

2012

Philippine Standard Occupational Classification



Republika ng Pilipinas
PAMBANSANG LUPON SA UGNAYANG PANG-ESTADISTIKA
(NATIONAL STATISTICAL COORDINATION BOARD)
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FOREWORD

The 2012 Philippine Standard Occupational Classification (PSOC) is the latest statistical classification of the different occupational groups of the working population, including the military work force in the country. It is the third edition of occupational classification in the Philippines which was patterned after the 2008 International Standard Classification of Occupations (ISCO) released by the International Labor Organization (ILO) but with some modifications to reflect national situations and requirements.

The PSOC is primarily used as basis for manpower and educational planning, program formulation, policy decision-making and serves as useful guide for statistical operations and activities, such as censuses and surveys.

Rapid developments in the globalized economy necessitated the revision of the 1992 PSOC. The introduction of new technologies and the emergence of new industries, especially in the area of Information and Communication Technology (ICT) and related industries have resulted in significant changes in the occupational skills and specializations. The revision of the 1992 PSOC has gone through a series of consultations with different government agencies and stakeholders from the private sector.

The 2012 PSOC was prepared by the Statistical Classifications and Standards Division (SCSD) of the Statistical Policies, Programs and Standards Office (SPPSO) of the former National Statistical Coordination Board (now part of the Philippine Statistics Authority per Republic Act No. 10625 otherwise known as the Philippine Statistical Act of 2013), in collaboration with experts from concerned government agencies. The preparation of the 2012 PSOC was made possible through the efforts of the Technical Working Group on Occupational Classification (TWGOC) chaired by the Bureau of Local Employment (BLE) and benefitted from the guidance and supervision of the Technical Committee on Statistical Standards and Classifications (TC-SSC).

An online version of the PSOC can be accessed at <http://www.nscb.gov.ph/psoc> to facilitate browsing and searching for codes and occupation titles. The corresponding technical notes and other materials in the PSOC are also included for reference of users.

Pursuant to NSCB Resolution No. 5, Series of 2012 entitled, "*Approving and Adopting the 2012 Philippine Standard Occupational Classification*" issued on June 1, 2012 in Pasig City, all government offices, agencies and instrumentalities concerned are hereby enjoined to adopt and use the 2012 Philippine Standard Occupational Classification (PSOC).

LINA V. CASTRO

Interim Deputy National Statistician
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**NSCB Resolution No. 5
Series of 2012**

**APPROVING AND ADOPTING THE
2012 PHILIPPINE STANDARD OCCUPATIONAL CLASSIFICATION**

WHEREAS, Executive Order No. 121, *Reorganizing and Strengthening the Philippine Statistical System and for Other Purposes* mandates the National Statistical Coordination Board (NSCB) to prescribe uniform standards and classification systems in government statistics;

WHEREAS, standard classification systems are used to achieve uniformity and comparability of statistics generated at the national and international levels;

WHEREAS, one of the classification systems maintained by the NSCB is the Philippine Standard Occupational Classification (PSOC), which is based on the International Standard Classification of Occupations (ISCO) issued by the International Labor Organization (ILO);

WHEREAS, the PSOC was updated in 2002 to reflect new and emerging occupations in the country at the time;

WHEREAS, the ILO has released the 2008 ISCO which reflects new developments in occupations as well as improvements in light of experiences gained in using the 1988 ISCO;

WHEREAS, the NSCB Technical Committee on Statistical Standards and Classifications (TCSSC), through its Technical Working Group on Occupational Classification (TWGOC), has reviewed the changes in the 2008 ISCO for adaption in the PSOC;

WHEREAS, the TCSSC has approved for endorsement to the NSCB Executive Board the 2012 PSOC, aligned with the 2008 ISCO and which reflects new occupations and skills in the country brought about by changes in the global economy, developments in technology, equipment and machineries, among others;

NOW, THEREFORE, BE IT RESOLVED AS IT IS HEREBY RESOLVED, that the NSCB Executive Board approve the 2012 PSOC for adoption by concerned government agencies and instrumentalities.

Approved this 1st day of June 2012, in Pasig City.

Attested by:

(SGD)

ROMULO A. VIOLA
Secretary General

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TECHNICAL NOTES

I. BACKGROUND

The 2012 Philippine Standard Occupational Classification (PSOC) is a statistical classification of the different occupational groups of the working population, including the military work force in the country. It is basically patterned after the 2008 International Standard Classification of Occupations (ISCO) released by the International Labor Organization (ILO) but with modifications to suit the national situations and requirements. The PSOC is primarily used as basis for manpower and educational planning, program formulation, policy decision-making and serves as useful guide for statistical operations and activities, such as censuses and surveys.

II. CONCEPTUAL FRAMEWORK

The conceptual framework of PSOC follows that of ISCO which is based on two important concepts:

- 1) Skill - defined as the ability to carry out the tasks of a given job
- 2) Job - defined as a set of tasks and duties carried out, or meant to be carried out, by one person for a particular employer, including self-employment.

Furthermore, there are two (2) criteria used in classifying occupations in the 2012 PSOC:

- (a) Skill level - used in classifying occupations at the highest level or the major group level and measured operationally by considering one or more of:
 - (1) the nature of the work performed in an occupation;
 - (2) the required level of formal education; and
 - (3) the required amount of informal on-the-job training and/or previous experience
- (b) Skill specialization - used in classifying occupations in sub-major groups, minor groups and unit groups and considered in terms of four (4) concepts:
 - (1) the field of knowledge required;
 - (2) the tools and machinery used;
 - (3) the materials worked on or with; and.
 - (4) the kind of goods and services produced

III. CLASSIFICATION STRUCTURE, LEVELS AND CODES

The classification structure consists of four levels, as follows:

- **10 major groups** (one-digit code) - the highest level of occupation aggregate and represent broad fields of work
- **43 sub-major groups** (two-digit code) - represent the second level of aggregation
- **130 minor groups** (three-digit code) - represent the third level of occupation aggregate
- **436 unit groups** (four-digit code) - represent the fourth level of occupational groupings.

All levels of occupation aggregate are completed by definitions given for each title. The definition of an occupation is given in the form of a short opening statement describing the general functions of the occupation followed by an enumeration of the main tasks performed while the codes serve as symbols not only to denote levels of occupational groupings, but also to give some indications of the nature of the occupations covered.

The major groups comprising the 2012 PSOC are:

- 1 Managers
- 2 Professionals
- 3 Technicians and associate professionals
- 4 Clerical support workers
- 5 Service and sales workers
- 6 Skilled agricultural, forestry and fishery workers
- 7 Craft and related trades workers
- 8 Plant and machine operators and assemblers
- 9 Elementary occupations
- 0 Armed forces occupations

Major Group 1. Managers - workers in this group plan, direct, coordinate and evaluate the overall activities of enterprises, governments and other organizations, or of organizational units within them, and formulate and review their policies, laws, rules and regulations.

Major Group 2. Professionals - workers in this group increase the existing stock of knowledge, apply scientific or artistic concepts and theories, teach about the foregoing in a systematic manner, or engage in any combination of these activities.

Major Group 3. Technicians and associate professionals - workers in this group perform mostly technical and related tasks connected with research and the application of scientific or artistic concepts and operational methods, and government or business regulations.

Major Group 4. Clerical support workers - workers in this group record, organize, store, compute and retrieve information related, and perform a number of clerical duties in connection with money-handling operations, travel arrangements, requests for information, and appointments.

Major Group 5. Service and sales workers - workers in this group provide personal and protective services related to travel, housekeeping, catering, personal care, or protection against fire and unlawful acts, or demonstrate and sell goods in wholesale or retail shops and similar establishments, as well as at stalls and on markets.

Major Group 6. Skilled agricultural, forestry and fishery workers - workers in this group grow and harvest field or tree and shrub crops, gather wild fruits and plants, breed, tend or hunt animals, produce a variety of animal husbandry products, cultivate, conserve and exploit forests, breed or catch fish and cultivate or gather other forms of aquatic life in order to provide food, shelter and income for themselves and their households.

Major Group 7. Craft and related trades workers - workers in this group apply specific knowledge and skills in the fields to construct and maintain buildings, form metal, erect metal structures, set machine tools, or make, fit, maintain and repair machinery, equipment or tools, carry out printing work, produce or process foodstuffs, textiles, or wooden, metal and other articles, including handicraft goods.

Major Group 8. Plant and machine operators and assemblers - workers in this group operate and monitor industrial and agricultural machinery equipment on the spot or by remote control, drive

and operate trains, motor vehicles and mobile machinery and equipment, or assemble products from component parts according to strict specifications and procedures.

Major Group 9. Elementary occupations - occupations in this group involve the performance of simple and routine tasks which may require the use of handheld tools and considerable physical effort.

Major Group 0. Armed forces occupations - this major group includes all jobs held by members of the armed forces. Members of the armed forces are those personnel who are currently serving in the armed forces, including auxiliary services, whether on a voluntary or compulsory basis, and who are not free to accept civilian employment and are subject to military discipline. Included are members of the army, navy, air force and other military services, as well as conscripts enrolled for military training or other service for a specified period.

IV. SUMMARY OF CHANGES IN THE 2012 PSOC

A. Changes/improvements in concept:

1. To align with the 2008 ISCO, **Group 0** in the 1992 PSOC no longer pertains to “Special Occupation” but is now referred to as “**Armed Forces**” in the 2012 PSOC to consist of military occupations only. Each major group in the 2012 PSOC now includes the category, “not elsewhere classified” to account for workers whose occupation cannot be identified/classified, and new workers seeking employment which previously fall under Group 0 – Special Occupations along with armed forces in the 1998 PSOC.
2. Deleted “supervisors” occupation from Group 1 since other types of supervisors also exist in other major occupational groups. Moreover, in the 2008 ISCO, “supervisors” are not considered managers since they do not have budgeting and other important decision-making functions. With these modifications, “supervisors” categories in Group 1 are now distributed in relevant major occupational groups where their skills belong or are related.
3. A distinction is now made between “market oriented” and “subsistence” agriculture, forestry and fishery workers under Major Group 6.
4. Cashiers and ticket clerks, formerly under Group 4 (Clerks) in 1992 PSOC, were transferred to Group 5 (Sales and Service Workers) because these are sales related occupations.
5. Some occupations involving use of equipment/tools that were formerly classified under Group 7 and 8 but which require more advanced skills/ education or extensive training are now part of Group 3 (Technicians).

As a result, the titles of some major occupational groups have been changed to reflect these changes.

B. Changes in the broad structure to highlight new or emerging occupations:

Similar to the 2008 ISCO, new sub-major groups were created in the 2012 PSOC by splitting some major groups in the 1992 PSOC as follows:

1. *Sub-major Occupational Group 13 - General managers and managing proprietorships* in the 1992 PSOC was split into two (2) sub-major groups namely:

Sub-major group 13 - Production and specialized services managers and
Sub-major group 14 - Hospitality, retail and other services managers. This sub-major group further provides a separate code for minor group 141- hotel and restaurant managers which was not highlighted before in the 1992 PSOC.

2. *Sub-major Occupational Group 21 - Physical, mathematical and engineering science professionals* in the 1992 PSOC was split into two sub-major groups:

Sub-major group 21 - Science and engineering professionals
Sub-major group 25 - Information and communications technology (ICT) professionals

3. A separate code for *Sub-major group 26 - Legal, social and cultural professionals* was also created. This new sub-major group is part of sub-major group 24 - Other professionals in the 1992 PSOC.

4. A new sub-major occupational group and new unit groups were created in the 2012 PSOC for the “green “ or environment-friendly occupations not found in the 1992 PSOC. These include:

Sub-major group 96 - Refuse workers and other elementary workers, and
Unit group 2143 - Environmental engineering
Unit group 9611 - Garbage and recycling collectors, among others.

5. *Sub-major Occupational Group 41- Office clerks* in the 1992 PSOC was split into three sub-major groups in the 2012 PSOC namely:

Sub-major group 41 - General and keyboard clerks
Sub-major group 43 - Numerical and material recording clerks
Sub-major group 44 - Other clerical support workers.

On the other hand, *Sub-major Group 42- Customer service clerks* in the 1992 PSOC remained unchanged in the 2012 PSOC.

6. *Sub-major Group 51- Personal and protective services workers* in the 1992 PSOC was split into three (3) sub-major groups in the 2012 PSOC:

Sub-major group 51 - Personal service workers
Sub-major group 53 - Personal care workers
Sub-major group 54 - Protective services workers

On the other hand, *Sub-major Group 52 – Sales workers* in the 1992 PSOC remained unchanged in the 2011 PSOC.

7. New separate codes for sub-major group were created in major group 9:

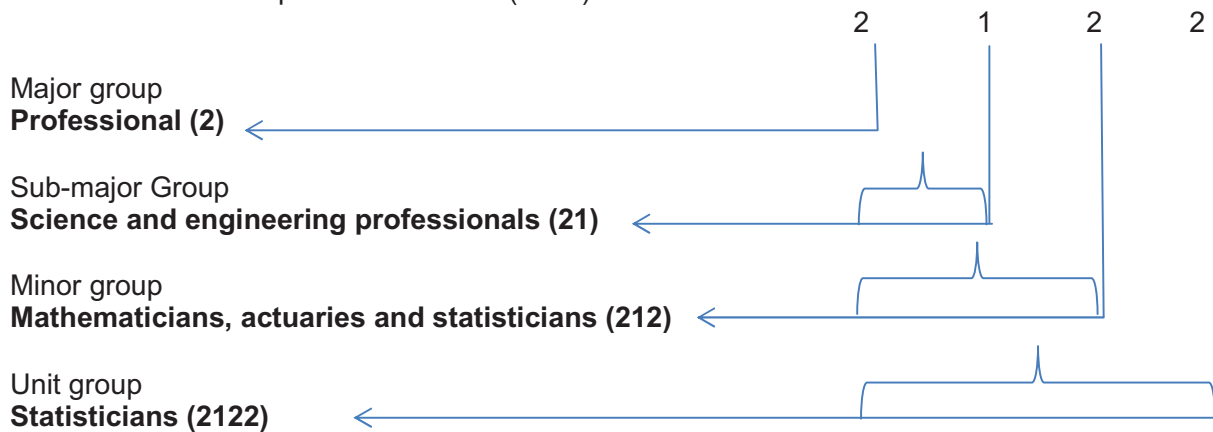
Sub-major group 94 - Food preparation assistants
Sub-major group 95 - Street and related sales and service workers
Sub-major group 96 - Refuse workers and other elementary workers

V. CODING SCHEME

The coding scheme of the 2012 PSOC has four-digit code with **one-digit code** representing the **major group**, **two-digit code** for the sub-**major group**, **three-digit code** representing the **minor group** and **four-digit code** as the **unit group**.

To illustrate:

Example: Statisticians (2122)



VI. SUMMARY OF CHANGES ON THE BROAD STRUCTURE

Group	1992 PSOC	2012 PSOC
Major group	10	10
Sub-major group	33	43
Minor group	134	130
Unit group	438	436

VII. COMPARISON OF THE BROAD STRUCTURE BETWEEN THE 2012 PSOC and 1992 PSOC

2012 PSOC					1992 PSOC				
Major Group	Descriptions	No. of Sub-Major Group	No. of Minor Group	No. of Unit Group	Major Group	Descriptions	No. of Sub-Major Group	No. of Minor Group	No. of Unit Group
1	Managers	4	11	31	1	Officials of government and special-interest organizations, corporate executives, managers, managing proprietors and supervisors	4	13	47
2	Professionals	6	27	92	2	Professionals	4	20	68
3	Technicians and associate professionals	5	20	84	3	Technicians and associate professionals	4	18	67
4	Clerical support workers	4	8	29	4	Clerks	2	7	23
5	Service and sales workers	4	13	40	5	Service workers and shop and market sales workers	2	9	23
6	Skilled agricultural, forestry and fishery workers	3	9	18	6	Farmers, forestry workers and fishermen	5	16	36
7	Craft and related trades workers	5	14	66	7	Trades and related workers	4	16	71
8	Plant and machine operators and assemblers	3	14	40	8	Plant and machine operators and assemblers	3	19	66
9	Elementary occupations	6	11	33	9	Laborers and unskilled workers	3	10	25
0	Armed forces occupations	3	3	3	0	Special occupations	2	6	12
		43	130	436			33	134	438

VIII. PARTS OF THE 2012 PSOC

In this edition, three parts have been made for easy reference as follows:

1. A **Summary** of Major, Sub-Major, Minor and Unit Group Titles which enumerates all the ten major groups and their respective sub-major groups, minor groups and unit groups.
2. A **Detailed Classification** of the 2012 PSOC which represents the hierarchy of occupational groupings and their definitions, with corresponding 1992 PSOC Code and 2008 ISCO Code.
3. An **Alphabetic Index** which lists specific occupations in alphabetical sequence with corresponding codes of the unit group where they belong.

SUMMARY OF MAJOR, SUB-MAJOR, MINOR AND UNIT GROUPS

MAJOR GROUP 1 MANAGERS

Sub-major group	Minor group	Unit group	Description
11			Chief executives, senior officials and legislators
	111		Legislators and senior officials
		1111	Legislators
		1112	Senior government officials
		1113	Traditional chiefs and heads of villages
		1114	Senior officials of special-interest organizations
	112		Managing directors and chief executives
		1120	Managing directors and chief executives
12			Administrative and commercial managers
	121		Business services and administration managers
		1211	Finance managers
		1212	Human resource managers
		1213	Policy and planning managers
		1219	Business services and administration managers not elsewhere classified
	122		Sales, marketing and development managers
		1221	Sales and marketing managers
		1222	Advertising and public relations managers
		1223	Research and development managers
13			Production and specialized services managers
	131		Production managers in agriculture, forestry and fisheries
		1311	Agricultural and forestry production managers
		1312	Aquaculture and fisheries production managers
	132		Manufacturing, mining, construction, and distribution managers
		1321	Manufacturing managers
		1322	Mining managers
		1323	Construction managers
		1324	Supply, distribution and related managers
	133		Information and communications technology service managers
		1330	Information and communications technology service managers
	134		Professional services managers
		1341	Child care service managers
		1342	Health service managers
		1343	Aged care service managers
		1344	Social welfare managers
		1345	Education managers
		1346	Financial and insurance services branch managers
		1349	Professional services managers not elsewhere classified
14			Hospitality, retail and other services managers
	141		Hotel and restaurant managers
		1411	Hotel managers

		1412	Restaurant managers
	142		Retail and wholesale trade managers
		1420	Retail and wholesale trade managers
	143		Other services managers
		1431	Sports, recreation and cultural centre managers
		1439	Services managers not elsewhere classified

MAJOR GROUP 2 PROFESSIONALS

Sub-major group	Minor group	Unit group	Description
21			Science and engineering professionals
	211		Physical and earth science professionals
		2111	Physicists and astronomers
		2112	Meteorologists
		2113	Chemists
		2114	Geologists and geophysicists
	212		Mathematicians, actuaries and statisticians
		2120	Mathematicians, actuaries and statisticians
	213		Life science professionals
		2131	Biologists, botanists, zoologists and related professionals
		2132	Farming, forestry and fisheries advisers
		2133	Environmental protection professionals
	214		Engineering professionals (excluding electrotechnology)
		2141	Industrial and production engineers
		2142	Civil engineers
		2143	Environmental engineers
		2144	Mechanical engineers
		2145	Chemical engineers
		2146	Mining engineers, metallurgists and related professionals
		2149	Engineering professionals not elsewhere classified
	215		Electrotechnology engineers
		2151	Electrical engineers
		2152	Electronics engineers
		2153	Telecommunications engineers
	216		Architects, planners, surveyors and designers
		2161	Building architects
		2162	Landscape architects
		2163	Product and garment designers
		2164	Town and traffic planners
		2165	Cartographers and surveyors
		2166	Graphic and multimedia designers
22			Health professionals
	221		Medical doctors
		2211	Generalist medical practitioners
		2212	Specialist medical practitioners
	222		Nursing and midwifery professionals
		2221	Nursing professionals

		2222	Midwifery professionals
	223		Traditional and complementary medicine professionals
		2230	Traditional and complementary medicine professionals
	224		Paramedical practitioners
		2240	Paramedical practitioners
	225		Veterinarians
		2250	Veterinarians
	226		Other health professionals
		2261	Dentists
		2262	Pharmacists
		2263	Environmental and occupational health and hygiene professionals
		2264	Physiotherapists
		2265	Dieticians and nutritionists
		2266	Audiologists and speech therapists
		2267	Optometrists and ophthalmic opticians
		2269	Health professionals not elsewhere classified
23			Teaching professionals
	231		University and higher education teachers
		2310	University and higher education teachers
	232		Vocational education teachers
		2320	Vocational education teachers
	233		Secondary education teachers
		2330	Secondary education teachers
	234		Primary school and early childhood teachers
		2341	Primary school teachers
		2342	Early childhood educators
	235		Other teaching professionals
		2351	Education methods specialists
		2352	Special needs teachers
		2353	Other language teachers
		2354	Other music teachers
		2355	Other arts teachers
		2356	Information technology trainers
		2359	Teaching professionals not elsewhere classified
24			Business and administration professionals
	241		Finance professionals
		2411	Accountants
		2412	Financial and investment advisers
		2413	Financial analysts
	242		Administration professionals
		2421	Management and organization analysts
		2422	Policy administration professionals
		2423	Personnel and careers professionals
		2424	Training and staff development professionals
	243		Sales, marketing and public relations professionals
		2431	Advertising and marketing professionals
		2432	Public relations professionals
		2433	Technical and medical sales professionals (excluding ICT)

		2434	Information and communications technology sales professionals
25			Information and communications technology professionals
	251		Software and applications developers and analysts
		2511	Systems analysts
		2512	Software developers
		2513	Web and multimedia developers
		2514	Applications programmers
		2519	Software and applications developers and analysts not elsewhere classified
	252		Database and network professionals
		2521	Database designers and administrators
		2522	Systems administrators
		2523	Computer network professionals
		2529	Database and network professionals not elsewhere classified
26			Legal, social and cultural professionals
	261		Legal professionals
		2611	Lawyers
		2612	Judges
		2619	Legal professionals not elsewhere classified
	262		Librarians, archivists and curators
		2621	Archivists and curators
		2622	Librarians and related information professionals
	263		Social and religious professionals
		2631	Economists
		2632	Sociologists, anthropologists and related professionals
		2633	Philosophers, historians and political scientists
		2634	Psychologists
		2635	Social work and counseling professionals
		2636	Religious professionals
	264		Authors, journalists and linguists
		2641	Authors and related writers
		2642	Journalists
		2643	Translators, interpreters and other linguists
	265		Creative and performing artists
		2651	Visual artists
		2652	Musicians, singers and composers
		2653	Dancers and choreographers
		2654	Film, stage and related directors and producers
		2655	Actors
		2656	Announcers on radio, television and other media
		2659	Creative and performing artists not elsewhere classified

MAJOR GROUP 3 TECHNICIANS AND ASSOCIATE PROFESSIONALS

Sub-major group	Minor group	Unit group	Description
31			Science and engineering associate professionals
	311		Physical and engineering science technicians

		3111	Chemical and physical science technicians
		3112	Civil engineering technicians
		3113	Electrical engineering technicians
		3114	Electronics engineering technicians
		3115	Mechanical engineering technicians
		3116	Chemical engineering technicians
		3117	Mining and metallurgical technicians
		3118	Draughtspersons
		3119	Physical and engineering science technicians not elsewhere classified
	312		Mining, manufacturing and construction supervisors
		3121	Mining supervisors
		3122	Manufacturing supervisors
		3123	Construction supervisors
	313		Process control technicians
		3131	Power production plant operators
		3132	Incinerator and water treatment plant operators
		3133	Chemical processing plant controllers
		3134	Petroleum and natural gas refining plant operators
		3135	Metal production process controllers
		3139	Process control technicians not elsewhere classified
	314		Life science technicians and related associate professionals
		3141	Life science technicians (excluding medical)
		3142	Agricultural technicians
		3143	Forestry technicians
	315		Ship and aircraft controllers and technicians
		3151	Ships' engineers
		3152	Ships' deck officers and pilots
		3153	Aircraft pilots and related associate professionals
		3154	Air traffic controllers
		3155	Air traffic safety electronics technicians
32			Health associate professionals
	321		Medical and pharmaceutical technicians
		3211	Medical imaging and therapeutic equipment technicians
		3212	Medical and pathology laboratory technicians
		3213	Pharmaceutical technicians and assistants
		3214	Medical and dental prosthetic technicians
	322		Nursing and midwifery associate professionals
		3221	Nursing associate professionals
		3222	Midwifery associate professionals
	323		Traditional and complementary medicine associate professionals
		3230	Traditional and complementary medicine associate professionals
	324		Veterinary technicians and assistants
		3240	Veterinary technicians and assistants
	325		Other health associate professionals
		3251	Dental assistants and therapists
		3252	Medical records and health information technicians
		3253	Community health workers
		3254	Dispensing opticians

		3255	Physiotherapy technicians and assistants
		3256	Medical assistants
		3257	Environmental and occupational health inspectors and associates
		3258	Ambulance workers
		3259	Health associate professionals not elsewhere classified
33			Business and administration associate professionals
	331		Financial and mathematical associate professionals
		3311	Securities and finance dealers and brokers
		3312	Credit and loans officers
		3313	Accounting associate professionals
		3314	Statistical, mathematical and related associate professionals
		3315	Valuers and loss assessors
	332		Sales and purchasing agents and brokers
		3321	Insurance representatives
		3322	Commercial sales representatives
		3323	Buyers
		3324	Trade brokers
	333		Business services agents
		3331	Clearing and forwarding agents
		3332	Conference and event planners
		3333	Employment agents and contractors
		3334	Real estate agents and property managers
		3339	Business services agents not elsewhere classified
	334		Administrative and specialized secretaries
		3341	Office supervisors
		3342	Legal secretaries
		3343	Administrative and executive secretaries
		3344	Medical secretaries
	335		Regulatory government associate professionals
		3351	Customs and border inspectors
		3352	Government tax and excise officials
		3353	Government social benefits officials
		3354	Government licensing officials
		3355	Police inspectors and detectives
		3359	Regulatory government associate professionals not elsewhere classified
34			Legal, social, cultural and related associate professionals
	341		Legal, social and religious associate professionals
		3411	Legal and related associate professionals
		3412	Social work associate professionals
		3413	Religious associate professionals
	342		Sports and fitness workers
		3421	Athletes and sports players
		3422	Sports coaches, instructors and officials
		3423	Fitness and recreation instructors and program leaders
	343		Artistic, cultural and culinary associate professionals
		3431	Photographers
		3432	Interior designers and decorators
		3433	Gallery, museum and library technicians

		3434	Chefs
		3435	Artistic and cultural associate professionals not elsewhere classified
35			Information and communications technicians
	351		Information and communications technology operations and user support technicians
		3511	Information and communications technology operations technicians
		3512	Information and communications technology user support technicians
		3513	Computer network and systems technicians
		3514	Web technicians
	352		Telecommunications and broadcasting technicians
		3521	Broadcasting and audio-visual technicians
		3522	Telecommunications engineering technicians

MAJOR GROUP 4 CLERICAL SUPPORT WORKERS

Sub-major group	Minor group	Unit group	Description
41			General and keyboard clerks
	411		General office clerks
		4110	General office clerks
	412		Secretaries (general)
		4120	Secretaries (general)
	413		Keyboard operators
		4131	Typists and word processing operators
		4132	Data entry clerks
42			Customer services clerks
	421		Tellers, money collectors and related clerks
		4211	Bank tellers and related clerks
		4212	Bookmakers, croupiers and related gaming workers
		4213	Pawnbrokers and money-lenders
		4214	Debt-collectors and related workers
	422		Client information workers
		4221	Travel consultants and clerks
		4222	Contact centre information clerks
		4223	Telephone switchboard operators
		4224	Hotel receptionists
		4225	Inquiry clerks
		4226	Receptionists (general)
		4227	Survey and market research interviewers
		4229	Client information workers not elsewhere classified
43			Numerical and material recording clerks
	431		Numerical clerks
		4311	Accounting and bookkeeping clerks
		4312	Statistical, finance and insurance clerks
		4313	Payroll clerks
	432		Material-recording and transport clerks
		4321	Stock clerks
		4322	Production clerks

		4323	Transport clerks
44			Other clerical support workers
	441		Other clerical support workers
		4411	Library clerks
		4412	Mail carriers and sorting clerks
		4413	Coding, proof-reading and related clerks
		4414	Scribes and related workers
		4415	Filing and copying clerks
		4416	Personnel clerks
		4419	Clerical support workers not elsewhere classified

MAJOR GROUP 5 SERVICE AND SALES WORKERS

Sub-major group	Minor group	Unit group	Description
51			Personal service workers
	511		Travel attendants, conductors and guides
		5111	Travel attendants and travel stewards
		5112	Transport conductors
		5113	Travel guides
	512		Cooks
		5120	Cooks
	513		Waiters and bartenders
		5131	Waiters
		5132	Bartenders
	514		Hairdressers, beauticians and related workers
		5141	Hairdressers
		5142	Beauticians and related workers
	515		Building and housekeeping supervisors
		5151	Cleaning and housekeeping supervisors in offices, hotels and other establishments
		5152	Domestic housekeepers
		5153	Building caretakers
	516		Other personal services workers
		5161	Astrologers, fortune-tellers and related workers
		5162	Companions and valets
		5163	Undertakers and embalmers
		5164	Pet groomers and animal care workers
		5165	Driving instructors
		5169	Personal services workers not elsewhere classified
52			Sales workers
	521		Street and market salespersons
		5211	Stall and market salespersons
		5212	Street food salespersons
	522		Shop salespersons
		5221	Shopkeepers
		5222	Shop supervisors
		5223	Shop sales assistants

	523		Cashiers and ticket clerks
		5230	Cashiers and ticket clerks
	524		Other sales workers
		5241	Fashion and other models
		5242	Sales demonstrators
		5243	Door to door salespersons
		5244	Contact centre salespersons
		5245	Service station attendants
		5246	Food service counter attendants
		5249	Sales workers not elsewhere classified
53			Personal care workers
	531		Child care workers and teachers' aides
		5311	Child care workers
		5312	Teachers' aides
	532		Personal care workers in health services
		5321	Health care assistants
		5322	Home-based personal care workers
		5329	Personal care workers in health services not elsewhere classified
54			Protective services workers
	541		Protective services workers
		5411	Fire-fighters
		5412	Police officers
		5413	Prison guards
		5414	Security guards
		5419	Protective services workers not elsewhere classified

MAJOR GROUP 6 SKILLED AGRICULTURAL, FORESTRY AND FISHERY WORKERS

Sub-major group	Minor group	Unit group	Description
61			Market-oriented skilled agricultural workers
	611		Market gardeners and crop growers
		6111	Rice farmers
		6112	Corn farmers
		6113	Vegetable, legumes and root crops farmers
		6114	Sugarcane farmers
		6115	Coconut farmers
		6116	Other field crop farmers
		6117	Tree and shrub crop growers
		6118	Gardeners, horticultural and nursery growers
		6119	Other market gardeners and crop growers, not elsewhere classified
	612		Animal producers
		6121	Livestock farmer
		6122	Dairy farmer
		6123	Eggs producers
		6124	Chicken farmer
		6125	Duck raisers
		6126	Poultry producers

		6127	Hog raising producers
		6128	Apiarists and sericulturists
		6129	Animal producers not elsewhere classified
	613		Mixed crop and animal producers
		6130	Mixed crop and animal producers
62			Market-oriented skilled forestry, fishery and hunting workers
	621		Forestry and related workers
		6211	Forest tree planters
		6212	Concessionaires and loggers
		6213	Charcoal makers and related workers
		6214	Minor forest product gatherers
	622		Fishery workers, hunters and trappers
		6221	Milkfish and tilapia producers
		6222	Seaweeds producers
		6223	Prawn producers
		6224	Oysters and mussels producers
		6225	Other aqua products producers
		6226	Inland and coastal waters fishery workers
		6227	Deep-sea fishery workers
		6228	Hunters and trappers
		6229	Fishermen not elsewhere classified
63			Subsistence farmers, fishers, hunters and gatherers
	631		Subsistence crop farmers
		6310	Subsistence crop farmers
	632		Subsistence livestock farmers
		6320	Subsistence livestock farmers
	633		Subsistence mixed crop and livestock farmers
		6330	Subsistence mixed crop and livestock farmers
	634		Subsistence fishers, hunters, trappers and gatherers
		6340	Subsistence fishers, hunters, trappers and gatherers

MAJOR GROUP 7 CRAFT AND RELATED TRADES WORKERS

Sub-major group	Minor group	Unit group	Description
71			Building and related trades workers, excluding electricians
	711		Building frame and related trades workers
		7111	House builders
		7112	Bricklayers and related workers
		7113	Stonemasons, stone cutters, splitters and carvers
		7114	Concrete placers, concrete finishers and related workers
		7115	Carpenters and joiners
		7119	Building frame and related trades workers not elsewhere classified
	712		Building finishers and related trades workers
		7121	Roofers
		7122	Floor layers and tile setters
		7123	Plasterers
		7124	Insulation workers

		7125	Glaziers
		7126	Plumbers and pipe fitters
		7127	Air conditioning and refrigeration mechanics
	713		Painters, building structure cleaners and related trades workers
		7131	Painters and related workers
		7132	Spray painters and varnishers
		7133	Building structure cleaners
72			Metal, machinery and related trades workers
	721		Sheet and structural metal workers, moulders and welders, and related workers
		7211	Metal moulders and coremakers
		7212	Welders and flame cutters
		7213	Sheet-metal workers
		7214	Structural-metal preparers and erectors
		7215	Riggers and cable splicers
	722		Blacksmiths, toolmakers and related trades workers
		7221	Blacksmiths, hammersmiths and forging press workers
		7222	Toolmakers and related workers
		7223	Metal working machine tool setters and operators
		7224	Metal polishers, wheel grinders and tool sharpeners
	723		Machinery mechanics and repairers
		7231	Motor vehicle mechanics and repairers
		7232	Aircraft engine mechanics and repairers
		7233	Agricultural and industrial machinery mechanics and repairers
		7234	Bicycle and related repairers
73			Handicraft and printing workers
	731		Handicraft workers
		7311	Precision-instrument makers and repairers
		7312	Musical instrument makers and tuners
		7313	Jewellery and precious-metal workers
		7314	Potters and related workers
		7315	Glass makers, cutters, grinders and finishers
		7316	Sign writers, decorative painters, engravers and etchers
		7317	Handicraft workers in wood, basketry and related materials
		7318	Handicraft workers in textile, leather and related materials
		7319	Handicraft workers not elsewhere classified
	732		Printing trades workers
		7321	Pre-press technicians
		7322	Printers
		7323	Print finishing and binding workers
74			Electrical and electronics trades workers
	741		Electrical equipment installers and repairers
		7411	Building and related electricians
		7412	Electrical mechanics and fitters
		7413	Electrical line installers and repairers
	742		Electronics and telecommunications installers and repairers
		7421	Electronics mechanics and servicers
		7422	Information and communications technology installers and servicers
75			Food processing, wood working, garment and other craft and related

			trades workers
	751		Food processing and related trades workers
		7511	Butchers, fishmongers and related food preparers
		7512	Bakers, pastry-cooks and confectionery makers
		7513	Dairy products makers
		7514	Fruit, vegetable and related preservers
		7515	Food and beverage tasters and graders
		7516	Tobacco preparers and tobacco products makers
	752		Wood treaters, cabinet-makers and related trades workers
		7521	Wood treaters
		7522	Cabinet-makers and related workers
		7523	Woodworking-machine tool setters and operators
	753		Garment and related trades workers
		7531	Tailors, dressmakers, furriers and hatters
		7532	Garment and related patternmakers and cutters
		7533	Sewing, embroidery and related workers
		7534	Upholsterers and related workers
		7535	Pelt dressers, tanners and fellmongers
		7536	Shoemakers and related workers
	754		Other craft and related workers
		7541	Underwater divers
		7542	Shotfirers and blasters
		7543	Product graders and testers (excluding foods and beverages)
		7544	Fumigators and other pest and weed controllers
		7549	Craft and related workers not elsewhere classified

MAJOR GROUP 8 PLANT AND MACHINE OPERATORS, AND ASSEMBLERS

Sub-major group	Minor group	Unit group	Description
81			Stationary plant and machine operators
	811		Mining and mineral processing plant operators
		8111	Miners and quarries
		8112	Mineral and stone processing plant operators
		8113	Well drillers and borers and related workers
		8114	Cement, stone and other mineral products machine operators
	812		Metal processing and finishing plant operators
		8121	Metal processing plant operators
		8122	Metal finishing, plating and coating machine operators
	813		Chemical and photographic products plant and machine operators
		8131	Chemical products plant and machine operators
		8132	Photographic products machine operators
	814		Rubber, plastic and paper products machine operators
		8141	Rubber products machine operators
		8142	Plastic products machine operators
		8143	Paper products machine operators
	815		Textile, fur and leather products machine operators
		8151	Fiber preparing, spinning and winding machine operators

		8152	Weaving and knitting machine operators
		8153	Sewing machine operators
		8154	Bleaching, dyeing and fabric cleaning machine operators
		8155	Fur and leather preparing machine operators
		8156	Shoemaking and related machine operators
		8157	Laundry machine operators
		8159	Textile, fur and leather products machine operators not elsewhere classified
	816		Food and related products machine operators
		8160	Food and related products machine operators
	817		Wood processing and papermaking plant operators
		8171	Pulp and papermaking plant operators
		8172	Wood processing plant operators
	818		Other stationary plant and machine operators
		8181	Glass and ceramics plant operators
		8182	Steam engine and boiler operators
		8183	Packing, bottling and labeling machine operators
		8189	Stationary plant and machine operators not elsewhere classified
82			Assemblers
	821		Assemblers
		8211	Mechanical machinery assemblers
		8212	Electrical and electronic equipment assemblers
		8219	Assemblers not elsewhere classified
83			Drivers and mobile plant operators
	831		Locomotive engine drivers and related workers
		8311	Locomotive engine drivers
		8312	Railway brake, signal and switch operators
	832		Car, van and motorcycle drivers
		8321	Motorcycle drivers
		8322	Car, taxi and van drivers
	833		Heavy truck and bus drivers
		8331	Bus and tram drivers
		8332	Heavy truck and lorry drivers
	834		Mobile plant operators
		8341	Mobile farm and forestry plant operators
		8342	Earthmoving and related plant operators
		8343	Crane, hoist and related plant operators
		8344	Lifting truck operators
	835		Ships' deck crews and related workers
		8350	Ships' deck crews and related workers

MAJOR GROUP 9 ELEMENTARY OCCUPATIONS (Unskilled workers)

Sub-major group	Minor group	Unit group	Description
91			Cleaners and helpers
	911		Domestic, hotel and office cleaners and helpers
		9111	Domestic cleaners and helpers

		9112	Cleaners and helpers in offices, hotels and other establishments
	912		Vehicle, window, laundry and other hand cleaning workers
		9121	Hand launderers and pressers
		9122	Vehicle cleaners
		9123	Window cleaners
		9129	Other cleaning workers
92			Agricultural, forestry and fishery laborers
	921		Agricultural, forestry and fishery laborers
		9211	Crop farm laborers
		9212	Livestock farm laborers
		9213	Mixed crop and livestock farm laborers
		9214	Garden and horticultural laborers
		9215	Forestry laborers
		9216	Fishery and aquaculture laborers
93			Laborers in mining, construction, manufacturing and transport
	931		Mining and construction laborers
		9311	Mining and quarrying laborers
		9312	Civil engineering laborers
		9313	Building construction laborers
	932		Manufacturing laborers
		9321	Hand packers
		9329	Manufacturing laborers not elsewhere classified
	933		Transport and storage laborers
		9331	Hand and pedal vehicle drivers
		9332	Drivers of animal-drawn vehicles and machinery
		9333	Freight handlers
		9334	Shelf fillers
94			Food preparation assistants
	941		Food preparation assistants
		9411	Fast food preparers
		9412	Kitchen helpers
95			Street and related sales and service workers
	951		Street and related sales and service workers
		9510	Street and related sales and service workers
	952		Street vendors (excluding food)
		9520	Street vendors (excluding food)
96			Refuse workers and other elementary workers
	961		Refuse workers
		9611	Garbage and recycling collectors
		9612	Refuse sorters
		9613	Sweepers and related laborers
	962		Other elementary workers
		9621	Messengers, package deliverers and luggage porters
		9622	Odd job persons
		9623	Meter readers and vending-machine collectors
		9624	Water and firewood collectors
		9629	Elementary workers not elsewhere classified

MAJOR GROUP 0 ARMED FORCES OCCUPATIONS

Sub-major group	Minor group	Unit group	Description
01			Commissioned armed forces officers
	011		Commissioned armed forces officers
		0110	Commissioned armed forces officers
02			Non-commissioned armed forces officers
	021		Non-commissioned armed forces officers
		0210	Non-commissioned armed forces officers
03			Armed forces occupations, other ranks
	031		Armed forces occupations, other ranks
		0310	Armed forces occupations, other ranks

ALPHABETICAL INDEX

OCCUPATION	CODE
Abaca farmer	6116
Able seaman	8350
Abrasive wheel molder	7314
Abrasives maker	8181
Accordion maker	7312
Accountant	2411
Accounting assistant	3313
Accounting associate	3313
Accounting manager	1211
Accounting officer	3313
Accounting sales clerk	4311
Accounts clerk	4311
Accounts payable associate	3313
Accounts payable practitioner	4311
Accounts specialist	3313
Accupuncture technician	3259
Acrobat	2659
Actor/Actress (Stage, Theater, Motion picture & Radio)	2655
Actuarial analyst	2121
Actuarial assistant	3314
Actuarial clerk	4312
Actuarial researcher	2121
Actuarial systems program analyst	2512
Actuary	2121
Acupressure technician	3211
Acupressure therapist	3255
Acupuncturist	2230
Addictions counsellor	2635
Adding machine technician	7421
Adjudicator	2611
Administration manager	1211
Administrative clerk	4110
Administrative dietician	2265
Administrative secretary	3343
Administrative services manager	1219
Administrative supervisor	3341
Administrator/Deputy Administrator	1112
Admiral	0110
Admiral of the fleet	0111
Admission clerk	4229
Ads & promo assistant manager	1222
Adult literacy teacher	2359
Advanced care paramedic	2240
Advertising manager	1222
Advertising account executive	2431
Advertising assistant	2431
Advertising clerk	4419
Advertising director	1222

Advertising model	5241
Advertising salesperson	3339
Advertising specialist	2431
Aerial photographer	3431
Aerial surveyor	2165
Aerialist	2659
Aerobics instructor	3423
Aerodrome construction engineer	2142
Aeromechanic	7232
Aeronautical engineer	2144
Aeronautics engineering technician	3115
African oil palm farmer	6117
After-sale service adviser	3322
Agar-agar producers	6222
Aged care home director	1343
Agricultural engineer	2144
Agricultural extension officer	3142
Agricultural inspector	3359
Agricultural machinery fitter	7233
Agricultural machinery mechanic	7233
Agricultural products inspector	3142
Agricultural technician	3142
Agriculture general manager	1311
Agriculturist	2132
Agronomist	2132
Agronomy technician	3142
Air commodore	0112
Air conditioning equipment mechanic	7127
Air conditioning plant installer	7127
Air conditioning plant mechanic	7127
Air duct worker*	7127
Air marshal	0113
Air navigation system specialist	3154
Air pollution analyst	2133
Air pollution control engineer	2143
Air traffic control specialist, station	3154
Air traffic control specialist, tower	3154
Air traffic controller	3154
Air traffic coordinator	3154
Air traffic safety engineer	3155
Air traffic safety technician	3155
Airconditioning technician	3113
Aircraft accident firefighter	5411
Aircraft assembler	8211
Aircraft cabin attendant	5111
Aircraft dispatcher	4323
Aircraft electrician	7412
Aircraft engine fitter	7232
Aircraft fitter (pipe and tube)	7126
Aircraft maintenance engineer (avionics)	7421

Aircraft maintenance officer	3153
Aircraft maintenance supervisor	7232
Aircraft maintenance technician	3115
Aircraft mechanic	7232
Aircraft painter	7132
Aircraft pilot	3153
Aircraft production/maintenance assistant	7232
Aircraft restorer	7232
Aircraft rigger	7215
Aircraft service technician	7232
Airfield power technician	3155
Airfield services officer	3154
Airframe and power plant mechanic	7232
Airframe fitter	7232
Airlines steward and hostess	5111
Airman	0310
Airmotive & equipment mechanic	7232
Airport attendant	5111
Airport control operator	3154
Airport engineer	2142
Airport operation assistant	3154
Airways communicator	3154
Algae cultivator	6225
Alterer	7533
Aluminum cutting machine operator	8121
Ambassador	1112
Ambulance driver	8322
Ambulance officer	3258
Ambulance paramedic	3258
Ammunition assembler	8219
Ammunition products machine operator	8131
Amusement/ theme park manager	1431
Anaesthesiologist	2212
Anaesthetic nurse	2221
Anaesthetist	2212
Analytical chemist	2113
Animal control officer	5419
Animal keeper	6228
Animal nutritionist	2250
Animal pathologist	2250
Animal scientist	2132
Animal technician	3142
Animation programmer	2513
Animator	2166
Annealer	8121
Announcer, radio/television	2656
Answering service operator	4223
Anthropologist	2632
Apiary farmer (apiarist)	6128
Application database administrator	2521

Application development manager	1330
Application programmer	2514
Appraiser	3315
Aquacultural technician	3142
Aquaculture production manager	1312
Aquaculturist	2132
Aquarium fish farm operator (goldfish,corals, etc)	6225
Aquatic biologist	2131
Archaeologist	2632
Architectural engineer	2161
Architectural-designer	3118
Archives manager	1349
Archivist	2621
Area coordinator, manufacturing	3122
Area manager (Insurance)	1346
Armature builder	7412
Armature/coil assembler	8212
Art gallery curator	2621
Art gallery guide	5113
Art gallery manager	1349
Artesian well driller	8113
Artificial inseminator	3240
Artificial limb and brace maker	3259
Artistic painter	2651
Artist-illustrator	3118
Artist's model	5241
Arts therapist	2269
Asphalt roofer	7121
Assembly line operator (automated)	8211
Assembly supervisor	3122
Assembly-line worker (agricultural machinery)	8211
Assembly-line worker (aircraft engine)	8211
Assembly-line worker (heavy machinery)	8211
Assembly-line/automated operator	8171
Assistant actuary	2121
Assistant chef	3434
Assistant correspondence	3343
Assistant midwife	3222
Assistant nurse	3221
Assistant Principal	1345
Assistant professor	2310
Assistant shipping manager	1324
Assistant training manager	1212
Assistant underwriter	3321
Associate accountant	3313
Associate auditor	3313
Associate Judge	2612
Associate professional midwife	3222
Associate professional nurse	3221
Astrologer	5161

Astronomer	2111
Astronomical scientist	2111
Athletes, all sports	3421
Attaché	1112
Attendant (sauna bath, body massage/scrub, foot/hand spa)	5142
Attorney	2611
Auctioneer	3339
Audio electronics service/repairman	7421
Audio visual systems technician	3114
Audiologist	2266
Audiometry nurse	2221
Audio-visual operator	3521
Audio-visual teaching aid specialist	2351
Audit analyst	2413
Audit assistant	3313
Audit clerk	4311
Audit examiner	3313
Audit/Financial Examiner	2411
Auditor	2411
Author	2641
Auto body repairman*	7213
Auto fuel dispatcher	4323
Auto service technician	3115
AutoCAD designer	2519
AutoCAD operator	3511
Autoglazier	7125
Automated assembly line operator	3139
Automated teller machines mechanic	7421
Automobile mechanic	7231
Automotive body builder	7213
Automotive brakes systems service technician	7231
Automotive engineer	2144
Automotive equipment inspector	7412
Automotive mechanic (light duty) *	7231
Automotive painter*	7132
Automotive technology instructor	2320
Automotive/train mechanic	7231
Autopsy attendant	5163
Auxiliary machine operator	8212
Auxillary nurse	3221
Aviation group commander	3153
Aviation maintenance technician	7232
Aviation safety regulation officer	3154
Aviation security guard	5414
Avionics technician	7421
Ayurvedic practitioner	2230
Babysitter	5311
Bacteriological scientist	2212
Bacteriologist	2131

Bacteriology technician	3141
Baggage handler	9621
Bailiff	5414
Baker (general)	7512
Bakery products machine operator	8160
Ballet/Belly dancer	2653
Ballistician	2119
Banana farmer	6117
Band leader	2652
Band manager	1431
Band-saw operator	8172
Bangus farm producer	6221
Bank accountant	2411
Bank cashier	4211
Bank collector	4214
Bank manager	1346
Bank reconciliation assistant	3313
Bank teller	4211
Bantay Dagat	9216
Bar helper	5132
Bar keeper	5132
Barangay affairs worker	3412
Barangay Chairman/Captain	1113
Barangay health aide	5321
Barangay secretary	1113
Barangay treasurer	1113
Barber	5141
Barber-hairdresser	5141
Bargeman	8350
Barista	8183
Barker	9629
Barmaid	5132
Bartender	5132
Basket maker	7317
Basketry weaver	7317
Bass player	2652
Bath attendant	5142
Beach patrolman/patrolwoman	5419
Beam warper	8152
Beater operator (paper and pulp)	8171
Beautician	5142
Beauty consultant	5142
Bed and breakfast operator	5152
Bell boy	9621
Bench molder *	7211
Benefits manager	1212
Benefits officer	3353
Benefits service practitioner	4416
Bereavement counsellor	2635
Bibliographer	2622

Bicycle assembler	8219
Bicycle mechanic	7234
Bicycle repairer	7234
Bill and account collector	4214
Bill courier	4214
Billiards or pool hall manager	1431
Billing clerk	4214
Billing secretary	3344
Biochemist	2131
Biochemistry technician	3141
Biological and feed products inspector	3142
Biological technician	3212
Biologist	2131
Biomedical engineer	2149
Biomedical technician	3212
Biometrician	2122
Biophysicist	2131
Biotechnologist	2131
Birth assistant (clinic or hospital)	5321
Black pepper farmer	6116
Blacksmith*	7221
Blast furnace operator	3135
Blaster	7542
Bleaching machine operator	8154
Blender/petroleum and natural gas refining (ethyl) operator	3134
Blocklayer	7112
Blood-bank technician	3212
Blueprint machine operator	7321
Board secretary	3343
Boat loader	9333
Boatman	8350
Boatswain	8350
Boatswain (navy)	0210
Body artist	3435
Body welder	7212
Bodyguard	5414
Bogger operator	8111
Boiler and pipe insulation worker	7124
Boiler fireman	8182
Boiler operator	8182
Boiler technician	3115
Boiler tender	8182
Boilersmith	7213
Bombardier	0311
Bond analyst	2413
Bonesetter	3230
Book editor	2641
Book embosser (hand and machine)	7323
Bookbinder (hand and machine)	7323
Bookkeeper	3313

Bookkeeping clerk	4311
Bookmaker	4212
Border inspector	3351
Bore sinker	8113
Boring equipment/wells operator	8113
Boring machine-setter operator	7223
Botanist	2131
Bottle filler	8183
Bottle sorter	9329
Bottling machine-operator	8183
Bouncer	5414
Box builder	8219
Braid making machine operator	8159
Branch manager	1346
Brazer	7212
Bread baker	7512
Bread production machine operator	8160
Brewmaster	7515
Brick and tile kiln-operator	8181
Brick and tile molder	7314
Bricklayer's assistant	9313
Bridge or gantry crane operator	8343
Bridge/drainage engineer	2142
Brigadier (army)	0114
Broadcast engineer	2153
Broadcast operations technician	3114
Broadcast stations manager	1222
Broadcast technician	3521
Broadcasting automation system support	3521
Broadcasting equipment operator	3521
Broker assistant	3324
Brokerage clerk	4312
Broom maker (hand)	7317
Brush maker (hand)	7317
Brush painter	7316
Budgeting aide	4311
Budgeting clerk	4311
Budgeting manager	1211
Buffing machine operator	7224
Building architect	2161
Building construction engineer	2142
Building construction supervisor	3123
Building electrician	7411
Building glazier	7125
Building inspector	3112
Building maintenance man*	7119
Building painter	7131
Building permit (licensing) officer	3354
Bulldozer Operator	8342
Bus conductor	5112

Bus driver	8331
Bus inspector	5112
Business analyst (IT)	2511
Business consultant	2421
Business development/marketing specialist	2431
Business permit (licensing officer)	3354
Business services managing-proprietor	1211
Business services salesman	3339
Butcher (Abattoir)*	7511
Butcher (general)	7511
Butcher (Hotel and Restaurant)*	7511
Butler	5152
Butter maker	7513
Butterfly breeder	6128
Buyer	3323
C Language programmer	2514
C T Scan technologist	3211
Cabbage farmer	6113
Cabinet Secretary/Under Secretary/Assistant Secretary	1112
Cabinet/furniture-maker*	7522
Cable and line installer	7413
Cable and rope splicing machine operator	8189
Cable car conductor	5112
Cable driller (gas/oil well)	8113
Cable pulling	7413
Cable splicer	7215
Cable television lineman	7413
CAD/CAM engineer	2152
Cadastral surveyor	2165
Cafe Manager	1412
Cafeteria counter attendant	5246
Cake decorator	7512
Call center agent	4222
Call center agent (sales and marketing)	5244
Call center assistant/representative	4222
Call center salesperson	5244
Camber mechanic	7231
Camera control unit technician	3521
Cameraman/woman (motion picture)	3521
Cameraman/woman (video)	3521
Camp site manager	1439
Candle making	7319
Candle production machine operator	8131
Candy vendor (street)	9520
Cane planter/Sakada	9211
Canning food machine operator	8183
Canning fruit machine operator	8183
Canning vegetable machine operator	8183
Canvasser	3322
Captain (air force, army, navy)	0115

Captain, ship/sea	3152
Car detailer	9122
Car guard	9510
Car washer	9510
Car window washer	9510
Carabao farmer	6121
Carageenan producers	6222
Caravan park manager	1439
Card grinder	7224
Cardboard lining machine operator	8171
Cardiac holding unit nurse	2221
Cardiac surgical nurse	2221
Cardiologist	2212
Cardiovascular telemetry nurse	2221
Career relation payphone and access services	4223
Careers adviser	2423
Caregiver (home-based)	5322
Caregiver (institution-based)	5321
Caretaker	5153
Cargo checker	4323
Cargo clerk	4321
Carpenter, finish*	7115
Carpenter, general*	7115
Carpenter, rough*	7115
Carpet cleaner	9129
Carpet layer	7122
Carpet weaver (hand)	7318
Cartographer	2165
Cartoonist	2651
Cartwright	7522
Carving machine operator (wood)	7523
Carving stone machine operator	8112
Case-hardener	8121
Cash clerk	5230
Cash register clerk	5230
Cashew nut farmer	6117
Cashier	5230
Casino manager	1431
Cassava farmer	6113
Cast concrete product maker	8114
Castañas farmer	6117
Cast-concrete products machine operator	8114
Casting metal machine operator	3135
Cast-stone products machine operator	8114
Cataloguer	2622
Catechist	3413
Catering services general manager	1411
Catering services manager/proprietor	1412
Cattle farmer	6121
Cattle herder	6121

CCTV operator	3521
CCTV/evidence custodian	3114
Cell geneticist	2131
Cement finisher	7114
Cement production plant operator	8114
Central control caster	3135
Central office equipment installer	7422
Ceramic artist	2651
Ceramic engineer	2145
Ceramics and glass technologist	2113
Ceramics decorator	7316
Ceramics dipper	7316
Ceramics kiln operator	8181
Ceramics painter	7316
Ceramics plant operator	8181
Ceramics spray painter	7316
Chairman/Vice Chairman	1112
Chambermaid	5151
Chaperon	5162
Chaplain	2636
Charcoal maker	6213
Charity collector	4214
Chartered accountant	2411
Chauffeur/family driver	8322
Check flight radio operator	3154
Checkout operator	5230
Checkout supervisor	5222
Cheese maker	7513
Chef	3434
Chemical and related processes kiln operator	8131
Chemical bleacher operator	8159
Chemical engineer	2145
Chemical engineering estimator	3116
Chemical engineering technician	3116
Chemical heat treating operator	8131
Chemical laboratory technician	3116
Chemical process engineer	2145
Chemical process technician	3133
Chemical processing plant controllers	3133
Chemical processing plant operator, n.e.c.	8159
Chemical-filtering and separating equipment operator	3133
Chemical-heat-treating-plant operator	3133
Chemical-still and reactor operator	3133
Chemist (general)	2113
Chemistry technician	3111
Chemotherapy nurse	2221
Chicken egg layer	6124
Chicken meat producer	6124
Chief Education Supervisor	1345

Chief communication development officer (government)	1222
Chief Executive Officer	1120
Chief information officer	1330
Chief justice	2612
Chief mate	3152
Chief mechanic/technician	7231
Chief of Staff	1112
Chief Operation Officer	1120
Child and youth counsellor	2635
Child Care Centre Manager	1341
Child care worker	5311
Chimney builder	7112
Chimney sweep	7133
Chinese herbal medicine practitioner	2230
Chipper/paper pulp operator	8171
Chiropractor	3259
Chocolate maker	7512
Chocolate production machine operator	8160
Choir director	2654
Choral group singer	2652
Choreographer	2653
Chutney maker	7514
Cigar and cigarettes production machine operator	8160
Cigar/cigarettes maker	7516
Cigarette ambulant vendor	9520
Cigarette maker, machine	8160
Cinema manager	1431
Cinema projectionist	3521
Cinematographer	2654
Circular-saw operator	8172
Circulation manager	1222
Citrus farmer	6117
City Administrator	1112
City planner	2164
City School Superintendent	1345
City/ Municipal Councilor	1111
Civil engineer	2142
Civil engineering technician	3112
Civil Registrar	1112
Civil secretary	3343
Civilian guard	5414
Claims assessor	3315
Claims evaluator	3315
Claims inspector	3315
Claims verifier	3315
Clay extruding-press operator	7314
Clay mixer	8181
Clay slip maker	8181
Cleaner, aircraft	9112
Cleaner, building exteriors	7133

Cleaner, hotel	9112
Cleaner, office	9112
Cleaner, trains & buses	9112
Cleaning crew, restaurants & food chains	9112
Cleaning services manager	1219
Cleaning services managing-proprietor	1219
Clearing agent	3331
Clerical controller (transport service)	4323
Clerical dispatcher (transport service)	4323
Clerical supervisor	3341
Clerk of court/judge/law	3411
Clerk of the tribunal	3411
Clerk of works	3112
Clicker cutter (machine)	7536
Climatologist	2112
Clinical assistant	3256
Clinical coder	3252
Clinical dietician	2265
Clinical director	1342
Clinical instructor	2310
Clinical nurse	2221
Clinical officer (paramedical)	2240
Clinical psychologist	2634
Cloak room attendant	9629
Cloth weaver (hand)	7318
Cloth weaver (Jacquard loom)	7318
Clown	2659
Club host/hostess	5169
Coach body builder	7522
Coach, sports	3422
Coal mining engineer	2146
Coal washer	8112
Coal-gas maker	8159
Coastal fishery skipper	6226
Coastal waters workers	6226
Cobalt machine technician	3211
Cobbler	7536
Cobol programmer	2514
Coconut farmers	6115
Coding clerk	4413
Coffee and cacao farmer	6117
Coffee taster	7515
Coil winder (hand/machine)	8212
Coke burner	8159
Coke production plant operator	8159
Collator/tabulator	7323
Collection clerk	4214
College Administrator	1345
College Dean	1345
College professor	2310

Colonel (army)	0116
Columnist	2642
Combing textile fibers machine operator	8152
Commentator, radio/television	2656
Commercial artist	2651
Commercial decorator and designer	3432
Commercial photographer	3431
Commercial traveller	3322
Commis chef	3434
Commis helper	9412
Commissary manager	1420
Commissioner/Deputy Commissioner/Assistant	1112
Commodities broker	3324
Commodity futures dealer	3324
Commodore (navy)	0117
Communication analyst (computer)	2523
Communication development engineer	2152
Communication rigger	7422
Communication telephone operator	4223
Communications assistant (ICT)	3512
Communications programmer	2513
Communications technician	7422
Community aged care coordinator	1343
Community center manager	1344
Community development worker	3412
Community health aide	3253
Community health promoter	3253
Community health worker	3253
Community organizer secretary	4120
Community relations officer	2635
Community service worker	3412
Community/public health nutritionist	2265
Companion	5162
Company driver	8322
Company nurse	2221
Company secretary	1211
Compensation manager	1211
Compere' (Emcee, Show Host)	2656
Composite products assembler	8219
Composition roofer	7121
Compositor, cold type/hot metal**	7321
Computer aided design (CAD) operator	3511
Computer analyst	2511
Computer applications engineer	2512
Computer assembler	8212
Computer database assistant	3512
Computer engineering assistant	3512
Computer equipment fitter	7422
Computer games designer	2166
Computer games programmer	2513

Computer graphic artist	2513
Computer graphic layout operator	3511
Computer hardware engineer	2152
Computer help desk operator	3512
Computer instructor	2320
Computer keyer	4132
Computer maintenance specialist	3511
Computer maintenance technologist	3511
Computer network technician	3513
Computer operator	3511
Computer peripheral equipment operator	3511
Computer programming assistant	3512
Computer scientist	2511
Computer service/repairman*	7422
Computer system engineer	2522
Computer systems analysis assistant	3512
Computer teacher (Secondary education)	2330
Computer technicians	3511
Computer trainer	2356
Computer trainor (Primary education)	2341
Computing services manager	1330
Concert artist	2652
Concertmaster	2652
Concierge (building)	5153
Concrete finisher, general*	7114
Concrete mixer driver	8332
Concrete placer	7114
Concrete production machine operator	8114
Concrete shutterer	7114
Concrete-mixer operator	8114
Concrete-mixing-plant operator	8114
Confectioner	7512
Confectionery maker	7512
Conference and event planner	3332
Conference center manager	1439
Conference planner	3332
Confidential agent	5414
Confidential secretary	3343
Congressman	1111
Conservation officer	2133
Conservation scientist	2133
Console operator	8212
Constable	5412
Construction bricklayer	7112
Construction contractor	1323
Construction glazier*	7125
Construction hoist operator	8343
Construction laborer	9312
Construction machinery mechanic	7233
Construction managing proprietor	1323

Construction painter	7131
Construction project manager	1323
Construction stonemason	7113
Construction Sub-contractor	1323
Constructional steel erector	7214
Consul	1112
Consul General	1112
Consultant nurse	2221
Contact center manager	1439
Contact lens optician	3254
Continuity and script editor	2642
Continuous miner operator	8111
Continuous mining machine operator	8111
Control tower officer	3154
Control tower radio operator	3154
Converter operator (chemical processes)	8131
Converting/non-ferrous metal extruder operator	8121
Cook	5120
Cook, private service	5120
Cooling tower cleaner	9129
Cooper	7522
Co-Pilot	3153
Coppersmith	7213
Copy editor	2642
Copy reader	2642
Copying clerk	4415
Copywriter	2642
Core driller	8113
Corn farmers	6112
Coronary nurse	2221
Coroner	2619
Corporal (air force)	0312
Corporal (army)	0313
Corporate compliance manager	1213
Corporate Director	1120
Corporate planning manager	1213
Corporate quality assurance manager	1213
Corporate secretary	3343
Corporate services manager	1213
Corporation Chief executive	1120
Correctional services manager	1349
Correspondence clerk	4419
Cosmetics and skin care beauty consultant	5142
Cosmetologist	5142
Cosmetology instructor	2320
Cost accountant	2411
Cost analyst	2411
Cost computing clerk	4311
Cost controller (Finance)	2411
Cost engineer	2142

Costume designer	2163
Cottage caretaker	5153
Cottage industry worker (wood)	7317
Cotton farmer	6116
Counselling professionals	2635
Counter checker	5249
Counter clerk	4225
Counter enquiries clerk	4225
Courier	4412
Courier driver	8322
Court administrator	2619
Court legal officer	3411
Court legal service chief	3411
Court reporter	3343
Coxswain	8350
Coxswain (navy)	0314
Crafts and trade helper	7549
Crawler crane operator	8343
Creative writer	2641
Credit analyst	3312
Credit and collection clerk	4214
Credit branch operation officer	3312
Credit card operations manager	1221
Credit investigator/appraiser	3312
Credit union manager	1346
Cremator	5163
Crisis intervention worker	3412
Critic	2642
Crocodile farmer	6129
Crossing guard	5419
Crossword puzzle maker	2641
Croupier/Dealer	4212
Crushing, grinding and chemical-mixing machinery operator	8131
Crushing/mineral ore machine operator	8112
Cultural dancer	2653
Culture center worker assistant	3412
Curing machine operator	8154
Curriculum coordinator	2351
Curriculum developer	2351
Customer contact center information clerk	4222
Customer contact center salesperson	5244
Customer credit manager	1221
Customer service assistant	4222
Customer service representative	4222
Customer services manager	1221
Customs broker	1324
Customs declarant	3351
Customs gatekeeper	5414
Customs inspector	3351

Customs officer	3351
Customs representative	3351
Cutter operator	7323
Cutter, mosaic	7113
Cutting machine operator, mine	8112
Cylinder pressman	7322
Cytology technician	3212
Dairy farmer	6122
Dairy product maker	7513
Dairy products machine operator	8160
Dairy technician	3142
Dance and movement therapist	2269
Dance studio manager	1431
Dance teacher	2355
Dancing partner	5169
Darkroom technician	8132
Data administrator	2521
Data and telecommunications cabler	7422
Data entry machine operator	3511
Data entry operator	4132
Data entry supervisor	3341
Data entry/computer clerk	4132
Data entry/converter clerk (card-to-tape)	4132
Data entry/electronic mail clerk	4132
Data entry/encoder clerk	4132
Data entry/punching machine clerk (card and tape)	4132
Data enumerator clerk	4132
Data input clerk	4132
Data operations manager	1330
Data processing manager	1330
Data processor clerk	4132
Data tabulator clerk	4132
Data transcriber clerk	4132
Database administrator	2521
Database analyst	2521
Database architect	2521
Database programmer	2513
Day care worker	3412
Dealer	3322
Debt collector	4214
Deck cadet	3152
Deck superintendent	3152
Declarant	3331
Decorative painter	7131
Decorators/lazers	7314
Deep sea fisherman	6227
Deer farmer	6121
Defense research officer	3355
Dehairing/hide machine operator	8155
Delivery helper	9621

Delivery room nurse	2221
Deliveryman/crew	9621
Demographer	2122
Demonstrator	5242
Dental aide	5329
Dental assistant	3251
Dental associate	3251
Dental hygienist	2261
Dental nurse	2221
Dental practitioner	2261
Dental prosthesis maker	7311
Dental prosthesis repairer	7311
Dental surgeon	2261
Dental technician	3214
Dental therapist	3251
Dentist	2261
Denturist	3214
Dermatological ward nurse	2221
Dermatologist	2212
Derrick/oil and gas well operator	8113
Derrickman	8113
Desk clerk	4225
Desktop publishing operator	7321
Detergent products machine operator	8131
Developer, black and white	7322
Developer, color	7322
Developing/photography machine operator	8132
Developmental driller	8113
Diabetic ward nurse	2221
Diagnostic medical radiographer	3211
Dialysis nurse	2221
Dialysis technician	3211
Die maker*	7222
Diesel engine mechanic	7231
Diesel engine mechanic (except motor vehicle)	7233
Dietary nutritionist	2265
Dietetic management supervisor/adviser	2265
Dietetic/food processing consultant	2265
Dietician	2265
Digester operator	8171
Digging/ quarry laborer	9311
Digital artist	2166
Digital content developers	2513
Digital forensic specialist	2529
Digital press operator	7322
Digital systems computer operator	3511
Digitizer	7321
Direct lithographic pressman	7322
Directional driller	8113
Director (Stage, Theater, Motion picture,& Radio)	2654

Director General/Deputy Director General/Assistant Director General	1112
Director of nursing	1342
Director of photography	2654
Director of the Board	1120
Director/Assistant Director	1112
Directory compiler	4419
Disability services officer	3412
Disbursing clerk	4211
Disc/Video Jockey	2656
Disease registry technician	3252
Dispatch clerk (stock)	4321
Dispatch rider	8321
Dispatcher (sales services)	5249
Dispatching and receiving clerk	4323
Dispensing chemist	2262
Dispensing optician	3254
Display artist	3432
Display decorator	3432
Distribution control operator	3131
Distribution manager	1324
District medical doctor - therapist	2211
District nurse	2221
District Supervisor	1345
Division School Superintendent	1345
Docker	9333
Dockman-diver	8350
Dockman-rigger	8350
Documentary director	2654
Dog breeder	6121
Dog trainer	5164
Doll toy maker	7533
Domestic cleaner/helper	9111
Domestic housekeeper	5152
Door assembler	8219
Door to door sales representative	5243
Door to door salesperson	5243
Doorkeeper	5414
Dorm caretaker	5153
Doubler (yarn)	8151
Draftsman	3118
Draftsman researcher	3118
Draftsman technician	3118
Draftsman, aide	3118
Draftsman, architectural	3118
Draftsman, cartographical	3118
Draftsman, electrical	3118
Draftsman, engineering/civil	3118
Draftsman, hydrographic	3118
Draftsman, mechanical	3118

Draftsman, naval	3118
Draftsman, structural	3118
Dragline operator (mining)	8111
Drama teacher	2355
Drawing/wire machine operator	8121
Dredgeman	8113
Dredgeman (mining)	8111
Dressmaker*	7531
Drilling equipments/wells operator	8113
Drilling machine operator (mine and quarry)	8111
Drilling rig operator	8113
Driver, animal train	9332
Driver, animal-drawn vehicle/road	9332
Driver, cycle rickshaw	9331
Driver, pedal vehicle	9331
Driving instructor	5165
Drop-hammer worker	7221
Drover	6121
Drugless treatment healer	3230
Drummer	2652
Dry kiln operator	7521
Drycleaner, hand	9121
Dry-cleaning machine operator	8157
Dubber	2655
Duck egg layer	6125
Duck meat producer	6125
Dump truck driver	8332
Dyeing machine operator	8154
Early childhood educator	2342
Earth-moving equipment fitter	7233
Earthworm farmer (vermiculturist)	6129
ECG Technician	3211
Echocardiography technician	3211
Ecologist	2133
Econometrician	2631
Economic adviser	2631
Economic analyst	2631
Economic enterprise manager	1221
Economic-interest organization Senior official	1114
Economist	2631
Edge sawyer	8172
Editor	2642
Editorial Staff	2642
EDP assistant	3512
EDP operator	3511
EDP/MIS/IT managers	1330
Education methods adviser	2351
Education methods specialist	2351
Educational psychologist	2634
Eggplant farmer	6113

Eggs producer	6123
Electric arc welder (machine)	7212
Electric cable jointer	7413
Electric line installation machine operator	8212
Electric machine rewinder	7412
Electric meter repairman	7412
Electric motor and generator fitter*	7412
Electric motor repairman*	7412
Electric plant operator	3131
Electric power generation engineer	2151
Electric power lineman	7413
Electric power transmission engineering technician	3113
Electric traction lineman	7413
Electric typewriter technician	7421
Electric welder	7212
Electrical elevator fitter	7412
Electrical engineer	2151
Electrical engineering technician	3113
Electrical engineering technician (high voltage)	3113
Electrical equipment assembler	8212
Electrical fitter (general)	7412
Electrical generator fitter	7412
Electrical inspector	7411
Electrical instrument fitter	7412
Electrical line installer	7413
Electrical mechanic	7412
Electrical motor fitter	7412
Electrical products inspector	7412
Electrical products tester	7412
Electrical repairman,	7411
Electrical switchgear & control apparatus fitter	7412
Electrical technician	7412
Electrical transformer fitter	7412
Electrician, building wiring *	7411
Electro-cardiograph technician	3211
Electroencephalography technician	3211
Electromechanical engineer	2151
Electromechanical equipment assembler	8212
Electronic computer equipment fitter	7422
Electronic computer operator	3511
Electronic equipment assembler	8212
Electronic equipment operator	3114
Electronic equipment servicer	7421
Electronic physicist	2111
Electronic pre-press technician,	7321
Electronic product test engineer	2152
Electronic products inspector	7422
Electronic products tester	7422
Electronic signaling system fitter	7422
Electronic system technician	3114

Electronics and communication equipment technician	3114
Electronics business machines technicians	7421
Electronics engineer	2152
Electronics engineering technicians	3114
Electronics engineering technologist	2152
Electronics fitter (general)	7422
Electronics/computer equipment fitter	7422
Electronics/telecommunications equipment fitter	7422
Electrotherapist	3255
Elevated train driver	8311
Elevator technician	3115
Eligibility interviewer	4229
Eligibility specialist	4229
Embalmer	5163
Embroiderer (Multi-head machine)*	7533
Embroidery machine operator	8153
Emergency medical technician	3258
Emergency medicine specialist	2212
Emergency nurse	2221
Emergency paramedic	3258
Employee data management practitioner	4416
Employers' organization President	1114
Employers' organization Secretary-General	1114
Employers' organization Senior Official	1114
Employment agent	3333
Endodontist	2261
Engine assembler	8211
Engine cadet	3151
Engine installer	8211
Engine marine fitter	7233
Engine/mine and quarry driver	8311
Engineering aide	3119
Engineering technician (production)	3119
Engineering technician (telecommunications)	3522
Engraver and etcher (Artistics)	2651
Engraver, linoleum block, hand	7316
Engraver, metal printing die, hand	7316
Engraver, metal printing plate, hand	7316
Engraver, metal printing roller, (hand/machine)	7316
Engraver, printing	7316
Engraver, printing/lithographic stone	7316
Engraver, rubber and wood (hand)	7316
Enlarging/photography machine operator	8132
Enrolled nurse	3221
ENT nurse	2221
Entomologist	2131
Entry and exit vessels processing technician	3151
Enumerator clerk	4110
Environmental adviser	2133
Environmental analyst	2143

Environmental auditor	2133
Environmental consultant	2133
Environmental engineer	2143
Environmental health officer	2263
Environmental remediation specialist	2143
Environmental research scientist	2133
Environmental sanitation inspector	3257
Environmental scientist	2133
Equine evaluator	3240
Equipment manager (mining)	1322
Erector, radioaerial	7421
Erector, structural metal	7214
Errand boy	9510
Escort	5169
Essayist	2641
Estate agent	3334
Estate management officer	3334
Estate planner	2412
Etcher (printed circuit board)	8212
Ethnologist	2632
Evaporator operator	8154
Excavator operator	8342
Excise officer	3352
Executive assistant	3343
Executive chef	3434
Executive Director/Deputy Executive Director	1112
Executive sales agent	3322
Exploration manager	1322
Explosive ordinance engineer	2149
Explosive products machine operator	8131
Export credit guarantee specialist	3312
Export credit insurance underwriting officer	3321
External audit manager	1211
Extractive engineering technician	3117
Extractive metallurgist	2146
Extruding/rubber machine operator	8141
Eyeglass frame assembler	8219
Fabric bleaching machine operator	8154
Fabric examiner	7318
Fabric repairer	7318
Facilities manager	1219
Failure analysis engineer	2151
Fairground attendant	9629
Faith healer	3230
Family caseworker	2635
Family counsellor	2635
Family day care worker	5311
Family medical practitioner	2211
Family service worker	3412
Family services manager	1344

Farm demonstrator	3142
Farm laborer	9213
Farm machinery mechanic	7233
Farm technician	3142
Farm tractor mechanic	7233
Farm worker	9211
Farm/overseers manager	1311
Farmer (mixed farming)	6130
Farmhands laborer	9211
Farming adviser	2132
Fashion consultant	2163
Fashion designer	2163
Fashion model	5241
Fast-food cook	9411
Feature writer	2641
Feeder operator (printing)	7322
Feldscher	2240
Fellmonger	7535
Felt hood former	8159
Fengshui	5161
Ferry hand	8350
Fertilizer plant operator	8159
Fiber aide	7318
Fiber blender	7318
Fiber carder	7318
Fiber classer	7318
Fiber grader	7318
Fiber lapper	7318
Fiber mixer	7318
Fiber picker	7318
Fiber preparer	7318
Fiber preparing machine operator	8151
Fiber technician	3142
Fiber/textiles comber	7318
Fiber/textiles drawer	7318
Fiber/textiles rover	7318
Fiberglass maker	8181
Fibrous Plasterer	7123
Field clerk	4110
Field crop technical officer	3142
Field marshal	0118
Field reporter	2656
Fighter pilot	3153
Fighter Pilot Escape & Evasion Training instructor	2359
Filing clerk	4415
Filing clerks supervisor	3341
Filler metal molder	7211
Filler, stock	9334
Film editor	2654
Film/color developer	8132

Final audit process engineer	2411
Finance broker	3311
Finance clerk	4312
Finance dealer	3311
Finance manager	1211
Finance practitioner	4312
Financial analyst	2413
Financial controller	2411
Financial planner	2412
Fingerprint examiner	3355
Fingerprint technician	3355
Finishing machine operator	8154
Finishing supervisor	3122
Fire aide	5411
Fire brigade/marshall	5411
Fire inspector	3112
Fire investigator	3119
Fire prevention specialist	3112
Fire truck driver	8332
Firebrick layer	7112
Firefighter	5411
Firefighting operative	5411
Fireman/Firewoman	5411
Firewood collector	9624
Firewood gatherer	6214
First aid assistant	5329
Fiscal analyst	2413
Fiscal clerk	4110
Fiscal examiner	3411
Fish catcher for aquarium	6229
Fish filleter	7511
Fish hatchery/nursery farm operator	6225
Fish processing machine operator	8160
Fish processing worker	7511
Fish smoker	7514
Fisheries adviser	2132
Fisheries inspector	3359
Fisherman/woman (coastal waters)	6226
Fisherman/woman (inlandl waters)	6226
Fishery caretaker	9216
Fishery technician	3142
Fishing operations manager	1312
Fishmonger	7511
Fitness instructor	3423
Fitter, pipe	7126
Flame cutter	7212
Flexographic press operator	7322
Flight attendant	5111
Flight control tower operator	3154
Flight engineer	3153

Flight instructor	2359
Flight navigator	3153
Flight sergeant	0211
Flight steward/stewardess	5111
Float-glass bath operator	8181
Floating crane master (gov)	8343
Floor and fit molder *	7211
Floor layer	7122
Floor manager (broadcasting)	3435
Flotation minerals worker	8112
Flutist	2652
Flying instructor	3153
Flying officer (military)	0119
Foil Stamp operator	7323
Folder operator	7323
Foliage propagator	6118
Food and nutrition specialist	2265
Food attendant	5131
Food chemist	2113
Food grader	7515
Food Packer	9321
Food pickler	7514
Food preparer	7511
Food preserver	7514
Food production coordinator	1321
Food sanitation and safety inspector	3257
Food server	5131
Food service dietician	2265
Food taster	7515
Food-drug regulation officer	2269
Footwear production machine operator	8156
Foreign exchange broker	3311
Foreign exchange dealer	3311
Foreman/woman, assembly	3122
Forensic chemist	2113
Forensic pathologist	2212
Forensic science technician	3119
Forensic/sketch artist	2651
Forest concession guard	3359
Forest firefighter	5411
Forest ranger	6211
Forest technician	6211
Forester	2132
Forestry adviser	2132
Forestry inspector	3359
Forestry scientist	2132
Forestry technician	3143
Forestry/hunting general manager	1311
Forging press worker	7221
Fork lift operator	8344

Fortune teller	5161
Forwarding agent	3331
Foundry worker	7222
Fourth mate	8350
Franchise relation officer	3322
Free newspaper distributor	9510
Freelance writer	2641
Freezer, meat and fish	8160
Freight and shipping specialist	3152
Freight clerk	4321
Freight forwarding manager	1324
Freight train railway brakeman	8312
Frog raiser	6225
Front office manager	1221
Front-end loader Operator	8342
Fruit farmer	6117
Fruit juice production machine operator	8183
Fruit preserver	7514
Fruit/vegetable picker	9211
Fuel technologist	2145
Fuel tender	8159
Fumigation supervisor	2269
Fumigator	7544
Funeral undertaker	5163
Fur fiber mixer (machine)	8159
Fur pattern-maker	7532
Fur producer (non-domesticated animals)	6129
Fur sewer (hand)	7533
Fur trapper	6228
Furniture finisher, wood	8219
Furniture painter (spray)	7132
Furniture production machine operator	7523
Furrier	7531
Gabi farmer	6113
Gallery technician	3433
Game bird breeder	6129
Game developers	2513
Game warden	5419
Garage mechanic	7231
Garbage collector	9611
Garbage dumper	9611
Garden laborer	9214
Gardener	9214
Garlic/onion (and other spices) farmer	6116
Garment cutter	7532
Garment marker	7532
Garment patternmaker	7532
Garments sewer*	7533
Gas or oil well cementer	7114
Gas pipe fitter	7126

Gas plant operator	3134
Gas tungsten arc welder *	7212
Gas turbine system technician (electrical)	3113
Gas turbine system technician (mechanical)	3115
Gas welder	7212
Gas/oil well puller	8113
Gas/oil well rotary driller	8113
Gasoline attendant	5245
Gatekeeper/Roving guard	5414
Gatherer operator	7323
Gauge maker	7222
Gearbox assembler	8211
Geese farmer	6126
Gem cutter/faceter	7313
Gem setter	7313
Genealogist	2633
General (army)	0120
General electrician	7411
General ledger accountant	2411
General Manager, fishing	1312
General office clerk	4110
General practitioner	2211
General secretary	3343
Generating station operator	3131
Geodetic engineer	2142
Geodetic surveyor	2165
Geographer	2632
Geological oceanographer	2114
Geologist	2114
Geologist engineer	2114
Geology technician	3111
Geophysical Oceanographer	2114
Geophysical scientist	2114
Geophysicist	2114
Geotechnical engineer	2142
Geotechnical technician	3112
Geothermal engineer	2114
Geriatric nurse	2221
Geriatric physical therapist	2264
Ginger farmer	6116
Glass blower	7315
Glass cutter	7315
Glass cutter (optical)	7315
Glass edge grinder	7315
Glass enameller	7316
Glass engraver	7316
Glass etcher	7316
Glass finisher	7315
Glass former	8181
Glass kiln operator	8181

Glass lens molder	7315
Glass mixer	8181
Glass painter	7316
Glass plant operator	8181
Glass production furnace operator	8181
Glass sandblaster	7316
Glass scientific blower	7315
Glass temperer	8181
Glass tube bender	7315
Glass tube maker	8181
Glass-annealing furnaceman	8181
Glass-blowing machine operator	8181
Glass-drawing machine operator	8181
Glass-making furnaceman	8181
Glass-pressing machine operator	8181
Glaze maker	8181
Glazier	7125
Glove cutter	7532
Goat farmer	6121
Gold panner	9311
Goldsmith	7313
Golf caddie	9629
Governor/Deputy Governor of the Central Bank	1112
Governor/Vice Governor	1111
Graffiti cleaner	9129
Graft investigation officer	3411
Granite Cutter	7113
Grapevine farmer	6117
Graphic designer/artist	2166
Graphic director	1222
Grave digger	5163
Gravure press operator	7322
Greaser	7233
Greenkeeper	9214
Grinding machine operator (wood)	8171
Grinding/chemical and related process machine operator	8112
Grocer	5221
Grocery manager	1420
Ground instructor	2320
Ground signalling technician	3155
Groundskeeper	5153
Group captain, (air force)	0121
Guard patrol	5414
Guitar teacher	2354
Guitarist	2652
Gunners mate	0315
Gunsmith	7222
Gynecologist	2212
Hair care specialist	5141

Hairdresser	5141
Hairstylist	5141
Halogen gas production machine operator	8131
Hammer-smith	7221
Hand braidmaker	7318
Hand compositor	7321
Hand coremaker	7211
Hand crocheter	7318
Hand dipper	7316
Hand dish washer	9412
Hand embroiderer	7533
Hand metal former	7221
Hand sewer	7533
Hand sewer, leather	7533
Hand wire drawer	7221
Handicraft designer	7317
Handicraft model maker	7317
Handicraft worker, carpets	7318
Handicraft worker, leather	7318
Handicraft worker, paper	7317
Handicraft worker, reed weaving	7317
Handicraft worker, stone articles	7317
Handicraft worker, textiles	7318
Handicraft worker, wooden articles	7317
Handler, freight	9333
Handler, stock	9334
Hand-operated machine knitter	7318
Handyperson	9622
Harbor master	3152
Harbor patrol	5414
Hardener	8121
Hardening/metal furnace operator	8121
Hardware technician	7422
Harvester operator	8341
Hat and cap-pattern maker	7532
Hat blocking machine operator	8159
Hat making machine operator	8159
Hatter	7531
Hawker	9520
Hawker (food)	5212
Head chef	3434
Head cook	5120
Healer of indigenous people (e.g. Mansi-bok (Ibaloi); Mansip-ok (Kankana-ey) ii	3230
Health and safety engineer	2149
Health information clerk	3252
Health inspector	3257
Health physics technician	3119
Heating and ventilation technician	3113
Heating, ventilation and aircondition engineer	2144

