted to the task.

*For more information on coding jobs into NOC, please refer to the HRDC publication entitled **National Occupational Classification: Occupational Descriptions** See **Appendix F** for an example.*

STEPS AND RESULTS IN A WORKFORCE ANALYSIS



It is essential to code each job accurately at the four-digit level since subsequent goals are required for each Employment Equity Occupational Group (EEOG) where under-representation is identified. Therefore, the employer must know which jobs are in which occupational group. Again, for subsequent review purposes, it is strongly recommended that the employer retain the four-digit level information.

3. Design The Analysis Framework

The development of the analytical framework is the most critical step. To a large extent, the analytical framework chosen will determine the usefulness of the entire analysis. Again, there are no hard and fast rules to apply and the use of the employer's best judgement is essential, keeping in mind that the goal of the analysis is to identify areas of significant under-representation within the organization which could be indicative of potential barriers.

Before undertaking the analysis, , the employer must determine what kinds of comparisons make sense for that particular organization, based on factors such as size, structure and location of the organization's operations, geographical considerations, occupational requirements for the different jobs in the workforce, and the occupational categories in which jobs within that workforce are found.

Before undertaking the analysis, , the employer must determine what kinds of comparisons make sense for that particular organization, based on factors such as size, structure and location of the organization's operations, geographical considerations, occupational requirements for the different jobs in the workforce, and the occupational categories in which jobs within that workforce are found.

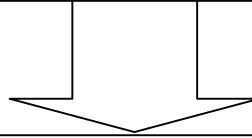
Size, Structure, and Location of Operations

The employer will first need to consider the size, organizational structure, and geographic scope of its operation. This will determine whether there should be separate analyses for different provinces, different branches, or different divisions of a single employer.

NOC CODING STEPS

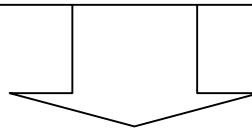
STEP #1” Review the job description

Update the list of essential duties and responsibilities for each job description.



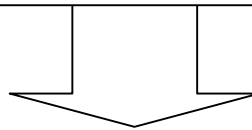
STEP #2: Determine the skill level (2nd digit of the NOC code)

Rank each duty or responsibility according to the minimum skill level required to perform each task.



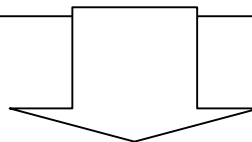
STEP #3: Determine the skill type (1st digit of the NOC code)

From the tasks ranked highest by skill level, determine the skill type according to type of tasks performed most often even if these tasks are performed less often than lower ranked tasks



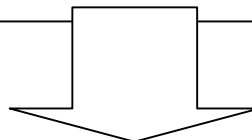
STEP #4: Determine the minor group & unit group (3rd and 4th digits)

With the first two digits « the major group » refer to the NOC manual to determine the minor group and then the unit group.



STEP #5: Identify the Employment Equity Occupational Group (EEOG)

Refer to the Employment Equity Occupational Group Structure to locate the 4-digit NOC unit group code.



FINAL RESULT

A detailed 4-digit NOC unit group code and the associated Employment Equity Occupational Group (EEOG) for every job. Occupational Group (EEOG) #5 Supervisors.

While a small employer would likely need to do a simple analysis appropriate to the composition of its particular workforce, a large employer might need to undertake a more in-depth analysis. Depending on its particular situation, it might design an analytical framework containing separate analyses for individual divisions of its operation, or for operations in different geographical locations.

For example, if an employer has establishments across Canada, it might consider conducting the workforce analysis by:

- specific provinces or CMAs; or
- company divisions within each province or CMA.

This would be advisable, particularly where the concentration of certain designated groups is significantly higher in some provinces or CMAs than in others.

By way of illustration, there is a higher concentration of visible minorities in Toronto than in Winnipeg, but a higher concentration of Aboriginal persons in Winnipeg than in Toronto. Thus, a representative workforce in Toronto may not be truly representative in Winnipeg.

What Is the Appropriate External Workforce?

The employer will need to decide on the appropriate external workforce, for the purposes of making the comparison. In other words, from what “**external feeder group**” would the employer normally be expected to draw its employees?

A thorough understanding of the purpose of the analysis is essential to determine the appropriate feeder groups that should be included in the external representation figures. The objective is to compare the internal representation of the designated groups (within the employer’s workforce) with an external pool of qualified candidates (the “external feeder group”).

An external feeder group is defined as the pool of qualified individuals eligible for a particular job, within a particular recruitment area.

There are two main considerations in choosing the appropriate external feeder group:

1. **From what external population** would the employer normally be expected to draw employees, taking into account valid occupational requirements?

In other words, what are the qualified segments of the Canadian workforce from which the employer should normally recruit for this position?

Having determined the appropriate segments of population to consider in the analysis, the employer proceeds to the next consideration:

2. **From what geographic area** – local, regional, or national – would the employer normally be expected to draw its employees?

In other words, what is the “**relevant recruitment area**” for the positions in question?

These two key considerations – external population and geographic area – are discussed in more detail below.

1. **From what external population within that geographic area would the employer normally be expected to draw employees, taking into account the skill levels and educational requirements for the job?**

An employer must determine, for each separate EEOG or NOC unit group being compared, the appropriate external population to be used in its analysis. In making this determination, the employer must consider any particular occupational requirements for the positions in question such as education, skill level and experience.

In determining which segments of the Canadian workforce are qualified for the jobs in question, employers could consider the following options:

- Where skill levels or educational attainment are transferable among certain occupations, the feeder group could include individuals with experience in one of several detailed NOC unit groups or one of the fourteen EEOGs.
- In other cases, the feeder group can be comprised of only those individuals with experience in the same occupation, in other words, the same detailed NOC unit group.
- Where little or no experience is required but specific educational attainment is required, the feeder group may be comprised of all persons who graduated with a specific level of schooling in one or more fields of study.
- Where no experience or special skills are required, an employer could also consider the entire working age population, aged 15 years or more.

In making this determination about the appropriate segments of the Canadian workforce from which to recruit (and hence on which to base its analysis), an employer would consider the following factors:

- **Is a particular level of educational attainment required?**

If a certain level of educational attainment is a valid requirement for the positions in question, but experience is not necessarily required, the appropriate segments of the Canadian workforce could be identified by highest level of schooling and possibly major field of study.

