

The diversity of managers

Katherine Marshall

Who are managers, and what do they do? A tougher question than you might think. Each year *The Financial Post Magazine* profiles 200 leading chief executive officers, dubbed Canada's corporate elite. Such media attention helps spur the popular perception that all managers command high salaries and work long hours. It might be further assumed that managers are male, white and well educated.

But does the stereotypical image fit Statistics Canada's occupational category of managerial, administrative and related occupations, a category defined by the 1980 Standard Occupational Classification (SOC)? The popular image is based on the personal characteristics of a small but high-profile group of managers, whereas the classification system focuses on the actual work of managers, which is wide ranging. Although most jobs held by high-profile managers are coded to the managerial and administrative category, a great many other managerial and administrative jobs fall into this category.

The 1991 Census revealed that 13%, or 1.7 million workers had jobs in the managerial, administrative and related occupations category. After a brief review of occupational classification, this article examines the characteristics of this major group, as well as those of the 26 individual managerial and administrative unit groups, to see how closely the popular perception of managers matches the 1980 SOC.¹ It also considers how a new scheme (the 1991 SOC) will affect the management category.

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Managers are one of 22 major occupational groups

Over the past 25 years Statistics Canada has used two classification systems to code occupational data: the 1971 Occupational Classification Manual (OCM) and the 1980 SOC. Although this paper refers mainly to the 1980 SOC, it will mention a third classification, the 1991 Standard Occupational Classification, which is to replace the 1980 SOC. The structure of both the 1980 (three-tiered) and 1991 (four-tiered) SOC is hierarchical (see *Definitions*).

The 1980 SOC assigns a four-digit code, based on the nature of work performed, to almost 25,000 job titles. The resulting 514 occupational unit groups can then be rolled up to one of 80 minor or 22 major groups. Thus, the 26 managerial and administrative occupational unit groups can be collapsed into 3 minor and one major group.

Wealthy white men? Some, but not all

The sum of the 26 managerial and administrative unit groups, which make up major group 11 of the 1980 SOC, somewhat supports the myth that managers, compared with non-managers, are more likely to be male (63% compared with 54%) and university educated (28% compared with 13%) (Table 1). They are more likely to work long hours (15% compared with 9%) and to earn more money than others: 42% of the managerial and administrative occupations have median earnings of over \$40,000 compared with 12% for all non-managerial occupations. The overall earnings median is \$35,000 for managers, compared with \$21,100. The myth of all-white does not appear to hold true, however, with visible minorities making up 8% of managers and 9% of non-managers.

Table 1
Characteristics of employed * persons, by occupation (1980 SOC)

	All occupations	Non-managerial occupations	Managerial occupations
		%	
Men	55	54	63
Visible minority	9	9	8
BA or above	15	13	28
Work over 50 hours	10	9	15
Median earnings over \$40,000	13	12	42
		\$	
Median earnings	23,000	21,100	35,000

Sources: Census of Canada, 1991; Standard Occupational Classification, 1980

* Refers to persons aged 15 years and over who did any work at all during census reference week or were absent from their job or business because of illness, vacation or other reasons.

Definitions

Standard Occupational Classification, 1980: An occupational classification system comprising 22 major groups subdivided into 80 minor groups, further subdivided into 514 unit groups. At the unit group level, job titles are classified on the basis of "kind of work" performed, as determined by the tasks, duties and responsibilities of the occupation.

The occupational groupings are structured so that within each major group one or more minor groups are identified, and within each minor group one or more unit groups are noted. A functional relationship is reinforced by means of the coding system. For example,

- 11 Major group – Managerial, administrative and related occupations
- 111 Minor group – Officials and administrators unique to government
- 1111 Unit group – Members of legislative bodies
- 1113 Unit group – Government administrators

Examples of jobs assigned to unit group 1113: city clerk; deputy minister; fire marshal; national parks officer; police commissioner; prison warden; tax collector.