Heat-treating/metal furnace operator	8121
Heavy truck driver	8332
Helicopter mechanic	7232
Hematology nurse	2221
Hemodialysis nurse	2221
Herbalist	3230
Herbarium technician	3141
Herd tester	3142
Hide and skin grader	7535
Hide dehairer	7535
Hide flesher	7535
Hide splitter	7535
High school teacher	2330
High-speed computer printer operator	3511
Highway and street construction engineer	2142
Hi-speed sewer	7533
Historian	2633
Hod carrier	9313
Hog raising producers	6127
Home birth assistant	5322
Home care aide	5322
Home economics (Primary education)	2341
Home health care nurse	2221
Homeopath	2230
Honing-machine setter-operator	7223
Horse breaker	5164
Horse breeder	6121
Horse riding instructor	3423
Horticultural laborer	9214
Horticultural technical officer	3142
Horticulturist	6118
Hospital admissions clerk	4229
Hospital aide	5321
Hospital attendant	5321
Hospital matron	1342
Hospital orderly	5329
Hospital pharmacist	2262
Hospital ward secretary	3344
Hospitality girl (GRO)	5169
Host/Hostess	5169
Hotel front desk clerk	4224
Hotel housekeeping attendant	5151
Hotel manager	1411
Hotel receptionist	4224
Hotel useful	9622
House Builder	7111
House painter	7131
House parent	5322
House steward/stewardess	5152
Houseboy	9111

Household attendant	9111
Housekeeper (hotel)	5151
Housekeeper (institutional)	5151
Housemaid	9111
Housing and home site regulation officer	3334
Housing services manager	1344
Human resource assistant	4416
Human resource clerk	4416
Human resource development specialist	2423
Human resource generalist	2423
Human resource supervisor	3341
Humanitarian organization Senior Official	1114
Hunter	6228
Hunter-gatherer	6340
Hydraulic engineer	2142
Hydraulic, back hoe, excavator operator	8342
Hydroelectric power plant operator	3131
Hydro-geologist	2114
Hydrographer	2114
Hydrographic surveyor	2165
Hydrologist	2114
Hydrometeorologist	2112
Hydrotherapist	3255
Hypnotist	2659
Ice cream maker	7513
ICT development manager	1330
Illustrator	2166
Imam	2636
Immigration officer	3351
Immigration services officer	3351
Import/export manager	1324
Imposer	7321
Impresario	1219
In vitro fertilization nurse	2221
Incinerator operator	3132
Independent nurse practitioner	2221
Industrial and commercial products designer	3432
Industrial design engineer	2141
Industrial designer	2163
Industrial efficiency engineer	2141
Industrial efficiency technician	3119
Industrial Electrician	7411
Industrial engineer	2141
Industrial equipment fitter	7233
Industrial machinery and tools engineer	2144
Industrial machinery and tools technician	3115
Industrial nurse	2221
Industrial pharmacist	2262
Industrial photographer	3431
Industrial plant mechanic	7233

Industrial relations management specialist	2423
Industrial relations manager	1212
Industrial robot controller	3139
Industrial sewing machine mechanic	7233
Industrial sewing machine operator	8153
Industrial zone manager	1212
Infantryman/woman	0316
Information and communication technology manager	1330
Information clerk	4225
Information systems director	1330
Information technology (IT) specialist	2523
Information technology manager (IT Manager)	1330
Information technology professor	2310
Information technology trainers	2356
In-house counsel	2619
Inland waters workers	6226
In-line reviser	3119
Inmate guidance officer	5413
Insecticidal and medicinal grower	6119
Inspector-general (police)	1112
Institution-based personal care worker	5321
Instrument control engineer	2149
Instrument technician	3119
Instrument/musical maker (brass)	7312
Instrument/musical maker (string)	7312
Instrument/musical maker (woodwind)	7312
Instrumentalist	2652
Instrumentation and control technician	3114
Instrumentation engineer	2152
Instrumentation repairman	7412
Insulation installer	7124
Insulation worker, accoustical	7124
Insulator worker (Aeronautical)	7124
Insulator*	7124
Insurance adjuster	3321
Insurance adviser	3321
Insurance agency manager	1346
Insurance agent	3321
Insurance assessor	3315
Insurance broker	3321
Insurance clerk	4312
Insurance examiner	3321
Insurance processor	3321
Insurance risk analyst	3353
Insurance underwriter	3321
Insurance/risk officer	3321
Intelligence agent	3355
Intelligence assistant	3355
Intelligence officer	2422
Intensive care unit nurse	2221

Intensive language teacher	2353
Interactive media writer	2641
Interior architect	2161
Interior decorator	3432
Interior designer	3432
Internal audit manager	1211
Internal combustion engine fitter assembler (except aircraft and marine)	8211
Internal combustion engine fitter-assembler	7231
Internet developer	2513
Internet salesperson	5244
Internet service provider	1330
Interpreter	2643
Investigation agent	3355
Investment analyst	2413
Investment consultant	2413
Investment manager	1211
Invoice clerk	5230
Iron works fabricator	7214
Irrigated, rice farmer	6111
IT and LAN technician	3511
IT engineers	2523
IT sales	2434
IT technical sales specialist	2434
Jacquard card cutter	8152
Jacquard design copyist	8152
Jacquard weaver	8152
Jail guard	5413
Jail inspector	3355
Jail officer	3355
Jam maker	7514
Janitor	5153
Java programmer	2514
Jeepney driver	8322
Jet engine mechanic	7232
Jeweller (general)	7313
Jewellery assembler	8219
Jewellery designer	2163
Jewelry caster (hand)	7313
Jewelry caster (machine)	7313
Jewelry engraver	7313
Jewelry finishers, by hand and machine	7313
Jewelry maker (goldsmith, silversmith)*	7313
Jewelry polisher	7313
Jewelry repairer	7313
Jig maker	7222
Job analyst	2423
Job placement officer	3333
Joiner	7115
Journalist	2642

Judge	2612
Judge's clerk	3411
Judicial officer	2611
Jumbo operator	8113
Jurist (except lawyer or judge)	2619
Justice of the peace	3411
Jute farmer	6116
Kaingeros	9215
Keyboard player	2652
Kindergarten teacher	2342
Kiosk salesperson	5211
Kitchen assistant	9412
Kitchen hand	9412
Kitchen helper	9412
Kitchen porter	9412
Kitchen steward	9412
Knife assembler	8219
Knitter	7318
Knitting machine operator (general)	8152
Knitting setter (machine)	8152
Labeller, hand	9321
Labelling machine operator	8183
Labor contractor	3333
Labor economist	2631
Labor organization Senior Official	1114
Labor relations manager	1212
Laboratory clerk	4110
Laboratory technician	3119
Laborer, assembling	9329
Laborer, construction building	9313
Laborer, demolition	9313
Laborer, forestry	9215
Laborer, manufacturing (hand)	9321
Laborer/helper, fishery	9216
Lace weaver (machine)	8152
Ladle pourer	8121
Lady guard	5414
Laminated press operator (plastics)	8142
Land management inspector	3359
Land management officer	3359
Land Planner	2164
Land surveyor	2165
Landscape architect	2162
Landscape gardener	6118
Language researcher	2353
Language teacher (Primary education)	2341
Language teacher (Secondary education)	2330
Language therapist	2266
Language trainer	2353
Large sheet-fed press operator	7322

Laser private operator	3211
Laster	7536
Latex worker	8141
Lathe operator (stone)	7113
Lathe setter-operator *	7223
Launch master	3152
Launch master	8350
Launch patron	3152
Launch patron	8350
Launch service supervisor	3152
Launch service supervisor	8350
Launderer, hand	9121
Laundry machine operator	8157
Laundry pressing machine operator	8157
Lavatory attendant	9112
Lawn mower	9214
Lawyer	2611
Lay evangelist	3413
Lay minister	3413
Lay preacher	3413
Layout director	1222
Leaded-glass glazier	7125
Leaflet distributor	9510
Learning disabilities special education teacher	2352
Learning practitioner	4416
Learning support teacher	2352
Leather currier	7535
Leather cutter	7532
Leather dyer	7535
Leather goods assembler *	7536
Leather goods maker (general)	7536
Leather patternmaker	7532
Leather production machine operator	8156
Leather products assembler	8219
Leather sewer (hand/machine)	7536
Leather stainer	7535
Lecturer	2359
Legal counsel	2611
Legal adviser	2619
Legal aide	3411
Legal analyst	2611
Legal assistant	3411
Legal consultant	2619
Legal practice manager	3342
Legal researcher	2619
Legal secretary	3342
Legal service manager	1349
Legal stenographer	4131
Legislative committee secretary	3343
Legislative staff assistant	3411

Legislative staff officer	3411
Leisure center manager	1431
Letter Press-pressman*	7322
Letters of credit analyst	3312
Lexicographer	2643
Librarian	2622
Librarian aide	4411
Library assistant	4411
Library clerk	4411
Library filer	4411
Library manager	1349
Library technician	3433
License examiner	3354
License inspector	3354
Licenser	3354
Licensing officer	3354
Lieutenant	0122
Lieutenant colonel (army)	0123
Lieutenant commander (navy)	0124
Lieutenant, flight	0125
Life science technician	3141
Life skills instructor	3412
Lifeguard	5419
Lift mechanic	7412
Lifting truck operator	8344
Light and optics physicist	2111
Lighthouse keeper	5153
Lighting technician	3435
Line technician	3114
Lineman	7413
Lineman/electric power*	7413
Lineman/telephone/telegraph/cable TV	7413
Linguistic specialist	2353
Linotype operator	7321
Liquid waste process operator	3132
Liquor taster	7515
List/Addresses clerk	4110
Literacy tutor	2359
Literary agent	3339
Literary writer	2641
Literature teacher	2330
Lithographic artist	3118
Livestock farm laborer	9212
Livestock inspector	3142
Loader operator	8341
Loan clerk	4213
Loan officer	3312
Loan processor	4213
Local legislative officer	3411
Locksmith	7222

Locomotive engine driver	8311
Log cut-off operator	8172
Log marker	6212
Log scaler	6212
Logger	6212
Logging plant operator	8341
Logistics and warehouse officer	3331
Logistics clerk	4312
Logistics manager	1324
Loom threader (machine)	8152
Loomfixers	7233
Lowland, rice farmer	6111
Lubrication man	7233
Lubrication supervisor	3122
Luggage finisher	8219
Luggage porter	9621
Lumber grader	6212
Lumber kiln operator	7521
Lumberjacks	6212
Luxury ship nurse	2221
Lyricist	2652
Macaroni maker	7512
Machine cellophane bag maker	8142
Machine coremaker	7211
Machine crocheter	8152
Machine molder	7211
Machine operator (cardboard products)	8143
Machine operator (envelope and paper bag production)	8143
Machine operator (paper box production)	8143
Machine sewer	7533
Machine tool setter-operator	7223
Machine wire drawer	8121
Machinery erector and installer	7233
Machinery mechanic (general)	7233
Magbobote	9612
Magician	2659
Magistrate	2612
Magnetic recorder operator	3114
Mail clerk	4412
Mail messenger	4412
Mail/Dispatch clerk	4412
Mail/Sorting clerk	4412
Maintenance clerk	4110
Maintenance electrician	7411
Maintenance engineer	2144
Maintenance laborer	9312
Maintenance storekeeper	5221
Maintenance technician	3115
Major (army)	0126

Maker and repairer, instrument/meteorological	7311
Maker and repairer, instrument/surgical	7311
Maker, umbrella	7533
Make-up artist	5142
Mammographer	3211
Management accountant	2411
Management consultant	2421
Management information analyst	2523
Management information system designer	2511
Managing Director	1120
Managing news editor	2642
Mango farmer	6117
Manicurist	5142
Mannequin model	5241
Manufactured articles painter	7132
Manufactured articles varnisher	7132
Manufacturer	1321
Manufacturer's agent	3322
Manufacturing general manager/proprietor	1321
Manufacturing manager	1321
Marina attendant	5245
Marine architect	2144
Marine biologist	2131
Marine craft mechanic	7233
Marine engineer	2144
Marine engineering technician	3115
Marine machinery mechanic	7233
Marine pipe fitter	7126
Marine salvage engineer	2149
Market aide	9111
Market gardener	6118
Market inspector	3359
Market research analyst	2431
Market research interviewer	4227
Market salesperson	5211
Market stallholder	5211
Market sweeper	9613
Market tender	5221
Market vendor	5211
Marketing agent	3339
Marketing assistant	3322
Marketing coordinator	2431
Marketing executive	1221
Marketing executive	2431
Marketing manager	1221
Marketing secretary	4120
Marketing specialist	2431
Marquetry inlayer	7522
Marriage counsellor	2635
Marshall	5414

Mascot	2659
Mason (general)	7113
Mason leadman	7113
Mason, monument	7113
Massage therapist	3255
Master fisherman	6227
Master Sergeant	0212
Material control/Material handling clerk	4322
Material engineer	2149
Material resources manager	1324
Mathematical assistant/aide	3314
Mathematical statistician	2122
Mathematician (applied mathematics)	2121
Mathematician (pure mathematics)	2121
Mathematics coach	2359
Matron (housekeeping)	5151
Mattress maker	7534
Mayor/Vice Mayor	1111
Meat cutter	7511
Meat processing machine operator	8160
Meat smoker	7514
Mechanic physicist	2111
Mechanic, heavy equipment*	7233
Mechanic, hydraulic*	7233
Mechanical engineer	2144
Mechanical engineering estimator	3115
Mechanical engineering technician	3115
Mechanical planner and scheduler	3115
Mechanical products inspector	7233
Mechanical products tester	7233
Media interviewer	2656
Media production specialist	2431
Medical administrator	1342
Medical aide	5321
Medical assistant	3256
Medical claims benefits	3353
Medical doctor (general)	2211
Medical equipment fitter	7422
Medical imaging assistant	5329
Medical insurance	3344
Medical laboratory technician	3212
Medical office administrative assistant	3344
Medical officer (general)	2211
Medical pathologist	2212
Medical practice manager	3344
Medical radiation technician	3211
Medical radiation therapist	3211
Medical receptionist	4226
Medical records analyst	3252
Medical records clerk	3252

Medical records technician	3252
Medical records unit supervisor	3252
Medical relation assistant	3344
Medical scanning equipment technician	3211
Medical secretary	3344
Medical stenographer	3344
Medical transcriptionist	3344
Medical underwriter	3321
Medical ward nurse	2221
Medical x-ray technician	3211
Medico-legal nurse	2221
Melting/metal, furnace operator	3135
Member of the Barangay Council (Sangguniang Pambarangay)	1111
Member of the Provincial Board (Sangguniang Panlalawigan)	1111
Mental health worker	3412
Merchandiser	3322
Merchandising assistant	5223
Merchandising supervisor	2431
Message handling operator	4223
Messenger	9621
Metal castings molder	7211
Metal coating machine operator	8122
Metal drawer machine operator	8121
Metal engraving etcher	7316
Metal extruder operator	8121
Metal extrusion plant operator	8121
Metal finisher	7224
Metal finishing machine operator	8122
Metal heat treating operator	8121
Metal marker	7222
Metal mining engineer	2146
Metal pattern maker	7222
Metal plating machine operator	8122
Metal polisher	7224
Metal processing control operator	3135
Metal products (except mechanical) assembler	8219
Metal roofer	7121
Metal shipwright	7214
Metal toymaker	7319
Metal wind instrument maker	7312
Metallurgical engineer	2146
Metallurgical technician	3117
Metallurgist	2146
Metals technologist	3117
Metal-wheel grinder	7224
Metalworking machine-tool fitter	7233
Metalworking machine-tool mechanic	7233
Metalworking-machine setter-operator (general)	7223
Meteorological scientist	2112
Meteorologist	2112

Meteorology technician	3111
Meter reader	9623
Methods engineer	2141
Metro aide	9613
Micro computer operator	3511
Micro editor operator	3511
Micro filming machine operator	3511
Microbiologist	2131
Midshipman	0127
Migrant education teacher	2353
Milk collector	7513
Milk processing machine operator	8160
Milker	7513
Milliner	7531
Milling machine setter-operator *	7223
Milling/minerals machine operator	8112
Mill-wright	7522
Mine and quarry brakeman	8312
Mine cageman	8343
Mine deputy	3121
Mine hoist operator	8343
Mine manager	1322
Mine shot firer	7542
Mine supervisor	3121
Mine surveyor	2165
Mine under-manager	3121
Miner	8111
Mineral analyst	2114
Mineral ore processing plant operator	8114
Mineralogist	2114
Minerals floating worker	8112
Mines inspector	3117
Mining engineer	2146
Mining engineering technician	3117
Mining laborer	9311
Mining machinery fitter	7233
Mining machinery mechanic	7233
Mining plant operator	8111
Minutes agenda officer	3343
Mirror silverer	7316
Missionaries	2636
Mixer operator	8114
Mixing/clay & glass machine-operator	8181
Mobile crane operator	8343
Mobile Plant Operator	8342
Mobility practitioner	4419
Molding machine operator (plastics)	8142
Molecular biologist	2131
Molecular geneticist	2131
Money changer	4211

Money lender	4213
Mongo beans farmer	6113
Monk	3413
Monotype keyboard operator	7321
Mortgage clerk	4312
Mortgage officer	3312
Mortuary beautician	5142
Motel manager	1411
Motion picture director	2654
Motor coach driver	8331
Motor truck mechanic	7231
Motor vehicle mechanic	7231
Motor vehicle repairer	7231
Motor vehicle service technician	7231
Motorcycle driver	8321
Motorcycle escort	5414
Motorcycle mechanic	7231
Motorcyclist	8321
Motorized farm equipment operator	8341
Motorized farm plant operator	8341
Motorized forestry plant operator	8341
Mountaineering guide	5113
Movie equipment technician	3521
Multibinder operator	7323
Multimedia designer	2166
Multimedia programmer	2513
Museum curator	2621
Museum guard	5414
Museum guide	5113
Museum manager	1349
Museum researcher	2621
Museum technician	3433
Mushroom cultivator	6118
Music composer	2652
Music conductor	2652
Music teacher	2354
Musical arranger	2652
Musical director	2652
Musical instrument tuner	7312
Musical performance agent	3339
Musician	2652
Mycologist	2131
Nanny	5311
Native cakes/kakanin makers	7512
Naturopath	2230
Naval architect	2144
Naval officer (military)	0128
Navy commander	0129
Neonatal nurse	2221
Net maker (hand)	7318

Network administrator	2522
Network analyst	2523
Network engineer	2522
Network manager	1330
Network support technician	3513
Neurologist	2212
Neurology/neurosurgeon nurse	2221
Neurosurgeon	2212
New accounts clerk	4312
News agent	5221
News analyst	2642
News anchor	2656
News correspondent/reporter	2656
News photographer	3431
Newspaper ambulant vendor	9520
Newspaper deliverer	9621
Newspaper editor	2642
Newspaper reporter	2642
Night club dancer	2653
Night club musician	2652
Night club singer	2652
Nightclub manager	1411
Nipa house builder (sawali, straw)	7111
Non-ferrous metal converting and refining furnaceman	8121
Non-formal education teacher	2359
Noodle makers	7512
Notary	2619
Novelist	2641
Nuclear engineering technician	3116
Nuclear medicine technologist	3211
Nuclear physicist	2111
Nuclear power engineer	2144
Nuclear power plant operator	3131
Numerical control machine setter-operator	7223
Numerologist	5161
Nun	3413
Nurse educator	2221
Nursemaid	5311
Nursery aide	5311
Nursery grower	6118
Nursery laborer	9214
Nursery school attendant	5311
Nursery school teacher	2342
Nursing aide (clinic or hospital)	5321
Nursing aide (home)	5322
Nursing attendant	5321
Nursing home director	1343
Nutrition program coordinator	2265
Nutritionist	2265
Nutritionist research dietician	2265

OB-Gyne nurse	2221
Obstetrician	2212
Occupational analyst	2423
Occupational health and safety adviser	2263
Occupational health and safety inspector	3257
Occupational health nurse	2221
Occupational hygienist	2263
Occupational therapist	2269
Occupational therapy technician	3259
Odd-job person	9622
Office clerk	4110
Office equipment clerk	4110
Office equipment technician	7421
Office machinery fitter	7233
Office machines mechanic	7421
Office secretary	4120
Officer cadet (armed forces)	0130
Officer cadet (army)	0131
Official, sports	3422
Offset Press (web fed)*	7322
Offset Pressman	7322
Offset Pressman (sheet fed)*	7322
Offset printing press operator	7322
Oil and gas wells acidizer	3117
Oil expeller	7514
Oiler	7233
Ombudsman	1112
Oncology nurse	2221
Opening bridge operator	8343
Operating and delivery nurse	2221
Operations manager	1324
Operations research analyst	2121
Ophthalmic assistant	3256
Ophthalmic optician	2267
Ophthalmologist	2212
Ophthalmology nurse	2221
Optic fiber drawer	8142
Optical engineer	2149
Optical instrument maker	7311
Optical instrument repairer	7311
Optical lens finisher	7549
Optical lens molder	7549
Optometrist	2267
Oracle programmer	2514
Oral and maxillofacial surgeon	2261
Oral pathologist	2261
Orbital welder	7212
Orchard technician	3142
Orchestra conductor	2652
Orchestra director	2652

Orchid plant grower	6118
Order/Materials clerk	4322
Ordinary seaman	8350
Ore furnace operator	8121
Ore smelting blast furnaceman	8121
Organ builder	7312
Organic/Inorganic chemist	2113
Organization and methods analyst	2421
Organization/enterprise Board Directors and Members	1120
Organization/enterprise Deputy administrator	1120
Organization/enterprise Executive Assistant	1120
Organization/enterprise Executive Vice-President	1120
Organization/enterprise marketing director	1221
Organization/enterprise President	1120
Organization/enterprise Senior Vice-President	1120
Organization/enterprise Special assistant supervisor	1120
Organization/enterprise Supervising governor	1120
Organization/enterprise Vice-President	1120
Organizational psychologist	2634
Ornamental Plasterer	7123
Orthodontist	2261
Orthopaedic upholsterer	7534
Orthopedic appliance maker	7311
Orthopedic appliance repairer	7311
Orthopedic footwear maker	7536
Orthopedic nurse	2221
Orthopedic physical therapist	2264
Orthopedic technician	3255
Orthoptist	2267
Orthotics technician	3214
Orthotist	3214
Osteopath	3259
Ostrich farmer	6129
Other barangay officials	1113
Outdoor adventure guide	3423
Out-of-school hours care worker	5311
Out-patient department nurse	2221
Outplacement consultant	2423
Outreach project worker	3412
Outside plant engineer	2151
Oven/fryer man	7512
Overseas operations officer	3353
Overseas worker welfare officer	3353
Oyster diver	6229
Oysters and mussels producers	6224
PABX technician	7422
Package counter clerk	5249
Package counterman	5249
Packer, hand	9321

Packing machine operator	8183
Paedodontist	2261
Pain clinic & oncology nurse	2221
Paint sprayer, varnishers	7132
Painter	7131
Painting ceramic machine operator	8181
Painting glass machine operator	8181
Painting machine operator (wood)	8172
Painting restorer	2651
Painting teacher	2355
Palmist	5161
Pan handler	9311
Pantry attendant	9412
Papaya farmer	6117
Paper bag and envelope maker (machine)	8171
Paper box cutting- and creasing-press operator	8143
Paper box maker (hand)	7317
Paper box maker (machine)	8171
Paper box maker machine operator	8143
Paper box-cutting and creasing press operator	8171
Paper cutting machine operator	7322
Paper mache moulder	8143
Paper machine moulder	8143
Paper products machine operator	8143
Paper pulp plant operator	8171
Paper pulp refinery operator	3139
Paperboard products assembler	8219
Papermaking machine operator (back/wet end)	8143
Papermaking plant operator	8171
Paraffin plant operator	3134
Paralegal	3411
Paramedic nurse	2221
Parasitologist	2131
Paratrooper	0317
Parish secretary	4120
Parish workers	3413
Park sweeper	9613
Parking attendant	9629
Parks and games warden	5419
Parole officer	2635
Parquetry worker*	7122
Party plan salesperson	5243
Passenger car conductor	5112
Passion fruit farmer	6117
Passport checking officer	3351
Passport issuing officer	3354
Pastor	2636
Pastry chef	3434
Pastry maker	7512
Pastry-cook	7512

Pasture in-charge	6122
Patent roofing glazier	7125
Pathology secretary	3344
Pathology technician	3212
Patient care assistant	5321
Patient care secretary	3344
Patrol officer	5412
Patternmaker	7531
Pattern-maker, footwear *	7536
Paver	7112
Pawnbroker	4213
Pay loader	8342
Paymaster	4211
Payment entry clerk	4214
Payroll and timekeeping specialist	4313
Payroll practitioner	4313
Peanut farmer	6113
Pearl cultivator	6225
Pearl diver	6229
Pechay farmer	6113
Peddler	9520
Pediatric physical therapist	2264
Pediatric ward nurse	2221
Pediatrician	2212
Pedicurist	5142
Pelt grader	7535
Pen and pencil assembler	8219
Pensions officer	3353
Perambulator repairer	7234
Perfect binder operator	7323
Perfumery plant grower (e.g. ilang-ilang grower and citronella grower)	6119
Periodontist	2261
Personal assistant	3343
Personal care provider	5322
Personal care services managing-proprietor	1219
Personal maid	5162
Personal trainer	3423
Personnel clerks supervisor	3341
Personnel officer	2423
Personnel specialist	2423
Personnel/human resource manager	1212
Pest control technician	3142
Pest controller	7544
Pet groomer	5164
Petroleum and natural gas engineer	2146
Petroleum and natural gas extraction technician	3117
Petroleum engineering technician	3116
Petroleum process operator	3134
Petrologist	2114

Pharmaceutical and toiletry products machine operators	8131
Pharmaceutical assistant	3213
Pharmaceutical chemist	2113
Pharmaceutical technician	3213
Pharmacist	2262
Pharmacologist	2131
Pharmacology technician	3141
Pharmacy adviser	2262
Pharmacy aide	5329
Philatelist	3433
Philologist	2643
Philosopher	2633
Phlebotomist	2269
Phlebotomist	5329
Photo editor	3431
Photo journalist	3431
Photocopy machine technician	7421
Photoengraver	7316
Photogrammetrist	2165
Photograph enlarger	7322
Photograph enlarger	8132
Photograph printer	7322
Photograph printer	8132
Photographers	3431
Photographic color processor	3431
Photographic equipment repairer	7322
Photographic film and paper maker	7322
Photographic film printer	8132
Photographic processor	8132
Photographic-film machine operator	8132
Photo-type-setting machine operator	7321
Pychemetrician	2634
Physical chemist	2113
Physical metallurgist	2146
Physical metallurgy technician	3117
Physical rehabilitation technician	3255
Physical therapist	2264
Physician (general)	2211
Physicist (general)	2111
Physics technician	3111
Physiologist	2131
Physiotherapist	2264
Physiotherapy assistant	3255
Physiotherapy technician	3255
Pianist	2652
Piano maker	7312
Piano teacher	2354
Picture restorer	2651
Pile-driver Operator	8342

Pili nut farmer	6117
Pilot officer	0132
Pilot, ship	3152
Pin boy	9629
Pipe layer	7126
Pipe welder	7212
Piping charge hand	7126
Piping inspector	7126
Piping operator (garment)	8153
Planning/Materials clerk	4322
Planning-machine setter-operator	7223
Plant electrician	7412
Plant engineer	2141
Plant entomologist	2131
Plant geneticist	2131
Plant maintenance mechanic	7233
Plant propagation technician	3142
Plantation manager	1311
Plants and animals taxonomist	2131
Plasterer, general*	7123
Plastic cabling machine operator	8142
Plastic extrusion machine operator	8142
Plastic laminator	7323
Plastic molding engineer	2145
Plastic moulder	8142
Plastic pattern maker	7222
Plastic product fabricator	8142
Plastic products assembler	8219
Plastic products machine operator	8142
Plastic surgery nurse	2221
Plastic technologist	2145
Plastic toy assembler	8219
Plastics boat builder	8142
Plastics bottle blowing machine operator	8142
Plate maker (printing)	7321
Plate metal worker	7213
Plate mounter (screen printing)	7321
Plate-glass glazier	7125
Plate-glass polisher	8181
Plate-glass rollerman	8181
Platen press operator	7321
Platen pressman	7322
Playwright	2641
Plumber	7126
Plywood core laying operator	8172
Plywood press-operator	8172
Pneudraulic systems mechanic (aircraft)	7232
Podiatrist	2269
Poet	2641
Police detective	3355

Police inquiry agent	3355
Police inspector	3355
Police officer	5412
Police patrol officer	5412
Police patrolman/patrolwoman	5412
Police superintendent	1349
Police/criminal investigator	3355
Policeman/Policewoman	5412
Policy analyst	2422
Policy manager	1213
Polishing metal machine operator	8122
Political analyst	2633
Political party Leader	1114
Political party President	1114
Political party Senior Official	1114
Political scientist	2633
Pollution control aide	3257
Pollution control officer	3257
Pollution inspector	3257
Polygraph examiner	3355
Pond Aide	9216
Porcelain ware kiln operator	8181
Port captain	1324
Portrait painter	2651
Portrait photographer	3431
Post carrier	4412
Post office counter clerk	4211
Post runner	9621
Postal clerk	4412
Posting/Verifier clerk	4412
Postman/woman	4412
Postmaster General	1112
Potter, general	7314
Pottery and porcelain caster (hand)	7314
Pottery and porcelain die-presser	7314
Pottery and porcelain jiggerman	7314
Pottery and porcelain kiln-operator	8181
Pottery and porcelain maker	7314
Pottery and porcelain modeller	7314
Pottery and porcelain presser (hand)	7314
Pottery and porcelain thrower	7314
Poultry breeder	6126
Poultry farmer	6126
Poultry technical officer	3142
Poultry tender	6126
Powder man	7542
Powder monkey	7542
Power distribution and transmission engineer	2151
Power plant engineer	2144
Power plant mechanic	7233

Power plant technician	3115
Power system operator	3131
Powerplant mechanic (aircraft)	7232
Powertong operator	8113
Practical language teacher	2353
Practical nurse	3221
Practicum coordinator	2423
Practitioner nurse	2221
Prawn farm technician	3142
Prawn hatchery worker	9216
Prawn producers	6223
Precious metal leaf maker	7313
Precious metal roller	7313
Precipitator	8112
Precision- grinding-machine setter-operator	7223
Precision instrument maker	7311
Precision instrument repairer	7311
Precision woodworking sawyer	7523
Precision-instrument assembler	7311
Preparatory school teacher	2342
Preparer, structural metal	7214
Pre-school assistant	5312
Pre-school teacher	2342
Preserving cook, general	8160
President (organization/enterprise)	1120
President/Vice President of the Republic of the Philippines	1112
Presidential staff officer	3343
Press clipper	4419
Press operator printing/cylinder	7322
Press roller maker	7322
Presser, hand	9121
Preventive medicine specialist	2212
Prices inspector	3359
Priest	2636
Primary care paramedic	2240
Primary health care physician	2211
Primary school teachers	2341
Prime miner operator	8111
Principal customs broker	1324
Printer, block	7322
Printing machine operator	7322
Printing machinery fitter	7233
Printing machinery mechanic	7233
Printing quality inspector	7322
Printing scheduler	7322
Printing/photography (black and white) machine operator	8132
Printing/photography (color) machine operator	8132
Prison governor	1349
Prison guard	5413

Private detective	3411
Private nurse	2221
Private police guard	5414
Private secretary	3343
Probation officer	2635
Processing and control clerk	4322
Processor	3331
Procurement officer	3323
Product demonstrator	5242
Product development manager	1223
Product grader	7543
Product planner	2141
Production & operations manager (communications)	1330
Production & operations manager (extra territorial organization)	1219
Production & operations/agriculture manager	1311
Production & operations/construction manager	1323
Production and operations/business services manager	1219
Production and operations/cleaning manager	1219
Production and operations/fishing, hunting and forestry manager	1312
Production and operations/manufacturing manager	1321
Production and operations/personal care manager	1219
Production and operations/restaurant manager	1412
Production and operations/retail trade manager	1420
Production and operations/wholesale trade manager	1420
Production assistant (media)	3521
Production clerk	4322
Production engineer	2141
Production helper	9329
Production inspector	3257
Production manager (mine)	1322
Production manager (oil and gas extraction)	1322
Production manager (quarry)	1322
Production operator	3139
Production planner	2141
Production supervisor, manufacturing	3122
Production/Planning clerk	4322
Professional dancer	2653
Professional midwife	2222
Professional nurse	2221
Professional regulation officer	3354
Professional tutor	2359
Professor	2310
Program coordinator (broadcasting)	3435
Programmer analyst	2512
Project builder	1323
Project development manager	1223

Project manager	1219
Promo girl	5242
Promo salesperson	5243
Promo staff	5242
Promodizer	5242
Promotions and events marketing officer	3322
Promotions department manager	1222
Prompter	3435
Proof-reading clerk	4413
Property custodian	3334
Property manager	3334
Property master (broadcasting)	3435
Prosecutor	2611
Prosthetic technician	3214
Prosthetist	3214
Prosthodontist	2261
Psychiatric aide	5321
Psychiatric social worker assistant	3412
Psychiatric ward nurse	2221
Psychiatrist	2212
Psychic reader	5161
Psychologist	2634
Psychotherapist	2634
Public health engineer	2143
Public health nurse	2221
Public health nutritionist	2265
Public health veterinarian	2250
Public opinion interviewer	4227
Public relation officer	2432
Public relations manager	1222
Public services inspector	3359
Publication clerk	4419
Publication designer	2166
Publicity writer	2641
Puller, rickshaw	9331
Pulmonary therapist	2269
Pulmonary/respiratory nurse	2221
Pulp and paper assistant bleacher operator	8171
Pulp and paper digester operator	8171
Pulp and paper grinderman/woman	8171
Pulp and paper refiner operator	8171
Pulping control operator	8171
Pulping Technician	8171
Pumpboat operator	8350
Pumping-station operator	3132
Punched-card machine operator	3511
Puppeteer	2659
Purchaser	3323
Purchasing manager	1219
Purchasing agent	3323

Purchasing merchandiser	3323
Pusher, cart	9331
Quail farmer	6126
Quality assurance analyst (computer)	2519
Quality assurance/control inspector	3257
Quality control chemist	2113
Quality control engineer	2141
Quality control technician	3119
Quality inspector	7543
Quality management representative	2433
Quantity surveying technician	3119
Quantity surveyor	2149
Quarrier	8111
Quarry manager	1322
Quarry shot firer	7542
Quarry supervisor	3121
Quarter master	0213
Quartermaster	3152
Rabbi	2636
Radar equipment fitter	7422
Radiation protection expert	2263
Radiation therapy nurse	2221
Radio broadcasting equipment operator	3521
Radio communication technician	3521
Radio controller	3521
Radio equipment installer	7422
Radio fitter	7422
Radio frequency coordinator	3521
Radio frequency engineer	2153
Radio mechanic	7421
Radio operator	3521
Radio or television Story teller	2655
Radio production technician	3521
Radio telephone operator	3521
Radio/TV transmitting equipment operator	3521
Radioactive materials chemical processor	8159
Radiologist	2212
Radiology technician	3211
Radiotherapeutic nurse	2221
Rafter	6212
Railway & road vehicle loader	9333
Railway braker	8312
Railway construction engineer	2142
Railway engine driver	8311
Railway passenger train guard	5112
Railway shunter	8312
Railway signaller	8312
Railway signalman	8312
Railway station master	1324
Railway steam-engine fireman	8182

Railways operations/maintenance towerman	8312
Rainfed, rice farmer	6111
Ramie farmer	6116
Rattan binder	7317
Rattan gatherer (with permit)	6214
Reading and writing teacher	2330
Real estate appraiser	3315
Real estate broker	3334
Real property appraiser	3334
Realtor	3334
Receiving clerk	4110
Receptionist	4226
Reciprocating steam-engine mechanic	7233
Recital coordinator	2652
Recording artist	2652
Records manager	2621
Records/Personnel clerk	4110
Recovery room nurse	2221
Recreation facilities attendant/aide	9629
Recreational attendant	5113
Recreational therapist	2269
Recruitment Manager	1212
Recruitment officer	3333
Recruitment practitioner	4416
Recycling worker	9612
Reefer engineer	2144
Reefer repairman	8350
Referee	3422
Refinery process engineer	2145
Refinery process technician	3134
Refining/steel furnace operator (open hearth furnace)	8121
Reflexologist	3255
Refractory bricklayer	7112
Refrigeration and air-conditioning equipment insulation worker	7124
Refrigeration mechanic	7127
Refrigeration plant installer	7127
Refrigeration plant mechanic	7127
Refrigeration technician	3113
Regional manager	1120
Reinforced concreter (general)	7114
Reinforcing iron worker	7214
Relief and rehabilitation worker	3412
Religion minister	2636
Religious workers	3413
Remedial teacher	2352
Remote sensing technologist	2165
Renal transplant nurse	2221
Rental salesperson	5249
Repairman, motor vehicle	7231

Repro-cameraman*	7322
Reproduction machine operator	7322
Reprographic equipment technician	7421
Repulper operator	8171
Research and development manager	1223
Research manager	1223
Reservation clerk	4225
Reservoir and drilling engineer	2149
Resettlement and development officer	3334
Resident medical officer in specialist training	2212
Resident medical officer specializing in general practice	2211
Resistance welder	7212
Respiratory therapist	2269
Restaurant manager	1412
Restaurant proprietor	1412
Retail manager/ proprietor	1420
Retail pharmacist	2262
Retail trade buyer	3323
Retirement village coordinator	1343
Retoucher, printing plate	7316
Revenue collection officer	3352
Reviser (textile and garments)	7533
Rice farm technician	3142
Ride maintenance mechanic	7413
Rides operator	8189
Riding school manager	1431
Rifleman/woman	0318
Rigger	7215
Rigger, gas-drilling	7215
Rigger, hoisting equipment, construction	7215
Rigger, hoisting equipment, general	7215
Rigger, oil-drilling	7215
Rigger, ship	7215
Ring spinner	8151
Ripsaw operator	8172
Risk management analyst	2423
Riveter	7214
Riveter, hand	7214
Riveter, machine	7214
Riveter, pneumatic	7214
Road freight conductor	5112
Road grader and scraper operator	8342
Road service worker	9312
Road surface laying machinery operator	8342
Road train driver	8332
Road transport dispatcher	4323
Road-roller operator	8342
Robotics technician	3119
Rocket engine component mechanic	7232

Rodent zone inspector	3359
Rolling mill control operator	3135
Roof bolter (mining)	8111
Roof fixer	7121
Roofing glazier	7125
Room attendant	9112
Roots vegetable farmer	6113
Rope and cable splicer (general)	7215
Rose grower	6118
Rotary pressman	7322
Rotary printing press operator	7322
Rotogravure pressman	7322
Rough terrain crane operator	8343
RPG 400 programmer	2514
Rubber assembler	8212
Rubber calendar operator	8141
Rubber milling machine operator	8141
Rubber moulder	8141
Rubber products assembler	8219
Rubber products machine operator	8141
Rubber tapper	6117
Rubber tree farmer	6117
Saddle and harness maker	7536
Saddle stitch operator	7323
Saddler	7536
Safety engineer	2149
Safety manager	1219
Sailing instructor	3423
Sailor	8350
Salad bar attendant	5246
Sales analyst	3322
Sales and marketing assistant	3322
Sales and promotion supervisor	2431
Sales clerk	5223
Sales consultant	3322
Sales coordinator	5222
Sales director	1221
Sales executive	2431
Sales helper/bagger	5221
Sales manager	1221
Sales merchandiser	5242
Sales representative (industrial products)	2433
Sales representative (medical and pharmaceutical products)	2433
Sales secretary	4120
Sales supervisor	3322
Sales vice-president	1221
Salesman/Saleslady	5221
Salesperson (hotel and restaurant)	5223
Salesperson (real estate)	3334
Salesperson (retail/wholesale establishment)	5223

Salted egg maker	7514
Salvage frogman	7541
Sand pro operator	8342
Sandblasters, building exteriors	7133
Sanitarian	3257
Sanitary engineer	2149
Sanitary inspector	3257
Satellite communication engineering technician	3114
Satellite engineer	2149
Saucier	3434
Sausage maker	7514
Saw repairer	7224
Saw sharpener	7224
Sawmill machine operator	8172
Sawmill planer operator	8172
Sawmill sawyer (general)	8172
Sawmill trimmer operator	8172
Saxophone player	2652
Scaffolder	7119
Scanner (data)	7321
Schedule clerk (materials)	4322
School bus driver	8331
School counselor	2359
School inspector	2351
School nurse	2221
School President	1345
School Principal	1345
School supervisor	1345
Scientific photographer	3431
Scrap merchant	9612
Scraping and cupping therapist	3230
Screen maker	7321
Screen printer	7322
Screen printing press operator	7322
Scribe	4414
Script, girl/boy	3435
Scriptwriter	2641
Sculptor	2651
Sculpture teacher	2355
Sea ship's master	3152
Seal trapper	6228
Seaman	8350
Seaman (navy)	0319
Seamless pipe and tube drawer	8121
Seamoss gatherer	6229
Seamstress	7531
Seaperson	8350
Second language teacher	2353
Second lieutenant (army)	0133
Second mate	8350

Secondary education teacher	2330
Secretary	4120
Securities and settlement officer	3311
Securities broker	3311
Securities clerk	4312
Securities consultant	2413
Securities custodian	3311
Securities dealer	3311
Securities operations/currency assistant	3311
Securities salesman	3311
Security agent	5414
Security guard	5414
Security patrolman/patrolwoman	5414
Security specialist (ICT)	2529
Seismologist	2114
Senator	1111
Sepulture	5163
Sequel programmer	2514
Sergeant (army)	0214
Sergeant major	0215
Serology technician	3141
Service crew	5131
Service station attendant	5245
Service station console operator	5230
Set designer	3432
Setter, marble	7122
Setter, mosaic	7122
Setter, tile (general)*	7122
Setter-operator, drilling machine/metalworking	7223
Sewage plant operator	3132
Sewing machine operator	8153
Sexton	5153
Sharpener, cutting instrument	7224
Shearer	6121
Sheep farmer	6121
Sheet metal marker	7213
Sheet metal worker*, aircraft	7213
Sheet metal worker*, general	7213
Sheet metal worker*, ornamental	7213
Sheet metal worker*, vehicle	7213
Shepherd	6121
Shiatsu therapist	3255
Shielded metal arc welder *	7212
Ship boarding inspector	4323
Ship building and repair technician	3151
Ship electrician	7412
Ship engineer	3151
Ship fireman	8182
Ship fitter	7233
Ship oiler and greaser	8182

Ship plater	7214
Ship radio operator	3521
Ship steward	5111
Ship wright appraiser	3152
Ship's boiler operator	8182
Shipping agent	3331
Shipping broker	3324
Shipping manager	1324
Shipping operations inspector	3151
Shipping operations officer	3152
Ship's cook	5120
Ship's deck crew	8350
Ship's master (inland waterways)	3152
Ship's navigating officer	3152
Shipwright (wood)	7115
Shoe cutter (hand)	7536
Shoe finisher	7536
Shoe polisher/cleaner	9510
Shoe sewer (machine)	7536
Shoemaker	7536
Shoemaking machine operator	8156
Shoes and bag repairer	7536
Shop assistant	5223
Shop manager	1420
Shop supervisor	5222
Shopkeeper	5221
Shopping center manager	1439
Shore captain (fishing)	1312
Short order Cook	9411
Shorthand typist	4131
Shuttle-car operator (mine)	8332
Sightseeing guide	5113
Sign language interpreter	2643
Signature verifier	4413
Sign-maker	7316
Signwriter	7316
Silicon chip production machine operator	8189
Silk degummer	8154
Silk weighter	8154
Silk-screen printer	7322
Silk-screen stencil cutter	7322
Silkworm farmer (sericulturist)	6128
Silversmith	7313
Silviculture technician	3143
Silviculturist	2132
Singer	2652
Singing/voice teacher	2354
Sisal farmer	6116
Site engineer	2142
Site manager	1323

Site manager, construction	3123
Skilled demolition worker	7119
Skilled farm worker (mixed farming)	6130
Skilled fish farm worker	6225
Skilled seafood farm worker	6225
Skipper, yacht	3152
Slate roofer	7121
Slaughterer	7511
Slaughterers	6320
Sleeping on pullman-car attendant	5112
Slimming consultant	5142
Small engine mechanic	7231
Small machine bindery worker	7323
Small press operator	7322
Smelting/metal furnace operator (blast furnace)	8121
Smoking-pipe maker	7522
Snail breeder	6129
Snow groomer operator	8342
Snuff maker	7516
Soap making	7319
Social benefit officer	3353
Social escort	5169
Social insurance officer	3353
Social security claims officer	3353
Social security examiner	3353
Social welfare assistant/aide	3412
Social welfare officer	2635
Social worker	2635
Sociologist	2632
Software architect	2512
Software designer	2512
Software developer	2512
Software engineer	2512
Software instructor	2320
Software tester	2519
Software trainer	2356
Soil mechanics engineer	2142
Soil scientist	2132
Soil technician	3142
Solar power plant operator	3131
Sole fitter	7536
Solicitor	2611
Solicitor General	1112
Solid Plasterer	7123
Song group manager	1431
Sonographer	3211
Sorter, newspaper and other paper products	9612
Sous-chef	3434
Soybeans farmer	6113
Special agent	3355

Special effects technician	3435
Special offer salesperson	5243
Special-interest organization Senior Official	1114
Specialist physician (internal medicine)	2212
Specialized manager	1219
Specialized nurse	2221
Speech pathologist	2266
Speech therapist	2266
Speech writer	2641
Spinning machine operator	8151
Spinning/thread and yarn machine operator	8151
Splitter, stone	7113
Splitting stone machine operator	8112
Sports agent	3339
Sports and entertainment manager	1431
Sports and games regulation officer	3422
Sports announcer	2656
Sports center manager	1431
Sports nutritionist	2265
Sports psychologist	2634
Sports trainor/instructor	3422
Sports writer	2642
Spotter (dry cleaner)	9121
Spray-painter, except construction	7132
Squadron leader	0134
Stacker	9329
Staff writer	2641
Stage and studio electrician	7411
Stage director	2654
Stage manager	3435
Stage technician	3435
Stage wardrobe mistress	7531
Staining/leather machine operator	8155
Stall salesperson	5211
Standard manual typewriter technician	7421
Stand-up comedian	2659
State University and Colleges President	1345
Stationary engine fitter	7233
Stationary engine greaser	7233
Stationary engine repairer	7233
Stationary jib crane operator	8343
Statistical assistant/aide	3314
Statistical clerk	4312
Statistician (applied statistics)	2122
Statistician (general)	2122
Steam engine operator	8182
Steel converting Bessemer furnaceman	8121
Steel converting oxygen furnaceman	8121
Steel fabrication manager	1321
Steel metal furnace (open hearth furnaceman)	8121

Steel refining electric arc furnaceman	8121
Steel roller	8121
Steelman	7214
Steeplejack	7119
Steno recorder	4131
Stenographer	4131
Stenographer-typist	4131
Stenographic reporter	4131
Sterilization aide	5329
Sterilizing machine operator (food)	8160
Stevedore	9333
Still turpentine operator	8154
Still/petroleum and natural gas refining operator	3134
Stitcher	7533
Stock checker clerk	4321
Stock clerk	4321
Stock controller clerk	4321
Stockman/woman	6121
Stocks and shares broker	3311
Stoker	8182
Stone carver	7113
Stone cutter	7113
Stone cutting or processing machine operator	8112
Stone polishing machine operator	8114
Stone processing machine operator	8112
Stone processing plant operator	8112
Stone treater	8112
Stonemason	7113
Store assistant	5211
Store cashier	5230
Store helper	9334
Store manager	1221
Store salesperson	5211
Storekeeper clerk	4321
Storeroom clerk	4321
Strategic planning manager	1213
Street dancer	2653
Street food vendor	5212
Street musician	2652
Street singer	2652
Street stall sales assistant	5211
Street stall salesperson	5211
Street sweeper	9613
Street/ambulant non-food vendor	9520
Stripper, black and white*	7322
Stripper, colored*	7322
Structural engineer	2142
Structural metal maker	7214
Structural steel and ship painter	7131
Structural steel worker*	7214

Stucco Plasterer	7123
Studio wardrobe mistress	7531
Stuffed toymaker	7533
Stunt artist	3435
Stunt-coordinator	3435
Sub editor	2642
Sublieutenant (navy)	0135
Subsistence cattle farmer	6320
Subsistence collector	6340
Subsistence crop farmers	6310
Subsistence mixed crop and livestock farmers	6330
Subtitler	2643
Sugar farm technician	3142
Sugarcane farmers/Sakada	6114
Sun-blinds assembler	8219
Supercalendar operator	8171
Supercalender operator	8143
Supermarket manager	1420
Supermarket supervisor	5222
Supervising midwife	2222
Supply canvasser clerk	4321
Supply chain manager	1324
Supply checker clerk	4321
Supply manager	1324
Surface mount technology machine operator	8212
Surgeon	2212
Surgery attendant	5321
Surgical instrument maker	7311
Surgical nurse	2221
Surgical technician	2240
Surveillance officer	5414
Survey interviewer	4227
Survey statistician	2122
Surveying technician	3112
Suspension bridge cable worker	7215
Sweet potato farmer	6113
Swimming pool cleaner	9129
Switchman (Central office equipment technician)	7422
Synthetic fiber production plant operator	8159
Syrup man	7514
System administrator	2522
Systems analyst	2511
Systems consultant	2511
Systems designer (IT)	2511
Systems tester	2519
Tailor	7531
Tanner	7535
Tanning machine operator	8155
Tapestry maker (hand)	7318
Tar spreading machine operator	8342

Tariff analyst	3352
Tattooist	3435
Tax accountant	2411
Tax clerk	4312
Tax enforcer	3352
Tax finance officer	3352
Tax mapping examiner	3352
Tax officer	3352
Tax researcher	3352
Tax specialist	3352
Taxation analyst	3352
Taxation inspector	3352
Taxi/FX driver	8322
Taxidermist	3433
Tea farmer	6117
Tea taster	7515
Teacher for the abnormal children	2352
Teacher for the exceptionally intelligent	2359
Teacher for the mentally handicapped	2352
Teacher for the physically handicapped	2352
Teacher in home industries	2320
Teacher in industrial arts	2320
Teacher in trades	2320
Teacher of gifted children	2352
Teacher of hearing impaired	2352
Teacher of sight impaired	2352
Teacher's assistant	5312
Teaching aids specialist	2351
Teaching dietician	2265
Teaching fellow	2359
Technical and commercial representative	3322
Technical illustrator	3118
Technical recruiter	4416
Technical sales representative	2433
Technical service adviser	3322
Technical television or radio director	2654
Technical writer	2641
Technician helper	9329
Telecommunication engineering technician	3114
Telecommunication equipment installer	7422
Telecommunication equipment repairer	7422
Telecommunications engineer	2153
Telecommunications engineering technologist	2153
Telecommunications services manager	1330
Telecommunications specialist	2153
Telecommunications technician	7422
Telefax clerk	4110
Telegram carrier	4412
Telegraph carrier	4412
Telegraph installer	7422

Telegraph manager	1219
Telegraph repairman	7422
Telegrapher	3521
Telegraphic transfer service clerk	4211
Telemarketer	5244
Telemarketing manager	1221
Telemarketing salesperson	5244
Telemarketing supervisor	2431
Telephone assembler	8212
Telephone installer and repairman	7422
Telephone manager	1219
Telephone mechanic	7422
Telephone operator	4223
Telephone salesperson	5244
Telephone switchboard operator	4223
Telephone technician	3114
Teleprinter clerk	4110
Television assembler	8212
Television fitter	7422
Television mechanic	7421
Television program producer	1222
Television stations manager	1222
Telex clerk	4110
Temperer	8121
Tender and pricing analyst	3322
Tender jig machines operator	8112
Tent making machine operator	8159
Terminal operations specialist	3351
Terrazzo worker	7114
Test engineer	2149
Test technician	3119
Textile bleacher	8154
Textile calendar operator	8154
Textile card grinder	7224
Textile cutter	7532
Textile dyeing machine operator	8154
Textile fuller	8154
Textile machinery fitter	7233
Textile pattern making machine operator	8159
Textile patternmaker	7532
Textile printer	7322
Textile products assembler	8219
Textile shrinker	8154
Textile washer	8154
Thatcher roofer	7121
Theatre manager	1431
Theatre producer	2654
Theatre technician	3435
Theatrical agent	3339
Theatrical dresser	3435

Theatrical rigger	7215
Therapeutic/clinic dietitian	2265
Thermal plant operator	8182
Thermite welder	7212
Thermo-mechanical pulp assistant operator	8171
Thermos bottle assembler	8219
Third mate	8350
Thread and yarn spinner	7318
Threader, loom (hand)	7318
Ticket checker	5230
Ticket collector/teller	5230
Ticket collectors	9629
Ticket custodian	5230
Ticket inspector (public transport)	5112
Ticket issuing clerk (entertainment and sporting event)	5230
Ticket issuing clerk (except parcel)	5230
Ticket issuing/travel clerk	4221
Ticket sorter/encoder	5230
Tilapia farm producer	6221
Tile layer (composition)	7122
Tile roofer	7121
Timber carrier driver	8341
Timber inspector	6212
Time and motion engineer	2141
Time and motion study technician	3119
Timekeeper clerk	4110
Tinsmith	7213
Tire maker	8141
Tire production machine operator	8141
Tire repairer	8141
Tissue culture technician	3141
Title searcher	3411
Tobacco blender	7516
Tobacco conditioner operator	7516
Tobacco cutting machine operator	7516
Tobacco farmer	6116
Tobacco preparer	7516
Tobacco processing machine operator	8160
Tobacco stripper (hand)	7516
Tobacco stripper (machine)	7516
Tobacco/cigar grader	7516
Toll fee collector/teller	5230
Tomato farmer	6113
Tool and cutter grinder, *	7224
Tool grinder, machine tool	7224
Tool sharpener	7224
Toolmaker	7222
Toolmaker foreman	7222
Toolpusher	8113
Tour escort	5113

Tourpusher	8113
Tower crane operator	8344
Tower rigger	7215
Town planner	2164
Toxicologist	2113
Tractor driver	8341
Trade broker	3324
Trade union president	1114
Trade union Secretary-General	1114
Trade union Senior Official	1114
Traditional midwife	3222
Traffic aide	5419
Traffic enforcer	5419
Traffic planner	2164
Trailer driver	8332
Train conductor	5112
Train dispatcher	4323
Train driver including Light Rail transit (LRT) and Metro Rail transit (MRT)	8311
Train engine fitter	7231
Train engine repairer	7231
Training center manager	1212
Training coordinator	2424
Training facilitator	2424
Training manager	1212
Training officer	2424
Tram conductor	5112
Tram driver	8331
Transformer repairman	7412
Translator	2643
Translator reviser	2643
Transmission engineer	2152
Transmission technician	7413
Transmitter technician	3521
Transmitting equipment operator	3521
Transmitting equipment technician	3521
Transport conductor	5112
Transport electrician	7412
Transport general manager	1324
Transport tax processor	3352
Trapper	6228
Travel agency manager	1439
Travel agency clerk	4221
Travel attendant	5111
Travel consultant	4221
Travel organizer	4221
Travel steward	5111
Travel tax officer	3351
Travel/Airlines clerk	4221
Travel/Tour guide	5113

Trawler manager	1312
Trawler skipper	6227
Treasurer of the Philippines	1112
Treasury clerk	4312
Treating wood machine operator	8172
Tree faller operator	8341
Tree feller	6212
Tree marker	6212
Tree planter	9215
Tree trapper	9215
Trench-digging machine operator	8342
Tribal Ritualists (e.g. Mambunong, Mumbaki, Mabaki, Mensapo and Anituwan in	3413
Tribe Chieftain	1113
Tricycle driver	8321
Trimmer	7531
Truck driver	8331
Truck helper	9333
Truck mounted crane operator	8343
Trumpet player	2652
Tug hand	8350
Tug man	3152
Turbine assembler	8211
Turbine fitter (except aircraft and marine)	7233
Turbine mechanic (except aircraft and marine)	7233
Turbo pascal programmer	2514
Turkey farmer	6126
TV broadcasting equipment operator	3521
TV microscopist technician	3211
TV/radio news reporter	2642
Twisting/thread and yarn machine operator	8151
Type reader	4413
Type-casting machine operator	7321
Typesetter	7321
Typing secretary	4120
Ube farmer	6113
Ultrasound machine technician	3211
Unani practitioner	2230
Underground train driver	8311
Undertaker	5163
Underwater diving instructor	3423
Underwater worker	7541
Underwriting and claims head	3321
University lecturer	2310
Upholsterer	7534
Upholsterer, furniture and automotive*	7534
Upholsterer, vehicle	7534
Upholstery painter	7132
Upland, rice farmer,	6111
Uppers preparer	7536
Urban planner	2164

Urology nurse	2221
Usher	9629
Usher/Usherette	5169
Valet	5162
Valuer	3315
Van driver	8322
Vegetable preserver	7514
Vehicle assembler	8211
Vehicle electrician	7412
Vehicle glazier	7125
Vehicle painter	7132
Vehicle washer (hand)	9122
Vehicles/pollution inspector	3257
Vending machine collector	9623
Veneer applier	7522
Veneer cutter	8172
Veneer dryer tender	7521
Ventilation pipe fitter	7126
Ventriloquist	2659
Verbatim reporter	3343
Veterans assistance officer	3412
Veterinarian	2250
Veterinary aide	5164
Veterinary assistant	3240
Veterinary epidemiologist	2250
Veterinary intern	2250
Veterinary laboratory technician	3240
Veterinary nurse	3240
Veterinary surgeon	2250
Veterinary vaccinator	3240
Video electronics (VHS, VCD, DVD) service/ repairman	7421
Video operator	3521
Videographer	3521
Village healer	3230
Village health worker	3253
Village/tribe head	1113
Violinist	2652
Virologist	2131
Viticulturist	6117
Visual basic programmer	2514
Visual foxpro programmer	2514
Visual interdev programmer	2514
Visual merchandiser	3432
Vocal group conductor	2652
Vocalist	2652
Vocational education teacher	2320
Vocational School Administrator	1345
Vocational/guidance counsellor	2423
Voice and accent teacher	2351
Volcanologist	2114

Volunteer midwife	3222
Volunteer service officer	3412
Vulcanize	8141
Wage inspector	3359
Wages/Payroll clerk	4313
Waiter, formal service	5131
Waiter, general	5131
Waiter/Waitress	5131
Walker-on	3435
Wall paperhanger	7131
Wallpaper printer	7322
Warden	5413
Warehouse aide	5153
Warehouse clerk	4321
Warehouse inspector	3351
Warehouse manager	1324
Warehouse porter	9333
Warehouse shipping officer	3351
Warrant officer	0216
Waste picker	9612
Waste water operator	3132
Watch and clock assembler	7311
Watch and clock repairer	7311
Watch assembler	8212
Watchman/Watchwoman	5414
Water collector	9624
Water quality analyst	2133
Water treatment plant operator	3132
Watershed forester	6211
Waterworks technician	3132
Weather forecaster	2112
Weather observer	2112
Weaver	7318
Weaving machine operator	8152
Web designer	2166
Web offset operator	3511
Web press operator	7322
Webmaster	3514
Website administrator	3514
Website architect	2513
Website developer	2513
Website technician	3514
Wedding planner	3332
Weed controller	7544
Weighing clerk	4321
Weights and measures inspector	3359
Welder	7212
Welfare Centre Manager	1344
Welfare manager	1212
Welfare support worker	3412

Well borer	8113
Well cable tools driller	8113
Well driller	8113
Well testing crew	8113
Whale hunter	6228
Wheel loader operator	8342
Wheelchair repairer	7234
Wheel-wright	7522
White potato (Irish potato) farmer	6113
Wholesale trade manager/proprietor	1420
Wicker furniture maker	7317
Wild honey and beeswax gatherer	6214
Wild orchids gatherer	6214
Winch operator	8343
Winding/thread and yarn machine operator	8151
Window cleaner	9123
Window dresser	3432
Wine taster	7515
Wing commander	0136
Wiper	9122
Witch doctor	3230
Women's shelter supervisor	3412
Women's welfare organizer	2635
Wood and sash maker*	7115
Wood carver	7317
Wood finisher, furniture*	7132
Wood grader	8172
Wood lathe setter-operator	7523
Wood patternmaker	7522
Wood processing plant operator	8172
Wood products assembler	8219
Wood products machine operator	7523
Wood routing machine setter-operator	7523
Wood seasoner	7521
Wood seasoning worker	7521
Wood technologist	2113
Wood treater	7521
Wood treating worker	7521
Wood turner	7523
Wooden furniture finisher	7522
Wooden model maker	7522
Wood-planing machine setter-operator	7523
Wood-processing plant sawyer	8172
Wood-shaping machine setter-operator	7523
Wood-spindle-carving machine setter-operator	7523
Woodworking lathe operator	7523
Woodworking machine setter-operator	7523
Woodworking machinery fitter	7233
Woodworking machinery mechanic	7233
Wool carbonizer	8154

Wool classer	7543
Wool scourer	7318
Word processing clerk	4131
Word processing secretary	4120
Word processor	4131
Worker welfare assistant	3333
Workforce development specialist	2424
Wrapper, hand	9321
Wrapping machine operator	8183
Writer	2641
Yacht crew	8350
Yarn dyer	8154
Youth development assistant	3412
Youth hostel manager	1411
Youth worker	3412
Zoning inspector	3257
Zoning officer	2164
Zoo keeper	5164
Zoologist	2131
Zoology technician	3141

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Major Group 1.

MANAGERS

Managers plan, direct, coordinate and evaluate the overall activities of enterprises, governments and other organizations, or of organizational units within them, and formulate and review their policies, laws, rules and regulations.

Tasks performed by managers usually include: formulating and advising on the policy, budgets, laws and regulations of enterprises, governments and other organizational units; establishing objectives and standards and formulating and evaluating programs and policies and procedures for their implementation; ensuring appropriate systems and procedures are developed and implemented to provide budgetary control; authorizing material, human and financial resources to implement policies and programs; monitoring and evaluating performance of the organization or enterprise and of its staff; selecting, or approving the selection of staff; ensuring compliance with health and safety requirements; planning and directing daily operations; representing and negotiating on behalf of the government, enterprise or organizational unit managed in meetings and other forums.

11

CHIEF EXECUTIVES, SENIOR OFFICIALS AND LEGISLATORS

Chief executives, senior officials and legislators formulate and review the policies and plan, direct coordinate and evaluate the overall activities of enterprises, governments and other organizations with the support of other managers.

Tasks performed usually include: presiding over or participating in the proceedings of legislative bodies, boards of directors and committees; formulating and advising on the policy budgets, laws and regulations of enterprises, governments and other organizations; establishing objectives for enterprises, government departments or agencies and other organizations; formulating or approving and evaluating programs and policies and procedures for their implementation; ensuring appropriate systems and procedures are developed and implemented to provide budgetary control; authorizing material, human and financial resources to implement policies and programs; monitoring and evaluating performance of the organization or enterprise; selecting, or approving the selection of senior staff; performing ceremonial duties and representing the enterprise, government, organization or community at official occasions and in meetings, negotiations, conventions and public hearings.

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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LEGISLATORS AND SENIOR OFFICIALS

Legislators and senior officials determine, formulate, advise on and direct the implementation of policies of national, state, regional or local governments or communities, and of special interest organizations. They make, ratify, amend or repeal laws, public rules and regulations and plan, organize, direct, control and evaluate the overall activities of government departments and agencies, traditional communities and special interest organizations.

Tasks performed usually include: presiding over or participating in the proceedings of legislative bodies and administrative councils of governments, legislative assemblies, local communities and special interest organizations; serving on government administrative boards or official committees; investigating matters of concern to the public and promoting the interests of constituents; formulating and advising on government policy, budgets, laws and regulations; establishing objectives for organizations and formulating or approving and evaluating programs and policies and procedures for their implementation; recommending, reviewing, evaluating and approving documents, briefs and reports submitted; ensuring appropriate systems and procedures are developed and implemented to provide budgetary control; allocating the use of communal land and other resources ; performing ceremonial duties and representing the government, organization or community at official occasions and in meetings, negotiations, conventions and public hearings.

1111 LEGISLATORS

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Legislators determine, formulate, and direct policies of national, state, regional or local governments and international governmental agencies, and make, ratify, amend or repeal laws, public rules and regulations. They include elected and non-elected members of parliaments, councils and governments.

Their tasks include:

- a) presiding over or participating in the proceedings of legislative bodies and administrative councils of national, state, regional or local governments or legislative assemblies;
- b) determining, formulating, and directing policies of national, state, regional or local governments;
- c) making, ratifying, amending or repealing laws, public rules and regulations within a statutory or constitutional framework;
- d) serving on government administrative boards or official committees;

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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e) investigating matters of concern to the public and promoting the interests of the constituencies which they represent;

f) attending community functions and meetings to provide service to the community, understand public opinion and provide information on government plans;

g) negotiating with other legislators and representatives of interest groups in order to reconcile differing interests, and to create policies and agreements; and

h) as members of the government, directing senior administrators and officials of government departments and agencies in the interpretation and implementation of government policies.

Examples of the occupations classified here are:

City/ Municipal Councilor

Congressman

Governor/Vice Governor

Mayor/Vice Mayor

Member of the Barangay Council (Sangguniang Pambarangay)

Member of the Provincial Board (Sangguniang Panlalawigan)

Senator

1112 SENIOR GOVERNMENT OFFICIALS

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Senior government officials advise governments on policy matters, oversee the interpretation and implementation of government policies and legislation by government departments and agencies, represent their country abroad and act on its behalf, or carry out similar tasks in intergovernmental organizations. They plan, organize, direct, control and evaluate the overall activities of municipal or local, regional and national government departments, boards, agencies or commissions in accordance with legislation and policies established by government and legislative bodies.

Their tasks include:

a) advising national, state, regional or local governments and legislators on policy matters;

b) advising on the preparation of government budgets, laws and regulations, including amendments;

c) establishing objectives for government departments or agencies in accordance with government legislation and policy;

d) formulating or approving and evaluating programs and procedures for the implementation of government policies in conjunction or consultation with government;

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>e) recommending, reviewing, evaluating and approving documents, briefs and reports submitted by middle managers and senior staff members;</p> <p>f) ensuring appropriate systems and procedures are developed and implemented to provide budgetary control;</p> <p>g) coordinating activities with other senior government managers and officials;</p> <p>h) making presentations to legislative and other government committees regarding policies programs or budgets; and</p> <p>i) overseeing the interpretation and implementation of government policies and legislation by government departments and agencies.</p> <p>Examples of the occupations classified here are:</p> <p>Administrator/Deputy Administrator</p> <p>Ambassador</p> <p>Attaché</p> <p>Cabinet Secretary/Under Secretary/Assistant Secretary</p> <p>Chairman/Vice Chairman</p> <p>Chief of Staff</p> <p>City Administrator</p> <p>Civil Registrar</p> <p>Commissioner/Deputy Commissioner/Assistant Commissioner</p> <p>Consul General</p> <p>Consul</p> <p>Director/Assistant Director</p> <p>Director General/Deputy Director General/Assistant Director General</p> <p>Executive Director/Deputy Executive Director</p> <p>Governor/Deputy Governor of the Central Bank</p> <p>Inspector-general (police)</p> <p>Ombudsman</p> <p>Postmaster General</p> <p>President/Vice President of the Republic of the Philippines</p> <p>Solicitor General</p> <p>Treasurer of the Philippines</p>		
1113			<p>TRADITIONAL CHIEFS AND HEADS OF VILLAGES</p> <p>Traditional chiefs and heads of villages perform a variety of legislative, administrative and ceremonial tasks and duties, determined by ancient traditions, as well as by the division of rights and responsibilities between village chiefs and the local, regional and national authorities.</p> <p>Their tasks include:</p> <p>a) allocating the use of communal land and other resources among households in the community or village;</p>	1130	1113

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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- b) collecting and distributing surplus production of the community or village; settling disputes between members of the community or village;
- c) settling disputes between members of the community or village;
- d) disciplining members of the community or village for violation of rules and customs;
- e) performing ceremonial duties in connection with births, marriages, deaths, harvests and other important occasions;
- e) representing the community or village on local or regional councils; and
- f) informing the community or village about government rules and regulations.

Examples of the occupations classified here are:

- Barangay Chairman/Captain
- Barangay secretary
- Barangay treasurer
- Other barangay officials
- Tribe Chieftain
- Village/tribe head

1114	SENIOR OFFICIALS OF SPECIAL-INTEREST ORGANIZATIONS	1141 1142 1143 1144	1114
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Senior officials of special-interest organizations determine, formulate and direct the implementation of policies of special-interest organizations, such as political-party organizations, trade unions, employers' organizations, trade and industry associations, humanitarian or charity organizations, or sports associations, and represent their organizations and act on their behalf.

Their tasks include:

- a) determining and formulating the policies, rules and regulations of the organization;
- b) planning, directing and coordinating the general functioning of the organization;
- c) reviewing the operations and results of the organization and reporting to boards of directors and governing bodies, the organization's membership and funding agencies;
- d) negotiating on behalf of the organization, its members and relevant special-interest groups;
- e) promoting the interests of the organization, its members and relevant special-interest groups before the legislature, government or general public;
- f) planning, organizing and directing sections charged with implementing the organization's policies, programmes, rules and regulations;

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g) ensuring appropriate systems and procedures are developed and implemented to provide budgetary control;

h) monitoring and evaluating performance of the organization or enterprise against established objectives and policies; and

i) representing the organization at official occasions and board meetings, in negotiations, at conventions, public hearings and forums.

Examples of the occupations classified here are:

Economic-interest organization Senior official
Employers' organization President
Employers' organization Secretary-General
Employers' organization Senior Official
Humanitarian organization Senior Official
Labor organization Senior Official
Political party Leader
Political party President
Political party Senior Official
Special-interest organization Senior Official
Trade union president
Trade union Secretary-General
Trade union Senior Official

112

MANAGING DIRECTORS AND CHIEF EXECUTIVES

121

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Managing directors and chief executives formulate and review the policies and plan, direct, coordinate and evaluate the overall activities of enterprises or organizations (except special interest organizations and government departments) with the support of other managers, usually within guidelines established by a board of directors or a governing body to whom they are answerable for the operations undertaken and results.

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Tasks performed usually include: planning, directing and coordinating the general functioning of an enterprise or organization; reviewing the operations and results of the enterprise, or organization, and reporting to boards of directors and governing bodies; determining objectives, strategies, policies and programs for the enterprise or organization; providing overall direction and management to organizations; establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources; authorizing material, human and financial resources to implement organizational policies and programs; monitoring and evaluating performance of the organization or enterprise against established objectives and policies; consulting with senior subordinate staff and reviewing recommendations and reports; representing the organization at official occasions, in negotiations, at conventions, seminars, public hearings and forums; selecting, or approving the selection of senior staff; ensuring the organization complies with relevant legislation and regulations.

1120	MANAGING DIRECTORS AND CHIEF EXECUTIVES	1210	1120
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Managing directors and chief executives formulate and review the policies and plan, direct coordinate and evaluate the overall activities of enterprises or organizations (except special interest organizations and government departments) with the support of other managers, usually within guidelines established by a board of directors or a governing body to whom they are answerable for the operations undertaken and results.

Their tasks include :

- a) planning, directing and coordinating the general functioning of an enterprise or organization;
- b) reviewing the operations and results of the enterprise, or organization and reporting to boards of directors and governing bodies;
- c) determining objectives, strategies, policies and programs for the enterprise or organization;
- d) providing overall leadership and management to the enterprise or organization;
- e) establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources;
- f) authorizing material, human and financial resources to implement organizational policies and programs;
- g) monitoring and evaluating performance of the organization or enterprise against established objectives and policies;

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- h) consulting with senior subordinate staff and reviewing recommendations and reports;
- i) representing the organization at official occasions and board meetings, in negotiations, at conventions, seminars, public hearings and forums;
- j) selecting, or approving the selection of senior staff; and
- k) ensuring the organization complies with relevant legislation and regulations.

Examples of the occupations classified here are:

Chief Executive Officer
 Chief Operation Officer
 Corporate Director
 Corporation Chief executive
 Director of the Board
 Managing Director
 Organization/enterprise Board Directors and Members
 Organization/enterprise Deputy administrator
 Organization/enterprise Executive Assistant
 Organization/enterprise Executive Vice-President

 Organization/enterprise President
 Organization/enterprise Senior Vice-President
 Organization/enterprise Special assistant supervisor
 Organization/enterprise Supervising governor
 Organization/enterprise Vice-President
 President (organization/enterprise)
 Regional manager

12

ADMINISTRATIVE AND COMMERCIAL MANAGERS

Administrative and commercial managers plan, organize, direct, control and coordinate the financial, administrative, human resource, policy, planning, research and development, advertising, public relations, and sales and marketing activities of enterprises and organizations, or of enterprises that provide such services to other enterprises and organizations.

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Tasks performed by workers in this sub-major group usually include: formulating and administering policy advice, strategic and financial planning; establishing and directing operational and administrative procedures; implementing, monitoring and evaluating strategies and policies; providing advice to senior managers; directing the development of initiatives for new products, marketing, public relations and advertising campaigns; determining and directing sales activities, product mix, customer service standards; setting prices and credit arrangements; ensuring compliance with relevant legislation, regulations and standards; controlling selection, training and performance of staff; preparing budgets and overseeing financial operations; consulting with the chief executive and with managers of other departments or sections; controlling expenditure and ensuring the efficient use of resources; representing the enterprise or organization in negotiations, and at conventions, seminars, public hearings and forums.</p>		
121			<p>BUSINESS SERVICES AND ADMINISTRATION MANAGERS</p> <p>Business services and administration managers plan, organize, direct, control and coordinate the financial, administrative, human resource, policy, planning, activities of organizations, or of enterprises that provide such services to other enterprises and organizations.</p> <p>Tasks usually include: formulating and administering policy advice, strategic and financial planning; establishing and directing operational and administrative procedures; implementing, monitoring and evaluating strategies and policies; providing advice to senior managers and board members on financial, administrative strategic, policy, program and legislative issues; ensuring compliance with relevant legislation, regulations and standards; controlling selection, training and performance of staff; preparing budgets and overseeing financial operations; consulting with the chief executive and with managers of other departments or sections; controlling expenditure and ensuring the efficient use of resources; representing the organization in negotiations, and at conventions, seminars, public hearings and forums.</p>		
1211			<p>FINANCE MANAGERS</p> <p>Finance managers plan, direct and coordinate the financial operations of an enterprise or organization, in consultation with senior managers and with managers of other departments or sections.</p> <p>Their tasks include:</p>	1231 1317 p	1211

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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- a) planning, directing and coordinating the financial operations of an enterprise or organization;
- b) assessing the financial situation of the enterprise or organization, preparing budgets and overseeing financial operations;
- c) consulting with the chief executive and with managers of other departments or sections;
- d) establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources;
- e) establishing and directing operational and administrative procedures;
- f) planning and directing daily operations;
- g) overseeing the selection, training and performance of staff;
- h) representing the enterprise or organization in dealings with outside bodies.

Examples of the occupations classified here are:

- Accounting manager
- Administration manager
- Budgeting manager
- Business services managing-proprietor
- Company secretary
- Compensation manager
- External audit manager
- Finance manager
- Internal audit manager
- Investment manager

Some related occupations classified elsewhere:

- Financial institution branch manager 1346
- Financial controller 2411
- Management accountant 2411

1212 HUMAN RESOURCE MANAGERS

1232
1317 p 1212

Human resource managers, plan, direct and coordinate policies concerning the personnel, industrial relations and occupational health and safety activities of an enterprise or organization, or of enterprises that provide human resource services to other enterprises and organizations.

Their tasks include:

- a) planning, directing and coordinating the personnel and industrial relations activities, policies and practices of an enterprise or organization;
- b) planning and organizing procedures for recruitment, training, promotion, transfer and dismissal of staff;

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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c) planning and organizing negotiations and procedures for determination of wage structures and level and for consultation with workers on conditions of employment;

d) overseeing safety, health and related programmes and activities;

e) establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources;

f) establishing and directing operational and administrative procedures;

g) overseeing the development and implementation of management information systems;

h) ensuring compliance with standards and legislation relating to employees rights, health and safety, equal opportunity and related concerns;

i) overseeing the selection, training and performance of staff for the entire enterprise or organization;

j) consulting with senior management and with managers of other departments; and

k) representing the enterprise or organization in dealings with outside bodies.

Examples of the occupations classified here:

Assistant training manager
Industrial relations manager
Benefits manager
Industrial zone manager
Labor relations manager
Personnel/human resource manager
Recruitment Manager
Training center manager
Training manager
Welfare manager

1213 POLICY AND PLANNING MANAGERS

1229 p
1239

1213

Policy and planning managers plan, organize, direct and coordinate policy advice and strategic planning activities within government or for non-government organizations and private sector agencies, or manage the activities of enterprises that provide policy and strategic planning services.

Their tasks include:

a) developing, implementing and monitoring strategic plans, programs, policies, processes, systems and procedures to achieve goals, objectives and work standards;

b) developing, directing, administering and participating in policy research and analysis;

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>c) coordinating the implementation of policies and practices;</p> <p>d) establishing activity measures and measurements of accountability;</p> <p>e) planning and directing daily operations;</p> <p>f) leading and managing the activities of policy development and strategic planning staff;</p> <p>g) overseeing the selection, training and performance of staff; and</p> <p>h) representing the enterprise or organization in negotiations, and at conventions, seminars, public hearings and forums.</p> <p>Examples of the occupations classified here are:</p> <p>Corporate compliance manager</p> <p>Corporate planning manager</p> <p>Corporate quality assurance manager</p> <p>Corporate services manager</p> <p>Policy manager</p> <p>Strategic planning manager</p>		
1219			<p>BUSINESS SERVICES AND ADMINISTRATION MANAGERS NOT ELSEWHERE CLASSIFIED</p> <p>This unit group covers business services and administration managers not classified elsewhere in minor group 121, Business services and administration managers. For instance, the group includes occupations such as facilities manager, cleaning services manager, administrative services manager.</p> <p>Their tasks would include:</p> <p>a) providing administrative, strategic planning and operational support, research and advice to senior management on matters such as the management of building facilities and administrative services;</p> <p>b) developing and managing the organization's administrative and physical resources;</p> <p>c) developing and implementing administrative and procedural statements and guidelines for use by staff in the organization;</p> <p>d) analyzing complex resource management issues and initiatives that affect the organization, and preparing associated reports, correspondence and submissions;</p> <p>e) providing information and support for the preparation of financial reports and budgets;</p> <p>f) leading, managing and developing administrative staff to ensure smooth business operations and the provision of accurate and timely information;</p>	<p>1227;</p> <p>1228;</p> <p>1229 p;</p> <p>1231 p;</p> <p>1317 p;</p> <p>1318</p>	1219

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- g) representing the enterprise or organization in negotiations, and at conventions, seminars, public hearings and forums;
- h) establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources;
- i) planning and directing daily operations; and
- j) overseeing the selection, training and performance of staff.

Examples of the occupations classified here are:

- Administrative services manager
- Cleaning services manager
- Cleaning services managing-proprietor
- Facilities manager
- Impresario
- Personal care services managing-proprietor
- Production & operations manager (extra territorial organization)
- Production and operations/business services
- Production and operations/cleaning manager
- Production and operations/personal care manager
- Project manager
- Purchasing manager
- Safety manager
- Specialized manager
- Telephone manager
- Telegraph manager

122

SALES, MARKETING AND DEVELOPMENT MANAGERS

Sales, marketing and development managers plan, organize, direct, control and coordinate the advertising, public relations, research and development, and sales and marketing activities of enterprises and organizations, or of enterprises that provide such services to other enterprises and organizations.

Tasks usually include: formulating and implementing policies and plans for advertising, public relations, product development, sales and marketing in consultation with other managers; directing the development of initiatives for new products or scientific research; marketing, public relations and advertising campaigns; determining and directing sales activities, product mix, customer service standards and merchandising methods and distribution policy; setting prices and credit arrangements; establishing and managing budgets and controlling expenditure to ensure the efficient use of resources; overseeing the selection, training and performance of staff; and representing the enterprise or organization at conventions, trade exhibitions and other forums.

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
		1221	<p>SALES AND MARKETING MANAGERS</p> <p>Sales and marketing managers plan, direct and coordinate the sales and marketing activities of an enterprise or organization, or of enterprises that provide sales and marketing services to other enterprises and organizations.</p> <p>Their tasks include:</p> <p>a) planning and organizing special sales and marketing programmes based on sales records and market assessments; planning and directing daily operations;</p> <p>b) determining price lists, discount and delivery terms, sales promotion budgets, sales methods, special incentives and campaigns;</p> <p>c) establishing and directing operational and administrative procedures related to sales and marketing activities;</p> <p>d) leading and managing the activities of sales and marketing staff;</p> <p>e) planning and directing daily operations</p> <p>f) establishing and managing budgets and controlling expenditure to ensure the efficient use of resources;</p> <p>g) overseeing the selection, training and performance of staff; and</p> <p>h) representing the enterprise or organization at sales and marketing conventions, trade exhibitions and other forums.</p> <p>Examples of the occupations classified here are:</p> <ul style="list-style-type: none"> Credit card operations manager Customer credit manager Customer services manager Economic enterprise manager Front office manager Organization/enterprise marketing director Marketing executive Marketing manager Sales manager Sales director Sales vice-president Store manager Telemarketing manager 	1233	1221
		1222	<p>ADVERTISING AND PUBLIC RELATIONS MANAGERS</p> <p>Advertising and public relations managers plan, direct and coordinate the advertising, public relations and public information activities of enterprises and organizations or of enterprises that provide related services to other enterprises and organizations.</p>	1234	1222

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Their tasks include:

- a) planning, directing and coordinating the advertising and public relations activities of an enterprise or organization;
- b) negotiating advertising contracts with clients or with newspapers, radio and television stations, sports and cultural organizations and advertising agencies;
- c) planning and managing information programmes to inform legislators, the mass media and the general public about the plans, accomplishments and points of view of the enterprise or organization;
- d) leading and managing the activities of advertising and public relations staff;
- e) establishing and managing budgets and controlling expenditure and ensuring the efficient use of resources;
- f) establishing and directing operational and administrative procedures;
- g) planning and directing daily operations; and
- h) overseeing the selection, training and performance of staff.

Examples of the occupations classified here are:

- Ads & promo assistant manager
- Advertising manager
- Advertising director
- Broadcast stations manager
- Circulation manager
- Chief communication development officer (government)
- Graphic director
- Layout director
- Promotions department manager
- Public relations manager
- Television program producer
- Television stations manager

1223	RESEARCH AND DEVELOPMENT MANAGERS	1237	1223
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Research and development managers plan, direct and coordinate the research and development activities of an enterprise or organization or of enterprises that provide related services to other enterprises and organizations.

Their tasks include:

- a) planning, directing and coordinating research and development activities, in-house or commissioned from external research organizations, to develop new or improved technical processes, products, knowledge, or utilization of materials;

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- b) planning the overall research and development programme of an enterprise or organization, specifying goals and budgetary requirements;
- c) leading and managing the activities of research and development staff;
- d) establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources;
- e) establishing and directing operational and administrative procedures;
- f) planning and directing daily operations;
- g) overseeing the selection, training and performance of staff; and
- h) representing the enterprise or organization at conventions, seminars and conferences.

Examples of the occupations classified here are:

- Product development manager
- Project development manager
- Research and development manager
- Research manager

13

PRODUCTION AND SPECIALIZED SERVICES MANAGERS

Production and specialized services managers plan direct and coordinate the production of the goods and the provision of the specialized professional and technical services provided by an enterprise or organization. They are responsible for manufacturing, mining, construction, logistics, information and communications technology operations, for large scale agricultural, forestry and fisheries operations, and for the provision of health, education, social welfare, banking, insurance and other professional and technical services.

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Tasks performed by workers in this sub-major group usually include: planning details of activities in terms of output, services provided, quality, quantity, cost, timeliness and labor requirements; setting standards and objectives; controlling the operation of plant and of procedures; assuring quality of the goods produced and services provided; preparing tenders and contract bids; establishing and managing budgets, monitoring costs, and adjusting activities, procedures and resources to minimize costs; overseeing the acquisition and installation of new plant and equipment; coordinating the implementation of health and safety requirements; planning and directing daily operations; controlling the operation of plant and of procedures; overseeing the selection, training and performance of staff; preparing, or arranging for the preparation of, reports, budgets and forecasts; and representing the enterprise or organization in negotiations with other agencies, and at conventions, seminars, public hearings and forums.</p>		
	131		<p>PRODUCTION MANAGERS IN AGRICULTURE, FORESTRY AND FISHERIES</p> <p>Production managers in agriculture, forestry and fisheries plan, direct, and coordinate production in large scale agricultural, horticultural, forestry aquaculture and fishery operations such as plantations, large ranches, collective farms and co-operatives to grow and harvest crops, breed and raise livestock, fish and shellfish and to catch and harvest fish and other forms of aquatic life.</p> <p>Tasks performed usually include: monitoring market activity and planning production to meet contract requirements and market demand; establishing and managing budgets, monitoring production output and costs, recording information such as farm and fisheries management practices, and preparing financial and operational reports; conferring with buyers to arrange for the sale of crops, catch and stock; contracting with farmers, skippers or independent owners for production of produce and management of production; planning the type, intensity and sequence of operations; purchasing machinery, equipment, and supplies; identifying and controlling environmental toxins, weeds, pests and diseases; organizing operations such as maintaining buildings, water supply systems and equipment; and overseeing the selection, training and performance of workers and contractors.</p>		
	1311		<p>AGRICULTURAL AND FORESTRY PRODUCTION MANAGERS</p>	1221 p 1311p	1311

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Agricultural and forestry production managers plan, direct, and coordinate production in large scale agricultural, horticultural and forestry operations such as plantations, large ranches, collective farms and agricultural co-operatives to grow and harvest crops, and breed and raise livestock.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) monitoring agricultural and forestry market activity and planning production to meet contract requirements and market demand; b) establishing and managing budgets, monitoring production output and costs, recording information such as farm management practices, and preparing financial and operational reports; c) conferring with buyers to arrange for the sale of crops and livestock; d) contracting with farmers or independent owners for production of crops and livestock, or for management of production; e) planning the type, intensity and sequence of farm operations (e.g. determining the best times for planting, spraying and harvesting); f) analyzing soil to determine types and quantities of fertilizer required for maximum production; g) purchasing machinery, equipment, and supplies such as tractors, seed, fertilizer, and chemicals; h) identifying and controlling agricultural and forest environmental toxins, weeds, pests and diseases; i) organizing farming operations such as maintaining buildings, water supply systems and equipment; j) directing and coordinating activities such as planting, irrigation, chemical application, harvesting, and grading; k) inspecting plantations and fields to determine maturity dates of crops, or to estimate potential crop damage from weather; and l) overseeing the selection, training and performance of agricultural and forestry workers and contractors. <p>Examples of the occupations classified here are:</p> <ul style="list-style-type: none"> Agriculture general manager Farm/overseers manager Forestry/hunting general manager Plantation manager Production & operations/agriculture manager 		
1312			AQUACULTURE AND FISHERIES PRODUCTION MANAGERS	1221 p 1311p	1312

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Aquaculture and fisheries production managers plan, direct, and coordinate production in large scale aquaculture and fishery operations to catch and harvest fish and shellfish, and to grow fish shellfish or other forms of aquatic life, as cash crops or for release into freshwater or saltwater.