This would provide a broader recruitment base than looking only to those who have been employed in this particular occupation before (i.e. looking at the representation figures for individual NOC unit groups or the relevant EEOGs).

- **Is previous experience a job requirement? Or is no practical experience necessary?**

If an employer requires experience for a particular job or group of jobs, then it would recruit for those jobs among persons who have been employed in that type of work previously. This means that they would examine the relevant NOC four-digit unit group representation figures, or the EEOG representation figures, in the relevant recruitment area.

On the other hand, if no experience is required, then the employer could broaden the external feeder group to include all those in the total working age population (aged 15 and over) who have the required educational level in the required major field of study.

If there were no skill, education or experience requirements, the external feeder group would consist of the entire working age population in the relevant recruitment area.

- **If previous experience is required, could that experience be relevant or transferable to other jobs?**

Where work-related experience is required, often this could be experience in a number of different areas. For example, for middle-level management positions, management experience might be essential, or alternatively experience in the subject matter, or in law or teaching, could be relevant. Therefore, the external feeder group could include all those NOC unit groups which would be consistent with the required experience. Limiting the feeder group just to “middle-level managers” might be unnecessarily restrictive, and would exclude many qualified designated group members with the requisite skills and work experience.

Data inherently conservative

Employers are reminded that external representation figures are inherently conservative, and wherever possible, employers should err on the side of generosity in choosing appropriate segments of the Canadian workforce for the purposes of comparison.

For example, the external representation figures calculated using the Browser and XV Software, based on the EEOG and NOC unit-groups, only include persons who have had some work experience in the seventeen month period prior to the Census. They do not include all those who are qualified and potentially available to work – for example, those who have not yet entered the labour force or those who have become discouraged because of systemic or attitudinal barriers and have dropped out of the labour force.

Thus one would expect that in reality the external representation figures are higher and a “fair” employment equity plan would set goals above those representation figures calculated using the Browser of XV Software. Employers can, however, determine to some extent what proportion of designated groups members not in the labour force have the required skills for employment by using Tables 8 and 9 which shows the representation of women, Aboriginal peoples and members of visible minorities by highest level of schooling and by major field of study. Tables 15 and 16 provide the same information for persons with disabilities

2. From What Geographic Area Would the Employer Normally be Expected to draw employees? (“Relevant Recruitment Area”)

Having decided on an appropriate external population for the purposes of the comparison, based on the requirements for the jobs in question, the employer must next determine the geographic area from which it would be expected to hire during external recruitment. In other words, it must determine the “relevant recruitment area”.

The “relevant recruitment area” could be either national, provincial or local (i.e., Census Metropolitan Area). The recruitment area for positions that require a higher skill or educational level would normally be either Canada-wide or province-wide. For lower levels of skill or experience, employees would be normally drawn from local or province-wide populations. Other factors, such as provincial

licensing requirements, for instance, could also influence decisions about the “relevant recruitment area”.

For example, it is likely that positions such as secretaries or manual workers would be hired through local recruitment at the CMA level whereas technical and professional occupations would more often be filled through provincial or national recruitment. In the case of highly specialized or senior management positions, nation-wide recruitment is usually the norm, whether by a human resources “head-hunter” agency, or through national advertising by the employer itself.

3. Level of Occupational Detail – EEOGs, NOCs, or a Combination:

Having determined the relevant recruitment area and the appropriate population within that area with which to compare internal representation, the employer will finally need to decide on the level of detail of the actual analysis. The following questions should be considered in this regard:

- *Does it make sense to compare entire EEOGs in my organization? Do the fourteen EEOGs truly reflect the composition of my workforce?*

It is possible to examine representation for all jobs according to each broad EEOG of which they are a component.

An EEOG is composed of many job titles (four-digit NOC unit groups) grouped together. If there are only a few such job titles in a particular EEOG in the employer’s workforce, then it might not make sense to compare with external data which represent the entire EEOG.

- Should EEOGs, which have been “tailored” to more accurately represent the composition of the workforce, be used for the purpose of the comparison?

Another option is to conduct the analysis on the basis of “tailored” EEOGs, by choosing and totalling only those NOC unit groups within a specific EEOG which are in the employer’s workforce.

In other words, the employer could identify those NOC four-digit unit groups within a specific EEOG which more accurately mirror the employer’s workforce and sum them to create a “tailored” EEOG to be used as a basis of comparison between the internal distribution of job groups and the external representation data.

Usually the employer should identify those NOC four-digit unit groups within a specific EEOG which more accurately mirror the employer’s workforce and sum them to create a “tailored” EEOG to be used as a basis of comparison between the internal distribution of job groups and the external representation data.

- *Should I be conducting an analysis for the different four-digit NOC unit groups in my workforce (i.e. an analysis for the different kinds of actual jobs in my workforce, instead of larger clusters of jobs)?*

Sometimes an analysis for specific jobs in the organization (four digit NOC unit groups) is more appropriate than for job clusters. If the job clusters within the EEOG are not similar and do not require the same level of expertise, then the analysis should be based on the NOC unit groups in order to prevent the conclusions which could lead to the setting of employment equity goals that are not realistic in terms of external availability or that are not addressing serious areas of under-representation in specific areas of job groups.

It is recommended that employers establish comparisons for each job particularly if their workforce is significantly different than the EEOG structure of the external workforce. For example, the EEOG of Professionals includes many different jobs (e.g. accountants, lawyers, engineers as well as librarians, and nurses).

Many of these jobs are either male-dominated or female-dominated which could result in the representation figure at the EEOG level not reflecting the actual external representation figure. This could result in setting an unattainable goal. In this case, the employer might find it more advantageous to analyze the representation of the designated groups for each job individually

- *What if the expected representation in a number of EEOG's is so small as to be meaningless? Should I still be doing an analysis for each EEOG?*

Where expected representation in a particular EEOG, expressed as a number of actual employees, is so small as to make any meaningful analysis impossible (e.g., where expected representation is less than one person), then it is possible to group a number of similar EEOG's together for the purposes of the analysis and subsequent goal-setting. This would occur in particular in the case of Aboriginal persons and persons with disabilities where external representation rates may be very low as well as in the establishment of a small employer. Joint hiring goals might then be set for a combination of EEOG's.