The major group code is repeated at all levels and the minor group is repeated at the unit group level.

Occupational unit group (1980 SOC): A collection of jobs sufficiently similar in their main tasks to be grouped under a common title for classification purposes. Jobs are given a four-digit code that assigns

each to one of 514 occupational unit groups according to "work performed." Occupational unit groups are often referred to as occupations.

Occupational minor group (1980 SOC): Occupational unit groups can be rolled up to a three-digit code placing them in one of 80 minor groups. Each minor group contains occupations with similar work duties.

Occupational major group (1980 SOC): Occupational unit groups can be further rolled up to the two-digit code level and assigned to one of 22 major groups. Major groups contain occupations with broadly related work.

Standard Occupational Classification, 1991: An occupational classification system based on the 1990 National Occupational Classification (1990 NOC). The 1991 SOC has 10 broad occupational categories, 47 major groups, 139 minor groups and 514 unit groups. Except for having 8 fewer unit groups than the NOC, as well as differences in the classification of military personnel, the 1991 SOC's unit, minor and broad occupational groups are virtually identical to the NOC's. The schemes' major group levels differ considerably, however: the NOC differentiates its 26 groups by skill level, and the 1991 SOC distinguishes its 47 groups by further skill type.

The 1991 SOC contains classification codes for both the 1991 SOC and the 1990 NOC at the unit and minor group levels. These levels carry a two-part number that can place them in either classification. As with the 1980 SOC, a functional relationship is reinforced by means of the coding system.

For example,

- A Broad occupational category – Management occupations
- A0 Major group – Senior management occupations
- A01.001 Minor group – Legislators and senior management
- A011.0011 Unit group – Legislators
- A012.0012 Unit group – Senior government managers and officials

The three- and four-digit numbers following the period in the unit and minor groups are the corresponding NOC groups.

Managerial, administrative and related occupations (1980 SOC): This major group includes occupations concerned with managerial and administrative activities such as planning, organizing, co-ordinating, directing, controlling and staffing, and formulating, implementing or enforcing policy in government, industry and other organizations (Statistics Canada, 1981:47).

Visible minorities: Refers to non-Aboriginal persons who are non-Caucasian or non-white. Because there was no question on race or colour on the 1991 Census, data on visible minorities were derived from responses to the ethnic origin question in conjunction with other ethno-cultural information, such as language, place of birth and religion.

Median earnings: With earnings ranked from lowest to highest, the median is the middle value; the median thus divides the earnings values in half.

Managerial unit groups wide ranging

The preceding figures are averages of the 26 managerial and administrative occupational unit groups. Many of the unit group occupations fit the mostly male, highly educated, highly paid and long-

hours image of managers. In natural science and engineering, for example, 86% of managers are men, 63% have at least one degree, 11% work over 50 hours a week and 18% earn \$80,000 or over. Conversely, many unit groups fall well below the overall averages for both managerial and non-manage-