Their tasks include:

- a) monitoring aquaculture and fishery market activity and planning production and fishing activities to meet contract requirements and market demand;
- b) establishing and managing budgets, monitoring production output and costs, recording information such as fisheries management practices, and preparing financial and operational reports;
- c) conferring with buyers to arrange for the sale of produce and catches;
- d) contracting with fishing skippers or owners of vessels and aquaculture farms for fishing and aquaculture operations, or for management of production;
- e) conducting and organizing aquaculture or fishery stock examinations in order to identify diseases or parasites;
- f) devising and coordinating activities to improve fish hatching and growth rates, and to prevent disease in hatcheries;
- g) monitoring environments to maintain or improve conditions for aquatic life;
- h) directing and monitoring trapping and spawning of fish, egg incubation, and fry rearing, applying knowledge of management and fish culturing techniques;
- i) coordinating the selection and maintenance of brood stock;
- j) directing and monitoring the transfer of mature fish to lakes, ponds, streams, or commercial tanks;
- k) purchasing machinery, equipment, and supplies such as vessels and nets;
- l) organizing operations such as maintenance of ships, boats and equipment; and
- m) overseeing the selection, training and performance of aquaculture or fishery workers and contractors.

Examples of the occupations classified here are:

- Aquaculture production manager
- Fishing operations manager
- General Manager, fishing
- Production and operations/fishing, hunting and forestry manager
- Shore captain (fishing)
- Trawler manager

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Some related occupations classified elsewhere:

Fish farmer 6221

Fish hatchery manager 6221

Oyster Farmer 6221

Seafood Farmer 6221

Fishing vessel skipper (coastal waters) 6222

Fishing master (deep sea) – 6223

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MANUFACTURING, MINING, CONSTRUCTION, AND DISTRIBUTION MANAGERS

Manufacturing, mining, construction, and distribution managers plan, organize, and coordinate the manufacturing, mineral extraction, construction, supply, storage and transportation operations.

Tasks performed usually include: planning details of activities in terms of output quality and quantity, cost, timeliness and labor requirements; controlling the operation of plant and quality procedures through planning of maintenance, designation of operating hours and supply of equipment; preparing tenders and contract bids; establishing and managing budgets, monitoring production output and costs, and adjusting processes and resources to minimize costs; overseeing the acquisition and installation of new plant and equipment; controlling the preparation of production records and reports; coordinating the implementation of health and safety requirements; planning and directing daily operations; and overseeing the selection, training and performance of staff.

1321 MANUFACTURING MANAGERS

1222p

1321

Manufacturing managers plan, direct, and coordinate manufacturing production activities of large enterprises or as the manager of a small manufacturing company.

Their tasks include:

a) determining, implementing and monitoring production strategies, policies and plans;

b) planning details of production activities in terms of output quality and quantity, cost, time available and labor requirements;

c) controlling the operation of production plant and quality procedures through planning of maintenance, designation of operating hours and supply of parts and tools;

d) establishing and managing budgets, monitoring production output and costs, and adjusting processes and resources to minimize costs;

e) consulting with and informing other managers about production matters;

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>f) overseeing the acquisition and installation of new plant and equipment;</p> <p>g) controlling the preparation of production records and reports;</p> <p>h) coordinating the implementation of occupational health and safety requirements;</p> <p>i) identifying business opportunities and determining products to be manufactured;</p> <p>j) researching and implementing regulatory and statutory requirements affecting manufacturing operations and the environment;</p> <p>k) overseeing the provision of quotes for the manufacture of specialized goods and establishing contracts with customers and suppliers; and</p> <p>l) overseeing the selection, training and performance of staff.</p> <p>Examples of the occupations classified here are:</p> <p>Food production coordinator</p> <p>Manufacturer</p> <p>Manufacturing manager</p> <p>Manufacturing general manager/proprietor</p> <p>Production and operations/manufacturing manager</p> <p>Steel fabrication manager</p> <p>Some related occupations classified elsewhere:</p> <p>Production supervisor (manufacturing) 3122</p>		
1322			<p>MINING MANAGERS</p> <p>Mining managers plan, direct, and coordinate the production activities of mining, quarrying and oil and gas extraction operations.</p> <p>Their tasks include:</p> <p>a) conferring with other managers to set production quotas, plan extraction sites and develop policies for the removal of raw materials;</p> <p>b) evaluating efficiency of production sites to determine adequacy of personnel, equipment and technologies used, and make changes to work schedule or equipment when necessary;</p> <p>c) planning details of production activities in terms of output quality and quantity, cost, time available and labor requirements;</p> <p>d) controlling the operation of plant and quality procedures through planning of maintenance, designation of operating hours and supply of equipment;</p> <p>e) establishing and managing budgets, monitoring production output and costs, and adjusting processes and resources to minimize costs;</p>	<p>1239 p;</p> <p>1222 p;</p> <p>1312 p</p>	1322

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>f) overseeing the acquisition and installation of new plant and equipment;</p> <p>g) controlling the preparation of production records and reports;</p> <p>h) coordinating the implementation of health and safety requirements;</p> <p>i) researching and implementing regulatory and statutory requirements affecting mineral extraction operations and the environment; and</p> <p>j) overseeing the selection, training and performance of staff.</p> <p>Examples of the occupations classified here are:</p> <p>Equipment manager (mining)</p> <p>Exploration manager</p> <p>Mine manager</p> <p>Production manager (mine)</p> <p>Production manager (oil and gas extraction)</p> <p>Production manager (quarry)</p> <p>Quarry manager</p> <p>Some related occupations classified elsewhere:</p> <p>Mine deputy 3121</p> <p>Mine supervisor 3121</p> <p>Mine under-manager 3121</p> <p>Quarry supervisor 3121</p>		
1323			<p>CONSTRUCTION MANAGERS</p> <p>Construction managers plan, direct and coordinate the construction of civil engineering projects, buildings and dwellings.</p> <p>Their tasks include:</p> <p>a) interpreting architectural drawings and specifications;</p> <p>b) coordinating labor resources, and procurement and delivery of materials, plant and equipment;</p> <p>c) negotiating with building owners, property developers and subcontractors involved in the construction process to ensure projects are completed on time and within budget;</p> <p>d) preparing tenders and contract bids;</p> <p>e) operating and implementing coordinated work programs for sites;</p> <p>f) ensuring adherence to building legislation and standards of performance, quality, cost and safety;</p> <p>g) arranging submission of plans to local authorities;</p> <p>h) building under contract, or subcontracting specialized building services;</p> <p>i) arranging building inspections by relevant authorities;</p>	1223p	1323

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			<p>j) establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources; and</p> <p>k) overseeing the selection, training and performance of staff and subcontractors;</p> <p>Examples of the occupations classified here are:</p> <ul style="list-style-type: none"> Construction contractor Construction managing proprietor Construction project manager Construction Sub-contractor Production & operations/construction manager Project builder Site manager <p>Some related occupations classified elsewhere:</p> <ul style="list-style-type: none"> Building construction supervisor 3123 House builder 7111 		
1324			SUPPLY, DISTRIBUTION AND RELATED MANAGERS	1235	1324
			<p>Supply, distribution and related managers plan, direct and coordinate the supply, transportation, storage and distribution of goods.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) determining, implementing and monitoring purchasing, storage and distribution strategies, policies and plans; b) preparing and implementing plans to maintain required stock levels at minimum cost; c) negotiating contracts with suppliers to meet quality, cost and delivery requirements; d) monitoring and reviewing storage and inventory systems to meet supply requirements and control stock levels; e) operating recording systems to track all movements of goods, and ensuring re-ordering and re-stocking at optimal times; f) liaising with other departments and customers concerning requirements for outward goods and associated forwarding transportation; g) overseeing the recording of purchase, storage and distribution transactions; h) establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources; i) establishing and directing operational and administrative procedures; j) planning and directing daily operations; and k) overseeing the selection, training and performance of staff. 		

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Examples of the occupations classified here are:

Assistant shipping manager
Customs broker
Distribution manager
Freight forwarding manager
Import/export manager
Logistics manager
Material resources manager
Operations manager
Port captain
Principal customs broker
Railway station master
Shipping manager
Supply chain manager
Supply manager
Transport general manager
Warehouse manager

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INFORMATION AND COMMUNICATIONS TECHNOLOGY SERVICE MANAGERS

Information and communications technology service managers plan, direct, and coordinate the acquisition, development, maintenance and use of computer and telecommunication systems.

Tasks usually include: consulting with users, management, vendors, and technicians to assess computing needs and system requirements and specifying technology to meet those needs; formulating and directing information and communication technology (ICT) strategies, policies and plans; directing the selection and installation of ICT resources and the provision of user training; directing ICT operations, analyzing workflow, establishing priorities, developing standards and setting deadlines; overseeing the security of ICT systems; assigning, reviewing, managing and leading the work of systems analysts, programmers, and other computer related workers; evaluating the organization's technology use and needs and recommending improvements, such as hardware and software upgrades; establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources; establishing and directing operational and administrative procedures; overseeing the selection, training and performance of staff; and representing the enterprise or organization at ICT related conventions, seminars and conferences.

1330 INFORMATION AND COMMUNICATIONS
TECHNOLOGY SERVICE MANAGERS

1236

1330

Information and communications technology service managers plan, direct, and coordinate the acquisition, development, maintenance and use of computer and telecommunication systems.

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Their tasks include:

- a) consulting with users, management, vendors, and technicians to assess computing needs and system requirements and specifying technology to meet those needs;
- b) formulating and directing information and communication technology (ICT) strategies, policies and plans;
- c) directing the selection and installation of ICT resources and the provision of user training;
- d) directing ICT operations, analyzing workflow, establishing priorities, developing standards and setting deadlines;
- e) overseeing the security of ICT systems;
- f) assigning, reviewing, managing and leading the work of systems analysts, programmers, and other computer-related workers;
- g) evaluating the organization's technology use and needs and recommending improvements, such as hardware and software upgrades;
- h) establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources;
- i) establishing and directing operational and administrative procedures;
- j) overseeing the selection, training and performance of staff; and
- k) representing the enterprise or organization at ICT related conventions, seminars and conferences.

Examples of the occupations classified here are:

- Application development manager
- Chief information officer
- Computing services manager
- Data operations manager
- Data processing manager
- EDP/MIS/IT managers
- ICT development manager
- Information and communication technology manager
- Information systems director
- Information technology manager (IT Manager)
- Internet service provider
- Network manager
- Production & operations manager (communications)
- Telecommunications services manager

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Professional services managers plan, direct and coordinate the provision of childcare, health, welfare, education and other professional services, and manage the branches of institutions providing financial and insurance services.</p> <p>Tasks usually include: formulating policies and plans for the provision of services and operation of establishments; setting standards and objectives; developing and implementing programs and services to meet the needs of clients; directing and coordinating the allocation of resources; liaising with parents, boards, funding bodies, the community representatives and related agencies to discuss areas of cooperation and coordination; monitoring and controlling expenditure; overseeing the selection, development and performance of staff; preparing, or arranging for the preparation of, reports, budgets and forecasts; and representing the organization in negotiations other agencies, and at conventions, seminars, public hearings and forums.</p>		
		1341	<p>CHILD CARE SERVICE MANAGERS</p> <p>Child care service managers plan, direct, and coordinate and evaluate the provision of care for children in before-school, after-school, vacation and day care centers and services.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) developing and implementing programs to enhance the physical, social, emotional and intellectual development of young children; b) establishing and monitoring budgets and determining allocation of funds for staff, supplies, materials, equipment and maintenance; c) overseeing and coordinating the provision of care for children in before-school, after-school, day, and vacation care centers; d) directing and supervising child carers in providing care and supervision for young children; e) managing physical facilities and making sure all buildings and equipment are maintained to ensure the center is a safe area for children, staff and visitors; f) reviewing and interpreting government codes, and developing procedures to meet codes (e.g., concerning safety and security); g) monitoring children's progress and conferring with parents or guardians; h) preparing and maintaining records and accounts for a child care center; and i) recruiting and evaluating staff and coordinating their professional development. 	1229 p 1319 p	1341

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
<p>Examples of the occupations classified here are: Child Care Centre Manager</p>					
1342	HEALTH SERVICE MANAGERS		<p>Health service managers plan, direct, coordinate and evaluate the provision of clinical and community health care services in hospitals, clinics, public health agencies and similar organizations.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) providing overall direction and management for the service, facility, organization or center; b) directing, supervising and evaluating the work activities of medical, nursing, technical, clerical, service, maintenance, and other personnel; c) establishing objectives and evaluative or operational criteria for units they manage; d) directing or conducting recruitment, hiring and training of personnel; e) developing, implementing and monitoring procedures, policies and performance standards for medical, nursing, technical and administrative staff; f) monitoring the use of diagnostic services, inpatient beds, facilities, and staff to ensure effective use of resources and assess the need for additional staff, equipment, and services; g) controlling administrative operations such as budget planning, report preparation and expenditure on supplies, equipment and services; h) liaising with other health and welfare service providers, boards and funding bodies to coordinate the provision of services; i) advising government bodies about measures to improve health and welfare services and facilities; and j) representing the organization in negotiations, and at conventions, seminars, public hearings and forums. <p>Examples of the occupations classified here are: Clinical director Director of nursing Hospital matron Medical administrator</p> <p>Some related occupations classified elsewhere: Aged care service manager 1343</p>	1229 p; 1319 p; 2230 p	1342
1343	AGED CARE SERVICE MANAGERS			1229 p; 1319 p;	1343

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Aged care service managers plan, direct coordinate and evaluate the provision of residential and personal care services for individuals and families who are in need of such services due to the effects of ageing.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) providing overall direction and management for a service, facility, organization or center; b) directing, supervising and evaluating the work activities of medical, nursing, technical, clerical, service, maintenance, and other personnel; c) establishing objectives and evaluative or operational criteria for units they manage; d) directing or conducting recruitment, hiring and training of personnel; e) developing, implementing and monitoring procedures, policies and performance standards for nursing, personal care, technical, and administrative staff; f) coordinating and administering welfare programs and care services for the elderly; g) controlling administrative operations such as budget planning, report preparation, expenditure on supplies, equipment and services; h) liaising with other health and welfare providers, boards and funding bodies to coordinate the provision of services; i) advising government bodies about measures to improve health and welfare services and facilities; and j) representing the organization in negotiations, and at conventions, seminars, public hearings and forums. <p>Examples of the occupations classified here are:</p> <ul style="list-style-type: none"> Aged care home director Community aged care coordinator Nursing home director Retirement village coordinator <p>Some related occupations classified elsewhere:</p> <ul style="list-style-type: none"> Health service manager 1342 	2230 p	
1344			<p>SOCIAL WELFARE MANAGERS</p> <p>Social welfare managers plan, direct, and coordinate the provision of social and community service programs such as income support, family assistance, children's services and other community programs and services.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) providing overall direction and management for a service, facility, organization or center; 	1229 p; 1319 p	1344

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>b) developing, implementing and monitoring procedures, policies and standards for staff;</p> <p>c) monitoring and evaluating resources devoted to the provision of welfare, housing, and other social services;</p> <p>d) controlling administrative operations such as budget planning, report preparation, expenditure on supplies, equipment and services;</p> <p>e) liaising with other welfare and health services providers, boards and funding bodies to discuss areas of health and welfare service cooperation and coordination;</p> <p>f) advising government bodies about measures to improve welfare services and facilities;</p> <p>g) representing the organization in negotiations, and at conventions, seminars, public hearings and forums;</p> <p>h) establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources;</p> <p>i) establishing and directing operational and administrative procedures;</p> <p>j) overseeing the selection, training and performance of staff; and</p> <p>k) representing the organization at conventions, seminars and conferences.</p> <p>Examples of the occupations classified here are:</p> <p>Community center manager Family services manager Housing services manager Welfare Centre Manager</p>		
		1345	<p>EDUCATION MANAGERS</p> <p>Education managers plan, direct, coordinate and evaluate the educational and administrative aspects of education services, primary and secondary schools, colleges and faculties and departments in universities and other educational institutions.</p> <p>Their tasks include:</p> <p>a) determining educational programs based on frameworks established by education authorities and governing bodies;</p> <p>b) implementing systems and procedures to monitor school performance and student enrolments;</p> <p>c) directing administrative and clerical activities concerning student admissions and educational services;</p> <p>d) controlling administrative operations such as budget planning, report preparation, expenditure on supplies, equipment and services;</p>	1411 1412	1345

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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e) providing leadership and guidance to teaching, academic and administrative staff as well as to students;

f) evaluating the work of teachers and lecturers by visiting classrooms, observing teaching methods, reviewing instructional objectives and examining learning materials;

g) promoting the educational program, and representing the service or institution in the wider community;

h) supervising the maintenance of educational facilities;

i) developing and enforcing a disciplinary code to create a safe and conducive environment for students and teachers;

j) organizing and implementing methods of raising additional funds in conjunction with parent and community groups and sponsors; and

k) controlling selection, training and supervision of staff.

Examples of the occupations classified here are:

Assistant Principal
Chief Education Supervisor
City School Superintendent
College Administrator
College Dean
District Supervisor
Division School Superintendent
School President
School Principal
School supervisor
State University and Colleges President
Vocational School Administrator

1346	FINANCIAL AND INSURANCE SERVICES BRANCH MANAGERS	1227; 1317p	1346
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Financial and insurance services branch managers plan, direct, and coordinate the branches of institutions that provide financial and insurance services, such as banks, building societies, credit unions and insurance companies. They provide advice and assistance to clients on financial and insurance matters.

Their tasks include:

a) planning, directing and coordinating the activities of staff in the branch;

b) establishing and maintaining relationships with individual and business customers;

c) providing advice and assistance to customers on their financial and insurance needs and other related matters such as changes in law that may affect customers;

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>d) examining, evaluating and processing loan and insurance applications;</p> <p>e) monitoring credit extension decisions;</p> <p>f) conducting financial investigations;</p> <p>g) overseeing the flow of cash and financial instruments, and the preparation of financial and regulatory reports;</p> <p>h) approving or rejecting, or coordinating the approval or rejection of, lines of credit commercial, real estate and personal loans;</p> <p>i) coordinating cooperation with other branches of the company;</p> <p>j) managing budgets, controlling expenditure and ensuring the efficient use of resources; and</p> <p>k) overseeing the selection, training and performance of staff.</p> <p>Examples of the occupations classified here are:</p> <p>Area manager (Insurance)</p> <p>Bank manager</p> <p>Branch manager</p> <p>Credit union manager</p> <p>Insurance agency manager</p> <p>Some related occupations classified elsewhere:</p> <p>Finance manager 1211</p> <p>Credit and loans officer 3312</p> <p>Insurance agent 3321</p> <p>Specialty store managing proprietor</p> <p>Underwriting and claims manager</p> <p>Unit manager</p>		
1349	PROFESSIONAL SERVICES	MANAGERS	NOT ELSEWHERE CLASSIFIED	1229 p; 1319 p	1349
			<p>This unit group covers managers who plan, direct coordinate and evaluate the provision of specialized professional and technical services and are not classified in sub-major group 12, Business services and administration managers, or elsewhere in sub-major group 13, Professional services managers. For instance, managers responsible for the provision of policing, corrective, library, legal and fire services are classified here.</p> <p>In such cases tasks would include:</p> <p>a) providing overall direction and management for a service, facility, organization or center;</p> <p>b) developing, implementing and monitoring procedures, policies and standards for staff;</p> <p>c) directing, supervising and evaluating the work activities of professional technical, clerical, service, maintenance, and other personnel;</p> <p>d) monitoring and evaluating resources devoted to the provision of services;</p>		

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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e) controlling administrative operations such as budget planning, report preparation, expenditure on supplies, equipment and services;

f) planning, directing and coordinating the provision of services;

g) coordinating cooperation with other service provision agencies in the same or related fields;

h) managing budgets, controlling expenditure and ensuring the efficient use of resources; and

i) overseeing the selection, training and performance of staff.

Examples of the occupations classified here are:

Archives manager
 Art gallery manager
 Correctional services manager
 Legal service manager
 Library manager
 Museum manager
 Police superintendent
 Prison governor

14

HOSPITALITY, RETAIL AND OTHER SERVICES MANAGERS

Hospitality, shop and related services managers plan, organize and direct the operations of establishments which provide accommodation, hospitality, retail and other services.

Tasks performed by workers in this sub-major group usually include: planning and organizing special functions, sporting, gaming and entertainment activities and the range and mix of products, stock levels and service standards; promoting and selling goods and services; observing liquor, gaming, health and other laws and regulations; developing and reviewing policies, programs and procedures concerning customer relations and goods and services provided; promoting facilities, for conferences, conventions and trade shows, to potential customers; organizing the purchase and maintenance of transport vehicles, equipment and fuel, and transporting goods; controlling the selection, training and supervision of staff; ensuring compliance with occupational health and safety regulations.

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HOTEL AND RESTAURANT MANAGERS

Hotel and restaurant managers plan, organize and direct the operations of establishments that provide accommodation, meals, beverages and other hospitality services.

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			Tasks performed usually include: planning and organizing special functions, sporting, gaming and entertainment activities; directing and overseeing reservation, reception, room service and housekeeping activities; observing liquor, gaming, health and other laws and regulations; monitoring quality at all stages of preparation and presentation of food and services; controlling the selection, training and supervision of staff; and ensuring compliance with occupational health and safety regulations.		
		1411	<p>HOTEL MANAGERS</p> <p>Hotel managers plan, organize and direct the operations of hotels, motels and similar establishments to provide guest accommodation and other services.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) directing and overseeing reservation, reception, room service and housekeeping activities; b) supervising security arrangements, and garden and property maintenance; c) planning and supervising bar, restaurant, function and conference activities; d) observing liquor, gaming, and other laws and regulations; e) assessing and reviewing customer satisfaction; f) overseeing accounting and purchasing activities; g) undertaking budgeting for the establishment; h) controlling selection, training and supervision of staff; i) ensuring compliance with occupational health and safety regulations; and j) providing guests with local tourism information, and arranging tours and transportation. <p>Examples of the occupations classified here are:</p> <ul style="list-style-type: none"> Catering services general manager Hotel manager Motel manager Nightclub manager Youth hostel manager <p>Some related occupations classified elsewhere:</p> <ul style="list-style-type: none"> Bed and breakfast operator 5152 	1225 p; 1315 p	1411
		1412	<p>RESTAURANT MANAGERS</p> <p>Restaurant managers plan, organize and direct the operations of cafes, restaurants and related establishments to provide dining and catering services.</p>	1225 p; 1315 p	1412

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Their tasks include:

- a) planning menus in consultation with chefs and cooks;
- b) planning and organizing special functions;
- c) arranging the purchasing and pricing of goods according to budget;
- d) maintaining records of stock levels and financial transactions;
- e) ensuring dining, kitchen and food storage facilities comply with health regulations and are clean, functional and of suitable appearance;
- f) conferring with customers to assess their satisfaction with meals and service;
- g) selecting, set staff work schedules, training and supervising waiting and kitchen staff;
- h) taking reservations, greeting guests and assisting in taking orders;
- i) negotiating arrangements with clients and suppliers; and
- j) ensuring compliance with occupational health and safety regulations.

Examples of the occupations classified here are:

- Cafe Manager
- Catering services manager/proprietor
- Production and operations/restaurant manager
- Restaurant manager
- Restaurant proprietor

Some related occupations classified elsewhere:

- Chef 3434

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RETAIL AND WHOLESALE TRADE MANAGERS

Retail and wholesale trade managers plan, organize, coordinate and control the operations of establishments that sell goods on a retail or wholesale basis. They are responsible for the budgets, staffing and strategic and operational direction of shops, or of organizational units within shops that sell particular types of product.

Tasks usually include: determining product mix, stock levels and service standards; formulating and implementing purchasing and marketing policies, and setting prices; promoting and advertising the establishment's goods and services; maintaining records of stock levels and financial transactions; undertaking budgeting for the establishment; controlling selection, training and supervision of staff; and ensuring compliance with occupational health and safety regulations.

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
		1420	<p>RETAIL AND WHOLESALE TRADE MANAGERS</p> <p>Retail and wholesale trade managers, plan, organize, co-ordinate and control the operations of establishments that sell goods on a retail or wholesale basis. They are responsible for the budgets, staffing and strategic and operational direction of shops, or of organizational units within shops that sell particular types of product.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) determining product mix, stock levels and service standards; b) formulating and implementing purchasing and marketing policies, and setting prices; c) promoting and advertising the establishment's goods and services; d) maintaining records of stock levels and financial transactions; e) undertaking budgeting for the establishment; f) controlling selection, training and supervision of staff; and g) ensuring compliance with occupational health and safety regulations. <p>Examples of the occupations classified here are:</p> <ul style="list-style-type: none"> Commissary manager Grocery manager Production and operations/retail trade manager Production and operations/wholesale trade manager Retail manager/ proprietor Shop manager Supermarket manager Wholesale trade manager/proprietor <p>Some related occupations classified elsewhere:</p> <ul style="list-style-type: none"> Shopkeeper 5221 Shop supervisor 5222 Shop sales assistant 5223 	1224; 1314 p	1420
		143	<p>OTHER SERVICES MANAGERS</p> <p>Other services managers plan, organize, and control the operations of establishments that provide sporting, cultural, recreational, travel, customer contact and other amenity services.</p>		

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Tasks usually include: planning and organizing the range and mix of services or activities provided; ensuring that facilities are kept clean and in good condition; keeping abreast of new trends and developments relevant to the service provided; advising on the facilities available and promoting publicity; checking and keeping custody of all cash receipts and making regular stock checks; establishing and managing budgets; controlling expenditure and ensuring the efficient use of resources; planning and directing daily operations; controlling the selection, supervision and performance of staff; and ensuring compliance with health and safety requirements.

1431	SPORTS, RECREATION AND CULTURAL CENTRE MANAGERS	1319 p	1431
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Sports, recreation and cultural center managers plan, organize, and control the operations of establishments that provide sporting, artistic, theatrical and other recreational and amenity services.

Their tasks include:

a) planning and organizing the range and mix of entertainment, attractions, cultural activities, and sports and fitness programmes to be offered by the center;

b) ensuring that facilities are kept clean and in good condition;

c) keeping abreast of new trends and developments in the creative arts and arranging theatrical productions and performances by bands and orchestras;

d) advising on the facilities available and promoting publicity in relation to events, shows and activities;

e) checking and keeping custody of all cash receipts and making regular stock checks;

f) establishing and managing budgets, controlling expenditure and ensuring the efficient use of resources;

g) planning and directing daily operations;

h) controlling the selection, supervision and performance of staff; and

i) ensuring compliance with health and safety regulations.

Examples of the occupations classified here are:

- Amusement/ theme park manager
- Band manager
- Billiards or pool hall manager
- Casino manager
- Cinema manager
- Dance studio manager
- Leisure center manager

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Riding school manager Song group manager Sports and entertainment manager Sports center manager Theatre manager</p> <p>Some related occupations classified elsewhere: Art gallery manager 1349 Museum manager 1349 Library manager 1349</p>		
1439			<p>SERVICES MANAGERS NOT ELSEWHERE CLASSIFIED</p> <p>This unit group covers managers that plan, direct and coordinate the provision of services and are not classified in sub-major group 13, Production and specialized services managers or elsewhere in sub-major group 14, Hospitality, retail and other services managers. For instance, managers of travel agencies, conference centers, contact centers and shopping centers are classified here.</p> <p>Examples of the occupations classified here are: Camp site manager Caravan park manager Conference center manager Contact center manager Shopping center manager Travel agency manager</p>	<p>1229 p; 1319 p 1227 p</p>	1439

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Major Group 2.

PROFESSIONALS

Professionals increase the existing stock of knowledge, apply scientific or artistic concepts and theories, teach about the foregoing in a systematic manner, or engage in any combination of these activities. Competent performance in most occupations in this major group requires skills at the fourth ISCO skill level.

Tasks performed by professionals usually include: conducting analysis and research, and developing concepts, theories and operational methods, and advising on or applying existing knowledge related to physical sciences including mathematics, engineering and technology, and to life sciences including the medical and health services, as well as to social sciences and humanities; teaching the theory and practice of one or more disciplines at different educational levels; teaching and educating handicapped persons; providing various business, legal and social services; creating and performing works of art; providing spiritual guidance; preparing scientific papers and reports. Supervision of other workers may be included.

Occupations in this major group are classified into the following sub-major groups, minor groups and unit groups:

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SCIENCE AND ENGINEERING PROFESSIONALS

Physical, mathematical and engineering science professionals conduct research, improve or develop concepts, theories and operational methods, or apply scientific knowledge relating to fields such as physics, astronomy, meteorology, chemistry, geophysics, geology, mathematics, statistics, computing, architecture, engineering, and technology.

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Tasks performed by workers in this sub-major group usually include: conducting research, enlarging, advising on or applying scientific knowledge obtained through the study of structures and properties of physical matter and phenomena, chemical characteristics and processes of various substances, materials and products, and of mathematical, statistical and computing concepts and methods; advising on, designing and directing construction of buildings, towns and traffic systems, or civil engineering and industrial structures, as well as machines and other equipment, and advising on and applying mining methods, and ensuring their optimum use; surveying land and sea and making maps; studying and advising on technological aspects of particular materials, products and processes, and on efficiency of production and work organization; preparing scientific papers and reports. Supervision of other workers may be included.

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PHYSICAL AND EARTH SCIENCE PROFESSIONALS

Physical and earth science professionals conduct research, improve or develop concepts, theories and operational methods, or apply scientific knowledge relating to physics, astronomy, meteorology, chemistry, geology and geophysics.

Tasks performed usually include: enlarging scientific knowledge through research and experiments related to mechanics, thermodynamics, optics, sonics, electricity, magnetism, electronics, nuclear physics, astronomy, various branches of chemistry, atmospheric conditions and the physical nature of the Earth; and advising on or applying this knowledge in such fields as manufacturing, agriculture, medicine, navigation, space exploration, oil, gas, water and mineral exploitation, telecommunications and other services, or civil engineering; preparing scientific papers and reports.

2111 PHYSICISTS AND ASTRONOMERS

2111

2111

Physicists and astronomers conduct research and improve or develop concepts, theories and operational methods concerning matter, space, time, energy, forces and fields and the interrelationship between these physical phenomena. They apply scientific knowledge relating to physics and astronomy in industrial, medical, military or other fields.

Their tasks include:

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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a) conducting research and improving or developing concepts, theories, instrumentation, software and operational methods related to physics and astronomy;

b) conducting experiments, tests and analyses on the structure and properties of matter in fields such as mechanics, thermodynamics, electronics, communications, power generation and distribution, aerodynamics, optics and lasers, remote sensing, medicine, sonics, magnetism, and nuclear physics;

c) evaluating results of investigations and experiments and expressing conclusions, mainly using mathematical techniques and models;

d) applying principles, techniques and processes to develop or improve industrial, medical, military and other practical applications of the principles and techniques of physics or astronomy;

e) ensuring the safe and effective delivery of radiation (ionizing and non-ionizing) to patients to achieve a diagnostic or therapeutic result as prescribed by a medical practitioner;

f) ensuring the accurate measurement and characterization of physical quantities used in medical applications;

g) testing, commissioning and evaluating equipment used in applications such as imaging, medical treatment and dosimetry;

h) advising and consulting with medical practitioners and other health care professionals in optimizing the balance between the beneficial and deleterious effects of radiation;

i) observing, analyzing and interpreting celestial phenomena and developing methods, numerical models and techniques to extend knowledge of fields such as navigation, satellite communication, space exploration, celestial bodies and cosmic radiation;

j) developing, implementing and maintaining standards and protocols for the measurement of physical phenomena and for the use of nuclear technology in industrial and medical applications; and

k) preparing scientific papers and reports.

Examples of the occupations classified here:

- Astronomer
- Astronomical scientist
- Electronic physicist
- Light and optics physicist
- Mechanic physicist
- Nuclear physicist

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Physicist (general)

Some related occupations classified elsewhere:

Specialist physician (nuclear medicine) - 2212

Radiographer - 3211

Radiologist - 2212

2112 METEOROLOGISTS

2112

2112

Meteorologists prepare short-term or long-term weather forecasts used in aviation, shipping, agriculture and other areas and for the information of the general public. They conduct research related to the composition, structure and dynamics of the atmosphere.

Their tasks include:

a) investigating direction and speed of air movements, pressures, temperatures, humidity, physical and chemical transformation of pollutants and other phenomena such as cloud formation and precipitation, electrical disturbances or solar radiation;

b) studying data collected from meteorological stations, radar and satellite imagery and computer model output to plot and forecast weather conditions;

c) preparing and reporting short-term or long-term weather maps, forecasts and warnings relating to atmospheric phenomena such as cyclones, storms and other hazards to life and property and disseminating information about atmospheric conditions through a variety of media including radio, television, print and the Internet;

d) conducting experiments in fog dispersal, cloud seeding, rain enhancement and other types of weather modification programs;

e) developing and testing mathematical computer models of weather and climate for experimental or operational use;

f) participating in studies of the effect of weather on the environment;

g) analyzing the impact of industrial projects and human activity on the climate and quality of the air and work with the social science, engineering and economic communities to develop appropriate mitigation strategies;

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h) engaging in the design and development of new equipment and procedures for meteorological data collection, remote sensing, or for related applications;

i) conducting research on and improving or developing concepts, theories and operational methods related to the composition, structure and dynamics of the atmosphere and preparing scientific papers and reports on the outcome of this research; and

j) preparing scientific papers and reports.

Examples of the occupations classified here:

Climatologist
Hydrometeorologist
Meteorological scientist
Meteorologist
Weather forecaster
Weather observer

2113 CHEMISTS

2113

2113

Chemists conduct research, improve or develop concepts, theories and operational methods, or apply scientific knowledge relating to chemistry, to develop new knowledge or products and for quality and process control.

Their tasks include:

a) conducting research and improving or developing concepts, instruments, theories and operational methods related to chemistry;

b) conducting experiments, tests and analyses to investigate chemical composition and energy and chemical changes in various natural or synthetic substances, materials and products;

c) developing procedures for environmental control, quality control and various other procedures for manufacturers or users;

d) conducting programs of sample and data collection and analysis to identify and quantify environmental toxicants;

e) participating in interdisciplinary research and development projects working with chemical engineers, biologists, microbiologists, agronomists, geologists or other professionals;

f) using micro-organisms to convert substances into new compounds;

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g) determining ways to strengthen or combine materials or develop new materials;

h) reproducing and synthesizing naturally occurring substances and creating new artificial substances; and

i) preparing scientific papers and reports.

Examples of the occupations classified here:

Analytical chemist
 Chemist (general)
 Food chemist
 Forensic chemist
 Organic/Inorganic chemist
 Pharmaceutical chemist
 Physical chemist
 Quality control chemist
 Toxicologist
 Ceramics and glass technologist
 Wood technologist

Some related occupations classified elsewhere:

Biochemist - 2131
 Pharmacist - 2262
 Pharmacologist - 2131

2114	GEOLOGISTS AND GEOPHYSICISTS	2114	2114
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Geologists and geophysicists conduct research; improve or develop concepts, theories and operational methods, or apply scientific knowledge relating to geology and geophysics in such fields as oil, gas and mineral exploration and extraction, water conservation, civil engineering, telecommunications and navigation, and assessment and mitigation of the effects of development and waste disposal projects on the environment.

Their tasks include:

a) conducting research and improving or developing concepts, theories and operational methods related to geology and geophysics;

b) studying composition and structure of the Earth's crust, examining rocks, minerals, fossils and other materials, to determine processes affecting the development of the Earth, trace evolution of past life, establish nature and chronology of geological formations and assess their commercial applications;

c) interpreting research data and preparing geological reports, maps, charts and diagrams, reports and papers;

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d) applying geological knowledge to problems encountered in civil engineering projects such as the construction of dams, bridges, tunnels, and large buildings; and land reclamation projects;

e) using various remote sensing programs to investigate and measure seismic, gravitational, electrical, thermal, and magnetic forces affecting the Earth;

f) estimating weight, size and mass of the Earth and composition and structure of its interior, and studying the nature, activity and predictability of volcanoes, glaciers and earthquakes;

g) charting the Earth's magnetic field and applying this and other collected data for broadcasting, navigation and other purposes;

h) studying and measuring physical properties of seas and the atmosphere and their inter-relationship, such as the exchange of thermal energy;

i) locating and determining the nature and extent of oil, gas and mineral deposits using seismological, gravimetric, magnetic, electrical or radiometric methods; identifying deposits of construction materials and determining their characteristics and suitability for use as concrete aggregates, road fill or for other applications;

j) researching the movement, distribution and physical properties of ground and surface waters; and

k) advising in areas such as waste management, route and site selection and the restoration of contaminated sites.

Examples of the occupations classified here:

Geological oceanographer
Geologist
Geologist engineer
Geophysical scientist
Geothermal engineer
Geophysicist
Hydro-geologist
Hydrographer
Hydrologist
Mineral analyst
Mineralogist
Geophysical Oceanographer
Petrologist
Seismologist
Volcanologist

2119 OTHER PHYSICAL AND EARTH SCIENCE PROFESSIONALS

211

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SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Workers in this unit group collect, identify, classify, and analyze physical evidence related to criminal investigations, perform tests on weapons or substances, such as fiber, hair, and tissue to determine significance to investigation, testify as expert witnesses on evidence or crime laboratory techniques and serve as specialists in area of expertise, such as ballistics, fingerprinting, handwriting, or biochemistry.

Example of the occupations classified here:
Ballistician

212 MATHEMATICIANS, ACTUARIES AND STATISTICIANS

Mathematicians, actuaries and statisticians conduct research, improve or develop mathematical, actuarial and statistical concepts, theories and operational models and techniques and apply this knowledge to a wide range of tasks in such fields as engineering, business and social and other sciences.

Tasks performed usually include: studying, improving and developing mathematical, actuarial and statistical theories and techniques; advising on or applying mathematical principles, models and techniques to a wide range of tasks in the fields of engineering, natural, social or life sciences; conducting logical analyzes of management problems, especially in terms of input-output effectiveness, and formulating mathematical models of each problem usually for programming and solution by computer; designing and putting into operation pension schemes and life, health, social and other types of insurance systems; applying mathematics, statistics, probability and risk theory to assess potential financial impacts of future events.

Planning and organizing surveys and other statistical collections, and designing questionnaires; evaluating, processing, analyzing, and interpreting statistical data and preparing them for publication; advising on or applying various data collection methods and statistical methods and techniques, and determining reliability of findings, especially in such fields as business or medicine as well as in other areas of natural, social or life sciences; preparing scientific papers and reports; supervising the work of mathematical, actuarial and statistical assistants and statistical clerks.

2121 MATHEMATICIANS AND ACTUARIES

2121 2120

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Mathematicians and actuaries conduct research and improve or develop mathematical and actuarial concepts, theories and operational methods and techniques and advise on or engage in their practical application in such fields as engineering, business and social and other sciences.

Their tasks include:

- a) studying, improving and developing mathematical, actuarial and statistical theories and techniques;
- b) advising on or applying mathematical principles, models and techniques to a wide range of tasks in the fields of engineering, natural, social or life sciences;
- c) conducting logical analyzes of management problems, especially in terms of input-output effectiveness, and formulating mathematical models of each problem usually for programming and solution by computer;
- d) designing and putting into operation pension schemes and life, health, social and other types of insurance systems;
- e) applying mathematics, statistics, probability and risk theory to assess potential financial impacts of future events;
- f) planning and organizing surveys and other statistical collections, and designing questionnaires;
- g) evaluating, processing, analyzing, and interpreting statistical data and preparing them for publication;
- h) advising on or applying various data collection methods and statistical methods and techniques, and determining reliability of findings, especially in such fields as business or medicine as well as in other areas of natural, social or life sciences;
- i) preparing scientific papers and reports; and
- j) supervising the work of mathematical, actuarial and statistical assistants and statistical clerks.

Examples of the occupations classified here:

- Actuarial analyst
- Actuary
- Actuarial researcher
- Assistant actuary
- Mathematician (applied mathematics)
- Mathematician (pure mathematics)
- Operations research analyst

Some related occupations classified elsewhere:

- Actuarial assistant - 3434

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Actuarial clerk - 4122
Mathematical assistant - 3434
Mathematical statistician - 2122

2122 STATISTICIANS 2122 2120

Workers in this unit group conduct research, improve or develop mathematical and other aspects of statistical concepts, theories and operational methods and techniques, and advise on or engage in their practical application, in such fields as business or medicine, as well as in other areas of natural, social or life sciences.

Their tasks include:

- a) studying, improving and developing statistical theories and methodologies;
- b) planning and organizing surveys and other statistical collections, and designing questionnaires;
- c) evaluating, processing, analyzing, and interpreting statistical data and preparing them for publication;
- d) advising on or applying various data collection methods and statistical methods and techniques, and determining reliability of findings, especially in such fields as business or medicine as well as in other areas of natural, social or life sciences; and
- e) preparing scientific papers and reports.

Examples of the occupations classified here:

Biometrician
Demographer
Mathematical statistician
Statistician (applied statistics)
Statistician (general)
Survey statistician

213 LIFE SCIENCE PROFESSIONALS

Life science professionals apply knowledge gained from research into human, animal and plant life and their interactions with each other and the environment to develop new knowledge, improve agricultural and forestry production, and solve human health and environmental problems.

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Tasks performed usually include: collecting, analyzing and evaluating experimental and field data to identify and develop new processes and techniques; providing advice and support to governments, organizations and businesses about ecological sustainable development of natural resources.

2131	BIOLOGISTS, BOTANISTS, ZOOLOGISTS AND RELATED SCIENTISTS	2211 p; 2212 p	2131
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Biologists, botanists, zoologists and related professionals study living organisms and their interactions with each other and with the environment, and apply this knowledge to solve human health and environmental problems. They work in diverse fields such as botany, zoology, ecology, marine biology, genetics, immunology, pharmacology, toxicology, physiology, bacteriology and virology.

Their tasks include:

a) undertaking research in laboratories and in the field to increase scientific knowledge of living organisms; to discover new information; to test hypotheses; to solve problems in areas such as the environment, agriculture and health; and to develop new products, processes and techniques for pharmaceutical, agricultural and environmental use;

b) designing and conducting experiments and tests;

c) gathering human, animal, insect and plant specimens and data, and studying their origin, development, chemical and physical form, structure, composition, and life and reproductive processes;

d) examining living organisms using a variety of specialized equipment, instruments, technologies and techniques such as electron microscopes, telemetry, global positioning systems, biotechnology, satellite imaging, genetic engineering, digital imaging analysis, polymerase chain reaction and computer modelling;

e) identifying, classifying, recording and monitoring living organisms and maintaining databases;

f) to the scientific community in scientific journals or at conferences for scrutiny and further debate;

g) designing and carrying out environmental impact assessments to identify changes caused by natural or human factors; and

h) providing advice to governments, organizations and businesses in areas such as conservation, management of natural resources, the effects of climate change and pollution.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Examples of the occupations classified here:

Aquatic biologist
 Bacteriologist
 Biochemist
 Biologist
 Biophysicist
 Biotechnologist
 Botanist
 Cell geneticist
 Entomologist
 Marine biologist
 Microbiologist
 Molecular biologist
 Molecular geneticist
 Mycologist
 Pharmacologist
 Parasitologist
 Physiologist
 Plant entomologist
 Plant geneticist
 Plants and animals taxonomist
 Virologist
 Zoologist

Some related occupations classified elsewhere:

Ecologist - 2133

2132	FARMING, FORESTRY AND FISHERIES ADVISERS	2213 p	2132
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Farming, forestry and fisheries advisers study and provide assistance and advice on farm, forestry and fisheries management, including cultivation, fertilization, harvesting, soil erosion and composition, disease prevention, nutrition, crop rotation and marketing. They develop techniques for increasing productivity, and study and develop plans and policies for land and fisheries management.

Their tasks include:

- a) collecting and analyzing data and samples related to produce, feed, soil, water quality and other factors affecting farm, forest or fishery production;
- b) advising on techniques for improving the production of crops, livestock and fish, and alternative production options;
- c) advising on livestock and crop disease, control of pests and weeds, soil improvement, animal husbandry and feeding programs;

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d) studying the environmental factors affecting commercial crop production, pasture growth, animal breeding, fish stocks and the growth and health of forest trees;

e) studying the effects of cultivation techniques, soils, insects, diseases and fisheries practices on animal, crop, forestry and fisheries yield;

f) studying fish migration, growth, feeding and spawning and devising methods of collecting, fertilizing, incubating and hatching fish eggs;

g) researching into characteristics, use capability and productivity of soils and applying findings to development of improved agricultural, horticultural and forestry practices;

h) developing procedures and techniques for solving agricultural problems and improving the efficiency of production;

i) managing forest and fisheries resources to maximize their long-term commercial, recreational and environmental benefits;

j) studying the propagation and culture of forest trees, methods for improving the growth of stock, and the effects of thinning on forest yields;

k) investigating, planning and implementing management procedures to cope with the effects of fires, floods, droughts, soil erosion, pests and diseases; and

l) preparing scientific reports and conducting advisory information sessions and lectures for farming, forestry and fishing communities and other groups.

Examples of the occupations classified here:

Agriculturist
Agronomist
Animal scientist
Aquaculturist
Farming adviser
Fisheries adviser
Forester
Forestry adviser
Forestry scientist
Silviculturist
Soil scientist

2133 ENVIRONMENTAL PROTECTION PROFESSIONALS

2211 p;
2449 p

2133

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Environmental protection professionals study and assess the effects on the environment of human activity such as air, water and noise pollution, soil contamination, climate change, toxic waste and depletion and degradation of natural resources. They develop plans and solutions to protect, conserve, restore, minimize and prevent further damage to the environment.

Their tasks include:

a) Environmental protection professionals study and assess the effects on the environment of human activity such as air, water and noise pollution, soil contamination, climate change, toxic waste and depletion and degradation of natural resources. They develop plans and solutions to protect, conserve, restore, minimize and prevent further damage to the environment;

b) conducting research, performing tests, collecting samples, performing field and laboratory analysis to identify sources of environmental problems and recommending ways to prevent, control and remediate the impact of environmental problems;

c) assessing the likely impact that potential or proposed activities, projects and developments may have on the environment, and recommending whether such developments should proceed;

d) developing and coordinating the implementation of environmental management systems to enable organizations to identify, monitor and control the impact of their activities, products and services on the environment;

e) conducting audits to evaluate environmental impact of existing activities, processes, wastes, noises and substances;

f) assessing an organization's compliance with government and internal environmental regulations and guidelines, identifying violations and determining appropriate remedial action;

g) providing technical advice and support services to organizations on how best to deal with environmental problems in order to reduce environmental damage and minimize financial loss; and

h) developing conservation plans.

Examples of the occupations classified here:

Air pollution analyst
Conservation officer
Conservation scientist
Ecologist

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Environmental adviser
Environmental auditor
Environmental consultant
Environmental research scientist
Environmental scientist
Water quality analyst

Some related occupations classified elsewhere:
Environmental engineer - 2143
Environmental sanitation inspector - 2263

214

ENGINEERING PROFESSIONALS (Excluding electrotechnology)

Engineering professionals (excluding electrotechnology) design, plan and organize the testing, construction, installation and maintenance of structures, machines and their components, and production systems and plants, and plan production schedules and work procedures to ensure engineering projects are undertaken safely, efficiently and in a cost effective manner.

Tasks performed usually include: planning and designing chemical process systems, civil engineering projects, mechanical equipment and systems, mining and drilling operations, and other engineering projects; specifying and interpreting drawings and plans, and determining construction methods; supervising the construction of structures, water and gas supply and transportation systems, and the manufacture, installation, operation and maintenance of equipment, machines and plant; organizing and managing project labor and the delivery of materials, plant and equipment; estimating total costs and preparing detailed cost plans and estimates as tools for budgetary control; resolving design and operational problems in the various fields of engineering through the application of engineering technology.

2141 INDUSTRIAL AND PRODUCTION ENGINEERS

2158 p

2141

Industrial and production engineers conduct research and design, organize and oversee the construction, operation and maintenance of process plant and installations. They establish programs for the coordination of manufacturing activities; and assess cost effectiveness and safety.

Their tasks include:

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- a) studying functional statements, organizational charts and project information to determine functions and responsibilities of workers and work units and to identify areas of duplication;
- b) establishing work measurement programs and analyzing work samples to develop standards for labor utilization;
- c) analyzing workforce utilization, facility layout, operational data and production schedules and costs to determine optimum worker and equipment efficiencies;
- d) developing specifications for manufacture, and determining materials, equipment, piping, material flows, capacities and layout of plant and systems;
- e) organizing and managing project labor and the delivery of materials, plant and equipment;
- f) establishing standards and policies for installation, modification, quality control, testing, inspection and maintenance according to engineering principles and safety regulations;
- g) inspecting plant to improve and maintain performance;
- h) directing the maintenance of plant buildings and equipment, and coordinating the requirements for new designs, surveys and maintenance schedules;
- i) advising management on new production methods, techniques and equipment; and
- j) liaising with materials buying, storing and controlling departments to ensure a steady flow of supplies.

Examples of the occupations classified here:

- Industrial design engineer
- Industrial efficiency engineer
- Industrial engineer
- Methods engineer
- Plant engineer
- Product planner
- Production engineer
- Production planner
- Quality control engineer
- Time and motion engineer

A related occupations classified elsewhere:

- Manufacturing production manager - 1321

2142 CIVIL ENGINEERS

2151

2142

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Civil engineers conduct research, advise on, design, and direct construction; manage the operation and maintenance of civil engineering structures; or study and advise on technological aspects of particular materials.

Their tasks include:

a) conducting research and developing new or improved theories and methods related to civil engineering;

b) advising on and designing structures such as bridges, dams, docks, roads, airports, railways, canals, pipelines, waste-disposal and flood-control systems, and industrial and other large buildings;

c) determining and specifying construction methods, materials and quality standards, and directing construction work;

d) establishing control systems to ensure efficient functioning of structures as well as safety and environmental protection;

e) organizing and directing maintenance and repair of existing civil engineering structures;

f) analyzing the behavior of soil and rock when placed under pressure by proposed structures and designing structural foundations; and

g) analyzing the stability of structures and testing the behavior and durability of materials used in their construction.

Examples of the occupations classified here:

- Aerodrome construction engineer
- Airport engineer
- Bridge/drainage engineer
- Building construction engineer
- Civil engineer
- Cost engineer
- Geotechnical engineer
- Geodetic engineer
- Highway and street construction engineer
- Hydraulic engineer
- Railway construction engineer
- Site engineer
- Soil mechanics engineer
- Structural engineer

Some related occupations classified elsewhere:

- Civil engineering project manager - 1323
- Geoscientist - 2114
- Metallurgist - 2146
- Mining engineer - 2146

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Town and traffic planners - 2164

2143 ENVIRONMENTAL ENGINEERS 2449 p 2143

Environmental engineers conduct research, advise on, design and direct implementation of solutions to prevent, control or remedy negative impacts of human activity on the environment utilizing a variety of engineering disciplines. They conduct environmental assessments of construction and civil engineering projects and apply engineering principles to pollution control, recycling and waste disposal.

Their tasks include:

- a) conducting research, assessing and reporting on the environmental impact of existing and proposed construction, civil engineering and other activities;
- b) inspecting industrial and municipal facilities and programs to evaluate operational effectiveness and ensure compliance with environmental regulations;
- c) designing and overseeing the development of systems, processes and equipment for control, management, or remediation of water, air, or soil quality;
- d) providing environmental engineering assistance in network analysis, regulatory analysis, and planning or reviewing database development;
- e) obtaining, updating, and maintaining plans, permits, and standard operating procedures;
- f) providing engineering and technical support for environmental remediation and litigation projects, including remediation system design and determination of regulatory applicability;
- g) monitoring progress of environmental improvement programs;
- h) advising corporations and government agencies of procedures to follow in cleaning up contaminated sites to protect people and the environment; and
- i) collaborating with environmental scientists, planners, hazardous waste technicians, engineers from other disciplines, and specialists in law and business to address environmental problems.

Examples of the occupations classified here:

- Air pollution control engineer
- Environmental analyst
- Environmental engineer
- Environmental remediation specialist
- Public health engineer

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2144 MECHANICAL ENGINEERS

2154

2144

Mechanical engineers conduct research; advise on, design, and direct production of machines, aircraft, ships, machinery and industrial plant, equipment and systems; advise on and direct their functioning, maintenance and repair; or study and advise on mechanical aspects of particular materials, products or processes.

Their tasks include:

a) advising on and designing machinery and tools for manufacturing, mining, construction, agricultural, and other industrial purposes;

b) advising on and designing steam, internal combustion and other non-electric motors and engines used for propulsion of railway locomotives, road vehicles or aircraft, or for driving industrial or other machinery;

c) advising on and designing: hulls, superstructures and propulsion systems of ships; mechanical plant and equipment for the release, control and utilization of energy; heating, ventilation and refrigeration systems, steering gear, pumps, and other mechanical equipment;

d) advising on and designing airframes, undercarriages and other equipment for aircraft as well as suspension systems, brakes, vehicle bodies and other components of road vehicles;

e) advising on and designing non-electrical parts of apparatus or products such as word processors, computers, precision instruments, cameras and projectors;

f) establishing control standards and procedures to ensure efficient functioning and safety of machines, machinery, tools, motors, engines, industrial plant, equipment, or systems; and

g) ensuring that equipment, operation and maintenance comply with design specifications and safety standards.

Examples of the occupations classified here:

Aeronautical engineer

Agricultural engineer

Automotive engineer

Heating, ventilation and aircondition engineer

Industrial machinery and tools engineer

Maintenance engineer

Marine architect

Marine engineer

Mechanical engineer

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Naval architect
 Nuclear power engineer
 Power plant engineer
 Reefer engineer

2145 CHEMICAL ENGINEERS 2155 2145

Chemical engineers conduct research and develop, advise on and direct commercial-scale chemical processes and production of various substances and items such as crude oil, petroleum derivatives, food and drink products, medicines, or synthetic materials. They direct maintenance and repair of chemical plant and equipment and study and advise on chemical aspects of particular materials, products or processes.

Their tasks include:

- a) conducting research and advising on, and developing commercial-scale chemical processes to refine crude oil and other liquids or gases, and to produce substances and items such as petroleum derivatives, explosives, food and drink products, medicines, or synthetic materials;
- b) specifying chemical production methods, materials and quality standards and ensuring that they conform to specifications;
- c) establishing control standards and procedures to ensure safety and efficiency of chemical production operations and safety of workers operating equipment or working in close proximity to on-going chemical reactions;
- d) designing chemical plant equipment and devising processes for manufacturing chemicals and products;
- e) performing tests throughout stages of production to determine degree of control over variables, including temperature, density, specific gravity, and pressure;
- f) developing safety procedures to be employed;
- g) preparing estimates of production costs and production progress reports for management; and
- h) performing laboratory studies of steps in manufacture of new products and testing proposed process in small scale operation such as a pilot plant.

Examples of the occupations classified here:

Chemical engineer
 Ceramic engineer
 Chemical process engineer
 Fuel technologist
 Plastic molding engineer

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Plastic technologist
Refinery process engineer

2146 MINING ENGINEERS, METALLURGISTS AND RELATED PROFESSIONALS 2159 p 2146

Mining engineers, metallurgists and related professionals conduct research on and design and develop and maintain commercial-scale methods of extracting metals from their ores, or minerals, water, oil or gas from the earth and of developing new alloys, ceramic and other materials, or study and advise on mining or metallurgical aspects of particular materials, products or processes.

Their tasks include:

- a) determining the location and planning the extraction of coal, metallic ores, non-metallic minerals, and building materials, such as stone and gravel;
- b) determining most suitable methods of efficient mining and extraction, types of machinery to be used, planning layout and directing construction of shafts and tunnels;
- c) determining drilling site and devising methods of controlling the flow of water, oil or gas from wells;
- d) planning and directing storage, initial treatment and transportation of water, oil or gas;
- e) establishing safety standards and procedures and first-aid facilities, especially underground;
- f) conducting research, developing methods of extracting metals from their ores and advising on their application;
- g) investigating properties of metals and alloys, developing new alloys and advising on and supervising technical aspects of metal and alloy manufacture and processing;
- h) maintaining technical liaison and consultancy with other relevant specialists such as geologists and geophysicists; and
- i) examining deposits or mines to evaluate profitability.

Examples of the occupations classified here:

Coal mining engineer
Extractive metallurgist
Metal mining engineer
Metallurgical engineer
Metallurgist
Mining engineer
Physical metallurgist

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Petroleum and natural gas engineer

Some related occupations classified elsewhere:

Geologist - 2114

Geophysicist - 2114

2149	ENGINEERING PROFESSIONALS NOT ELSEWHERE CLASSIFIED	2159 p	2149
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This unit group covers engineering professionals not classified elsewhere in minor group 214, Engineering professionals (excluding electrotechnology) or in minor group 215, Electrotechnology engineers. For instance, the group includes those who conduct research, advise on or develop engineering procedures and solutions concerning workplace safety, biomedical engineering, optics, materials, nuclear power generation and explosives.

Their tasks include:

- a) applying knowledge of engineering to the design, development, and evaluation of biological and health systems and products, such as artificial organs, prostheses, and instrumentation;
- b) designing devices used in various medical procedures, imaging systems such as magnetic resonance imaging, and devices for automating insulin injections or controlling body functions;
- c) designing components of optical instruments such as lenses, microscopes, telescopes, lasers, optical disc systems and other equipment that utilize the properties of light;
- d) designing, testing, and coordinating the development of explosive ordnance material to meet military procurement specifications;
- e) designing and overseeing construction and operation of nuclear reactors and power plants and nuclear fuels reprocessing and reclamation systems;
- f) designing and developing nuclear equipment such as reactor cores, radiation shielding, and associated instrumentation and control mechanisms;
- g) assessing damage and providing calculations for marine salvage operations;
- h) studying and advising on engineering aspects of particular manufacturing processes, such as those related to glass, ceramics, textiles, leather products, wood, and printing; and
- i) identifying potential hazards and introducing safety procedures and devices.

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Examples of the occupations classified here:

Biomedical engineer
Instrument control engineer
Explosive ordinance engineer
Health and safety engineer
Marine salvage engineer
Material engineer
Optical engineer
Quantity surveyor
Safety engineer
Sanitary engineer
Satellite engineer
Test engineer
Reservoir and drilling engineer

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ELECTROTECHNOLOGY ENGINEERS

Electrotechnology engineers conduct research on and design, advise, plan and direct the construction and operation of electronic, electrical and telecommunications systems, components, motors, and equipment. They organize and establish control systems to monitor the performance and safety of electrical and electronic assemblies and systems.

Tasks performed usually include: conducting research, advising on and directing the maintenance and repair of electrical, electronic and telecommunications products and systems; advising on and designing power stations and systems that generate, transmit and distribute electrical power; establishing control standards to monitor performance and safety of electrical, electronic and telecommunication systems and equipment.

2151 ELECTRICAL ENGINEERS

2152

2151

Electrical engineers conduct research and advise on, design, and direct the construction and operation of electrical systems, components, motors and equipment, and advise on and direct their functioning, maintenance and repair, or study and advise on technological aspects of electrical engineering materials, products and processes.

Their tasks include:

a) advising on and designing power stations and systems which generate, transmit and distribute electrical power;

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b) supervising, controlling and monitoring the operation of electrical generation, transmission and distribution systems;

c) advising on and designing systems for electrical motors, electrical traction and other equipment, or electrical domestic appliances;

d) specifying electrical installation and application in industrial and other buildings and objects;

e) establishing control standards and procedures to monitor performance and safety of electrical generating and distribution systems, motors and equipment; and

f) determining manufacturing methods for electrical systems, as well as maintenance and repair of existing electrical systems, motors and equipment.

Examples of the occupations classified here:

Electric power generation engineer
Electrical engineer
Electromechanical engineer
Power distribution and transmission engineer
Failure analysis engineer
Outside plant engineer

Some related occupations classified elsewhere:

Broadcast Engineer - 2153
Electronics engineer - 2152
Nuclear power generation engineer - 2149
Telecommunications Engineer - 2153

2152	ELECTRONICS ENGINEERS	2153 p	2152
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Electronics engineers conduct research on, design, and direct the construction functioning, maintenance and repair of electronic systems and study and advise on technological aspects of electronic engineering materials, products or processes.

Their tasks include:

a) advising on and designing electronic devices or components, circuits, semi-conductors, and systems;

b) specifying production or installation methods, materials and quality standards and directing production or installation work of electronic products and systems;

c) establishing control standards and procedures to ensure efficient functioning and safety of electronic systems, motors and equipment;

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d) organizing and directing maintenance and repair of existing electronic systems and equipment;

e) designing electronic circuits and components for use in fields such as aerospace guidance and propulsion control, acoustics, or instruments and controls;

f) researching and advising on radar, telemetry and remote control systems, microwaves and other electronic equipment;

g) designing and developing signal processing algorithms and implementing these through appropriate choice of hardware and software; and

h) developing apparatus and procedures to test electronic components, circuits and systems.

Examples of the occupations classified here:

Computer hardware engineer
CAD/CAM engineer
Communication development engineer
Electronics engineer
Electronics engineering technologist
Electronic product test engineer
Instrumentation engineer
Transmission engineer

2153	TELECOMMUNICATIONS ENGINEERS	2153 p	2153
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Telecommunications engineers conduct research and advise on, design, and direct the construction functioning, maintenance and repair of telecommunication systems and equipment. They study and advise on technological aspects of telecommunication engineering materials, products or processes.

Their tasks include:

a) advising on and designing telecommunications devices or components, systems, equipment and distribution centers;

b) specifying production or installation methods, materials, quality and safety standards and directing production or installation work of telecommunications products and systems;

c) organizing and directing maintenance and repair of existing telecommunication systems, motors and equipment;

d) researching and advising on telecommunications equipment;

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e) planning and designing communications networks based on wired, fibre optical and wireless communication media;

f) designing and developing signal processing algorithms and implementing these through appropriate choice of hardware and software; and

g) designing telecommunications networks and radio and television distribution systems, including both cable and over the air.

Examples of the occupations classified here:

Broadcast engineer

Telecommunications engineer

Telecommunications engineering technologist

Telecommunications specialist

Radio frequency engineer

A related occupations classified elsewhere:

Electronics engineer - 2152

216

ARCHITECTS, PLANNERS, SURVEYORS AND DESIGNERS

Architects, planners, surveyors and designers plan and design landscapes, building exteriors and interiors; products for manufacture; and information for visual communication, publication and display. They conduct survey work to precisely position geographical features, design, prepare and revise maps, and develop and implement plans and policies for controlling the use of land.

Tasks performed usually include: determining the objectives and constraints of the design brief by consulting with clients and stakeholders; formulating design concepts and plans that harmonize aesthetic considerations with technical, functional, ecological and production requirements; preparing sketches, diagrams, illustrations, animations; plans, maps, charts, samples and models to communicate design concepts and other information; analyzing photographs, satellite imagery, survey documents and data, maps, records, reports and statistics; undertaking research and analyzing functional, spatial, commercial, cultural, safety, environmental and aesthetic requirements.

2161 BUILDING ARCHITECTS

2141 p

2161

Building architects design commercial, industrial, institutional, residential and recreational buildings and plan and monitor their construction, maintenance and rehabilitation.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Their tasks include:

- a) developing new or improved architectural theories and methods;
- b) inspecting sites and consulting clients, management and other stakeholders to determine type, style and size of proposed buildings and alterations to existing buildings;
- c) providing information regarding designs, materials and estimated building times;
- d) preparing project documentation, including sketches and scale drawings, and integrating structural, mechanical and aesthetic elements in final designs;
- e) writing specifications and contract documents for use by builders and calling tenders on behalf of clients;
- f) making necessary contacts to ensure feasibility of projects regarding style, cost, timing, and compliance with regulations;
- g) identifying and finding best solutions for problems regarding function and quality of interior environments of buildings and making necessary designs, drawings and plans;
- h) monitoring construction or rehabilitation work to ensure compliance with specifications and quality standards; and
- i) maintaining technical liaison and consultancy with other relevant specialists.

Examples of the occupations classified here:

Architectural engineer
Building architect
Interior architect

Some related occupations classified elsewhere:

Interior decorator - 3432
Interior designer - 3432
Landscape architect - 2162

2162	LANDSCAPE ARCHITECTS	2141 p	2162
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Landscape architects plan and design landscapes and open spaces for projects such as, parks, schools, institutions, roads, external areas for commercial, industrial and residential sites, and plan and monitor their construction, maintenance and rehabilitation.

Their tasks include:

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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- a) developing new or improved theories and methods in landscape architecture;
- b) inspecting sites and consulting clients, management and other stakeholders to determine type, style and size of proposed buildings, parks, roads and other open spaces;
- c) compiling and analyzing site and community data about geographical and ecological features, landforms, soils, vegetation, site hydrology, visual characteristics and human-made structures, to formulate land use and development recommendations, and for preparing environmental impact statements;
- d) preparing reports, site plans, working drawings, specifications and cost estimates for land development, showing location and details of proposals, including ground modeling, structures, vegetation and access;
- e) writing specifications and contract documents for use by builders and civil engineering contractors and calling tenders on behalf of clients;
- f) making necessary contacts to ensure feasibility of projects regarding style, cost, timing, and compliance with regulations;
- g) identifying and finding best solutions for problems regarding function and quality of exterior environments and making necessary designs, drawings and plans;
- h) monitoring construction or rehabilitation work to ensure compliance with specifications and quality standards; and
- i) maintaining technical liaison and consultancy with other relevant specialists.

Examples of the occupations classified here:

Landscape architect

Some related occupations classified elsewhere:

Building architect - 2161

Urban planner - 2164

2163	PRODUCT AND GARMENT DESIGNERS	3471 p	2163
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Product and garment designers design and develop products for manufacture and prepare designs and specifications of products for mass, batch and one-off production.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Their tasks include:

- a) determining the objectives and constraints of the design brief by consulting with clients and stakeholders;
- b) formulating design concepts for clothing, textiles, industrial, commercial and consumer products, and jewellery;
- c) harmonizing aesthetic considerations with technical, functional, ecological and production requirements;
- d) preparing sketches, diagrams, illustrations, plans, samples and models to communicate design concepts;
- e) negotiating design solutions with clients, management, and sales and manufacturing staff;
- f) selecting, specifying and recommending functional and aesthetic materials, production methods and finishes for manufacture;
- g) detailing and documenting the selected design for production;
- h) preparing and commissioning prototypes and samples; and
- i) supervising the preparation of patterns, programs and tooling, and the manufacturing process.

Examples of the occupations classified here:

- Costume designer
- Fashion consultant
- Fashion designer
- Industrial designer
- Jewellery designer

Some related occupations classified elsewhere:

- Engine designer - 2144
- Interior designer - 3432

2164	TOWN AND TRAFFIC PLANNERS	2142 p	2164
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Town and traffic planners develop and implement plans and policies for the controlled use of urban and rural land and for traffic systems. They conduct research and provide advice on economic, environmental and social factors affecting land use and traffic flows.

Their tasks include:

- a) planning layout and coordinating development of urban areas;

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b) compiling and analyzing data on economic, legal, political, cultural, demographic, sociological, physical and environmental factors affecting land use;

c) conferring with government authorities, communities and specialists in fields such as architecture, planning, social science the environment and the law;

d) devising and recommending use and development of land, and presenting narrative and graphic plans, programs and designs to groups and individuals;

e) advising governments, companies and communities on urban and regional planning issues and proposals;

f) reviewing and evaluating environmental impact reports;

g) planning layout and coordinating development of urban areas;

h) planning and the development of land areas for parks, schools, institutions, airports, roadways and related projects, and for commercial, industrial and residential sites; and

i) planning and advising on routing and control of road traffic and public transportation systems for efficiency and safety.

Examples of the occupations classified here:

City planner
Land Planner
Town planner
Traffic planner
Urban planner
Zoning officer

2165	CARTOGRAPHER AND SURVEYORS	2156 p	2165
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Cartographers and surveyors determine the exact position of, or prepare and revise digital, graphic and pictorial maps, charts or other visual representation of, natural and constructed features and boundaries of land, seas, underground areas and celestial bodies, applying scientific and mathematical principles.

Their tasks include:

a) surveying, measuring and describing land surfaces, mines, underground surfaces, sea, river and lake beds;

b) noting exact position of various features and recording survey data in digital form;

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c) making charts and maps to be used in determining navigable waters and channels and in planning construction of marine structures;

d) planning and conducting aerial photographic surveys;

e) designing, compiling and revising maps and charts using aerial and other photographs, satellite imagery, survey documents and data, existing maps and records, reports and statistics;

f) undertaking research and development of surveying and photogrammetric measurement systems, cadastral systems and land information systems;

g) studying and advising on technical, aesthetic and economic aspects of map production; and

h) maintaining technical liaison and consultancy with other relevant specialists.

Examples of the occupations classified here:

Aerial surveyor
Cadastral surveyor
Cartographer
Geodetic surveyor
Hydrographic surveyor
Land surveyor
Mine surveyor
Photogrammetrist
Remote sensing technologist

Some related occupations classified elsewhere:

Building Surveyor - 3112
Marine Surveyor - 3115
Quantity Surveyor- 2149

2166	GRAPHIC AND MULTIMEDIA DESIGNERS	2131 p; 3471 p	2166
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Graphic and multimedia designers design information content for visual and audio communication, publication and display using print, film, electronic, digital and other forms of visual and audio media. They create special effects, animation, or other visual images for use in computer games, movies, music videos, print media and advertisements.

Their tasks include:

a) determining the objectives and constraints of the design brief by consulting with clients and stakeholders;

b) undertaking research and analyzing functional communication requirements;

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- c) formulating design concepts for the subject to be communicated;
- d) preparing sketches, diagrams, illustrations and layouts to communicate design concepts;
- e) designing complex graphics and animation to satisfy functional, aesthetic and creative requirements of the design brief;
- f) creating two-dimensional and three-dimensional images depicting objects in motion or illustrating a process, using computer animation or modeling programs;
- g) negotiating design solutions with clients, management, sales and production staff;
- h) selecting, specifying or recommending functional and aesthetic materials and media for publication, delivery or display;
- i) detailing and documenting the selected design for production; and
- j) supervising or carrying out production in the chosen media.

Examples of the occupations classified here:

- Animator
- Computer games designer
- Digital artist
- Graphic designer/artist
- Illustrator
- Multimedia designer
- Publication designer
- Web designer

Some related occupations classified elsewhere:

- Interior architect - 2161
- Interior designer - 3432
- Multimedia developer - 2513
- Visual artist - 2651
- Web developer - 2513

HEALTH PROFESSIONALS

Health professionals conduct research, improve or develop concepts, theories and operational methods, and apply scientific knowledge relating to medicine, nursing, dentistry, veterinary medicine, pharmacy, and promotion of health.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Tasks performed by workers in this sub-major group usually include: conducting research and obtaining scientific knowledge through the study of human and animal disorders and illnesses and ways of treating them; advising on or applying preventive and curative measures, or promoting health; preparing scientific papers and reports. Supervision of other workers may be included.

221

MEDICAL DOCTORS

Medical doctors study, diagnose, treat and prevent illness, disease, injury, and other physical and mental impairments in humans through the application of the principles and procedures of modern medicine. They plan, supervise and evaluate the implementation of care and treatment plans by other health care providers, and conduct medical education and research activities.

Tasks performed usually include: conducting physical examinations of patients and interviewing them and their families to determine their health status ; ordering diagnostic tests and analyzing findings; prescribing and administering curative treatments and preventive measures; performing surgery and other clinical procedures; monitoring patients' progress and response to treatment; advising on health, nutrition and lifestyle behaviors which aid prevention or treatment of disease and disorders; identifying and managing complications before, during and after childbirth; planning, managing and implementing referral plans for patients in need of specialized, long-term or other types of health care services; exchanging medical information with other health professionals to ensure continuing and comprehensive care; reporting births, deaths and notifiable diseases to government authorities; conducting research into human disorders and illnesses and preventive or curative methods.

2211 GENERALIST MEDICAL PRACTITIONERS

2221 p

2211

Generalist medical practitioners diagnose, treat and prevent illness, disease, injury, and other physical and mental impairments and maintain general health in humans through application of the principles and procedures of modern medicine. They do not limit their practice to certain disease categories or methods of treatment, and may assume responsibility for the provision of continuing and comprehensive medical care to individuals, families and communities.

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Their tasks include:

- a) conducting physical examinations of patients and interviewing them and their families to determine their health status;
- b) ordering laboratory tests, X-rays and other diagnostic procedures and analyzing findings to determine the nature of disorders or illnesses;
- c) providing continuing medical care for patients including prescribing, administering, counselling on and monitoring curative treatments and preventive measures;
- d) performing surgery and other clinical procedures;
- e) advising individuals, families and communities on health, nutrition and lifestyle which aid prevention or treatment of disease and disorders;
- f) providing referrals to patients and families for specialized care in hospitals, rehabilitation centers or other types of health care centers;
- g) identifying, managing and providing referrals for complications before, during and after childbirth;
- h) recording patients' medical information and history and exchanging information with specialist practitioners and other health workers as required for continuing medical care;
- i) reporting births, deaths and notifiable diseases to government authorities to meet legal and professional requirements;
- j) conducting research in human health and medical services and disseminating the findings such as through scientific reports; and
- k) planning and participating in programs designed to prevent the occurrence and spread of common diseases.

Examples of the occupations classified here:

- Family medical practitioner
- District medical doctor - therapist
- General practitioner
- Medical doctor (general)
- Medical officer (general)
- Physician (general)
- Primary health care physician
- Resident medical officer specializing in general practice

Some related occupations classified elsewhere:

- Clinical officer - 2240
- Psychiatrist - 2212
- Specialist physician (internal medicine) - 2212
- Surgeon - 2212

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2212 SPECIALIST MEDICAL PRACTITIONERS

2212 p;
2221 p

2212

Specialist medical practitioners diagnose, treat and prevent illness, disease, injury, and other physical and mental impairments in humans, using specialized testing, diagnostic, medical, surgical, physical and psychiatric techniques, through application of the principles and procedures of modern medicine. They specialize in certain disease categories, types of patient or methods of treatment and may conduct medical education and research in their chosen areas of specialization.

Their tasks include:

- a) conducting physical examinations of patients and interviewing them and their families to determine their health status;
- b) considering medical information provided by a referring doctor or other health care provider;
- c) ordering specialized diagnostic tests to determine the nature of disorders or illnesses;
- d) prescribing, administering and monitoring patients' responses to treatments, medications, anaesthetics, psychotherapies, physical rehabilitation programmes and other preventive and curative measures;
- e) performing surgery of a general or specialized nature;
- f) managing complications before, during and after childbirth;
- g) recording patients' medical information and exchanging information with other health professionals to ensure the provision of comprehensive care;
- h) reporting births, deaths and notifiable diseases to government authorities to meet legal and professional requirements;
- i) providing information to patients and families and communities about preventive measures, treatment and care for specific ailments;
- j) performing autopsies to determine cause of death;
- k) conducting research into specific human disorders and illnesses and preventive or curative methods and disseminating the findings such as through scientific reports; and
- l) planning and participating in programs designed to prevent the occurrence and spread of specific diseases.

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Examples of the occupations classified here:

Anaesthesiologist
 Anaesthetist
 Bacteriological scientist
 Cardiologist
 Dermatologist
 Emergency medicine specialist
 Forensic pathologist
 Gynecologist
 Neurologist
 Neurosurgeon
 Obstetrician
 Ophthalmologist
 Medical pathologist
 Pediatrician
 Preventive medicine specialist
 Psychiatrist
 Radiologist
 Resident medical officer in specialist training
 Specialist physician (internal medicine)
 Surgeon

Some related occupations classified elsewhere:

Biomedical researcher - 2131
 Clinical psychologist - 2634
 Dental practitioner - 2261
 Dental surgeon - 2261
 General practitioner - 2211
 Oral and maxillofacial surgeon - 2261

222

NURSING AND MIDWIFERY PROFESSIONALS

Nursing and midwifery professionals provide treatment and care services for people who are physically or mentally ill, disabled or infirm, and others in need of care due to potential risks to health including before, during and after childbirth. They assume responsibility for the planning, management and evaluation of the care of patients, including the supervision of other health care workers, working autonomously or in teams with medical doctors and others in the practical application of preventive and curative measures.

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Tasks performed usually include: assessing, planning, providing and evaluating nursing and midwifery care for patients according to the practice and standards of modern nursing and midwifery; coordinating the care of patients in consultation with other health professionals and members of health teams; developing and implementing care plans, treatments and therapies, including administering medications; monitoring and alleviating pain and discomfort experienced by patients using a variety of therapies, including the use of pain-killing drugs; monitoring patients' health condition, including progress of pregnancy and responses to curative treatment; providing information to patients, families and communities about a range of health issues, including prevention of illness, treatment and care, pregnancy and childbirth, and other topics; supervising and coordinating the work of other health care workers; conducting research on nursing and midwifery practice and preparing scientific papers and reports.

2221 NURSING PROFESSIONALS

2231

2221

Nursing professionals provide treatment, support and care services for people who are in need of nursing care due to the effects of ageing, injury, illness or other physical or mental impairment, or potential risks to health. They assume responsibility for the planning and management of the care of patients, including the supervision of other health care workers, working autonomously or in teams with medical doctors and others in the practical application of preventive and curative measures.

Their tasks include:

- a) planning, providing and evaluating nursing care for patients according to the practice and standards of modern nursing;
- b) coordinating the care of patients in consultation with other health professionals and members of health teams;
- c) developing and implementing care plans for the biological, social, and psychological treatment of patients in collaboration with other health professionals;
- d) planning and providing personal care, treatments and therapies including administering medications, and monitoring responses to treatment or care plan;
- e) cleaning wounds and applying surgical dressings and bandages;

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f) monitoring pain and discomfort experienced by patients and alleviating pain using a variety of therapies, including the use of pain-killing drugs;

g) planning and participating in health education programmes, health promotion and nurse education activities in clinical and community settings;

h) answering questions from patients and families and providing information about prevention of ill-health, treatment and care;

i) supervising and coordinating the work of other nursing, health and personal care workers; and

j) conducting research on nursing practices and procedures and disseminating findings such as through scientific papers and reports.

Examples of the occupations classified here:

Anaesthetic nurse
 Audiometry nurse
 Cardiac holding unit nurse
 Cardiac surgical nurse
 Cardiovascular telemetry nurse
 Chemotherapy nurse
 Clinical nurse
 Company nurse
 Consultant nurse
 Coronary nurse
 Delivery room nurse
 Dental nurse
 Dermatological ward nurse
 Diabetic ward nurse
 Dialysis nurse
 District nurse
 Emergency nurse
 ENT nurse
 Geriatric nurse
 Hematology nurse
 Hemodialysis nurse
 Home health care nurse
 In vitro fertilization nurse
 Independent nurse practitioner
 Industrial nurse
 Intensive care unit nurse
 Luxury ship nurse
 Medical ward nurse
 Medico-legal nurse
 Neonatal nurse
 Neurology/neurosurgeon nurse
 Nurse educator
 OB-Gyne nurse
 Occupational health nurse
 Oncology nurse
 Operating and delivery nurse
 Ophthalmology nurse

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Orthopedic nurse
 Out-patient department nurse
 Pain clinic & oncology nurse
 Paramedic nurse
 Pediatric ward nurse
 Psychiatric ward nurse
 Plastic surgery nurse
 Practitioner nurse
 Private nurse
 Professional nurse
 Public health nurse
 Pulmonary/respiratory nurse
 Radiation therapy nurse
 Radiotherapeutic nurse
 Recovery room nurse
 Renal transplant nurse
 School nurse
 Specialized nurse
 Surgical nurse
 Urology nurse

Some related occupations classified elsewhere:

Associate professional midwife - 3222
 Associate professional nurse - 3221
 Nursing aide (hospital) - 5321
 Paramedical practitioner - 2240
 Professional midwife - 2222

2222 MIDWIFERY PROFESSIONALS

2232

2222

Midwifery professionals plan, manage, provide and evaluate midwifery care services before, during and after pregnancy and childbirth. They provide delivery care for reducing health risks to women and newborn children, working autonomously or in teams with other health care providers.

Their tasks include:

- planning, providing and evaluating care and support services for women and babies before, during and after pregnancy and childbirth according to the practice and standards of modern midwifery care;
- providing advice to women and families and conducting community education on health, nutrition, hygiene, exercise, birth and emergency plans, breastfeeding, infant care, family planning and contraception, lifestyle and other topics related to pregnancy and childbirth;
- assessing progress during pregnancy and childbirth, managing complications and recognizing warning signs requiring referral to a medical doctor with specialized skills in obstetrics;

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d) monitoring the health status of newborns, managing complications and recognizing warning signs requiring referral to a medical doctor with specialized skills in neonatology ;

e) monitoring pain and discomfort experienced by women during labor and delivery and alleviating pain using a variety of therapies, including the use of pain-killing drugs;

f) reporting births to government authorities to meet legal and professional requirements;

g) conducting research on midwifery practices and procedures and disseminating findings such as through scientific papers and reports; and

h) planning and conducting midwifery education activities in clinical and community settings.

Examples of the occupations classified here:

Professional midwife

Supervising midwife

Some related occupations classified elsewhere:

Professional Nurse - 2221

Associate professional nurse - 3221

Associate professional midwife - 3222

Nursing aide (hospital) - 5321

223	2230	TRADITIONAL AND COMPLEMENTARY MEDICINE PROFESSIONALS	3241 p; 3229 p	2230
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Traditional and complementary medicine professionals prevent, diagnose and treat illness, disease, injury, and other physical and mental impairments and maintain general health in humans by applying knowledge, skills and practices acquired through extensive study of the theories, beliefs and experiences, originating in specific cultures.

Their tasks include:

a) conducting physical examinations of patients and interviewing them and their families to determine their health status;

b) developing and implementing treatment plans for physical, mental and psychosocial ailments using applications such as acupuncture, ayurvedic, homoeopathic and herbal medicine;

c) evaluating and documenting patients' progress through treatment plans;

d) providing health, nutrition and lifestyle advice to individuals, families and communities;

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e) prescribing and preparing traditional medicines, such as herbal, plant, mineral and animal extracts, to stimulate the body's capacity for self-healing;

f) exchanging information about patients with other health care workers as needed to ensure continuing and comprehensive health care; and

g) conducting research into traditional and complementary medicines and treatments and disseminating findings such as through scientific papers and reports.

Examples of the occupations classified here:

Acupuncturist

Ayurvedic practitioner

Chinese herbal medicine practitioner

Homeopath

Naturopath

Unani practitioner

224	2240	PARAMEDICAL PRACTITIONERS	3221 p	2240
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Paramedical practitioners provide advisory, diagnostic, curative and preventive medical services for humans more limited in scope and complexity than those carried out by medical doctors. They work autonomously or with limited supervision of medical doctors, and apply advanced clinical procedures for treating and preventing diseases, injuries and other physical or mental impairments common to specific communities.

Their tasks include:

a) conducting physical examinations of patients and interviewing them and their families to determine their health status, and recording patients' medical information;

b) performing basic or more routine medical and surgical procedures, including prescribing and administering treatments, medications and other preventive or curative measures, especially for common diseases and disorders;

c) administering or ordering diagnostic tests, such as x-ray, electrocardiogram, and laboratory tests;

d) performing therapeutic procedures, such as injections, immunizations, suturing and wound care, and infection management;

e) assisting medical doctors with complex surgical procedures;

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f) monitoring patients' progress and response to treatment, and identifying signs and symptoms requiring referral to medical doctors;

g) advising patients and families on diet, exercise and other habits which aid prevention or treatment of disease and disorders;

h) identifying and referring complex or unusual cases to medical doctors, hospitals or other places for specialized care; and

i) reporting births, deaths and notifiable diseases to government authorities to meet legal and professional reporting requirements.

Examples of the occupations classified here:

Advanced care paramedic
Clinical officer (paramedical)
Feldscher
Primary care paramedic
Surgical technician

Some related occupations classified elsewhere:

Emergency paramedic - 3258
General practitioner - 2211
Medical assistant - 3256
Surgeon - 2212

225	2250	VETERINARIANS	2223	2250
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Veterinarians diagnose, prevent and treat diseases, injuries and dysfunctions of animals. They may provide care to a wide range of animals or specialize in the treatment of a particular animal group or in a particular specialty area, or provide professional services to commercial firms producing biological and pharmaceutical products.