*Please refer to **Guideline 7: Employment Equity Plan** for more information about aggregating EEOGs for goal-setting.*

Minimum Requirements

At a bare minimum, the employer is expected to provide an analysis at the level of the fourteen Employment Equity Occupational Groups. In most cases, however, a more carefully-structured and detailed analysis is recommended, in order to produce the most useful results. It should be borne in mind that the workforce analysis is the trigger for the employment systems review and the cornerstone of the employment equity plan. Thus, care should be taken to ensure that the results of the analysis are meaningful.

4. Extract And/Or Calculate External Representation Rates

Having developed an analysis strategy and calculated internal representation, the employer must then obtain or develop external representation rates for the occupational categories to be compared. Employers should use the employment equity data provided by the Minister of Labour for this purpose (Employment Equity Data Report, Post-Secondary Graduate Report).

However, employers can use other data as well, alone or as a supplement to the Minister's data with the Minister's approval. Such additional data might include studies by local universities about recent graduates in relevant areas of study, surveys conducted by various research organisations, or information provided by designated group organizations. Employers who wish to use data other than that published by the Minister of Labour should contact the regional Workplace Equity Officer of Human Resources Development Canada to ensure it is acceptable to the Minister of Labour.

The Browser Software provides the user with designated group data in pre-formatted tables, while the XV software allows the user to electronically extract, manipulate, and analyze these data on designated groups.

See **Appendix B** for a fuller description of the Browser and XV Software.

5. Calculate the Internal Representation Rate and Representation Gap

The internal representation rate of designated group members is calculated by dividing the number of designated group employees in each occupational group by the total number of employees in each occupational group.

Designated Group Representation (%) = actual number of designated group members divided by total number of employees.

The external representation rates for each occupational group are obtained from data supplied by Human Resources Development Canada (Browser and XV Software).

Given the external representation rates, the expected number of designated group members in each occupational group is calculated as:

EXPECTED NUMBER= Total number of all employees in each NOC or EEOG in the employer's workforce times the external availability rate of designated group members.

The representation gap is simply the difference between the actual number of each designated group by NOC and the expected number.

GAP (absolute number) = expected number minus actual number in the employer's workforce.

GAP (percentage) = expected number minus actual number divided by the expected number.

For example, if an employer employs 200 chemists, 30 of whom are women, the internal representation rate for women would be 15 percent. Given that the national external representation rate of women in this NOC category is 28.5 percent, the expected number of women chemists in the employer's workforce would be 57 (200 times 0.285) resulting in a gap of 27 women (57 minus 30) or 47.4 percent [(57 minus 30) divided by 57].

It is recommended that employers calculate the representation gap using actual numbers as well as percentages. It is only through examining both the gap expressed as a percentage and as an actual number that the significance of the gap can be determined. This is because a very small percentage gap could sometimes represent a large number of designated group members (for a very large employer), and sometimes a very large percentage gap represents a very small number of designated group members.

Determining ‘Significant’ Under-Representation

At what point can a gap be significant? In other words, at what point can "under-representation" be said to exist?

In determining whether a gap is significant, a number of factors must be considered:

Size of percentage gap

Theoretically, under-representation could be said to exist when any gap is present, regardless how small. However, sometimes a gap may not be truly indicative of potential barriers. It could be the result of chance or coincidence.

The larger the percentage gap, the greater the likelihood that significant under-representation exists. This is not the determining factor alone, however, as even a very small percentage gap could be indicative of serious under-representation – for example, in a large employer’s workforce.

Normally, where the percentage gap reaches 20 percent, this is a warning signal that there may be significant under-representation. It is a signal that barriers may exist which are giving rise to a gap of this magnitude. Such a gap indicates that an employer should proceed to an employment systems review for that particular occupational group.

Employers should be cautioned, however, that percentage gaps at much lower levels could also be significant and could indicate under-representation. This would depend on the actual number of designated group members represented by the percentage gap.

Size of gap in terms of actual numbers of designated group members

Although a percentage gap may not approach 20 percent, this does not mean that under-representation does not exist in the occupational group in question. A second factor that employers need to consider in determining the significance of any gap identified is the magnitude of these actual numbers of designated group members which could be influenced by the following:

- the size of the occupational group in question, and
- the external representation rates.

Using the example of women chemists above, a gap of 47.4 percent would have a different impact if there were 20 chemists than if there were 200 chemists. The internal representation rate of 15 percent would represent 3 women chemists in the first case and 200, in the second, and the expected representation 6 and 57 women chemists, respectively. Therefore, the gap would consist of 3 women chemists in the first case and 57, in the second.

In both cases, it should be noted, that there is under-representation of women. It should be assumed that there is under-representation whenever the representation gap is at 20% or higher.

Where the gap, expressed in terms of actual numbers of employees, is between 30 and 50 designated group members, this is also an indication that significant under-representation exists for that occupational group. In this scenario as well, an employer should proceed to an employment systems review for that particular occupational group.

Another example would be where the expected representation of women in a particular occupational group is 2,000, for a large employer, then an under-representation rate of 10 percent for that occupational group would mean 200 women in actual terms. A gap of this magnitude would clearly be seen as significant.

(It is not a gap that would likely have come about randomly.) However, where expected representation of women in a particular occupational group is 10, then an under-representation of 10 percent would represent only one woman employee and therefore would not be considered significant. However, this may not be the case for certain designated group members as discussed below.

The big picture

Overall considerations are key in a workforce analysis. It is important not to get lost in details of the analysis and lose sight of the big picture. What is the overall representation of the group in question in the organization?

Although a gap could be small for a particular designated group, it may be significant when the overall picture is examined. For example, in the case of Aboriginal peoples and persons with disabilities, we may be looking at fairly small numbers for expected representation. A gap of one person in actual terms could represent serious under-representation of that designated group, particularly if the representation rate within that occupational group in the employer's workforce is close to zero.

Therefore, employers need to keep in mind overall representation in their organization. They should take account of any overall under-representation in their workforce which may come to light. Under-representation may not appear significant when looking at particular occupational groups (or even smaller units of comparison), because the numbers of actual and expected representation of Aboriginal persons, for example, are so small. But at the end of the day, there may be no Aboriginal employees at all in the employer's workforce, which would not be considered acceptable. For this reason, particular care should be taken in assessing the situation of these two groups during the workforce analysis and in setting appropriate goals subsequently.

Gray areas

Having conducted a thorough workforce analysis, an employer may still be unsure as to whether the gap identified is significant, and whether it is necessary to set quantitative goals.