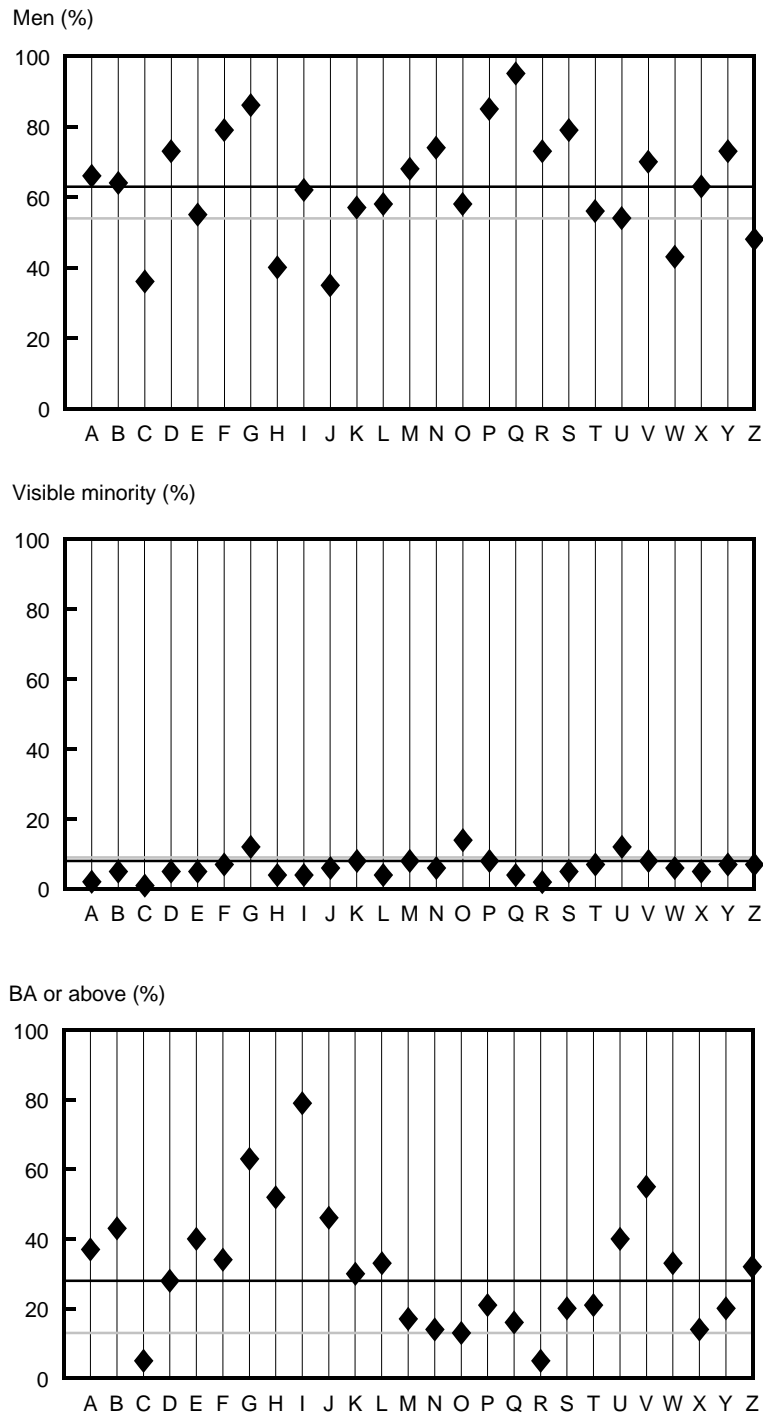
rial occupations. Post office managers are an example, with only 36% of the employed being men, 5% having a university degree, 7% working long hours and 2% earning \$80,000 or over. The percentage representation of men in any single managerial or administrative occupation ranges from 35% in

medicine and health to 95% in construction operations (Chart and Appendix). The percentage of workers with a university degree ranges from 5% of post office managers and farm managers to 79% of education administrators, with considerable variation in between. Similarly, there is substantial dispersion around the overall median earnings, from \$14,800 for farm managers to \$57,600 for natural science and engineering managers. There is somewhat less dispersion around the overall average (15%) for managers who work over 50 hours a week, with many managerial occupations falling under the non-managerial average of 9%. The high incidence of self-employment makes farm management an obvious outlier, with 51% of farm managers working over 50 hours a week.