Their tasks include:

a) determining the presence and nature of abnormal conditions by physical examination, laboratory testing and through diagnostic imaging techniques including radiography and ultrasound;

b) treating animals medically and surgically, and administering and prescribing drugs, analgesics, and general and local anaesthetics;

c) performing surgery, dressing wounds and setting broken bones;

d) rendering obstetric and dental services to animals;

e) participating in programs designed to prevent the occurrence and spread of animal diseases;

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f) inoculating animals against, and testing for, infectious diseases and notifying authorities of outbreaks of infectious animal diseases;

g) performing autopsies to determine cause of death;

h) advising clients on health, nutrition and feeding, hygiene, breeding and care of animals; and

i) providing euthanasia services for animals.

Examples of the occupations classified here:

Animal nutritionist
Animal pathologist
Public health veterinarian
Veterinarian
Veterinary epidemiologist
Veterinary intern
Veterinary surgeon

226

OTHER HEALTH PROFESSIONALS

Other health professionals provide health services related to dentistry, pharmacy, environmental health and hygiene, occupational health and safety, physiotherapy, nutrition, hearing, speech, vision and rehabilitation therapies. This minor group includes all human health professionals, except doctors, traditional and complementary medicine practitioners, veterinarians, nurses, midwives and paramedical professionals.

2261 DENTISTS

2222

2261

Dentists diagnose, treat and prevent diseases, injuries and abnormalities of the teeth, mouth, jaws and associated tissues by applying the principles and procedures of modern dentistry. They use a broad range of specialized diagnostic, surgical and other techniques to promote and restore oral health.

Their tasks include:

a) diagnosing diseases, injuries, irregularities and malformations of teeth and associated structures in the mouth and jaw using a range of methods such as radiographs, salivary tests and medical histories;

b) providing preventative oral health care such as periodontal treatments, fluoride applications and oral health promotion;

c) administering anesthetics to limit the amount of pain experienced by patients during procedures;

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d) prescribing medication for relief of ongoing pain after procedures;

e) providing restorative oral care such as implants, complex crown and bridge restorations, and orthodontics, and repairing damaged and decayed teeth;

f) providing surgical treatments such as extraction of teeth, biopsy of tissue, and performing orthodontic treatment;

g) measuring and taking impressions of patients' jaws and teeth in order to determine the shape and size of dental prostheses;

h) designing, making, and fitting prosthodontic appliances such as space maintainers, bridges, and dentures, or writing fabrication instructions or prescriptions for dental prosthetic technicians;

i) restoring oral function with removable and fixed oral prostheses;

j) educating patients and families on dental hygiene, nutrition and other measures to take care of oral health; and

k) supervising dental hygienists, dental assistants and other staff.

Examples of the occupations classified here:

Dental hygienist

Dental practitioner

Dental surgeon

Dentist

Endodontist

Oral and maxillofacial surgeon

Oral pathologist

Orthodontist

Paedodontist

Periodontist

Prosthodontist

2262 PHARMACISTS

2224

2262

Pharmacists store, preserve, compound, and dispense medicinal products and counsel on the proper use and adverse effects of drugs and medicines following prescriptions issued by medical doctors and other health professionals. They contribute to researching, testing preparing, prescribing and monitoring medicinal therapies for optimizing human health.

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Their tasks include:

- a) receiving prescriptions for medicinal products from medical doctors and other health professionals, checking patients' medicine histories, and ensuring proper dosage and methods of administration and drug compatibility before dispensing;
- b) preparing or supervising the preparation and labelling of liquid medicines, ointments, powders, tablets and other medications to fill prescriptions;
- c) providing information and advice to prescribers and clients regarding drug interactions, incompatibility and contra-indications, side effects, dosage and proper medication storage;
- d) collaborating with other health care professionals to plan, monitor, review, and evaluate the quality and effectiveness of the medicine therapy of individual patients, and the effectiveness of particular drugs or therapies;
- e) maintaining prescription files and recording issue of narcotics, poisons and habit-forming drugs in accordance with legal and professional requirements;
- f) storing and preserving vaccines, serums and other drugs subject to deterioration;
- g) advising clients on and supplying non-prescription medicines and diagnostic and therapeutic aids for common conditions;
- h) supervising and coordinating the work of pharmacy technicians, pharmacy interns and pharmacy sales assistants;
- i) conducting research to develop and improve pharmaceuticals, cosmetics and related chemical products;
- j) conferring with chemists, engineering professionals and other professionals about manufacturing techniques and ingredients;
- k) testing and analyzing drugs to determine their identity, purity and strength in relation to specified standards;
- l) evaluating labels, packaging and advertising of drug products; and
- m) developing information and risks of particular drugs.

Example of the occupations classified here:

- Dispensing chemist
- Hospital pharmacist
- Industrial pharmacist
- Pharmacist

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Pharmacy adviser
Retail pharmacist

Some related occupations classified elsewhere:

Pharmaceutical chemist 2113
Pharmaceutical technician - 3213
Pharmacologist - 2131

2263	ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND HYGIENE PROFESSIONALS	2229 p; 3152 p	2263
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Environmental and occupational health and hygiene professionals assess, plan and implement programs to recognize, monitor and control environmental factors that can potentially affect human health, to ensure safe and healthy working conditions, and to prevent disease or injury caused by chemical, physical, radiological and biological agents or ergonomic factors.

Their tasks include:

- a) developing, implementing and reviewing programs and policies to minimize potential environmental and occupational risks to health and safety;
- b) preparing and implementing plans and strategies for the safe, economic and suitable disposal of commercial, industrial, medical and household wastes;
- c) implementing prevention programs and strategies for communicable diseases, food safety, waste water treatment and disposal systems, recreation and domestic water quality, contaminated and hazardous substances;
- d) identifying, reporting and documenting hazards, and assessing and controlling risks in the environment and workplace and advising on compliance with relevant law and regulations;
- e) developing, implementing and monitoring programs to minimize workplace and environmental pollution involving chemical, physical and biological hazards;
- f) advising methods to prevent, eliminate, control, or reduce the exposure of workers, students, the public and the environment to radiological and other hazards;
- g) promoting ergonomic principles within the workplace such as matching furniture, equipment and work activities to the needs of employees;
- h) providing education, information, training, and advice to persons at all levels on aspects of occupational hygiene and environmental health;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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i) recording and investigating injuries and equipment damage, and reporting safety performance; and

j) coordinating arrangements for the compensation, rehabilitation and return to work of injured workers.

Examples of the occupations classified here:

Environmental health officer

Occupational health and safety adviser

Occupational hygienist

Radiation protection expert

Some related occupations classified elsewhere:

Environmental protection professional - 2133

Health inspector - 3257

Occupational health and safety inspector - 3257

Occupational therapist - 2269

Sanitarian - 3257

Sanitary inspector - 3257

Specialist medical practitioner (public health) - 2212

Specialist nurse (public health) - 2221

2264 PHYSIOTHERAPIST

2228

2264

Physiotherapists assess, plan and implement rehabilitative programs that improve or restore human motor functions, maximize movement ability, relieve pain syndromes, and treat or prevent physical challenges associated with injuries, diseases and other impairments. They apply a broad range of physical therapies and techniques such as movement, ultrasound, heating, laser and other techniques.

Their tasks include:

a) administering muscle, nerve, joint and functional ability tests to identify and assess physical problems of patients;

b) establishing treatment goals with patients and designing treatment programs to reduce physical pain, strengthen muscles, improve cardiothoracic, cardiovascular and respiratory functions, restore joint mobility, and improve balance and coordination;

c) developing, implementing and monitoring programs and treatments using the therapeutic properties of exercise, heat, cold, massage, manipulation, hydrotherapy, electrotherapy, ultraviolet and infra-red light and ultrasound in the treatment of patients;

d) instructing patients and their families in procedures to be continued outside clinical settings;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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e) recording information on patients' health status and responses to treatment in medical records-keeping systems, and sharing information with other health professionals as required to ensure continuing and comprehensive care;

f) developing and implementing programmes for screening and prevention of common physical ailments and disorders; and

g) supervising the work of physiotherapy assistants and others.

Examples of the occupations classified here:

Physical therapist
 Physiotherapist
 Geriatric physical therapist
 Orthopedic physical therapist
 Pediatric physical therapist

Some related occupations classified elsewhere:

Acupressure therapist - 3255
 Chiropractor - 3259
 Hydrotherapist - 3255
 Massage therapist - 3255
 Occupational therapist - 2269
 Osteopath - 3259
 Physiotherapy technician - 3255
 Podiatrist - 2269
 Shiatsu therapist - 3255

2265	DIETICIANS AND NUTRITIONIST	2225	2265
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Dieticians and nutritionists assess, plan and implement programs to enhance the impact of food and nutrition on human health.

Their tasks include:

a) instructing individuals, families and communities on nutrition, the planning of diets and preparation of food to maximize health benefits and reduce potential risks to health;

b) planning diets and menus, supervising the preparation and serving of meals, and monitoring food intake and quality to provide nutritional care in settings offering food services;

c) compiling and assessing data relating to health and nutritional status of individuals, groups and communities based on nutritional values of food served or consumed;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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d) planning and conducting nutrition assessments, intervention programmes, and education and training to improve nutritional levels among individuals and communities;

e) consulting with other health professionals and care providers to manage the dietary and nutritional needs of patients;

f) developing and evaluating food and nutrition products to meet nutritional requirements; and

g) conducting research on nutrition and disseminating the findings at scientific conferences and in other settings.

Examples of the occupations classified here:

Administrative dietitian
Clinical dietitian
Community/public health nutritionist
Dietary nutritionist
Dietetic management supervisor/adviser
Dietetic/food processing consultant
Dietician
Food service dietitian
Food and nutrition specialist
Nutrition program coordinator
Nutritionist
Nutritionist research dietitian
Public health nutritionist
Sports nutritionist
Teaching dietitian
Therapeutic/clinic dietitian

2266	AUDIOLOGISTS AND SPEECH THERAPIST	2229 p	2266
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Audiologists and speech therapists evaluate, manage and treat physical disorders affecting human hearing, speech, communication and swallowing. They prescribe corrective devices or rehabilitative therapies for hearing loss, speech disorders, and related sensory and neural problems and provide counselling on hearing safety and communication performance.

Their tasks include:

a) evaluating hearing, speech and language performance in patients to determine the nature of hearing and communication disorders;

b) administering hearing or speech/language tests or other examinations using specialized diagnostic instruments and equipment, and interpreting test results alongside other medical, social and behavioral diagnostic data to determine appropriate courses of treatment ;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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c) planning, directing and participating in counselling, screening, speech rehabilitation and other programs related to hearing and communication;

d) prescribing hearing aids and other assistive devices according to patients' needs and instructing them in their use;

e) planning and conducting treatment programs to manage physical disorders affecting speech and swallowing in patients such as stuttering and feeding disorders ;

f) counselling and guiding hearing and/or language-impaired individuals, their families, teachers and employers; and

g) referring patients and families to additional medical or educational services if needed.

Examples of the occupations classified here:

Audiologist

Language therapist

Speech pathologist

Speech therapist

2267 OPTOMETRISTS AND OPHTHALMIC OPTICIANS

2226

2267

Optometrists and ophthalmic opticians provide diagnosis, management and treatment services for disorders of the eyes and visual system. They counsel on eye care and prescribe optical aids or other therapies for visual disturbance.

Their tasks include:

a) examining patients' eyes and conducting diagnostic tests to assess ocular health and determine the nature and extent of vision problems and abnormalities;

b) testing visual function using specialized instruments and equipment for measuring visual acuity and refractive error, function of visual pathways, visual fields, eye movements, freedom of vision and intraocular pressure;

c) detecting, diagnosing and managing eye disease, including prescribing medications for the treatment of eye disease;

d) consulting with and referring patients to ophthalmologists or other health professionals if additional medical treatment is necessary;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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e) detecting and diagnosing eye movement disorders and defects of binocular function, and planning and managing treatment programs, including counselling patients in eye exercises to coordinate movement and focusing of eyes;

f) prescribing corrective eyeglasses, contact lenses and other vision aids, and checking optical devices for performance, safety, comfort and lifestyle; and

g) advising on visual health matters such as contact lens care, vision care for the elderly, optics, visual ergonomics, and occupational and industrial eye safety.

Examples of the occupations classified here:

Ophthalmic optician
Optometrist
Orthoptist

Some related occupations classified elsewhere:

Ophthalmologist - 2212

2269	HEALTH PROFESSIONALS NOT ELSEWHERE CLASSIFIED	2229 p	2269
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This unit group covers health professionals not classified elsewhere in sub-major group 22, Health professionals. For instance, the group includes occupations such as podiatrist, occupational therapist and other health professionals.

Their tasks include:

a) interviewing patients and conducting diagnostic tests to determine their health status and the nature of physical or mental disorders, illnesses or other health problems;

b) developing and implementing treatment plans for injuries, illnesses and other physical and mental impairments;

c) evaluating and documenting patients' progress through treatment plans, and referring patients and families to medical doctors or other health care providers for specialized, rehabilitative or other care services as needed;

d) assessing functional limitations of clients resulting from illness, disability or other impairment, and providing therapy;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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e) recommending environmental adaptations in the home, leisure, work and school environments on an individual or group basis to enable them to perform their daily activities and occupations;

f) planning and implementing therapeutic programs on an individual and group basis for improving and maintaining physical, cognitive, emotional and social functioning, including through the use of arts and crafts, dance and movement, music and other recreational activities;

g) identifying and prescribing treatments for conditions affecting the foot, ankle and related structures of the leg due to illness, disease or other physical impairment, and prescribing corrective footwear and advising on foot care to manage foot ailments; and

h) performing minor surgical procedures such as on the foot and ankles.

Examples of the occupations classified here:

- Arts therapist
- Dance and movement therapist
- Food-drug regulation officer
- Fumigation supervisor
- Occupational therapist
- Phlebotomist
- Podiatrist
- Pulmonary therapist
- Recreational therapist
- Respiratory therapist

23

TEACHING PROFESSIONALS

Teaching professionals teach the theory and practice of one or more disciplines at different educational levels, conduct research and improve or develop concepts, theories and operational methods pertaining to their particular discipline, and prepare scholarly papers and books.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Tasks performed by workers in this sub-major group usually include: conducting classes, courses, or tutorials at a particular educational level, for educational and vocational purposes, including private lessons; conducting adult literacy programmes; teaching and educating persons learning difficulties or special needs; designing and modifying curricula; inspecting and advising on teaching methods and aids; participating in decisions concerning the organization of teaching and related activities at schools and universities; conducting research in particular subjects to improve or develop concepts, theories or operational methods for application in industrial and other fields; preparing scholarly papers and books. Supervision of other workers may be included.

231	2310	UNIVERSITY AND HIGHER EDUCATION TEACHERS	2310	2310
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University and higher education teachers prepare and deliver lectures and conduct tutorials in one or more subjects within a prescribed course of study at a university or other higher educational institution. They conduct research, and prepare scholarly papers and books.

Their tasks include:

- a) designing and modifying curricula and preparing courses of study in accordance with requirements;
- b) preparing and delivering lectures and conducting tutorials, seminars and laboratory experiments;
- c) stimulating discussion and independent thought among students;
- d) supervising, where appropriate, experimental and practical work undertaken by students;
- e) administering, evaluating and marking examination papers and tests;
- f) directing research of post-graduate students or other members of department;
- g) researching into and developing concepts, theories and operational methods for application in industrial and other fields;
- h) preparing scholarly books, papers or articles; and
- i) participating in departmental and faculty meetings and in conferences and seminars.

Examples of the occupations classified here:

Assistant professor
Clinical instructor

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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College professor
Information technology professor
Professor
University lecturer

Some related occupations classified elsewhere:

Dean - 1345
Higher education faculty head - 1345
University chancellor - 1120
Vocational education teacher - 2320

232	2320	VOCATIONAL EDUCATION TEACHERS	2320	2320
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Vocational education teachers teach or instruct vocational or occupational subjects in adult and further education institutions and to senior students in secondary schools and colleges. They prepare students for employment in specific occupations or occupational areas for which university or higher education is not normally required.

Their tasks include:

- a) developing curricula and planning course content and methods of instruction;
- b) determining training needs of students or workers and liaising with individuals, industry and other education sectors to ensure provision of relevant education and training programs;
- c) presenting lectures and conducting discussions to increase students' knowledge and competence;
- d) instructing and monitoring students in the use of tools, equipment and materials and the prevention of injury and damage;
- e) observing and evaluating students' work to determine progress, provide feedback, and make suggestions for improvement;
- f) administering oral, written or performance tests to measure progress, evaluate training effectiveness and assess competency;
- g) preparing reports and maintaining records such as student grades, attendance rolls, and training activity details;
- h) supervising independent or group projects, field placements, laboratory work, or other training;
- i) providing individualized instruction and tutorial or remedial instruction; and

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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j) conducting on-the-job training sessions to teach and demonstrate principles, techniques, procedures, or methods of designated subjects.

Examples of the occupations classified here:

- Automotive technology instructor
- Computer instructor
- Cosmetology instructor
- Ground instructor
- Software instructor
- Teacher in home industries
- Teacher in industrial arts
- Teacher in trades
- Vocational education teacher

A related occupations classified elsewhere:

Secondary education teacher - 2330

233	2330	SECONDARY EDUCATION TEACHERS	2331	2330
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Secondary education teachers teach one or more subjects at secondary education level, excluding subjects intended to prepare students for employment in specific occupational areas.

Their tasks include:

- a) designing and modifying curricula and preparing educational courses of study in accordance with curriculum guidelines;
- b) establishing and enforcing rules for behavior and procedures for maintaining order among students;
- c) preparing and giving lessons, discussions, and demonstrations in one or more subjects;
- d) establishing clear objectives for all lessons, units, and projects and communicating those objectives to students;
- e) preparing materials and classrooms for class activities;
- f) adapting teaching methods and instructional materials to meet students' varying needs and interests;
- g) observing and evaluating students' performance and behavior;
- h) preparing, administering and marking tests, assignments and examinations to evaluate pupils' progress;
- i) preparing reports about pupils' work and conferring with other teachers and parents;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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j) participating in meetings concerning the school's educational or organizational policies; and

k) planning, organizing and participating in school activities such as excursions, sporting events and concerts.

Examples of the occupations classified here:

Computer teacher (Secondary education)

High school teacher

Language teacher (Secondary education)

Literature teacher

Reading and writing teacher

Secondary education teacher

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PRIMARY SCHOOL AND EARLY CHILDHOOD TEACHERS

Primary school and early childhood teachers teach a range of subjects at the primary level of education and organize educational activities for children below primary school age.

Tasks performed usually include: preparing programme of learning and giving instruction in a range of subjects at the primary education level, planning and organizing activities designed to facilitate children's development of language, physical and social skills; preparing reports. Supervision of other workers may be included.

2341 PRIMARY SCHOOL TEACHERS

2341;
2351 p

2341

Primary school teachers teach a range of subjects at the primary education level.

Their tasks include:

a) preparing daily and longer term lesson plans in accordance with curriculum guidelines;

b) instructing children individually and in groups, using various teaching methods and materials (e.g. computers, books, games), adapting to children's varying needs;

c) maintaining discipline and good working habits in the classroom;

d) planning and conduct activities with the children such as sporting activities, concerts and excursions;

e) assigning and grading class work and homework;

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f) preparing, administering, and grading tests and assignments to evaluate children's progress;

g) observing and evaluating children's performance and behavior;

h) supervising children during classes and at other times in the school day, including the playground during breaks;

i) participating in staff meetings and other sessions, and conferring with other teachers concerning educational issues; and

j) preparing for and attending parent meetings to discuss children's progress and problems.

Examples of the occupations classified here:

Computer trainor (Primary education)
Home economics (Primary education)
Language teacher (Primary education)
Primary school teachers

Some related occupations classified elsewhere:

Head teacher - 1345
School inspector - 2351

2342 EARLY CHILDHOOD EDUCATORS

2351

2342

Early childhood educators promote the social, physical, and intellectual development of children below primary school age through the provision of educational and play activities.

Their tasks include:

a) planning and organizing individual and group activities designed to facilitate the development of children's motor skills, cooperative and social skills, confidence and understanding;

b) promoting language development through story-telling, role-play, songs, rhymes and informal conversations and discussions;

c) leading children in activities that, provide opportunities for creative expression through the media of art, dramatic play, music and physical fitness;

d) observing children in order to evaluate progress and to detect signs of developmental, emotional or health related problems with parents;

e) observing and assessing nutritional health, welfare and safety needs of students and identifying factors which may impede students' progress;

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f) supervising children's activities to ensure safety and resolve conflicts;

g) guiding and assisting children in the development of proper eating, dressing and toilet habits;

h) discussing progress or problems of children with parents and other staff members and identifying appropriate actions and referrals to other services; and

i) establishing and maintaining collaborative relationships with other service providers working with young children.

Examples of the occupations classified here:

Kindergarten teacher
Early childhood educator
Nursery school teacher
Preparatory school teacher
Pre-school teacher

A related occupations classified elsewhere:

Child care center manager - 1341

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OTHER TEACHING PROFESSIONALS

Other teaching professionals conduct research and advise on teaching methods, teach people with learning difficulties or special needs; teach non-native languages for migration and related purposes; give private tuition; teach arts, information technology and other subjects outside the mainstream primary, secondary and higher education systems and provide other teaching services not classified elsewhere in Sub-major group 23, Teaching professionals.

Tasks performed usually include: conducting research and developing or advising on teaching methods, courses and aids; teaching physically handicapped children, young persons or adults or those with learning difficulties or other with special needs, teaching non-native languages for migration purposes; teaching students in practice, theory and performance of music, drama, dance, visual and other arts; developing, scheduling and conducting training programs and courses for information technology users.

2351 EDUCATION METHODS SPECIALISTS

2391

2351

Education methods specialists conduct research and develop or advise on teaching methods, courses and aids. They review and examine teachers' work, the functioning of educational institutions and the results achieved and recommend changes and improvements.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Their tasks include:

- a) researching into current developments in curricula, teaching methods and other educational practices, and advising on necessary changes and possible improvements;
- b) evaluating and advising on contents of courses and methods of examination;
- c) researching into audio-visual and other teaching aids and advising on, planning and organizing their introduction in educational establishments;
- d) documenting subjects and courses developed, and evaluating new courses;
- e) providing ongoing professional development, training and consultative services to teachers;
- f) organizing and conducting workshops and conferences to train teachers in new programs and methods;
- g) developing the structure, content and objectives of new educational courses and programs;
- h) visiting schools periodically and conferring with administrative and teaching staff on questions relating to curricula, teaching methods, equipment and other matters;
- i) visiting classrooms to observe teaching techniques and to evaluate teachers performance, and scholastic results obtained; and
- j) preparing reports and making recommendations to educational authorities concerning possible changes and improvements in curricula, teaching methods, and other matters.

Examples of the occupations classified here:

- Audio-visual teaching aid specialist
- Curriculum coordinator
- Curriculum developer
- Education methods adviser
- Education methods specialist
- School inspector
- Teaching aids specialist
- Voice and accent teacher

Some related occupations classified elsewhere:

- Educational psychologist - 2634
- School counsellor - 2359
- Student advisor - 2359

2352 SPECIAL NEED TEACHERS

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SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Special needs teachers teach physically or mentally handicapped children, young persons, or adults, or those with learning difficulties or other special needs. They promote the social, emotional, intellectual and physical development of their students.

Their tasks include:

- a) assessing students' abilities and limitations with regard to intellectual, physical, social and emotional impairments, exceptional intellectual gifts, or other specific problems;
- b) designing or modifying curricula and preparing and delivering programmes, lessons and activities adapted to students' abilities and needs;
- c) giving instruction on an individual or group basis using special techniques or aids appropriate to students' needs;
- d) employing special educational strategies and techniques during instruction to improve the development of sensory- and perceptual-motor skills, language, cognition, and memory;
- e) establishing and enforcing rules for behavior and policies and procedures to maintain order among students;
- f) teaching academic subjects, and practical and self-help skills to students with hearing, sight and other impairments;
- g) stimulating and developing students' confidence interests, abilities, manual skills and coordination;
- h) conferring with other staff members to plan and schedule lessons for special needs students;
- i) preparing and maintaining student data and other records and submitting reports;
- j) administering various forms of assessment and evaluating progress of each student; and
- k) conferring with students, parents, head teacher and other relevant professionals involved in the students' care to develop individual educational plans designed to promote students' development.

Examples of the occupations classified here:

- Learning disabilities special education teacher
- Learning support teacher
- Remedial teacher
- Teacher for the abnormal children
- Teacher for the mentally handicapped
- Teacher for the physically handicapped
- Teacher of gifted children
- Teacher of hearing impaired

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Teacher of sight impaired

Some related occupations classified elsewhere:

Primary school teacher - 2341

Secondary school teacher - 2330

Vocational education teacher - 2320

2353	OTHER LANGUAGE TEACHERS	2399 p	2353
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Other language teachers teach non-native languages to adults and children who are learning a language for reasons of migration, to fulfil employment requirements or opportunities, to facilitate participation in educational programmes delivered in a foreign language, or for personal enrichment. They work outside the mainstream primary, secondary and higher education systems, or in support of students and teachers within those systems.

Their tasks include:

- a) assessing the level of ability and the extent of language difficulties of students, and establishing students' needs and learning goals;
- b) planning, preparing and delivering lessons and workshops for groups and individuals with content and rate of progression adapted to students' abilities and needs;
- c) designing and producing teaching materials and adapting existing materials;
- d) assessing students' progress;
- e) assisting students in classroom settings where subjects are taught in a language other than the students' native language;
- f) providing assistance to other teachers by designing special teaching programs for students still learning the main language of instruction;
- g) assigning and correcting work, and preparing and grading exams; and
- h) assessing, recording and reporting on students' progress.

Examples of the occupations classified here:

- Intensive language teacher
- Language researcher
- Language trainer
- Linguistic specialist
- Migrant education teacher
- Practical language teacher
- Second language teacher

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
		2354	<p>OTHER MUSIC TEACHERS</p> <p>Other music teachers teach students in the practice, theory and performance of music outside the mainstream primary, secondary and higher education systems, but may provide private or small group tuition as an extra curricular activity in association with mainstream educational institutions.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) assessing the students' level of ability and determining needs and learning goals; b) planning, preparing and delivering programs of study, lessons and workshops for individual students and groups; c) preparing and presenting material on the theory and interpretation of music; d) instructing and demonstrating practical aspects of singing or of playing a particular instrument; e) teaching students to read and write musical notation; f) assigning exercises and teaching pieces of music relevant to students' level of ability, interests and talents; g) assessing students and offering advice, criticism and encouragement; h) revising curricula, course content, course materials and methods of instruction; i) preparing students for examinations, performances and assessments; j) arranging visits and tours to musical performances; and k) organizing and assisting in auditions or performances of students' work. <p>Examples of the occupations classified here:</p> <ul style="list-style-type: none"> Music teacher Guitar teacher Piano teacher Singing/voice teacher 	2399 p	2354
		2355	<p>OTHER ARTS TEACHERS</p>	2399 p	2355

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Other arts teachers teach students in the practice, theory and performance of dance, drama, visual and other arts (excluding music) outside the mainstream primary, secondary and higher education systems, but may provide private or small group tuition as an extra curricular activity in association with mainstream educational institutions.

Their tasks include:

- a) assessing the students' level of ability and determining learning needs;
- b) planning, preparing and delivering programs of study, lessons and workshops for individual students and groups;
- c) preparing and presenting material on the theory of the subject area being studied;
- d) instructing and demonstrating practical aspects of drama, dance, visual or other arts;
- e) assigning exercises and work relevant to students' level of ability, interests and talents;
- f) assessing students and offering advice, criticism and encouragement;
- g) revising curricula, course content, course materials and methods of instruction;
- h) preparing students for examinations, performance and assessments;
- i) arranging visits and tours to exhibitions and performances; and
- j) organizing and assisting in performances or exhibitions of students' work.

Examples of the occupations classified here:

- Dance teacher
- Drama teacher
- Painting teacher
- Sculpture teacher

2356	INFORMATION TECHNOLOGY TRAINERS	2399 p	2356
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Information technology trainers develop, schedule and conduct training programs and courses for computer and other information technology users outside the mainstream primary, secondary and higher education systems.

Their tasks include:

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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a) identifying the information technology training needs and requirements of individual users and organizations;

b) preparing and developing instructional training material and aids such as handbooks, visual aids, online tutorials, demonstration models, and supporting training reference documentation;

c) designing, coordinating, scheduling and conducting training and development programs that can be delivered in the form of individual and group instruction, and facilitating workshops meetings; demonstrations and conferences;

d) monitoring and performing ongoing evaluation and assessment of training quality and effectiveness, and reviewing and modifying training objectives, methods and course deliverables;

e) gathering, investigating and researching background materials to gain a full understanding of the subject matter and systems; and

f) keeping up-to-date with new product version releases, advances in software, and general information technology trends, writing end user products and materials such as user training, tutorial and instruction manuals, online help, and operating and maintenance instructions.

Examples of the occupations classified here:

Computer trainer
Information technology trainers
Software trainer

Some related occupations classified elsewhere:

Primary school teacher - 2341
Secondary school teacher - 2330
Staff development officer - 2424
University lecturer - 2310
Vocation education teacher - 2320

2359	TEACHING PROFESSIONALS NOT ELSEWHERE CLASSIFIED	2399 p	2359
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This unit group covers teaching professionals not classified elsewhere in Sub-major group 23, Teaching professionals. For instance, the group includes those who provide private tuition in subjects other than foreign languages and the arts, and those who provide educational counselling to students.

Their tasks include:

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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- a) assessing students' level of ability and determining learning needs;
- b) planning, preparing and delivering programs of study, lessons and workshops for individual students and groups;
- c) preparing and presenting material on the theory of the subject area being studied;
- d) instructing and demonstrating practical aspects of the subject area being studied;
- e) assigning exercises and work relevant to students' level of ability, interests and aptitude;
- f) assessing students and offering advice, criticism and encouragement;
- g) revising curricula, course content, course materials and methods of instruction;
- h) preparing students for examinations and assessments;
- i) counselling students regarding educational issues such as course and program selection, class scheduling, school adjustment, truancy, study habits, and career planning;
- j) counselling students to help them understand and overcome personal, social, or behavioral problems affecting their education; and
- k) preparing students for later educational experiences by encouraging them to explore learning opportunities and to persevere with challenging tasks.

Examples of the occupations classified here:

- Adult literacy teacher
- Fighter Pilot Escape & Evasion Training Instructor
- Flight instructor
- Lecturer
- Literacy tutor
- Mathematics coach
- Non-formal education teacher
- Professional tutor
- School counselor
- Teacher for the exceptionally intelligent
- Teaching fellow

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Business and administration professionals perform analytical, conceptual and practical tasks to provide services in financial matters, human resource development, public relations and marketing, sales in the technical, medical, information and communication technology areas and conduct, reviews of organizational structures, methods and systems as well as quantitative analyzes of information affecting investment programs.

Tasks performed by workers in this sub-major group usually include: collecting, analyzing and interpreting information on the financial viability, cost structures and trading effectiveness of organizations; conducting audits, preparing financial statements and controlling treasury systems for organizations; developing and reviewing financial plans and strategies, executing buy and sell orders, and negotiating the purchase and sale of commodities; developing, implementing and evaluating staff recruitment, training and development programs; researching, developing and implementing marketing and public relations campaigns; studying and developing methods and policies to improve and promote government and business operations and effectiveness; acquiring and updating knowledge of employers' and competitors' goods and services, and market conditions; assessing customers' needs and explaining and demonstrating goods and services to them.

241 FINANCE PROFESSIONALS

Finance professionals plan, develop, organize, administer, invest, manage and conduct quantitative analyses of either financial accounting systems or funds for individuals, establishments and public or private institutions.

Tasks performed usually include: preparing and organizing financial statements for an organization; reviewing financial materials of an organization; providing financial advice to individuals and organizations; preparing analytic reports concerning segments of the economy and the economy as a whole.

2411 ACCOUNTANTS

2411 p

2411

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Accountants plan, organize and administer accounting systems for individuals and establishments. Some occupations classified here examine and analyze the accounting and financial records of individuals and establishments to ensure accuracy and compliance with established accounting standards and procedures.

Their tasks include:

- a) advising on, planning and installing budgetary, accounts controlling and other accounting policies and systems;
- b) preparing and certifying financial statements for presentation to management, shareholders and statutory or other bodies;
- c) preparing tax returns, advising on taxation problems and contesting disputed claims before tax officials;
- d) preparing or reporting on profit forecasts and budgets;
- e) conducting financial investigations in such matters as suspected fraud, insolvency and bankruptcy;
- f) auditing accounts and bookkeeping records;
- g) conducting investigations and advising management on financial aspects of productivity, stockholdings, sales, new products, etc.; and
- h) devising and controlling a system to determine unit cost of products and services.

Examples of the occupations classified here:

- Accountant
- Audit/Financial Examiner
- Auditor
- Bank accountant
- Chartered accountant
- Cost accountant
- Cost analyst
- Cost controller (Finance)
- General ledger accountant
- Final audit process engineer
- Financial controller
- Management accountant
- Tax accountant

Some related occupations classified elsewhere:

- Bookkeeper - 3313
- Accounting clerk - 4311
- Finance manager - 1211

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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2412	FINANCIAL AND INVESTMENT ADVISERS	2411 p; 2419 p; 3411 p	2412
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Financial and investment advisers develop financial plans for individuals and organizations, and invest and manage funds on their behalf.

Their tasks include:

- a) building and maintaining a client base;
- b) interviewing clients to determine financial status and objectives, risk tolerance and other information needed to develop financial plans and investment strategies;
- c) setting financial objectives, and developing and implementing strategies for achieving the financial objectives;
- d) arranging to buy and sell stocks and bonds for clients;
- e) monitoring investment performance, and reviewing and revising investment plans based on modified needs and changes in markets; and
- f) recommending and arranging insurance cover for clients.

Examples of the occupations classified here:

Estate planner
Financial planner

2413	FINANCIAL ANALYST	2419 p	2413
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Financial analysts conduct quantitative analyses of information affecting investment programs of public or private institutions.

Their tasks include:

- a) analyzing financial information to produce forecasts of business, industry, and economic conditions for use in making investment decisions;
- b) maintaining knowledge and staying abreast of developments in the fields of industrial technology, business, finance, and economic theory;
- c) interpreting data affecting investment programs, such as price, yield, stability, future trends in investment risks, and economic influences;

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d) monitoring economic, industrial, and corporate developments through analysis of information obtained from financial publications and services, investment banking firms, government agencies, trade publications, company sources, and personal interviews;

e) recommending investments and investment timing to companies, investment firm staff, or the investing public;

f) determining the prices at which securities should be syndicated and offered to the public;

g) preparing plans of action for investment based on financial analyses;

h) evaluating and comparing the relative quality of various securities in a given industry; and

i) presenting oral and written reports on general economic trends, individual corporations, and entire industries.

Examples of the occupations classified here:

Audit analyst
Bond analyst
Financial analyst
Fiscal analyst
Investment consultant
Investment analyst
Securities consultant

242

ADMINISTRATION PROFESSIONALS

Administration professionals apply various concepts and theories related to improving the effectiveness of organizations and the individuals within the organization.

Tasks performed usually include: evaluating the structure of organizations and suggesting areas of improvement; ensuring that the operational activities of an organization are consistent with the policy objectives of the organization; recruiting, training, developing, and counselling personnel within an organization.

2421 MANAGEMENT AND ORGANIZATION ANALYST

2419 p

2421

Management and organization analysts assist organizations to achieve greater efficiency and solve organizational problems. They study organizational structures, methods, systems and procedures.

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Their tasks include:

- a) assisting and encouraging the development of objectives, strategies and plans aimed at achieving customer satisfaction and the efficient use of organizations' resources;
- b) analyzing and evaluating current systems and structures;
- c) discussing current systems with staff and observing systems at all levels of organization;
- d) directing clients towards more efficient organization and developing solutions to organizational problems;
- e) undertaking and reviewing work studies by analyzing existing and proposed methods and procedures such as administrative and clerical procedures;
- f) recording and analyzing organizations' work flow charts, records, reports, manuals and job descriptions;
- g) preparing and recommending proposals to revise methods and procedures, alter work flows, redefine job functions and resolve organizational problems;
- h) assisting in implementing approved recommendations, issuing revised instructions and procedure manuals, and drafting other documentation; and
- i) reviewing operating procedures and advising of departures from procedures and standards.

Examples of the occupations classified here:

Business consultant
Management consultant
Organization and methods analyst

A related occupations classified elsewhere:

ICT Business analyst - 2511

2422	POLICY ADMINISTRATION PROFESSIONALS	2419 p	2422
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Policy administration professionals develop and analyze policies guiding the design, implementation and modification of government and commercial operations and programs.

Their tasks include:

- a) liaising and consulting with program administrators and other interested parties to identify policy needs;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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b) reviewing existing policies and legislation to identify anomalies and out-of-date provisions;

c) researching social, economic and industrial trends, and client expectations of programs and services provided;

d) formulating and analyzing policy options, preparing briefing papers and recommendations for policy changes, and advising on preferred options;

e) assessing impacts, financial implications, interactions with other programs and political and administrative feasibility of policies;

f) conducting threat and risk assessments and developing responses; and

g) reviewing operations and programs to ensure consistency with policies of the organization.

Examples of the occupations classified here:

Policy analyst

Intelligence officer

2423	PERSONNEL AND CAREERS PROFESSIONALS	2412 p	2423
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Personnel and careers professionals provide professional business services related to personnel policies such as employee recruitment or development, occupational analyzes and vocational guidance.

Their tasks include:

a) advising on and performing personnel functions relating to employee recruitment, placement, training, promotion, compensation, and employee-management relations or other areas of personnel policy;

b) studying and analyzing jobs performed in an establishment by various means, including interviews with workers, supervisors and management, and writing detailed position, job or occupation descriptions from information obtained;

c) preparing occupational information or working on occupational classification systems;

d) advising and working on the foregoing and other aspects of job and occupation analyzes in such fields as personnel administration, workforce research and planning, training, or occupational information and vocational guidance; and

e) studying and advising individuals on employment opportunities, career choices and further education or training that may be desirable.

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Examples of the occupations classified here:

Careers adviser
Human resource development specialist
Human resource generalist
Industrial relations management specialist
Job analyst
Occupational analyst
Outplacement consultant
Personnel officer
Personnel specialist
Practicum coordinator
Risk management analyst
Vocational/guidance counsellor

2424	TRAINING AND STAFF DEVELOPMENT PROFESSIONALS	2412 p	2424
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Training and staff development professionals plan, develop, implement and evaluate training and development programs to ensure management and staff acquire the skills and develop the competencies required by organizations to meet organizational objectives.

Their tasks include:

- a) identifying training needs and requirements of individuals and organizations;
- b) setting human resource development objectives and evaluating learning outcomes;
- c) preparing and developing instructional training material and aids such as handbooks, visual aids, online tutorials, demonstration models, and supporting training reference documentation;
- d) designing, coordinating, scheduling and conducting training and development programs that can be delivered in the form of individual and group instruction, and facilitating workshops, meetings, demonstrations and conferences;
- e) liaising with external training providers to arrange delivery of specific training and development programs;
- f) promoting internal and external training and development, and evaluating these promotional activities;
- g) monitoring and performing ongoing evaluation and assessment of internal and external training quality and effectiveness, and reviewing and modifying training objectives, methods and course deliverables; and

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h) gathering, investigating and researching background materials to gain an understanding of various subject matters and system.

Examples of the occupations classified here:

Training facilitator
Training coordinator
Training officer
Workforce development specialist

243	SALES, MARKETING AND PUBLIC RELATIONS PROFESSIONALS	2419 p
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Sales, marketing and public relations professionals plan, develop, coordinate and implement programs of information dissemination to promote organizations, goods and services, and represent companies in selling a range of technical, industrial, medical, pharmaceutical and ICT goods and services.

Tasks performed usually include: commissioning and undertaking market research, analyzing the findings, and planning advertising marketing and public relations activities; supporting business growth and development through the preparation and execution of marketing objectives, policies and programs; planning and organizing publicity campaigns; appraising and selecting material submitted by writers, photographers, illustrators and others to create favorable publicity; acquiring and updating knowledge of employers' and competitors' goods and services, and market conditions; assessing customers' needs and explaining and demonstrating goods and services to them; visiting regular and prospective client businesses to establish and act on marketing opportunities; quoting and negotiating prices and credit terms, and completing contracts.

2431	ADVERTISING AND MARKETING PROFESSIONALS	2419 p	2431
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Advertising and marketing professionals develop and coordinate advertising strategies and campaigns, determine the market for new goods and services, and identify and develop market opportunities for new and existing goods and services.

Their tasks include:

a) planning, developing and organizing advertising policies and campaigns to support sales objectives;

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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b) advising managers and clients on strategies and campaigns to reach target markets, creating consumer awareness and effectively promoting the attributes of goods and services;

c) writing advertising copy and media scripts, and arranging television and film production and media placement;

d) analyzing data regarding consumer patterns and preferences;

e) interpreting and predicting current and future consumer trends;

f) researching potential demand and market characteristics for new goods and services and collecting and analyzing data and other statistical information;

g) supporting business growth and development through the preparation and execution of marketing objectives, policies and programs;

h) commissioning and undertaking market research to identify market opportunities for new and existing goods and services; and

i) advising on all elements of marketing such as product mix, pricing, advertising and sales promotion, selling, and distribution channels.

Examples of the occupations classified here:

Advertising account executive

Advertising assistant

Advertising specialist

Business development/marketing specialist

Market research analyst

Marketing coordinator

Marketing executive

Marketing specialist

Media production specialist

Merchandising supervisor

Sales and promotion supervisor

Sales executive

Telemarketing supervisor

2432 PUBLIC RELATIONS PROFESSIONALS

2419 p

2432

Public relations professionals plan, develop, implement and evaluate information and communication strategies that create an understanding and a favorable view of businesses and other organizations, their goods and services, and their role in the community.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Their tasks include:

- a) planning and organizing publicity campaigns and communication strategies;
- b) advising executives on the public relations implications of their policies, programs and practices preparing and controlling the issue of news and press releases;
- c) undertaking and commissioning public opinion research, analyzing the findings and planning public relations and promotional campaigns;
- d) organizing special events, seminars, entertainment, competitions and social functions to promote goodwill and favorable publicity;
- e) representing organizations and arranging interviews with publicity media;
- f) attending business, social and other functions to promote the organization;
- g) commissioning and obtaining photographs and other illustrative material; and
- h) selecting, appraising and revising material submitted by publicity writers, photographers, illustrators and others to create favorable publicity.

Example of the occupations classified here:

Public relation officer

2433	TECHNICAL AND MEDICAL SALE PROFESSIONALS (Excluding ICT)	3415 p	2433
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Technical and medical sales professionals (excluding ICT) represent companies in selling a range of industrial, medical and pharmaceutical goods and services to industrial, business, professional and other establishments.

Their tasks include:

- a) compiling lists of prospective client businesses using directories and other sources;
- b) acquiring and updating knowledge of employers' and competitors' goods and services, and market conditions;
- c) visiting regular and prospective client businesses to establish and act on selling opportunities;
- d) assessing clients' needs and resources and recommending appropriate goods or services;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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- e) providing input to product design where goods or services must be tailored to suit clients' needs;
- f) developing reports and proposals as part of sales presentation to demonstrate benefits from use of good or service;
- g) estimating costs of installing and maintaining equipment or service;
- h) monitoring customers' changing needs and competitor activity, and reporting these developments to sales management;
- i) quoting and negotiating prices and credit terms, and preparing and administering sales contracts;
- j) arranging delivery of goods, installation of equipment and the provision of services;
- k) reporting to sales management on sales made and the marketability of goods and services; and
- l) consulting with clients after sale to ensure satisfaction resolve any problems and provide ongoing support.

Examples of the occupations classified here:

- Quality management representative
- Sales representative (industrial products)
- Sales representative (medical and pharmaceutical products)
- Technical sales representative

Some related occupations classified elsewhere:

- Commercial sales representative - 3322
- Information and communications technology sales representative - 2434

2434	INFORMATION AND COMMUNICATIONS TECHNOLOGY SALE PROFESSIONALS	3415 p	2434
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Information and communications technology (ICT) sales professionals sell, at the wholesale level, a range of computer hardware, software and other information and communications technology goods and services including installations and provide specialized information as required.

Their tasks include:

- a) soliciting orders and selling goods to retail, industrial, wholesale and other establishments;
- b) selling technical equipment, supplies and related services to business establishments or individuals;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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c) discussing the needs of new and existing customers and providing specialized information about how particular equipment, supplies and services meet those needs;

d) quoting and negotiating prices and credit terms, and completing contracts and recording orders;

e) updating customer records and preparing sales reports;

f) arranging delivery of goods, installation of equipment and the provision of services; and

g) reporting customers' reactions and requirements to manufacturers.

Examples of the occupations classified here:

IT technical sales specialist

IT sales

A related occupations classified elsewhere:

Shop sales assistant - 5223

25

INFORMATION AND COMMUNICATION TECHNOLOGY PROFESSIONALS

Information and communications technology professionals conduct research, plan, design, write, test, provide advice and improve information technology systems, hardware, software and related concepts for specific applications; develop associated documentation including principles, policies and procedures; and design, develop, control, maintain and support databases and other information systems to ensure optimal performance and data integrity and security.

Tasks performed usually include: researching information technology use in business functions; identifying areas for improvement and researching the theoretical aspects and operational methods for the use of computers; evaluating, planning and designing hardware or software configurations for specific applications including for Internet, Intranet and multimedia systems; designing, writing, testing and maintaining computer programs; designing and developing database architecture and database management systems; developing and implementing security plans and data administration policy, and administering computer networks and related computing environments; analyzing, developing, interpreting and evaluating complex system design and architecture specifications, data models and diagrams in the development, configuration and integration of computer systems.

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251

SOFTWARE AND APPLICATIONS DEVELOPERS AND ANALYST

Software and applications developers and analysts conduct research, plan, design, write, test, provide advice on and improve information technology systems, such as hardware, software and other applications to meet specific requirements.

Tasks performed usually include: researching information technology use in business functions and identifying areas in which improvements could be made to maximize effectiveness and efficiency; conducting research into the theoretical aspects of and operational methods for the use of computers; evaluating, planning and designing hardware or software configurations for specific applications; designing, writing, testing and maintaining computer programs for specific requirements; evaluating, planning and designing Internet, Intranet and multimedia systems.

2511 SYSTEMS ANALYSTS

2131 p

2511

Systems analysts conduct research, analyze and evaluate client information technology requirements, procedures or problems, and develop and implement proposals, recommendations, and plans to improve current or future information systems.

Their tasks include:

- a) consulting with users to formulate and document requirements and with management to ensure agreement on systems principles;
- b) identifying and analyzing business processes, procedures and work practices;
- c) identifying and evaluating inefficiencies and recommending optimal business practices, and system functionality and behavior;
- d) taking responsibility for deploying functional solutions, such as creating, adopting and implementing system test plans;
- e) developing functional specifications for use by systems developers;
- f) expanding or modifying systems to improve work flow or serve new purposes; and
- g) coordinating and linking the computer systems within an organization to increase compatibility.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Examples of the occupations classified here:

Business analyst (IT)
Computer analyst
Computer scientist
Management information system designer
Systems analyst
Systems consultant
Systems designer (IT)

Some related occupations classified elsewhere:

Communication analyst (computers) - 2523
Network analyst - 2523
System administrator - 2522

2512	SOFTWARE DEVELOPERS	2131 p	2512
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Software developers research, analyze and evaluate requirements for existing or new software applications and operating systems, and design, develop, test and maintain software solutions to meet these requirements.

Their tasks include:

- a) researching, analyzing and evaluating requirements for software applications and operating systems;
- b) researching, designing, and developing computer software systems;
- c) consulting with engineering staff to evaluate interface between hardware and software;
- d) developing and directing software testing and validation procedures;
- e) modifying existing software to correct errors, to adapt it to new hardware or to upgrade interfaces and improve performance;
- f) directing software programming and development of documentation;
- g) assessing, developing, upgrading and documenting maintenance procedures for operating systems, communications environments and applications software; and
- h) consulting with customers concerning maintenance of software system.

Examples of the occupations classified here:

Actuarial systems program analyst
Programmer analyst
Software designer

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Software developer
Software engineer
Software architect
Computer applications engineer

A related occupations classified elsewhere:

Application programmer - 2514

2513	WEB AND MULTIMEDIA DEVELOPERS	2131 p; 2132 p	2513
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Web and multimedia development professionals combine design and technical knowledge to research, analyze, evaluate, design, programme and modify websites, and applications that draw together text, graphics, animations, imaging, audio and video displays, and other interactive media.

Their tasks include:

a) analyzing, designing and developing Internet sites applying a mixture of artistry and creativity with software programming and scripting languages and interfacing with operating environments;

b) designing and developing digital animations, imaging, presentations, games, audio and video clips, and Internet applications using multimedia software, tools and utilities, interactive graphics and programming languages;

c) communicating with network specialists regarding web-related issues, such as security and hosting web sites, to control and enforce Internet and web server security, space allocation, user access, business continuity, web site backup and disaster recovery planning;

d) designing, developing and integrating computer code with other specialized inputs, such as image files, audio files and scripting languages, to produce, maintain and support web sites; and

e) assisting in analyzing, specifying and developing Internet strategies, web-based methodologies and development plans.

Example of the occupations classified here:

Animation programmer
Communications programmer
Computer games programmer
Computer graphic artist
Database programmer
Digital content developers

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Game developers
Internet developer
Multimedia programmer
Website architect
Website developer

Some related occupations classified elsewhere:

Webmaster - 3514
Website administrator - 3514
Website technician - 3514

2514	APPLICATIONS PROGRAMMERS	2132 p	2514
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Applications programmers write and maintain programmable code outlined in technical instructions and specifications for software applications and operating systems.

Their tasks include:

- a) writing and maintaining program code outlined in instructions and specifications in accordance with quality accredited standards;
- b) revising, repairing or expanding existing programs to increase operating efficiency or adapt to new requirements;
- c) conducting trial runs of programs and software applications to confirm that they will produce the desired information;
- d) compiling and writing documentation of program development; and
- e) identifying and communicating technical problems, processes and solutions.

Example of the occupations classified here:

Application programmer
C Language programmer
Cobol programmer
Java programmer
Oracle programmer
RPG 400 programmer
Sequel programmer
Turbo pascal programmer
Visual basic programmer
Visual foxpro programmer
Visual interdev programmer

Some related occupations classified elsewhere:

Multimedia programmer - 2513
Programmer analyst - 2512

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Software developer - 2512

2519	SOFTWARE AND APPLICATIONS DEVELOPERS AND ANALYST NOT ELSEWHERE CLASSIFIED	2131 p; 2132 p; 2139 p	2519
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This unit group covers software and applications developers and analysts not classified elsewhere in minor group 251, Software and applications developers and analysts. For instance the group includes those professionals specializing in quality assurance including software testing.

Their tasks include:

- a) developing and documenting software testing plans;
- b) installing software and hardware and configuring operating system software in preparation for testing;
- c) verifying that programmes function according to user requirements and established guidelines;
- d) executing, analyzing and documenting results of software application tests and information and telecommunication systems tests; and
- e) developing and implementing software and information system testing policies, procedures and scripts.

Examples of the occupations classified here:

AutoCAD designer
Quality assurance analyst (computer)
Software tester
Systems tester

252	DATABASE AND NETWORK PROFESSIONALS
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Database and network professionals design, develop, control, maintain and support the optimal performance and security of information technology systems and infrastructure, including databases, hardware and software, networks and operating systems.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Tasks performed usually include: designing and developing database architecture, data structures, dictionaries and naming conventions for information systems projects; designing, constructing, modifying, integrating, implementing and testing database management systems; developing and implementing security plans, data administration policy, documentation and standards; maintaining and administering computer networks and related computing environments; analyzing, developing, interpreting and evaluating complex system design and architecture specifications, data models and diagrams in the development, configuration and integration of computer systems.

2521	DATABASE DESIGNERS AND ADMINISTRATORS	2131 p	2521
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Database designers and administrators design, develop, control, maintain and support the optimal performance and security of databases.

Their tasks include:

- a) designing and developing database architecture, data structures, tables, dictionaries and naming conventions for information systems projects;
- b) designing, constructing, modifying, integrating, implementing and testing database management systems;
- c) conducting research and providing advice on the selection, application and implementation of database management tools;
- d) developing and implementing data administration policy, documentation, standards and models;
- e) developing policies and procedures for database access and usage and for the backup and recovery of data; and
- f) performing the operational establishment and preventive maintenance of backups, recovery procedures, and enforcing security and integrity controls.

Example of the occupations classified here:

- Data administrator
- Application database administrator
- Database administrator
- Database analyst
- Database architect

Some related occupations classified elsewhere:

- Network administrator - 2522

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Systems administrator (computers) - 2522
Webmaster - 3514
Website administrator - 3514

2522 SYSTEMS ADMINISTRATORS 2131 p 2522

Systems administrators develop, control, maintain and support the optimal performance and security of information technology systems.

Their tasks include:

- a) maintaining and administering computer networks and related computing environments including computer hardware, systems software, applications software and all configurations;
- b) recommending changes to improve systems and network configurations, and determining hardware or software requirements related to such changes;
- c) diagnosing hardware and software problems;
- d) performing data backups and disaster recovery operations; and
- e) operating master consoles to monitor the performance of computer systems and networks, and to coordinate computer network access and use.

Example of the occupations classified here:

Network administrator
Network engineer
System administrator
Computer system engineer

Some related occupations classified elsewhere:

Database administrator - 2521
Network analyst - 2523
Webmaster - 3514
Website administrator - 3514
Website technician - 3514

2523 COMPUTER NETWORK PROFESSIONALS 2131 p 2523

Computer network professionals research, analyze and recommend strategies for network architecture and development, implement, manage, maintain and configure network hardware and software, and monitor, troubleshoot and optimize performance.

Their tasks include:

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a) analyzing, developing, interpreting and evaluating complex system design and architecture specifications, data models and diagrams in the development, configuration and integration of computer systems;

b) researching, analyzing, evaluating and monitoring network infrastructure to ensure networks are configured to operate at optimal performance;

c) assessing and recommending improvements to network operations and integrated hardware, software, communications and operating systems;

d) providing specialist skills in supporting and troubleshooting network problems and emergencies;

e) installing, configuring, testing, maintaining and administering new and upgraded networks, software database applications, servers and workstations;

f) preparing and maintaining procedures and documentation for network inventory, and recording diagnosis and resolution of network faults, enhancements and modifications to networks, and maintenance instructions; and

g) monitoring network traffic, and activity, capacity and usage to ensure continued integrity and optimal network performance.

Examples of the occupations classified here:

Communication analyst (computer)
Network analyst
Information technology (IT) specialist
Management information analyst
IT engineers

Some related occupations classified elsewhere:

Network administrator - 2522
System analyst - 2511

2529	DATABASE AND NETWORK PROFESSIONALS NOT ELSEWHERE CLASSIFIED	2131 p; 2132 p; 2139 p	2529
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This unit group covers database and network professionals elsewhere in Minor group 252, Database and network professionals. For instance, the group includes information and communications technology security specialists.

Their tasks include:

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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- a) developing plans to safeguard computer files against accidental or unauthorized modification, destruction, or disclosure and to meet emergency data processing needs;
- b) training users and promoting security awareness to ensure system security and to improve server and network efficiency;
- c) conferring with users to discuss issues such as computer data access needs, security violations, and programming changes;
- d) monitoring current reports of computer viruses to determine when to update virus protection systems;
- e) modifying computer security files to incorporate new software, correct errors, or change individual access status;
- f) monitoring use of data files and regulate access to safeguard information in computer files;
- g) performing risk assessments and executing tests of data processing system to ensure functioning of data processing activities and security measures; and
- h) encrypting data transmissions and erecting firewalls to conceal confidential information as it is being transmitted and to keep out tainted digital transfers.

Example of the occupations classified here:

Digital forensic specialist
Security specialist (ICT)

26

LEGAL, SOCIAL AND CULTURAL PROFESSIONALS

Legal, social and cultural professionals conduct research, improve or develop concepts, theories and operational methods, or apply knowledge relating to the law, storage and retrieval of information and artefacts, psychology, social welfare, politics, economics, history, religion, languages, sociology, other social sciences, and to arts and entertainment.

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Tasks performed by workers in this sub-major group usually include: conducting research on legal problems; drafting laws and regulations; advising clients on legal cases; pleading and conducting cases in a court of law; presiding over judicial proceedings in a court of law; developing and maintaining library and gallery collections of archives; conducting research, improving or developing concepts, theories and operational methods or applying knowledge relating to the field of social sciences; conceiving, creating and performing in literary and artistic works; interpreting and communicating news, ideas, impressions and facts.

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LEGAL PROFESSIONALS

Legal professionals conduct research on legal problems, advise clients on legal aspects of problems, plead cases or conduct prosecutions in courts of law, preside over judicial proceedings in courts of law, and draft laws and regulations.

Tasks performed usually include: giving clients legal advice, undertaking legal business on clients' behalf, and conducting litigation when necessary, or presiding over judicial proceedings- and pronouncing judgement in courts of law. Supervision of other workers may be included.

2611 LAWYERS

2421

2611

Lawyers give clients legal advice on a wide variety of subjects, draw up legal documents, represent clients before administrative boards or tribunals and plead cases or conduct prosecutions in courts of justice, or instruct barristers to plead in higher courts of justice.

Their tasks include:

- a) giving clients legal advice on a wide variety of subjects and undertaking legal business on clients' behalf;
- b) researching legal principles, statutes and previous court decisions related to specific cases;
- c) gathering evidence to formulate a defense or to initiate legal actions, by such means as interviewing clients and witnesses to ascertain the facts of a case;
- d) evaluate findings and develop strategies and arguments in preparation for presentation of cases;

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- e) pleading clients' cases before courts of law, tribunals and administrative boards or instructing barristers to plead in higher courts of justice;
- f) accepting briefs and pleading in the higher court;
- g) acting as prosecutor on behalf of the Government;
- h) negotiating settlements in matters which involve legal disputes;
- i) drafting legislation and preparing government regulations based on existing laws; and
- j) drawing up legal documents such as contracts, real estate transactions and wills and preparing statements of legal opinions.

Examples of the occupations classified here:

- Adjudicator
- Attorney
- Judicial officer
- Lawyer
- Legal counsel
- Legal analyst
- Prosecutor
- Solicitor

Some related occupations classified elsewhere:

- Notary - 2619
- Law Clerk - 3411

2612	JUDGES	2422	2612
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Judges preside over civil and criminal proceedings in courts of law.

Their tasks include:

- a) presiding over trials and hearings;
- b) interpreting and enforcing rules of procedure and making rulings regarding the admissibility of evidence;
- c) determining the rights and obligations of the parties involved, and, in cases tried by jury;
- d) instructing the jury on points of law that are applicable to the case;
- e) weighing and considering evidence in non-jury trials and deciding legal guilt or innocence or degree of liability of the accused or defendant;
- f) passing sentence on persons convicted in criminal cases, determining damages or other appropriate remedy in civil cases and issuing court orders; and

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g) researching legal issues and writing opinions on the issues.

Examples of the occupations classified here are:

Associate Judge
Chief justice
Judge
Magistrate

A related occupations classified elsewhere:

Law Clerk - 3411

2619	LEGAL PROFESSIONALS NOT ELSEWHERE CLASSIFIED	2423 p	2619
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This unit group covers legal professionals not classified elsewhere in Minor group 261, Legal professionals. For instance, the group includes those who perform legal functions other than pleading or prosecuting cases or presiding over judicial proceedings.

Their tasks include:

- a) giving advice on legal aspects of various personal, business and administrative problems;
- b) drawing up legal documents and contracts; and
- c) determining, by inquest, the causes of any death not obviously due to natural causes.

Examples of the occupations classified here:

Coroner
Court administrator
In-house counsel
Jurist (except lawyer or judge)
Legal adviser
Legal consultant
Legal researcher
Notary

262	LIBRARIANS, ARCHIVISTS AND CURATORS
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Librarians, archivists and curators develop and maintain the collections of archives, libraries, museums, art galleries, and similar establishments.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Tasks performed usually include: appraising or developing and organizing the contents of archives and artefacts of historical, cultural and artistic interest, and ensuring their safe-keeping and preservation; organizing the collections of and exhibitions at museums, art galleries and similar establishments; developing and the collections of and exhibitions at museums, art galleries and similar establishments; developing and maintaining the systematic collection of recorded and published material and making it available to users in libraries and related institutions; preparing scholarly papers and reports; conducting research.

2621	ARCHIVISTS AND CURATORS	2430	2621
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Archivists and curators collect, appraise and ensure the safekeeping and preservation of the contents of archives, artefacts and records of historical, cultural, administrative and artistic interest, and of art and other objects. They plan, devise and implement systems for the safekeeping of records and historically valuable documents.

Their tasks include:

- a) evaluating and preserving records for administrative, historical, legal, evidential and other purposes;
- b) directing or carrying out the preparation of indexes, bibliographies, microfilm copies and other reference aids to the collected material and making them available to users;
- c) researching the origin, distribution and use of materials and objects of cultural and historical interest;
- d) organizing, developing and maintaining collections of artistic, cultural, scientific or historically significant;
- e) directing or undertaking classification and cataloguing of museum and art gallery collections and organizing exhibitions;
- f) researching into, appraising, and developing, organizing and preserving historically significant and valuable documents such as government papers, private papers, photographs, maps, manuscripts audio-visual materials;
- g) preparing scholarly papers and reports;
- h) planning and implementing the computerized management of archives and electronic records;

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i) organizing exhibitions at museums and art galleries, publicizing exhibits and arranging special displays for general, specialized or educational interest; and

j) appraising and acquiring archival materials to build and develop an archival collection for research purposes.

Examples of the occupations classified here:

Archivist
Art gallery curator
Museum curator
Museum researcher
Records manager

2622	LIBRARIANS AND RELATED INFORMATION PROFESSIONALS	2430 p	2622
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Librarians and related information professionals collect, select, develop, organize and maintain library collections and other information repositories, organize and control other library services and provide information for users.

Their tasks include:

a) organizing, developing and maintaining a systematic collection of books, periodicals and other printed, audio-visually and digitally recorded material;

b) selecting and recommending acquisitions of books and other printed or audio-visually and digitally recorded material;

c) organizing, classifying and cataloguing library material;

d) managing library borrowing and inter-library loan facilities and information networks;

e) retrieving material and providing information to business and other users based on the collection itself or on library and information-network systems;

f) conducting research and analyzing or modifying library and information services in accordance with changes in users' needs;

g) devising and implementing schemes and conceptual models for the storage, organization, classification and retrieval of information;

h) preparing scholarly papers and reports; and

i) performing manual, on-line and interactive media reference searches, making interlibrary loans and performing other functions to assist users in accessing library materials.

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Examples of the occupations classified here:

Bibliographer

Cataloguer

Librarian

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SOCIAL AND RELIGIOUS PROFESSIONALS

Social and related professionals conduct research, improve or develop concepts, theories and operational methods, or apply knowledge relating to philosophy, politics, economics, sociology, anthropology, history, philology, languages, psychology, and other social sciences, or they provide social services to meet the needs of individuals and families in a community.

Tasks performed usually include: formulating and applying solutions to present or projected economic, political or social problems; researching into and analyzing past events and activities and tracing the origin and evolution of the human race; studying the origin and development of languages, or translating or interpreting them; studying mental processes and behavior of individuals and groups; providing social services; preparing scholarly papers and reports. Supervision of other workers may be included.

2631 ECONOMISTS

2441

2631

Economists conduct research, monitor data, analyze information and prepare reports and plans to resolve economic and business problems and develop models to analyze, explain and forecast economic behavior and patterns. They provide advice to business, interest groups and governments to formulate solutions to present or projected economic and business problems.

Their tasks include:

a) forecasting changes in the economic environment for short-term budgeting, long-term planning and investment evaluation;

b) formulating recommendations, policies and plans for the economy, corporate strategies and investment, and undertaking feasibility studies for projects;

c) monitoring economic data to assess the effectiveness, and advise on the appropriateness, of monetary and fiscal policies;

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d) forecasting production and consumption of specific products and services based on records of past production and consumption and general economic and industry-specific conditions;

e) preparing forecasts of income and expenditure, interest rates and exchange rates;

f) analyzing factors that determine labor force participation, employment, wages, unemployment and other labor market outcomes;

g) applying mathematical formulae and statistical techniques and apply to test economic theories and devise solutions to economic problems;

h) compiling, analyzing and interpreting economic data using economic theory and a variety of statistical and other techniques;

i) evaluating the outcome of political decisions concerning public economy and finances and advising on economic policy and possible courses of action in the light of past, present and projected economic factors and trends;

j) preparing scholarly papers and reports;

k) examining problems related to the economic activities of individual companies; and

l) conducting research on market conditions in local, regional or national areas to set sales and pricing levels for goods and services, to assess market potential and future trends and to develop business strategies.

Examples of the occupations classified here:

Econometrician
Economic adviser
Economic analyst
Economist
Labor economist

A related occupations classified elsewhere:

Statistician - 2120

2632	SOCIOLOGISTS, ANTHROPOLOGISTS AND RELATED PROFESSIONALS	2442	2632
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Sociologists, anthropologists and related professionals investigate and describe the structure of societies, the origin and evolution of societies, and the interdependence between environmental conditions and human activities. They provide advice on the practical application of their findings in the formulation of economic and social policies.

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Their tasks include:

- a) conducting research on the origin, development, structure, social patterns, organizations and inter-relationships of human society;
- b) tracing the origin and evolution of humanity through the study of changing characteristics and cultural and social institutions;
- c) tracing the development of humanity through the material remains of its past, such as dwellings, temples, tools, pottery, coins, weapons, or sculpture;
- d) studying physical and climatic aspects of areas and regions, and correlating these findings with economic, social and cultural activities;
- e) developing theories, models and methods to interpret and describe social phenomena;
- f) evaluating the outcome of political decisions concerning social policy;
- g) analyzing and evaluating social data;
- h) advising on the practical application of findings in the formulation of economic and social policies for population groups and regions, and for the development of markets; and
- i) preparing scholarly papers and reports.

Examples of the occupations classified here:

Anthropologist
 Archaeologist
 Ethnologist
 Geographer
 Sociologist

2633	PHILOSOPHERS, HISTORIANS AND POLITICAL SCIENTISTS	2443	2633
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Philosophers, historians and political scientists conduct research into the nature of human experience and existence, phases or aspects of human history, and political structures, movements and behavior. They document and report on findings to inform and guide political and individual actions.

Their tasks include:

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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a) researching, mostly by reasoning, into the general causes, principles and meanings of the world, human actions, experience and existence, and interpreting and developing philosophical concepts and theories;

b) consulting and comparing primary sources, such as original or contemporary records of past events, and secondary sources such as archaeological or anthropological findings;

c) extracting relevant material, checking its authenticity, and researching into and describing the history of a particular period, country or region, or a particular facet - for example economic, social or political - of its history;

d) conducting research in such fields as political philosophy, or past and present theory and practice of political systems, institutions or behavior;

e) observing contemporary political institutions and opinions, collecting data on them from various sources, including interviews with government and political party officials and other relevant persons;

f) developing theories, models and methods to interpret and describe the nature of human experience and historical and political events and behavior ;

g) presenting findings and conclusions for publication or use by government, political parties or other organizations and interested persons; and

h) preparing scholarly papers and reports.

Examples of the occupations classified here:

Genealogist
Historian
Philosopher
Political analyst
Political scientist

A related occupation classified elsewhere:

Political adviser - 2422

2634 PSYCHOLOGISTS 2445 2634

Psychologists research into and study the mental processes and behavior of human beings as individuals or in groups, and apply this knowledge to promote personal, social, educational or occupational adjustment and development.

Their tasks include:

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a) planning and carrying out tests to measure mental, physical and other characteristics such as intelligence, abilities, aptitudes, potentialities, etc., interpreting and evaluating results, and providing advice;

b) analyzing the effect of heredity, social, occupational and other factors on individual thought and behavior;

c) conducting counselling or therapeutic interviews with individuals and groups, and providing follow-up services;

d) maintaining required contacts, such as those with family members, educational authorities or employers, and recommending possible solutions to, and treatment of, problems;

e) studying psychological factors in the diagnosis, treatment and prevention of mental illnesses and emotional or personality disorders, and conferring with related professionals;

f) preparing scholarly papers and reports;

g) formulating achievement, diagnostic and predictive tests for use by teachers in planning methods and content of instruction;

h) conducting surveys and research studies on job design, work groups, morale, motivation, supervision and management; and

i) developing theories, models and methods to interpret and describe human behavior.

Example of the occupations classified here:

Clinical psychologist
Educational psychologist
Organizational psychologist
Sports psychologist
Psychometrician
Psychologist
Psychotherapist

A related occupation classified elsewhere:

Psychiatrist - 2212

2635	SOCIAL WORK AND COUNSELLING PROFESSIONALS	2446	2635
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Social work and counselling professionals provide advice and guidance to individuals, families, groups, communities and organizations in response to social and personal difficulties. They assist clients to develop skills and access resources and support services needed to respond to issues arising from unemployment, poverty, disability, addiction, criminal and delinquent behavior, marital and other problems.

Their tasks include:

- a) interviewing clients individually, in families, or in groups, to assess their situation and problems and determine the types of services required;
- b) analyzing the client's situation and presenting alternative approaches to resolving problems;
- c) compiling case records or reports for courts and other legal proceedings;
- d) providing counselling, therapy and mediation services and facilitating group sessions to assist clients to develop skills and insights needed to deal with and resolve their social and personal problems;
- e) planning and implementing programs of assistance for clients including crisis intervention and referral to agencies that provide financial assistance, legal aid, housing, medical treatment and other services;
- f) investigating cases of abuse or neglect and taking action to protect children and other at risk persons;
- g) working with offenders during and after sentence, to help them to integrate into the community and to change attitudes and behavior in order to reduce further offending;
- h) providing advice to prison governors and to probation and parole review boards that help determine whether, and under what conditions, an offender should be incarcerated, released from prison or undergo alternative correctional measures;
- i) acting as advocates for client groups in the community and lobbying for solutions to problems affecting them;
- j) developing prevention and intervention programs to meet community needs; and
- k) maintaining contact with other social service agencies, educational institutions and health care providers involved with clients to provide information and obtain feedback on clients' overall situation and progress.

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Examples of the occupations classified here:

Addictions counsellor
 Bereavement counsellor
 Child and youth counsellor
 Community relations officer
 Counselling professionals
 Family caseworker
 Family counsellor
 Marriage counsellor
 Parole officer
 Probation officer
 Social welfare officer
 Social worker
 Women's welfare organizer

A related occupation classified elsewhere:

Welfare worker - 3412

2636	RELIGIOUS PROFESSIONALS	2460	2636
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Religious professionals function as perpetrators of sacred traditions, practices and beliefs. They conduct religious services, celebrate or administer the rites of a religious faith or denomination, provide spiritual and moral guidance and perform other functions associated with the practice of a religion.

Their tasks include:

- a) perpetuating sacred traditions, practices and beliefs;
- b) conducting religious services, rites and ceremonies;
- c) undertaking various administrative and social duties, including participating in committees and meetings of religious organizations;
- d) providing spiritual and moral guidance in accordance with the religion professed;
- e) propagating religious doctrines in own country or abroad;
- f) preparing religious sermons and preachings;
- g) developing and directing study courses and religious education programmes;
- h) counselling individuals regarding interpersonal, health, financial, and religious problems; and
- i) scheduling and participating in special events such as camps, conferences, seminars, and retreats.

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Examples of the occupations classified here:

Rabbi
Chaplain
Imam
Religion minister
Missionaries
Pastor
Priest

Some related occupation classified elsewhere:

Lay preacher - 3413
Lay ministers - 3413
Parish workers - 3413
Monks - 3413
Nuns - 3413

264

AUTHORS, JOURNALISTS AND LINGUISTS

Authors, journalists and linguists conceive and create literary works, interpret and communicate news and public affairs through the media and translate or interpret from one language into another.

Tasks performed usually include: writing literary works; appraising merits of literary and other works of art; collecting information about current affairs and writing about them; researching, investigating, interpreting and communicating news and public affairs through newspapers, television, radio and other media; translating written material from one language to another; simultaneously translating from one language to another.

2641 AUTHORS AND RELATED WRITERS

2451 p

2641

Authors and related writers plan, research and write books, scripts, storyboards, plays, essays, speeches, manuals, specifications and other non-journalistic articles (excluding material for newspapers, magazines and other periodicals) for publication or presentation.

Their tasks include:

a) conceiving, writing and editing novels, plays, scripts, poetry and other material for publication or presentation;

b) conducting research to establish factual content and to obtain other necessary information;

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c) writing scripts and continuities and preparing programmes for stage, film, radio and television productions;

d) analyzing material, such as specifications, notes and drawings, and writing manuals, user guides and other documents to explain clearly and concisely the installation, operation and maintenance of software, electronic, mechanical and other equipment;

e) writing brochures, handbooks and similar technical publications; and

f) selecting material for publication, checking style, grammar and accuracy of content, arranging for any necessary revisions and checks proof copies before printing.

Examples of the occupations classified here:

Author
Book editor
Creative writer
Crossword puzzle maker
Essayist
Feature writer
Freelance writer
Interactive media writer
Literary writer
Novelist
Playwright
Poet
Publicity writer
Scriptwriter
Speech writer
Staff writer
Technical writer
Writer

Some related occupation classified elsewhere:

Journalist - 2642
Public relations copy writer - 2432
Newspaper editor - 2642

2642 JOURNALISTS

2451 p

2642

Journalists research, investigate, interpret and communicate news and public affairs through newspapers, television, radio and other media.

Their tasks include:

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a) collecting local, national and international news through interviews, investigation and observation, attending public events, seeking out records, reviewing written work, attending film and stage performances;

b) collecting, reporting and commenting on news and current affairs for publication in newspapers and periodicals, or for broadcasting by radio, television or webcast media;

c) receiving, analyzing and verifying news and other copy for accuracy;

d) interviewing politicians and other public figures at press conferences and on other occasions, including individual interviews recorded for radio, television or webcast media;

e) researching and reporting on developments in specialized fields such as medicine, science and technology;

f) writing editorials and commentaries on topics of current interest to stimulate public interest and express the views of a publication or broadcasting station;

g) writing critical reviews of literary, musical and other artistic works based on knowledge, judgement and experience for newspapers, television, radio and other media;

h) selecting material for publication, checking style, grammar, accuracy and legality of content and arranging for any necessary revisions;

i) liaising with production staff in checking final proof copies immediately prior to printing; and

j) selecting, assembling and preparing publicity material about business or other organizations for issue through press, radio, television and other media.

Examples of the occupations classified here:

- Columnist
- Continuity and script editor
- Copy editor
- Copywriter
- Copy reader
- Critic
- Editor
- Editorial Staff
- Journalist
- Managing news editor
- News analyst
- Newspaper editor
- Newspaper reporter

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Sports writer
Sub editor
TV/radio news reporter

Some related occupation classified elsewhere:

Book editor - 2641
Book author - 2641
Camera operator - 3521
Photo journalist - 3431
Public relations officer - 2432

2643	TRANSLATORS, INTERPRETERS AND OTHER LINGUISTS	2444 p	2643
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Translators, interpreters and other linguists translate or interpret from one language into another and study the origin, development and structure of languages.

Their tasks include:

- a) studying relationships between ancient parent languages and modern language groups, tracing the origin and evolution of words, grammar and language forms, and presenting findings;
- b) advising on or preparing language classification systems, grammars, dictionaries and similar materials;
- c) translating from one language into another and ensuring that the correct meaning of the original is retained, that legal, technical or scientific works are correctly rendered, and that the phraseology and terminology of the spirit and style of literary works are conveyed as far as possible;
- d) developing methods for the use of computers and other instruments to improve productivity and quality of translation; and
- e) interpreting from a spoken or a signed language into another spoken or signed language , in particular at conferences, meetings and similar occasions, and ensuring that the correct meaning and, as far as possible, the spirit of the original are transmitted; and
- f) revising and correcting translated material.

Examples of the occupations classified here:

Interpreter
Lexicographer
Philologist
Sign language interpreter
Subtitler
Translator

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Translator reviser

A related occupation classified elsewhere:

Author - 2641

Book editor - 2641

Journalist - 2642

265

CREATIVE AND PERFORMING ARTISTS

Creative and performing artists communicate ideas, impressions and facts in a wide range of media to achieve particular effects; interpret a composition such as a musical score or a script to perform or direct the performance; and host the presentation of such performance and other media events.

Tasks performed usually include: conceiving and creating visual art forms; conceiving and writing original music; devising, directing, rehearsing and performing in music, dance, theatrical and film productions; assuming creative, financial and organizational responsibilities in the production of television programmes, films, and stage presentations; studying script, play or book and preparing and rehearsing interpretation; selecting and introducing music, videos and other entertainment material for broadcast and making commercial and public service announcements.

2651 VISUAL ARTISTS

2452

2651

Visual artists create and execute works of art by sculpting, painting, drawing, creating cartoons, engraving or using other techniques.

Their tasks include:

a) conceiving and developing ideas, designs and styles for paintings, drawings and sculptures;

b) arranging objects, positioning models, and selecting landscapes and other visual forms according to chosen subject matter;

c) selecting artistic media, method and materials;

d) creating representational or abstract three-dimensional or relief forms by shaping, carving and working and combining materials such as, wood, stone, clay, metal, ice or paper;

e) creating representational or abstract drawings and paintings using pencils, ink, chalk, oil paints, water colors or through the application of other techniques;

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f) creating drawings and engraving or etching them on metal, wood, or other materials;

g) creating cartoons to depict persons and events, often in caricature; and

h) restoring damaged, soiled and faded paintings and other art objects.

Examples of the occupations classified here:

Artistic painter
Cartoonist
Ceramic artist
Commercial artist
Engraver and etcher (Artistics)
Forensic/sketch artist
Painting restorer
Picture restorer
Portrait painter
Sculptor

Some related occupation classified elsewhere:

Graphic designer - 2166
Handicraft workers - 731
Industrial designer - 2163
Painting teacher - 2355

2652	MUSICIANS, SINGERS AND COMPOSERS	2453	2652
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Musicians, singers and composers write, arrange, conduct and perform musical compositions.

Their tasks include:

a) creating melodic, harmonic and rhythmic structures to express ideas and emotions in musical form;

b) translating ideas and concepts into standard musical signs and symbols for reproduction and performance;

c) adapting or arranging music for particular instrumental or vocal groups, instruments or occasions;

d) conducting instrumental or vocal groups;

e) selecting music for performances and assigning instrumental parts to musicians;

f) playing one or more musical instruments as a soloist or as a member of an orchestra or a musical group;

g) singing as soloists or members of vocal groups or other bands; and

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h) practicing and rehearsing to maintain a high standard of performance.

Examples of the occupations classified here:

Band leader
 Bass player
 Choral group singer
 Concert artist
 Concertmaster
 Drummer
 Flutist
 Guitarist
 Instrumentalist
 Keyboard player
 Lyricist
 Music composer
 Music conductor
 Musical arranger
 Musical director
 Musician
 Night club musician
 Night club singer
 Orchestra conductor
 Orchestra director
 Pianist
 Recital coordinator
 Recording artist
 Saxophone player
 Singer
 Street musician
 Street singer
 Trumpet player
 Violinist
 Vocal group conductor
 Vocalist

2653 DANCERS AND CHOREOGRAPHERS 2454 2653

Dancers and choreographers conceive and create or perform dances.

Their tasks include:

- a) conceiving and creating dances, which often convey a story, theme, idea or mood, by a pattern of steps, movements and gestures;
- b) performing dances as a soloist, with a partner or as a member of a dancing group before live audiences or for film, television or other visual media;
- c) training, exercising and attending dance classes to maintain the required levels of ability and fitness;

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d) directing and participating in rehearsals to practice dance steps and techniques required for a performance;

e) auditioning for dance roles or for memberships in dance companies; and

f) coordinating the production music with the music directors.

Examples of the occupations classified here:

Ballet/Belly dancer
Choreographer
Cultural dancer
Night club dancer
Professional dancer
Street dancer

A related occupations classified elsewhere:

Dance teacher - 2355

2654	FILM, STAGE AND RELATED DIRECTORS AND PRODUCERS	2455 p	2654
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Film, stage and related directors and producers oversee and control the technical and artistic aspects of motion pictures, television or radio productions and stage shows.

Their tasks include:

a) choosing writers, studying scripts to determine artistic interpretation, and instructing actors on acting methods;

b) directing all aspects of dramatic productions on stage, television, radio or in motion pictures, including choice of actors, and final decisions concerning costumes, set designs, sound or lighting effects;

c) planning, organizing and controlling the various stages and scheduling involved in the production of presentations, motion pictures, television shows and radio programs;

d) engaging and supervising all technical personnel, and determining the treatment, scope and scheduling of production;

e) maintaining production archives and negotiating royalties;

f) creating, planning, writing scripts for recording, videotaping and editing programs; and

g) supervising the positioning of scenery, props and lighting and sound equipment.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Examples of the occupations classified here:

Choir director
Cinematographer
Director (Stage, Theater, Motion picture,& Radio)
Director of photography
Documentary director
Film editor
Motion picture director
Stage director
Theatre producer
Technical television or radio director

Some related occupations classified elsewhere:

Broadcasting technician - 3521
Sound technician - 3521
Stage manager - 3435
TV news producer - 2642
Video technician - 3521

2655 ACTORS 2455 p 2655

Actors portray roles in motion pictures, television or radio productions and stage shows.

Their tasks include:

- a) learning lines and cues and playing parts in dramatic productions on stage, commercials, television, radio or in motion pictures;
- b) assuming characters created by a playwright or author and communicating this to an audience;
- c) telling stories or reading literary works aloud to educate or entertain listeners;
- d) attending auditions and casting calls in order to audition for roles;
- e) preparing for performances through rehearsals under the instruction and guidance of production directors;
- f) reading scripts and undertaking research to gain understanding of parts, themes and characteristics; and
- g) acting parts and portraying roles as developed in rehearsals in film, television, radio and stage productions.

Examples of the occupations classified here:

Actor/Actress (Stage, Theater, Motion picture & Radio)

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Dubber
Radio or television Story teller

A related occupation classified elsewhere:

Stunt artist - 3435

2656	ANNOUNCERS ON RADIO, TELEVISION AND OTHER MEDIA	3472 p	2656
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Announcers on radio, television and other media read news bulletins, conduct interviews, and make other announcements or introductions on radio, television, and in theatres and other establishments or media.

Their tasks include:

- a) reading news bulletins and making other announcements on radio or television;
- b) introducing performing artists or persons being interviewed, and making related announcements on radio, television, or in theatres, night-clubs and other establishments;
- c) interviewing persons in public, especially on radio and television;
- d) studying background information in order to prepare for programs or interviews; and
- e) commenting on music and other matters , such as weather or traffic conditions.

Examples of the occupations classified here:

Announcer, radio/television
Commentator, radio/television
Compere' (Emcee, Show Host)
Disc/Video Jockey
Field reporter
Media interviewer
News anchor
News correspondent/reporter
Sports announcer

A related occupation classified elsewhere:

Journalist - 2642

2659	CREATIVE AND PERFORMING ARTISTS NOT ELSEWHERE CLASSIFIED	3474 p	2659
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This unit group covers all creative and performing artists not classified elsewhere in minor group 265, Creative and performing artists. For instance, the group includes clowns, magicians, acrobats and other performing artists.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Their tasks include:

- a) performing amusing antics and telling funny stories;
- b) performing tricks of illusion and sleight of hand, and feats of hypnotism;
- c) performing difficult and spectacular acrobatics, and gymnastic or juggling feats; and
- d) training and performing with animals.

Examples of the occupations classified here:

- Acrobat
- Aerialist
- Clown
- Hypnotist
- Magician
- Mascot
- Puppeteer
- Stand-up comedian
- Ventriloquist

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Major Group 3.

TECHNICIANS AND ASSOCIATE PROFESSIONALS

Technicians and associate professionals perform mostly technical and related tasks connected with research and the application of scientific or artistic concepts and operational methods, and government or business regulations. Most occupations in this major group require skills at the third ISCO skill level.

Tasks performed by technicians and associate professionals usually include: undertaking and carrying out technical work connected with research and the application of concepts and operational methods in the fields of physical sciences including engineering and technology, life sciences including the medical profession, and social sciences and humanities; initiating and carrying out various technical services related to trade, finance, administration, including administration of government laws and regulations, and to social work; providing technical support for the arts and entertainment; participating in sporting activities; executing some religious tasks. Supervision of other workers may be included.

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SCIENCE AND ENGINEERING ASSOCIATE PROFESSIONALS

Science and engineering associate professionals perform technical tasks connected with research and and operational methods in science and engineering. They supervise and control technical and operational aspects of mining, manufacturing, construction and other engineering operations, and operate technical equipment including aircraft and ships.

Tasks performed by workers in this sub-major group usually include: setting up, monitoring and operating instruments and equipment, conducting and monitoring experiments and tests of systems; collecting and testing samples; recording observations and analyzing data; preparing, revising and interpreting technical drawings and diagrams; coordinating, supervising, controlling and scheduling the activities of other workers; operating and monitoring switchboards, computerized control systems, and multi-function process control machinery; perform technical functions to ensure safe and efficient movement and operations ships aircraft and other equipment.

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PHYSICAL AND ENGINEERING SCIENCE TECHNICIANS

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Physical and engineering science technicians perform technical tasks to aid in research on and the practical application of concepts, principles and operational methods particular to physical sciences including such areas as engineering, technical drawing or economic efficiency of production processes.