In such a situation, the employer should examine the rates of hirings, promotions and terminations of designated groups in the occupational category in question. If the representation rates of designated groups within these flow data are at par or higher than the external representation rates, usually the employer need not proceed further with quantitative measures, and should focus on areas of truly serious under-representation.

It should be noted that in the case of high external representation figures for “pink collar” job ghettos which exceed total labour force representation (e.g. women clerical workers), employers need not replicate such rates for women so long as overall representation in the particular job or group of jobs approaches the overall labour force representation. In other words, some employers may be trying to get away from gender stereotypes and move women out of job ghettos. Obviously, they should not be penalized for doing so.

6. Draw Conclusions And Prepare Summary

The last step would be to prepare a summary of the findings of the workforce analysis. Although employers are free to choose whatever format they wish for this summary, it is recommended that it be in a narrative form which would include, in an appendix, associated databases and methodologies used to conduct the workforce analysis.

The summary must provide a roll-up at the EEOG level across the employer’s workforce. Please note, if an employer chooses to conduct a more detailed analysis, the summary should also mention the results of these analyses.

The summary should provide a concise overview of what the workforce analysis revealed.

A number of questions that could be addressed include the following:

1. Are designated groups fairly represented in the employer's workforce? Are they fairly represented in each occupational group?
2. Are there any designated groups which are not represented in the employer's workforce?
3. Are the designated groups distributed throughout the employer's workforce in the same proportion as non-designated group employees?
4. Are designated group members clustered in certain NOC four-digit unit groups and EEOG categories? Does the same pattern of clustering occur in each department or geographic location? Is there evidence of a glass ceiling?
5. Are certain designated group members significantly under-represented in the higher echelons of the corporation?
6. Are designated groups equitably represented in the company's internal feeder groups for each occupation? Are they under-represented in the company's internal feeder groups for senior level positions?

At a minimum, the summary must identify those occupational groups where under-representation has been identified.

Although a standard has been given earlier for determining where under-representation exists, common sense and a reasonable approach are required. As discussed earlier, determining what is reasonable in employment equity will always depend on the particular culture and structure of the organization. The broad purpose of the *Act* should be

kept in mind: the objective of employment equity, as

stated in the purpose clause, is to achieve equality in the workplace by correcting conditions of disadvantage experienced by certain groups

A finding of under-representation in any occupational group must result in:

- an employment systems review in relation to that occupational group; and
- the setting of numerical goals for hiring and promotion of designated group members in that occupational group.

Employers should undertake an employment equity systems review and set modest hiring goals even if there is some doubt regarding a particular gap being significant or not. It should be kept in mind that under-representation is being determined according to external representation rates that to some extent are already reflective of societal barriers which have existed for a long time.

External representation figures only represent the status quo, which is already the result of a history of past disadvantage for designated groups. If employers fall short of even that standard, some effort should be made to rectify the situation.

The summary is intended to serve as a basis for future action. It should identify possible problem areas, where a subsequent employment systems review may reveal employment barriers accounting for the under-representation. It should also identify measures to be taken in the employment equity plan to correct under-representation.

*Employers should refer to **Guideline 6: Employment Systems Review** for further information.*

Grandparent Clause

Employers who have already done a thorough workforce analysis may be able to rely at least in part on the “grandparent” provision (section 6(3) of the Regulations). They do not have to re-do their workforce analysis if a new analysis would likely give the same results as the previous one.

The conversion to NOC from the earlier Standard Occupational Classification (SOC) will affect different

employers' workforces differently. In some occupational groups there may be little change. In others, there may be significant change. For those portions of the workforce where NOC has resulted in significant change, the workforce analysis should be re-done.

It should be kept in mind that what employment equity aims to achieve is not mathematical precision, but simply concrete steps moving towards a representative workforce. Therefore, the focus should be on action rather than on achieving mathematical precision through a new workforce analysis.

CHECKLIST FOR DETERMINING APPROPRIATE EXTERNAL FEEDER GROUPS

1. Do these EEOGs being compared consist predominantly of positions requiring little or no practical experience?
 - ⇒ If yes, the recruiting area would likely be CMA- or province-wide, and would include the total labour force by highest level of schooling and by major field of study (i.e., not just the EEOGs and NOCs which only include persons who have had some work experience in a seventeen month period prior to the Census.
2. Do the job groupings being compared consist predominantly of positions requiring lower levels of skill or expertise?
 - ⇒ If yes, the recruiting area would likely be provincial or local labour pools (e.g., if available, Census Metropolitan Areas).
3. Are these job groupings being compared highly specialized and/or senior management level?
 - ⇒ If yes, perhaps the relevant recruiting area would be nation-wide or province-wide and the relevant external data to be used for comparison would be Canada-based or provincial-based NOCs.
4. Do these job groups require provincial licensing?
 - ⇒ If yes, then the relevant recruiting area may be only province-wide.

PART C:

INFORMATION DOCUMENTS

This section provides examples of different methods used in conducting a workforce analysis; examples of two tables, one based on the Browser Software and one based on the XV Software; information on publications designed to assist employers with their workforce analysis; a listing of the fourteen Employment Equity Occupational Groups (EEOGs) including examples of occupations found within each specific EEOG; and a listing of the Census Metropolitan Areas (CMAs).

APPENDIX A

EXAMPLES OF DIFFERENT METHODS USED IN CONDUCTING A WORKFORCE ANALYSIS

Specific Examples

Three examples are outlined below for two fictitious companies - Company A and B. These examples demonstrate three scenarios for conducting a workforce analysis and point out the pitfalls of each.

The first example analyses the representation of women in the professional category of Company A's workforce at the Canada-wide EEOG level. The second example uses three NOC unit groups at the national level which mirrors Company A's workforce in the professional category rather than using the Canada-wide EEOG Professional Group as the benchmark for comparison. The third example presents a national and provincial comparison at the EEOG level for Company B that has establishments in Nova Scotia and Manitoba.

Example 1: Basic EEOG Comparison

Company A employs 2,000 individuals classified as "Professionals". Women account for 360 of these employees, representing 18 percent of the "Professional" category $(360/2,000) \times 100 = 18.0$ percent.

As shown in Table 1, external representation data indicate that women make up 51.9 percent of all professionals in Canada.