Variation within unit groups as well

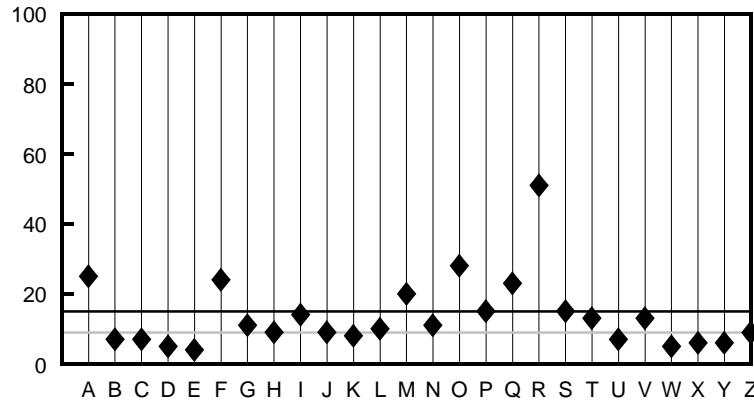
Diversity exists not only among the 26 managerial and administrative occupational unit groups, but, as expected, within each individual occupational unit group as well. All four-digit unit groups are, by definition, a collection of jobs linked by similarity of work performed. “This approach to the grouping of occupations ensures a certain homogeneity within groups and permits a distinction between groups” (Statistics Canada 1993:iii). Although the four-digit groups should offer the most uniformity, variations persist because of inherent differences in worker and job characteristics – differences for which the SOC does not control. For example, two people who perform identical work duties may differ in age, education and union status, factors that can affect characteristics such as hours of work or rates of pay. In other words, the 1980 SOC codes a job solely on the nature of the work

Chart
Managerial occupations show substantial variations ...

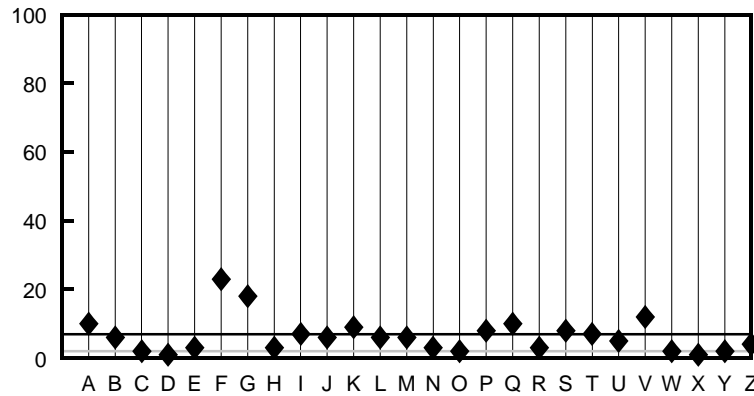


and many do not fit the popular image.

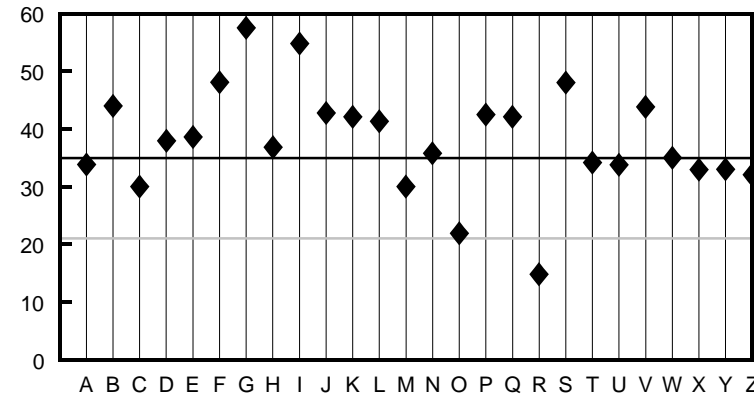
Work over 50 hours (%)



Earn \$80,000 or over (%)



Median earnings (\$'000)