Tasks performed usually include: undertaking and carrying out technical work related to chemistry, physics, geology, meteorology, astronomy, engineering, or technical drawing; setting up, operating, and maintaining laboratory instruments and equipment, monitoring experiments, making observations, and calculating and recording results; preparing materials for experimentation; conducting tests of systems; collecting and testing samples; recording observations and analyzing data; preparing, revising and interpreting technical drawings, wiring diagrams, circuit board assembly diagrams, or layout drawings.

3111	CHEMICAL AND PHYSICAL SCIENCE TECHNICIANS	3111	3111
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Chemical and physical science technicians perform technical tasks to aid in research in chemistry, physics, geology, geophysics, meteorology and astronomy, and in the development of industrial, medical, military and other practical applications of research results.

Their tasks include:

- a) collecting samples and preparing materials and equipment for experiments, tests and analyses;
- b) carrying out routine laboratory tests and performing a variety of technical support functions to assist chemical and physical scientists in research, development, analysis and testing;
- c) controlling the quality and quantity of laboratory supplies by testing samples and monitoring usage and preparing detailed estimates of quantities and costs of materials and labor required for projects, according to the specifications given;
- d) setting up, operating, and maintaining laboratory instruments and equipment, monitoring experiments, making observations, and calculating and recording results;
- e) preparing materials for experimentation such as freezing and slicing specimens and mixing chemicals; and
- f) collecting and testing earth and water samples, recording observations and analyzing data in support of geologists or geophysicists.

Examples of the occupations classified here:

Chemistry technician

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Geology technician
Meteorology technician
Physics technician

Some related occupation classified elsewhere:
Chemical engineering technician - 3116
Life science technician - 3141

3112	CIVIL ENGINEERING TECHNICIANS	3112 p	3112
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Civil engineering technicians perform technical tasks in civil engineering research, design, construction, operation, maintenance and repair of buildings and other structures, such as water supply and wastewater treatment systems, bridges, roads, dams and airports.

Their tasks include:

- a) performing or assisting with field and laboratory tests of soils and construction materials;
- b) providing technical assistance connected with the construction of buildings and other structures, and with surveys or the preparation of survey reports;
- c) ensuring compliance with design specifications, relevant legislation and regulations, and maintenance of desired standards of materials and work;
- d) applying technical knowledge of building and civil engineering principles and practices in order to identify and solve problems arising;
- e) assisting with the preparation of detailed estimates of quantities and costs of materials and labor required for projects, according to the specifications given;
- f) organizing maintenance and repairs;
- g) inspecting buildings and structures during and after construction to ensure that they comply with building, grading, zoning and safety laws and approved plans, specifications and standards, as well as with other rules concerning quality and safety of buildings;
- h) inspecting industrial plant, hotels, cinemas and other buildings and structures to detect fire hazards and advise on how they can be removed; and
- i) advising on the installation of fire detectors and sprinkler systems and the use of materials in the construction of buildings and means of transportation to reduce risk of fire and extent of damage and danger if fire occurs.

Examples of the occupations classified here:

Building inspector
Civil engineering technician
Clerk of works
Fire inspector
Fire prevention specialist
Geotechnical technician

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Surveying technician</p> <p>Some related occupation classified elsewhere:</p> <p>Fire investigator - 3119</p> <p>Marine surveyor - 3115</p> <p>Quantity surveyor - 2149</p>		
3113			<p>ELECTRICAL ENGINEERING TECHNICIANS</p> <p>Electrical engineering technicians perform technical tasks to aid in electrical engineering research, and in the design, manufacture, assembly, construction, operation, maintenance and repair of electrical equipment, facilities and distribution systems.</p> <p>Their tasks include:</p> <p>a) providing technical assistance in research on and development of electrical equipment and facilities, or testing prototypes;</p> <p>b) designing and preparing blueprints of electrical installations and circuitry according to the specifications given;</p> <p>c) preparing detailed estimates of quantities and costs of materials and labor required for manufacture and installation according to the specifications given;</p> <p>d) monitoring technical aspects of the manufacture, installation, utilization, maintenance and repair of electrical systems and equipment to ensure satisfactory performance and compliance with specifications and regulations;</p> <p>e) planning installation methods, checking completed installation for safety and controls or undertaking the initial running of the new electrical equipment or systems; and</p> <p>f) assembling, installing, testing, calibrating, modifying and repairing electrical equipment and installations to conform with regulations and safety requirements.</p> <p>Examples of the occupations classified here:</p> <p>Airconditioning technician</p> <p>Electric power transmission engineering technician</p> <p>Electrical engineering technician</p> <p>Electrical engineering technician (high voltage)</p> <p>Gas turbine system technician (electrical)</p> <p>Heating and ventilation technician</p> <p>Refrigeration technician</p> <p>Some related occupation classified elsewhere:</p> <p>Electrical mechanic - 7241</p> <p>Electronics engineering technician - 3114</p> <p>Power production plant operator - 3131</p>	3113	3113
3114			<p>ELECTRONICS ENGINEERING TECHNICIANS</p>	3114	3114

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Electronics engineering technicians perform technical tasks to aid in electronic research, and in the design, manufacture, assembly, construction, operation, maintenance and repair of electronic equipment.

Their tasks include:

- a) providing technical assistance in research and development of electronic equipment, or testing prototypes;
- b) designing and preparing blueprints of electronic circuitry according to the specifications given;
- c) preparing detailed estimates of quantities and costs of materials and labor required for the manufacture and installation of electronic equipment, according to the specifications given;
- d) monitoring technical aspects of the manufacture, utilization, maintenance and repair of electronic equipment to ensure satisfactory performance and ensure compliance with specifications and regulations;
- e) assisting in the design, development, installation, operation and maintenance of electronic systems;
- f) planning installation methods, checking completed installation for safety and controls or undertaking the initial running of the new electronic equipment or system; and
- g) conducting tests of electronic systems, collecting and analyzing data, and assembling circuitry in support of electronics engineers.

Examples of the occupations classified here:

- Audio visual systems technician
- Broadcast operations technician
- CCTV/evidence custodian
- Electronic equipment operator
- Electronic system technician
- Electronics and communication equipment technician
- Electronics engineering technicians
- Instrumentation and control technician
- Line technician
- Magnetic recorder operator
- Satellite communication engineering technician
- Telecommunication engineering technician
- Telephone technician

Some related occupation classified elsewhere:

- Electrical engineering technician - 3113
- Electronic equipment assembler - 8212
- Electronics mechanic - 7421
- Telecommunications engineering technician - 3522

3115 MECHANICAL ENGINEERING TECHNICIANS

3115 p

3115

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Mechanical engineering technicians perform technical tasks to aid in mechanical engineering research, and in the design, manufacture, assembly, construction, operation, maintenance and repair of machines, components and mechanical equipment.

Their tasks include:

a) providing technical assistance in research on and development of machines and mechanical installations, facilities and components, or testing prototypes;

b) designing and preparing layouts of machines and mechanical installations, facilities and components according to the specifications given;

c) preparing detailed estimates of quantities and costs of materials and labor required for manufacture and installation according to the specifications given;

d) monitoring technical aspects of manufacture, utilization, maintenance and repair of machines and mechanical installations, facilities and components to ensure satisfactory performance and compliance with specifications and regulations;

e) developing and monitoring the implementation of safety standards and procedures for marine survey work in relation to ships' hulls, equipment and cargoes;

f) assembling and installing new and modified mechanical assemblies, components, machine tools and controls, and hydraulic power systems;

g) conducting tests of mechanical systems, collecting and analyzing data, and assembling and installing mechanical assemblies in support of mechanical engineers; and

h) ensuring that mechanical engineering designs and finished work are within specifications, regulations and contract provisions.

Examples of the occupations classified here:

- Aeronautics engineering technician
- Aircraft maintenance technician
- Auto service technician
- Boiler technician
- Elevator technician
- Gas turbine system technician (mechanical)
- Industrial machinery and tools technician
- Marine engineering technician
- Mechanical engineering estimator
- Mechanical engineering technician
- Maintenance technician
- Power plant technician
- Mechanical planner and scheduler

Some related occupation classified elsewhere:

- Industrial machinery mechanic - 7233

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Mechanical machinery assembler - 8211

3116 CHEMICAL ENGINEERING TECHNICIANS 3116 3116

Chemical engineering technicians perform technical tasks to aid in chemical engineering research, and in the design, manufacture, construction, operation, maintenance and repair of chemical plant.

Their tasks include:

- a) assisting in research on and development of industrial chemical processes, plant and equipment, or testing prototypes;
- b) designing and preparing layouts of chemical plants according to the specifications given;
- c) preparing detailed estimates of quantities and costs of materials and labor required for manufacture and installation according to the specifications given;
- d) monitoring technical aspects of the construction, installation, operation, maintenance and repair of chemical plants to ensure satisfactory performance and compliance with specifications and regulations; and
- e) conducting chemical and physical laboratory tests to assist scientists and engineers in making qualitative and quantitative analyses of solids, liquids, and gaseous materials.

Examples of the occupations classified here:

Chemical engineering estimator
Chemical engineering technician
Chemical laboratory technician
Nuclear engineering technician
Petroleum engineering technician

3117 MINING AND METALLURGICAL TECHNICIANS 3117 p 3117

Mining and metallurgical technicians perform technical tasks to assist in research and experiments related to metallurgy, in improving methods of extracting solid minerals, oil and gas, and in the design, construction, operation, maintenance and repair of mines and mine installations, of systems for transporting and storing oil and natural gas, and for extraction of metals from ores.

Their tasks include:

- a) providing technical assistance to aid in research on and development of processes to determine the properties of metals and new alloys;
- b) providing technical assistance in geological and topographical surveys, and in the design and layout of oil, natural gas and mineral ore extraction and transportation systems, and processing and refining plants for minerals and metals;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>c) preparing detailed estimates of quantities and costs of materials and labor required for mineral, oil and natural gas exploration, extraction, processing and transport projects;</p> <p>d) monitoring technical, regulatory and safety aspects of the construction, installation, operation, maintenance and repair of mineral ore, oil and natural gas exploration, extraction, transport and storage installations and of mineral processing plants;</p> <p>e) helping plan and design mines, mine shafts, tunnels and underground first-aid facilities;</p> <p>f) collecting and preparing rock, mineral and metal samples, performing laboratory tests to determine properties, analyzing and reporting test results and maintaining testing equipment;</p> <p>g) using microscopes, electromagnetic irradiation machines, spectrometers, spectrographs, densitometers and tension testing machines; and</p> <p>h) assisting scientists in the use of electrical, sonic, or nuclear measuring instruments in both laboratory and production activities to obtain data indicating potential sources of metallic ore, gas, or petroleum.</p> <p>Examples of the occupations classified here:</p> <p>Extractive engineering technician Metallurgical technician Metals technologist Mines inspector Mining engineering technician Oil and gas wells acidizer Petroleum and natural gas extraction technician Physical metallurgy technician</p> <p>Some related occupation classified elsewhere:</p> <p>Geology technician - 3111 Miner - 8111 Mining plant operator - 8111 Quarrier - 8111</p>		
3118		DRAFTSMEN	<p>Draftsmen prepare technical drawings, maps and illustrations from sketches, measurements and other data, and copy final drawings and paintings on to printing plates.</p> <p>Their tasks include:</p> <p>a) preparing and revising working drawings from sketches and specifications prepared by engineers and designers for the manufacture, installation and erection of machinery and equipment or for the construction, modification, maintenance and repair of buildings, dams, bridges, roads and other architectural and civil engineering projects;</p>	3118	3118

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>b) operating computer-aided design and drafting equipment to create, modify and generate hard-copy and digital representations of working drawings;</p> <p>c) operating digitizing table or similar equipment to transfer hard-copy representation of working drawings, maps and other curves to digital form;</p> <p>d) preparing and revising illustrations for reference works, brochures and technical manuals dealing with the assembly, installation, operation, maintenance and repair of machinery and other equipment and goods;</p> <p>e) copying drawings and paintings onto stone or metal plates for printing;</p> <p>f) preparing wiring diagrams, circuit board assembly diagrams, and layout drawings used for manufacture;</p> <p>g) installation, and repair of electrical equipment in factories, power plants, and buildings;</p> <p>h) creating detailed working diagrams of machinery and mechanical devices, including dimensions, fastening methods, and other engineering information; and</p> <p>i) arranging for completed drawings to be reproduced for use as working drawings.</p> <p>Examples of occupations classified here:</p> <ul style="list-style-type: none"> Architectural-designer Artist-illustrator Draftsman Draftsman, aide Draftsman, architectural Draftsman, cartographical Draftsman, electrical Draftsman, engineering/civil Draftsman, hydrographic Draftsman, mechanical Draftsman, naval Draftsman researcher Draftsman, structural Draftsman technician Lithographic artist Technical illustrator <p>Some related occupation classified elsewhere:</p> <ul style="list-style-type: none"> Cartographer - 2165 Surveyor - 2165 		
3119			PHYSICAL AND ENGINEERING SCIENCE TECHNICIANS NOT ELSEWHERE CLASSIFIED	3119	3119

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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This unit group covers physical and engineering science technicians not classified elsewhere in Minor group 311, Physical and engineering science technicians. For instance, the group includes those who assist scientists and engineers engaged in developing procedures or conducting research on safety, biomedical, environmental or industrial and production engineering.

Their tasks include:

- a) collecting data and providing technical assistance regarding: efficient, safe and economic utilization of personnel, material and equipment; methods of work and sequence of operations and supervision of their implementation; and efficient layout of plant or establishment;
- b) aiding in the identification of potential hazards and introducing safety procedures and devices;
- c) modifying and testing equipment and devices used in the prevention, control, and remediation of environmental pollution, site remediation, and land reclamation;
- d) assisting in the development of environmental pollution remediation devices under the direction of an engineer; and
- e) assisting engineers in testing and designing robotics equipment.

Examples of occupations classified here:

- Engineering aide
- Engineering technician (production)
- Fire investigator
- Forensic science technician
- Health physics technician
- Industrial efficiency technician
- In-line reviser
- Instrument technician
- Laboratory technician
- Quality control technician
- Quantity surveying technician
- Robotics technician
- Test technician
- Time and motion study technician

Some related occupation classified elsewhere:

- Aeronautics engineering technician - 3115
- Production engineer - 2149
- Quantity surveyor - 2149
- Time and motion study engineer - 2149

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Mining, manufacturing and construction supervisors coordinate, supervise, control and schedule the activities of workers in manufacturing, mining and construction operations.</p> <p>Tasks performed usually include: overseeing, supervising and coordinating the activities of tradespersons, process control technicians, machine operators, assemblers, laborers and other workers; organizing and planning daily work; preparing cost estimates, records and reports; identifying shortages of staff or supplies; ensuring safety of workers; instructing and training new staff.</p>		
	3121		<p>MINING SUPERVISORS</p> <p>Mining supervisors oversee mining and quarrying operations and directly supervise and coordinate the activities of miners working in underground and surface mines and quarries.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) directly supervising and coordinating the activities of workers who extract minerals and other natural deposits from the earth, operate underground conveyances or heavy equipment in surface mines and quarries; b) establishing methods to meet work schedules and recommending measures to mining managers to improve productivity; c) working with managerial and technical personnel, other departments and contractors to resolve operational problems and coordinate activities; d) providing reports and other information to mining managers about all aspects of mining or quarrying operations; and e) determining staffing and material needs for the mine or quarry. <p>Examples of occupations classified here:</p> <ul style="list-style-type: none"> Mine deputy Mine supervisor Mine under-manager Quarry supervisor <p>Some related occupation classified elsewhere:</p> <ul style="list-style-type: none"> Mine manager - 1322 Mine safety inspector - 3117 Miner - 8111 Quarrier - 8111 	7111 p	3121
	3122		<p>MANUFACTURING SUPERVISORS</p> <p>Manufacturing supervisors coordinate and supervise the activities of process control technicians, machine operators, assemblers, and other manufacturing laborers.</p>	8171 p; 8221 p; 8222 p; 8223 p; 8224 p; 8229 p;	3122

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Their tasks include:</p> <p>a) coordinating and supervising the activities of process control technicians, machine operators, assemblers, and other manufacturing laborers;</p> <p>b) organizing and planning the daily work with regard to plans, economy, staff and environment;</p> <p>c) preparing cost estimates, records and reports;</p> <p>d) identifying shortage of staff or components;</p> <p>e) ensuring safety of workers; and</p> <p>f) instructing and training new staff.</p> <p>Examples of occupations classified here:</p> <p>Area coordinator, manufacturing</p> <p>Assembly supervisor</p> <p>Finishing supervisor</p> <p>Foreman/woman, assembly</p> <p>Production supervisor, manufacturing</p> <p>Lubrication supervisor</p> <p>A related occupation classified elsewhere:</p> <p>Manufacturing manager - 1321</p>	<p>8232 p;</p> <p>8232 p;</p> <p>8240 p;</p> <p>8251 p;</p> <p>8253 p;</p> <p>8261 p;</p> <p>8262 p;</p> <p>8263 p;</p> <p>8264 p;</p> <p>8265 p;</p> <p>8266 p;</p> <p>8269 p;</p> <p>8271 p;</p> <p>8272 p;</p> <p>8273 p;</p> <p>8274 p;</p> <p>8275 p;</p> <p>8276 p</p>	
3123			<p>CONSTRUCTION SUPERVISORS</p> <p>Construction supervisors, coordinate, supervise and schedule the activities of workers engaged in the construction and repair of buildings and structures.</p> <p>Their tasks include:</p> <p>a) reading specifications to determine construction requirements and planning procedures;</p> <p>b) organizing and coordinating the material and human resources required to complete jobs;</p> <p>c) examining and inspecting work progress;</p> <p>d) examining equipment and construction sites to ensure that health and safety requirements are met;</p> <p>e) supervising construction sites and coordinating work with other construction projects; and</p> <p>f) supervising the activities of building trades workers, laborers and other construction workers.</p> <p>Examples of occupations classified here:</p> <p>Building construction supervisor</p> <p>Site manager, construction</p> <p>Some related occupation classified elsewhere:</p> <p>Clerk of works - 3112</p> <p>Construction project manager - 1323</p> <p>Project builder - 1323</p>	<p>1223 p;</p> <p>712 p</p>	3123
313			PROCESS CONTROL TECHNICIANS		

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Process control technicians operate and monitor switchboards, computerized control systems, multi-function process control machinery and maintain processing units in electrical power generation and distribution, wastewater, sewage treatment and waste disposal plants, chemical, petroleum and natural gas refineries in metal processing and other multiple process operations.

Tasks performed usually include: operating electronic or computerized control panel from a central control room to monitor and optimize processes; controlling process start-up and shut-down; operating and monitoring switchboards and related equipment; monitoring and inspecting equipment and systems to detect malfunctions; taking readings from charts, meters and gauges at established intervals; troubleshooting and take corrective action as necessary; maintaining records, logs and reports; communicating with other personnel to assess equipment operating status; cleaning and maintaining equipment; supervising plant and machine operators and other workers.

3131	POWER PRODUCTION PLANT OPERATORS	8161	3131
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Power-production plant operators operate, monitor and maintain switchboards and related equipment in electrical control centers which control the production and distribution of electric or other power in transmission networks. The equipment operated includes reactors, turbines, generators and other auxiliary equipment in electrical power generating stations.

Their tasks include:

- a) operating, monitoring and inspecting various types of energy generating power plants;
- b) operating and controlling power generating systems and equipment including boilers, turbines, generators, condensers, and reactors in hydro, thermal, coal, oil, natural gas, and nuclear power plants to generate and distribute electrical power;
- c) controlling start-up and shut-down of power plant equipment, controlling switching operations, regulating water levels and communicating with systems operators to regulate and coordinate transmission loads, frequency and line voltages;
- d) taking readings from charts, meters and gauges at established intervals, troubleshooting and performing corrective action as necessary;
- e) completing and maintaining station records, logs and reports, and communicating with other plant personnel to assess equipment operating status; and

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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f) cleaning and maintaining equipment such as generators, boilers, turbines, pumps, and compressors in order to prevent equipment failure or deterioration.

Examples of occupations classified here:

- Distribution control operator
- Electric plant operator
- Generating station operator
- Hydroelectric power plant operator
- Nuclear power plant operator
- Power system operator
- Solar power plant operator

A related occupation classified elsewhere:

Steam engine and boiler operators - 8182

3132	INCINERATOR AND WATER TREATMENT PLANT OPERATORS	8163	3132
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Incinerator and water-treatment plant operators monitor and operate computerized control systems and related equipment in solid and liquid waste treatment plants to regulate the treatment and disposal of sewage and wastes, and in water filtration and treatment plants to regulate the treatment and distribution of water.

Their tasks include:

- a) operating and monitoring computerized control systems, machinery and related equipment in wastewater treatment, sewage treatment, and liquid waste plants to regulate flow, treatment and disposal of sewage and wastes, and in water filtration and treatment plants to regulate the treatment and distribution of water for human consumption and for later disposal into natural water systems;
- b) controlling the operation of multiple-hearth incinerator furnaces and related equipment to burn sludge and solid waste in waste treatment plants;
- c) inspecting equipment and monitoring operating conditions, meters, filters, chlorinators, and gauges in central control room to determine load requirements, to verify that flows, pressures, and temperatures are within specification, and to detect malfunctions;
- d) monitoring and adjusting controls of auxiliary equipment, such as exhaust emissions, scrubbers, and incinerator heat recovery units;
- e) collecting and testing water and sewage samples for chemical and bacterial content, using test equipment and color analysis standards;
- f) analyzing test results to make adjustments to plant equipment and systems to disinfect and deodorize water and other liquids;
- g) performing security and safety checks in plant and on grounds; and

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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h) completing and maintaining plant logs and reports.

Examples of occupations classified here:

Incinerator operator
Liquid waste process operator
Pumping-station operator
Sewage plant operator
Waste water operator
Water treatment plant operator
Waterworks technician

3133 CHEMICAL PROCESSING PLANT CONTROLLERS 8152 p; 3133

Chemical processing plant controllers operate and monitor chemical plants and adjust and maintain, processing units and equipment which distil, filter, separate, heat or refine chemicals.

8153 p;
8154 p;
8159 p

Their tasks include:

- a) operating electronic or computerized control panel from a central control room to monitor and optimize physical and chemical processes for several processing units;
- b) adjusting equipment, valves, pumps, controls and process equipment;
- c) controlling the preparation, measuring and feeding of raw materials and processing agents such as catalysts and filtering media into plant;
- d) controlling process start-up and shut-down, troubleshooting and monitoring outside process equipment;
- e) verifying equipment for malfunctions, carrying out routine operating tests and arranging for maintenance; and
- f) analyzing sample products, performing tests, recording data and writing production logs.

Examples of occupations classified here:

Chemical process technician
Chemical-filtering and separating equipment operator
Chemical-still and reactor operator
Chemical-heat-treating-plant operator
Chemical processing plant controllers

Some related occupation classified elsewhere:

Petroleum and natural gas refinery operators - 3134
Chemical products plant and machine operators - 8131

3134 PETROLEUM AND NATURAL GAS REFINING PLANT OPERATORS 8155 3134

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Petroleum and natural gas refining plant operators operate and monitor plants and adjust and maintain processing units and equipment which refine, distil and treat petroleum, petroleum-based products and by-products, or natural gas.

Their tasks include:

- a) operating electronic or computerized control panel from a central control room to monitor and optimize physical and chemical processes for several processing units;
- b) adjusting equipment, valves, pumps, controls and process equipment;
- c) controlling process start-up and shut-down, troubleshooting and monitoring outside process equipment;
- d) verifying equipment for malfunctions, testing well pipes for leaks and fractures and arranging for maintenance; and
- e) analyzing sample products, performing tests, recording data and writing production logs.

Examples of occupations classified here:

- Gas plant operator
- Blender/petroleum and natural gas refining (ethyl) operator
- Paraffin plant operator
- Still/petroleum and natural gas refining operator
- Petroleum process operator
- Refinery process technician

Some related occupation classified elsewhere:

- Chemical processing plant controllers - 3133
- Chemical products plant and machine operators - 8131

3135	METAL PRODUCTION PROCESS CONTROLLERS	8121 p; 8122 p; 8123 p; 8124 p	3135
	<p>Metal production process controllers operate and monitor multi-function process control machinery and equipment to control the processing of metal converting and refining furnaces, metal-rolling mills, metal heat-treating, or metal-extrusion plant.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) coordinating and monitoring the operation of a particular aspect of metal processing production through control panels, computer terminals or other control systems, usually from a central control room; b) operating multi-function central process control machinery to grind, separate, filter, melt, roast, treat, refine or otherwise process metals; c) observing computer printouts, video monitors and gauges to verify specified processing conditions and to make necessary adjustments; 		

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d) coordinating and supervising production crew such as machine and process operators, assistants and helpers;

e) starting up and shutting down the production system in cases of emergency or as required by schedule;

f) providing and organizing training for members of production crew; and

g) maintaining shift log of production and other data and preparing production and other reports.

Examples of occupations classified here:

Blast furnace operator

Casting metal machine operator

Central control caster

Melting/metal, furnace operator

Metal processing control operator

Rolling mill control operator

Some related occupation classified elsewhere:

Ladle pourer - 8121

Metal finishing machine operator - 8122

Steel roller - 8121

3139 PROCESS CONTROL TECHNICIANS NOT ELSEWHERE CLASSIFIED

This unit group covers process control technicians not classified elsewhere in minor group 313 Process control technicians. For instance, the group includes those who operate multiple process control equipment in manufacturing assembly lines and paper and pulp production.

3123 p;
8142 p;
8143 p;
8171 p;
8172 p

3139

Examples of occupations classified here:

Automated assembly line operator

Industrial robot controller

Paper pulp refinery operator

Production operator

314

LIFE SCIENCE TECHNICIANS AND RELATED ASSOCIATE PROFESSIONALS

Life science technicians and related associate professionals perform a variety of technical tasks to support life science professionals with their research, development, management, conservation and protection work, in areas such as biology, botany, zoology, biotechnology and biochemistry, and to agriculture, fisheries and forestry.

Tasks performed usually include: conducting tests, experiments, laboratory analyzes, field research and surveys to collect information using accepted scientific methods; keeping records; assisting in analyzing data and preparing reports; operating and maintaining equipment.

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3141 LIFE SCIENCE TECHNICIANS (excluding medical) 3211 3141

Life science technicians (except medical) provide technical support to life science professionals undertaking research, analysis and testing of living organisms, and development and application of products and processes resulting from research in areas such as natural resource management, environmental protection, plant and animal biology, microbiology, and cell and molecular biology.

Their tasks include:

- a) assisting in designing, setting up and conducting experiments;
- b) setting up, calibrating, operating and maintaining laboratory instruments and equipment;
- c) collecting and preparing specimens and samples, chemical solutions and slides and growing cultures for use in experiments;
- d) performing routine field and laboratory tests;
- e) monitoring experiments to ensure adherence to correct laboratory quality control procedures and health and safety guidelines;
- f) making observations of tests, and analyzing, calculating, recording and reporting test results using appropriate scientific methods;
- g) preserving, classifying and cataloguing specimens and samples;
- h) keeping detailed logs of work performed;
- i) using computers to develop models and analyze data;
- j) using complex and high-powered equipment to perform work;
- k) participating in the research, development and manufacture of products and processes;
- l) ordering and stocking laboratory supplies; and
- m) maintaining relevant databases.

Examples of occupations classified here:

- Bacteriology technician
- Biochemistry technician
- Herbarium technician
- Life science technician
- Pharmacology technician
- Serology technician
- Tissue culture technician
- Zoology technician

Some related occupation classified elsewhere:

- Forensic science technician - 3119
- Medical laboratory technician - 3212
- Pathology laboratory technician - 3212

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Pharmaceutical technician - 3213

3142 AGRICUTURAL TECHNICIANS 3212 p 3142

Agricultural technicians perform tests and experiments, and provide technical and scientific support to agricultural scientists, farmers and farm managers.

Their tasks include:

- a) preparing materials and equipment for experiments, tests and analyses;
- b) collecting and preparing specimens such as soils, plant or animal cells, tissues or parts or animal organs for experiments, tests and analyses;
- c) assisting with and performing experiments, tests and analyses applying methods and techniques such as microscopy, histochemistry, chromatography, electrophoresis and spectroscopy;
- d) identifying pathogenic micro-organisms and insects, parasites, fungi and weeds harmful to crops and livestock, and assisting in devising methods of control;
- e) analyzing produce to set and maintain standards of quality;
- f) conducting or supervising operational programs such as fish hatchery, greenhouse and livestock production programs;
- g) analyzing samples of seeds for quality, purity and germination rating;
- h) collecting data and estimating quantities and costs of materials and labor required for projects; and
- i) organizing maintenance and repairs of research equipment.

Examples of occupations classified here:

- Agricultural products inspector
- Agricultural technician
- Agronomy technician
- Animal technician
- Aquacultural technician
- Biological and feed products inspector
- Dairy technician
- Agricultural extension officer
- Farm demonstrator
- Farm technician
- Fiber technician
- Field crop technical officer
- Fishery technician
- Herd tester
- Horticultural technical officer
- Livestock inspector
- Orchard technician
- Pest control technician

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			Plant propagation technician Poultry technical officer Prawn farm technician Rice farm technician Sugar farm technician Soil technician Some related occupation classified elsewhere: Artificial inseminator - 3240 Veterinary technician - 3240		
3143			FORESTRY TECHNICIANS Forestry technicians perform technical and supervisory functions in support of forestry research and forest management, harvesting, resource conservation and environmental protection. Their tasks include: a) conducting forest inventories, surveys and field measurements following accepted scientific and operational procedures; b) assisting in and performing technical functions in the preparation of forest management and harvest plans using photogrammetric and mapping techniques and computerized information systems; c) assisting in planning and supervision of construction of access routes and forest roads; d) implementing, supervising and performing technical functions in silvicultural operations involving site preparation, planting, and tending of tree crops; e) coordinating activities such as timber scaling, forest fire suppression, disease or insect control or pre-commercial thinning of forest stands; f) supervising and performing technical functions in forest harvesting operations; g) ensuring adherence to regulations and policies concerning environmental protection, resource utilization, fire safety and accident prevention; h) supervising forest tree nursery operations; i) providing technical support to forestry research programs in areas such as tree improvement, seed orchard operations, insect and disease surveys or experimental forestry and forest engineering research; and j) preparing forest cultivation and cutting plans. Examples of occupations classified here: Forestry technician Silviculture technician	3212 p	3143
315			SHIP AND AIRCRAFT CONTROLLERS AND TECHNICIANS		

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Ship and aircraft controllers and technicians, command and navigate ships and aircraft, perform technical functions to ensure safe and efficient movement and operations, and develop electrical, electromechanical, and computerized air control systems.</p> <p>Tasks performed usually include: controlling the operation of mechanical, electrical and electronic equipment on board ship or on aircraft, commanding and navigating ships or aircraft, directing the movements of ships or aircraft and developing electrical, electromechanical, and computerized air control systems.</p>		
		3151	<p>SHIP'S ENGINEER</p> <p>Ships' engineers control and participate in the operation, maintenance and repair of mechanical, electrical and electronic equipment and machinery on board ship, or perform related supporting functions on shore.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) controlling and participating in the operation, maintenance and repair of mechanical, electrical and electronic equipment and machinery on board ship; b) ordering fuel and other engine-room department stores and maintaining record of operations; c) performing technical supervision of the installation, maintenance and repair of ship's machinery and equipment to ensure compliance with specifications and regulations; d) inspecting and conducting maintenance and emergency repairs to engines, machinery and auxiliary equipment; and e) standing engine room watch, monitoring and noting performance of engines, machinery and auxiliary equipment. <p>Examples of occupations classified here:</p> <ul style="list-style-type: none"> Engine cadet Entry and exit vessels processing technician Ship building and repair technician Ship engineer Shipping operations inspector <p>A related occupation classified elsewhere:</p> <ul style="list-style-type: none"> Marine engineer - 2144 	3141	3151
		3152	<p>SHIPS'S DECK OFFICERS AND PILOTS</p> <p>Ships' deck officers and pilots command and navigate ships and similar vessels, and perform related functions on shore.</p>	3142	3152

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Their tasks include:

- a) commanding and navigating ship or similar vessel at sea or on inland waterways;
- b) controlling and participating in deck and bridge-watch activities;
- c) navigating vessels into and out of ports and through channels, straits and other waters where special knowledge is required;
- d) ensuring safe loading and unloading of cargo and observance of safety regulations and procedures by crew and passengers;
- e) performing technical supervision of maintenance and repair of ship to ensure compliance with specifications and regulations;
- f) applying knowledge of principles and practices relating to ship's operation and navigation in order to identify and solve problems arising in the course of their work;
- g) ordering ship's stores and recruiting crew as required and maintaining record of operations; and
- h) transmitting and receiving routine and emergency information with shore stations and other ships.

Examples of occupations classified here:

- Ship's master (inland waterways)
- Captain, ship/sea
- Chief mate
- Deck cadet
- Deck superintendent
- Freight and shipping specialist
- Harbor master
- Launch master
- Launch patron
- Launch service supervisor
- Pilot, ship
- Quartermaster
- Sea ship's master
- Ship wright appraiser
- Shipping operations officer
- Ship's navigating officer
- Skipper, yacht
- Tug man

A related occupation classified elsewhere:

Sailor - 8350

3153	AIRCRAFT PILOTS AND RELATED ASSOCIATE PROFESSIONALS	3143 p; 3300 p	3153
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Aircraft pilots and related associate professionals control the operation of mechanical, electrical and electronic equipment, in order to navigate aircraft for transporting passengers, mail and freight and perform related pre-flight and in-flight tasks.

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Their tasks include:

- a) flying and navigating aircraft in accordance with established control and operating procedures;
- b) preparing and submitting flight plan or examining standard flight plan;
- c) controlling the operation of mechanical, electrical and electronic equipment and ensuring that all instruments and controls work properly;
- d) applying knowledge of principles and practices of flying in order to identify and solve problems arising in the course of their work;
- e) examining maintenance records and conducting inspections to ensure that aircraft are mechanically sound, maintenance has been performed and that all equipment is operational;
- f) signing necessary certificates and maintaining official records of flight; and
- g) obtaining briefings and clearances before flights and maintaining contact with air traffic or flight control during flight.

Examples of occupations classified here:

- Aircraft maintenance officer
- Aircraft pilot
- Aviation group commander
- Co-Pilot
- Fighter pilot
- Flight engineer
- Flight navigator
- Flying instructor

3154 AIR TRAFFIC CONTROLLERS

3144 3154

Air traffic controllers direct aircraft movements in airspace and on the ground, using radio, radar and lighting systems, and provide information relevant to the operation of aircraft.

Their tasks include:

- a) directing and controlling aircraft approaching and leaving airport and their movement on the ground;
- b) directing and controlling aircraft operating in designated airspace sector;
- c) examining and approving flight plans;
- d) informing flight crew and operations staff about weather conditions, operational facilities, flight plans and air traffic;
- e) applying knowledge of principles and practices of air traffic control in order to identify and solve problems arising in the course of their work;
- f) initiating and organizing emergency, search and rescue services and procedures;

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g) directing activities of all aircraft and service vehicles on or near airport runways; and

h) maintaining radio and telephone contact with adjacent control towers, terminal control units and other control centers, and coordinating the movement of aircraft into adjoining areas.

Examples of occupations classified here:

Air navigation system specialist
Air traffic control specialist, station
Air traffic control specialist, tower
Air traffic controller
Air traffic coordinator
Airfield services officer
Airport control operator
Airport operation assistant
Airways communicator
Aviation safety regulation officer
Check flight radio operator
Control tower officer
Control tower radio operator
Flight control tower operator

3155 AIR TRAFFIC SAFETY ELECTRONICS TECHNICIANS

3145 3155

Air traffic safety electronics technicians perform technical tasks concerning the design, installation, management, operation, maintenance and repair of air traffic control and air navigation systems.

Their tasks include:

a) carrying out technical duties related to the development of electronic and computerized air navigation systems and equipment, and testing prototypes;

b) providing technical help in the design and layout of specific interface circuitry of air navigation and aircraft detection tracking systems;

c) preparing and contributing to the preparation of cost estimates and technical and training specifications for air traffic control and safety equipment;

d) providing or assisting with the technical supervision of construction, installation and operation of ground-based air navigation equipment and its maintenance and repair to ensure that standards and specifications are met;

e) applying the knowledge and skills of air traffic safety engineering principles and practices in order to identify and solve problems arising in the course of their work;

f) developing, modifying and debugging system software;

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g) modifying existing ground-based air navigation systems and equipment to adapt them to new air traffic control procedures, in order to improve capability, reliability and integrity, or to facilitate air traffic control procedures and airspace designation;

h) controlling, monitoring and certifying communication navigation and surveillance air traffic management equipment and calibrating the ground-based air navigation system to ensure maximum accuracy and safety of flight, take-off and landing operations; and

i) providing technical training and supervising other workers.

Examples of occupations classified here:

Air traffic safety engineer
Air traffic safety technician
Airfield power technician
Ground signalling technician

Some related occupation classified elsewhere:

Aeromechanic - 7232
Aeronautical engineer - 2144
Aircraft maintenance engineer) avionics - 7421
Avionics technician - 7421
Electronics engineer - 2151

32

HEALTH ASSOCIATE PROFESSIONALS

Health associate professionals perform technical and practical tasks to support diagnosis and treatment of illness, disease, injuries and impairments in humans and animals, and to support implementation of health care, treatment and referrals plans usually established by medical, veterinary, nursing and other health professionals.

Tasks performed by workers in the sub-major group usually include: testing and operating medical imaging equipment and administering radiation therapy; performing clinical tests on specimens of bodily fluids and tissues; preparing medications and other pharmaceutical compounds under the guidance of pharmacists; designing, fitting, servicing and repairing medical and dental devices and appliances; providing nursing and personal care and midwifery support services; using herbal and other therapies based on theories, beliefs and experiences originating in specific cultures.

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MEDICAL AND PHARMACEUTICAL TECHNICIANS

Medical and pharmaceutical technicians perform technical tasks to assist in diagnosis and treatment of illness, disease, injuries and impairments.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Tasks usually include: testing and operating radiographic, ultrasound and other medical imaging equipment; administering radiopharmaceuticals or radiation to patients to detect or treat diseases; performing clinical tests on specimens of bodily fluids and tissues; preparing medications and other pharmaceutical compounds under the guidance of pharmacists; designing, fitting, servicing and repairing medical and dental devices and appliances.

3211	MEDICAL IMAGING AND THERAPEUTIC EQUIPMENT TECHNICIANS	3133	3211
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Medical imaging and therapeutic equipment technicians test and operate radiographic, ultrasound and other medical imaging equipment to produce images of body structures for the diagnosis and treatment of injury, disease and other impairments. They may administer radiation treatments to patients under the supervision of a radiologist or other health professional.

Their tasks include:

- a) operating or overseeing operation of radiologic, ultrasound and magnetic imaging equipment to produce images of the body for diagnostic purposes;
- b) explaining procedures, observing and positioning patients, and using protection devices to ensure safety and comfort during examination, scan, or treatment;
- c) position imaging or treatment equipment, monitoring video displays, and adjusting settings and controls according to technical specifications;
- d) reviewing and evaluating developed x-rays, video tape, or computer generated information to determine if images are satisfactory for diagnostic purposes and recording results of procedures;
- e) monitoring patients' conditions and reactions, reporting abnormal signs to a medical practitioner;
- f) measuring and recording radiation dosage or radiopharmaceuticals received and used for patients, following prescription issued by a medical practitioner;
- g) administering, detecting and mapping radiopharmaceuticals or radiation in patients' bodies, using radioisotope, camera or other equipment for diagnosing and treating diseases; and
- h) recording and disposing of radioactive materials and storing radiopharmaceuticals, following radiation safety procedures.

Examples of occupations classified here:

- Acupressure technician
- C T Scan technologist
- Medical x-ray technician
- Cobalt machine technician

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Diagnostic medical radiographer</p> <p>Dialysis technician</p> <p>ECG Technician</p> <p>Echocardiography technician</p> <p>Electroencephalography technician</p> <p>Electro-cardiograph technician</p> <p>Laser private operator</p> <p>Mammographer</p> <p>Medical radiation technician</p> <p>Medical radiation therapist</p> <p>Medical scanning equipment technician</p> <p>Nuclear medicine technologist</p> <p>Sonographer</p> <p>TV microscopist technician</p> <p>Ultrasound machine technician</p> <p>Radiology technician</p> <p>Some related occupation classified elsewhere:</p> <p>Medical imaging assistant - 5329</p> <p>Medical physicist - 2111</p> <p>Radiation protection expert - 2263</p> <p>Radiologist - 2212</p>		
		3212	<p>MEDICAL AND PATHOLOGY LABORATORY TECHNICIANS</p> <p>Medical and pathology laboratory technicians perform clinical tests on specimens of bodily fluids and tissues in order to obtain information about the health of a patient or cause of death.</p> <p>Their tasks include:</p> <p>a) conducting chemical analysis of body fluids, including blood, urine, and spinal fluid, to determine presence of normal and abnormal components;</p> <p>b) operating, calibrating and maintaining equipment used in quantitative and qualitative analysis, such as spectrophotometers, calorimeters, flame photometers, and computer-controlled analyzers;</p> <p>c) entering data from analysis of laboratory tests and clinical results into records-keeping systems and reporting results to medical practitioners and other health professionals;</p> <p>d) analyzing samples of biological material for chemical content or reaction;</p> <p>e) setting up, cleaning, and maintaining laboratory equipment;</p> <p>f) analyzing laboratory findings to check the accuracy of the results;</p> <p>g) establishing and monitoring programs to ensure the accuracy of laboratory results and developing, standardizing, evaluating, and modifying procedures, techniques and tests used in the analysis of specimens;</p>	3211	3212

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>h) obtaining specimens, cultivating, isolating and identifying micro-organisms for analysis;</p> <p>i) examining cells stained with dye to locate abnormalities; and</p> <p>j) inoculating fertilized eggs, broths, or other bacteriological media with organisms.</p> <p>Examples of occupations classified here:</p> <p>Biological technician Biomedical technician Blood-bank technician Cytology technician Medical laboratory technician Pathology technician</p> <p>Some related occupation classified elsewhere:</p> <p>Forensic science technician - 3119 Pathologist - 2212 Phlebotomist - 5329 Veterinary technician - 3240</p>		
		3213	<p>PHARMACEUTICAL TECHNICIANS AND ASSISTANTS</p> <p>Pharmaceutical technicians and assistants perform a variety of tasks associated with dispensing medicinal products under the guidance of a pharmacist or other health professional.</p> <p>Their tasks include:</p> <p>a) preparing medications and other pharmaceutical compounds under the guidance of a pharmacist or other health professional;</p> <p>b) dispensing medicines and drugs to clients and giving written and oral instructions on their use, as prescribed by medical doctors, veterinarians or other health professionals;</p> <p>c) receiving prescriptions or refill requests from health professionals and verifying that information is complete and accurate according to medical records keeping standards;</p> <p>d) maintaining proper storage and security conditions for drugs;</p> <p>e) filling and labelling containers with prescribed medications;</p> <p>f) assisting clients by answering questions, locating items or referring them to a pharmacist for medication information;</p> <p>g) pricing and filing prescriptions that have been filled and establish and maintaining patient records, including lists of medications taken by individual patients;</p>	3228	3213

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- h) ordering, labelling, and counting stock of medications, chemicals, and supplies, and entering inventory data into records-keeping systems; and
- i) cleaning and preparing equipment and containers used to prepare and dispense medicines and pharmaceutical compounds.

Examples of occupations classified here:

- Pharmaceutical assistant
- Pharmaceutical technician

Some related occupation classified elsewhere:

- Pharmacist - 2262
- Pharmacology technician - 3141
- Pharmacy aide - 5329

3214	MEDICAL AND DENTAL PROSTHETIC TECHNICIANS	7311	3214
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Medical and dental prosthetic technicians design, fit, service and repair medical and dental devices and appliances following prescriptions or instructions established by a health professional. They may service a wide range of support instruments to correct physical medical or dental problems such as neck braces, orthopaedic splints, artificial limbs, hearing aides, arch supports, dentures, and dental crowns and bridges.

Their tasks include:

- a) examining, interviewing, and measuring patients in order to determine their appliance needs, and to identify factors that could affect appliance fit;
- b) conferring with medical and dental practitioners in order to formulate specifications and prescriptions for devices and appliances;
- c) interpreting prescriptions or specifications to determine the type of product or device to be fabricated, and the materials and tools that will be required;
- d) making or receiving casts or impressions of patients' torsos, limbs, mouths or teeth for use as fabrication patterns;
- e) designing and making orthotic and prosthetic devices using materials such as thermoplastic and thermosetting materials, metal alloys and leather, and hand and power tools;
- f) fitting appliances and devices onto patients, testing and evaluating them, and making adjustments for proper fit, function, and comfort;
- g) repairing, modifying, and maintaining medical and dental prosthetic and supportive devices, according to specifications;

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h) bending, forming, and shaping fabric or material so that it conforms to prescribed contours needed to fabricate structural components;

i) fabricating full and partial dentures and constructing mouth guards, crowns, metal clasps, inlays, bridgework and other aids; and

j) instructing patients in the use and care of prosthetic or orthotic devices.

Examples of occupations classified here:

Dental technician

Denturist

Orthotist

Orthotics technician

Prosthetic technician

Prosthetist

A related occupation classified elsewhere:

Dental aide - 5329

322

NURSING AND MIDWIFERY ASSOCIATE PROFESSIONALS

Nursing and midwifery associate professionals provide basic nursing and personal care for people who are physically or mentally ill, disabled or infirm, and others in need of care due to potential risks to health including before, during and after childbirth. They generally work under the supervision of, and in support of implementation of health care, treatment and referrals plans established by, medical, nursing, midwifery and other health professionals.

Tasks performed usually include: providing nursing and personal care, treatment and advice to patients as per care plans as established by health professionals; assisting professional nurses, midwives and medical doctors in administering medication and treatments; cleaning wounds and applying surgical dressings; providing advice to individuals, families and communities on topics related to health, contraception, pregnancy and childbirth; assessing progress during pregnancy and childbirth, providing or assisting in delivery care, and recognizing signs and symptoms requiring referral to a health professional; providing care and support to women and newborns following childbirth.

3221 NURSING ASSOCIATE PROFESSIONALS

2331 p;
3231 p

3221

Nursing associate professionals provide basic nursing and personal care for people in need of such care due to effects of ageing, illness, injury, or other physical or mental impairment. They generally work under the supervision of, and in support of implementation of health care, treatment and referrals plans established by, medical, nursing and other health professionals.

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Their tasks include:

- a) providing nursing and personal care and treatment and health advice to patients as per care plans established by health professionals;
- b) administering medications and other treatments to patients, monitoring patients' condition and responses to treatment, and referring patients and their families to a health professional for specialized care as needed;
- c) cleaning wounds and applying surgical dressings;
- d) updating information on patients' condition and treatments received in records-keeping systems;
- e) assisting in planning and managing the care of individual patients; and
- f) assisting in giving first-aid treatment in emergencies.

Examples of occupations classified here:

- Associate professional nurse
- Assistant nurse
- Auxiliary nurse
- Enrolled nurse
- Practical nurse

Some related occupation classified elsewhere:

- Associate professional midwife - 3222
- Nursing aide (home) - 5322
- Nursing aide (hospital or clinic) - 5321
- Professional midwife - 2222
- Professional nurse - 2221

3222 MIDWIFERY ASSOCIATE PROFESSIONALS

3232 p;
2232 p

3222

Midwifery associate professionals provide basic health care and advice before, during and after pregnancy and childbirth. They implement care, treatment and referral plans usually established by medical, midwifery and other health professionals.

Their tasks include:

- a) providing advice to women, families and communities on health, nutrition, hygiene, exercise, birth and emergency plans, breastfeeding, infant care, family planning and contraception, lifestyle and other topics related to pregnancy and childbirth;
- b) assessing progress during pregnancy and childbirth, and recognizing signs and symptoms requiring referral to a health professional;
- c) providing delivery care, usually only in the absence of identified potential complications, or assisting medical doctors or midwifery professionals with delivery care; and

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>d) providing care and support to women and newborns following childbirth, monitoring their health status, and identifying signs and symptoms requiring referral to a health professional.</p> <p>Examples of occupations classified here:</p> <ul style="list-style-type: none"> Associate professional midwife Assistant midwife Traditional midwife Volunteer midwife <p>Some related occupation classified elsewhere:</p> <ul style="list-style-type: none"> Clinical nurse consultant - 2221 Nurse, professional - 2221 Nursing aide - 5321 Professional midwife - 2222 Midwifery attendant - 5321 		
323	3230		<p>TRADITIONAL AND COMPLEMENTARY MEDICINE ASSOCIATE PROFESSIONALS</p> <p>Traditional and complementary medicine associate professionals prevent, care for and treat human physical and mental illnesses, disorders and injuries using herbal and other therapies based on theories, beliefs and experiences originating in specific cultures.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) examining patients and interviewing them and their families to determine their health status and the nature of physical or mental disorders or illnesses or other ailments; b) recommending and providing care and treatment for illnesses and other ailments using traditional techniques and medicaments, such as physical manipulation and exercises, blood-letting using natural vessels, and preparations using herbs, plants, insects and animal extracts; c) providing care and treatment for physical injuries such as setting and healing fractured and dislocated bones using traditional methods of physical manipulation and herbal therapies; d) advising individuals, families and the community on health, nutrition, hygiene, lifestyle and other issues to maintain or improve health and well-being; and e) referring patients to, and exchanging information with, other health care providers to ensure comprehensive and continuing care. <p>Examples of occupations classified here:</p> <ul style="list-style-type: none"> Drugless treatment healer Bonesetter Faith healer 	3241p	3230

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Healer of indigenous people (e.g. Mansi-bok (Ibaloi); Mansip-ok (Kankana-ey) in Cordilleras)</p> <p>Herbalist</p> <p>Scraping and cupping therapist</p> <p>Village healer</p> <p>Witch doctor</p> <p>Some related occupation classified elsewhere:</p> <p>Acupressure therapist - 3255</p> <p>Acupuncturist - 2230</p> <p>Ayurvedic practitioner - 2230</p> <p>Chinese herbal medicine practitioner - 2230</p> <p>Chiropractor - 3259</p> <p>Homeopath - 2230</p> <p>Hydrotherapist - 3255</p> <p>Naturopath - 2230</p> <p>Osteopath - 3259</p> <p>Traditional midwife - 3222</p>		
324	3240		<p>VETERINARY TECHNICIANS AND ASSISTANTS</p> <p>Veterinary technicians and assistants carry out advisory, diagnostic, preventive and curative veterinary tasks, more limited in scope and complexity than those carried out by veterinarians. They care for animals under treatment and in temporary residence at veterinary facilities and assist veterinarians to perform procedures and operations.</p> <p>Their tasks include:</p> <p>a) advising communities and individuals on the treatment of animals and their diseases and injuries;</p> <p>b) conducting examinations of animals to make diagnoses or refer more difficult cases to veterinarians when needed;</p> <p>c) treating ill or injured animals, especially for common diseases and disorders;</p> <p>d) cleaning and sterilizing examination tables and instruments and preparing materials used in the examination and treatment of animals;</p> <p>e) carrying out technical tasks connected with artificial insemination of animals;</p> <p>f) getting animals ready for examination or treatment and restraining or holding them during treatment;</p> <p>g) assisting veterinarians to administer anaesthetics and oxygen during treatment;</p> <p>h) placing animals in cages for recovery from operations and monitoring their condition;</p> <p>i) producing radiographs, collecting samples, and performing other laboratory tests to assist in diagnosis of animal health problems; and</p> <p>j) performing routine animal dental procedures and assisting veterinarians with animal dentistry.</p>	3223	3240

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Examples of occupations classified here:

Artificial inseminator
Equine evaluator
Veterinary assistant
Veterinary laboratory technician
Veterinary nurse
Veterinary vaccinator

Some related occupation classified elsewhere:

Animal attendant - 5164
Veterinarian - 2250
Veterinary aide - 5164

325

OTHER HEALTH ASSOCIATE PROFESSIONALS

Other health associate professionals perform technical tasks and provide support services in dentistry, medical records administration, community health, the correction of reduced visual acuity, physiotherapy, environmental health, emergency medical treatment and other activities to support and promote human health.

Tasks usually include: providing basic care services for the prevention and treatment of diseases and disorders of the teeth and mouth; advising communities and individuals on hygiene, diet and other preventive measures to reduce potential risks to health; compiling and maintaining patients' medical records to document condition and develop the necessary skills and resources to improve their health status; providing advice and education on sanitation and hygiene to limit the spread of infectious diseases; fitting and dispensing optical lenses; investigate the implementation of rules and regulations relating to environmental and occupational factors that may potentially affect human health; massaging the soft tissues of the body; showing patients to examination rooms and preparing them for examination; attending accidents, emergencies and requests for medical assistance.

3251 DENTAL ASSISTANTS AND THERAPISTS

3222

3251

Dental assistants and therapists provide basic dental care services for the prevention and treatment of diseases and disorders of the teeth and mouth, as per care plans and procedures established by a dentist or other oral health professional.

Their tasks include:

- a) advising communities and individuals on dental hygiene, diet and other preventive measures to reduce potential risks to oral health;
- b) conducting visual and physical examinations of patients' mouths, teeth and related structures to assess oral health status;

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			<p>c) identifying cases of patients with poor oral health or oral disease requiring referral to a dentist or other health professional;</p> <p>d) assisting dentists during complex dental procedures;</p> <p>e) providing fluoride treatments, cleaning and removing deposits from teeth, preparing cavities and placing fillings, administering local anaesthesia, and performing other types of basic or routine clinical dental procedures;</p> <p>f) preparing, cleaning and sterilizing dental instruments, equipment and materials used in the examination and treatment of patients;</p> <p>g) getting patients ready for examination or treatment including explaining procedures and correct positioning;</p> <p>h) taking impressions of the mouth and dental radiographs to support diagnosis and fitting of dental prosthetics.</p> <p>Examples of occupations classified here:</p> <p>Dental associate Dental assistant Dental therapist</p> <p>Some related occupation classified elsewhere:</p> <p>Dentist - 2261 Dental mechanic - 3214 Dental prosthetist - 3214 Dental technician - 3214 Dental aid - 5329</p>		
3252			<p>MEDICAL RECORDS AND HEALTH INFORMATION TECHNICIANS</p> <p>Medical records and health information technicians develop, maintain and implement health records processing, storage and retrieval systems in medical facilities and other health care settings to meet the legal professional, ethical and administrative records-keeping requirements of health services delivery.</p> <p>Their tasks include:</p> <p>a) planning, developing, maintaining and operating a variety of health record indexes and storage and retrieval systems to collect, classify, store and analyze information;</p> <p>b) transcribing, compiling and processing patient medical records, admission and discharge documents, and other medical reports into records-keeping systems to provide data for patient monitoring and referral, epidemiological monitoring, research, billing, cost control and care improvement;</p>	4143	3252

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>c) reviewing records for completeness, accuracy and compliance with regulations;</p> <p>d) translating narrative descriptions and numeric information from medical records and other documents on health services delivery into codes associated with standard classification systems;</p> <p>e) protecting the security of medical records to ensure that confidentiality is maintained and releasing information to authorized persons and agencies in accordance with regulations; and</p> <p>f) supervising clerical and administrative workers involved in the maintenance of medical records.</p> <p>Examples of occupations classified here:</p> <p>Clinical coder</p> <p>Disease registry technician</p> <p>Health information clerk</p> <p>Medical records analyst</p> <p>Medical records clerk</p> <p>Medical records unit supervisor</p> <p>Medical records technician</p> <p>Some related occupation classified elsewhere:</p> <p>Data entry clerk - 4132</p> <p>Filing clerk - 4132</p> <p>Medical secretary - 3344</p>		
3253			<p>COMMUNITY HEALTH WORKERS</p> <p>Community health workers provide health education, referral and follow up, case management, and basic preventive health care and home visiting services to specific communities. They provide support and assistance to individuals and families in navigating the health and social services system.</p> <p>Their tasks include:</p> <p>a) providing information to families and communities on a range of health issues including nutrition, hygiene, infant and child care, immunizations, family planning, risk factors and prevention of common infectious diseases, poisoning prevention, first aid for treatment of simple and common ailments, substance abuse, domestic violence, and other topics;</p> <p>b) visiting families in their homes to provide information on the health, social and other services available and support them in gaining access to these services;</p> <p>c) visiting families who do not usually access medical establishments to monitor on a regular basis certain conditions, such as progress with pregnancy, child growth and development, and environmental sanitation;</p>	3221 p	3253

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d) distributing to households medical supplies for the prevention and treatment of endemic diseases such as malaria, pneumonia and diarrhoea diseases, and instructing family and community members in the use of these products;

e) conducting outreach efforts to groups who do not usually access medical establishments with information and basic medical supplies for prevention and management of certain health conditions for which they are most at risk, such as HIV/AIDS and other communicable diseases; and

f) collecting data from households and communities who do not usually access medical establishments for purposes of patient monitoring and referral and reporting to meet health regulations.

Examples of occupations classified here:

Community health aide
Community health promoter
Community health worker
Village health worker

Some related occupation classified elsewhere:

Village healer - 3230
Traditional midwife - 3222
Home care aide - 5322

3254	DISPENSING OPTICIANS	2226 p	3254
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Dispensing opticians design, fit and dispense optical lenses based on a prescription from an ophthalmologist or optometrist for the correction of reduced visual acuity. They service corrective eyeglasses, contact lenses, low-vision aids and other optical devices.

Their tasks include:

a) examining and taking facial and eye measurements of clients for fitting of eyeglasses and other optical devices;

b) providing advice to clients with selection and maintenance of eyeglasses and frames, types of contact lenses and other optical devices for performance, safety, comfort and lifestyle;

c) interpreting optical prescriptions and preparing work order for optical laboratory for grinding and mounting of lenses in frames, preparation of contact lenses and other required work; and

d) verifying exactness of finished optical appliances and devices to the original prescription and fit of clients.

Examples of occupations classified here:

Contact lens optician
Dispensing optician

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Some related occupation classified elsewhere:

Ophthalmologist - 2212
Ophthalmic optician - 2267
Optometrist - 2267
Orthoptist - 2267

3255	PHYSIOTHERAPY TECHNICIANS AND ASSISTANTS	2228 p	3255
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Physiotherapy technicians and assistants provide physical therapeutic treatments to patients in circumstances where functional movement is threatened by injury, disease or impairment. Therapies are usually provided as per rehabilitative plans established by a physiotherapist or other health professional.

Their tasks include:

- a) administering manual treatments such as massage therapy or pressure point therapy;
- b) administering electrical modality treatments, ultrasound, and other physical therapies using specialized techniques and equipment, including infra-red lamps, wet compresses, and herbal and mineral therapies;
- c) instructing, motivating, safeguarding and assisting patients as they practice physical exercises, relaxation techniques and functional activities;
- d) conferring with physiotherapists or other health care providers to evaluate patient information for planning, modifying, and coordinating treatment;
- e) monitoring and recording patients' progress during treatments, including measuring their range-of-joint motion and vital signs; and
- f) fitting patients for orthopedic braces, prostheses, and other physical supportive devices such as crutches, and instructing patients in the use of such devices.

Examples of occupations classified here:

Acupressure therapist
Electrotherapist
Hydrotherapist
Massage therapist
Orthopedic technician
Physical rehabilitation technician
Physiotherapy assistant
Physiotherapy technician
Reflexologist
Shiatsu therapist

Some related occupation classified elsewhere:

Physiotherapist - 2264
Chiropractor - 3259
Occupational therapist - 2269

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Podiatrist - 2269

3256 MEDICAL ASSISTANTS 3221 p 3256

Medical assistants perform basic clinical and administrative tasks to support patient care under the direct supervision of a medical practitioner or other health professional.

Their tasks include:

- a) interviewing patients and their families to obtain information on their health status and medical history;
- b) assisting medical doctors and other health professionals to examine and treat patients, including measuring and recording vital signs, administering medications, and performing routine clinical procedures such as giving injections and removing sutures ;
- c) getting patients ready for examination and treatment, including explaining procedures and showing them to examination rooms;
- d) preparing and handling medical instruments and supplies, including sterilizing instruments and disposing of contaminated supplies in accordance with safety procedures;
- e) collecting blood, tissue or other specimens, and preparing them for laboratory testing;
- f) providing information to patients and families on health care topics including medications prescribed by a medical doctor or other health professional;
- g) providing prescription and drug refill information to pharmacies;
- h) maintaining cleanliness of patient waiting and examination rooms;
- i) recording information on patients' medical history, diagnostic testing and treatment procedures and results, and other information in medical records-keeping systems; and
- j) scheduling appointments with patients, and preparing documentation required for billing, reporting and insurance purposes.

Examples of occupations classified here:

- Clinical assistant
- Medical assistant
- Ophthalmic assistant

Some related occupation classified elsewhere:

- Clinical officer (paramedical) - 2240
- Dental assistant - 3251
- Medical imaging assistant - 5329
- Medical prosthetic technician - 3214
- Medical secretary - 3344
- Physiotherapy assistant - 3255

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3257	ENVIRONMENTAL AND OCCUPATIONAL HEALTH INSPECTORS AND ASSOCIATES	3152 p	3257
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Environmental and occupational health inspectors and associates investigate the implementation of rules and regulations relating to environmental factors that may affect human health, safety in the workplace, and safety of processes for the production of goods and services. They may implement and evaluate programs to restore or improve safety and sanitary conditions under the supervision of a health professional.

Their tasks include:

- a) advising employers' and workers' representatives on the implementation of government and other rules and regulations concerning occupational safety and the working environment;
- b) inspecting places of work to ensure that the working environment, machinery and equipment conform to government and other rules, regulations and standards related to sanitation and/or occupational and environmental health and safety;
- c) giving advice on environmental sanitary problems and techniques;
- d) inspecting places of work and, by interviews, observations and other means, obtaining information about work practices and accidents to determine compliance with safety rules and regulations;
- e) inspecting areas of production, processing, transport, handling, storage and sale of products to ensure conformity with government and other rules, regulations and standards;
- f) advising enterprises and the general public on the implementation of government and other rules and regulations concerning hygiene, sanitation, purity and grading of primary products, food, drugs, cosmetics and similar goods;
- g) inspecting establishments to ensure that they conform to government and other rules and regulations concerning emission of pollutants and disposal of dangerous wastes;
- h) initiating action to maintain or improve hygiene and prevent pollution of water, air, food or soil;
- i) promoting preventive and corrective measures such as control of disease carrying organisms and of harmful substances in the air, hygienic food handling, proper disposal of waste and cleaning of public places; and
- j) estimating quantities and costs of materials and labor required for health, safety and sanitation remediation projects;

Examples of occupations classified here:

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Environmental sanitation inspector
 Food sanitation and safety inspector
 Health inspector
 Occupational health and safety inspector
 Pollution inspector
 Pollution control aide
 Pollution control officer
 Production inspector
 Quality assurance/control inspector
 Sanitarian
 Sanitary inspector
 Vehicles/pollution inspector
 Zoning inspector

Some related occupation classified elsewhere:

Environmental health officer - 2263
 Occupational health and safety adviser - 2263
 Occupational hygienist - 2263
 Radiation protection expert - 2263

3258 AMBULANCE WORKERS

5132 p

3258

Ambulance workers provide emergency health care to patients who are injured, sick, infirm, or otherwise physically or mentally impaired prior to and during transport to medical facilities.

Their tasks include:

- a) assessing health status of persons involved in accidents, natural disasters and other emergency situations, and determining needs for immediate and specialized medical assistance;
- b) performing medical procedures and administering drugs and other therapies according to protocol for emergency medical treatment, including resuscitating and defibrillating patients and operating life-support equipment;
- c) monitoring changes in health status of patients during transport to and from medical, rehabilitation and other health care facilities;
- d) providing information and training to community groups and essential service workers in first aid for initial care of an illness or injury;
- e) attending and/or patrolling large-scale public gatherings and other events where health emergencies are more likely to occur; and
- f) recording information on patients' conditions and treatments provided in medical records-keeping systems.

Examples of occupations classified here:

Ambulance officer
 Ambulance paramedic
 Emergency medical technician
 Emergency paramedic

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Some related occupation classified elsewhere:

Ambulance driver - 8322

Paramedical practitioner - 2240

3259	HEALTH ASSOCIATE PROFESSIONALS NOT ELSEWHERE CLASSIFIED	3229 p; 2228 p	3259
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This unit group covers health associate professionals not classified elsewhere in Sub-major group 32, Health associate professionals. For instance the group includes occupations such as chiropractor, osteopath and other health associate professionals.

Their tasks include:

a) interviewing and examining patients to obtain information on their health status and the nature and extent of injury, illness or other physical or mental health problem;

b) administering therapeutic care and treatment to patients, including the manual and physical chiropractic and osteopathic techniques;

c) monitoring patients' progress through treatment plans, and identifying signs and symptoms requiring referral to a medical doctor or other health professional;

d) recording information on patients' health status and responses to treatment in medical records-keeping systems; and

e) sharing information with other health care providers when required to ensure continuing and comprehensive care.

Examples of occupations classified here:

Accupuncture technician

Artificial limb and brace maker

Chiropractor

Occupational therapy technician

Osteopath

33

BUSINESS AND ADMINISTRATION ASSOCIATE PROFESSIONALS

Business and administration associate professionals perform mostly technical tasks connected with the practical application of knowledge relating to financial accounting and transaction matters, mathematical calculations, human resource development, selling and buying financial instruments, specialized secretarial tasks, and enforcing or applying relevant government rules. Also included are workers who provide business services such as customs clearance, conference planning, job placements, buying and selling real estate or bulk commodities, and serving as agents for performers such as athletes and artists.

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Tasks performed by workers in this sub-major group usually include recording and transmitting buy and sell orders for securities, stocks, bonds or other financial instruments and for foreign exchange for future or immediate delivery; submitting credit and loan applications to management with recommendations for approval or rejection; approving or rejecting applications within authorized limits ensuring that credit standards of the institution are respected; maintaining complete records of all financial transactions of an undertaking according to general bookkeeping principles, with guidance from Accountants; assisting in planning and performing mathematical, statistical, actuarial, accounting and related calculations; selling and buying financial instruments.

331

FINANCIAL AND MATHEMATICAL ASSOCIATE PROFESSIONALS

Financial and mathematical associate professionals place a value on various items and property, maintain records of financial transactions, analyze loan application information and render a decision, buy and sell financial instruments, and perform mathematical and related calculations.

Recording and transmitting buy and sell orders for securities, stocks, bonds or other financial instruments and for foreign exchange for future or immediate delivery; submitting credit and loan applications to management with recommendations for approval or rejection; or approve or reject applications within authorized limits ensuring that credit standards of the institution are respected; maintaining complete records of all financial transactions of an undertaking according to general bookkeeping principles, with guidance from Accountants; assisting in planning and performing mathematical, statistical, actuarial, accounting and related calculations.

3311 SECURITIES AND FINANCE DEALERS AND BROKERS

3411

3311

Securities and finance dealers and brokers buy and sell securities, stocks, bonds and other financial instruments, and deal on the foreign exchange, on spot, or on futures markets, on behalf of their own company or for customers on a commission basis. They recommend transactions to clients or senior management.

Their tasks include:

a) obtaining information about the financial circumstances of customers and companies in which investments may be made;

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- b) analyzing market trends for securities, bonds, stocks and other financial instruments, including foreign exchange;
- c) informing prospective customers about market conditions and prospects;
- d) advising on and participating in the negotiation of terms for, and organization of, loans and placement of stocks and bonds in the financial market to raise capital for customers; and
- e) recording and transmitting buy and sell orders for securities, stocks, bonds or other financial instruments and for foreign exchange for future or immediate delivery.

Examples of occupations classified here:

- Finance broker
- Finance dealer
- Foreign exchange broker
- Foreign exchange dealer
- Securities broker
- Securities custodian
- Securities dealer
- Securities operations/currency assistant
- Securities salesman
- Stocks and shares broker
- Securities and settlement officer

A related occupation classified elsewhere:

- Bond analyst - 2413
- Commodities broker - 3324
- Commodity futures dealer - 3324
- Securities clerk - 4312

3312 CREDIT AND LOANS OFFICERS

3419 p

3312

Credit and loan officers analyze and evaluate financial information on applications for credit and loans and determine approval or disapproval of the client for the credit or loan or recommend to management approval or disapproval.

Their tasks include:

- a) interviewing applicants for personal, mortgage, student and business loans;
- b) researching and evaluating loan applicant's financial status, references, credit and ability to repay the loan;
- c) submitting credit and loan applications to management with recommendations for approval or rejection;
- d) approving or rejecting loan applications within authorized limits ensuring that credit standards of the institution are respected;
- e) keeping records of payments, and preparing routine letters requesting payment for overdue accounts and forwarding these for legal action; and

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f) completing credit and loan documentation.

Examples of occupations classified here:

Credit analyst
Credit branch operation officer
Export credit guarantee specialist
Letters of credit analyst
Loan officer
Mortgage officer
Credit investigator/appraiser

A related occupation classified elsewhere:

Financial institution branch manager - 1346

3313 ACCOUNTING ASSOCIATE PROFESSIONALS 3433 p 3313

Accounting associate professionals maintain complete records of financial transactions of an undertaking and verify accuracy of documents and records relating to such transactions.

Their tasks include:

- a) maintaining complete records of all financial transactions of an undertaking according to general bookkeeping principles, with guidance from Accountants;
- b) verifying accuracy of documents and records relating to payments, receipts and other financial transactions;
- c) preparing financial statements and reports for specified periods;
- d) applying knowledge of bookkeeping principles and practices in order to identify and solve problems arising in the course of their work;
- e) using standard computer software packages to perform accounting and related calculations; and
- f) supervising the work of accounts and bookkeeping clerks.

Examples of occupations classified here:

Accounting assistant
Accounting associate
Accounting officer
Accounts payable associate
Accounts specialist
Associate accountant
Associate auditor
Audit assistant
Audit examiner
Bookkeeper
Bank reconciliation assistant

A related occupation classified elsewhere:

Accountant - 2411
Actuarial assistant - 3314

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Bookkeeping clerk - 4311

3314 STATISTICAL, MATHEMATICAL AND RELATED ASSOCIATE PROFESSIONALS 3434 3314

Statistical, mathematical and actuarial associate professionals assist in planning the collection, processing and presentation of statistical, mathematical or actuarial data and in carrying out these operations, usually working under the guidance of statisticians, mathematicians and actuaries.

Their tasks include:

- a) assisting in planning and performing statistical, mathematical, actuarial, and related calculations;
- b) preparing detailed estimates of quantities and costs of materials and labor required for statistical census and survey operations;
- c) performing technical tasks connected with establishing, maintaining and using registers and sampling frames for census and survey operations;
- d) performing technical tasks connected with data collection and quality control operations in censuses and surveys;
- e) using standard computer software packages to perform mathematical, actuarial, statistical, accounting and related calculations;
- f) preparing statistical, mathematical, actuarial, accounting and other results for presentation in graphical or tabular form;
- g) applying knowledge of statistical, mathematical, actuarial, accounting and related principles and practices in order to identify and solve problems arising in the course of their work; and
- h) supervising the work of statistical clerks.

Examples of occupations classified here:

Actuarial assistant
Mathematical assistant/aide
Statistical assistant/aide

Some related occupation classified elsewhere:

Accounting assistant - 3313
Actuary - 2120
Mathematician - 2121
Statistical clerk - 4312
Statistician - 2122

3315 VALUERS AND LOSS ASSESSORS 3417 3315

Valuers and loss assessors value property and various goods and assess losses covered by insurance policies.

Their tasks include:

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- a) determining the quality or value of raw materials, real estate, industrial equipment, personal and household effects, works of art, gems and other objects;
- b) assessing the extent of damage or loss and liabilities of insurance companies and underwriters for losses covered by insurance policies;
- c) obtaining records of sales and value of similar items or property;
- d) inspecting items or property to evaluate condition, size, and construction; and
- e) preparing reports of value, outlining the estimation factors and methods used.

Examples of occupations classified here:

- Appraiser
- Claims assessor
- Claims evaluator
- Claims inspector
- Claims verifier
- Insurance assessor
- Real estate appraiser
- Valuer

A related occupation classified elsewhere:

Auctioneer - 3339

332

SALES AND PURCHASING AGENTS AND BROKERS

Sales and purchasing agents and brokers represent companies, governments and other organizations to buy and sell commodities, goods, insurance, shipping and other services to industrial, professional, commercial or other establishments, or act as independent agents to bring together buyers and sellers of commodities and services.

Tasks performed usually include obtaining information about, monitoring and analyzing market trends and conditions and employer's and competitors goods and services; obtaining information about clients' needs and identifying suitable products and services; explaining and demonstrating products and services to clients; negotiating prices, contracts, terms, conditions and shipping arrangements for purchase or sale of goods, services or commodities.

3321 INSURANCE REPRESENTATIVES

3412

3321

Insurance representatives advise on and sell life, accident, automobile, liability, endowment, fire, marine and other types of insurance to new and established clients.

Their tasks include:

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- a) obtaining information about customers' circumstances necessary to determine appropriate type of insurance and conditions;
- b) negotiating with customers to determine type and degree of risk for which insurance is required;
- c) explaining details of insurance and conditions, risk coverage premiums and benefits to customers;
- d) assisting clients to determine the type and level of coverage required, calculating premiums and establishing method of payment;
- e) negotiating and placing reinsurance contracts; and
- f) advising on, negotiating terms for and placing insurance contracts for large or special types of projects, installations or risks.

Examples of occupations classified here:

Assistant underwriter
Export credit insurance underwriting officer
Insurance agent
Insurance adjuster
Insurance adviser
Insurance broker
Insurance examiner
Insurance processor
Insurance underwriter
Insurance/risk officer
Medical underwriter
Underwriting and claims head

Some related occupation classified elsewhere:

Insurance agency manager - 1346
Insurance assessor - 3315
Insurance clerk - 4312

3322 COMMERCIAL SALES REPRESENTATIVES

3415

3322

Commercial sales representatives represent companies to sell various goods and services to businesses and other organizations and provide product specific information as required.

Their tasks include:

- a) soliciting orders and selling goods to retail, industrial, wholesale and other establishments;
- b) selling equipment, supplies and related services to business establishments or individuals;
- c) obtaining and updating knowledge of market conditions and of employer's and competitors' goods and services;
- d) providing prospective customers with information about the characteristics and functions of the products and equipment for sale, and demonstrating its use or qualities;

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- e) reporting customers' reactions and requirements to suppliers and manufacturers; and
- f) following up clients to ensure satisfaction with products purchased.

Examples of occupations classified here:

After-sale service adviser
Canvasser
Commercial traveller
Dealer
Executive sales agent
Franchise relation officer
Manufacturer's agent
Marketing assistant
Merchandiser
Promotions and events marketing officer
Sales analyst
Sales and marketing assistant
Sales consultant
Sales supervisor
Technical and commercial representative
Technical service adviser
Tender and pricing analyst

Some related occupation classified elsewhere:

Door to door sales representative - 5243
Information and communications technology sales professional - 2434
Medical sale representative - 2433
Sales manager - 1221
Shop sale assistant - 5223
Technical sales representative - 2433

3323 BUYERS 3416 3323

Buyers buy goods and services for use or resale on behalf of industrial, commercial, government or other establishments and organizations.

Their tasks include:

- a) determining or negotiating contract terms and conditions, awarding supplier contracts or recommending contract awards for the purchase of equipment, raw materials products, services and the purchasing of merchandise for resale;
- b) obtaining information about requirements and stock and developing specifications for quantity and quality to be purchased, costs, delivery dates and other contract conditions;
- c) purchasing general and specialized equipment, materials or business services for use or for further processing by their establishment;
- d) inviting tenders, consulting with suppliers and reviewing quotations;

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- e) purchasing merchandise for resale by retail or wholesale establishments;
- f) studying market reports, trade periodicals and sales promotion materials and visiting trade shows, showrooms, factories and product design events;
- g) interviewing suppliers and negotiating prices, discounts, credit terms and transportation arrangements;
- h) overseeing distribution of merchandise to outlets and maintaining adequate stock levels; and
- i) establishing delivery schedules, monitoring progress and contacting clients and suppliers to resolve problems.

Examples of occupations classified here:

- Buyer
- Procurement officer
- Purchaser
- Purchasing agent
- Purchasing merchandiser
- Retail trade buyer

A related occupation classified elsewhere:

Commodities broker - 3324

3324	TRADE BROKERS	3421	3324
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Trade brokers buy and sell commodities and shipping services, usually in bulk, on behalf of their own company or for customers on a commission basis.

Their tasks include:

- a) establishing contact between buyers and sellers of commodities;
- b) discussing buying or selling requirements of clients and giving advice accordingly;
- c) buying and selling cargo space on ships;
- d) negotiating purchase or sale of commodities and commodity futures;
- e) finding cargo and/or storage space for commodities and negotiating freight, shipping and storage charges; and
- f) monitoring and analyzing market trends and other factors affecting the supply and demand for commodities and shipping services.

Examples of occupations classified here:

- Broker assistant
- Commodities broker
- Commodity futures dealer
- Shipping broker
- Trade broker

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Some related occupation classified elsewhere:

Finance broker - 3311

Finance dealer - 3311

Insurance dealer - 3321

Securities broker - 3311

Securities dealer - 3311

333

BUSINESS SERVICE AGENTS

Business service agents establish contacts to sell various business services such as advertising space in the media, carry out customs clearance activities ensuring that necessary documents are in order, match jobseekers with vacancies, find workers for employers, arrange contracts for the performance of athletes, entertainers and artists, as well as for the publication of books, the production of plays, or the recording, performing and sale of music, plan and organize conferences and similar events.

Tasks performed usually include: Carrying out customs clearing procedures for exports or imports; arranging and coordinating conference and event services, such as conference facilities, catering, signage, displays, audiovisual and computer equipment, accommodation, transport and social events, for participants; matching jobseekers with vacancies; finding workers for vacant posts for employers; showing real estate properties to be sold or leased to prospective buyers or tenants and explaining terms of sale or conditions of rent or lease; selling by auction various kinds of property, cars, commodities, livestock, art, jewellery and other objects; arranging contracts for performers and performances.

3331 CLEARING AND FORWARDING AGENTS

3422

Clearing and forwarding agents carry out customs clearing procedures and ensure that insurance, export/import licenses and other formalities are in order.

Their tasks include:

- a) carrying out customs clearing procedures for exports or imports;
- b) ensuring that insurance is in order;
- c) ensuring that export/import licenses and other formalities are in order;
- d) signing and issuing bills of lading; and
- e) checking import/export documentation to determine cargo contents, and classifying goods into different fee or tariff groups, using a tariff coding system.

Examples of occupations classified here:

Clearing agent

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Forwarding agent
Logistics and warehouse officer
Shipping agent
Processor
Declarant

3332 CONFERENCE AND EVENT PLANNERS

3414 p;
3439 p

Conference and event planners organize and coordinate services for conferences, events, functions, banquets and seminars.

Their tasks include:

- a) promoting conferences, conventions and trade shows to potential customers;
- b) responding to inquiries concerning services provided and costs for room and equipment hire, catering and related services;
- c) meeting with clients to discuss their needs and outlining package options to meet these needs;
- d) arranging and coordinating services, such as, conference facilities, catering, signage, displays, audiovisual and computer equipment, accommodation, transport and social events, for participants, logistical arrangements for presenters;
- e) organizing registration of participants;
- f) negotiating the type and costs of services to be provided within budget; and
- g) overseeing work by contractors and reporting on variations to work orders.

Examples of occupations classified here:

Conference and event planner
Conference planner
Wedding planner

3333 EMPLOYMENT AGENTS AND CONTRACTORS

3423

Employment agents and contractors match jobseekers with vacancies, find workers for employers and contract labor for particular projects at the request of enterprises and other organizations including government, institutions, or find places for jobseekers for a commission.

Their tasks include:

- a) matching jobseekers with vacancies;
- b) finding workers for vacant posts against a commission from the employer or worker;
- c) discussing with enterprises/organizations the needed skills and other characteristics of the workers to be employed or contracted;

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- d) finding workers with appropriate skills, etc., and undertaking the necessary formalities according to national or international regulations and requirements;
- e) ensuring that the employment contracts meet legal requirements and signing them; and
- f) advising on training schemes.

Examples of occupations classified here:

- Employment agent
- Job placement officer
- Labor contractor
- Recruitment officer
- Worker welfare assistant

Some related occupation classified elsewhere:

- Literacy agent - 3339
- Musical performance agent - 3339
- Sports agent -3339
- Theatrical agent - 3339

3334	REAL ESTATE AGENTS AND PROPERTY MANAGERS	3413	3334
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Real estate agents and property managers arrange the sale, purchase, rental and lease of real property, usually on behalf of clients and on a commission basis.

Their tasks include:

- a) obtaining information about properties to be sold or leased, the circumstances of their owner and the needs of prospective buyers or tenants;
- b) showing properties to be sold or leased to prospective buyers or tenants and explaining terms of sale or conditions of rent or lease;
- c) facilitating negotiations with tenants and owners on rents and fees;
- d) drawing up leasing and sale agreements and estimating costs;
- e) arranging signing of lease agreements and transfer of property rights;
- f) collecting rent and bond monies on behalf of owner and inspecting properties before, during and after tenancies; and
- g) ensuring the availability of workers to perform maintenance of the properties.

Examples of occupations classified here:

- Estate agent
- Estate management officer
- Housing and home site regulation officer
- Property custodian
- Property manager
- Real estate broker

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Real property appraiser Realtor Resettlement and development officer Salesperson (real estate)</p> <p>A related occupation classified elsewhere: Mortgage clerk - 4312</p>		
		3339	<p>BUSINESS SERVICES AGENTS NOT ELSEWHERE CLASSIFIED</p> <p>This unit group covers business services agents not classified elsewhere in Minor group 333, Business services agents. For instance, the group includes those who establish business contacts, sell business services such as advertising space in the media, arrange contracts for performances of athletes, entertainers and artists, for the publication of books, the production of plays, or the recording, performance and sale of music and who sell property and goods by auction.</p> <p>Their tasks include:</p> <p>a) obtaining information about services to be sold and needs of prospective buyers;</p> <p>b) negotiating contracts on behalf of seller or buyer and explaining terms of sale and payment to client;</p> <p>c) signing agreements on behalf of seller or buyer and ensuring that contract is honored;</p> <p>d) making sure that the business service purchased is made available to the buyer in the agreed format at the agreed time; and</p> <p>e) selling by auction various kinds of property, cars, commodities, livestock, art, jewellery and other objects.</p> <p>Examples of occupations classified here:</p> <p>Advertising salesperson Auctioneer Business services salesman Literary agent Marketing agent Musical performance agent Sports agent Theatrical agent</p>	2419 p; 3414 p; 3417p; 3429 p	3339
		334	<p>ADMINISTRATIVE AND SPECIALIZED SECRETARIES</p> <p>Administrative and specialized secretaries provide organizational, communication and documentation support services, utilizing specialized knowledge of the business activity of the organization in which they are employed. They take supervisory responsibility for office clerks in the organization.</p>		

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			Tasks performed usually include: coordinating, assigning and reviewing the work of clerical support workers; desktop publishing; preparing and processing legal documents and papers, such as deeds, wills, affidavits and briefs; implementing and supporting the communication, documentation and internal managerial coordination activities of an organizational unit, on some occasions utilizing specialized knowledge of the business activity of the organization; scheduling and confirming meetings and appointments and communicating messages for clients; compiling, recording and reviewing legal and medical records, reports, documents and correspondence.		
3341			<p>OFFICE SUPERVISORS</p> <p>Office supervisors supervise and coordinate the activities of workers in major group 4, Clerical support workers.</p> <p>Their tasks include:</p> <p>a) coordinating, assigning and reviewing the work of clerks engaged in the following duties: word processing, record keeping and filing, operating telephones and switchboards; data entry, desktop publishing and other activities involving general office and administrative skills;</p> <p>b) establishing work schedules and procedures and co-ordinating activities with other work units or departments;</p> <p>c) resolving work-related problems and preparing and submitting progress and other reports;</p> <p>d) training and instructing employees in job duties, safety procedures and company policies, or arranging for training to be provided;</p> <p>e) evaluating employees' job performance and conformance to regulations, and recommending appropriate personnel action; and</p> <p>f) assisting in recruitment, interviewing, and selection of employees.</p> <p>Examples of occupations classified here:</p> <p>Administrative supervisor Clerical supervisor Data entry supervisor Filing clerks supervisor Human resource supervisor Personnel clerks supervisor</p> <p>A related occupation classified elsewhere:</p> <p>Medical records unit supervisor - 3252</p>	<p>3431 p; 4111 p; 4112 p; 4114 p; 4115 p; 4121 p; 4122 p; 4131 p; 4132 p; 4133 p; 4141 p; 4142 p; 4143 p; 4144 p; 4190 p; 4220 p; 4222p</p>	3341
3342			LEGAL SECRETARIES	<p>3431 p; 4115 p</p>	3342

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Legal secretaries apply specialized knowledge of legal terminology and procedures in providing support to legal professionals with communication, documentation and internal managerial coordination activities, in law offices, legal departments of large firms and governments.

Their tasks include:

- a) preparing and processing legal documents and papers, such as deeds, wills, affidavits and briefs;
- b) reviewing and proofreading documents and correspondence to ensure compliance with legal procedures;
- c) mailing, faxing, or arranging for delivery of legal correspondence to clients, witnesses, and court officials;
- d) organizing and maintaining documents, case files and law libraries;
- e) screening requests for meetings, scheduling and organizing meetings;
- f) assisting in the preparation of budgets, monitoring of expenditures, drafting of contracts and purchasing or acquisition orders; and
- g) supervising the work of office support workers.