TABLE 1 COMPANY A CANADA						
EEOG	Total Employer's Workforce	Number of Women (Employer's Workforce)	Availability Rate for Women (Canada)	Expected Number of Women	Gap	Percentage Gap
Professional (Skill Level A)	2,000	360 (18%)	51.9%	1,038 (2,000x0.519)	678 (1,038-360)	65.3% (1,038-360)/1,038

To undertake the analysis at the level of the entire EEOG, without breaking that category down into smaller units of NOC (individual jobs or clusters of jobs), an employer would simply subtract the number of women professionals in the company from the expected number based on women's national availability rate. The representation gap of women is $(1,038 - 360) = 678$ women professionals as shown above in Table 1, indicating an under-representation rate of 65.3 percent.

A representation gap of this size indicates that there may be potential barriers to women in the professional group in Company A's employment systems, policies and practices and would require an analysis of the employer's systems, policies and practices to determine if there are any barriers to women in the professional occupational group and what these barriers might be.

Example 2: Basic NOC Unit Group Comparison

In this example assume that the professional groups in Company A's establishment are found in only three NOC unit groups: **Financial and Investment Analysts** (NOC 1112), **Chemists** (NOC 2112) and **Computer Engineers** (NOC 2147). The employer's workforce consists of 600 financial and investment analysts, 200 chemists and 1,200 computer engineers, for a total of 2,000 employees in the "Professional" category. As shown in Table 2, women's share of these NOC units groups in the employer's workforce is 41.7 percent, 28.1 percent and 4.5 percent, respectively.

TABLE 2 COMPANY A CANADA						
Professional	2,000	360 (18%)	51.9%	1,038 (2,000x0.519)	678 (1,038-360)	65.3% (1,038-360)/1,038
NOC	Total Employer's Workforce	Number of Women (Employer's Workforce)	Availability Rate for Women (Canada)	Expected Number of Women	Gap	Percentage Gap
NOC 1112 Financial and Investment Analysts	600	250 (41.7%)	39.0%	234 (600x0.39)	No Gap	No Gap
NOC 2112 Chemists	200	56 (28.1%)	28.5%	57 (200x.285)	1 (57-56)	1.7% (57-56)/57
NOC 2147 Computer Engineers	1,200	54 (4.5%)	11.8%	142 (1,200x.118)	88 (142-54)	62.0% (142-54)/142
TOTAL Employer's "Tailored" EEOG	2,000	360 (18.0%)	20.0 (400/2,000)%	400 (2,000x.18)	40 (400-360)	(10%) (400-360)/400

Example 2 indicates the importance of analysing the professional category at a more disaggregated level using the four-digit NOC unit groups. As shown in Table 4, only one professional group indicates a large under-representation problem -- **Computer Engineers**. The representation gap of women in this group is 88, resulting in an under-representation rate of 62.0 percent. In this example, employers would only be required to conduct an analysis of the employer's employment systems, policies and practices for **Computer Engineers**. In addition, the employer would not be setting unrealistic goals for that occupational group based on the gap of 65 percent or 678 women as shown in Table 1 rather than the gap of 62 percent or 88 women as shown in Table 2.

Basing the workforce analysis on the "tailored" EEOG would not be advisable either. Setting goals based on a gap of 40 women would seriously underestimate the problem observed for **Computer Engineers** where the gap is 88 women.

Example 3: Regional Comparison

Company B has two establishments -- one located in Nova Scotia, the other in Manitoba. The workforce is composed of skilled crafts and trades workers, totalling 800 - 100 in Nova Scotia and 700 in Manitoba who are hired province-wide.

TABLE 3 COMPANY B CANADA EEOG Skilled Crafts and Trades Workers (Skill Level B)						
Geographic Area	Total Employer's Workforce	Number of Aboriginal Persons (Employer's Workforce)	Availability Rate for Aboriginal Persons (Canada)	Expected Number of Aboriginal Persons	Gap	Percentage Gap
Canada	800	16 (2.0%)	3.3%	26 (800x.033)	10	
Nova Scotia	100	4 (4.0%)	1.8%	2 (100x.018)	No Gap	- No Gap
Manitoba	700	12 (1.7%)	9.4%	66 (700x.094)	54 (66-12)	81.8% (66-12)/66
Tailored EEOG	800 (100+700)	16 (2.0%)	8.5% (68/800)	68 (800x.085)	52 (68-16)	76.4% (68-16)/68

If Company B conducts the analysis at the Canada-wide level, it would mask a problem being experienced by Aboriginal peoples in Manitoba. However, if the analysis is conducted separately for the two provinces, it would indicate that Aboriginal peoples are possibly facing barriers to employment in Manitoba and this finding would warrant an examination of the employer's employment systems, policies and practices to determine.

This example is a clear indication of where "common sense" and knowledge of the external labour pool is important. Given Canadian demographics, one would expect that the proportion of Aboriginal peoples in Manitoba would be greater than in Nova Scotia. Thus if the employer set goals, based on the Canada-wide EEOG, unattainable goals could be the result for Nova Scotia given the external representation rate of less than two percent and goals could be set for the workforce in Manitoba which seriously under-represent the availability of Aboriginal peoples.

APPENDIX B: TABLES CONSTRUCTED USING BROWSER AND XV SOFTWARE

TABLE 4

Based on Table 4 in the Browser Software for Canada

POPULATION AGED 15 AND OVER WHO WORKED IN 1990 OR 1991 SHOWING REPRESENTATION OF DESIGNATED GROUPS BY EMPLOYMENT OCCUPATIONAL GROUPS BASED ON THE

Population aged 15+ who worked in 1990 or 1991

EMPLOYMENT EQUITY OCCUPATIONAL GROUPS	TOTAL		MALES		FEMALES		ABORIGINAL PEOPLES		VISIBLE MINORITIES	
	No.	%	No.	%	No.	%	No.	%	No.	%
All Occupations	15,509,250	100.0	8,394,850	54.1	7,114,400	45.9	462,470	3.0	1,415,750	9.1
Senior Managers	145,825	100.0	120,130	82.4	25,695	17.6	4,055	2.8	9,335	6.4
Middle And Other Managers	1,303,445	100.0	891,825	68.4	411,620	31.6	24,065	1.8	113,515	8.7
Professionals	1,971,535	100.0	949,220	48.1	1,022,315	51.9	39,750	2.0	190,945	9.7
Semi-Professionals And Technicians	912,885	100.0	469,685	51.5	443,200	48.5	27,575	3.0	79,130	8.7
Supervisors	207,775	100.0	91,995	44.3	115,780	55.7	4,865	2.3	18,155	8.7