— All managerial
 — All non-managerial

Managerial, administrative and related occupations

- A Members of legislative bodies
- B Government administrators
- C Post office managers
- D Inspectors and regulatory officers
- E Government officials and administrators n.e.c. *
- F General managers and other senior officials
- G Natural science and engineering managers
- H Social science and related fields managers
- I Administrators in teaching and related fields
- J Administrators in medicine and health
- K Financial managers
- L Personnel and industrial relations managers
- M Sales and advertising managers
- N Purchasing managers
- O Services managers
- P Production managers
- Q Construction operations managers
- R Farm managers
- S Transport and communication operations managers
- T Other managers and administrators n.e.c. *
- U Accountants, auditors and other financial officers
- V Organization and methods analysts
- W Personnel and related officers
- X Purchasing officers and buyers, except wholesale and retail trade
- Y Inspectors and regulatory officers n.e.c. *
- Z Occupations related to management and administration n.e.c. *

*Note: The alphabetical letters are used here only as a legend to identify the 1980 SOC categories. They are not part of the classification scheme itself.
 * Not elsewhere classified.*

Sources: Census of Canada, 1991; Standard Occupational Classification, 1980

performed, rather than on the characteristics of the job itself or the person doing the job.

Characteristics of the workers and occupations vary because of wide ranging and sometimes nebulous work duties, which include planning, organizing, co-ordinating, directing, controlling and staffing, and formulating, implementing or enforcing policy.² However, the classification system accounts for neither the degree of responsibility, control or influence associated with the job nor the size of the establishment or division managed. Therefore, in accordance with the 1980 SOC, individual managerial and administrative unit groups, such as government administrators, include both high- and low-level positions (federal deputy ministers and village clerks, for example).

This diversity of occupation will be reduced under the 1991 classification system, which consolidates 43 individual occupational unit groups into a broad category (management occupations).

1991 SOC helps streamline “managers”

The 1991 SOC will be used to classify all standard published census occupational data starting with the 1996 Census.³ The Labour Force Survey will adopt the system in 1997. The new scheme, which is based on the 1990 National Occupational Classification (see *1990 NOC*), differs substantially in structure and content from earlier systems. In fact, very few of its unit groups have a one-to-one correspondence with those in the 1980 SOC.

The new classification affects the “managers” category in two ways. The number of individual managerial and administrative unit groups increases from 26 to 43. For example, the natural science and engineering managers group of

1990 NOC

The 1990 National Occupational Classification system was developed by Human Resources and Development Canada and uses 10 broad occupational categories subdivided into 26 major groups, 139 minor groups and 522 unit groups. Each occupational category or group is assigned a unique one-digit (broad category), two-digit (major group), three-digit (minor group) or four-digit (unit group) numerical code. The codes for broad occupational categories are based on skill type. The second digit of the major, minor or unit group

identifies the skill level of the occupation. Skill level, which is divided into four categories, is a distinctive feature of the 1990 NOC and is defined as the amount and type of education, training and experience required to enter a job.

Management occupations are the one exception to this coding system. Management occupations are not assigned a skill level because of the wide range of education or training requirements for management.

the 1980 classification is now two groups: engineering, science and architecture managers, and information systems and data processing managers. The former service managers group has grown into five manager groups: restaurant and food service; accommodation service; other business services; social, community and correctional services and other services. Also, the 1991 SOC's definition of managers excludes some government, administrative and regulatory occupations, as well as all non-managerial professional occupations in finance and human resources, and farm managers. So although the number of unit groups increases with the 1991 SOC, the overall count for managers decreases, because the new system uses a more stringent definition of manager. For example, if the 1991 Census data are coded according to the 1991 SOC, only 10%, or 1.3 million workers have managerial jobs (Table 2), compared with 13%, or 1.7 million under the 1980 SOC (Appendix). Most of the roughly 340,000 workers no longer coded as managers would have come from the former minor group, “occupations related to management and administration,” and would now be coded to the broad category of business, finance and administrative occupations.

Summary

Occupational data from the census offers invaluable benchmark information on over 500 detailed occupations. It is important, however, to understand the coding procedures in order to interpret the data correctly. Managerial, administrative and related occupations is one group that has been open to misinterpretation.