Examples of occupations classified here:

Legal secretary
Legal practice manager

A related occupation classified elsewhere:

Legal assistant, 3411

3343 ADMINISTRATIVE AND EXECUTIVE SECRETARIES 3431 p;
3439 p

Administrative and executive secretaries perform liaison, coordination and organizational tasks in support of managers and professionals and/or prepare correspondence, reports and records of proceedings and other specialized documentation.

Their tasks include:

- a) drafting administrative correspondence and minutes;
- b) obtaining, proposing and monitoring deadlines and follow-up dates;
- c) screening requests for meetings, scheduling and organizing meetings and travel arrangements;
- d) assisting in the preparation of budgets, monitoring of expenditures, drafting of contracts and purchasing or acquisition orders;
- e) liaising with other staff about a range of matters relating to the organization's operations;

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- f) writing and answering business or technical letters and other similar correspondence;
- g) preparing verbatim reports of proceedings in legislative assemblies, courts of law or other places using shorthand or specialized office equipment;
- h) supervising the work of clerical support workers.

Examples of occupations classified here:

- Administrative secretary
- Assistant correspondence
- Board secretary
- Civil secretary
- Confidential secretary
- Corporate secretary
- Court reporter
- Executive assistant
- General secretary
- Legislative committee secretary
- Minutes agenda officer
- Personal assistant
- Presidential staff officer
- Private secretary
- Verbatim reporter

Some related occupation classified elsewhere:

- Secretary (general) - 4120
- Medical transcriptionist - 3344

3344 MEDICAL SECRETARIES

3431p;
4115 p

Medical secretaries, using specialized knowledge of medical terminology and health care delivery procedures, assist health professionals and other workers by performing a variety of communication, documentation, administrative and internal coordination functions, to support health workers in medical facilities and other health-care related organizations.

Their tasks include:

- a) scheduling and confirming medical appointments and communicating messages for medical staff; and patients;
- b) compiling, recording and reviewing medical charts, reports, documents and correspondence;
- c) interviewing patients to complete forms, documents and case histories;
- d) completing insurance and other claims forms;
- e) maintaining medical files and records and technical library;
- f) preparing financial statements and billing procedures;

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- g) assisting in the preparation of budgets, drafting of contracts and purchasing or acquisition orders; and
h) supervising the work of office support workers and other office staff.

Examples of occupations classified here:

Billing secretary
Hospital ward secretary
Medical insurance
Medical office administrative assistant
Medical practice manager
Medical relation assistant
Medical secretary
Medical stenographer
Medical transcriptionist
Pathology secretary
Patient care secretary

Some related occupation classified elsewhere:

Medical assistant - 3256
Medical office receptionist - 4226
Medical records technician - 3252
Secretary (general) - 4120

335

REGULATORY GOVERNMENT ASSOCIATE PROFESSIONALS

Regulatory government associate professionals administer, enforce or apply relevant government rules and regulations relating to national borders, taxes, social benefits, and issue or examine applications for licenses or authorizations in connection with travel, exports and imports of goods, establishment of businesses, erection of buildings and other activities subject to government regulations.

Tasks performed usually include: patrolling national borders and checking persons and vehicles, travel and transport documents and goods transported across the border to ensure enforcement of government rules and regulations; examining tax returns to determine taxes payable by persons and businesses; examining and deciding on applications for social benefits, examining and deciding on applications for government authorizations and licenses necessary to travel, export or import goods, erect buildings, establish businesses or undertake other activities subject to government regulations; monitoring the application of price, wage or weights and measures regulations. They may receive guidance from senior government officials or Managers. Supervision of other workers may be included.

3351 CUSTOMS AND BORDER INSPECTORS

3441

Customs and border inspectors check persons and vehicles crossing national borders to administer and enforce relevant government rules and regulations.

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Their tasks include:

- a) patrolling national borders and coastal waters to stop persons from illegally entering or leaving the country and from illegally importing or exporting currency or goods;
- b) checking travel documents of persons crossing national borders to ensure that they have the necessary authorizations and certificates;
- c) inspecting the luggage of persons crossing national borders to ensure that it conforms to government rules and regulations concerning import or export of goods and currencies;
- d) examining transport documents and freight of vehicles crossing national borders to ensure conformity with government rules and regulations concerning goods in transit and the import and export of goods, and to verify that necessary payments have been made;
- e) detaining persons and seizing prohibited and undeclared goods found to be in violation of immigration and customs laws;
- f) coordinating and cooperating with other agencies involved in law enforcement, deportation and prosecution;
- g) performing related administrative tasks to record findings, transactions, violations and determinations; and
- h) when necessary, testifying in a court of law about the circumstances and results of investigations carried out.

Examples of occupations classified here:

- Border inspector
- Customs declarant
- Customs inspector
- Customs officer
- Customs representative
- Immigration officer
- Immigration services officer
- Passport checking officer
- Terminal operations specialist
- Travel tax officer
- Warehouse inspector
- Warehouse shipping officer

Some related occupation classified elsewhere:

- Conference and event planner - 3332
- Ticket issuing clerk (entertainment and sporting events) - 5230
- Travel agency manager - 1439

3352 GOVERNMENT TAX AND EXCISE OFFICIALS

3442

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Government tax and excise officials examine tax returns, bills of sale and other documents to determine the type and amount of taxes, duties and other types of fees to be paid by individuals or businesses, referring exceptional or important cases to accountants, senior government officials or Managers.

Their tasks include:

- a) advising organizations, enterprises and the public on government laws, rules and regulations concerning the determination and payment of taxes, duties and other government fees, and on the public's rights and obligations;
- b) examining tax returns, bills of sale and other relevant documents to determine type and amount of taxes, duties and other types of fees to be paid;
- c) investigating filed tax returns and accounting records, systems and internal controls of organizations to ensure compliance with taxation laws and regulations; and
- d) performing related administrative tasks to document findings, maintain records and report on actions taken for cases.

Examples of occupations classified here:

- Excise officer
- Revenue collection officer
- Tariff analyst
- Tax enforcer
- Tax finance officer
- Tax mapping examiner
- Tax officer
- Tax researcher
- Tax specialist
- Taxation analyst
- Taxation inspector
- Transport tax processor

A related occupation classified elsewhere:

- Accountant - 2411
- Auditor - 2411

3353 GOVERNMENT SOCIAL BENEFITS OFFICIALS

3443

Government social benefits officials examine applications for government, financial or service programs to determine eligibility and amount of benefit or appropriate services, referring exceptional or important cases to senior government officials or managers.

Their tasks include:

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- a) advising individuals and organizations on government laws, rules and regulations concerning government benefit programs and the determination and disbursement of payments or referral to services, as well as on the public's rights and obligations;
- b) examining applications and other relevant documents to determine type and amount of benefit which individuals are eligible to receive;
- c) assessing documentation and interviewing benefit recipients to ensure eligibility for continuing benefits or services; and
- d) performing related administrative tasks to maintain client records and prepare reports on determinations regarding eligibility, referral decisions, termination of benefits and abuse or fraud.

Examples of occupations classified here:

- Benefits officer
- Insurance risk analyst
- Medical claims benefits
- Overseas operations officer
- Overseas worker welfare officer
- Pensions officer
- Social benefit officer
- Social insurance officer
- Social security claims officer
- Social security examiner

Some related occupation classified elsewhere:

- Counselling professionals - 2635
- Social workers - 2635

3354 GOVERNMENT LICENSING OFFICIALS

3444

Government licensing officials examine applications for licenses to export or import goods, set up businesses, build houses or other structures, or to obtain passports, determine eligibility of applications for issuing licenses or passports, and identify specific conditions or restrictions to be attached to licenses issued, referring exceptional or important cases to Senior government officials or Managers.

Their tasks include:

- a) advising individuals on government laws and regulations concerning the type of license required and the conditions attached to such licenses, and on the public's rights and obligations;
- b) examining applications and relevant documents and determining whether a license can be granted and the conditions which should be attached;
- c) examining applications and approving the issue of passports;

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- d) performing related administrative tasks to process applications, document activities, evaluations and determinations, and to prepare correspondence to inform applicants of licensing decisions; and
- e) administering and scoring tests required to license applicants.

Examples of occupations classified here:

- Building permit (licensing) officer
- Business permit (licensing officer
- License examiner
- License inspector
- Licenser
- Licensing officer
- Passport issuing officer
- Professional regulation officer

Some related occupation classified elsewhere:

- Building inspectors - 3112
- Fire inspectors - 3112

3355 POLICE INSPECTORS AND DETECTIVES

3450

Police inspectors and detectives investigate facts and circumstances relating to crimes committed in order to identify suspected offenders and obtain information not readily available or apparent concerning establishments or the circumstances and behavior of persons, mostly in order to prevent crimes.

Their tasks include:

- a) establishing contacts and sources of information about crimes planned or committed, in order to prevent crimes or identify suspected offenders;
- b) obtaining and verifying evidence by examining crime and accident scenes for clues and physical evidence, interviewing witnesses and suspects and analyzing documents and computer files;
- c) analyzing evidence in order to solve crimes, identify criminal activity and gather information for court cases;
- d) establishing contacts and sources of information not readily available or apparent concerning establishments or the circumstances and behavior of persons, usually with the aim of preventing a crime;
- e) making arrests; and
- f) testifying in courts of law or reporting to superiors about circumstances and results of investigations.

Examples of occupations classified here:

- Fingerprint examiner
- Fingerprint technician
- Intelligence agent
- Intelligence assistant

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Investigation agent
Jail inspector
Jail officer
Police detective
Police inspector
Police inquiry agent
Police/criminal investigator
Polygraph examiner
Defense research officer
Special agent

Some related occupation classified elsewhere:

Police commissioner - 1112
Police inspector-general - 1112
Police officer - 5412
Police superintendent - 1349
Private detective - 3411

3359	GOVERNMENT REGULATORY ASSOCIATE PROFESSIONALS NOT ELSEWHERE CLASSIFIED	3151 p; 3439 p; 3449 p
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This unit group covers government regulatory associate professionals not classified elsewhere in Major group 3, Technicians and associate professionals. For instance the group includes agricultural, fisheries, forestry, prices, wages and weights and measures inspectors.

Their tasks include:

- a) examining places of business to ensure the use of correct weights and measures in trade;
- b) monitoring price regulations to assess appropriateness of costs for goods and services to protect consumer interests;
- c) monitoring wage regulations to ensure appropriate levels of pay for work performed and to assess compliance with employment standards legislation; and
- d) performing related investigative and administrative tasks to record findings, document compliance problems or inappropriate business practices and to prepare reports and correspondence.

Examples of occupations classified here:

Agricultural inspector
Fisheries inspector
Forest concession guard
Forestry inspector
Land management inspector
Land management officer
Market inspector
Prices inspector
Public services inspector
Rodent zone inspector

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Wage inspector
Weights and measures inspector

Some related occupation classified elsewhere:

Fire inspector - 3112
Health inspector - 3257
Occupational safety inspector - 3257
Pollution inspector - 3257
Sanitary inspector - 3257

34

LEGAL, SOCIAL, CULTURAL AND RELATED PROFESSIONALS

Legal, social, cultural and related associate professionals perform technical tasks connected with the practical application of knowledge relating to legal services, social work, culture, food preparation, sport and religion.

Tasks performed in this sub-major group usually include: providing technical and practical services and support functions in legal processes and investigations, social and community assistance programs, and religious and cultural activities; participating and adjudicating in sporting events; developing and delivering sports coaching, fitness and recreational programmes; combining creative and technical skills in a variety of artistic, cultural and culinary activities; creating dishes and menus and overseeing the preparation of meals.

341

LEGAL, SOCIAL AND RELIGIOUS ASSOCIATE PROFESSIONALS

Legal, social and religious associate professionals provide technical and practical services and support functions in legal processes and investigations, social and community assistance programs and religious activities.

Tasks performed usually include: assisting and supporting legal, social work and religious professionals; obtaining and analyzing evidence, preparing legal documents and serving court orders; administering and implementing social assistance programs and community services; assisting clients to deal with personal and social problems; providing practical assistance, guidance and moral support to individuals and communities.

3411

LEGAL AND RELATED ASSOCIATE PROFESSIONALS

Legal and related associate professionals perform support functions in courts of law or in law offices, provide services related to such legal matters as insurance contracts, the transferring of property and the granting of loans and other financial transactions or conduct investigations for clients.

3432;
3450 p

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Their tasks include:

- a) documenting court proceedings and judgements;
- b) serving statements of claims, summonses, warrants, subpoenas and other court orders;
- c) maintaining order in court and hearing rooms;
- d) preparing legal documents including trial briefs, pleadings, appeals, wills and contracts and preparing, papers summarizing legal positions, or setting out conditions of loans or insurance;
- e) investigating facts, assembling evidence and researching relevant statutes, decisions and other legal documents to prepare cases;
- f) advising clients on legal matters;
- g) examining documentation such as mortgages, liens, judgements, easements, contracts and maps in order to verify properties' legal descriptions and ownership;
- h) preparing documents relating to transfer of real estate, stocks or other matters requiring formal registration;
- i) investigating possible cases of theft of goods, money or information from business establishments and of other possible cases of unlawful behavior by customers or employees; and
- j) investigating establishments or the circumstances and behavior of persons on behalf of clients.

Examples of occupations classified here:

- Clerk of the tribunal
- Clerk of court/judge/law
- Court legal service chief
- Court legal officer
- Fiscal examiner
- Graft investigation officer
- Justice of the peace
- Judge's clerk
- Legal aide
- Legal assistant
- Legislative staff assistant
- Legislative staff officer
- Local legislative officer
- Paralegal
- Private detective
- Title searcher

Some related occupation classified elsewhere:

- Judge - 2612
- Lawyer - 2611
- Legal secretary - 3342
- Notary - 2619

3412 SOCIAL WORK ASSOCIATE PROFESSIONALS

3460

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Social work associate professionals administer and implement social assistance programs and community services and assist clients to deal with personal and social problems.

Their tasks include:

- a) collecting information relevant to clients' needs and assessing their relevant skills, strengths and deficits;
- b) helping persons with disabilities or the elderly to obtain services and to improve their ability to function in society;
- c) assisting clients to identify options and develop plans of action while providing necessary support and assistance;
- d) assisting clients to identify and access community resources including legal, medical and financial assistance, housing, employment, transportation, assistance with moves, day care and other referral services;
- e) counselling clients living in group homes and half-way houses, supervising their activities and assisting in pre-release and release planning;
- f) participating in the selection and admission of clients to appropriate programs;
- g) providing crisis intervention and emergency shelter services;
- h) implementing life skills workshops, substance abuse treatment programs, behavior management programs, youth services programs and other community and social service programs under the supervision of social work or health care professionals;
- i) assisting in evaluating the effectiveness of interventions and programs by monitoring and reporting on clients' progress; and
- j) maintaining contact with other social service agencies, schools and health care providers involved with clients to provide information and obtain feedback on clients' overall situation and progress.

Examples of occupations classified here:

- Barangay affairs worker
- Community development worker
- Community service worker
- Crisis intervention worker
- Culture center worker assistant
- Day care worker
- Disability services officer
- Family service worker
- Life skills instructor
- Mental health worker
- Outreach project worker
- Psychiatric social worker assistant
- Relief and rehabilitation worker
- Social welfare assistant/aide

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Veterans assistance officer
Volunteer service officer
Women's shelter supervisor
Welfare support worker
Youth development assistant
Youth worker

Some related occupation classified elsewhere:

Marriage counsellor - 2635
Parole officer - 2635
Probation officer - 2635
Social worker - 2635

3413 RELIGIOUS ASSOCIATE PROFESSIONALS 3480

Religious associate professionals provide support to ministers of religion or to a religious community, undertake religious works, preach and propagate the teachings of a particular religion and endeavor to improve well-being through the power of faith and spiritual advice.

Their tasks include:

- a) undertaking religious works;
- b) preaching and propagating the teachings of a particular religious faith;
- c) assisting at services of public worship and religious rites;
- d) providing religious education, spiritual guidance and moral support to individuals and communities;
- e) administering and participating in programs to provide food, clothing and shelter to those in need; and
- f) advising communities and individuals on proper behavior and faith to preserve or improve well-being.

Examples of occupations classified here:

Tribal Ritualists
(e.g. Mambunong, Mumbaki, Mabaki,
Mensapo and Anituwan in Cordilleras)
Catechist
Lay evangelist
Lay minister
Lay preacher
Monk
Nun
Parish workers
Religious workers

Some related occupation classified elsewhere:

Faith healer - 3230
Healer of indigenous people - 3230
Herbalist - 3230
Imam - 2636
Pastor - 2636

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Priest - 2636
Religion minister - 2636
Village healer - 3230

342

SPORTS AND FITNESS WORKERS

Sports and fitness workers prepare for and compete in sporting events for financial gain, train amateur and professional sportsmen and women to enhance performance, promote participation and standards in sport, organize and officiate sporting events, and provide instruction, training and supervision for various forms of exercise and other recreational activities.

Tasks performed usually include: participating in competitive sporting events; conducting sports training to develop ability in and knowledge of the sport; compiling rules concerning the conduct of sporting competitions, and controlling the progress of these events; planning, organizing and conducting practice sessions; developing and designing fitness programmes; delivering group exercise classes and personal tuition in a variety of fitness activities; promoting sports and sports skills development, and overseeing the participation of young people in sport.

3421 ATHLETES AND SPORTS PLAYERS

3475 p

Athletes and sport players participate in competitive sporting events. They train and compete, either individually or as part of a team, in their chosen sport.

Their tasks include:

- a) participating in competitive sporting events;
- b) participating in regular practice and training sessions and undertaking private training to maintain the required standard of fitness and skill;
- c) undertaking sports promotional activities and media interviews;
- d) maintaining a high degree of expertise in a particular sport;
- e) deciding on strategies in consultation with coaches;
- f) assessing other competitors and conditions at venues;
- g) competing in sporting events; and
- h) adhering to the rules and regulations associated with a specific sport.

Examples of occupations classified here:
Athletes, all sports

3422 SPORTS COACHES, INSTRUCTORS AND OFFICIALS

3475 p

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Sports coaches, instructors and officials work with amateur and professional sportspersons to enhance performance, encourage greater participation in sport, and organize and officiate in sporting events according to established rules.

Their tasks include:

- a) identifying strengths and weaknesses of athletes or teams;
- b) planning, developing and implementing training and practice sessions;
- c) developing, planning and coordinating competitive schedules and programs;
- d) motivating and preparing athletes or teams for competitive events or games;
- e) formulating competitive strategy, developing game plans and directing athletes and players during games or athletic events;
- f) analyzing and evaluating athletes' or teams' performances and modifying training programs;
- g) monitoring and analyzing technique and performance, and determining how future improvements can be made;
- h) officiating at sporting events or athletic competitions to maintain standards of play and to ensure that game rules and safety regulations are observed;
- i) recording lapsed time and keeping scores during events or competitions;
- j) judging the performance of competitors, awarding points, imposing penalties for infractions and determining results; and
- k) compiling scores and other athletic records.

Examples of occupations classified here:

- Coach, sports
- Official, sports
- Referee
- Sports and games regulation officer
- Sports trainor/instructor

Some related occupation classified elsewhere:

- Fitness instructor - 3423
- Personal trainer - 3423

3423	FITNESS AND RECREATION INSTRUCTORS AND PROGRAM LEADERS	3475 p
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Fitness and recreation instructors and program leaders lead, guide and instruct groups and individuals in recreational, fitness or outdoor adventure activities.

Their tasks include:

- a) planning and carrying out recreational and fitness activities;

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- b) monitoring recreational, sports or fitness activities to ensure safety and provide emergency or first aid assistance when required;
- c) evaluating and monitoring clients' abilities and fitness and recommending activities;
- d) demonstrating and teaching body movements, concepts and skills used in fitness routines and recreational activities;
- e) instructing in the use of equipment; and
- f) explaining and enforcing safety procedures, rules and regulations.

Examples of occupations classified here are:

- Aerobics instructor
- Fitness instructor
- Horse riding instructor
- Outdoor adventure guide
- Personal trainer
- Sailing instructor
- Underwater diving instructor

A related occupation classified elsewhere:

Sports trainor/instructor - 3422

343

ARTISTIC, CULTURAL AND CULINARY ASSOCIATE PROFESSIONALS

Artistic cultural and culinary associate professionals combine creative skills and technical and cultural knowledge in taking and processing still photographs; design and decoration of theatre sets, shop displays and the interiors of homes; preparation of objects for display; maintenance of library and gallery collections, records and cataloguing systems; creation of menus and preparation and presentation of food; provision of support for stage, film and television production; and in other areas of artistic and cultural endeavor.

Tasks performed usually include: operating still cameras to photograph people, events, scenes, materials, products and other subjects; applying artistic techniques to product design, interior decoration and sales promotion; mounting and preparing objects for display; designing and arranging exhibit furnishings, display cases and display areas; designing menus and overseeing the preparation of food; assisting directors and performers with the staging of theatrical, motion picture, television or commercial productions.

3431 PHOTOGRAPHERS

3131 p

Photographers operate still cameras to photograph people, events, scenes, materials, products and other subjects.

Their tasks include:

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- a) taking photographs for advertising, or other commercial, industrial or scientific purposes and to illustrate stories and articles in newspapers, magazines and other publications;
- b) taking portrait photographs of persons and groups of persons;
- c) studying requirements of a particular assignment and decide on type of camera, film, lighting and background accessories to be used;
- d) determining picture composition, making technical adjustments to equipment and photograph subject;
- e) operating scanners to transfer photographic images to computers;
- f) operating computers to manipulate photographic images;
- g) adapting existing photographic images to create new digitized images to be included in multimedia products; and
- h) using airbrush, computer or other techniques to create the desired visual effect.

Examples of occupations classified here:

- Aerial photographer
- Commercial photographer
- Industrial photographer
- News photographer
- Photo editor
- Photo journalist
- Photographers
- Photographic color processor
- Portrait photographer
- Scientific photographer

Some related occupation classified elsewhere:

- Electronics mechanic - 7421
- Film camera operator - 3521
- Photographic equipment repairer - 7311
- Photogravure photographer - 7321
- Photolithographer - 7321
- Video operator - 3521

3432 INTERIOR DESIGNERS AND DECORATORS

3471 p

Interior designers and decorators plan and design commercial, industrial, public, retail and residential building interiors to produce an environment tailored to a purpose, taking into consideration factors that enhance living and working environments and sales promotion. They coordinate and participate in their construction and decoration.

Their tasks include:

- a) determining the objectives and constraints of the design brief by consulting with clients and stakeholders;

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- b) researching and analyzing spatial, functional, efficiency, safety and aesthetic requirements;
- c) formulating design concepts for the interiors of buildings;
- d) preparing sketches, diagrams, illustrations and plans to communicate design concepts;
- e) negotiating design solutions with clients, management, suppliers and construction staff;
- f) selecting, specifying and recommending functional and aesthetic materials, furniture and products for interiors;
- g) detailing and documenting selected design for construction;
- h) coordinating the construction and the decoration of interiors;
- i) designing and painting stage scenery; and
- j) designing and decorating show windows and other display areas to promote products and services.

Examples of occupations classified here:

- Commercial decorator and designer
- Display artist
- Display decorator
- Industrial and commercial products designer
- Interior decorator
- Interior designer
- Set designer
- Visual merchandiser
- Window dresser

A related occupation classified elsewhere:

Interior architect - 2161

3433 GALLERY, MUSEUM AND LIBRARY TECHNICIANS 3471 p

Gallery, museum and library technicians prepare artworks, specimens and artefacts for collections, arrange and construct gallery exhibits, and assist librarians to organize and operate systems for handling recorded material and files.

Their tasks include:

- a) mounting and preparing objects for display;
- b) designing and arranging exhibit furnishings, display cases and display areas;
- c) assisting in setting up lighting and display equipment;
- d) receiving, shipping, packing and unpacking exhibits;
- e) ordering new library materials and maintaining library records and circulation systems;
- f) cataloguing printed and recorded material;

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- g) entering data into databases and editing computer records;
- h) operating audiovisual and reprographic equipment; and
- i) searching and verifying bibliographic data.

Examples of occupations classified here:

- Gallery technician
- Library technician
- Museum technician
- Taxidermist
- Philatelist

3434 CHEFS

5122 p

Chefs design menus, create dishes and oversee the planning, organization preparation and cooking of meals in hotels, restaurants and other eating places, on board ships, on passenger trains and in private households.

Their tasks include:

- a) planning and developing recipes and menus, estimating food and labor costs, and ordering food supplies;
- b) monitoring quality of dishes at all stages of preparation and presentation;
- c) discussing food preparation issues with managers, dieticians, kitchen and waiting staff;
- d) supervising and coordinating the activities of cooks and other workers engaged in food preparation;
- e) inspecting supplies, equipment, and work areas to ensure conformance to established standards;
- f) determining how food should be presented, and creating decorative food displays;
- g) instructing cooks and other workers in the preparation, cooking, garnishing, and presentation of food;
- h) participating on the recruitment of kitchen staff and monitoring their performance;
- i) preparing, seasoning and cooking specialty foods and complex dishes; and
- j) explaining and enforcing hygiene and food safety regulations.

Examples of occupations classified here:

- Assistant chef
- Chef
- Commis chef
- Executive chef
- Head chef
- Pastry chef
- Saucier
- Sous-chef

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Some related occupation classified elsewhere:

Cook - 5120

Fast food preparer - 9411

3435	ARTISTIC AND CULTURAL ASSOCIATE PROFESSIONAL NOT ELSEWHERE CLASSIFIED	3472 p; 3473 p; 3474p
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This unit group covers artistic and cultural associate professionals not classified elsewhere in Minor Group 344, Artistic, cultural and culinary associate professionals. For instance those who assist directors or actors with staging of theatrical, motion picture, television or commercial productions are classified here.

Examples of occupations classified here:

- Body artist
- Floor manager (broadcasting)
- Lighting technician
- Program coordinator (broadcasting)
- Prompter
- Property master (broadcasting)
- Script, girl/boy
- Special effects technician
- Stage manager
- Stage technician
- Stunt artist
- Stunt-coordinator
- Tattooist
- Theatre technician
- Theatrical dresser
- Walker-on

35

INFORMATION AND COMMUNICATIONS TECHNICIAN

Information and communications technicians provide support for the day-to-day running of computer systems, communications systems and networks and perform technical tasks related to telecommunications, broadcast of image and sound as well as other types of telecommunications signals on land, sea or in aircraft.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Tasks performed by workers in this sub-major group usually include: providing assistance to information and communications systems users ; installing new programs and equipment; establishing, operating and maintaining network and other data communications systems; installing, monitoring and supporting Internet and Intranet websites or web server hardware or software; modifying web pages; and performing web server backup and recovery operations; controlling equipment to record sound, edit and mix image and sound recordings; controlling and maintaining transmitting and broadcast systems and satellite systems for radio and television programmes; controlling and maintaining radio communications systems, satellite services, and multiplex systems on land, sea or in aircraft; providing technical assistance connected with research and the development of computer systems and telecommunications equipment, or testing prototypes; designing and preparing blueprints of circuitry according to the specifications given; providing technical supervision of the manufacture, utilization, maintenance and repair of telecommunications systems.</p>		
351			<p>INFORMATION AND COMMUNICATIONS TECHNOLOGY OPERATIONS AND USER SUPPORT TECHNICIANS</p> <p>Information technology operations and user support technicians provide support for the day-to-day running of communications systems, computer systems and networks and provide technical assistance to users.</p> <p>Tasks performed usually include: operating and controlling peripheral and related computer equipment; monitoring systems for equipment failure or errors in performance; loading peripheral equipment, such as printers, with selected materials for operating runs, or oversee loading of peripheral equipment by peripheral equipment operators; answering user inquiries regarding software or hardware operation to resolve problems; installing and performing minor repairs to hardware, software, or peripheral equipment, following design or installation specifications; overseeing the daily performance of systems; setting up equipment for employee use, performing or ensuring proper installation of cables, operating systems, or appropriate software; establishing, operating and maintaining network and other data communications systems; installing, monitoring and supporting the reliability and usability of Internet and Intranet websites or web server hardware or software; modifying web pages; and performing web server backup and recovery operations.</p>		
3511			<p>INFORMATION AND COMMUNICATIONS TECHNOLOGY OPERATIONS TECHNICIANS</p>	3122 p	

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Information and communications technology operations technicians support the day-to-day processing, operation and monitoring of information and communications technology systems, peripherals, hardware, software and related computer equipment to ensure optimal performance, and identify any problems.

Their tasks include:

- a) operating and controlling peripheral and related computer equipment;
- b) entering commands, using computer terminal, and activating controls on computer and peripheral equipment to integrate and operate equipment;
- c) monitoring systems for equipment failure or errors in performance;
- d) notifying supervisor or maintenance technician of equipment malfunctions;
- e) responding to program error messages by finding and correcting problems, escalating the problem to other staff or terminating the program;
- f) reading job set-up instructions to determine equipment to be used, order of use, material such as disks and paper to be loaded, and control settings;
- g) retrieving, separating and sorting program output as needed, and sending data to specified users; and
- h) loading peripheral equipment, such as printers, with selected materials for operating runs, or oversee loading of peripheral equipment by peripheral equipment operators.

Examples of occupations classified here:

- AutoCAD operator
- Computer aided design (CAD) operator
- Computer graphic layout operator
- Computer maintenance specialist
- Computer maintenance technologist
- Computer peripheral equipment operator
- Computer operator
- Computer technicians
- Data entry machine operator
- Digital systems computer operator
- EDP operator
- Electronic computer operator
- High-speed computer printer operator
- IT and LAN technician
- Micro computer operator
- Micro editor operator
- Micro filming machine operator
- Punched-card machine operator
- Web offset operator

A related occupation classified elsewhere:

- Computer network technician - 3513

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3512 INFORMATION AND COMMUNICATIONS TECHNOLOGY USER SUPPORT TECHNICIANS 3121 p

Information and communications technology user support technicians provide technical assistance to users, either directly or by telephone, e-mail or other electronic means, including diagnosing and resolving issues and problems with software, hardware, computer peripheral equipment, networks, databases and the Internet, and providing guidance and support in the deployment, installation and maintenance of systems.

Their tasks include:

- a) answering user inquiries regarding software or hardware operation to resolve problems;
- b) entering commands and observing system functioning to verify correct operations and detect errors;
- c) installing and performing minor repairs to hardware, software, or peripheral equipment, following design or installation specifications;
- d) overseeing the daily performance of communications and computer systems;
- e) setting up equipment for employee use, performing or ensuring proper installation of cables, operating systems, or appropriate software;
- f) maintaining records of daily data communication transactions, problems and remedial actions taken, or installation activities;
- g) emulating or reproducing technical problems encountered by users; and
- h) consulting user guides, technical manuals and other documents to research and implement solutions.

Examples of occupations classified here:

Communications assistant (ICT)
Computer database assistant
Computer engineering assistant
Computer help desk operator
Computer programming assistant
Computer systems analysis assistant
EDP assistant

3513 COMPUTER NETWORK AND SYSTEMS TECHNICIANS 2139 p;
3121 p

Computer network and systems technicians establish, operate and maintain network and other data communications systems.

Their tasks include:

- a) operating, maintaining and troubleshooting network systems;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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- b) operating and maintaining data communications systems other than networks;
- c) assisting users with network and data communications problems;
- d) identifying areas needing upgraded equipment and software;
- e) installing computer hardware, network software, operating system software and applications software; and
- f) performing start up and close down as well as backup and disaster recovery operations for computer networks.

Examples of occupations classified here:

Computer network technician
Network support technician

Some related occupation classified elsewhere:

Network administrator - 2522
Network analyst - 2511
Computer operator - 3511
Web technician - 3514

3514 WEB TECHNICIANS

3121p;
3122 p

Web technicians maintain, monitor and support the optimal functioning of Internet and Intranet websites and web server hardware and software.

Their tasks include:

- a) installing, monitoring and supporting the reliability and usability of Internet and Intranet websites or web server hardware or software;
- b) developing and maintaining documentation, policies and instructions, recording operational procedures and system logs;
- c) developing, coordinating, implementing and monitoring security measures;
- d) analyzing and making recommendations to enhance performance, including upgrading and acquiring new systems;
- e) liaising with, and providing guidance to, clients and users;
- f) modifying web pages; and
- g) performing web server backup and recovery operations.

Examples of occupations classified here:

Website administrator
Website technician
Webmaster

Some related occupation classified elsewhere:

Computer games designer - 2166

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Computer software designer - 2512
Computer systems administrator - 2522
Network administrator - 2522
System administrator - 2522
Systems analyst - 2511
Website designer - 2166
Website developer - 2513

352

TELECOMMUNICATIONS AND BROADCASTING TECHNICIANS

Telecommunications and broadcasting technicians control technical functioning of equipment to record and edit images and sound and for transmitting radio and television broadcasts of images and sounds, as well as other types of telecommunication signals on land, sea or in aircraft, perform technical tasks connected with telecommunications engineering research and with the design, manufacture, assembly, construction, operation, maintenance and repair of telecommunications systems.

Tasks performed usually include: controlling equipment to record sound, edit and mix image and sound recordings; controlling and maintaining transmitting and broadcast systems and satellite systems for radio and television programmes; controlling and maintaining radio communications systems, satellite services, and multiplex systems on land, sea or in aircraft; providing technical assistance connected with research and the development of telecommunications equipment, or testing prototypes; designing and preparing blueprints of circuitry according to the specifications given; providing technical supervision of the manufacture, utilization, maintenance and repair of telecommunications systems.

3521 BROADCASTING AND AUDIO-VISUAL TECHNICIANS

3131 p;
3132 p

Broadcasting and audio-visual technicians control technical functioning of equipment to record and edit images and sound and for transmitting radio and television broadcasts of images and sounds, as well as other types of telecommunication signals on land, sea or in aircraft.

Their tasks include:

- controlling equipment to record sound;
- controlling equipment to edit and mix image and sound recordings to ensure satisfactory quality and to create special image and sound effects;
- applying knowledge of principles and practices of image and sound recording and editing in order to identify and solve problems;

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- d) controlling transmitting and broadcast systems and satellite systems for radio and television programmes;
- e) controlling radio communications systems, satellite services, and multiplex systems on land, sea or in aircraft;
- f) applying knowledge of principles and practices of broadcasting, telecommunications terminals and transmissions systems, in order to identify and solve problems; and
- g) making emergency repairs to equipment.

Examples of occupations classified here:

Audio-visual operator
 Broadcast technician
 Broadcasting automation system support
 Broadcasting equipment operator
 Camera control unit technician
 Cameraman/woman (motion picture)
 Cameraman/woman (video)
 CCTV operator
 Cinema projectionist
 Movie equipment technician
 Production assistant (media)
 Radio broadcasting equipment operator
 Radio communication technician
 Radio controller
 Radio frequency coordinator
 Radio operator
 Radio production technician
 Radio telephone operator
 Radio/TV transmitting equipment operator
 Ship radio operator
 Telegrapher
 Transmitter technician
 Transmitting equipment operator
 Transmitting equipment technician
 TV broadcasting equipment operator
 Video operator
 Videographer

A related occupation classified elsewhere:

Photographer - 3431

3522 TELECOMMUNICATIONS ENGINEERING TECHNICIANS

3114 p;
3132 p

Telecommunications engineering technicians perform technical tasks connected with telecommunications engineering research, as well as with the design, manufacture, assembly, construction, operation, maintenance and repair of telecommunications systems.

Their tasks include:

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- a) providing technical assistance connected with research and the development of telecommunications equipment, or testing prototypes;
- b) studying technical material such as blue prints and sketches to determine the method of work to be adopted;
- c) preparing detailed estimates of quantities and costs of materials and labor required for the manufacture and installation of telecommunications equipment, according to the specifications given;
- d) providing technical supervision of the manufacture, utilization, maintenance and repair of telecommunications systems to ensure satisfactory performance and compliance with specifications and regulations; and
- e) applying technical knowledge of telecommunications engineering principles and practices in order to identify and solve problems arising in the course of their work.

Examples of occupations classified here:

Engineering technician (telecommunications)

Some related occupation classified elsewhere:

Information and communications technology installers and repairers - 7422

Engineering technician (electronics) - 3114

Telecommunications technician - 7422

Telephone installer - 7422

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Major Group 4.

CLERICAL SUPPORT WORKERS

Clerical support workers record, organize, store, compute and retrieve information-related; and perform a number of clerical duties in connection with money-handling operations, travel arrangements, requests for information, and appointments. Most occupations in this Major Group require skills at the second ISCO skill level.

Tasks performed by clerical support workers usually include: stenography, typing, and operating word processors and other office machines; entering data into computers; carrying out secretarial duties; recording and computing numerical data; keeping records relating to stocks, production and transport; keeping records relating to passenger and freight transport; carrying out clerical duties in libraries; filing documents; carrying out duties in connection with mail services; preparing and checking material for printing; writing on behalf of illiterate persons; performing money-handling operations; dealing with travel arrangements; supplying information requested by clients and making appointments; and operating a telephone switchboard. Supervision of other workers may be included.

41

GENERAL AND KEYBOARD CLERKS

General and keyboard clerks record, organize, store and retrieve information; and perform a range of clerical and administrative tasks according to established procedures.

Tasks performed by workers in this Sub-Major Group usually include: operating personal computers, word-processors or typewriters; recording, inputting and processing data using computers; recording input and processing text; calculating; bookkeeping and similar office machines to input and process text and data; and performing a wide range of general clerical duties including preparing invoices, checking figures, filing, faxing or processing mail.

411	4110	GENERAL OFFICE CLERKS	4111 p; 4115 p	4110
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General office clerks perform a range of clerical and administrative tasks according to established procedures.

Their tasks include:

- a) recording, preparing, sorting, classifying and filing information;
- b) sorting, opening and sending mail;
- c) photocopying and sending documents;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>d) preparing reports and correspondence of a routine nature;</p> <p>e) recording issue of equipment to staff;</p> <p>f) responding to telephone or electronic enquiries or forwarding to appropriate person;</p> <p>g) checking figures, preparing invoices and recording details of financial transactions made; and</p> <p>h) transcribing information into computers, and proof-reading and correcting copy.</p> <p>Examples of the occupations classified here:</p> <p>Administrative clerk</p> <p>Enumerator clerk</p> <p>Field clerk</p> <p>Fiscal clerk</p> <p>General office clerk</p> <p>Laboratory clerk</p> <p>List/Addresses clerk</p> <p>Maintenance clerk</p> <p>Office clerk</p> <p>Office equipment clerk</p> <p>Receiving clerk</p> <p>Records/Personnel clerk</p> <p>Telefax clerk</p> <p>Teleprinter clerk</p> <p>Telex clerk</p> <p>Timekeeper clerk</p>		
412	4120		<p>SECRETARIES (GENERAL)</p> <p>Secretaries (general) use typewriters, personal computers or other word-processing equipment to transcribe correspondence and other documents; check and format documents prepared by other staff; deal with incoming and outgoing mail; screen requests for meetings or appointments; and perform a variety of administrative support tasks.</p> <p>Their tasks include:</p> <p>a) checking, formatting and transcribing correspondence, minutes and reports from dictation, electronic documents or written drafts to conform to office standards, using typewriter, personal computer or other word processing equipment;</p> <p>b) using various computer software packages, including spreadsheets, to provide administrative support;</p> <p>c) dealing with incoming or outgoing mail;</p> <p>d) scanning, recording and distributing mail, correspondence and documents;</p> <p>e) screening requests for meetings or appointments and helping to organize meetings;</p> <p>f) screening and recording leave and other staff-members' entitlements;</p> <p>g) organizing and supervising filing systems; and</p>	4115 p	4120

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h) dealing with routine correspondence on their own initiative.

Examples of the occupations classified here:

Community organizer secretary
Marketing secretary
Office secretary
Parish secretary
Sales secretary
Secretary
Typing secretary
Word processing secretary

Some related occupations classified elsewhere:

Administrative secretary - 3343
Executive secretary - 3343
Legal secretary - 3342
Medical secretary - 3344

413

KEYBOARD OPERATORS

Keyboard operators input and process text and data; and prepare, edit and generate documents for storage, processing, publication and transmission.

Tasks performed usually include: entering data and codes required to process information; retrieving, confirming and updating data in storage and keeping records of data input; taking records of proceedings in rapid shorthand using computerized equipment and shorthand-writing machines; transcribing information recorded in shorthand and on sound recording equipment, and proofreading and correcting copy; and reproducing the spoken word, environmental sounds and song lyrics as captions for cinema and television programming.

4131 TYPISTS AND WORD PROCESSING OPERATORS

4112 p;
4111

4131

Typists and word processing operators type, edit and print using typewriter, personal computer or word processor; and record oral or written matter in shorthand.

Their tasks include:

- typing written material from rough drafts, corrected copies, voice recordings, or shorthand using a computer, word processor or typewriter;
- checking completed work for proper spelling, grammar, punctuation and formatting;
- gathering and arranging the material to be typed, following instructions;
- filing and storing completed documents on computer hard drive or disk, or maintaining a computer filing system to store, retrieve or update documents;

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- e) taking dictation and recording other matter in shorthand;
- f) reproducing the spoken word, environmental sounds and song lyrics as captions for cinema and television programming; and
- g) transcribing information recorded in shorthand and on sound recording equipment.

Examples of the occupations classified here:

- Legal stenographer
- Shorthand typist
- Stenographer
- Stenographer-typist
- Stenographic reporter
- Steno recorder
- Word processing clerk
- Word processor

Some related occupations classified elsewhere:

- Court reporter - 3343
- Medical transcriptionist - 3344

4132 DATA ENTRY CLERKS

4113
4114 p

4132

Data entry clerks enter coded, statistical, financial and other numerical data into electronic equipment, computerized databases, spreadsheets or other data repositories using a keyboard, mouse, or optical scanner, speech recognition software or other data entry tools. They enter data into mechanical and electronic devices to perform mathematical calculations.

Their tasks include:

- a) receiving and registering invoices, forms, records and other documents for data capture;
- b) entering numerical data, codes and text from source material into computer-compatible storage and processing devices;
- c) verifying accuracy and completeness of data and correcting entered data, if needed;
- d) operating bookkeeping and calculating machines; and
- e) importing and exporting data between different database systems and softwares.

Examples of the occupations classified here:

- Computer keyer
- Data entry operator
- Data entry/computer clerk
- Data entry/converter clerk (card-to-tape)
- Data entry/electronic mail clerk
- Data entry/encoder clerk
- Data entry/punching machine clerk (card and tape)

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Data enumerator clerk
Data input clerk
Data processor clerk
Data tabulator clerk
Data transcriber clerk

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CUSTOMER SERVICE CLERKS

Customer service clerks deal with clients in connection with money-handling operations, travel arrangements, requests for information, making appointments, operating telephone switchboards; and interviewing for surveys or to complete applications for eligibility for services.

Tasks performed by workers in this Sub-Major Group include: performing money-handling operations in banks, post offices, betting and gambling establishments; or dealing with travel arrangements; supplying information requested by clients and making appointments; operating telephone switchboards; greeting and receiving visitors; interviewing survey respondents; and interviewing applicants for services.

421

TELLERS, MONEY COLLECTORS AND RELATED CLERKS

Tellers, money collectors and related clerks perform money-handling operations in establishments relating to banking, postal services, betting or gambling, pawning and debt-collecting.

Tasks performed usually include: dealing with clients of banks or post offices in connection with money operations or postal services; receiving and paying off bets on results of sporting events; conducting gambling games; lending money against articles deposited or other securities; and collecting debts and other payments.

4211 BANK TELLERS AND RELATED CLERKS

4212
4211 p

4211

Bank tellers and related clerks deal directly with clients of banks or post offices in connection with receiving, changing and paying out money; or providing mail services.

Their tasks include:

- a) processing customer cash deposits and withdrawals, cheques, transfers, bills, credit card payments, money orders, certified cheques and other related banking transactions;
- b) crediting and debiting clients' accounts;
- c) paying bills and making money transfers on clients' behalf;
- d) receiving mail, selling postage stamps and conducting other post office counter business such as bill payments, money transfers and related business;

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e) changing money from one currency to another, as requested by clients; and

f) making records of all transactions and reconciling them with cash balance.

Examples of the occupations classified here:

Bank cashier

Bank teller

Disbursing clerk

Money changer

Paymaster

Post office counter clerk

Telegraphic transfer service clerk

Some related occupations classified elsewhere:

Cashier - 5230

4212 BOOKMAKERS, CROUPIERS/DEALERS AND RELATED GAMING WORKERS

4213
4211 p

4212

Bookmakers, croupiers/dealers and related gaming workers determine odds and receive and pay off bets on results of sporting or other events; or conduct games of chance in gambling establishments.

Their tasks include:

a) determining risks to decide odds and to hedge or refuse bets;

b) preparing and issuing lists of approximate odds;

c) distributing cards, rolling dice or spinning a roulette wheel;

d) explaining and interpreting operating rules of a gambling establishment; and

e) announcing winning numbers, paying winners and collecting payments from losers.

Examples of the occupations classified here:

Bookmaker

Croupier/Dealer

4213 PAWNBROKERS AND MONEY LENDERS

4214

4213

Pawnbrokers and money lenders lend money against articles deposited as pledges, or against property or other security.

Their tasks include:

a) evaluating articles offered as pledges, calculating interest, and lending money;

b) returning articles when the loan is paid or, in the event of non-payment, selling pledged articles;

c) lending money as personal loans against success of future harvest and other similar undertakings;

d) collecting loans when the pledge involved the success of future harvest and other similar undertakings; and

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			<p>e) keeping a record of items received and money distributed and received.</p> <p>Examples of the occupations classified here:</p> <p>Loan clerk Loan processor Money lender Pawnbroker</p>		
		4214	<p>DEBT COLLECTORS AND RELATED WORKERS</p> <p>Debt collectors and related workers collect payments on overdue accounts and bad cheques and collect charity payments.</p> <p>Their tasks include:</p> <p>a) tracing and locating debtors; b) telephoning, visiting, or writing to customers to collect money or arrange for later payments; c) preparing reports including amounts collected and maintain records and files related to collection work; d) recommending legal action or discontinuation of service when payment cannot be otherwise obtained; and e) asking for and collecting charity payments.</p> <p>Examples of the occupations classified here:</p> <p>Bank collector Bill and account collector Bill courier Billing clerk Charity collector Collection clerk Credit and collection clerk Debt collector Payment entry clerk</p>	4215	4214
		422	<p>CLIENT INFORMATION WORKERS</p> <p>Client information workers provide or obtain information in person, by telephone or electronic means such as e-mail in connection with making travel arrangements; describing the products or services of an organization; registering and greeting guests and visitors; making appointments; connecting telephone calls; and collecting information from survey respondents or applicants for services.</p> <p>Tasks performed usually include: preparing itineraries and making travel and hotel reservations for clients; greeting and receiving clients and visitors; registering accommodation guests; providing information concerning the goods, services or policies of an organization; making appointments; operating a telephone switchboard; and interviewing survey respondents and applicants for eligibility.</p>		
		4221	<p>TRAVEL CONSULTANTS AND CLERKS</p>	4221 p	4221

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Travel consultants and clerks supply information, arrange travel itineraries, obtain travel and accommodation reservations; and organize group tours.

Their tasks include:

a) obtaining information about the availability, cost and convenience of different types of transport and accommodation; ascertaining customer's requirements and advising them on travel arrangements;

b) preparing itineraries;

c) making and confirming reservations;

d) issuing tickets and vouchers;

e) helping customers in obtaining necessary travel documents such as visas;

f) preparing bills and receiving payments; and

g) organizing group tours for business or vacation travel and selling them to groups or individuals.

Examples of the occupations classified here:

Ticket issuing/travel clerk

Travel agency clerk

Travel consultant

Travel organizer

Travel/Airlines clerk

Some related occupations classified elsewhere:

Conference and event planner - 3332

Ticket issuing clerk (entertainment and sporting events) - 5230

Travel agency manager - 1439

4222 CONTACT CENTER INFORMATION CLERKS 4222 p 4222

Contact center information clerks provide advice and information to clients; respond to queries regarding a company's or an organization's goods, services or policies; and process financial transactions using the telephone or electronic communications media, such as email. They are located in premises that may be remote from clients or other operations of the organizations or companies about whom information is provided.

Their tasks include:

a) dealing with incoming calls and messages from clients, whether to answer queries, handle calls for service or sort out complaints;

b) identifying requirements and entering events into a computer system;

c) dispatching tasks to other units, when relevant;

d) invoicing or handling payments, where necessary;

e) sending letters, information sheets and other documents to clients; and

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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f) advising clients of additional products or services.

Examples of the occupations classified here:

Call center agent
Call center assistant/representative
Customer contact center information clerk
Customer service assistant
Customer service representative

Some related occupations classified elsewhere:

Call center salesperson - 5244
Customer contact center salesperson - 5244
Market research interviewer - 4227
Telemarketing salesperson - 5244
Telephone operator - 4223

4223 TELEPHONE SWITCHBOARD OPERATORS 4223 p 4223

Telephone switchboard operators operate telephone communications switchboards and consoles to establish telephone connections; receive caller inquiries and service problem reports; and record and relay messages to staff or clients.

Their tasks include:

a) operating switchboards and consoles to connect, hold, transfer, and disconnect telephone calls;
b) making connections for outgoing calls;
c) dealing with telephone inquiries and recording messages;
d) forwarding messages to staff or clients; and
e) investigating operating system problems and informing repair services.

Examples of the occupations classified here:

Answering service operator
Career relation payphone and access services
Communication telephone operator
Message handling operator
Telephone operator
Telephone switchboard operator

4224 HOTEL RECEPTIONISTS 4222 p 4224

Hotel receptionists register guests; assign rooms; issue keys; provide information concerning the hotel services; make room reservations; keep a record of rooms available for occupancy; and present statements of charges to departing guests and receive payment.

Their tasks include:

a) maintaining an inventory of rooms available for occupancy, reservations and room assignments;
b) registering arriving guests, assigning rooms; verifying customer's credit and issuing room keys;

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- c) providing information regarding hotel services and services available in the community;
- d) providing information about availability of accommodation and making room reservations;
- e) responding to guests' requests for housekeeping and maintenance services as well as complaints;
- f) contacting housekeeping or maintenance services when guests report problems;
- g) compiling and checking guest accounts for charges using computerized or manual systems;
- h) receiving and forwarding messages in person or using telephone or telephone switchboard; and
- i) reviewing statements of charges to departing guests and receiving payment.

Examples of the occupations classified here:

Hotel front desk clerk
Hotel receptionist

4225 ENQUIRY CLERKS 4222 p 4225

Enquiry clerks respond to personal, written, electronic mail, and telephone enquiries and complaints about the organization's goods, services and policies, provide information and refer people to other sources. They are employed in locations which put them in direct contact with clients or with the production of the goods and services provided.

Their tasks include:

- a) answering inquiries about goods, services and policies, and providing information about their availability, location, price and related issues;
- b) responding to enquiries about problems and providing advice, information and assistance;
- c) recording information about enquiries and complaints;
- d) referring complex enquiries to team leaders or expert advisers; and
- e) issuing relevant forms, information kits and brochures to interested parties.

Examples of the occupations classified here:

Counter clerk
Counter enquiries clerk
Desk clerk
Information clerk
Reservation clerk

4226 RECEPTIONISTS (GENERAL) 4222 p 4226

Receptionists (general) receive and welcome visitors, clients, or guests; and respond to enquiries and requests, including arranging for appointments.

Their tasks include:

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>a) receiving and welcoming visitors, guests or clients;</p> <p>b) making appointments for clients;</p> <p>c) dealing with telephone requests for information or appointments;</p> <p>d) directing clients to appropriate location or person; and</p> <p>e) supplying information pamphlets, brochures or forms.</p> <p>Examples of the occupations classified here:</p> <p>Medical receptionist</p> <p>Receptionist</p> <p>Some related occupations classified elsewhere:</p> <p>Hotel receptionist - 4224</p> <p>Medical secretary - 3344</p>		
		4227	<p>SURVEY AND MARKET RESEARCH INTERVIEWERS</p> <p>Survey and market research interviewers interview people and record their responses to survey and market research questions on a range of topics.</p> <p>Their tasks include:</p> <p>a) contacting individuals by telephone or in person and explaining the purpose of the interview;</p> <p>b) asking questions following the outlines of questionnaires and surveys;</p> <p>c) recording responses on paper or entering responses directly into a computer database through computer-assisted interviewing systems;</p> <p>d) identifying and resolving inconsistencies in responses; and</p> <p>e) providing feedback to survey sponsors concerning problems in obtaining valid data.</p> <p>Examples of the occupations classified here:</p> <p>Market research interviewer</p> <p>Public opinion interviewer</p> <p>Survey interviewer</p>	4222 p	4227
		4229	<p>CLIENT INFORMATION WORKERS NOT ELSEWHERE CLASSIFIED</p> <p>This Unit Group includes client information workers not elsewhere classified in Minor Group 422. Client information workers. For instance, it includes workers who obtain and process information from clients needed to determine eligibility for services.</p> <p>In such cases, tasks would include:</p> <p>a) interviewing patients to obtain and process information required to provide hospital services;</p> <p>b) interviewing applicants for public assistance to gather information pertinent to their application;</p>	4222 p	4229

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- c) verifying the accuracy of information provided;
- d) initiating procedures to grant, modify, deny or terminate assistance;
- e) providing information and answering questions concerning benefits and claims procedures; and
- f) referring patient or applicant to other organizations if they are ineligible for services.

Examples of the occupations classified here:

- Admission clerk
- Hospital admissions clerk
- Eligibility interviewer
- Eligibility specialist

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NUMERICAL AND MATERIAL RECORDING CLERKS

Numerical and material recording clerks obtain, compile and compute accounting, bookkeeping, statistical, financial and other numerical data; and take charge of cash transactions incidental to business matters. Some occupations classified here keep records of goods produced, purchased, stocked, dispatched and of materials needed at specified production dates; or keep records of operational aspects; and coordinate the timing of passenger and freight transport.

Tasks performed by workers in this Sub-Major Group usually include: helping with accounting and bookkeeping records and computations; calculating unit production costs; calculating wages and in some cases preparing wage packets and paying wages; taking charge of cash transactions incidental to the business; obtaining, compiling and computing statistical or actuarial data; performing clerical tasks relating to the financial transactions of an insurance establishment, bank or similar establishment; recording produced, stocked, ordered and dispatched goods; recording production materials received, put into stock or issued; computing quantities of the production materials required at specified dates; and helping with preparation and checking of production operation schedules; keeping records of operational aspects; and coordinating the timing of passenger and freight transport.

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NUMERICAL CLERKS

Numerical clerks obtain, compile and compute accounting, bookkeeping, statistical, financial and other numerical data; and take charge of cash transactions incidental to business matters.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Tasks performed usually include: helping with accounting and bookkeeping records and computations; calculating unit production costs; calculating wages and in some cases, preparing wage pockets and paying wages; taking charge of cash transactions incidental to the business; obtaining, compiling and computing statistical or actuarial data; and performing clerical tasks relating to the financial transactions of an insurance establishment, bank or similar establishment.</p>		
		4311	<p>ACCOUNTING AND BOOKEEPING CLERKS</p> <p>Accounting and bookkeeping clerks compute, classify and record numerical data to keep financial records complete. They perform any combination of routine calculating, posting and verifying duties to obtain primary financial data for use in maintaining accounting records.</p> <p>Their tasks include:</p> <p>a) checking figures, postings and documents for correct entry, mathematical accuracy and proper codes;</p> <p>b) operating computers programmed with accounting software to record, store and analyze information;</p> <p>c) classifying, recording and summarizing numerical and financial data to compile and keep financial records using journals and ledgers or computers;</p> <p>d) calculating, preparing and issuing bills, invoices, account statements and other financial statements according to established procedures; and</p> <p>e) compiling statistical, financial, accounting or auditing reports and tables pertaining to such matters as cash receipts, expenditures, accounts payable and receivable, and profits and losses.</p> <p>Examples of the occupations included here:</p> <p>Accounting sales clerk Accounts clerk Accounts payable practitioner Audit clerk Bookkeeping clerk Budgeting aide Budgeting clerk Cost computing clerk</p> <p>Some related occupations classified elsewhere:</p> <p>Accounting assistant - 3313 Bookkeeper - 3313</p>	4121 p	4311
		4312	<p>STATISTICAL, FINANCE AND INSURANCE CLERKS</p>	4122 p	4312

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Statistical, finance and insurance clerks obtain, compile and compute statistical or actuarial data or perform clerical tasks relating to the transactions of insurance establishments, banks and other financial establishments.

Their tasks include:

- a) processing insurance enrolments, cancellations, claims transactions, policy changes and payments;
- b) obtaining and compiling statistical or actuarial data based on routine or special sources of information;
- c) calculating totals, averages, percentages and other details and presenting them in the required tabular form;
- d) preparing financial documents, and calculating interest or brokerage charges and stamp duties payable; and
- e) maintaining records of bonds, shares and other securities bought or sold on behalf of clients or employer.

Examples of the occupations included here:

- Actuarial clerk
- Brokerage clerk
- Finance clerk
- Finance practitioner
- Insurance clerk
- Logistics clerk
- Mortgage clerk
- New accounts clerk
- Securities clerk
- Statistical clerk
- Tax clerk
- Treasury clerk

Some related occupations classified elsewhere:

- Accounting assistant - 3313
- Accounts clerk - 4311
- Bookkeeping clerk - 4311
- Statistical assistant - 3314
- Stocks and shares broker - 3311
- Trade broker - 3324

4313	PAYROLL CLERKS	4121 p	4313
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Payroll clerks collect, verify and process payroll information and compute pay and benefit entitlements for employees within a department, company or other establishment.

Their tasks include:

- a) maintaining records of employee attendance, leave and overtime to calculate pay and benefit entitlements, using manual or computerized systems;

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b) preparing and verifying statements of earnings for employees, indicating gross and net salaries and deductions such as taxes, union dues, garnishments and insurance and pension plans;
c) preparing employee payments and benefit payments by cheque or electronic transfer;
d) reviewing time sheets, work charts, wage computation and other information to detect and reconcile payroll discrepancies; and
e) verifying attendance, hours worked and pay adjustments, and posting information onto designated records.

Examples of the occupations included here:

Payroll and timekeeping specialist
Payroll practitioner
Wages/Payroll clerk

Some related occupations classified elsewhere:

Accounting assistant - 3313
Accounts clerk - 4311
Bookkeeper - 3313
Bookkeeping clerk - 4311

432

MATERIAL RECORDING AND TRANSPORT CLERKS

Material recording and transport clerks keep records of goods produced, purchased, stocked, dispatched and of materials needed at specified production dates, or keep records of operational aspects and coordinate the timing of passenger and freight transport.

Tasks performed usually include: recording produced, stocked, ordered and dispatched goods; recording production materials received, put into stock or issued; computing quantities of the production materials required at specified dates; and helping with preparation and checking of production operation schedules; keeping records of operational aspects; and coordinating the timing of passenger and freight transport.

4321

STOCK CLERKS

4131

4321

Stock clerks maintain records of goods produced and production materials received, weighed, issued, dispatched or put into stock.

Their tasks include:

a) arranging and controlling receipt and dispatch of goods and keeping relevant records;
b) maintaining stock records, verifying issue of goods, estimating needs and making requisitions of new stocks;
c) receiving, storing and issuing tools, spare parts, or various equipment and maintaining relevant records;

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			<p>d) weighing goods received, issued, produced, or dispatched and maintaining relevant records; and</p> <p>e) compiling inventories of furniture and other items received for storage.</p> <p>Examples of the occupations included here:</p> <ul style="list-style-type: none"> Cargo clerk Dispatch clerk (stock) Freight clerk Stock clerk Stock controller clerk Stock checker clerk Storekeeper clerk Storeroom clerk Supply canvasser clerk Supply checker clerk Warehouse clerk Weighing clerk 		
		4322	<p>PRODUCTION CLERKS</p> <p>Production clerks compute quantities of materials required at specified dates for manufacturing, construction and similar production programmes; and prepare and check production operation schedules.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) computing quantities, qualities and types of materials required by production programme; b) preparing production requirements schedules, ensuring that materials are available when needed, and keeping relevant records; c) preparing or assisting in the preparation of production operation schedules on the basis of customers' orders and production capacity and performance; d) verifying stocks, arranging deliveries and investigating delays; and e) recording and coordinating the flow of work and materials between departments. <p>Examples of the occupations included here:</p> <ul style="list-style-type: none"> Material control/Material handling clerk Order/Materials clerk Planning/Materials clerk Processing and control clerk Production clerk Production/Planning clerk Schedule clerk (materials) 	4132 p	4322
		4323	<p>TRANSPORT CLERKS</p> <p>Transport clerks keep records of operational aspects and coordinate the timing of train, road and air passenger and freight transport; and prepare reports for management.</p>	4133	4323

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Their tasks include:

- a) keeping records of operational aspects and coordinating the timing of passenger and freight transport;
- b) directing train routings within a division or zone of a railway system and keeping related records;
- c) directing, controlling and keeping records of freight handling at a railway yard;
- d) coordinating and keeping records of operational activities concerning road transport, such as allocation and scheduling of vehicles and drivers, loading and unloading of vehicles and storage of goods in transit;
- e) coordinating and keeping records of operational activities concerning air transport of passengers and freight, such as passenger lists and freight manifests; and
- f) preparing reports for management.

Examples of the occupations included here:

- Aircraft dispatcher
- Auto fuel dispatcher
- Cargo checker
- Clerical controller (transport service)
- Clerical dispatcher (transport service)
- Dispatching and receiving clerk
- Road transport dispatcher
- Ship boarding inspector
- Train dispatcher

44

OTHER CLERICAL SUPPORT WORKERS

Other clerical support workers perform clerical duties in newspapers, courts, libraries and post offices; file documents; prepare information for processing; maintain personnel records; check material for consistency with original source material; and write on behalf of illiterate persons.

Tasks performed by workers in this Sub-Major Group usually include: recording information regarding acquisition, issue and return of library books; maintaining personnel records; classifying and filing various documents and other records; sorting, recording and delivering mail from post offices, as well as from or within an enterprise; coding; correcting proofs; performing a number of miscellaneous clerical duties; and writing on behalf of persons who are unable to read and write.

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OTHER CLERICAL SUPPORT WORKERS

Other clerical support workers perform clerical duties in newspapers, courts, libraries and post offices; file documents; prepare information for processing; maintain personnel records; check material for consistency with original source material; and write on behalf of illiterate persons.

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Tasks performed by workers in this Minor Group usually include: recording information regarding acquisition, issue and return of library books; maintaining personnel records; classifying and filing various documents and other records; sorting, recording and delivering mail from post offices, as well as from or within an enterprise; coding; correcting proofs; performing a number of miscellaneous clerical duties; and writing on behalf of persons who are unable to read and write.

4411	LIBRARY CLERKS	4141 p	4411
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Library clerks issue and receive library materials; sort and shelf books, sound and vision recordings, periodicals, journals, magazines and newspapers; and provide general library information to library users.

Their tasks include:

- a) issuing and receiving library books and other materials;
- b) reshelving books and other library materials;
- c) performing clerical activities such as manual and electronic filing, word processing and occasional typing;
- d) maintaining journal subscriptions;
- e) assisting library users in accessing basic library materials and making inter-library loans; and
- f) maintaining library records relating to the acquisition, issue and return of books and other materials.

Examples of the occupations included here:

- Librarian aide
- Library assistant
- Library clerk
- Library filer

4412	MAIL CARRIERS AND SORTING CLERKS	4142	4412
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Mail carriers and sorting clerks perform sorting, recording, delivery and other duties in connection with mail services from post offices or related organizations, as well as from or within an establishment.

Their tasks include:

- a) performing mail-handling duties in public post offices or privately-owned delivery establishments;
- b) sorting and delivering mail to private houses and businesses;
- c) providing delivery confirmation records when requested by the client; and
- d) sorting and keeping simple records of incoming and outgoing correspondence and dispatching outgoing mail in various establishments.

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Examples of the occupations included here:

Courier
Mail clerk
Mail messenger
Mail/Dispatch clerk
Mail/Sorting clerk
Post carrier
Postal clerk
Posting/Verifier clerk
Postman/woman
Telegram carrier
Telegraph carrier

4413	CODING, PROOF-READING AND RELATED CLERKS	4143	4413
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Coding, proof-reading and related clerks convert information into codes; verify and correct proofs; and perform a number of miscellaneous clerical duties.

Their tasks include:

- a) converting information into codes and classifying information by codes for data-processing purposes;
- b) comparing proofs of texts and related material prepared for printing with original material; correcting errors; and marking texts for printer according to the established rules;
- c) sorting forms and marking them with identification numbers;
- d) sorting documents for filing or to collate sets of pages; and
- e) addressing circulars and envelopes by hand.

Examples of the occupations included here:

Coding clerk
Proof-reading clerk
Signature verifier
Type reader

4414	SCRIBES AND RELATED WORKERS	4144	4414
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Scribes and related workers write letters and complete forms on behalf of persons who are unable to read and write, e.g., illiterate persons, not physically present, etc.

Their tasks include:

- a) reading letters and other written matter to persons who are unable to read or write and providing necessary interpretation and information;
- b) writing letters and completing forms on behalf of others; and
- c) offering advice to individuals and interpreting and helping with the completion of government and other official forms.

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Examples of the occupations included here:

Scribe

Some related occupations classified elsewhere:

Medical transcriptionist - 3344

4415	FILING AND COPYING CLERKS	4141 p	4415
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Filing and copying clerks file correspondence, cards, invoices, receipts and other records in alphabetical or numerical order or according to the filing system used. They locate and remove material from file when requested; and photocopy, scan or fax documents.

Their tasks include:

- a) sorting or classifying materials according to guidelines such as content, purpose, user criteria, or chronological, alphabetical, or numerical order;
- b) filing material in drawers, cabinets and storage boxes;
- c) locating and removing materials from files when requested;
- d) keeping records of materials filed and removed; and
- e) photocopying, scanning or faxing documents.

Examples of the occupations included here:

Copying clerk

Filing clerk

4416	PERSONNEL CLERK	4190 p	4416
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Personnel clerks maintain and update personnel records such as information on transfers and promotions, performance evaluations, employee leave taken and accumulated, salaries, qualifications and training.

Their tasks include:

- a) updating information on employment history, salaries, performance evaluations, qualifications and training, and leave taken and accumulated;
- b) initiating records for newly-appointed workers and checking records for completeness;
- c) processing applications for employment and promotions and advising applicants of results;
- d) receiving and answering inquiries about employment entitlements and conditions;
- e) sending out job applications and announcements of job openings and job examinations;
- f) maintaining and updating manual and computerized filing and registration systems; and compiling and preparing reports and documents relating to personnel activities; and
- g) storing and retrieving personnel records and files on request.

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Examples of the occupations included here:

Benefits service practitioner
Employee data management practitioner
Human resource assistant
Human resource clerk
Learning practitioner
Recruitment practitioner
Technical recruiter

4419	CLERICAL SUPPORT WORKERS NOT ELSEWHERE CLASSIFIED	4190 p	4419
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This Unit Group covers clerical support workers not classified elsewhere in Major Group 4. Clerical support workers. For instance, the group includes correspondence clerks, press clippers and publication clerks.

In such cases, tasks would include:

- a) receiving customers' orders for classified advertising; writing and editing copy; calculating advertising rates; and billing customers;
- b) writing business and government correspondence such as replies to requests for information and assistance, damage claims, credit and billing enquiries and service complaints;
- c) assisting in the preparation of periodicals, advertisements, catalogues, directories and other material for publication; and
- d) reading newspapers, magazines, press releases and other publications to locate and file articles of interest to staff and clients.

Examples of the occupations included here:

Advertising clerk
Correspondence clerk
Directory compiler
Mobility practitioner
Press clipper
Publication clerk

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Major Group 5.

SERVICE AND SALES WORKERS

Service and sales workers provide personal and protective services related to travel, housekeeping, catering, personal care, or protection against fire and unlawful acts, or demonstrate and sell goods in wholesale or retail shops and similar establishments, as well as at stalls and on markets. Most occupations in this Major Group require skills at the second PSOC skill level.

Tasks performed by service and sales workers usually include: organizing and providing services during travel; housekeeping; preparing and serving of food and beverages; caring for children; providing personal and basic health care at homes or in institutions, as well as hairdressing, beauty treatment and companionship; telling fortunes; embalming and arranging funerals; providing security services and protecting individuals and property against fire and unlawful acts; enforcing of law and order; posing as models for advertising, artistic creation and display of goods; selling goods in wholesale or retail establishments, as well as at stalls and on markets; and demonstrating goods to potential customers. Supervision of other workers may be included.

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PERSONAL SERVICE WORKERS

Personal service workers provide personal services related to travel, housekeeping, catering, child and personal care.

Tasks performed by workers in this Sub-Major Group usually include: organizing and providing of services during travel; housekeeping; preparing and serving food and beverages; providing personal and basic health care at homes or institutions, as well as hairdressing, beauty treatment and companionship; telling fortunes; and embalming and arranging funerals. Supervision of other workers may be included.

511

TRAVEL ATTENDANTS, CONDUCTORS AND GUIDES

Travel attendants, conductors and guides provide various personal services in connection with travelling by aircraft, train, ship, bus or other vehicle; and escorting individuals and groups on travel tours, sightseeing visits and excursions.

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Tasks performed usually include: ensuring the comfort and safety of passengers; serving food and refreshments; providing information and answering questions in connection with travel; collecting or issuing tickets on board public transport; and accompanying individuals or groups on sightseeing tours or excursions and describing points of interest.

5111 TRAVEL ATTENDANTS AND TRAVEL STEWARDS 5111

Travel attendants and travel stewards ensure the comfort and safety of passengers; serve meals and beverages; and render personal services, usually on aircraft and on board ships. They may plan and coordinate housekeeping and social activities on ships.

Their tasks include:

- a) greeting passengers entering aircraft or ship; checking tickets or boarding passes; and directing them to their seats or berths;
- b) announcing, explaining and demonstrating safety and emergency procedures, such as the use of oxygen masks, seat belts, and life jackets;
- c) assembling and serving pre-prepared meals and beverages;
- d) selling duty-free and other goods;
- e) taking care of general needs and comfort of passengers, answering inquiries, and keeping cabins clean and tidy;
- f) directing and assisting passengers and following prescribed procedures in the event of an emergency, such as evacuating a plane following an emergency landing;
- g) verifying that first aid kits and other emergency equipment are in working order;
- h) administering first aid to passengers in distress;
- i) attending pre-flight briefings concerning weather, altitudes, routes, emergency procedures, crew coordination, lengths of flights, food and beverage services offered, and numbers of passengers;
- j) preparing passengers and aircraft for take-off and landing; and
- k) determining special assistance needs of passengers such as small children, the elderly, or disabled persons.

Examples of the occupations classified here:

- Aircraft cabin attendant
- Airlines steward and hostess
- Airport attendant
- Flight attendant
- Flight steward/stewardess
- Ship steward
- Travel attendant

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Travel steward

5112 TRANSPORT CONDUCTORS 5112

Transport conductors check and issue tickets; and ensure the safety and comfort of passengers on trains, trams, buses and other public transport vehicles.

Their tasks include:

- a) collecting and issuing tickets, passes or fares, and checking the validity of tickets issued previously;
- b) attending to sleeping-cars and their occupants on passenger trains;
- c) providing assistance with boarding, seating and luggage as required, especially to elderly, sick, or injured people;
- d) opening and closing doors for passengers;
- e) performing equipment safety checks prior to departure;
- f) signalling to drivers to stop or proceed;
- g) greeting passengers, boarding transportation equipment, and announcing routes and stops;
- h) ensuring that safety regulations are respected;
- i) responding to passengers requests and complaints and providing information about stops and connections; and
- j) taking appropriate action in case of emergencies or accidents.

Examples of the occupations classified here:

- Bus conductor
- Bus inspector
- Cable car conductor
- Passenger car conductor
- Railway passenger train guard
- Road freight conductor
- Sleeping on pullman-car attendant
- Ticket inspector (public transport)
- Train conductor
- Tram conductor
- Transport conductor

5113 TRAVEL GUIDES 5113

Travel guides accompany individuals or groups on trips, sightseeing tours and excursions and on tours of places of interest such as historical sites, industrial establishments and theme parks. They describe points of interest and provide background information on interesting features.

Their tasks include:

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- a) escorting and guiding tourists on cruises and sightseeing tours;
- b) escorting visitors through places of interest such as museums, exhibitions, theme parks, factories and other industrial establishments;
- c) describing and providing information on points of interest and exhibits, and responding to questions;
- d) conducting educational activities for school children;
- e) monitoring visitors' activities to ensure compliance with establishment or tour regulations and safety practices;
- f) greeting and registering visitors and tour participants, and issuing any required identification badges or safety devices;
- g) distributing brochures, showing audio-visual presentations, and explaining procedures and operations at tour sites;
- h) providing for physical safety of groups, and performing activities such as providing first aid and directing emergency evacuations; and
- i) resolving any problems with tour itineraries, service, or accommodation.

Examples of the occupations classified here:

- Art gallery guide
- Mountaineering guide
- Museum guide
- Recreational attendant
- Sightseeing guide
- Tour escort
- Travel/Tour guide

512 5120 COOKS 5122

Cooks plan, organize, prepare and cook meals in hotels, restaurants and other eating places, on board ships, on passenger trains and in private households.

Their tasks include:

- a) planning meals, preparing and cooking foodstuffs;
- b) planning, supervising and coordinating the work of kitchen helpers;
- c) checking the quality of food;
- d) weighing, measuring and mixing ingredients according to recipes and personal judgement;
- e) regulating the temperature of ovens, grills, roasters and other cooking equipment; inspecting and cleaning the kitchen, kitchen equipment, serving areas, etc. to ensure safe and sanitary food handling practices; and
- f) operating large-volume cooking equipment such as grills, deep-fat fryers, or griddles.

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Examples of the occupations classified here:

Cook
Cook, private service
Head cook
Ship's cook

Some related occupations classified elsewhere:

Chef - 3434
Fastfood preparer - 9411

513

WAITERS AND BARTENDERS

Waiters and bartenders serve food and beverages in commercial dining and drinking places, clubs, institutions and canteens, on board ships and on passenger trains.

Tasks performed usually include: assisting in keeping bar properly stocked; washing used glassware and cleaning bar area; serving alcoholic and non-alcoholic drinks at a bar; setting tables with clean linen, cutlery, crockery and glassware; serving food and beverages; advising on the choice of wines and serving them; taking orders for food and/or drinks and passing order to kitchen; presenting bill; and accepting payment.

5131

WAITERS

5123

Waiters serve food and beverages at tables in dining and drinking places, clubs, institutions and canteens, on board ships and on passenger trains.

Their tasks include:

- a) setting tables with clean linen, cutlery, crockery and glassware;
- b) greeting customers and presenting them with menus and beverage lists;
- c) advising on food and beverage choices;
- d) taking orders for food and drinks and passing order to kitchen or bar staff;
- e) serving food and beverages to clients at tables;
- f) clearing tables and returning dishes and cutlery to kitchen; and
- g) presenting bills, accepting payment and operating point of sales machines and cash registers.

Examples of the occupations classified here:

Food attendant
Food server
Service crew
Waiter, formal service
Waiter, general
Waiter/Waitress

Some related occupations classified elsewhere:

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Bartender - 5132
Café manager - 1412
Restaurant manager - 1412

5132 BARTENDERS 5123

Bartenders prepare, mix and serve alcoholic and non-alcoholic drinks directly to customers over a bar or counter, or through waiters.

Their tasks include:

- a) taking beverage orders from serving staff or directly from patrons;
- b) preparing and serving alcoholic and non-alcoholic drinks at a bar;
- c) washing used glassware, cleaning and maintaining bar service areas, tea and coffee-making areas and equipment such as espresso machines;
- d) collecting payment for sales, operating cash registers and balancing cash receipts;
- e) tapping kegs and attaching supply lines;
- f) assisting in keeping bar properly stocked and arranging bottles and glasses;
- g) checking identification of customers to verify age requirements for purchase of alcohol;
- h) taking steps to limit problems related to excessive drinking such, as persuading customers to stop drinking, declining further service and ordering transportation;
- i) mixing ingredients to prepare cocktails and other drinks; and
- j) serving snacks or other food items to customers at the bar.

Examples of the occupations classified here:

Bar helper
Bar keeper
Barmaid
Bartender

Some related occupations classified elsewhere:

Waiter - 5131

514 HAIRDRESSERS, BEAUTICIANS AND RELATED WORKERS

Hairdressers, beauticians and related workers cut and dress hair; shave and trim beards; give beauty treatment; apply cosmetics and make-up; and give other kinds of treatment to individuals in order to improve their appearance.

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			<p>Their tasks include: discussing customers' requirements; cutting and dressing hair; shaving and trimming beards; giving beauty treatment, and applying cosmetics and make up; shaping and polishing finger and toe nails and treating minor ailments of the human foot; and attending clients taking bath and administering elementary massage.</p>		
		5141	<p>HAIRDRESSERS</p> <p>Hairdressers cut, style, color, straighten and permanently wave hair; shave or trim facial hair; and treat scalp conditions.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) cutting, washing, tinting and waving hair; b) shaving or trimming beards and moustaches; c) giving scalp treatment; d) fitting wigs according to customers' requirements; e) providing advice on hair care, beauty products and hairstyles; f) styling hair into dreadlocks and braids and adding hair extensions; g) arranging appointments and collecting payments; and h) cleaning work areas and sanitizing instruments. <p>Examples of the occupations classified here:</p> <ul style="list-style-type: none"> Barber Barber-hairdresser Hair care specialist Hairdresser Hairstylist 	5151 p	
		5142	<p>BEAUTICIANS AND RELATED WORKERS</p> <p>Beauticians and related workers give facial and body beauty treatments; apply cosmetics and make-up; and give other kinds of treatment to individuals in order to improve their appearance.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) cleaning and applying creams, lotions and related products to face and parts of body; b) giving facial and body massage; c) applying make-up to clients of a beauty parlor or to actors and other performers; d) cleaning, shaping and polishing finger- and toe-nails; and treating minor ailments of the human foot such as corns, calluses or deformed toe-nails; e) attending to clients taking bath and administering elementary massage; 	5151 p	

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f) using waxing, sugaring and depilation techniques to remove unwanted bodily hair;

g) advising clients on diet and exercise to assist in weight loss and slimming; and

h) arranging appointments and collecting payments.

Examples of the occupations classified here:

Attendant (sauna bath, body massage/scrub, foot/hand spa)

Bath attendant

Beautician

Beauty consultant

Cosmetics and skin care beauty consultant

Cosmetologist

Make-up artist

Manicurist

Mortuary beautician

Pedicurist

Slimming consultant

515

BUILDING AND HOUSEKEEPING SUPERVISORS

Building and housekeeping supervisors coordinate, schedule, and supervise the work of cleaners and other housekeeping staff in commercial, industrial and residential premises. They take responsibility for housekeeping and caretaking functions in hotels, offices, apartments, houses and private dwellings.

Tasks usually include: assigning tasks and inspecting building areas to see that cleaning, housekeeping and maintenance work has been done properly; issuing of supplies and equipment and inventory stocks to ensure that the supplies on hand are adequate; screening and hiring job applicants; training both new and experienced employees; recommending promotions, transfers or dismissals; and performing some cleaning, housekeeping and maintenance tasks.

5151 CLEANING AND HOUSEKEEPING SUPERVISORS IN OFFICES, HOTELS AND OTHER ESTABLISHMENTS

5121 p

Cleaning and housekeeping supervisors in offices, hotels and other establishments organize, supervise and carry out housekeeping functions in order to keep clean and tidy the interiors, fixtures and facilities in these establishments.

Their tasks include:

a) engaging, training, discharging, organizing and supervising helpers, cleaners and other housekeeping staff;

b) purchasing or controlling the purchase of supplies;

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- c) controlling storage and issue of supplies;
- d) supervising general welfare and conduct of individuals in institutions;
- e) sweeping or vacuum-cleaning, washing and polishing floors, furniture and other fixtures;
- f) making beds, cleaning bathrooms, supplying towels, soap and related items;
- g) cleaning kitchens and generally helping with kitchen work, including dishwashing; and
- h) restocking mini-bars and replenishing items such as drinking glasses and writing equipment.

Examples of the occupations classified here:

- Chambermaid
- Hotel housekeeping attendant
- Housekeeper (hotel)
- Housekeeper (institutional)
- Matron (housekeeping)

Some related occupations classified elsewhere:

- Bed and breakfast operator - 5152
- Building caretaker - 5153
- Domestic cleaner - 9111
- Domestic housekeeper - 5152
- Hotel manager - 1411

5152 HOUSEHOLD SERVICE PROVIDERS

5121 p

Household service providers organize, supervise and carry out housekeeping functions in private households with or without the support of subordinate staff.

Their tasks include:

- a) supervising workers employed in households as domestic staff;
- b) purchasing or controlling the purchase of supplies;
- c) controlling storage and issue of supplies;
- d) assisting in cases of minor injury or illness by performing tasks such as taking temperature, giving medicine, putting on bandages;
- e) sweeping or vacuum-cleaning, washing and polishing floors, furniture and other fixtures;
- f) making beds, cleaning bathrooms, supplying towels, soap and related items;
- g) taking care of household pets and plants, receiving visitors, answering telephones, delivering messages and shopping for groceries;
- h) preparing and cooking meals, setting and clearing tables and serving food and beverages; and
- i) cleaning kitchens and generally helping with kitchen work, including dishwashing.

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Examples of the occupations classified here:

Bed and breakfast operator
Butler
Domestic housekeeper
House steward/stewardess

Some related occupations classified elsewhere:

Hotel manager - 1411

5153 BUILDING CARETAKERS

9141

Building caretakers take care of apartment houses, hotels, offices, churches and other buildings and maintain them and associated grounds in a clean and orderly condition. They may supervise other workers and contractors depending on the size and nature of the building concerned.

Their tasks include:

- a) supervising the work of cleaning, housekeeping and building maintenance staff and contractors;
- b) participating in cleaning, simple repairs and maintenance of building interiors;
- c) tending furnaces and boilers to ensure provision of heat and hot water;
- d) regulating conduct of tenants and visitors in such matters as noise abatement or misuse of property;
- e) providing small services to absent tenants such as accepting deliveries on their behalf or providing requested information to callers;
- f) notifying management and owners of buildings of the need for major repairs;
- g) patrolling buildings to ensure security is maintained; and
- h) filling out registration forms and providing tenants with copies of rules.

Examples of the occupations classified here:

Caretaker
Concierge (building)
Cottage caretaker
Dorm caretaker
Groundskeeper
Janitor
Lighthouse keeper
Sexton
Warehouse aide

516

OTHER PERSONAL SERVICES WORKERS

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Other personal services workers recount past and predict future events in persons' lives; provide companionship and other personal services; groom, train and care for animals; provide embalming and funeral services; and train people to drive vehicles.</p> <p>Tasks performed usually include: casting horoscopes; providing companionship or valet services and other personal services to clients; providing embalming and funeral services; feeding, handling, training and grooming animals; and instructing students under actual driving conditions.</p>		
		5161	<p>ASTROLOGERS, FORTUNE-TELLERS AND RELATED WORKERS</p> <p>Astrologers, fortune-tellers and related workers recount past and predict future events in persons' lives by practicing astrology, on the basis of characteristics of the clients' palms, samples of playing cards drawn or other techniques.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) casting horoscopes of individuals at birth or later to recount past and forecast future events and conditions of their lives; b) interpreting characteristics of clients' palms, samples of playing cards, position of tea leaves or coffee remnants in a cup, shapes and patterns of bones of dead animals, etc.; c) forecasting future events on the basis of these interpretations; d) determining auspicious times for various human activities such as inaugurations, marriages, journeys and religious and other ceremonies; e) giving warnings and advice on possible courses of action; and f) advising individuals on precautions to be taken to avoid evil influences. <p>Examples of the occupations classified here:</p> <ul style="list-style-type: none"> Astrologer Fengshui Fortune teller Numerologist Palmist Psychic reader <p>Some related occupations classified elsewhere:</p> <ul style="list-style-type: none"> Faith healer - 3413 Village healer - 3230 Witch doctor - 3230 	5141; 5142	
		5162	COMPANIONS AND VALETS	5152	

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Companions and valets provide companionship and attend to various needs of the employer.

Their tasks include:

- a) providing companionship to employer by accompanying him/her to various places, reading, conversing and participating in activities such as sports;
- b) assisting in entertaining visitors in employer's home; and
- c) keeping wardrobe and personal effects of the employer in good order.

Examples of the occupations classified here:

Chaperon
Companion
Personal maid
Valet

Some related occupations classified elsewhere:

Dancing partner - 5169
Social escort - 5169

5163 UNDERTAKERS AND EMBALMERS

5153

Undertakers and embalmers perform various tasks in the disposal of dead human bodies.

Their tasks include:

- a) making arrangements for, and conducting, funerals, cremations and burials;
- b) embalming human bodies to retard or arrest the process of decay;
- c) conforming to health and sanitation and ensuring that legal requirements concerning embalming are met;
- d) incising and closing incisions on various parts of the body and reshaping or reconstructing disfigured or maimed bodies when necessary;
- e) dressing bodies and placing them in caskets; and
- f) conducting interviews to arrange for preparation of obituary notices, to assist with the selection of caskets or urns, and to determine the location and time of burials or cremations.

Examples of the occupations classified here:

Autopsy attendant
Cremator
Embalmer
Funeral undertaker
Grave digger
Sepulture
Undertaker

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5164 PET GROOMERS AND ANIMAL CARE WORKERS 5139 p

Pet groomers and animal care workers feed, handle, train and groom animals; and assist veterinarians, animal health technologists and technicians in veterinary facilities, animal shelters, breeding and boarding kennels, zoos, laboratories, retail pet shops, riding schools, dog training schools, pet grooming and similar establishments.