TABLE 4

Based on Table 4 in the Browser Software for Canada

**POPULATION AGED 15 AND OVER WHO WORKED IN 1990 OR 1991 SHOWING REPRESENTATION
OF DESIGNATED GROUPS BY CLASSIFICATION (NOT OCCUPATIONAL GROUPS BASED ON THE**

Population aged 15+ who worked in 1990 or 1991

EMPLOYMENT EQUITY OCCUPATIONAL GROUPS	TOTAL		MALES		FEMALES		ABORIGINAL PEOPLES		VISIBLE MINORITIES	
	No.	%	No.	%	No.	%	No.	%	No.	%
Supervisors: Crafts And Trades	628,155	100.0	538,195	85.7	89,960	14.3	11,720	1.9	19,070	3.0
Administrative & Senior Clerical Workers	942,660	100.0	116,465	12.4	826,195	87.6	22,835	2.4	61,695	6.5
Skilled Sales And Trades Workers	701,250	100.0	405,230	57.8	296,020	42.2	19,630	2.8	77,225	11.0
Skilled Crafts And Trades Workers	1,288,195	100.0	1,211,380	94.0	76,815	6.0	42,655	3.3	84,220	6.5
Clerical Workers	1,678,805	100.0	465,965	27.8	1,212,840	72.2	44,385	2.6	179,190	10.7
Intermediate Sales And Service Workers	1,841,475	100.0	596,085	32.4	1,245,390	67.6	62,865	3.4	171,410	9.3
Semi-Skilled Manual Workers	1,717,525	100.0	1,316,985	76.7	400,540	23.3	59,785	3.5	172,670	10.1
Other Sales And Service Workers	1,471,685	100.0	679,070	46.1	792,615	53.9	60,475	4.1	173,705	11.8
Other Manual Workers	698,025	100.0	542,625	77.7	155,400	22.3	37,805	5.4	65,480	9.4

Totals may not equal the sum of components due to rounding and suppression.

Source: Unpublished data, 1991 Census of Canada.

TABLE 5				
Calculated with XV Software using Table EEDRNOC4				
EMPLOYMENT EQUITY OCCUPATIONAL GROUP (EEOG) - Canada	BOTH GENDERS	MALES	FEMALES	PERCENT OF FEMALES
TOTAL_EEOG	15,509,250	8,394,850	7,114,440	45.9
SENIOR MANAGERS	145,825	120,130	25,695	17.6
MIDDLE AND OTHER MANAGERS	1,303,445	891,825	411,620	31.6
PROFESSIONALS_A	1,971,535	949,220	1,022,315	51.9
SEMI-PROFESSIONALS_B	912,885	469,685	443,200	48.5
SUP_CSS_B	207,775	91,995	115,780	55.7
SUP_MPTP_B	628,155	538,195	89,960	14.3
ADMIN_B	942,660	116,465	826,195	87.6
SALES_B	701,250	405,230	296,020	42.2
SKILL_B	1,288,195	1,211,380	76,815	6.0
CLERI_C	1,678,805	465,965	1,212,840	72.2
SALES_C	1,841,475	596,085	1,245,390	67.6
SEMI_C	1,717,525	1,316,985	400,540	23.3
SALES_D	1,471,685	679,070	792,615	53.9
.OTHER_D	698,025	542,625	155,400	22.3

APPENDIX C

OTHER STATISTICAL TOOLS AVAILABLE TO ASSIST EMPLOYERS

The Minister of Labour publishes employment equity data designed to assist employers to with their workforce analysis:

Publications

Employment Equity Data Report

The report is intended to assist employers in planning, developing and implementing employment equity programs. The numbers and percentages of designated group members possessing the required skills for particular occupations are shown within a specific labour market area. These data can be used as a guide, in conjunction with internal work force data, to enable employers to assess their individual performance and subsequently to develop realistic goals and timetables for achieving employment equity.

Profiles of Visible Minority Groups

The profile provides demographic and socio-economic indicators for members of visible minorities in an electronic format readable in XV.

Profile of Persons with Disabilities

This product provides demographic and socio economic indicators for persons with disabilities in an electronic format readable in XV.

Post-Secondary Graduate Report

The Canadian Post-Secondary Graduate Report provides statistics on university and college graduates which represents potential flow to the labour market. The report has been

prepared to augment the information released in the Employment Equity Data Report on Designated Groups. The report presents the number of men and women graduating each year who have the requisite skills or training required for particular occupations. This information is intended for employers who may consider the availability of individuals not yet in the workforce but fully qualified for employment in some entry level positions.

Designated Groups Population Projections (1991-2016)

The report provides population projections for the designated groups, by gender, from 1991 to 2016 for Canada and Provinces/Regions. The report includes actual population figures for 1991 and the projections are available from 1996 to 2016 in five year intervals.

Women in Non-Traditional Occupations in 1991 (NOC)

This report describes the characteristics of women in the workforce. It includes a table of male and female representation and their average income for each occupation using the National Occupational Classification and its corresponding Employment Equity Occupational Groups. Other tables show the Full-time and Part-time workforce by gender and by occupation.

Women in Non-Traditional Occupations: A comparison between 1981 and 1991 (1980 SOC)

The report describes the gains made by women in the labour market in the previous decade. It presents the characteristics of women in the labour market and provides information on Non-Traditional Occupations.

Profiles of Industrial Sectors

The sectoral profiles are intended to provide an overview of the labour market status and other socio-economic characteristics within a specific industrial sector for members of designated groups. The analytical focus of these sectoral profiles is on the distribution of workers in each of the fourteen Employment Equity Occupational Groups (NOC based).

Employment Equity Act Annual Report

This Report provides information on measures taken by employers to achieve a representative workforce. It also describes the employment situation of the four designated groups and the progress that employers have made toward achieving an equitable workforce during the reporting year using the consolidated data from the individual employers' reports.

Software Products

Employment Equity Computerized Reporting System (EECRS)

The purpose of EECRS is to facilitate the process of reporting as prescribed under the *Act*. This system eases the burden of data entry and allows the employer to complete the Employment Equity reporting forms with a minimum knowledge of computers.

Federal Contractors Program Computerized System (FCPCS)

This system eases the burden of collection, maintenance, and analysis of workforce data and assists FCP firms to develop and maintain employment equity programs.