The popular image of managers, that of well-educated, highly paid men working in high-powered chief executive jobs, describes only a few occupations in the 1980 SOC managerial group. That system, which classifies managers according to work duties only, categorizes a variety of middle management, administrative and regulatory occupations.

More than one in 10 jobs are coded to the managerial category, making it a substantial and important group. However, because of the diversity of the category, the 1991 Standard Occupational Classification increases the number of managerial occupations and defines each occupation more narrowly. These changes will likely increase the similarity of characteristics for people in these occupations. However, the fundamental work duties of management remain sweeping and do not account for

Table 2
Employed,* by occupation (1991 SOC)

Non-management occupations	11,679,200
Management occupations	1,326,300
Senior management occupations	135,900
Legislators	4,700
Senior government managers and officials	19,700
Senior managers – financial, communications carriers and other business services	24,200
Senior managers – health, education, social and community services and membership organizations	8,900
Senior managers – trade, broadcasting and other services, n.e.c. **	34,000
Senior managers – goods production, utilities, transportation and construction	44,300
Specialist managers	297,100
Financial managers	60,900
Human resources managers	27,900
Purchasing managers	9,500
Other administrative services managers	24,200
Engineering, science and architecture managers	23,500
Information systems and data processing managers	25,800
Sales, marketing and advertising managers	91,400
Facility operation and maintenance managers	34,000
Managers in retail trade, food and accommodation services	449,000
Retail trade managers	329,500
Restaurant and food service managers	95,900
Accommodation service managers	23,700
Other managers, n.e.c. **	444,400
Insurance, real estate and financial brokerage managers	27,900
Banking, credit and other investment managers	51,500
Other business services managers	11,100
Telecommunication carriers managers	12,300
Postal and courier services managers	4,200
Managers in health care	18,300
Administrators in postsecondary education and vocational training	7,200
School principals and administrators of elementary and secondary education	28,900
Managers in social, community and correctional services	15,400
Government managers in health and social policy development and program administration	5,100
Government managers in economic analysis, policy development and program administration	4,100
Government managers in education policy development and program administration	1,700
Other managers in public administration	4,500
Library, archive, museum and art gallery managers	3,600
Managers in publishing, motion pictures, broadcasting, and performing arts	11,500
Recreation and sport program and service directors	7,800
Commissioned police officers	2,900
Fire chiefs and senior fire-fighting officers	1,400
Commissioned officers, armed forces	18,400
Other service managers	34,900
Construction managers	43,700
Residential home builders and renovators	25,600
Transportation managers	19,100
Primary production managers (except agriculture)	9,800
Manufacturing managers	64,100
Utilities managers	9,600

Sources: Census of Canada, 1991; Standard Occupational Classification, 1991

* Refers to persons aged 15 years and over who did any work at all during census reference week or were absent from their job or business because of illness, vacation or other reasons.

** Not elsewhere classified.

level of responsibility. The broad 1991 SOC “management occupations” category will, as did the 1980 SOC, include both high- and low-level managers with heterogeneous characteristics. □

■ Notes

1 Although a number of ongoing sample surveys at Statistics Canada use the 1980 SOC to code occupational data (for example, Labour Force Survey, Survey of Labour and Income Dynamics and the General Social Survey), and can offer more recent data on managers, only the census allows a reliable examination of occupations coded to the four-digit level. Census data can help with the analysis of occupational data from these other sources. For example, because of sample size, most surveys code occupational data to the managerial minor group (three-digit) or major group (two-digit); therefore, it is important to understand the true composition of these collapsed categories.

2 It is also important to note that job descriptions are self-enumerated by respondents. Coders have found that the management category often elicits terse responses. For example, a respondent might fill in “managing” as his/her most important work duties with no further detail, making appropriate coding much more difficult.

3 Each record of the 1991 Census was coded to both the 1980 and 1991 versions of the SOC. However, for all standard 1991 Census publications and other products, only the 1980 version was used. The 1991 SOC-based estimates are available on request.