Their tasks include:

- a) bathing and feeding animals;
- b) leading or carrying animals to treatment room and holding them during treatment;
- c) cleaning and sterilizing veterinary surgical instruments;
- d) labelling drugs, chemicals and other pharmaceutical preparations and replenishing stock;
- e) sterilizing bottles, beakers and other equipment;
- f) cleaning, organizing, and disinfecting animal quarters such as pens, stables, cages, and yards, and animal equipment such as saddles and bridles;
- g) collecting and recording animal information such as weight, size, physical condition and treatments received, medications given, and food intake;
- h) training animals to develop and maintain desired animal behaviors for competition, entertainment, obedience, security, riding and other activities; and
- i) grooming animals by performing tasks such as washing, brushing, clipping, and trimming coats, cutting nails and cleaning ears.

Examples of the occupations classified here:

- Dog trainer
- Horse breaker
- Pet groomer
- Veterinary aide
- Zoo keeper

5165 DRIVING INSTRUCTORS

Driving instructors teach people how to drive motor vehicles.

Their tasks include:

- a) instructing students under actual driving conditions; and explaining and demonstrating the operation of brakes, clutch, gear selection, automatic transmission, signals and lights;
- b) teaching road traffic regulations;
- c) teaching road craft and road safety;

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- d) advising students when they are ready to undergo driving examination;
- e) advising on and teaching advanced driving techniques required for emergency situations; and
- f) illustrating and explaining handling and mechanical operation of motor vehicles and driving techniques using blackboard diagrams and audio-visual aids.

Examples of the occupations classified here:

Driving instructor

Some related occupations classified elsewhere:

Flying instructor - 3153

5169 PERSONAL SERVICES WORKERS NOT ELSEWHERE CLASSIFIED

5159 p

This Unit Group covers personal services workers not elsewhere classified in Sub-Major Group 51. Personal Services Workers. For instance, those who provide services and companionship as dancing partners, social escorts, and night club hostesses or hosts are classified here.

Examples of the occupations classified here:

Club host/hostess
Dancing partner
Escort
Hospitality girl (GRO)
Host/Hostess
Social escort
Usher/Usherette

Some related occupations classified elsewhere:

Companion - 5162

52

SALES WORKERS

Sales workers sell and demonstrate goods in wholesale or retail shops, at stalls and markets, door-to-door, via telephone or customer contact centers. They may record and accept payment for goods and services purchased, and may operate small retail outlets.

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Tasks performed by workers in this Sub-Major Group may include the following: selling goods in wholesale or retail establishments or at street or market stalls, door-to-door, via telephone or customer contact centers; demonstrating and displaying goods to potential customers; selling and serving food for immediate consumption at counters and in the street; buying or contracting a regular supply of products to be sold; stacking and displaying goods for sale, and wrapping and packing goods sold; determining product mix, stock and price levels for goods to be sold; operating cash registers, optical price scanners, computers or other equipment to record and accept payment for the purchase of goods and services. Supervision of other workers may be required in some occupations classified here.

521

STREET AND MARKET SALESPERSONS

Street and market salespersons sell goods from stalls on markets or in streets and prepare and sell hot or cold food and beverages ready for immediate consumption in streets and public places.

Tasks performed usually include: obtaining permission to set up a stand at a particular place in streets, markets or other open spaces or to sell food and drinks on the streets; buying or contracting a regular supply of products to be sold; erecting and dismantling stalls and stands; transporting, storing, loading and unloading products for sale; stacking, displaying and selling goods, food and drinks and accepting payment; wrapping and packing goods sold; preparing food and drinks for sale; pushing, pedalling or carrying hand-cart, truck, tray or basket to bring food and drinks to the desired place in the street, or to public places such as stations or cinemas; and keeping accounts and maintaining a record of stock levels.

5211 STALL AND MARKET SALESPERSONS

5230

Stall and market salespersons sell various goods from stalls on open-air or covered markets or from stalls in streets or other open spaces.

Their tasks include:

- a) obtaining permission to set up a stand at a particular place in streets, markets or other open spaces;
- b) determining product mix, stock and price levels for goods to be sold;
- c) buying or contracting a regular supply of goods to be sold from wholesale suppliers or directly from producers;

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- d) erecting and dismantling stalls and stands; and transporting, storing, loading and unloading goods for sale;
- e) demonstrating and selling goods and accepting payment;
- f) stacking and displaying goods for sale; and wrapping and packing goods sold; and
- g) keeping accounts and maintaining a record of stock levels.

Examples of the occupations classified here:

- Kiosk salesperson
- Market salesperson
- Market stallholder
- Market vendor
- Stall salesperson
- Store assistant
- Store salesperson
- Street stall sales assistant
- Street stall salesperson

Some related occupations classified elsewhere:

- Food service counter attendant - 5246
- Shop sales assistant - 5223
- Shopkeeper - 5221
- Street vendor (excluding food) - 9520
- Street food vendor - 5212

5212 STREET FOOD SALESPERSONS

5230 p;
9111

Street food salespersons prepare and sell, or sell previously prepared, hot or cold food and beverages ready for immediate consumption in streets and public places such as stations, cinemas, or theaters.

Their tasks include:

- a) obtaining permission or a license, where required, to sell food and drinks on the street or in a public place;
- b) obtaining food and drinks for sale;
- c) preparing, either beforehand or on the spot, food and drinks for sale;
- d) loading and unloading, pushing, pedalling or carrying hand-cart, truck, tray or basket to bring food and drinks to the desired place in the streets, or to public places such as stations or cinemas; and
- e) displaying and selling food and drinks and accepting payment.

Examples of the occupations classified here:

- Hawker (food)
- Street food vendor

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Some related occupations classified elsewhere:

Cook - 5120

Fast food preparer - 9411

Food service counter attendant - 5246

Street vendor (excluding food) - 9520

522

SHOP SALESPERSONS

Shop salespersons sell a range of goods and services directly to the public or on behalf of retail and wholesale establishments. They explain functions and qualities of these goods and services; and may operate small shops or supervise the activities of shop sales assistants and cashiers.

Tasks performed usually include: determining customer requirements and advising on product range, price, delivery, warranties and product use and care; demonstrating and explaining and selling goods and services to customers; accepting payment for by a variety of payment methods and preparing sales invoices; undertaking or assisting with the ongoing management of stock such as product inventories and participating in stock takes; tacking and displaying goods for sale, and wrapping and packing goods sold; determining product mix, stocks and price levels for goods to be sold; and supervising and coordinating the activities of shop sales assistants, checkout operators and other workers in supermarkets and department stores.

5221 SHOPKEEPERS

5220 p

Shopkeepers operate small retail shops either independently or with support from a small number of others.

Their tasks include:

- determining product mix, stock and price levels for goods to be sold;
- purchasing and ordering goods for sale from markets, wholesalers and other suppliers;
- budgeting and maintaining records of stock levels and financial transactions;
- determining prices and displaying goods for sale;
- selling goods to customers and advising them on product use;
- examining returned goods and deciding on appropriate action; and
- taking inventory of goods in stock.

Examples of the occupations classified here:

Grocer

Maintenance storekeeper

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Market tender
News agent
Sales helper/bagger
Salesman/Saleslady
Shopkeeper

Some related occupations classified elsewhere:
Market stall holder - 5211
Shop manager - 1420

5222 SHOP SUPERVISORS 5220 p

Shop supervisors supervise and coordinate the activities of shop sales assistants, checkout operators and other workers in retail and wholesale shops such as supermarkets and department stores.

Their tasks include:

- a) planning and preparing work schedules and assigning staff to specific duties;
- b) instructing staff on sales procedures, including how to handle difficult or complex cases;
- c) ensuring that customers receive prompt service;
- d) participating in and providing advice to managers on interviewing, hiring, training, evaluating, promoting and dismissing staff, and resolving staff grievances;
- e) examining returned goods and deciding on appropriate action;
- f) taking inventory of goods for sale and ordering new stock;
- g) ensuring that goods and services are correctly priced and displayed; and
- h) ensuring that safety procedures are enforced.

Examples of the occupations classified here:

Checkout supervisor
Sales coordinator
Shop supervisor
Supermarket supervisor

Some related occupations classified elsewhere:
Shop managers - 1420
Shopkeepers - 5221
Street stall salesperson - 5211

5223 SHOP SALES ASSISTANTS 5220 p

Shop sales assistants sell a range of goods and services directly to the public or on behalf of retail and wholesale establishments, and explain the functions and qualities of these goods and services.

Their tasks include:

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			<p>a) determining customer requirements and advising on product range, price, delivery, warranties and product use and care;</p> <p>b) demonstrating and explaining to customers the establishment's goods and services;</p> <p>c) selling goods and services; accepting payment by a variety of payment methods; preparing sales invoices; and recording sales using cash registers;</p> <p>d) assisting with the ongoing management of stock such as product inventories and participating in stock takes; and</p> <p>e) stacking and displaying goods for sale, and wrapping and packing goods sold.</p> <p>Examples of the occupations classified here:</p> <p>Merchandising assistant</p> <p>Sales clerk</p> <p>Salesperson (hotel and restaurant)</p> <p>Salesperson (retail/wholesale establishment)</p> <p>Shop assistant</p> <p>Some related occupations classified elsewhere:</p> <p>Checkout operator - 5230</p> <p>Food service counter attendant - 5246</p> <p>Kiosk salesperson - 5211</p> <p>Market salesperson - 5211</p> <p>Shop manager - 1420</p> <p>Shopkeeper - 5221</p> <p>Street food vendor - 5212</p> <p>Street stall salesperson - 5211</p>		
523	5230		<p>CASHIERS AND TICKET CLERKS</p> <p>Cashiers and ticket clerks operate cash registers, optical price scanners, computers or other equipment to record and accept payment for the purchase of goods, services and admissions in settings such as stores, restaurants and ticket offices.</p> <p>Their tasks include:</p> <p>a) receiving and verifying payment by cash, check, credit card or automatic debit in stores, ticket offices, or similar establishments;</p> <p>b) giving change and issuing receipts;</p> <p>c) issuing tickets for attendance at sporting and cultural events;</p> <p>d) counting and recording money received or paid out and balancing against cash register sales records;</p> <p>e) receiving incoming cash, checking it against sales slips and other documents, and preparing it for deposit at bank;</p>	4211 part	

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f) operating cash register to calculate total to be paid from or to clients;

g) scanning, weighing and recording prices of goods; and

h) wrapping and placing merchandise in bags.

Examples of the occupations classified here:

Cash clerk

Cash register clerk

Cashier

Checkout operator

Invoice clerk

Service station console operator

Store cashier

Ticket checker

Ticket collector/teller

Ticket custodian

Ticket issuing clerk (entertainment and sporting event)

Ticket issuing clerk (except parcel)

Ticket sorter/encoder

Toll fee collector/teller

Some related occupations classified elsewhere:

Checkout supervisor - 5222

Service station attendant - 5245

Shop sales assistant - 5223

Ticket issuing clerk (travel) - 4221

524

OTHER SALES WORKERS

Other sales workers display, demonstrate, display and sell goods, food and services, usually to the general public, in context other than sales in markets, streets and shops. It includes sales workers not classified in Minor Groups 521. Street and Market Salespersons; 522. Shop Salespersons; and 523. Cashiers and Ticket Clerks.

Tasks performed may include: displaying and demonstrating items for sale; posing for photographs, film and video, advertising, still photography or for artistic creation; answering questions and offering advice on the use of goods and services; taking orders and making arrangements for payment, delivery and collection of goods or for provision of services; selling goods and services; and soliciting business by approaching potential customers by going from door-to-door or using the telephone or other electronic communications media; selling fuel, lubricants and other automotive products at service stations; and providing services such as fuelling, cleaning, lubricating and performing minor repairs to motor vehicles.

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5241 FASHION AND OTHER MODELS 5210

Fashion and other models wear and display clothing and accessories and pose for photographs, film and video, advertising, still photography or for artistic creation.

Their tasks include:

- a) dressing in sample apparel of new or current styles or of type wanted by customer;
- b) walking, turning and posing to demonstrate style and characteristics of garments, fashion accessories and other merchandise to best advantage;
- c) posing as subject for sculpture, painting and other types of visual art;
- d) posing for still photography for magazines and other advertising media; and
- e) posing for television, video and cinema commercials and other productions.

Examples of the occupations classified here:

Advertising model
Artist's model
Fashion model
Mannequin model

Some related occupations classified elsewhere:

Actor/Actress - 2655

5242 SALES DEMONSTRATORS 5220 p

Sales demonstrators demonstrate goods at commercial premises, exhibitions and private homes.

Their tasks include:

- a) setting up displays and demonstrating articles for sale to inform customers about their characteristics and mode of use, as well as to stimulate buying interest;
- b) answering questions and offering advice on the use of goods;
- c) selling goods or directing customers to sales staff;
- d) taking orders and making arrangements for payment, delivery and collection of goods; and
- e) offering sample goods and distributing catalogues and advertising material.

Examples of the occupations classified here:

Demonstrator
Product demonstrator
Promo girl
Promo staff

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Promodizer
Sales merchandiser

Some related occupations classified elsewhere:

Door-to-door salesperson - 5243

Market salesperson - 5211

Street stall salesperson - 5211

5243 DOOR TO DOOR SALESPERSONS 9113 p

Door to door salespersons sell goods and services and solicit business for an establishment, by approaching or visiting potential customers, usually residents in private homes, by going from door to door.

Their tasks include:

- a) giving details of various goods or services and of terms of sale by visiting clients and potential clients door to door;
- b) demonstrating or describing goods or services on offer;
- c) recording orders and transactions and placing orders received with suppliers;
- d) preparing invoices and sales contracts and accepting payment;
- e) distributing letters, information sheets and other documents to clients;
- f) compiling lists of prospective clients and calling on them to obtain new business; and
- g) travelling between sales areas and clients and transporting samples or goods for sale.

Examples of the occupations classified here:

Door to door sales representative

Door to door salesperson

Party plan salesperson

Promo salesperson

Special offer salesperson

Some related occupations classified elsewhere:

Commercial sales representative - 3322

Street vendor - 9520

5244 CONTACT CENTER SALESPERSONS 9113 p

Contact center salespersons contact existing and prospective customers, using the telephone or other electronic communications media, to promote goods and services, obtain sales and arrange sales visits. They may work from a customer contact center or from non-centralized premises.

Their tasks include:

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- a) promoting goods and services by telephone or electronic mail, following scripts and working from lists of contacts;
- b) creating interest in goods and services, and seeking a sale or agreement to see sales representatives;
- c) arranging processing and dispatch of goods and services, information kits and brochures to customers;
- d) arranging appointments for sales representatives;
- e) recording notes for follow up action and updating marketing databases to reflect changes to the status of each customer;
- f) reporting competitor activities and issues raised by contacts for attention by managers;
- g) maintaining statistics of calls made and successes achieved; and
- h) submitting periodic reports on telemarketing activities and results.

Examples of the occupations classified here:

- Call center agent (sales and marketing)
- Call center salesperson
- Customer contact center salesperson
- Internet salesperson
- Telemarketer
- Telemarketing salesperson
- Telephone salesperson

Some related occupations classified elsewhere:

- Contact center information clerk - 4222
- Customer service representative - 4222

5245 SERVICE STATION ATTENDANTS

5220 p

Service station attendants sell fuel, lubricants and other automotive products; and provide services such as fuelling, cleaning, lubricating; and performing minor repairs to motor vehicles.

Their tasks include:

- a) filling fuel tanks and containers to level specified by customer;
- b) checking and replenishing air pressure in vehicle tires, and oil and other vehicle fluid levels;
- c) washing vehicle windscreens and windows;
- d) performing minor repair work to vehicles such as replacing tires, light bulbs and windscreen wiper blades;
- e) maintaining and operating automatic car wash facilities;
- f) collecting payments from customers for purchases;

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g) cleaning petrol pumps and surrounding driveway, shop and facilities; and

h) undertaking stock control; and preparing reports on fuel, oil, accessories and other items sold.

Examples of the occupations classified here:

Gasoline attendant

Marina attendant

Service station attendant

Some related occupations classified elsewhere:

Food service counter assistant - 5246

Service station cashier - 5230

Shop sales assistant - 5223

5246 FOOD SERVICE COUNTER ATTENDANTS

Food service counter attendants serve customers at food counters and finish preparation of simple food items in restaurants, cafes, hotels, fastfood outlets, cafeterias, hospitals and other settings.

Their tasks include:

a) serving food to customers at counters;

b) ascertaining the products desired by the customer, assisting customer in making a choice and taking orders;

c) cleaning, peeling, slicing and trimming foodstuffs using manual and electric appliances;

d) preparing simple food items and reheating prepared meals;

e) portioning and wrapping food or placing it directly on plates for service to patrons;

f) packaging take-away food;

g) stocking refrigerators, salad and buffet bars and keeping records of the quantities of food used; and

h) receiving payment for food items purchased.

Examples of the occupations classified here:

Cafeteria counter attendant

Salad bar attendant

Some related occupations classified elsewhere:

Bartender - 5132

Cook - 5120

Fast food preparer - 9411

Kiosk salesperson - 5211

Market salesperson - 5211

Street stall salesperson - 5211

Waiter - 5131

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
		5249	SALES WORKERS NOT ELSEWHERE CLASSIFIED	5220 p	
			<p>This Unit Group includes sales workers not classified elsewhere in Sub-Major Group 52. Sales Workers.</p> <p>Examples of the occupations classified here:</p> <ul style="list-style-type: none"> Counter checker Dispatcher (sales services) Package counter clerk Package counterman Rental salesperson 		
53			PERSONAL CARE WORKERS		
			<p>Personal care workers provide care, supervision and assistance for children, patients and elderly, convalescent or disabled persons in institutional and residential settings.</p> <p>Tasks performed by workers in this Sub-Major Group usually include: assisting with mobility, washing and other personal needs; assisting children individually to learn social skills; supervising and participating in activities that enhance the child's physical, social, emotional and intellectual development in schools and pre-school; and observing and reporting concerns to appropriate medical or social service worker.</p>		
	531		CHILD CARE WORKERS AND TEACHERS' AIDES		
			<p>Child care workers and teachers' aides provide care and supervision for children in schools, residential homes and child care facilities.</p> <p>Tasks performed usually include: assisting children individually to learn social skills; demonstrating, supervising and participating in activities that enhance the physical, social, emotional and intellectual development of children in schools and pre-schools; assisting in preparation of materials and equipment for children's education and recreational activities before-school, after-school, during vacation and in day care centers.</p>		
		5311	CHILD CARE WORKERS	5131	
			<p>Child care workers provide care and supervision for children in residential homes and in before-school, after-school, vacation and day care centers.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) assisting children to wash, dress and feed themselves; b) taking children to and from school or outdoors for recreation; c) playing games with children, or entertaining them by reading or storytelling; 		

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- d) assisting in the preparation of materials and equipment for children's education and recreational activities;
- e) managing children's behavior and guiding their social development;
- f) disciplining children and recommending or initiating other measures to control behavior, such as caring for own clothing and picking up toys and books;
- g) observing and monitoring children's play activities; and
- h) keeping records on individual children, including daily observations and information about activities, meals served, and medications administered.

Examples of the occupations classified here:

- Babysitter
- Child care worker
- Family day care worker
- Nanny
- Nursemaid
- Nursery aide
- Nursery school attendant
- Out-of-school hours care worker

Some related occupations classified elsewhere:

- Early childhood educator - 2342

5312 TEACHERS' AIDES

5131 p

Teachers' aides perform non-teaching duties to assist teaching staff, and provide care and supervision for children in schools and pre-schools.

Their tasks include:

- a) demonstrating, supervising and participating in activities that enhance the physical, social, emotional and intellectual development of children in schools and preschools;
- b) preparing indoor and outdoor areas for learning and recreational activities;
- c) assisting children with intellectual, physical, behavioral and other learning difficulties with their studies;
- d) assisting children individually to learn social skills;
- e) assisting with preparing teaching materials, and copying and collating written and printed material;
- f) operating audio-visual equipment, computers and other teaching aides; and
- g) distributing and collecting lesson material.

Examples of the occupations classified here:

- Pre-school assistant

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Teacher's assistant

532

PERSONAL CARE WORKERS IN HEALTH SERVICES

Personal care workers in health services provide personal care and assistance with mobility and activities of daily living to patients, and elderly, convalescent and disabled people in health care and residential settings.

Tasks performed usually include: assisting patients with mobility, personal care and communication needs; sterilizing surgical and other instruments and equipment; observing and reporting concerns to the appropriate medical or social service workers, preparing patients for examination and treatment; and participating in planning the care of individuals.

5321 HEALTH CARE ASSISTANTS

5132 p

Health care assistants provide direct personal care and assistance with activities of daily living to patients and residents in a variety of health care settings such as hospitals, clinics, and residential nursing care facilities. They generally work in implementation of established care plans and practices, and under the direct supervision of medical, nursing or other health professionals or associate professionals.

Their tasks include:

- a) providing care, support and treatment to patients and residents of medical, rehabilitative and residential care facilities as per treatment plans established by medical, nursing and other health professionals;
- b) assisting patients with personal and therapeutic care needs such as personal hygiene, feeding, dressing, physical mobility and exercise, communication; taking oral medications; and changing dressings;
- c) positioning, lifting and turning patients and transporting them in wheelchairs or on movable beds; maintaining patients' environmental hygiene standards, such as cleaning patient rooms and changing bed-linen;
- d) providing massage and other non-pharmacological pain relief measures, such as during pregnancy and labor; and
- e) observing patients' condition, responses and behavior and reporting changes to a health professional.

Examples of the occupations classified here:

Barangay health aide

Birth assistant (clinic or hospital)

Caregiver (institution-based)

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Hospital aide
Hospital attendant
Institution-based personal care worker
Medical aide
Nursing aide (clinic or hospital)
Nursing attendant
Patient care assistant
Psychiatric aide
Surgery attendant

Some related occupations classified elsewhere:

Ambulance worker - 3258
Nurse (associate professional) - 3221
Nurse (professional) - 2221
Nursing aide (home) - 5322

5322 HOME-BASED PERSONAL CARE WORKERS

5133

Home-based personal care workers provide routine personal care and assistance with activities of daily living to persons who are in need of such care due to effects of ageing, illness, injury, or other physical or mental condition in private homes and other independent residential settings.

Their tasks include:

- a) assisting clients with personal and therapeutic care needs such as personal hygiene, feeding, dressing, physical mobility and exercise, communication, taking oral medications and changing dressings, usually as per care plans established by a health professional;
- b) maintaining records of client care, changes in condition and responses to care and treatment, and reporting concerns or providing referrals to a health or social services professional;
- c) positioning and lifting clients with physical mobility challenges, and helping transport them in wheelchairs and motor vehicles;
- d) providing clients and families with emotional support and information and advice on topics such as nutrition, hygiene, exercise, caring for infants, or adapting to disability or illness;
- e) maintaining clients' environmental hygiene standards, such as changing bed linen, washing clothes and dishes, and cleaning living quarters;
- f) providing psychological support to clients such as through conversation or reading aloud;
- g) planning, purchasing, preparing, or serving meals to meet nutritional requirements and prescribed diet;
- h) providing support to parents and care for newborns during the post-partum period; and

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i) scheduling and accompanying clients for appointments with medical doctors and other health professionals; or performing other errands.

Examples of the occupations classified here:

Caregiver (home-based)
Home birth assistant
Home care aide
House parent
Nursing aide (home)
Personal care provider

Some related occupations classified elsewhere:

Nurse (associate professional) - 3221
Nurse (professional) - 2221
Nursing aide (clinic or hospital) - 5321
Social worker (associate professional) - 3412
Social worker (professional) - 2635

5329 PERSONAL CARE WORKERS IN HEALTH SERVICES NOT ELSEWHERE CLASSIFIED 5139 p

This Unit Group covers personal care workers in health services not elsewhere classified in Minor Group 532. Personal Care Workers in Health Services. For instance the group includes occupations such as dental aid, sterilization aid, hospital orderly, medical imaging assistant, and pharmacy aide.

Their tasks include:

- a) cleaning and sterilizing surgical, dental and pharmaceutical instruments, bottles, beakers and other equipment;
- b) labelling drugs, chemicals and other pharmaceutical preparations and replenishing stock on shelves;
- c) lifting, turning, and moving patients and transporting them in wheelchairs or on moveable beds;
- d) preparing patients for examination or treatment;
- e) setting up instrument trays, preparing materials, and assisting dentists or radiographers during procedures; and
- f) exposing diagnostic X-rays.

Examples of the occupations classified here:

Dental aide
First aid assistant
Hospital orderly
Medical imaging assistant
Pharmacy aide
Phlebotomist

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Sterilization aide

54

541

PROTECTIVE SERVICES WORKERS

Protective services workers protect individuals and property against fire and other hazards; maintain law and order; and enforce laws and regulations.

Tasks performed usually include: preventing, fighting and extinguishing fires; rescuing people from burning buildings and accident sites and those trapped in dangerous situations; maintaining law and order, enforcing laws and regulations, patrolling public areas and arresting suspected offenders; directing traffic and assuming authority in the event of accidents; watching over and maintaining order among inmates of prisons, reformatories or penitentiaries; patrolling or monitoring premises to guard property against theft and vandalism, controlling access to establishments and maintaining order and enforcing regulations at public events and within establishments. Supervision of other workers may be included.

5411 FIREFIGHTERS

5161

Firefighters prevent, fight and extinguish fires and assist in other emergencies; protect life and property; and conduct rescue efforts.

Their tasks include:

- a) responding to fire alarms and other calls for assistance, such as automobile and industrial accidents, bomb threats and other emergencies;
- b) controlling and extinguishing fires using manual and power equipment and firefighting chemicals;
- c) fighting special types of fires and using special equipment in industrial establishments;
- d) rescuing people from burning buildings and accident sites and those trapped in dangerous situations;
- e) preventing or limiting the spread of dangerous substances in case of fires or accidents; and
- f) informing the public about fire prevention.

Examples of the occupations classified here:

- Aircraft accident firefighter
- Fire aide
- Fire brigade/marshall
- Firefighter
- Firefighting operative
- Fireman/Firewoman
- Forest firefighter

Some related occupations classified elsewhere:

- Fire control officer - 3151
- Fire inspector - 3112

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Fire investigator - 3119

Fire prevention specialist - 3112

5412 POLICE OFFICERS

5162

Police officers maintain law and order; patrolling public areas; enforcing laws and regulations; and arresting suspected offenders.

Their tasks include:

- a) patrolling a specific area to maintain public order; respond to emergencies; protect people and property; and enforce laws and regulations;
- b) identifying, pursuing and arresting suspects and perpetrators of criminal acts;
- c) directing traffic and assuming authority in the event of accidents; and
- d) providing emergency assistance to victims of accidents, crimes and natural disasters.

Examples of the occupations classified here:

Constable
Patrol officer
Police officer
Police patrol officer
Police patrolman/patrolwoman
Policeman/Policewoman

Some related occupations classified elsewhere:

Police chief constable - 1112
Police commissioner - 1112
Police detective - 3355
Police inspector - 3355
Police inspector-general - 1112

5413 PRISON GUARDS

5163

Prison guards watch over and maintain order among inmates of prisons, reformatories or penitentiaries.

Their tasks include:

- a) searching arriving prisoners, putting their valuables in safekeeping, escorting prisoners to cells and locking them in;
- b) making periodic inspection tours of cells; and inspecting and maintaining the security of locks, windows, doors and gates;
- c) supervising prisoners at work, meals, or during recreation periods;
- d) observing the conduct and behavior of prisoners to prevent disturbances and escapes;
- e) patrolling prison areas to prevent escape;

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f) assisting with the implementation of rehabilitation programs; and

g) escorting prisoners in transit and during temporary leaves.

Examples of the occupations classified here:

Inmate guidance officer

Jail guard

Prison guard

Warden

5414 SECURITY GUARDS

5169 p

Security guards patrol or monitor premises to guard property against theft and vandalism. They control access to establishments and maintain order; and enforce regulations at public events and within establishments.

Their tasks include:

a) patrolling premises and checking doors, windows and gates to prevent and detect signs of unauthorized entry;

b) controlling access to establishments; monitoring and authorizing the entrance or departure of employees and visitors; checking identification; and issuing security passes;

c) circulating among visitors, patrons, or employees to preserve order; protect property from theft or vandalism; and enforce the regulations of the establishment;

d) responding to alarms; investigating disturbances; and contacting superiors, police or firefighters as appropriate;

e) performing security checks of passengers and luggage at airports; and

f) picking up and ensuring the safe delivery of cash and valuables to banks, automated teller machines and retail establishments.

Examples of the occupations classified here:

Aviation security guard

Bailiff

Bodyguard

Bouncer

Civilian guard

Confidential agent

Customs gatekeeper

Doorkeeper

Gatekeeper/Roving guard

Guard patrol

Harbor patrol

Lady guard

Marshall

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Motorcycle escort Museum guard Private police guard Security agent Security guard Security patrolman/patrolwoman Surveillance officer Watchman/Watchwoman</p> <p>Some related occupations classified elsewhere: Beach patrolman/patrolwoman - 5419 House detective (hotel) - 3411 Lifeguard - 5419 Private detective - 3411 Private inquiry agent - 3411 Private investigator - 3411</p>		
5419	PROTECTIVE SERVICES WORKERS	NOT ELSEWHERE CLASSIFIED	5169		
			<p>This Unit Group covers protective services workers not elsewhere classified in Minor Group 541. Protective Services Workers. For instance, the group includes lifeguards, crossing guards and animal control officers.</p> <p>Their tasks include:</p> <p>a) patrolling beaches and swimming pools to prevent accidents; and to rescue bathers from drowning; b) monitoring traffic flow to locate safe gaps through which pedestrians can cross streets; c) responding to citizen complaints concerning stray domestic animals, livestock and wildlife; issuing warnings and citations to owners; and impounding lost, homeless and dangerous animals; d) patrolling an assigned area to enforce parking regulations; and e) directing traffic.</p> <p>Examples of the occupations classified here: Animal control officer Beach patrolman/patrolwoman Crossing guard Game warden Lifeguard Parks and games warden Traffic aide Traffic enforcer</p> <p>Some related occupations classified elsewhere: Doorkeeper - 5414 Museum guard - 5414 Watchman/Watchwoman - 5414</p>		

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Major Group 6.

SKILLED AGRICULTURAL, FORESTRY AND FISHERY WORKERS

Skilled agricultural, forestry and fishery workers grow and harvest field or tree and shrub crops, gather wild fruits and plants, breed, tend or hunt animals, produce a variety of animal husbandry products, cultivate, conserve and exploit forests, breed or catch fish and cultivate or gather other forms of aquatic life in order to provide food, shelter and income for themselves and their households. Most occupations in this major group require skills at the second ISCO skill level.

Tasks performed by skilled agricultural, forestry and fishery workers usually include: preparing the soil; sowing, planting, spraying, fertilising and harvesting field crops; growing fruit and other tree and shrub crops; growing garden vegetables and horticultural products; gathering wild fruits and plants; breeding, raising, tending or hunting animals mainly to obtain meat, milk, hair, fur, skin, sericultural, apiarian or other products; cultivating, conserving and exploiting forests; breeding or catching fish; cultivating or gathering other forms of aquatic life; storing and carrying out some basic processing of their produce; selling their products to purchasers, marketing organisations or at markets. Supervision of other workers may be included.

61

MARKET-ORIENTED SKILLED AGRICULTURAL WORKERS

Market-oriented skilled agricultural workers plan, organize and perform farming operations to grow and harvest field or tree and shrub crops and produce a variety of animals and animal products for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

Tasks performed by workers in this sub-major group usually include: preparing the soil; sowing, planting, spraying, fertilising and harvesting field crops, growing fruit and other tree and shrub crops; growing garden vegetables and horticultural products; raising, breeding and tending animals mainly to obtain meat, milk, hair, fur, skin, sericultural, apiarian or other products; storing and carrying out some processing of their produce; selling their products to purchasers, marketing organisations or at markets. Supervision of other workers may be included.

611

MARKET GARDENERS AND CROP GROWERS

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	Occupational Titles and Definitions	1992 PSOC	2008 ISCO
			<p>Market gardeners and crop growers plan, organize and perform operations to grow and harvest field crops, to grow fruit and other tree and shrub crops, to grow garden vegetables and medicinal and other plants, and to produce horticultural and horticultural nurseries products, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.</p> <p>Tasks performed usually include: monitoring market activity and conditions, determining types and quantities of crops to be grown, and planning and coordinating production accordingly; purchasing seeds, bulbs and fertilizer; investing in land and land improvements; preparing land, sowing, planting, cultivating and harvesting various crops; tending working animals and maintaining farm buildings, machinery and equipment; producing saplings, bulbs and seeds; storing and carrying out some processing of produce; delivering or marketing farm products. Supervision of other workers may be included.</p>		
		6111	<p>RICE FARMERS</p> <p>Workers in this unit group plan and carry out the necessary operations to grow and harvest rice for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets. They may grow other secondary crops.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) determining the kinds and amounts of rice to be grown; b) purchasing seeds, fertilizer and other supplies; c) renting or investing in land and land improvements, buildings, working animals, equipment and machinery; d) performing farm operations such as land preparation, sowing, planting, cultivating and harvesting rice; e) storing and carrying out some basic processing of rice; f) tending working animals and maintaining farm buildings, machinery and equipment; and g) delivering or marketing farm products. <p>Examples of the occupations classified here:</p> <ul style="list-style-type: none"> Upland, rice farmer, Lowland, rice farmer Rainfed, rice farmer Irrigated, rice farmer 	6111	6111
		6112	CORN FARMERS	6112	6111

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Workers in this unit group plan and carry out the necessary operations to grow and harvest corn for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets. They may grow other secondary crops.

Their tasks include:

- a) determining the kinds and amounts of corn to be grown;
- b) purchasing seeds, fertilizer and other supplies;
- c) renting or investing in land and land improvements, buildings, working animals, equipment and machinery;
- d) performing farm operations such as land preparation, sowing, planting cultivating and harvesting corn;
- e) storing and carrying out some basic processing of corn;
- f) tending working animals and maintaining farm buildings, machinery and equipment; and
- g) delivering or marketing farm products.

Examples of the occupations classified here:

Corn farmers

6113	VEGETABLE, LEGUMES AND ROOT CROPS FARMERS	6114; 6116; 6117	6111
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Workers in this unit group plan and carry out the necessary operations to grow and harvest vegetable, field legumes and root crops for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) determining the kinds and amounts of vegetables, field legumes and root crops to be grown;
- b) purchasing seeds, fertilizer and other supplies;
- c) renting or investing in land and land improvements buildings, working animals, equipment and machinery;
- d) performing farm operations such as land preparation, sowing, planting, cultivating and harvesting vegetables, legumes and fiber crops;
- e) storing and carrying out some basic processing of vegetables, legumes and root crops
- e) tending working animals and maintaining farm buildings, machinery and equipment; and
- f) delivering or marketing farm products.

Examples of the occupations classified here:

Eggplant farmer
Cabbage farmer
Tomato farmer
Roots vegetable farmer
Pechay farmer

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	Occupational Titles and Definitions	1992 PSOC	2008 ISCO
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Soybeans farmer
Mango beans farmer
Peanut farmer
Sweet potato farmer
Cassava farmer
White potato (Irish potato) farmer
Ube farmer
Gabi farmer

6114 SUGARCANE FARMERS 6113 6111

Workers in this unit group plan and carry out the necessary operations to grow and harvest sugarcane for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) determining the variety and amounts of sugarcane to be grown;
- b) purchasing seeds, fertilizer and other supplies;
- c) renting or investing in land and land improvements, buildings, working animals, equipment and machinery;
- d) performing farm operations such as land preparation, sowing, planting cultivating and harvesting sugarcane;
- e) storing and carrying out some basic processing of sugarcane;
- f) tending working animals and maintaining farm buildings, machinery and equipment; and
- g) delivering or marketing farm products.

Examples of the occupations classified here:

Sugarcane farmers/*Sakada*

6115 COCONUT FARMERS 6121 6111 p

Workers in this unit group plan and carry out the necessary operations to grow and harvest coconuts for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets. They may grow other secondary crops.

Their tasks include:

- a) determining the kinds and amounts of coconut to be grown;
- b) purchasing seeds, fertilizer and other supplies;
- c) renting or investing in land and land improvements, buildings, working animals, equipment and machinery;
- d) performing farm operations such as land preparation, sowing, planting, cultivating and harvesting coconut and other secondary crops;
- e) storing and carrying out some basic processing of coconut;
- f) tending working animals and maintaining farm buildings, machinery and equipment; and

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g) delivering or marketing farm products.

Examples of the occupations classified here:

Coconut farmers

6116	OTHER FIELD CROP FARMERS	6115 p; 6119 p	6111 p
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Workers in this unit group plan and carry out the necessary operations to grow and harvest crops other than rice, corn, sugarcane, vegetables, field legumes, rootcrops, sugarcane and coconut for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) determining the kinds and amounts of other crops to be grown;
- b) purchasing seeds, fertilizer and other supplies;
- c) renting or investing in land and land improvements, buildings, working animals, equipment and machinery;
- d) performing farm operations such as land preparation, sowing, planting, cultivating and harvesting fiber crops;
- f) storing and carrying out some basic processing of fiber crops;
- g) tending working animals and maintaining farm buildings, machinery and equipment;
- h) delivering or marketing farm products.

Examples of the occupations classified here:

Garlic/onion (and other spices) farmer
Black pepper farmer
Ginger farmer
Tobacco farmer
Cotton farmer
Abaca farmer
Jute farmer
Sisal farmer
Ramie farmer

6117	TREE AND SHRUB CROP GROWERS	6123 p	6112
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Tree and shrub crop growers plan organize and perform farming operations to grow and harvest trees and shrubs, such as fruit trees, tree nuts, coffee and cacao and other tree and shrub crop growers for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) monitoring market activity and conditions, determining types and quantities of crops to be grown, and planning and coordinating production accordingly;

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- b) preparing soil by hand or machine, and spreading fertilizers and manure;
- c) selecting and sowing seeds, and planting seedlings;
- d) maintaining crops by cultivating soil, by transplanting, pruning or thinning trees and shrubs, and by setting up and operating irrigation equipment;
- e) controlling weeds, pests and diseases, by applying herbicides and pesticides;
- f) tending trees or bushes, collecting sap and harvesting crops;
- g) inspecting, cleaning, grading, packaging, storing and loading crops for sale or delivery to market;
- h) tending working animals and maintaining farm buildings, structures, equipment and water supply systems;
- i) inspecting, cleaning, grading, packaging, storing and loading crops for sale or delivery to market;
- j) storing and carrying out some processing of produce;
- k) promoting and marketing products, arranging the sale, purchase and transportation of produce and supplies and maintaining and evaluating records of farm activities and transactions; and
- l) training and supervising workers in crop production, maintenance duties, and health and safety precautions and hiring and discharging workers and contractors.

Examples of the occupations classified here:

- Coffee and cacao farmer
- Mango farmer
- Banana farmer
- Citrus farmer
- Fruit farmer
- Papaya farmer
- Cashew nut farmer
- Pili nut farmer
- African oil palm farmer
- Castañas farmer
- Rubber tree farmer
- Rubber tapper
- Tea farmer
- Grapevine farmer
- Passion fruit farmer
- Viticulturist

6118 GARDENERS, HORTICULTURAL AND NURSERY GR 6131 p 6113

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	Occupational Titles and Definitions	1992 PSOC	2008 ISCO
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Gardeners, horticultural and nursery growers plan organize and perform operations to cultivate and maintain trees, shrubs, flowers and other plants in parks and private gardens, and to produce saplings, bulbs and seeds, or grow vegetables and flowers by intensive cultivation techniques, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) monitoring market activity and conditions determining kinds and amounts of vegetables, horticultural and nursery products to be grown and planning and coordinating production accordingly;
- b) preparing land by conditioning soil, levelling ground and installing and operating irrigation and drainage systems;
- c) planting trees, hedges, garden plants, grass;
- d) pruning and trimming trees, shrubs and hedges, installing plant supports and protection, and rolling, mowing aerating and edging lawns;
- e) constructing features and facilities within gardens, such as paths or paved areas, walls, rockeries, garden beds ponds and water features, sheds and fences;
- f) checking the health of plants and trees, identifying and treating weeds, pests and diseases, and applying mulch and fertilizers;
- g) producing saplings, bulbs and seeds and raising plants from seeds or cuttings;
- h) harvesting crops inspecting, cleaning, grading, packaging, storing and loading products for sale or delivery to market;
- i) maintaining buildings, greenhouses and other structures, equipment and water supply systems;
- j) storing and carrying out some processing of produce;
- k) promoting and marketing products, arranging the sale, purchase and transportation of produce and supplies and maintaining and evaluating records of activities and transactions; and
- l) training and supervising workers in production, maintenance duties, and health and safety precautions and hiring and discharging workers and contractors.

Examples of the occupations classified here:

- Horticulturist
- Landscape gardener
- Market gardener
- Mushroom cultivator
- Orchid plant grower
- Nursery grower
- Foliage propagator
- Rose grower

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Some related occupations classified elsewhere:

Garden laborer - 9214

Horticultural laborer - 9214

Horticultural scientist - 2132

6119	OTHER MARKET GARDENERS AND CROP GROWERS, NOT ELSEWHERE CLASSIFIED	6139 p	611 p
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Workers in this unit group carry out the necessary operations mainly to grow other plants and trees for perfumery, insecticidal, medicinal and other purposes which may or may not be ornamental.

Their tasks include:

- a) determining the kinds and amounts of plants to be grown;
- b) purchasing seeds, fertiliser and other supplies;
- c) renting or investing in land and land improvements, buildings, equipment and machinery;
- d) performing farm operations such as land preparation, sowing, planting cultivating plants and trees and harvesting their products;
- e) storing and carrying out some basic processing of other plants;
- f) maintaining farm buildings, machinery and equipment; and
- g) delivering or marketing farm products.

Examples of the occupations classified here:

Insecticidal and medicinal grower

Perfumery plant grower (e.g. ilang-ilang grower and citronella grower)

612	ANIMAL PRODUCERS
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Animal producers plan, organize and perform farming operations to breed and raise domesticated animals, poultry, insects and non-domesticated animals for the production of meat, dairy products, honey, skins, textiles and other products or for use as working, sporting or recreational animals, for sale or delivery to wholesale buyers, marketing organizations or at markets.

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Task performed usually include: monitoring market activity and conditions, determining kinds and amounts of products to produce, planning and coordinating production accordingly; raising, feeding and tending animals; preparing animals or animal products for market; monitoring and examining animals to detect illness, injury, or disease, and to check physical condition such as rate of weight gain; performing duties related to animal reproduction, such as breeding, artificial insemination, and helping with animal births; renting or investing in and maintaining and cleaning buildings, machinery, equipment, and structures; storing and carrying out some processing of produce; promoting and marketing products, arranging the sale, purchase and transportation of stock, produce and supplies and maintaining and evaluating records of activities and transactions; training and supervising workers in animal care procedures, maintenance duties, and health and safety precautions and hiring and discharging workers and contractors.

6121 LIVESTOCK FARMER

6211 p 6121 p

Livestock producers plan, organize and perform farming operations to breed and raise domesticated animals (excluding poultry), such as cattle, sheep, pigs, goats, horses and camels, for the production of meat, skins, and wool or for use as working, sporting or recreational animals for sale or delivery to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- (a) monitoring market activity and conditions, determining kinds and amounts of stock to produce, planning and coordinating production accordingly;
- (b) cultivating pastures and providing and monitoring fodder and water supplies to maintain appropriate nutritional levels and condition of livestock;
- (c) monitoring and examining animals to detect illness, injury, or disease, and to check physical condition such as rate of weight gain;
- (d) grooming , marking, clipping, trimming, drenching and/or castrating animals and shearing coats to collect hair or wool;
- (e) herding livestock to pastures for grazing or to scales, sheds, vehicles, or other enclosures;
- (f) milking animals by hand or using milking machines;
- (g) mixing feed, additives, and medicines in prescribed portions and distributing or hand-feeding to animals for consumption;
- (h) performing duties related to livestock reproduction, such as breeding, artificial insemination, and helping with animal births;

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- (i) maintaining and cleaning farm buildings, machinery, equipment, and structures;
- (j) slaughtering and skinning animals and preparing them for market;
- (k) storing and carrying out some processing of animal and dairy produce;
- (l) promoting and marketing products, arranging the sale, purchase and transportation of livestock, produce and supplies and maintaining and evaluating records of farm activities and transactions; and
- (m) training and supervising workers in animal care procedures, maintenance duties, and health and safety precautions and hiring and discharging workers and contractors.

Examples of the occupations classified here:

- Cattle farmer
- Dog breeder
- Drover
- Goat farmer
- Horse breeder
- Shearer
- Sheep farmer
- Shepherd
- Stockman/woman
- Carabao farmer
- Deer farmer
- Cattle herder

6122 DAIRY FARMER

6211 p 6121 p

Workers in this unit group plan and carry out the necessary operations on dairy products and deliver or sell these on a regular basis to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) determining the kinds and amounts dairy products to be produced;
- b) renting or investing in grazing land, buildings, equipment and machinery;
- c) milking, slaughtering, skinning and preparing of dairy products for market;
- d) storing and carrying out some basic processing of their produce;
- e) maintaining farm buildings, machinery and equipment; and
- f) delivering or marketing farm products.

Examples of the occupations classified here:

- Dairy farmer
- Pasture in-charge

6123 EGGS PRODUCERS

6221 p; 6122 p
6222 p

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Workers in this unit group plan and carry out the necessary operations for sale or delivery of eggs on a regular basis to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) determining the kinds and amounts of eggs to be produced;
- b) renting or investing in buildings, equipment and machinery;
- c) maintaining farm buildings, machinery and equipment; and
- d) delivering or marketing farm products.

6124 CHICKEN FARMER

6221 6122 p

Workers in this unit group plan and carry out the necessary operations to breed, raise and tend chicken for sale or delivery of eggs, meat or feathers on a regular basis to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) determining the kinds and amounts of chicken to be produced;
- b) purchasing and raising chicks,
- c) purchasing feeds and other supplies;
- d) renting or investing in buildings, equipment and machinery;
- e) breeding, raising and tending chicken, and collecting eggs;
- f) slaughtering, dressing and packing chicken for shipment;
- g) storing and carrying out some basic processing of their produce;
- h) maintaining farm buildings, machinery and equipment; and
- i) delivering or marketing farm products.

Examples of the occupations classified here:

Chicken meat producer
Chicken egg layer

6125 DUCK RAISERS

6222 6122 p

Workers in this unit group plan and carry out the necessary operations to breed, raise and tend ducks for sale or delivery of eggs, meat or feathers on a regular basis to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) determining the kinds and amounts of ducks and eggs to be produced;

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- b) purchasing and raising chicks;
- c) purchasing feeds and other supplies;
- d) renting or investing in buildings, equipment and machinery;
- e) breeding, raising and tending ducks, and collecting eggs;
- f) killing, dressing and packing ducks for shipment;
- g) storing and carrying out some basic processing of their produce;
- h) maintaining farm buildings, machinery and equipment; and
- i) delivering or marketing farm products.

Examples of the occupations classified here:

Duck meat producer

Duck egg layer

6126 POULTRY PRODUCERS

6229 6122 p

Workers in this unit group plan and carry out the necessary operations to breed, raise and tend poultry other than chicken and ducks for sale or delivery of eggs, meat or feathers on a regular basis to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) determining the kinds and amounts of poultry other than chicken and ducks, and their eggs to be produced;
- b) purchasing and raising chicks;
- c) purchasing feeds and other supplies;
- d) renting or investing in farm buildings, equipment and machinery;
- e) breeding, raising and tending poultry other than chicken and ducks, and collecting eggs;
- f) slaughtering, dressing and packing poultry other than chicken and ducks for shipment;
- g) storing and carrying out some basic processing of their produce;
- h) maintaining farm buildings, machinery and equipment; and
- i) delivering or marketing farm products.

Examples of the occupations classified here:

Quail farmer

Turkey farmer

Geese farmer

Poultry breeder

Poultry farmer

Poultry tender

Some related occupations classified elsewhere:

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Farm managers and overseers - 1231

Farmhands and laborers - 9211

6127 HOG RAISING PRODUCERS 6212 612 p

Workers in this unit group plan and carry out the necessary operations to breed, raise and tend hogs for meat and deliver or sell these on a regular basis to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) determining the kinds and amounts of hogs to be produced;
- b) purchasing hogs, producing and purchasing fodder and other supplies;
- c) renting or investing in buildings, equipment and machinery;
- d) breeding, raising and tending hogs;
- e) slaughtering, skinning and preparing hogs for market;
- f) storing and carrying out some basic processing of their produce;
- g) maintaining farm buildings, machinery and equipment; and
- h) delivering or marketing farm products.

Some related occupations classified elsewhere:

Farm managers and overseers - 1231

Farmhands and laborers - 9211

6128 APIARISTS AND SERICULTURISTS 6290 p 6123

Apiarists and sericulturists plan, organize and perform operations to breed, raise and tend insects such as honey bees, silkworms, and other species to produce honey, beeswax, silk and other products for sale or delivery to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) monitoring market activity, planning and coordinating production accordingly, monitoring market activity and conditions, determining kinds and amounts of insect products to produce, planning and coordinating production accordingly;
- b) purchasing insects and growing or purchasing feed and other supplies;
- c) breeding, raising and tending insects and collecting their products;
- d) renting or investing in and maintaining and cleaning buildings, machinery, equipment, and structures;
- e) storing and carrying out some processing of produce;

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f) arranging the sale, purchase and transportation of stock, produce and supplies and maintaining and evaluating records of farming activities; and

g) training and supervising workers in production procedures, maintenance duties, and health and safety precautions, and hiring and discharging workers and contractors.

Examples of occupations classified here:

Apiary farmer (apiarist)

Silkworm farmer (sericulturist)

Butterfly breeder

6129	ANIMAL PRODUCERS NOT ELSEWHERE CLASSIFIED	6290	6129
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This unit group covers market-oriented animal producers not classified elsewhere in Minor group 612, Animal producers. For instance, the group includes those engaged in breeding, raising and tending non-domesticated mammals, game and other birds (except poultry), snails, snakes and other reptiles, as well as various insects and animals used for laboratory tests, for sale or delivery on a regular basis to wholesale buyers, marketing organizations, zoos and circuses, or at markets.

Their tasks include:

a) monitoring market activity and conditions, determining kinds and amounts of products to produce, planning and coordinating production accordingly;

b) raising, feeding and tending animals;

c) killing and skinning animals, and preparing animals or animal products for market;

d) monitoring and examining animals to detect illness, injury, or disease, and to check physical condition such as rate of weight gain;

e) performing duties related to animal reproduction, such as breeding, artificial insemination, and helping with animal births;

f) renting or investing in and maintaining and cleaning buildings, machinery, equipment, and structures;

g) slaughtering and skinning animals and preparing them for market;

h) storing and carrying out some processing of produce;

i) promoting and marketing products, arranging the sale, purchase and transportation of stock, produce and supplies and maintaining and evaluating records of activities and transactions; and

j) training and supervising workers in animal care procedures, maintenance duties, and health and safety precautions.

Examples of the occupations classified here:

Crocodile farmer

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Earthworm farmer (vermiculturist)
Fur producer (non-domesticated animals)
Game bird breeder
Ostrich farmer
Snail breeder

Some related occupations classified elsewhere:

Game warden - 5419
Pet groomer - 5164
Poultry breeder - 6122
Zoo keeper - 5164

613	6130	MIXED CROP AND ANIMAL PRODUCERS	6130
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Mixed crop and animal producers plan, organize and perform farming operations to grow and harvest field, tree and various other crops, as well as to breed, raise and tend animals and to produce a variety of animal husbandry products, for sale or delivery to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) monitoring market activity and conditions, determining kinds and amounts of crops to be grown and animals to be raised, and planning and coordinating production accordingly;
- b) purchasing seeds, fertilizer, and other supplies;
- c) performing operations such as land preparation, sowing, planting, cultivating and harvesting crops;
- d) producing or buying fodder and other food supplies;
- e) breeding, raising and tending animals;
- f) killing and skinning animals, and preparing animals or animal products for market;
- g) renting or investing in and maintaining and cleaning farm buildings, machinery, equipment, and structures;
- h) storing and carrying out some processing of produce;
- i) promoting and marketing products, arranging the sale, purchase and transportation of livestock, produce and supplies and maintaining and evaluating records of farm activities and transactions; and
- j) training and supervising workers in animal care procedures, maintenance duties, and health and safety precautions and hiring and discharging workers and contractors.

Examples of the occupations classified here:

Farmer (mixed farming)
Skilled farm worker (mixed farming)

Some related occupations classified elsewhere:

Agricultural production manager – 1311
Plantation manager - 1311
Mixed farm laborer - 9213

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MARKET-ORIENTED SKILLED FORESTRY, FISHERY AND HUNTING WORKERS

Market-oriented skilled forestry, fishery and hunting workers plan, organize and perform operations to cultivate, conserve and exploit natural and plantation forests, breed and raise fish, harvest and catch fish and hunt and trap animals, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

Tasks performed by workers in this sub-major groups usually include: renting or investing, equipment and machinery and purchasing supplies; planning and undertaking forestry, aquaculture, fishery and hunting operations; maintaining buildings, tanks, machinery, and other equipment; delivering or marketing products; supervising and training other workers.

621

FORESTRY AND RELATED WORKERS

Forestry and related workers plan, organize and perform operations to cultivate, conserve and exploit natural and plantation forests.

Tasks usually include: assessing sites for reforestation, selecting seedlings and planting trees using manual planting tools and establishing and caring for forest stands; young forest stands, trim, top and fell trees and saw them into logs; shaping rough wooden products from logs at felling site; stacking logs and loading them in chutes or floating them down rivers; keeping watch to detect forest fires, participating in fire fighting operations complete fire fighting reports and maintaining fire fighting equipment; controlling weeds and undergrowth in regenerating forest stands using manual tools and chemicals; operating and maintaining a skidder, bulldozer or other prime mover to pull a variety of scarification or site preparation equipment over areas to be regenerated; collecting seed cones, pruning trees, assisting in planting surveys and marking trees for subsequent operations; training and supervising other workers in forestry procedures, including forestry laborers and plant operators.

6211 FOREST TREE PLANTERS

6310 6210 p

Workers in this unit group plan and manage the necessary operations to cultivate trees for sale or delivery of forest products on a regular basis to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) planting forest seeds or seedlings;
- b) maintaining and caring forest stands; and

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c) maintaining, establishing and caring of forestial tree farms for timber, for pulp and paper or for environmental use.

Examples of occupation classified here:

Forest ranger
Forest technician
Watershed forester

6212 CONCESSIONAIRES AND LOGGERS 6320 6210 p

Workers in this minor group plan and manage the necessary operations to log trees for sale or delivery of forest products to wholesale buyers, marketing organizations or at markets at a sustainable basis.

Their tasks include:

- a) marking merchantable trees to be felled and estimating volume of timber;
- b) marking trees to be cut;
- c) trimming, topping and felling trees and sawing them into logs;
- d) scaling and rescaling of felled trees;
- e) cutting trees into logs;
- f) cutting logs into timber;
- g) loading and unloading out timbers, other semi-finished or finished forest products;
- h) replanting and replacing cut trees;
- i) processing logs into timber, plywood, veneer, pulp or paper and other forest products; and
- j) establishing and maintaining processing plants.

Example of occupations classified here:

Lumber grader
Lumberjacks
Log marker
Log scaler
Logger
Rafter
Tree feller
Tree marker
Timber inspector

6213 CHARCOAL MAKERS AND RELATED WORKERS 6330 6210 p

Workers in this unit group plan and manage the necessary operations to convert wood into charcoal or to obtain rude turpentine from wood using traditional techniques.

Their tasks include:

- a) operating simple kiln to convert wood into charcoal by slow burning process;
- b) operating simple digester or still to obtain or distill crude wood turpentine; and
- c) performing other related tasks.

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Examples of occupations classified here are:

Charcoal maker

6214 MINOR FOREST PRODUCT GATHERERS 6340 6210 p

Workers in this unit group are directly concerned with gathering one or more of a variety of wild or semi-cultivated forest products such as rattan, bamboo, mushrooms, herbs, and other medicinally or commercially valuable plants, firewood, reeds and tree barks, ferns and orchids and other wild flowers and plants for domestication.

Their tasks include:

- a) locating and collecting of forest products;
- b) delivering and marketing products; and
- c) performing other related tasks.

Examples of occupations classified here:

Firewood gatherer

Rattan gatherer (with permit)

Wild honey and beeswax gatherer

Wild orchids gatherer

622 FISHERY WORKERS, HUNTERS AND TRAPPERS

Fishery workers, hunters and trappers breed and raise fish, harvest and catch fish and hunt and trap animals, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

Tasks usually include: breeding, raising and cultivating fish, mussels, oysters and other forms of aquatic life as cash crops or for release into freshwater or saltwater; monitoring environments to ensure maintenance of optimum conditions for aquatic life; cleaning, freezing, icing or salting catch on- or offshore and preparing fish and other products for shipment; renting or investing in and maintaining buildings, tanks, machinery, fishing vessels and other equipment; preparing and repairing nets and other fishing gear and equipment; operating fishing vessels to, from and at fishing grounds; baiting, setting, operating and hauling in fishing gear; setting traps to catch mammals, birds or reptiles; delivering or marketing products; supervising and training other workers.

6221 MILKFISH AND TILAPIA PRODUCERS 6411 6221 p

Workers in this unit group breed and raise milkfish and tilapia for sale or delivery on a regular basis to buyers, marketing organizations or at markets.

Their tasks include:

- a) purchasing feeds and other supplies;

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- b) renting or investing in fish farm facilities;
- c) breeding, raising and cultivating fish;
- d) harvesting, sorting, cleaning, freezing, icing fish for market;
- e) constructing and maintaining fish farm facilities; and
- f) delivering or marketing products.

Examples of occupations classified here:

Bangus farm producer

Tilapia farm producer

6222	SEAWEEEDS PRODUCERS	6414	6221 p
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Workers in this unit group cultivate seaweeds for sale or delivery on a regular basis to buyers, marketing organizations or at markets.

Their tasks include:

- a) purchasing supplies;
- b) renting or investing in farm facilities;
- c) cultivating and harvesting seaweeds;
- d) drying and bailing of seaweeds;
- e) constructing and maintaining farm facilities; and
- f) delivering or marketing products.

Examples of occupations classified here:

Carageenan producers

Agar-agar producers

6223	PRAWN PRODUCERS	6412	6221 p
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Workers in this unit group breed and raise prawns and shrimps for sale or delivery on a regular basis to buyers, marketing organizations or at markets.

Their tasks include:

- a) purchasing feeds and other supplies;
- b) renting or investing in prawn farm facilities;
- c) breeding, raising and cultivating prawns and shrimps;
- d) preparing prawns and shrimps for market;
- e) cleaning, sorting, freezing, or icing prawns and shrimps;
- f) constructing and maintaining prawn facilities; and
- g) delivering or marketing products.

6224	OYSTERS AND MUSSELS PRODUCERS	6413	6221 p
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Workers in this unit group raise and cultivate oysters and mussels for sale or delivery on a regular basis to buyers, marketing organizations or at markets.

Their tasks include:

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- a) purchasing feeds and other supplies;
- b) renting or investing in farm facilities;
- c) raising, cultivating and harvesting oysters and mussels;
- d) preparing oysters and mussels for market;
- e) cleaning, sorting, freezing or icing oysters and mussels;
- f) constructing and maintaining farm facilities; and
- g) delivering or marketing products.

6225 OTHER AQUA PRODUCTS PRODUCERS 6419 6221 p

Workers in this unit group breed and raise other aqua products other than fish, prawn and shrimps, oysters and mussels and seaweeds for sale or delivery on a regular basis to buyers, marketing organizations or at markets.

Their tasks include:

- a) purchasing feeds and other supplies;
- b) renting or investing fish farm/pond facilities;
- c) breeding, raising and cultivating aqua products other than fish, prawn and shrimps, oysters and mussels, and seaweeds and preparing them for market;
- d) cleaning, sorting, freezing, icing or salting other aqua products;
- e) constructing and maintaining fish farm/pond facilities; and
- f) delivering or marketing products.

Examples of occupations classified here:

Frog raiser
Fish hatchery/nursery farm operator
Aquarium fish farm operator (goldfish, corals, etc.)
Algae cultivator
Pearl cultivator
Skilled fish farm worker
Skilled seafood farm worker

6226 INLAND AND COASTAL WATERS FISHERY WORKER 6420 6226

Inland and coastal waters fishery workers, alone or as members of fishing-vessel crews, catch fish or gather other forms of aquatic life in inland or coastal waters, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) preparing and repairing nets and other fishing gear and equipment;

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- b) selecting area for fishing, plotting courses and computing navigational positions using compass, charts and other aids;
- c) operating fishing vessels to, from and at fishing grounds;
- d) baiting, setting, operating and hauling in fishing gear by hand or using hoisting equipment;
- e) gathering various forms of aquatic life from shores and shallow waters;
- g) maintaining engine fishing gear and other on-board equipment;
- h) keeping records of transactions, fishing activities, weather and sea conditions and estimating costs and budgets;
- i) sorting, and storing catch in holds with salt and ice;
- j) direct fishing operations, and supervising fishing crew members.; and
- k) removing catches from fishing equipment, measuring them to ensure compliance with legal size and returning undesirable or illegal catches to the water.

Examples of the occupations classified here:

- Coastal fishery skipper
- Coastal waters workers
- Inland waters workers
- Fisherman/woman (coastal waters)
- Fisherman/woman (inlandl waters)

Some related occupations classified elsewhere:

- Deep sea fisherman/woman - 6223
- Fishing laborer - 9216
- Fishing operations manager - 1312

6227	DEEP-SEA FISHERY WORKERS	6430	6223
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Deep-sea fishery workers, as skippers or members of fishing vessel crews, catch deep-sea fish, for sale or delivery to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) preparing and repairing nets and other fishing gear and equipment;
- b) commanding and operating fishing vessels to from and at deep-sea fishing grounds;
- c) determining areas for fishing, plotting courses and computing navigational positions using compass, charts, tables and other aids;
- d) steering vessels and operating navigational instruments and electronic fishing aids;
- e) directing fishing operations and supervising crew activities;

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- g) recording fishing progress, activities, weather and sea conditions on ship's log;
- h) baiting, setting and hauling in fishing gear;
- i) cleaning, freezing, icing or salting catch on or offshore; and
- j) selecting and training vessel crews

Examples of the occupations classified here:

Deep sea fisherman
Master fisherman
Trawler skipper

Some related occupations classified elsewhere:

Fishing laborer - 9216
Fishing operations manager - 1312

6228	HUNTERS AND TRAPPERS	6510	6224
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Hunters and trappers catch and kill mammals, birds or reptiles mainly for meat, skin, feathers and other products, for sale or delivery on a regular basis to wholesale buyers, marketing organizations or at markets.

Their tasks include:

- a) setting traps to catch mammals, birds or reptiles;
- b) killing trapped or free mammals, birds or reptiles with firearms or other weapons;
- c) skinning and otherwise treating killed mammals, birds or reptiles to obtain desired products for sale or delivery;
- d) delivering or selling trapped live mammals, birds or reptiles; and
- e) repairing and maintaining equipment.

Examples of the occupations classified here:

Animal keeper
Hunter
Trapper
Fur trapper
Seal trapper
Whale hunter

6229	FISHERMEN NOT ELSEWHERE CLASSIFIED	6490	
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Workers in this unit group perform a variety of fishing tasks not elsewhere classified.

Their tasks include:

- a) gathering clams, oysters, crabs, lobster and other inland and coastal mollusks and crustaceans by digging, trapping, or by operation of special tonging or dredging devices;
- b) gathering sea mosses, turtle eggs or shells;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	Occupational Titles and Definitions	1992 PSOC	2008 ISCO
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c) diving to sea bed to gather corals or sponges or harvest pearl oysters; and

d) catching and/or breeding fish and other sea creatures for aquariums and museums.

Examples of the occupations classified here are:

Pearl diver

Oyster diver

Fish catcher for aquarium

Seamoss gatherer

A related occupation classified elsewhere is:

Hunting and trapping laborers - 9214

63

SUBSISTENCE FARMERS, FISHERS, HUNTER AND GATHERERS

Subsistence farmers, fishers, hunters and gatherers grow and harvest field or tree and shrub crops, vegetables and fruit, gather wild fruits, medicinal and other plants, tend or hunt animals, catch fish and gather various forms of aquatic life in order to provide food, shelter and a minimum of cash income for themselves and their households.

Tasks performed by workers in this sub-major group usually include - preparing the soil; sowing, planting, tending and harvesting field crops; growing vegetables, fruit and other tree and shrub crops; gathering wild fruits, medicinal and other plants; breeding, tending and feeding animals and poultry mainly to obtain meat, eggs, milk, hair, skin or other products; hunting or trapping animals; catching fish and gathering other forms of aquatic life; fetching water and gathering firewood; storing produce for later use and carrying out some processing of produce; building and maintaining houses and other shelters; making tools, clothes and utensils for use by the household; selling or bartering some products at local markets.

631

6310

SUBSISTENCE CROP FARMERS

6310

Subsistence crop farmers grow and harvest field or tree and shrub crops, vegetables and fruit, in order to provide food, shelter and a minimum of cash income for themselves and their households.

Their tasks include:

a) preparing the soil, sowing, planting, tending and harvesting field crops;

b) growing vegetables, fruit and other tree and shrub crops;

c) fetching water and gathering firewood;

d) storing for later use and carrying out some processing of produce;

e) building and maintaining makeshift houses and other shelters for own use;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	Occupational Titles and Definitions	1992 PSOC	2008 ISCO
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f) making tools, clothes and utensils for use by the household; and

g) selling some products at local markets.

Some related occupations classified elsewhere:

Farm laborer - 9211

Firewood collector- 9624

Water collector- 9624

632	6320	SUBSISTENCE LIVESTOCK FARMERS	6320
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Subsistence livestock farmers breed, raise and tend livestock in order to provide food, shelter and a minimum of cash income for themselves and their households.

Their tasks include:

a) cultivating pastures, or managing grazing lands, and monitoring feed and water supplies needed to maintain condition of livestock;

b) monitoring and examining animals to detect illness, injury, or disease, and to check physical condition;

c) grooming and marking animals and shearing coats to collect hair or wool;

d) herding or leading livestock to pastures, grazing land and water supplies;

e) raising, tending, feeding and milking animals or draining blood from them;

f) breeding animals and helping with animal births;

g) slaughtering and skinning animals and preparing them and their products for consumption or sale;

h) carrying out some processing of animal products;

i) building and maintaining makeshift houses and other shelters for own use;

j) making tools, clothes and utensils for use by the household;

k) fetching water and gathering firewood; and

l) buying, bartering and selling animals and some products.

Examples of the occupations classified here:

Subsistence cattle farmer

Slaughterers

Some related occupations classified elsewhere:

Livestock farm laborer - 9212

Mixed crop and livestock farm laborers - 9213

Water and firewood collector – 9624

633	6330	SUBSISTENCE MIXED CROP AND LIVESTOCK FARMERS	6330
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SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	Occupational Titles and Definitions	1992 PSOC	2008 ISCO
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Subsistence mixed crop and livestock farmers grow and harvest field or tree and shrub crops, vegetables and fruit, gather wild fruits, medicinal and other plants, tend or hunt animals, and/or catch fish and gather various forms of aquatic life in order to provide food, shelter and a minimum of cash income for themselves and their households.

Their tasks include:

- a) preparing the soil, sowing, planting, tending and harvesting field crops;
- b) growing vegetables, fruit and other tree and shrub crops;
- c) gathering wild fruits, medicinal and other plants;
- d) breeding, tending and feeding animals and poultry mainly to obtain meat, eggs, milk, hair, skin or other products;
- e) fetching water and gathering firewood;
- f) storing produce for later use and carrying out some processing of produce;
- g) building and maintaining makeshift houses and other shelters for own use
- h) making tools, clothes and utensils for use by the household;
- i) selling some products at local markets; and
- j) backyard farming and livestock raising.

634	6340	SUBSISTENCE FISHERS, HUNTERS, TRAPPERS AND GATHERERS	6340
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Subsistence fishers, hunters, trappers and gatherers gather wild fruits, medicinal and other plants, hunt and trap animals, catch fish and gather various forms of aquatic life in order to provide food, shelter and a minimum of cash income for themselves and their households.

Their tasks include:

- a) gathering wild fruits, roots, medicinal and other plants;
- b) hunting or trapping animals mainly to obtain meat, milk, hair, skin or other products;
- c) fetching water and gathering firewood;
- d) catching fish and gathering other forms of aquatic life;
- e) storing or carrying out some processing of their produce;
- g) making tools, clothes and utensils for use by the household; and
- h) selling some products at local markets.

Examples of the occupations classified here:

Hunter-gatherer

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	Occupational Titles and Definitions	1992 PSOC	2008 ISCO
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Subsistence collector

Some related occupations classified elsewhere:

Livestock farm laborer – 9212

Water and firewood collector – 9624

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Major Group 7.

CRAFT AND RELATED TRADES WORKERS

Craft and related trades workers apply specific knowledge and skills in the fields to construct and maintain buildings, form metal, erect metal structures, set machine tools, or make, fit, maintain and repair machinery, equipment or tools, carry out printing work produce or process foodstuffs, textiles, or wooden, metal and other equipment or tools, carry out printing work produce or process foodstuffs, textiles, or wooden, metal and other articles, including handicraft goods.

The work is carried out by hand and by hand-powered and other tools which are used to reduce the amount of physical effort and time required for specific tasks, as well as to improve the quality of the products. The tasks call for an understanding of all stages of the production process, the materials and tools used, and the nature and purpose of the final product. Most occupations in this major group require skills at the second ISCO skill level.

Tasks performed by craft and related trades workers usually include: constructing, maintaining and repairing buildings and other structures; casting, welding and shaping metal; installing and erecting heavy metal structures, tackle and related equipment; making machinery, tools, equipment, and other metal articles; setting for operators, or setting and operating various machine tools; fitting, maintaining and repairing industrial machinery, including engines and vehicles, as well as electrical and electronic instruments and other equipment; making precision instruments, jewellery, household and other precious-metal articles, pottery, glass and related products; producing handicrafts; executing printing work; and producing and processing foodstuffs and various articles made of wood, textiles, leather and related materials. Supervision of other workers may be included.

71

BUILDING AND RELATED TRADES WORKERS,
EXCLUDING ELECTRICIANS

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Building and related trades workers construct, maintain and repair buildings, erect and repair foundations, walls and structures of brick, stone and similar materials, shape and finish stone for building and other purposes, and extract and work solid minerals from underground or surface mines or quarries. The work is carried out by hand and by hand-powered and other tools which are used to reduce the amount of physical effort and time required for specific tasks, as well as to improve the quality of the products. The tasks call for an understanding of the work organization, the materials and tools used, and the nature and purpose of the final product.</p> <p>Tasks performed by workers in this sub-major group include: constructing, maintaining and repairing buildings and other structures using traditional and/or modern building techniques; constructing and repairing foundations, walls and structures of brick, stone and similar materials; breaking quarried stone into slabs or blocks; cutting, shaping and finishing stone for building, ornamental, monumental and other purposes; erecting reinforced concrete frameworks and structures as well as finishing and repairing cement surfaces; cutting, shaping, assembling and maintaining wooden structures and fittings; and performing miscellaneous construction and building maintenance tasks.</p>		
711			<p>BUILDING FRAME AND RELATED TRADES WORKERS</p> <p>Building frame and related trades workers construct, maintain and repair buildings, erect and repair foundations, walls and structures of brick, stone and similar materials, shape and finish stone for building and other purposes, and perform miscellaneous construction and building maintenance tasks.</p> <p>Tasks performed by workers in this minor group include: constructing, maintaining and repairing buildings and other structures by using traditional and/or modern building techniques; constructing and repairing foundations, walls and structures of brick, stone and similar materials; breaking quarried stone into slabs or blocks; cutting, shaping and finishing stone for building, ornamental, monumental and other purposes; erecting reinforced concrete frameworks and structures as well as finishing and repairing cement surfaces; cutting, shaping, assembling and maintaining wooden structures and fittings; and performing miscellaneous construction and building maintenance tasks. Supervision of other workers may be included.</p>		
	7111		HOUSE BUILDERS	7121 p	7111

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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House builders erect, maintain and repair houses and similar small buildings using either traditional or modern techniques and materials.

Their tasks include:

- a) preparing ground for erecting building or other structures;
- b) erecting structures to support roof, and building and covering walls with appropriate materials;
- c) fixing rafters to roof and covering with roofing material;
- d) levelling floor to make it smooth and serviceable;
- e) maintaining and repairing existing structures;
- f) arranging for specialized work such as bricklaying, painting, plumbing and electrical wiring to be done by subcontractors; and
- g) coordinating and supervising the activities of subcontractors, laborers and other workers.

Examples of the occupations classified here:

House Builder
Nipa house builder (sawali, straw)

Some related occupations classified elsewhere:

Construction project manager 1323
Project builder 1323
Construction supervisor 3123

7112	BRICKLAYERS AND RELATED WORKERS	7122 p	7112
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Bricklayers and related workers lay bricks, pre-cut stones and other types of building blocks in mortar to construct and repair walls, partitions, arches and other structures.

Their tasks include:

- a) laying stone, brick and similar building blocks to construct or repair walls, partitions, fireplaces and other structures such as smokestacks, furnaces, converters, kilns and ovens, piers and abutments;
- b) laying footpaths, kerbs and pavements; and
- c) laying bricks or other masonry to build patios, garden walls and other decorative installations.

Examples of the occupations classified here:

Blocklayer
Chimney builder
Construction bricklayer
Firebrick layer
Paver
Refractory bricklayer

Some related occupations classified elsewhere:

Stonemason -7113

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
		7113	<p>STONEMASONS, STONE CUTTERS, SPLITTERS AND CARVERS</p> <p>Stonemasons, stone cutters, splitters and carvers cut and shape hard and soft stone blocks and slabs for the construction and maintenance of stone structures and monumental masonry, and carve designs and figures in stone.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) driving wedges into quarried stone to break it into slabs or blocks; b) selecting and grading slabs and blocks of granite, marble, and other stone; c) cutting, shaping and finishing building and monumental stone such as granite or marble by using hand or hand-powered tools; d) making patterns and marking shapes on stone for subsequent sawing, planing, drilling and other dressing and cutting operations; e) cutting and carving characters, figures or designs on stone blocks used for monuments or memorials; f) setting stone in the erection of monuments and memorials; and g) repairing and replacing stonework on old buildings, churches and monuments. <p>Examples of the occupations classified here:</p> <ul style="list-style-type: none"> Construction stonemason Cutter, mosaic Granite Cutter Lathe operator (stone) Mason (general) Mason leadman Mason, monument Splitter, stone Stone carver Stone cutter Stonemason <p>Some related occupations classified elsewhere:</p> <ul style="list-style-type: none"> Wall and floor tiler -7122 Machine operator (stone cutting or processing) 8112 	7122 p 7113 p	7113
		7114	<p>CONCRETE PLACERS, CONCRETE FINISHERS AND RELATED WORKERS</p> <p>Concrete placers, concrete finishers and related workers erect reinforced concrete frameworks and structures, make forms for molding concrete, reinforce concrete surfaces, cement openings in walls or casings for wells, finish and repair cement surfaces and carry out terrazzo work.</p> <p>Their tasks include:</p>	7122 p	7114

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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a) constructing and repairing reinforced concrete floors, walls, tanks, silos and other concrete structures;

b) making shuttering or assembling prefabricated forms for molding concrete;

c) cementing openings in walls or casings for wells;

d) finishing and smoothing surfaces of concrete structures; and

e) applying a durable, smooth surfacing composed of cement, sand pigment and marble particles to floors, known as a terrazzo finish.

Examples of the occupations classified here:

Cement finisher
Concrete finisher, general*
Concrete placer
Concrete shutterer
Gas or oil well cementer
Reinforced concreter (general)
Terrazzo worker

Some related occupations classified elsewhere:

Concrete finishing machine operator 8114
Road surface laying machinery operator 8342

7115 CARPENTERS AND JOINERS

7123

7115

Carpenters and joiners cut, shape, assemble, erect, maintain and repair various types of structures and fittings made from wood and other materials.

Their tasks include:

a) making, altering and repairing structural and other woodwork at a work-bench and on a construction site;

b) constructing, erecting and installing heavy-framed wooden structures on building sites;

c) fitting, assembling and altering internal and external fixtures of buildings, such as walls, doors, door and window frames, facings and paneling;

d) making, repairing and fitting scenic equipment for theatrical performances, motion picture or television productions; and

e) constructing, assembling, altering and repairing wooden fixtures and fittings in train coaches, aircraft, ships, boats, floats, and other vehicles.

Examples of the occupations classified here:

Carpenter, finish*
Carpenter, general*
Carpenter, rough*
Joiner
Shipwright (wood)
Wood and sash maker*

Some related occupations classified elsewhere:

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Furniture and cabinet maker* 7522
Wheel-wright 7522

7119	BUILDING FRAME AND RELATED TRADES WORKERS NOT ELSEWHERE CLASSIFIED	7129 p	7119
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This unit group covers building frame and related trades workers not classified elsewhere in Minor group 711, Building frame and related trades workers. For instance the group includes steeplejacks, scaffolders and demolition workers.

Their tasks would include:

- a) climbing and performing miscellaneous construction and building maintenance work on tall structures such as towers, chimneys and spires;
- b) erecting temporary metal or wooden scaffolding on building sites; and
- c) demolishing buildings and other structures.

Examples of the occupations classified here:

Building maintenance man*
Scaffolder
Skilled demolition worker
Steeplejack

Some related occupations classified elsewhere:

Construction laborer 9313
Demolition laborer 9313

712	BUILDING FINISHERS AND RELATED TRADES WORKERS
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Building finishers and related trades workers cover, apply or install, maintain and repair roofs, floors, walls, insulation systems, glass in windows or other frames, as well as plumbing, piping and electrical systems in buildings and other structures.

Tasks performed usually include: covering roof frameworks with one or more kinds of material; installing parquet and other kinds of flooring or covering floors and walls with tiles or mosaic panels; applying plaster to walls and ceilings; applying insulating material to walls, floors and ceilings; cutting, fitting and setting glass in windows and similar openings; and installing plumbing and pipeline systems; installing electrical wiring and related equipment. Supervision of other workers may be included.

7121	ROOFERS	7131	7121
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Roofers build and repair roofs on all types of buildings using one or more kinds of materials.

Their tasks include:

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			<p>a) studying drawings, specifications and construction sites to determine materials required;</p> <p>b) covering roof frameworks with slate and pre-fabricated tiles to cover pitched roofs;</p> <p>c) laying a waterproof shield and fixing metallic or synthetic materials to a building's frame;</p> <p>d) sizing and cutting roofing materials to fit around edges corners and protuberances such as chimney;</p> <p>e) using natural materials such as thatching to provide roof coverings; and</p> <p>f) creating temporary structures such as scaffolding and ladders.</p> <p>Examples of the occupations classified here:</p> <p>Asphalt roofer</p> <p>Composition roofer</p> <p>Metal roofer</p> <p>Roof fixer</p> <p>Slate roofer</p> <p>Thatcher roofer</p> <p>Tile roofer</p>		
		7122	<p>FLOOR LAYERS AND TILE SETTERS</p> <p>Floor layers and tile setters install, maintain and repair flooring, and cover floors, walls and other surfaces with tiles or mosaic panels for decorative or other purposes.</p> <p>Their tasks include:</p> <p>a) preparing floor areas for covering with a variety of materials;</p> <p>b) assembling carpet, tiles or other materials and laying them on floors according to design and other specifications;</p> <p>c) preparing wall areas for covering with tiles or other materials for decorative or other purposes such as acoustic insulation; and</p> <p>d) setting tiles and constructing and laying mosaic panels to walls, floors and other surfaces.</p> <p>Examples of the occupations classified here:</p> <p>Carpet layer</p> <p>Floor layer</p> <p>Setter, mosaic</p> <p>Parquetry worker*</p> <p>Setter, marble</p> <p>Setter, tile (general)*</p> <p>Tile layer (composition)</p>	7132	7122
		7123	<p>PLASTERERS</p>	7122 p	7123

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Plasterers install, maintain and repair plasterboard in buildings, and apply decorative and protective coverings of plaster, cement and similar material to the interiors and exteriors of structures.

Their tasks include:

a) applying one or more coats of plaster to interior walls and ceilings of buildings to produce finished surface;

b) measuring, marking and installing ornamental plaster panels, and casting and trimming ornamental plaster cornices;

c) applying protective and decorative covering of cement, plaster and similar materials to exterior building surfaces; and

d) making and installing decorative plaster fixtures of fibrous plaster.

Examples of the occupations classified here:

Fibrous Plasterer
Ornamental Plasterer
Plasterer, general*
Solid Plasterer
Stucco Plasterer

7124 INSULATION WORKERS

7134

7124

Insulation workers apply and repair insulating materials to buildings, boilers, pipes or refrigeration and air-conditioning equipment.

Their tasks include:

a) cutting insulation material by size and shape;

b) applying slabs and sheets of insulating or sound-absorbing materials to walls, floors and ceilings of buildings;

c) blow and pack insulating or sound-absorbing materials into cavities between walls, floors and ceilings of buildings with power-driven machines;

d) examining plans, specifications and work sites to determine the type, quality and quantity of insulation material required;

e) applying insulating materials to exposed surfaces of equipment such as boilers, pipes and tanks; and

(f) insulating refrigeration and air-conditioning equipment.

Examples of the occupations classified here:

Boiler and pipe insulation worker
Insulation installer
Insulation worker, accoustical
Insulator worker (Aeronautical)
Insulator*
Refrigeration and air-conditioning equipment insulation worker

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7125 GLAZIERS 7135 7125

Glaziers measure, cut, finish, fit and install flat glass and mirrors.

Their tasks include:

- a) selecting the type of glass to be used, cutting to right size and shape and installing in windows, doors, showers and partitions of buildings;
- b) installing glass and mirrors in skylights, display cases, interior walls and ceilings;
- c) installing or replacing windscreens in vehicles or boats; and
- d) creating decorative glass features such as glass walls, staircases, balustrades and stained-glass windows.

Examples of the occupations classified here:

- Autogazier
- Building glazier
- Construction glazier*
- Glazier
- Leaded-glass glazier
- Patent roofing glazier
- Plate-glass glazier
- Roofing glazier
- Vehicle glazier

Some related occupations classified elsewhere:

- Glass cutter -7315
- Glass finisher -7315

7126 PLUMBERS AND PIPE FITTERS 7136 7126

Plumbers and pipe fitters assemble, install, repair and maintain pipe systems, fittings and fixtures for water, gas, drainage, sewerage systems, and hydraulic and pneumatic equipment.

Their tasks include:

- a) measuring, cutting, threading, bending, jointing, assembling, installing, maintaining and repairing pipes, fittings and fixtures of drainage, heating, water supply and sewerage systems;
- b) installing gas appliances, dishwashers and water heaters, sinks and toilets using hand and power tools;
- c) laying clay, concrete or cast-iron pipes in ditches to form sewers, drains or water mains, or for other purposes; and
- d) inspecting, examining and testing installed systems and pipes, using pressure gauge, hydrostatic testing, observation or other methods.

Examples of the occupations classified here:

- Aircraft fitter (pipe and tube)

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Fitter, pipe
Gas pipe fitter
Marine pipe fitter
Pipe layer
Piping charge hand
Piping inspector
Plumber
Ventilation pipe fitter

Some related occupations classified elsewhere:

Air conditioning and refrigeration mechanics 7127

7127	AIR CONDITIONING AND REFRIGERATION MECHANICS	7134 p	7127
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Air conditioning and refrigeration mechanics assemble, install, maintain and repair air conditioning and refrigeration systems and equipment.

Their tasks include:

- a) interpreting blueprints, drawings or other specifications;
- b) assembling, installing and repairing components for air conditioning and refrigeration systems;
- c) connecting piping and equipment by bolting, riveting, welding or brazing; and
- d) testing systems, diagnosing faults and performing routine maintenance or servicing.

Examples of the occupations classified here:

Air conditioning equipment mechanic
Air conditioning plant installer
Air conditioning plant mechanic
Air duct worker*
Refrigeration mechanic
Refrigeration plant installer
Refrigeration plant mechanic

Some related occupations classified elsewhere:

Ventilation pipe fitter 7126
Plumbers and pipe fitters 7126

713	PAINTERS, BUILDING STRUCTURE CLEANERS AND RELATED TRADES WORKERS
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Painters, building structure cleaners and related trades workers prepare surfaces and apply paint and similar materials to buildings and other structures, vehicles or various manufactured articles. They cover interior walls and ceilings with wallpaper, clean chimneys and exterior surfaces of buildings and other structures.

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Tasks performed usually include: preparing surfaces and applying paint and similar materials to buildings and other structures; applying paint or varnish to vehicles or various manufactured articles, usually with a hand-spraying device; covering interior walls and ceilings with wallpaper, silk or other fabrics; cleaning chimneys; and cleaning exterior surfaces of buildings and other structures. Supervision of other workers may be included.

7131	PAINTERS AND RELATED WORKERS	7141	7131
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Painters and related workers prepare surfaces of buildings and other structures for painting, apply protective and decorative coats of paint or similar materials, or cover interior walls and ceilings of buildings with wallpaper or other finishes.