Workplace Equity Internet Site

This site provides users with the information they require to help them comply with the federal *Employment Equity Act and Regulations* and the program requirements of the Federal Contractors Program. The site also contains all of the above mentioned reports and information on education and training activities.

Companies and other users can access the information at any time, day or night, and obtain needed information immediately.

Internet also offers other benefits:

- Information can be viewed online and then be downloaded to the user's computer for printing later on if desired.
- Large data files can be downloaded in a matter of seconds.

Browser Software

Browser is a user-friendly software program for viewing a tabular text file, which also enables the user to print a specific page. The purpose for providing the Browser software is to facilitate access to the Employment Equity Data Report.

XV Software

The XV software was developed in order to facilitate extraction, manipulation and analysis of multi-dimensional arrays (cross-tabulations)

of employment equity data. It provides a simple means of selecting, displaying and printing subsets of the employment equity data from a variety of dimensions and variable categories in a selected table. The data can be converted into a form that can be used by other software packages and new data items can be created from arithmetic combinations of existing variables.

NOC Electronic

The electronic system of the National Occupational Classification (NOC) allows users to search the NOC database and report on information in a user friendly manner. For example, occupations can be searched by the skill type, the skill level, the NOC matrix, the EEOG, the unit group code, the occupational title or by specific keywords.

New Software

An additional software application is in development to assist employers in conducting their workforce analysis. This software is due to be released in 1998/99. It will be provided with external representation data by geography, occupation (NOC and EEOG levels) and education for the working-age population.

Employers will be able to use it to manipulate and customize the data, and to quickly perform the required calculations of internal and external representation as well as the representation gap.

Training sessions will be made available by HRDC so human resource practitioners can gain expertise in the use of this software. Employers should be cautioned however that while this software will

be able to manipulate the relevant databases, the analysis will not be completed automatically.

Manipulation of the data must still be done by an analyst rather than by the machine.

Training Products

New Software Tutorials for XV and Browser

To facilitate the learning process related to the introduction of software products, interactive training modules have been created to offer a more autodidactic approach. The hands-on method offers more detailed training sessions and large numbers of people can be trained on their own schedules. This approach is particularly cost effective when persons located in remote areas need training.

Advanced National Occupational Classification Workshop

A one day seminar including presentations, discussions and case studies providing the opportunity to acquire practical hands-on coding experience.

Workforce Analysis Workshop (under development)

One full day seminar offering participants the hands-on practise with computers to learn the electronic approach at analysing employment equity data. This new training may be segmented in different levels (beginner, intermediate and advanced).

Technical Assistance

Hotline: (819) 953-7513

APPENDIX D

DEFINITIONS OF EMPLOYMENT EQUITY OCCUPATIONAL GROUPS

1. Senior Managers

Employees holding the most senior positions in large firms or corporations. They are responsible for the corporation's policy and strategic planning, and for directing and controlling the functions of the organisation.

Examples: President, chief executive officer, vice-presidents, chief operating officer, senior government officials, general managers and divisional heads, and directors who have several middle managers reporting to them or are responsible for the direction of a critical technical function.

2. Middle And Other Managers

Middle and other managers receive instructions from senior managers and administer the organisation's policy and operations through subordinate managers or supervisors. Senior managers, and middle and other managers comprise all managers.

Examples: Managers of transport operations, communications, finances, human resources, sales, advertising, purchasing, production, marketing, research and development, information systems, maintenance; commissioned police officers, commissioned officers in the armed forces.

3. Professionals

Professionals usually need either university graduation or prolonged formal training and often have to be members of a professional organization.

Examples: Engineers (civil, mechanical, electrical, petroleum, nuclear, aerospace), chemists, biologists, architects, economists, lawyers, teachers, doctors, accountants, computer programmers, registered nurses, physiotherapists, ministers of religion.

4. Semi-Professionals & Technicians

Workers in these occupations have to possess knowledge equivalent to about two years of post-secondary education, such as is offered in many technical institutions and community colleges, and often have further specialized on-the-job training. They may have highly developed technical and/or artistic skills.

Examples: Technologists and technicians (broadcast, forestry, biological, electronic, meteorological, geological, surveying, drafting and design, engineering, library, medical, dental), specialized inspectors and testers (public and environmental health, occupational health and safety, engineering, industrial instruments), dental hygienists, midwives, ambulance attendants, paralegal

workers, graphic designers and illustrating artists, announcers and other broadcasters, coaches.

5. Supervisors

Non-management first-line coordinators of white-collar (administrative, clerical, sales, and service) workers. Supervisors may, but do not usually, perform any of the duties of the employees under their supervision.

Examples: Supervisors of administrative and clerical workers such as general office clerks, secretaries, word processing operators, receptionists, and switchboard operators, computer operators, accounting clerks, letter carriers, tellers; supervisors of sales workers such as airline sales agents, service station attendants, grocery clerks and shelf stockers, cashiers; and supervisors of service workers such as food and beverage workers, canteen workers, hotel housekeeping, and cleaning workers, dry cleaning and laundry workers, janitors, groundspeople, tour guides, parking lot attendants.

6. Supervisors: Crafts And Trades

Non-management first-line coordinators of workers in manufacturing, processing, trades, and primary industry occupations. They supervise skilled crafts and trades workers, semi-skilled manual workers and/or other manual workers. Supervisors may, but do not usually, perform any of the duties of the employees under their supervision.

Examples: Supervisors of workers in manufacturing (motor vehicle assembling, electronics, electrical, furniture, fabric, etc.), processing

(mineral and metal, chemical, food & beverage, plastic and rubber, textiles, etc.), trades (carpentry, mechanical, heavy construction equipment, printing, etc.), and primary industry (forestry, logging, mining and quarrying, oil and gas, agriculture and farms, etc.).

7. Administrative & Senior Clerical Personnel

Workers in these occupations carry out and coordinate administrative procedures and administrative services primarily in an office environment, or perform clerical work of a senior nature.

Examples: Administrative officers; executive assistants; personnel and recruitment officers; loan officers; insurance adjusters; secretaries; legal secretaries; medical secretaries; court recorders; property administrators.

8. Skilled Sales & Service Personnel

Highly skilled workers engaged wholly or primarily in selling or in providing personal service. These workers have a thorough and comprehensive knowledge of the processes involved in their work and usually have received an extensive period of training involving some post-secondary education, part or all of an apprenticeship, or the equivalent on-the-job training and work experience.