■ References

Statistics Canada. *Occupation According to the 1991 Standard Occupational Classification*. 1991 Census Technical Reports; Reference Products Series. Catalogue no. 92-344-XPE. Ottawa, 1995.

---. *Standard Occupational Classification, 1991*. Catalogue no. 12-565-XPE. Ottawa, 1993.

---. *1991 Census Dictionary*. Catalogue no. 92-301-XPE. Ottawa, 1992.

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Supply and Services Canada. *National Occupational Classification: Occupational Descriptions*. Catalogue no. MP53-25/1-1993E. Ottawa, 1993.

Appendix**Characteristics of employed * persons, by managerial occupation (1980 SOC)**

	Total	Men	Visible min- ority	BA or above	Work over 50 hours	Earn \$80,000 or over	Median earnings
				%			\$
Non-managerial occupations	11,338,200	54	9	13	9	2	21,100
Managerial, administrative and related occupations	1,667,300**	63	8	28	15	7	35,000
Government officials and administrators	98,900	65	5	34	7	4	39,200
Members of legislative bodies	4,400	66	2	37	25	10	33,900
Government administrators	37,300	64	5	43	7	6	44,000
Post office managers	4,500	36	1	5	7	2	30,000
Inspectors and regulatory officers	34,800	73	5	28	5	1	38,000
Government officials and administrators n.e.c. †	14,400	55	5	40	4	3	38,700
Other managers and administrators	1,161,500	66	8	25	19	8	35,300
General managers and other senior officials	152,400	79	7	34	24	23	48,100
Natural science and engineering managers	15,900	86	12	63	11	18	57,600
Social science and related fields managers	9,400	40	4	52	9	3	36,900
Administrators in teaching and related fields	42,900	62	4	79	14	7	54,900
Administrators in medicine and health	22,100	35	6	46	9	6	42,800
Financial managers	89,700	57	8	30	8	9	42,200
Personnel and industrial relations managers	42,400	58	4	33	10	6	41,400
Sales and advertising managers	243,500	68	8	17	20	6	30,100
Purchasing managers	16,800	74	6	14	11	3	35,800
Services managers	83,200	58	14	13	28	2	21,900
Production managers	65,100	85	8	21	15	8	42,500
Construction operations managers	30,100	95	4	16	23	10	42,200
Farm managers	69,800	73	2	5	51	3	14,800
Transport and communications operations managers	19,800	79	5	20	15	8	48,100
Other managers and administrators n.e.c. †	224,100	56	7	21	13	7	34,200
Occupations related to management and administration	406,900	53	10	36	7	5	33,800
Accountants, auditors and other financial officers	219,600	54	12	40	7	5	33,800
Organization and methods analysts	15,900	70	8	55	13	12	43,800
Personnel and related officers	41,700	43	6	33	5	2	35,000
Purchasing officers and buyers, except wholesale and retail trade	15,700	63	5	14	6	1	33,000
Inspectors and regulatory officers n.e.c. †	10,200	73	7	20	6	2	33,000
Occupations related to management and administration n.e.c. †	90,900	48	7	32	9	4	32,100
<i>Minimum and maximum distribution figures for each characteristic</i>	<i>Low</i>	<i>35</i>	<i>1</i>	<i>5</i>	<i>4</i>	<i>1</i>	<i>14,800</i>
	<i>High</i>	<i>95</i>	<i>14</i>	<i>79</i>	<i>51</i>	<i>23</i>	<i>57,600</i>

Sources: Census of Canada, 1991; Standard Occupational Classification, 1980

* Refers to persons aged 15 years and over who did any work at all during census reference week or were absent from their job or business because of illness, vacation or other reasons.

** This figure includes 50,700 imputed records not shown in the individual occupational unit group categories, but reflected in the minor group subtotals (boldface).

† Not elsewhere classified.