Examples: **Sales:** insurance agents and brokers, real estate agents, retail and wholesale buyers, technical sales specialists. **Service:** police officers, firefighters, chefs, cooks, butchers, bakers, funeral directors and embalmers.

9. Skilled Crafts And Trades Workers

Manual workers of a high skill level, having a thorough and comprehensive knowledge of the processes involved in their work. They are frequently journeymen and journeywomen who have received an extensive period of training.

- 10. Examples:** Sheet metal workers, plumbers, electricians, tool and die makers, carpenters, glaziers, welders, telecommunications line and cable, installation and repair technicians; mechanics (heavy duty, refrigeration, aircraft, elevator, motor vehicle), tailors, jewellers, oil and gas well drillers, fishing masters and officers, paper making control operators.

11. Clerical Personnel

Workers performing clerical work, other than senior clerical work.

Examples: General office and other clerks (data entry, records and file, accounting, payroll, administrative, personnel, library, purchasing, storekeepers and parts, mail and postal, insurance clerks, customer service, statistics, purchasing and inventory clerks); typists and word processing operators; receptionists and switchboard operators; computer operators; typesetters; dispatchers and radio operators; couriers and messengers; letter carriers; tellers.

12. Intermediate Sales & Service Personnel

Workers engaged wholly or primarily in selling or in providing personal service who perform

duties that may require from a few months up to two years of on-the-job training, training courses, or specific work experience.

Generally, these are workers whose skill level is less than that of skilled sales and service, but greater than that of elementary sales and service workers.

Examples Sales: airline sales agents, non-technical wholesale sales representatives, retail salespersons. **Service:** dental assistants, nurses aides and orderlies, tour and travel guides, hotel front desk clerks, correctional service officers, sheriffs and bailiffs, bartenders, nannies, aestheticians, pet groomers.

13. Semi-Skilled Manual Workers

Manual workers who perform duties that usually require a few months of specific vocational on-the-job training. Generally, these are workers whose skill level is less than that of skilled crafts and trades workers, but greater than that of elementary manual workers.

Examples: Truck drivers, railway yard workers, longshore workers, material handlers, foundry workers, machine operators (plastics processing, chemical plant, sawmill, textile, pulp mill, tobacco, welding), workers assembling, inspecting or testing products (motor vehicles, boats, electrical motors, furniture).

14. Other Sales & Service Personnel

Workers in sales and service jobs which generally require only a few days or no on-the-job training. The duties are elementary, and require little or no independent judgement.

Examples Sales: service station attendants, grocery clerks and shelf stockers, cashiers. **Service:** security guards, janitors, kitchen and food service helpers, dry cleaning and laundry occupations, attendants in recreation and sport.

15. Other Manual Workers

Workers in blue collar jobs which generally require only a few days or no on-the-job training or a short demonstration. The duties are manual, elementary, and require

little or no independent judgement.

Examples: Helpers and labourers in construction and other trades (plumber assistants, carpenter helpers, refrigeration mechanic helpers, surveyor helpers), garbage collectors, road maintenance workers, railway labourers, tobacco or fruit pickers, landscape labourers, fish farm helpers, roustabouts, roughnecks, swampers, labourers in processing industries.

APPENDIX E:
CENSUS METROPOLITAN AREAS

ST.JOHN'S (NFLD)

HALIFAX

ST.JOHN (NB)

CHICOUTIMI-JONQUIERE

QUEBEC

SHERBROOKE

TROIS-RIVIÈRE

MONTREAL

OTTAWA-HULL

OSHAWA

TORONTO

HAMILTON

ST.CATHARINES

KITCHENER

LONDON

WINDSOR

SUDBURY

THUNDERBAY

WINNIPEG

REGINA

SASKATOON

CALGARY

EDMONTON

VANCOUVER

VICTORIA

APPENDIX F

DETAILED NOC CODING INSTRUCTIONS

STEP #1

Review the job description

Update the list of essential duties and responsibilities for each job description. Some tasks may need to be removed and others may need to be added. The title of the position might also need to be replaced.

STEP #2

Determine the skill level (2nd digit of the NOC code)

Rank each duty or responsibility according to the minimum skill level required to perform each task.

The order is as follows :

Management Skills		(1 st digit = 0, 2 nd digit = skill type)
Skill Level A	university degree	(2 nd digit = 1)
Skill Level B	college diploma or apprenticeships	(2 nd digit = 2 or 3)
Skill Level C	high school diploma or 2 years of on the job training	(2 nd digit = 4 or 5)
Skill Level D	15 minutes training on the job	(2 nd digit = 6)

STEP #3

Determine the skill type (1st digit of the NOC code)

From the tasks ranked highest by skill level, determine the skill type according to the type of tasks performed most often even if these tasks are performed less often than lower ranked tasks. The skill type refers to the type of work performed. The skill type is the first digit of the NOC code except for management positions where skill type is the 2nd digit and 0 is the first digit. The ten skill types are listed as follows :

1. Business, Finance and Related Occupations
2. Natural and Applied Sciences and Related Occupations
3. Health Occupations
4. Occupations in Social Sciences, Education, Government Services and

Religion

5. Occupations in Art, Culture, Recreation and Sport
6. Sales and Services Occupations
7. Trades, Transport and Equipment Operators and Related Occupations
8. Occupations Unique to Primary Industry
9. Occupations Unique to Processing, Manufacturing and Utilities

STEP #4

Determine the minor group & unit group (3rd and 4th digits)

With the first two digits, skill type and skill level, you have the « major group ». Continue by referring to the NOC manual to determine the minor group and then the unit group.

For example:

A Registered Nurse	NOC unit group	3152
Skill Type 3 (Health Occupations):	1 st digit = 3	3
Skill Level A (University degree require)	2 nd digit = 1	31
Major Group - Professional Occupations in Health		31
Minor Group - Nurse Supervisors and Registered Nurses		315
Unit Group -is Registered Nurses		3152

STEP #5

Identify the Employment Equity Occupational Group (EEOG)

Refer to the Employment Equity Occupational Group Structure to locate the 4-digit NOC unit group code. Each of the 522 detailed NOC codes is associated with one of the 14 EEOG. For example, registered nurses are found in NOC unit group 3152, which is part of the EEOG #3 “Professionals”.