Their tasks include:

- a) cleaning and preparing walls and other surfaces of buildings for painting or wallpapering;
- b) selecting and preparing paints to required colors by mixing pigments and additives;
- c) applying or spraying paint, varnish, and similar materials to surfaces, fixtures and fittings of buildings;
- d) measuring and hanging wallpaper or other fabrics on interior walls and ceilings; and
- e) applying paints, varnishes and stains to surfaces using brushes, rollers and sprays.

Examples of the occupations classified here:

- Building painter
- Construction painter
- Decorative painter
- House painter
- Painter
- Structural steel and ship painter
- Wall paperhanger

7132	SPRAY PAINTERS AND VARNISHERS	7142 7141 p	7132
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Spray painters and varnishers operate spray painting and varnishing equipment to apply protective coatings to manufactured items or structures.

Their tasks include:

- a) preparing surfaces to be coated using a variety of methods to remove grease, dirt and rust;
- b) painting cars, buses, trucks and other vehicles, and applying varnish and other protective coatings; and
- c) applying paint as well as protective coatings of enamel or varnish on metal, wooden and other manufactured products, usually with a hand-spraying device.

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Examples of the occupations classified here:

Aircraft painter
Automotive painter*
Furniture painter (spray)
Manufactured articles painter
Manufactured articles varnisher
Paint sprayer, varnishers
Spray-painter, except construction
Upholstery painter
Vehicle painter
Wood finisher, furniture*

Some related occupations classified elsewhere:

Metal painting machine operator -8122
Wood painting machine operator -7521
Building painter 7131
Decorative painter7131
Signwriter7316

7133	BUILDING STRUCTURE CLEANERS	7133 p	7133
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Building structure cleaners clean exterior surfaces of buildings and other structures, and remove soot from chimneys.

Their tasks include:

- a) cleaning exterior surfaces of stone, brick, metal or similar materials by means of chemicals, or a jet of steam or sand applied under high pressure;
- b) removing soot from flues, chimneys and connecting pipes; and
- c) removing asbestos, mold and fire damaged surfaces from buildings.

Examples of the occupations classified here:

Chimney sweep
Cleaner, building exteriors
Sandblasters, building exteriors

Some related occupations classified elsewhere:

Graffiti cleaner 9129
Water blater 9129

72

METAL, MACHINERY AND RELATED TRADES WORKERS

Metal, machinery and related trades workers cast, weld, forge and, by other methods, form metal, erect, maintain and repair heavy metal structures, engage in machine-tool setting as well as in fitting, maintaining and repairing machinery, including engines, vehicles, or produce tools and various non-precious-metal articles.

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The work is carried out by hand and by hand-powered and other tools which are used to reduce the amount of physical effort and time required for specific tasks, as well as to improve the quality of the products. The tasks call for an understanding of the work organization, the materials and tools used, and the nature and purpose of the final product.

Tasks performed by workers in this sub-major group usually include: making molds and cores for casting metal; casting, welding and shaping metal; installing, erecting, maintaining and repairing heavy metal structures, tackle and related equipment; forging and forming steel and other non-precious metals to make and repair machinery, tools, equipment and other articles; setting for operators or setting and operating various machine tools; and fitting, maintaining and repairing industrial machinery, including engines and vehicles. Supervision of other workers may be included.

721

SHEET AND STRUCTURAL METAL WORKERS, MOLDERS AND WELDERS, AND RELATED WORKERS

Sheet and structural metal workers, molders and welders, and related workers, make molds and cores for casting metal, weld and cut metal parts, make and repair articles of sheet metal, and install, erect, maintain and repair heavy metal structures, tackle, cable-cars and related equipment.

Tasks performed usually include: making molds and cores for casting metal; casting, welding and shaping metal parts; making and repairing articles of sheet metal such as sheet steel, copper, tin, or brass; and installing, erecting, maintaining and repairing heavy metal structures, as well as tackle, cable cars and related equipment.

7211

METAL MOLDERS AND COREMAKERS

7211

7211

Metal molders and coremakers make molds and cores for casting metal.

Their tasks include:

- a) making molds by hand or using auxiliary machines on a bench for small metal castings, on the foundry floor, or in a pit for large castings;
- b) making cores for use in metal molds;
- c) cleaning and smoothing molds, core boxes, and repairing surface imperfections;
- d) moving and positioning work pieces such as mold sections, patterns, and bottom boards, using cranes, or signaling others to move work pieces;
- e) positioning patterns inside mold sections and clamping sections together;

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			<p>f) cutting spouts, runner holes and sprue holes into molds; and</p> <p>g) lifting upper mold sections from lower sections and remove molded patterns.</p> <p>Examples of the occupations classified here:</p> <ul style="list-style-type: none"> Bench molder * Filler metal molder Floor and fit molder * Hand coremaker Machine coremaker Machine molder Metal castings molder 		
		7212	<p>WELDERS AND FLAME CUTTERS</p> <p>Welders and flame cutters weld and cut metal parts using gas flame, electric arc and other sources of heat to melt and cut, or to melt and fuse metal.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) welding metal parts using gas flame, or an electric arc, thermite compound or other methods; b) operating resistance-welding machines; c) using blowtorch to make and repair lead linings, pipes, floors and other lead fixtures; d) brazing metal parts together; e) cutting metal pieces using gas flame or an electric arc; f) joining metal parts by hand soldering; g) monitoring the fitting, burning, and welding processes to avoid overheating of parts or warping, shrinking, distortion, or expansion of material; and h) examining work pieces for defects and measuring work pieces with straight edges or templates to ensure conformance with specifications. <p>Examples of the occupations classified here:</p> <ul style="list-style-type: none"> Body welder Brazer Electric arc welder (machine) Electric welder Flame cutter Gas tungsten arc welder * Gas welder Orbital welder Pipe welder Resistance welder Shielded metal arc welder * Thermite welder Welder 	7212	7212
		7213	<p>SHEET METAL WORKERS</p>	7213	7213

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Sheet metal workers make, install and repair articles and parts of articles made out of sheet metal such as sheet steel, copper, tin, brass, aluminum, zinc or galvanised iron.

Their tasks include:

- a) marking sheet metal for cutting and shaping;
- b) making and repairing household utensils and other articles in tin, copper and light alloys, or ornamental articles and fittings;
- c) making and repairing boilers, tanks, vats and similar containers;
- d) installing and repairing sheet-metal parts of vehicles and aircraft;
- e) converting blueprints into shop drawings to be followed in the construction and assembly of sheet metal products;
- f) determining project requirements, including scope, assembly sequences, and required methods and materials, according to blueprints, drawings, and written or verbal instructions; and
- g) inspecting product quality and installation to ensure conformance to specifications.

Examples of the occupations classified here:

- Auto body repairman*
- Automotive body builder
- Boilersmith
- Coppersmith
- Plate metal worker
- Sheet metal marker
- Sheet metal worker*, aircraft
- Sheet metal worker*, general
- Sheet metal worker*, ornamental
- Sheet metal worker*, vehicle
- Tinsmith

7214 STRUCTURAL METAL PREPARERS AND
ERECTORS

7214 7214

Structural metal preparers and erectors assemble, erect and dismantle structural metal frames of buildings and other structures.

Their tasks include:

- a) marking metal framework as a guide when drilling, cutting, and shaping them for use in buildings, ships and other structures;
- b) drilling, cutting and shaping structural steel in a workshop;
- c) erecting steel framework for buildings, bridges and other constructions;
- d) assembling and erecting the framework and other metal parts of ships' structures;
- e) shaping and fitting structural-steel plates of ships under construction or repair; and

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f) riveting structural-metal members by hand, machine or pneumatic riveter.

Examples of the occupations classified here:

- Constructional steel erector
- Erector, structural metal
- Iron works fabricator
- Metal shipwright
- Preparer, structural metal
- Reinforcing iron worker
- Riveter
- Riveter, hand
- Riveter, machine
- Riveter, pneumatic
- Ship plater
- Steelman
- Structural metal maker
- Structural steel worker*

Some related occupations classified elsewhere:

Rivet production machine operator-7223

7215 RIGGERS AND CABLE SPLICERS

7215

7215

Riggers and cable splicers assemble rigging gear to move and position equipment and structural components, or install and maintain cables, ropes and wires on construction sites, buildings or other structures.

Their tasks include:

- a) estimating the size, shape and weight of objects to be moved and deciding on the type of equipment to move them;
- b) installing and repairing cables, ropes, wires, pulleys and other tackle;
- c) joining, repairing and fitting attachments to wires, ropes and cables;
- d) working as member of crew erecting and repairing derricks for drilling water, gas and oil-wells;
- e) lifting and mounting scenery, lighting and other equipment in theatres and on film sets; and
- f) installing and maintaining communication towers, aerial cableways, funicular railways, ski lifts and similar infrastructure.

Examples of the occupations classified here:

- Aircraft rigger
- Cable splicer
- Rigger
- Rigger, gas-drilling
- Rigger, hoisting equipment, construction
- Rigger, hoisting equipment, general
- Rigger, oil-drilling
- Rigger, ship
- Rope and cable splicer (general)

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Suspension bridge cable worker
Theatrical rigger
Tower rigger

Some related occupations classified elsewhere:

Splicing/cable and rope machine operator – 8189

Crane, hoist and related plant operators 8343

722	BLACKSMITHS, TOOLMAKERS AND RELATED TRADES WORKERS	722	722
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Blacksmiths, toolmakers and related trades workers, hammer and forge bars, rods or ingots of iron, steel and other metals to make and repair various kinds of tools, equipment and other articles, set machine tools for operators or set and operate various machine tools, and polish and sharpen surfaces.

Tasks performed usually include: hammering and forging iron, steel and other metals to make and repair various kinds of tools, equipment and other articles; setting machine tools for operators or setting and operating various machine tools working to fine tolerances; and polishing and sharpening metal surfaces and tools.

7221	BLACKSMITHS, HAMMERSMITHS AND FORGING PRESS WORKERS	7221	7221
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Blacksmiths, hammersmiths and forging press workers hammer and forge bars, rods, ingots and plates of iron, steel or other metals, and draw wire to make and repair various kinds of tools, metal articles, pieces of equipment, and agricultural and related implements.

Their tasks include:

- a) heating metal in forge furnace and manufacturing and repairing articles by drawing, bending;
- b) cutting, hammering metal on an anvil, punching, shearing, joining and hardening or tempering;
- c) shaping heated metal into forgings on power hammer equipped with open dies;
- d) operating closed-die drop hammer to forge metal articles;
- e) operating a power-press machine equipped with closed dies to forge metal articles;
- f) drawing wire;
- g) reading work orders or blueprints to determine specified tolerances and sequences of operations for machine setup; and
- h) measuring and inspecting machine parts to ensure conformance to product specifications.

Examples of the occupations classified here:

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Blacksmith*
Drop-hammer worker
Forging press worker
Hammer-smith
Hand metal former
Hand wire drawer

Some related occupations classified elsewhere:

Casting machine operator-7223
Machine-tool machine operator-7223

7222	TOOLMAKERS AND RELATED WORKERS	7222	7222
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Toolmakers and related workers make and repair custom made and specialized tools, sports guns, locks, dies, patterns machinery components and other metal articles using hand and machine tools to work metal to fine tolerances.

Their tasks include:

- a) reading and interpreting engineering drawings and specifications of tools, dies, prototypes or models;
- b) preparing templates and sketches, and determining work processes;
- c) visualizing and computing dimensions, sizes, shapes, and tolerances of assemblies, based on specifications;
- d) positioning, securing and measuring metal stock or castings to lay out for machining;
- e) setting up, operating and maintaining conventional and computer numerically controlled machine tools to cut, turn, mill, plane, drill, bore, grind or otherwise shape workpiece to prescribed dimensions and finish;
- f) fitting and assembling parts to make and repair jigs, fixtures and gauges;
- g) repairing and modifying sports guns and other small arms;
- h) making, fitting, assembling, repairing and installing lock parts and locks;
- i) making and repairing metal patterns for preparation of foundry molds;
- j) laying out lines and reference points on metal stock to guide other workers who cut, turn, mill, grind or otherwise shape metal; and
- k) verifying dimensions, alignments, and clearances of finished parts for conformance to specifications, using precision measuring instruments and testing completed items for proper operation.

Examples of the occupations classified here:

Die maker*
Foundry worker
Gauge maker
Gunsmith
Jig maker

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			Locksmith Metal marker Metal pattern maker Plastic pattern maker Toolmaker Toolmaker foreman		
			Some related occupations classified elsewhere: Tool production machine operator 7223		
7223			METAL WORKING MACHINE TOOL SETTERS AND OPERATORS Metal working machine tool setters and operators set and/or operate, various machine tools working to fine tolerances. Their tasks include: a) setting one or more types of machine tool for production of metal articles in standardized series; b) operating and monitoring metalworking machines, such as lathes, milling, planing, boring, drilling, grinding or honing machines, including multi-purpose numerically controlled metalworking machines; c) performing similar tasks when machining plastics and other metal substitutes; d) observing machine operations to detect work piece defects or machine malfunctions, adjusting machines as necessary; e) inspecting work pieces for defects, and measuring work pieces to determine accuracy of machine operation, using rules, templates, or other measuring instruments; and f) changing worn machine accessories, such as cutting tools and brushes, using hand tools. Examples of the occupations classified here: Boring machine-setter operator Honing-machine setter-operator Lathe setter-operator * Machine tool setter-operator Metalworking-machine setter-operator (general) Milling machine setter-operator * Numerical control machine setter-operator Planning-machine setter-operator Precision- grinding-machine setter-operator Setter-operator, drilling machine/metalworking	7223	7223
			Some related occupations classified elsewhere are: Machine-operator, drilling/metal 8211 Machine-operator, grinding/metal 8211 Machine-operator, machine tool 8211 Tool production machine operator 7223		

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
		7224	<p>METAL POLISHERS, WHEEL GRINDERS AND TOOL SHARPENERS</p> <p>Metal polishers, wheel grinders and tool sharpeners polish and grind metal surfaces and sharpen tools.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) operating fixed or portable buffing and polishing machines; b) sharpening cutting tools and instruments using grinding wheels or mechanically operated grinding machines; c) repairing, adjusting and sharpening saw blades and metal teeth of cylinders in textile carding machines; d) dressing grinding wheels, according to specifications; e) monitoring machine operations to determine whether adjustments are necessary; stop machines when problems occur; f) inspecting, feeling, and measuring work pieces to ensure that surfaces and dimensions meet specifications; and g) selecting and mounting grinding wheels on machines, according to specifications, using hand tools and applying knowledge of abrasives and grinding procedures. <p>Examples of the occupations classified here:</p> <ul style="list-style-type: none"> Buffing machine operator Card grinder Metal finisher Metal polisher Metal-wheel grinder Saw repairer Saw sharpener Sharpener, cutting instrument Textile card grinder Tool and cutter grinder, * Tool grinder, machine tool Tool sharpener <p>Some related occupations classified elsewhere:</p> <ul style="list-style-type: none"> Metal finishing machine operator 8122 Metal polishing machine operator 8122 	7224	7224
		723	<p>MACHINERY MECHANICS AND REPAIRERS</p> <p>Machinery mechanics and repairers fit, install, maintain and repair engines, vehicles, agricultural or industrial machinery and similar mechanical equipment.</p> <p>Tasks performed usually include: fitting, installing, maintaining and repairing engines, vehicles, agricultural or industrial machinery and similar mechanical equipment.</p>	723	

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
		7231	MOTOR VEHICLE MECHANICS AND REPAIRERS Motor vehicle mechanics and repairers fit, install, maintain, service and repair engines and the mechanical and related equipment of passenger cars, delivery trucks, motorcycles and other motor vehicles. Their tasks include: a) detecting and diagnosing faults in engines and parts; b) fitting, examining, testing and servicing motor vehicle and motorcycle engines; c) replacing engine components or complete engines; d) fitting, examining, adjusting, dismantling, rebuilding and replacing defective parts of motor vehicles; e) installing or adjusting motors and brakes, and adjusting steering or other parts of motor vehicles; f) installing, adjusting, servicing and replacing mechatronics components of motor vehicles; g) performing scheduled maintenance services, such as oil changes, lubrications and engine tune-ups, to achieve smoother running of vehicles and ensure compliance with pollution regulations; and h) reassembling engines and parts after being repaired. Examples of the occupations classified here: Automobile mechanic Automotive brakes systems service technician Automotive mechanic (light duty) * Automotive/train mechanic Camber mechanic Chief mechanic/technician Diesel engine mechanic Garage mechanic Internal combustion engine fitter-assembler Motor truck mechanic Motor vehicle mechanic Motor vehicle repairer Motor vehicle service technician Motorcycle mechanic Repairman, motor vehicle Small engine mechanic Train engine fitter Train engine repairer Some related occupations classified elsewhere: Bicycle repairer 7234 Motor vehicle engine assembler 8211	7231	7231
		7232	AIRCRAFT ENGINE MECHANICS AND REPAIRERS Aircraft engine repairers and mechanics fit, service, repair and overhaul aircraft engines and assemblies, such as airframes, hydraulic, and pneumatic systems.	7232	7232

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Their tasks include:

- a) fitting, examining, testing and servicing aircraft engines;
- b) replacing engine components or complete engines;
- c) examining and inspecting airframes and aircraft components, including landing gear, hydraulic systems, and deicers to detect wear, cracks, breaks, leaks, or other problems;
- d) maintaining, repairing, overhauling, modifying and testing aircraft structural, mechanical and hydraulic systems;
- e) reading and interpreting manuals, service bulletins, and other specifications to determine the feasibility and method of repairing or replacing malfunctioning or damaged components;
- f) maintaining, repairing, and rebuilding aircraft structures, functional components, and parts such as wings and fuselage, rigging, hydraulic units, oxygen systems, fuel systems, electrical systems, gaskets, and seals;
- (g) inspecting completed work to certify that maintenance meets standards and the aircraft is ready for operation;
- h) maintaining repair logs, documenting all preventive and corrective aircraft maintenance;
- i) installing and testing electrical and electronic components, assemblies, and systems in aircraft; and
- j) connecting components to assemblies such as radio systems, instruments, magnetos, inverters, and in-flight refueling systems.

Examples of the occupations classified here:

- Aeromechanic
- Aircraft engine fitter
- Aircraft maintenance supervisor
- Aircraft mechanic
- Aircraft production/maintenance assistant
- Aircraft restorer
- Aircraft service technician
- Airframe and power plant mechanic
- Airframe fitter
- Airmotive & equipment mechanic
- Aviation maintenance technician
- Helicopter mechanic
- Jet engine mechanic
- Pneudraulic systems mechanic (aircraft)
- Powerplant mechanic (aircraft)
- Rocket engine component mechanic

Some related occupations classified elsewhere:

- Aircraft maintenance engineer (avionics) 7421
- Avionics technician 7421
- Aircraft engine assembler8211

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7233	AGRICULTURAL AND INDUSTRIAL MACHINERY MECHANICS AND REPAIRERS	7234	7233
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Agricultural and industrial machinery mechanics and repairers fit, install, examine, service and repair engines, agricultural and industrial machinery and mechanical equipment, except motor vehicle, aircraft and electric motors.

Their tasks include:

- a) fitting, installing, examining, servicing and repairing engines, machinery and mechanical equipment;
- b) oiling and greasing stationary engines and machinery;
- c) inspecting and testing new machinery and mechanical equipment for conformity with standards and specifications;
- d) disassembling machinery and equipment to remove parts and make repairs;
- e) examining parts for defects such as breakage and excessive wear;
- f) operating newly repaired machinery and equipment to verify the adequacy of repairs; and
- g) recording repairs and maintenance performed.

Examples of the occupations classified here:

- Agricultural machinery fitter
- Agricultural machinery mechanic
- Construction machinery mechanic
- Diesel engine mechanic (except motor vehicle)
- Earth-moving equipment fitter
- Engine marine fitter
- Farm machinery mechanic
- Farm tractor mechanic
- Greaser
- Industrial equipment fitter
- Industrial plant mechanic
- Industrial sewing machine mechanic
- Loomfixers
- Lubrication man
- Machinery erector and installer
- Machinery mechanic (general)
- Marine craft mechanic
- Marine machinery mechanic
- Mechanic, heavy equipment*
- Mechanic, hydraulic*
- Mechanical products inspector
- Mechanical products tester
- Metalworking machine-tool fitter
- Metalworking machine-tool mechanic
- Mining machinery fitter
- Mining machinery mechanic
- Office machinery fitter
- Oiler
- Plant maintenance mechanic
- Power plant mechanic

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			Printing machinery fitter Printing machinery mechanic Reciprocating steam-engine mechanic Ship fitter Stationary engine fitter Stationary engine greaser Stationary engine repairer Textile machinery fitter Turbine fitter (except aircraft and marine) Turbine mechanic (except aircraft and marine) Woodworking machinery fitter Woodworking machinery mechanic Some related occupations classified elsewhere: Electrical mechanic 7412 Mechanical machinery assembler 8211		
		7234	BICYCLE AND RELATED REPAIRERS Bicycle and related repairers fit, maintain, service and repair the mechanical and related equipment of bicycles, rickshaws, baby carriages, wheelchairs and similar non-motorized transport equipment. Their tasks include: a) examining, servicing and repairing bicycles and other non-motorized transport equipment; b) cleaning and lubricating bearings and other moving parts; c) replacing and repairing components and accessories, such as brakes, driving chain mechanism, wheels, handle bars etc.; d) changing tires and controlling air pressure; e) spray painting frames; and f) assembling new bicycles, wheelchairs and similar non-motorized equipment. Examples of the occupations classified here: Bicycle mechanic Bicycle repairer Perambulator repairer Wheelchair repairer Some related occupations classified elsewhere: Moped repairer 7231 Motorized rickshaw mechanic 7231	7231 p	7234
73			HANDICRAFT AND PRINTING WORKERS Handicraft and printing workers make and repair precision instruments, musical instruments, various articles such as jewellery, precious metalware, ceramics, porcelain ware and glassware, as well as handicrafts made of wood or textile, leather or related materials, or they perform printing or book-binding tasks.	73	73

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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The work is carried out by hand and by hand-powered and other tools which are used to reduce the amount of physical effort and time required for specific tasks, as well as to improve the quality of the products. The tasks call for an understanding of the work organization, the materials and tools used, and the nature and purpose of the final product.

Tasks performed by workers in this sub-major group usually include: making and repairing nautical, meteorological, optical and other precision instruments and equipment; making and repairing musical instruments; making jewellery and precious metalware; making pottery, porcelain ware, ceramics and glassware; painting and decorating various articles; producing handicraft articles in wood or textile, leather and related materials; and performing printing or book-binding tasks. Supervision of other workers may be included.

731

HANDICRAFT WORKERS

731

731

Handicraft workers combine artistic and manual skills to design, make, repair, adjust, maintain and decorate precision instruments, musical instruments, jewellery and other precious-metals, pottery and porcelain ware. They apply traditional and/or recently developed techniques to carve, mold, assemble, weave and decorate various glass, ceramics, textile, straw, stone, wood and leather articles.

Tasks performed usually include: making, calibrating, repairing, maintaining and installing musical and precision instruments; fabricating, adjusting, repairing, or appraising jewellery, ceremonial or religious items, gold, silver, other precious metals, or gems; cutting, filing, polishing and setting precious and semiprecious stones including gems and diamonds and engraving designs on jewellery and precious metal articles; preparing pottery, porcelain ware, sanitary ware, bricks, tiles and abrasive wheels by hand or by machine; blowing, molding, pressing, cutting, trimming, grinding and polishing glass, shaping molten glass according to patterns; decorating articles made of wood, metal, textiles, glass, ceramics and other materials, and planning, laying out and painting letters, figures, monograms and designs to make signs; applying traditional techniques like seasoning, impregnation to prepare wood, straw, rattan, reeds, stone, clay, shells, and other materials, and carving, molding, assembling, weaving, or painting and decorating various articles for personal or household use, or for decorative purposes; preparing materials to make wicker furniture, brushes and brooms and weaving various kinds of baskets; and applying traditional techniques and patterns to produce woven fabrics, knitted, embroidered and other garments and household articles.

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7311	PRECISION-INSTRUMENT MAKERS AND REPAIRERS	7311	7311
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Precision-instrument makers and repairers make, calibrate, repair, maintain, adjust and install mechanical watches, clocks, nautical, meteorological, optical, orthopedic and other precision instruments and equipment and set them for correct performance.

Their tasks include:

- a) repairing, cleaning, and adjusting mechanisms of timing instruments, such as watches and clocks;
- b) adjusting timing regulators, using calipers, watch-rate recorders, and tweezers;
- c) cleaning, rinsing, and drying timepiece parts, using solutions and ultrasonic or mechanical watch-cleaning machines;
- d) testing timepiece accuracy and performance, using meters and other electronic instruments;
- e) testing accuracy of meters, gauges, indicators, or other recording or controlling instruments to locate defective components and for conformance to standards;
- f) calibrating instruments or scales, using hand tools, computer, or electronic devices;
- g) inspecting components, connections, and drive mechanisms to detect defects;
- h) assembling instruments and devices, such as barometers, control valves, gyroscopes, hygrometers, speedometers, tachometers, and thermostats;
- i) testing, calibrating, and adjusting electronic, mercurial, aneroid, and other types of meteorological instruments for compliance with printed specifications and schematic diagrams, using voltmeters, oscilloscopes, tube testers, and other test instruments;
- j) adjusting and repairing masts, supporting structures, clearance lights, control panels, control cabling and wiring, and other electrical and mechanical devices;
- k) repairing and setting optical instruments such as microscopes, telescopes, theodolites, sextants; and
- l) checking whether assembled units conform to specifications and ensuring stipulated performance and sensitivity by standard tests.

Examples of the occupations classified here:

- Dental prosthesis maker
- Dental prosthesis repairer
- Maker and repairer, instrument/meteorological
- Maker and repairer, instrument/surgical
- Optical instrument maker
- Optical instrument repairer
- Orthopedic appliance maker
- Orthopedic appliance repairer
- Precision instrument maker

SUB- MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			Precision instrument repairer Precision-instrument assembler Surgical instrument maker Watch and clock assembler Watch and clock repairer Some related occupations classified elsewhere: Surgical instrument maker 3214 Locksmith 7222 Machine-tool machine operator 7223 Watch assembler 8212		
		7312	MUSICAL INSTRUMENT MAKERS AND TUNERS Musical-instrument makers and tuners make, assemble, repair, adjust, restore musical instruments and tune them to the required pitch with hand or power tools. They usually specialize in one type of instrument, such as string instruments, brass instruments pianos, reed instruments or percussion instruments. Their tasks include: a) fabricating and assembling musical instruments and instrument parts of wood, ebonite, metal, leather and other materials; b) repairing or replacing musical instrument parts and components, such as strings, bridges, felts, and keys, using hand and power tools; c) playing and inspecting instruments to evaluate their sound quality and to locate any defects; d) adjusting string tensions to achieve proper tone or pitch of stringed instruments; e) adjusting lips, reeds, or toe hole of organ pipes, using hand tools, to regulate airflow and loudness of sound; f) tuning and servicing pipe organs by adjusting pitch of organ A pipes to conform with pitch of tuning fork and adjusting pitch of other pipes with references to pitch of tuned pipes; g) installing new drumheads in percussion instruments; h) tuning accordions by aurally comparing pitch of reeds with master reeds and filing reeds to obtain standard pitch; i) aligning pads and keys on reed or wind instruments; j) tuning percussion instruments to required pitch by tightening or loosening cords holding leather pieces fixed atop or at both ends of instrument; and k) assembling and installing new pipe organs and pianos in buildings. Examples of the occupations classified here: Accordion maker Instrument/musical maker (brass) Instrument/musical maker (string) Instrument/musical maker (woodwind)	7312	7312

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Metal wind instrument maker
 Musical instrument tuner
 Organ builder
 Piano maker

7313 JEWELLERY AND PRECIOUS METAL WORKERS 7313 7313

Jewellery and precious metal workers design, fabricate, adjust, repair, or appraise jewellery, ceremonial or religious items, gold, silver, other precious metals, or gems. They cut, file, polish and set precious and semiprecious stones including gems and diamonds and engrave designs on jewellery and precious metal articles. They cut and polish diamonds for industrial purposes.

Their tasks include:

- a) casting jewellery and other non-ferrous metal articles by hand;
- b) creating new jewellery designs and modifying existing designs, using computers as necessary;
- c) cutting designs in molds or other materials to be used as models in the fabrication of metal and jewellery products;
- d) altering existing jewellery mountings in order to reposition jewels or to adjust mountings;
- e) repairing, reshaping and restyling old jewellery or precious metal ware following designs or instructions;
- f) making complete jewellery articles such as rings, necklaces, bangles, brooches and bracelets from materials such as gold, silver, platinum, and precious or semiprecious stones;
- g) examining gem surfaces and internal structures, using polariscopes, refractometers, microscopes, and other optical instruments, to differentiate between stones, to identify rare specimens, or to detect flaws, defects, or peculiarities affecting gem values;
- h) cutting and polishing gems and setting them in jewellery articles;
- i) engraving or embossing letters, designs or decorative lines on jewellery and precious metal ware;
- j) grinding, drilling and finishing jewel bearings for use in precision instruments such as compasses and chronometers; and
- k) examining assembled or finished products to ensure conformance to specifications, using magnifying glasses or precision measuring instruments.

Examples of the occupations classified here:

Gem cutter/faceter
 Gem setter
 Goldsmith
 Jeweller (general)
 Jewelry caster (hand)
 Jewelry caster (machine)

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Jewelry engraver
 Jewelry finishers, by hand and machine
 Jewelry maker (goldsmith, silversmith)*
 Jewelry polisher
 Jewelry repairer
 Precious metal leaf maker
 Precious metal roller
 Silversmith

7314 POTTERS AND RELATED WORKERS 7321 7314

Potters and related workers prepare pottery, porcelain ware, sanitary ware, bricks, tiles and abrasive wheels by hand or by machine.

Their tasks include:

- a) making articles of pottery and porcelain;
- b) making clay or plaster of Paris molds;
- c) reading technical drawings to know customer's requirements;
- d) forming articles on potter's wheel by pressing thumbs into centers of revolving clay to form hollows, and press on the inside and outside of emerging clay cylinders with hands and fingers, gradually raising and shaping clay to desired forms and sizes;
- e) adjusting wheel speeds according to the feel of the clay as pieces enlarge and walls become thinner;
- f) operating jigger machines to form ceramic ware, such as bowls, cups, plates, and saucers;
- g) adjusting and setting controls of pug mill that mixes, extrudes, cuts, and deposits clay charges in or over molds as specified;
- h) smoothening surfaces of finished pieces, using rubber scrapers and wet sponges;
- i) forming abrasive wheels by molding and pressing an abrasive mixture by hand or by machine;
- j) examining finished ware for defects, verifying accuracy of shapes and sizes of objects, using calipers and templates; and
- k) preparing work for sale or exhibition, and maintaining relationships with retail, pottery, art, and resource networks that can facilitate sale or exhibition of work.

Examples of the occupations classified here:

Abrasive wheel molder
 Brick and tile molder
 Clay extruding-press operator
 Decorators/lazers
 Potter, general
 Pottery and porcelain caster (hand)
 Pottery and porcelain die-presser
 Pottery and porcelain jiggerman
 Pottery and porcelain maker
 Pottery and porcelain modeller
 Pottery and porcelain presser (hand)

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Pottery and porcelain thrower

Some related occupations classified elsewhere:

Kiln operator, brick and tile 8181

Kiln operator, pottery and porcelain – 8181

7315	GLASS MAKERS, CUTTERS, GRINDERS AND FINISHERS	7322	7315
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Glass makers, cutters, grinders and finishers blow, mold, press, cut, trim, grind and polish glass, shape molten glass according to patterns.

Their tasks include:

- a) heating glass to pliable stage, using gas flames or ovens, and rotating glass to heat it uniformly;
- b) blowing and bending glass tubing into specified shapes to form scientific apparatus like flasks, retorts, pipettes;
- c) grinding and polishing glass objects or parts to correct defects or to prepare surfaces for further finishing and smoothening and polishing rough edges, using belt sander or polishing wheels;
- d) examining glass stock and finished products and marking or discarding items with defects such as spots, stains, scars, snags, chips, scratches, or unacceptable shapes or finishes;
- e) reading work orders to determine dimensions, cutting locations, and quantities to cut;
- f) observing gauges, computer printouts and video monitors to verify specified processing conditions and make adjustments as necessary ;
- g) positioning pattern or drawing on glass, measuring dimensions, and marking cutting lines, using glass cutting tools and cutting glass along marked outlines or around pattern;
- h) setting up, operating and adjusting computerized or robotic glass cutting equipment;
- i) inspecting, weighing, and measuring products to verify conformance to specifications, using instruments such as micrometers, calipers, magnifiers, and rulers;
- j) regulating oven temperatures according to glass types to be processed;
- k) transferring pattern for individual stained glass parts from full size drawing to pattern paper, using stylus to trace drawings;
- l) spraying silver solution on glass to provide mirrored surface, using spray gun; and
- m) laying out cutting and grinding optical and other glass to specified dimensions and weight for molding into lens blanks and for use as watch crystals.

Examples of the occupations classified here:

Glass blower

Glass cutter

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			Glass cutter (optical) Glass edge grinder Glass finisher Glass lens molder Glass scientific blower Glass tube bender		
			Some related occupations classified elsewhere: Glass production furnace operator ⁸¹⁸¹		
		7316	SIGN WRITERS, DECORATIVE PAINTERS, ENGRAVERS AND ETCHERS Sign writers, decorative painters, engravers and etchers decorate articles made of wood, metal, textiles, glass, ceramics and other materials. They plan, lay out and paint letters, figures, monograms and designs to make signs and engrave and etch ornamental and floral designs on glass and other articles. Their tasks include: <ul style="list-style-type: none"> a) painting decorative free-hand designs on objects, such as pottery, glass, cigarette cases, lampshades; b) transferring from paper transfers decorative or ornamental designs on articles; c) integrating and developing visual elements, such as line, space, mass, color, and perspective, in order to produce desired effects such as the illustration of ideas, emotions, or moods; d) laying out and painting in one or more languages letters, figures, monograms and designs to make signs; e) sketching or tracing design or lettering onto work piece or pattern material to prepare pattern or stencil; f) designing pattern or lettering to paint work pieces, such as signs, glassware, pottery, or zinc plates; g) using software and routing equipment to produce 3D Carved images for application onto larger signage as well as engraved and inlaid signs; h) designing and producing normal flat cut lettering or lettering that is shadowed with applied vinyl or lettering that is ready cut for application; i) writing, painting, or printing signs or show cards used for display or other purposes; j) cutting out letters and signs for display purposes from wallboard or cardboard, by hand or machines, such as electrically powered jigsaw or bandsaw; k) examining sketches, diagrams, samples, blueprints, or photographs to decide how designs are to be etched, cut, or engraved onto work pieces; l) measuring and computing dimensions of lettering, designs, or patterns to be engraved; 	7323 p 7324 p 7343 p	7316

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m) engraving and printing patterns, ornamental designs, etchings, trademarks, figures or lettering onto flat or curved surfaces of a wide variety of metal, glass, plastic, or ceramic items; and

n) etching decorative designs, calibration markings and other figures on glass articles.

Examples of the occupations classified here:

- Brush painter
- Ceramics decorator
- Ceramics dipper
- Ceramics painter
- Ceramics spray painter
- Engraver, linoleum block, hand
- Engraver, metal printing die, hand
- Engraver, metal printing plate, hand
- Engraver, metal printing roller, (hand/machine)
- Engraver, printing
- Engraver, printing/lithographic stone
- Engraver, rubber and wood (hand)
- Glass enameller
- Glass engraver
- Glass etcher
- Glass painter
- Glass sandblaster
- Hand dipper
- Metal engraving etcher
- Mirror silverer
- Photoengraver
- Retoucher, printing plate
- Sign-maker
- Signwriter

Some related occupations classified elsewhere:

- Ceramics painting machine operator 8181
- Glass painting machine operator 8181
- Building painter -7131
- Manufactured articles painter 7132
- Vehicle painter 7132

7317	HANDICRAFT WORKERS IN WOOD, BASKETRY AND RELATED MATERIALS	7331 p 7425 p	7317
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Handicraft workers in wood and related materials apply traditional techniques like seasoning, impregnation to prepare wood, straw, rattan, reeds, stone, clay, shells, and other materials, and carve, mold, assemble, weave, or paint and decorate various articles for personal or household use, or for decorative purposes. Basketry weavers, brush makers and related workers select and prepare materials like bristles, nylon, fiber, bass, whisker and wire to make wicker furniture, brushes and brooms and weave various kinds of baskets.

Their tasks include:

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- a) preparing wood, straw, rattan, reeds, stone, shells, or similar materials;
- b) carving floral and artistic designs on wooden surfaces for decorative purposes;
- c) painting free hand decorative designs on glass and pottery or porcelain ware;
- d) carving, assembling, weaving, painting and decorating various articles for personal or household use such as salad bowls, serving-spoons, cutting-boards, trays, vases, jugs, baskets, straw hats, straw mats and similar objects;
- e) carving, assembling, weaving and painting various decorative articles such as statues and other sculptures, chess pieces, jewellery, and similar objects;
- (f) making wicker furniture from peeled and softened rattan, reeds, rushes, willow branches and similar materials;
- g) making various kinds of baskets by interlacing osier, rattan, reeds, rushes or similar materials;
- h) forming bottom of basket by interlacing strips of rattan, wood veneer or other material with framework of rods of material such as willow;
- i) inserting rods around edge of bottom between woven sections of bottom and bending them upright to serve as framework for sides;
- j) selecting and preparing brush materials, such as bristles, nylon, fibers and wire, and setting them in brush base; and
- k) selecting and preparing materials, such as broom corn, bass, whisker and fiber, and fastening them to broom handles;

Examples of the occupations classified here:

- Basket maker
- Basketry weaver
- Broom maker (hand)
- Brush maker (hand)
- Cottage industry worker (wood)
- Handicraft designer
- Handicraft model maker
- Handicraft worker, paper
- Handicraft worker, reed weaving
- Handicraft worker, stone articles
- Handicraft worker, wooden articles
- Paper box maker (hand)
- Rattan binder
- Wicker furniture maker
- Wood carver

Some related occupations classified elsewhere:

- Machine operator (stone products) 8114
- Machine operator (wood products) 7523

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
		7318	HANDICRAFT WORKERS IN TEXTILE, LEATHER AND RELATED MATERIALS	7332 7431 p 7432 p	7318
			<p>Their tasks include:</p> <ul style="list-style-type: none"> a) spinning and dyeing with natural dyestuffs, wool, cotton and other fibers; b) lace-making and weaving, knitting, or embroidering various garments and articles for household use; c) preparing and dyeing hides with natural dyestuffs and making traditional footwear or handbags, belts and other accessories; d) spinning and winding yarn by hand; e) drawing warp threads into loom by hand; f) weaving plain or figured cloth, tapestry, lace, carpet or other fabrics on hand looms; g) making carpets by using a knotting technique; h) knitting garments and other articles on hand-operated machine or by hand; i) crocheting or making braid by hand; j) making nets by hand; k) grading and classifying natural textile fibers; l) washing wool fibers; m) cleaning and fluffing textile fibers; and n) forming fibers into sliver, combing them, combining sliver into sliver laps or forming sliver into rove. <p>Examples of the occupations classified here:</p> <ul style="list-style-type: none"> Carpet weaver (hand) Cloth weaver (hand) Cloth weaver (Jacquard loom) Fabric examiner Fabric repairer Fiber aide Fiber blender Fiber carder Fiber classer Fiber grader Fiber lapper Fiber mixer Fiber picker Fiber preparer Fiber/textiles comber Fiber/textiles drawer Fiber/textiles rover Hand braidmaker Hand crocheter Handicraft worker, carpets Handicraft worker, leather Handicraft worker, textiles Hand-operated machine knitter Knitter Net maker (hand) Tapestry maker (hand) 		

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			<p>Thread and yarn spinner</p> <p>Threader, loom (hand)</p> <p>Weaver</p> <p>Wool scourer</p> <p>Some related occupations classified elsewhere:</p> <p>Textile fibre combing machine operator 8151</p> <p>Knitting machine operator – 8152</p> <p>Weaving machine operator 8152</p>		
		7319	<p>HANDICRAFT WORKERS NOT ELSEWHERE CLASSIFIED</p> <p>This unit group covers handicraft workers who perform traditional handicrafts not classified elsewhere. For instance, the group includes traditional handicraft workers in non-precious metals and stone.</p> <p>Examples of the occupations classified here:</p> <p>Candle making</p> <p>Metal toymaker</p> <p>Soap making</p>	7333	7319
	732		<p>PRINTING TRADES WORKERS</p> <p>Printing trades' workers compose and set type prior to printing, set up and operate printing presses, bind and finish printed products, and prepare stencils and operate screen printing equipment.</p> <p>Tasks performed usually include: operating graphic cameras and other photographic equipment to reproduce camera-ready copy onto films, plates and digital output devices; operating computer screen-based equipment for scanning, color separation and correction, retouching and other processes used to transfer copy to film and produce film for plate, cylinder and digital output productions; setting up, operating and monitoring machines used in typesetting, photographing copy, printing and cutting, folding, collating and binding printed material; performing routine finishing operations and machine maintenance; and preparing stencils and operating screen printing equipment.</p>	734	
		7321	<p>PRE-PRESS TECHNICIANS</p> <p>Pre-press technicians proof, format, set and compose text and graphics into a form suitable for use in various printing processes and representation in other visual media.</p> <p>Their tasks include:</p> <p>a) operating graphic cameras and other photographic equipment to reproduce camera-ready copy onto films, plates and digital output devices;</p> <p>b) using computer applications to generate images, text, layouts and impositions for print and other visual media displays;</p>	7341 p 7342 p	7321

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- c) operating plate making equipment to reproduce images from film to printing plates, digital output devices and presses;
- d) operating computer screen-based equipment for scanning, color separation, color correction, masking, creative design, combining, imposing, retouching, and other processes used to transfer copy to film and produce film for plate, digital output and cylinder productions;
- e) carrying out digital and chemical proofing from digital systems, and negative and positive films;
- f) evaluating printed proofs, checking and correcting them for quality; and
- g) preparing and exposing carbon tissue for laying on cylinders by transfer method, and developing images.

Examples of the occupations classified here:

Blueprint machine operator
 Compositor, cold type/hot metal**
 Desktop publishing operator
 Digitizer
 Electronic pre-press technician,
 Hand compositor
 Imposer
 Linotype operator
 Monotype keyboard operator
 Photo-type-setting machine operator
 Plate maker (printing)
 Plate mounter (screen printing)
 Platen press operator
 Scanner (data)
 Screen maker
 Type-casting machine operator
 Typesetter

7322 PRINTERS

Printers set up and operate digital, letterpress, lithographic, flexographic, gravure, newspaper and other printing presses.

Their tasks include:

- a) setting, adjusting and monitoring substrate-feed mechanisms, delivery mechanisms, inking systems and other printing machine functions;
- b) mixing ink and solvents to standard, and regulating paper and ink supply during print runs;
- c) monitoring, evaluating and determining press to check print quality standards against proofs and detect malfunctions;
- d) producing a variety of printed products using relief, lithographic, flexographic and gravure printing presses, and in-line finishing systems;
- e) preparing plates, blankets and impression cylinders on small offset lithographic printing presses;

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7322

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- f) loading paper into feeding mechanisms;
- g) monitoring machine operations and quality of printing;
- h) maintaining, adjusting, repairing and cleaning machines; and
- i) producing digital print images, and transferring and outputting images.

Examples of the occupations classified here:

Cylinder pressman
 Developer, black and white
 Developer, color
 Digital press operator
 Direct lithographic pressman
 Feeder operator (printing)
 Flexographic press operator
 Gravure press operator
 Large sheet-fed press operator
 Letter Press-pressman*
 Offset Press (web fed)*
 Offset Pressman
 Offset Pressman (sheet fed)*
 Offset printing press operator
 Paper cutting machine operator
 Photograph enlarger
 Photograph printer
 Photographic equipment repairer
 Photographic film and paper maker
 Platen pressman
 Press operator printing/cylinder
 Press roller maker
 Printer, block
 Printing machine operator
 Printing quality inspector
 Printing scheduler
 Repro-cameraman*
 Reproduction machine operator
 Rotary pressman
 Rotary printing press operator
 Rotogravure pressman
 Screen printer
 Screen printing press operator
 Silk-screen printer
 Silk-screen stencil cutter
 Small press operator
 Stripper, black and white*
 Stripper, colored*
 Textile printer
 Wallpaper printer
 Web press operator

7323 PRINT FINISHING AND BINDING WORKERS

7345

7323

Print finishing and binding workers bind books and other publications, and finish printed products by hand or machine.

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Their tasks include:

- a) setting up and supervising the operation of automatic binding and finishing equipment;
- b) binding full, half and limp-bound books, and repairing bindings;
- c) folding, collating and sewing signatures by machine and hand;
- d) operating paper guillotines for pre-press and post-press paper cutting and trimming, and programming electronically operated units;
- e) operating systems to insert printed material into newspapers, magazines and envelopes;
- f) embellishing printed products automatically and manually; and
- g) operating photographic and electronic reproduction devices.

Examples of the occupations classified here:

- Book embosser (hand and machine)
- Bookbinder (hand and machine)
- Collator/tabulator
- Cutter operator
- Foil Stamp operator
- Folder operator
- Gatherer operator
- Multibinder operator
- Perfect binder operator
- Plastic laminator
- Saddle stitch operator
- Small machine bindery worker

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ELECTRICAL AND ELECTRONICS TRADES WORKERS

Electrical and electronics trades workers install, fit and maintain electrical wiring systems and machinery and other electrical apparatus, electrical transmission and supply lines and cables, and electronic and telecommunications equipment and systems.

The work is carried out by hand and by hand-powered and other tools which are used to reduce the amount of physical effort and time required for specific tasks, as well as to improve the quality of the products. The tasks call for an understanding of the work organization, the materials and tools used, and the nature and purpose of the final product.

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Tasks performed usually include: installing, maintaining, fitting and adjusting electrical and electronic wiring systems, machinery and equipment; examining blueprints, wiring diagrams and specifications to determine sequences and methods of operation; inspecting and testing electrical and electronic systems, equipment, cables and machinery to identify hazards, defects, and the need for adjustment or repair; installing maintaining and repairing electrical and telecommunications transmission lines; joining electrical, telecommunications and data cables; and maintaining, troubleshooting, fitting, adjusting, testing and repairing electronic equipment such as commercial and office machines and electronic instruments and control systems, computers, telecommunications and data transmission equipment.

741

ELECTRICAL EQUIPMENT INSTALLERS AND REPAIRERS

Electrical equipment installers and repairers install, fit and maintain electrical wiring systems and related equipment, electrical machinery and other electrical apparatus and electrical transmission and supply lines and cables.

Tasks performed usually include: installing, maintaining, fitting and adjusting electrical wiring systems, machinery and equipment; examining blueprints, wiring diagrams and specifications to determine sequences and methods of operation; inspecting and testing electrical systems, equipment, cables and machinery to identify hazards, defects, and the need for adjustment or repair; and installing maintaining and repairing electrical transmission lines; joining electrical cables.

7411

BUILDING AND RELATED ELECTRICIANS

7241

7411

Building and related electricians install, maintain and repair electrical wiring systems and related equipment and fixtures.

Their tasks include:

- a) installing, maintaining and repairing electrical wiring systems and related equipment in various buildings such as schools, hospitals, commercial establishments, residential buildings and other structures;
- b) examining blueprints, wiring diagrams and specifications to determine sequences and methods of operation;
- c) planning layout and installation of electrical wiring, equipment and fixtures, based on job specifications and relevant standards;

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- d) inspecting electrical systems, equipment, and components to identify hazards, defects, and the need for adjustment or repair;
- e) selecting, cutting and connecting wire and cable to terminals and connectors;
- f) measuring and laying out installation reference points;
- g) positioning and installing electrical switchboards; and
- h) testing continuity of circuit.

Examples of the occupations classified here:

- Building electrician
- Electrical inspector
- Electrical repairman,
- Electrician, building wiring *
- General electrician
- Industrial Electrician
- Maintenance electrician
- Stage and studio electrician

Some related occupations classified elsewhere:

- Electrical fitter 7412
- Electrical mechanic 7412
- Electrical line installer 7413

7412 ELECTRICAL MECHANICS AND FITTERS

7242
7241p

7412

Electrical mechanics and fitters fit, adjust, install and repair electrical machinery and other electrical apparatus and equipment in buildings, factories, workshops, or other places.

Their tasks include:

- a) fitting, adjusting and repairing various kinds of electrical machinery and motors, generators, switchgear and control apparatus, instruments, or electrical parts of elevators and related equipment;
- b) fitting, adjusting and repairing electrical parts in domestic appliances, industrial machines and other appliances;
- c) inspecting and testing manufactured electrical products;
- d) installing, testing, connecting, commissioning, maintaining and modifying electrical equipment, wiring and control systems;
- e) designing, installing, maintaining, servicing and repairing electric and hydraulic passenger and freight lifts, escalators, moving walkways and other lift equipment;
- f) connecting electrical systems to power supply; and
- g) replacing and repairing defective parts.

Examples of the occupations classified here:

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Aircraft electrician
 Armature builder
 Automotive equipment inspector
 Electric machine rewinder
 Electric meter repairman
 Electric motor and generator fitter*
 Electric motor repairman*
 Electrical elevator fitter
 Electrical fitter (general)
 Electrical generator fitter
 Electrical instrument fitter
 Electrical mechanic
 Electrical motor fitter
 Electrical products inspector
 Electrical products tester
 Electrical switchgear & control apparatus fitter
 Electrical technician
 Electrical transformer fitter
 Instrumentation repairman
 Lift mechanic
 Plant electrician
 Ship electrician
 Transformer repairman
 Transport electrician
 Vehicle electrician

Some related occupations classified elsewhere:

Electronics mechanic – 7421

Electrical equipment assembler – 8212

7413	ELECTRICAL LINE INSTALLERS AND REPAIRERS	7246 p	7413
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Electrical line installers and repairers install, repair and join electrical transmission and supply cables and related equipment.

Their tasks include:

- a) installing and repairing overhead and underground electrical power and electrical traction lines;
- b) making joints in overhead and underground cables;
- c) adhering to safety practices and procedures, such as checking equipment regularly and erecting barriers around work areas;
- d) opening switches or attaching grounding devices to remove electrical hazards from disturbed or fallen lines or to facilitate repairs;
- e) climbing poles or using truck-mounted buckets to access equipment; and
- f) identifying defective sectionalizing devices, circuit breakers, fuses, voltage regulators, transformers, switches, relays, or wiring, using wiring diagrams and electrical-testing instruments.

Examples of the occupations classified here:

Cable and line installer
 Cable pulling

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Cable television lineman
 Electric cable jointer
 Electric power lineman
 Electric traction lineman
 Electrical line installer
 Lineman
 Lineman/electric power*
 Lineman/telephone/telegraph/cable TV
 Ride maintenance mechanic
 Transmission technician

Some related occupations classified elsewhere:

Data and telecommunications cabler 7422
 Telecommunications line worker 7422

742

ELECTRONICS AND TELECOMMUNICATIONS INSTALLERS AND REPAIRERS

Electronics and telecommunications installers and repairers fit, maintain, adjust and repair electronic equipment such as commercial and office machines and electronic instruments and control systems and install, repair and maintain telecommunications equipment, data transmission equipment, cables, antennae and repair, fit and maintain computers.

Tasks performed usually include: examining and testing machines, equipment, instruments and control systems to diagnose faults; adjusting, repairing, and replacing worn and defective parts and wiring, and maintaining machines, equipment and instruments; installing electronic instruments and control systems; fitting and adjusting electronic equipment; maintaining, troubleshooting, fitting, adjusting, testing and repairing computers, data transmission equipment and computer peripherals; installing, maintaining, repairing, and diagnosing malfunctions of microwave, telemetry, multiplexing, satellite and other radio and electromagnetic wave communications systems; providing technical advice and information, and monitoring the performance of complex telecommunications networks and equipment; installing, joining and repairing cabling for computer, radio, telephone and television transmission; and installing, maintaining and repairing antennae used in communications.

7421 ELECTRONICS MECHANICS AND SERVICERS

7244
7235 p

7421

Electronics mechanics and servicers fit, maintain, adjust and repair electronic equipment such as commercial and office machines and electronic instruments and control systems.

Their tasks include:

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- a) examining and testing machines, instruments, components, other equipment, instruments and control systems to identify faults;
- b) adjusting, repairing, and replacing worn and defective parts and wiring, and maintaining machines, equipment and instruments;
- c) reassembling, test operating and adjusting equipment;
- d) installing electronic instruments and control systems;
- e) coordinating work with that of engineers, technicians, and other maintenance personnel;
- f) interpreting test data to diagnose malfunctions and systemic performance problems;
- g) installing, adjusting, repairing or replacing electrical and electronic components, assemblies, and systems using hand tools, power tools, or soldering irons;
- h) connecting components to assemblies such as radio systems, instruments, magnetos, inverters, and in-flight refueling systems; and
- i) keeping records of maintenance and repair work.

Examples of the occupations classified here:

- Adding machine technician
- Aircraft maintenance engineer (avionics)
- Audio electronics service/repairman
- Automated teller machines mechanic
- Avionics technician
- Electric typewriter technician
- Electronic equipment servicer
- Electronics business machines technicians
- Erector, radioaerial
- Office equipment technician
- Office machines mechanic
- Photocopy machine technician
- Radio mechanic
- Reprographic equipment technician
- Standard manual typewriter technician
- Television mechanic
- Video electronics (VHS, VCD, DVD) service/repairman

Some related occupations classified elsewhere:

- Air traffic safety technician 3155

7422	INFORMATION AND COMMUNICATIONS TECHNOLOGY INSTALLERS AND SERVICERS	7243 p 7245	7422
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Information and communications technology (ICT) installers and servicers install, repair and maintain telecommunications equipment, data transmission equipment, cables, antennae and conduits and repair, fit and maintain computers.

Their tasks include:

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- a) maintaining, troubleshooting, testing and repairing computers, data transmission equipment and computer peripherals;
- b) fitting and adjusting computer hardware;
- c) installing, maintaining, repairing, and diagnosing malfunctions of microwave, telemetry, multiplexing, satellite and other radio and electromagnetic wave communications systems;
- d) providing technical advice and information, and monitoring the performance of complex telecommunications networks and equipment;
- e) installing and repairing cabling for computer, radio, telephone and television transmission;
- f) joining telecommunications and data cables and sealing sheathes; and
- g) installing, maintaining and repairing antennae used in communications.

Examples of the occupations classified here:

Central office equipment installer
 Communication rigger
 Communications technician
 Computer equipment fitter
 Computer service/repairman*
 Data and telecommunications cabler
 Electronic computer equipment fitter
 Electronic products inspector
 Electronic products tester
 Electronic signaling system fitter
 Electronics fitter (general)
 Electronics/computer equipment fitter
 Electronics/telecommunications equipment fitter
 Hardware technician
 Medical equipment fitter
 PABX technician
 Radar equipment fitter
 Radio equipment installer
 Radio fitter
 Switchman (Central office equipment technician)
 Telecommunication equipment installer
 Telecommunication equipment repairer
 Telecommunications technician
 Telegraph installer
 Telegraph repairman
 Telephone installer and repairman
 Telephone mechanic
 Television fitter

Some related occupations classified elsewhere:

Engineering technician (telecommunications)
 3522

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Food processing, wood working, garment and other craft and related trades workers treat and process agricultural and fisheries raw materials into food and other products, and produce and repair goods made of wood, textiles, fur, leather, or other materials.</p> <p>The work is carried out by hand and by hand-powered and other tools which are used to reduce the amount of physical effort and time required for specific tasks, as well as to improve the quality of the products. The tasks call for an understanding of the work organization, the materials and tools used, and the nature and purpose of the final product.</p> <p>Tasks performed by workers in this sub-major group usually include: treating and processing meat, fish, grain, fruit, vegetables and related materials into food stuffs, and tobacco into tobacco products; tasting and grading food products and beverages; treating and processing natural fibers, skins and hides; making and repairing furniture and other goods made of wood; preparing hides, skins and pelts for further use; and making and repairing textiles, garments, hats, shoes and related products. Supervision of other workers may be included.</p>		
	751		<p>FOOD PROCESSING AND RELATED TRADES WORKERS</p> <p>Food processing and related trades workers slaughter animals, treat and prepare them and related food items for human and animal consumptions, make various kinds of bread, cakes and other flour products, process and preserve fruit, vegetables and related foods, taste and grade various food products and beverages, or prepare tobacco and make tobacco products.</p> <p>Tasks performed usually include: slaughtering animals; treating meat and fish and preparing them and related food items; making various kinds of bread, cakes and other flour products; processing and preserving fruit, vegetables and related foods; tasting and grading various food products and beverages; and preparing tobacco and making tobacco products. Supervision of workers may be included.</p>		
		7511	<p>BUTCHERS, FISHMONGERS AND RELATED FOOD PREPARERS</p> <p>Butchers, fishmongers and related food preparers slaughter animals, clean, cut and dress meat and fish, remove bones and prepare related food items or preserve meat, fish and other foods and food products by drying, salting or smoking.</p> <p>Their tasks include:</p> <p>a) slaughtering animals;</p> <p>b) flaying and trimming carcasses;</p>	7411	7511

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- c) boning, cutting and dressing meat and fish for sale or further processing;
- d) preparing ingredients and making sausages and similar products using chopping, mixing and shaping machines;
- e) curing meat, fish and other foods;
- f) operating smokehouses or ovens to smoke meat, fish and other foodstuffs;
- g) cooking or in other ways preparing meat, fish and related food items for sale ;
- h) selling meat or fish to customers, including wrapping, weighing and labelling products, and receiving payment.

Examples of the occupations classified here:

- Butcher (Abattoir)*
- Butcher (general)
- Butcher (Hotel and Restaurant)*
- Fish filleter
- Fish processing worker
- Fishmonger
- Food preparer
- Meat cutter
- Slaughterer

Some related occupations classified elsewhere:

- Shop keeper 5221
- Meat processing machine operator–8160
- Fish processing machine operator–8160

7512	BAKERS, PASTRY-COOKS AND CONFECTIONERY MAKERS	7412	7512
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Bakers, pastry-cooks and confectionery makers make various kinds of bread, cakes, and other flour products, as well as handmade chocolate and sugar confectionery.

Their tasks include:

- a) making bread, cakes, biscuits, pastries, pies and other flour products;
- b) making handmade confectionery from mixtures of sugar, chocolate and other ingredients using hand tools and some machines;
- c) combining measured ingredients in bowls of mixing, blending, or cooking machinery;
- d) checking the quality of raw materials to ensure that standards and specifications are met;
- e) applying glazes, icings, or other toppings to baked goods, using spatulas or brushes;
- f) checking the cleanliness of equipment and operation of premises before production runs to ensure compliance with occupational health and safety regulations;

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g) monitoring oven temperatures and product appearance to determine baking times; and

h) coordinating the forming, loading, baking, unloading, de-panning and cooling of batches of bread, rolls, pastry and confectionary products.

Examples of the occupations classified here:

Baker (general)
Bread baker
Cake decorator
Chocolate maker
Confectioner
Confectionery maker
Macaroni maker
Native cakes/kakanin makers
Noodle makers
Oven/fryer man
Pastry maker
Pastry-cook

Some related occupations classified elsewhere:

Cook 5120
Bakery products machine operator 8160
Bread production machine operator 8160
Chocolate production machine operator 8160

7513 DAIRY PRODUCTS MAKERS

7413

7513

Dairy products makers process butter and various types of cheese, cream or other dairy products.

Their tasks include:

- a) boiling or pasteurizing milk to achieve specified butter fat content;
- b) separating cream from milk and churning cream into butter;
- c) dumping measured amounts of starter and other ingredients into milk;
- d) curdling milk, heating curd until it reaches desired firmness, draining curd and placing cheese into molds to press it into shape;
- e) salting cheese and piercing or smearing cheese with cultured wash to develop mold growth;
- f) placing and turning cheese blocks on shelves to cure cheese;
- g) monitoring product quality before packaging by inspecting, taking samples and adjusting treatment conditions when necessary; and
- h) recording amounts of ingredients used, test results, and time cycles.

Examples of the occupations classified here:

Butter maker
Cheese maker
Dairy product maker

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Ice cream maker
Milk collector
Milker

Some related occupations classified elsewhere:

Dairy products machine operator 8160

Milk processing machine operator 8160

7514	FRUIT, VEGETABLE AND RELATED PRESERVERS	7414 p	7514
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Fruit, vegetable and related preservers process or preserve fruit, nuts and related foods in various ways including cooking, drying, salting, or juice or oil extraction.

Their tasks include:

- a) extracting juices from various fruits;
- b) extracting oils from oil-bearing seeds, nuts or fruits;
- c) cooking, salting or drying fruit, vegetables and related foods;
- d) mixing and adding ingredients such as pectin, sugar, spices and vinegar to assist preservation and enhance texture, appearance and flavor; and
- e) transferring preserved foods to sterile jars, bottles or other containers.

Examples of the occupations classified here:

Chutney maker
Fish smoker
Food pickler
Food preserver
Fruit preserver
Jam maker
Meat smoker
Oil expeller
Salted egg maker
Sausage maker
Syrup man
Vegetable preserver

Some related occupations classified elsewhere:

Canning machine operator -8160

7515	FOOD AND BEVERAGE TASTERS AND GRADERS	7415	7515
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Food and beverage tasters and graders inspect, taste and grade various types of agricultural products, food and beverages.

Their tasks include:

- a) inspecting, testing, tasting and smelling agricultural products, food and beverages at various stages of processing;
- b) determining quality, acceptability to consumer tastes and approximate value of products and grading them into appropriate classes;

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			<p>c) discarding inferior products;</p> <p>d) recording the grade and/or identification numbers on tags, receiving, or sales sheets; and</p> <p>e) weighing and measuring products.</p> <p>Examples of the occupations classified here:</p> <p>Brewmaster</p> <p>Coffee taster</p> <p>Food grader</p> <p>Food taster</p> <p>Liquor taster</p> <p>Tea taster</p> <p>Wine taster</p>		
		7516	<p>TOBACCO PREPARERS AND TOBACCO PRODUCTS MAKERS</p> <p>Tobacco preparers and tobacco products makers prepare tobacco leaves and make various tobacco products.</p> <p>Their tasks include:</p> <p>a) grading cured tobacco leaves by type, quality and locality where grown;</p> <p>b) mixing tobacco leaves according to formula to obtain a blend of distinct flavor;</p> <p>c) tending vacuum container which moistens tobacco for further processing;</p> <p>d) removing midribs and stalks from tobacco leaves and shredding tobacco; and</p> <p>e) making cigars, cigarettes, snuff and other tobacco products by hand or with simple machines.</p> <p>Examples of the occupations classified here:</p> <p>Cigar/cigarettes maker</p> <p>Snuff maker</p> <p>Tobacco blender</p> <p>Tobacco conditioner operator</p> <p>Tobacco cutting machine operator</p> <p>Tobacco preparer</p> <p>Tobacco stripper (hand)</p> <p>Tobacco stripper (machine)</p> <p>Tobacco/cigar grader</p> <p>Some related occupations classified elsewhere:</p> <p>Cigar production machine -operator8160</p> <p>Cigarette production machine operator – 8160</p>	7416	7516
		752	<p>WOOD TREATERS, CABINET-MAKERS AND RELATED TRADES WORKERS</p>		

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Wood treaters, cabinet-makers and related trades workers preserve and treat wood; produce waferboards, particleboards, hardboards, insulation boards, plywood, veneers and similar wood products; and make, decorate and repair wooden furniture, vehicles and other wooden products. They use specialized hand tools and set-up, operate and tend wood processing and woodworking equipment, machines and machine tools.

Tasks performed usually include: operating and tending treating and other equipment to dry lumber and other wood products, and to treat chemically and impregnate wood products with preservatives; operating woodworking machines to cut, shape and form parts and components; studying plans, verifying dimensions of articles to be made, fitting parts together to form complete units and checking the quality and fit of pieces to ensure adherence to specifications; setting and adjusting various kinds of machines for operation by others; setting-up, programming, operating and monitoring several types of woodworking machines to fabricate, repair or refinish wooden parts for furniture, fixtures and other wood products; and reading and interpreting specifications or following verbal instructions.

7521 WOOD TREATERS

7421

7521

Wood treaters operate and tend wood treatment processing equipment and machines to remove bark from logs, produce wood chips, season, preserve and treat wood, and produce waferboards, particleboards, hardboards, insulation boards, plywood, veneers and similar wood products.

Their tasks include:

- a) operating and tending kilns, treating tanks and other equipment to dry lumber, prepare and season wood and other wood products, and to treat chemically and impregnate wood products with preservatives;
- b) monitoring equipment operation, gauges, and panel lights in order to detect deviations from standards and to ensure that processes are operating according to specifications;
- c) assisting in maintaining processing equipment and machines as required;
- d) cleaning, lubricating and adjusting equipment;
- e) transporting materials and products to and from work areas, manually or using carts, handtrucks, or hoists; and
- f) completing and maintaining production reports.

Examples of the occupations classified here:

Dry kiln operator

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Lumber kiln operator
Veneer dryer tender
Wood seasoner
Wood seasoning worker
Wood treater
Wood treating worker

Some related occupations classified elsewhere:
Wood processing plant operators 8172

7522	CABINET-MAKERS AND RELATED WORKERS	7422	7522
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Cabinet-makers and related workers make, decorate and repair wooden furniture, carts and other vehicles, wheels, parts, fittings, patterns, models and other wooden products using woodworking machines, machine tools and specialized hand tools.

Their tasks include:

- a) operating woodworking machines, such as power saws, jointers, mortisers and shapers, and using hand tools to cut, shape and form parts and components;
- b) studying plans, verifying dimensions of articles to be made, or preparing specifications and checking the quality and fit of pieces in order to ensure adherence to specifications;
- c) trimming joints and fitting parts and subassemblies together to form complete units using glue and clamps, and reinforcing joints using nails, screws or other fasteners;
- d) making, restyling and repairing various wooden articles, such as cabinets, furniture, vehicles, scale models, sports equipment and other parts or products;
- e) decorating furniture and fixtures by inlaying wood, applying veneer and carving designs; and
- f) finishing surfaces of wooden articles or furniture.

Examples of the occupations classified here:

Cabinet/furniture-maker*
Cartwright
Coach body builder
Cooper
Marquetry inlayer
Mill-wright
Smoking-pipe maker
Veneer applier
Wheel-wright
Wood patternmaker
Wooden furniture finisher
Wooden model maker

Some related occupations classified elsewhere:

Carpenters and joiners 7115
Craft and related workers not elsewhere classified 7549
Wood and related products assemblers 8219

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
		7523	<p>WOODWORKING MACHINE TOOL SETTERS AND OPERATORS</p> <p>Woodworking machine tool setters and operators set-up or operate and monitor automatic or semi-automatic woodworking machines, such as precision sawing, shaping, planing, boring, turning and woodcarving machines to fabricate or repair wooden parts for furniture, fixtures and other wooden products.</p> <p>Their tasks include:</p> <p>a) setting-up, programming, operating and monitoring several types of woodworking machines for sawing, shaping, boring, drilling, planing, pressing, turning, sanding or carving to fabricate or repair wooden parts for furniture, fixtures and other wooden products;</p> <p>b) operating preset special-purpose woodworking machines to fabricate wooden products such as coat hangers, mop handles, clothes pins and other products;</p> <p>(c) selecting knives, saws, blades, cutter heads, cams, bits, or belts according to workpiece, machine functions and product specifications;</p> <p>d) installing and adjusting blades, cutterheads, boring-bits and sanding-belts, and using hand tools and rules;</p> <p>e) setting and adjusting various kinds of woodworking machines for operation by others; and</p> <p>f) reading and interpreting specifications or following verbal instructions.</p> <p>Examples of the occupations classified here:</p> <ul style="list-style-type: none"> Carving machine operator (wood) Furniture production machine operator Precision woodworking sawyer Wood lathe setter-operator Wood products machine operator Wood routing machine setter-operator Wood turner Wood-planing machine setter-operator Wood-shaping machine setter-operator Wood-spindle-carving machine setter-operator Woodworking lathe operator Woodworking machine setter-operator <p>Some related occupations classified elsewhere:</p> <ul style="list-style-type: none"> Wood and related products assemblers – 8219 	7423	7523
		753	GARMENT AND RELATED TRADES WORKERS		

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Garment and related trades workers fit, alter and repair tailored clothing; design, and make textile and fur garments, leather or fur products; repair, renovate and decorate garments, gloves and other products of textile; create patterns for garments; install, repair and replace upholstery of furniture, fixtures, orthopaedic appliances and furnishings of automobiles; trim, scrape, tan, buff and dye animal hides, pelts or skins; modify and repair footwear and leather articles.</p> <p>Tasks performed usually include: fitting, altering, repairing tailored clothing; designing and making made-to-measure clothing, from textile fabrics, light leather and other material, or make hats or wigs; make garment style changes; creating precision master patterns for production of garments, other textile, and leather or fur products; sewing together, joining, darning, repairing, renovating and decorating garments, gloves and other products of textile, fur, light leather and other materials and fabricating and assembling sails, awnings and tarpaulins; installing, repairing and replacing upholstery of furniture, fixtures, orthopaedic appliances; seats, panels, and other furnishings of automobiles, railway coaches, aircraft, ships and similar items; trimming, scraping, cleaning, tanning, buffing and dyeing animal hides, pelts or skins to produce leather stock and finished furs for making garments and other products; and making, modifying and repairing standard, custom or orthopaedic footwear and natural or synthetic leather articles.</p>		
		7531	<p>TAILORS, DRESSMAKERS, FURRIERS AND HATTERS</p> <p>Tailors, dressmakers, furriers and hatters fabricate, fit, alter and repair tailored or hand-made clothing; They produce made-to-measure clothing such as suits, overcoats, and dresses from textile fabrics, light leather, fur and other material, or make hats or wigs according to customer's and clothing manufacturer's specifications.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) making overcoats, suits, skirts, shirts, blouses, lingerie, corsetry, hats, wigs and similar garments often to clients' individual requirements; b) selecting textile fabrics, leather or fur pelts matching the desired size, color, texture, and quality of the garment; cutting to shape them to garment pattern and arranging them on pattern according to the design of the garment; c) making garment style changes, such as tapering trouser legs, narrowing lapels, and adding or removing padding; d) selecting and modifying commercial patterns to customers' and clothing manufacturers' specifications and fit; 	7433	7531

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>e) fitting, altering and repairing tailored clothing, dresses, coats and other made-to-measure garments according to customers' requests;</p> <p>f) making and caring for costumes used in theatrical, television and motion picture productions;</p> <p>g) folding, twisting, and draping material, such as satin or silk, or sewing ribbon or cloth in the form of artificial flowers or bows around crown and brim to shape and decorate hats;</p> <p>h) sewing, and fastening together materials and hair strands to make wigs;</p> <p>i) blending shades of hair to give natural appearance to wigs and arranging woven hair in specified position and sewing hair together to form hairpiece;</p> <p>j) making, altering, restyling and repairing fur garments and other fur articles; and</p> <p>k) reclaiming furs or skins from old coats, gluing fabric to interior of fur coats and trimming fur garments.</p> <p>Examples of the occupations classified here:</p> <p>Dressmaker*</p> <p>Furrier</p> <p>Hatter</p> <p>Milliner</p> <p>Patternmaker</p> <p>Seamstress</p> <p>Stage wardrobe mistress</p> <p>Studio wardrobe mistress</p> <p>Tailor</p> <p>Trimmer</p> <p>Some related occupations classified elsewhere:</p> <p>Textile handicraft worker 7318</p> <p>Sewing machine operator 8153</p>		
7532			<p>GARMENT AND RELATED PATTERNMAKERS AND CUTTERS</p> <p>Textile, leather and related patternmakers and cutters create precision master patterns for production of garments, other textile, and leather or fur products. They mark, cut, shape and trim textile, light leather and other materials according to blueprints or specifications in the manufacture of garments, hats and caps, gloves and miscellaneous products.</p> <p>Their tasks include:</p> <p>a) creating a master pattern for each size within a range of garment sizes, using charts, drafting instruments, computers, and/or grading devices;</p> <p>b) creating the "blueprint" or pattern pieces for a particular apparel design with the aid of a computer;</p> <p>c) calculating dimensions of patterns according to sizes, considering stretching of material;</p>	7434 p	7532

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d) drawing details on outlined parts to indicate where parts are to be joined, as well as the positions of pleats, pockets, buttonholes on garments, decorative stitching on shoe parts or eyelets on canvas products using computers or drafting instruments;

e) positioning templates or measuring materials to locate specified points of cuts or to obtain maximum yields and mark fabric accordingly;

f) laying out master pattern on fabric and cutting sample pattern;

g) testing patterns by making and fitting sample garments;

h) placing patterns on top of layers of fabric and cutting fabric following patterns, using electric or manual knives, cutters or computer numerically controlled cutting devices;

i) cutting fabric or fur pelts to make parts for garments and other fur articles;

j) trimming excess material or cutting threads off finished products, such as cutting loose ends of a finished product;

k) positioning leather on cutting bed of machine, maximizing usage according to skin grain, skin flaws and skin stretch; and

l) performing pattern-making, marking and cutting tasks in the manufacture of other products such as soft furnishings and canvas goods.

Examples of the occupations classified here:

- Fur pattern-maker
- Garment cutter
- Garment marker
- Garment patternmaker
- Glove cutter
- Hat and cap-pattern maker
- Leather cutter
- Leather patternmaker
- Textile cutter
- Textile patternmaker

Some related occupations classified elsewhere:

- Textile pattern-making machine operator 8159

7533	SEWING, EMBROIDERY AND RELATED WORKERS	7435	7533
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Sewing, embroidery and related workers sew together, repair, renovate and decorate garments, gloves and other products of textile, fur, light leather and other materials and fabricate tents sails, awnings and tarpaulins. They work mainly by hand using a needle and thread but may perform some tasks using a sewing machine.

Their tasks include:

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			<p>a) repairing defective or damaged portion of cloth or garment by hand, using matching thread and needle;</p> <p>b) removing stitches from garments to be altered, using rippers or razor blades;</p> <p>c) selecting thread according to specifications or color of parts or dyeing thread to match color and shade of cloth to be darned;</p> <p>d) patching holes, sewing tears and ripped seams, or darning defects in items, using needles and thread;</p> <p>e) pulling knots to the wrong sides of garments, using hooks;</p> <p>f) trimming ends with scissors to make mended portion look uniform with pattern of cloth;</p> <p>g) sewing ornamental designs by hand over stamped, printed or stencilled patterns on fabric using needle and colored thread;</p> <p>h) embroidering ornamental designs on cloth by hand or machine using needle and colored threads;</p> <p>i) softening leather or shoe material with water to prepare it for sewing;</p> <p>j) sewing or gluing decorative trimmings to articles, such as hats, caps, or millinery;</p> <p>k) hand sewing umbrella covers to frames, tacking cover to ribs along seams and sewing corners to tip of rib and sewing ties to outside of cover to hold umbrella when folded; and</p> <p>l) fabricating and assembling thick cloth, canvas and like materials into sails, awning, tarpaulins and tents.</p> <p>Examples of the occupations classified here:</p> <ul style="list-style-type: none"> Alterer Doll toy maker Embroiderer (Multi-head machine)* Fur sewer (hand) Garments sewer* Hand embroiderer Hand sewer Hand sewer, leather Hi-speed sewer Machine sewer Maker, umbrella Reviser (textile and garments) Stitcher Stuffed toymaker <p>Some related occupations classified elsewhere:</p> <ul style="list-style-type: none"> Dressmaker 7531 Textiles handicraft worker 7318 Sewing machine operator 8153 Machine-operator, sewing 8263 		
7534			UPHOLSTERERS AND RELATED WORKERS	7436	7534

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Upholsterers and related workers install, repair and replace upholstery of furniture, fixtures, orthopaedic appliances; seats, panels, convertible and vinyl tops and other furnishings of automobiles, railway coaches, aircraft, ships and similar items with fabric, leather, rexine or other upholstery material. They also make and repair cushions, quilts and mattresses.

Their tasks include:

- a) discussing upholstery fabric, color, and style with customers and providing cost estimate for upholstering furniture or other items;
- b) making upholstery patterns from sketches, customer descriptions or blueprints;
- (c) laying out, measuring and cutting upholstery materials following patterns, templates, sketches, or design specifications;
- d) installing, arranging and securing springs, padding and covering material to furniture frames;
- e) sewing upholstery materials by hand to seam cushions and joining sections of covering materials;
- f) sewing rips or tears in material, or creating tufting, using needle and thread;
- g) tacking, gluing or sewing ornamental trims, buckles, braids, buttons and other accessories to covers or frames on upholstered items;
- h) laying out, cutting, fabricating and installing upholstery in aircrafts, motor vehicles, railway cars, boats and ships;
- i) repairing raw hide covering of artificial limbs;
- j) renovating antique furniture using a variety of tools including ripping chisels, magnetic hammers and long needles;
- k) collaborating with interior designers to decorate rooms and coordinate furnishing fabrics; and
- l) making quilts, cushions and mattresses.

Examples of the occupations classified here:

- Mattress maker
- Orthopaedic upholsterer
- Upholsterer
- Upholsterer, furniture and automotive*
- Upholsterer, vehicle

Some related occupations classified elsewhere:

- Sewing machine operator 8153

7535	PELT DRESSERS, TANNERS AND FELLMONGERS	7441 p	7535
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Pelt dressers, tanners and fellmongers trim, scrape, clean, tan, buff and dye animal hides, pelts or skins to produce leather stock and finished furs for making garments and other products.

Their tasks include:

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- a) sorting and grading pelts, hides and skins according to color, shading, size and density;
- b) scraping particles of flesh, fat, or protective tissue from skins or pelts to clean and soften them;
- c) removing hair from skin or hides soaked in lime water;
- d) preparing hides by curing them with salt;
- e) removing long, coarse hair from pelts and trimming underlying hair to even length;
- f) tanning and dressing pelts to improve luster and beauty or restore natural appearance of pelts;
- g) preparing bark and myrobalan liquor for treating hides or skins;
- h) treating hides and skins in tanning solution to convert them into leather;
- i) tinting or dyeing furs to enhance natural shades of fur;
- j) removing wrinkles and setting grains on wet hide or skin;
- k) dressing and applying dyes and stains to leather;
- l) stretching and smoothing dressed pelts; and
- m) seasoning leather by applying chemical solution or oil evenly on surface by hand brush and allowing it to dry in open air.

Examples of the occupations classified here:

- Fellmonger
- Hide and skin grader
- Hide dehairer
- Hide flesher
- Hide splitter
- Leather currier
- Leather dyer
- Leather stainer
- Pelt grader
- Tanner

Some related occupations classified elsewhere:

- Tanning machine operator 8155

7536	SHOEMAKERS AND RELATED WORKERS	7442	7536
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Shoemakers and related workers make, modify and repair standard, custom or orthopaedic footwear and natural or synthetic leather articles, such as luggage, handbags and belts, (except for leather garments, hats and gloves), or participate in the manufacture of shoes and related goods. They decorate, reinforce or finish shoes, luggage, handbags and belts.

Their tasks include:

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- a) making, modifying and repairing standard footwear to meet individual requirements;
- b) making, modifying and repairing orthopaedic or therapeutic footwear according to doctors' prescriptions, or modifying existing footwear for people with foot problems and special needs;
- c) repairing belts, luggage, purses and similar products;
- d) taking plaster casts of deformed legs or foot to prepare drawings;
- e) preparing inserts, heel pads, and lifts from casts of customers' feet;
- f) studying drawings and other specifications to make footwear according to customer's needs;
- g) studying work orders and/or shoe part tags to obtain information about workloads, specifications, and the types of materials to be used;
- h) checking the texture, color, and strength of leather to ensure that it is adequate for a particular purpose;
- i) cutting out, shaping and padding parts for making leather articles;
- j) sewing rips or patching holes to repair articles, such as purses, belts, shoes, and luggage;
- k) removing and examining shoes, shoe parts, and designs to verify conformance to specifications such as proper embedding of stitches in channels;
- l) attaching accessories or ornamentation to decorate or protect products; and
- m) making and repairing articles such as saddles and harnesses for animals, luggage, handbags, brief-cases, leather bags, belts and other accessories.

Examples of the occupations classified here:

- Clicker cutter (machine)
- Cobbler
- Laster
- Leather goods assembler *
- Leather goods maker (general)
- Leather sewer (hand/machine)
- Orthopedic footwear maker
- Pattern-maker, footwear *
- Saddle and harness maker
- Saddler
- Shoe cutter (hand)
- Shoe finisher
- Shoe sewer (machine)
- Shoemaker
- Shoes and bag repairer
- Sole fitter
- Uppers preparer

Some related occupations classified elsewhere:

- Furrier 7531
- Hatter 7531

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Shoe production machine operator 8156

754

OTHER CRAFT AND RELATED WORKERS

Other craft and related workers work under the surface of water, using underwater breathing apparatus; position, assemble, and detonate explosives; inspect and test, raw materials, manufactured components and products; remove unwanted organisms to prevent damage to crops and buildings and other structures. This group includes other trade and craft occupations not classified elsewhere in major group 7, Craft and related trades workers.

Tasks performed usually include: ensuring safety precautions; performing various underwater tasks, loading explosives into blast holes; mixing chemicals according to instructions; and operating and monitoring equipment for spraying pests and weeds.

7541

UNDERWATER DIVERS

7233 p

7541

Underwater divers work under the surface of water, using underwater breathing apparatus to inspect, install, repair, and remove equipment and structures, conduct tests or experiments, rig explosives, photograph structures or marine life or find and recover missing items and persons.

Their tasks include:

- a) taking safety precautions, such as monitoring dive lengths and depths, and registering with authorities before diving expeditions begin;
- b) checking and maintaining diving equipment such as helmets, masks, air tanks, diving suits, harnesses and gauges;
- c) descending into water with the aid of diver helpers, using scuba gear or diving suits;
- d) working under water to lay and repair bridges, piers and harbor-wall foundations;
- e) inspecting for suspected damage and making minor repairs to ships' hulls and underwater installations;
- f) reporting on condition of wrecked ships;
- g) removing underwater obstructions;
- h) drilling holes for underwater blasting;
- i) performing various underwater tasks connected with salvage work or recovering dead bodies;
- j) communicating with workers on the surface while underwater, using signal lines or telephones;
- k) obtaining information about diving tasks and environmental conditions.

Examples of the occupations classified here:

Salvage frogman
Underwater worker

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
		7542	<p>SHOTFIRERS AND BLASTERS</p> <p>Shot firers and blasters, position, assemble, and detonate explosives at mining, quarrying and demolition sites.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) ensuring workplace safety and explosives handling, storage and transport procedures and regulations are followed; b) planning and giving instructions for the lay out, depth and diameter of blast holes; c) checking depth and cleanliness of blast holes; d) determining quantity and type of explosives to be used; e) loading explosives into blast holes; f) assembling, or directing other workers to assemble, primer charges using detonators and explosive cartridges, and attaching electrical wires, fuses and detonating cords to primers; g) connecting wires, fuses and detonator cords into series, testing electrical circuits and repairing malfunctions, and connecting series to blasting machines; h) covering charges, filling blast holes with rock dust, sand and other materials, and tamping material to compact charges; i) ensuring all explosives are detonated, and reporting and attending to misfires; j) declaring blast areas safe before and after detonation of explosives; and k) compiling and maintaining records about usage of explosives in compliance with laws and regulations. <p>Examples of the occupations classified here:</p> <ul style="list-style-type: none"> Blaster Mine shot firer Powder monkey Powder man Quarry shot firer <p>Some related occupations classified elsewhere:</p> <ul style="list-style-type: none"> Driller (mining) 8111 Driller (oil or gas well) 8113 Mining Supervisor 3121 Mining laborer 9311 Quarry laborer 9311 	7112	7542
		7543	<p>PRODUCT GRADERS AND TESTERS (EXCEPT FOODS AND BEVERAGES)</p>	7543	7543

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Product graders and testers (except foods and beverages) inspect , test, sort, sample, and weigh raw materials, manufactured components and non-comestible goods produced or sold, to ensure compliance with quality standards and to identify defects, wear, and deviations from specifications, and to grade and classify them according to their quality.</p> <p>Their tasks include:</p> <p>a) inspecting and testing products, parts and materials for conformity with specifications and standards;</p> <p>b) grading and classifying natural textile fibers for spinning and winding;</p> <p>c) discarding or rejecting products, materials, and equipment not meeting specifications;</p> <p>d) analyzing and interpreting blueprints, data, manuals, and other materials to determine specifications, inspection and testing procedures;</p> <p>e) notifying supervisors and other personnel of production problems, and assisting in identifying and correcting these problems;</p> <p>f) recording inspection or test data, such as weights, temperatures, grades, or moisture content, and quantities inspected or graded;</p> <p>g) marking items with details such as grade and acceptance or rejection status;</p> <p>h) measuring dimensions of products using instruments such as rulers, calipers, gauges, or micrometers; and</p> <p>i) analyzing test data and making computations as necessary to determine test results.</p> <p>Examples of the occupations classified here:</p> <p>Product grader Quality inspector Wool classer</p> <p>Some related occupations classified elsewhere:</p> <p>Product safety inspector 3257 Fruit grader 7515 Vegetable grader 7515 Fur grader 7531 Pelt grader 7535</p>		
		7544	<p>FUMIGATORS AND OTHER PEST AND WEED CONTROLLERS</p> <p>Fumigators and other pest and weed controllers use chemicals to remove harmful insects, small animals, wild plants and other unwanted organisms to prevent damage to crops and to buildings and other structures and their surroundings and to prevent health risks.</p> <p>Their tasks include:</p>	3219	7544

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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- a) operating and monitoring equipment for spraying pests and weeds;
- b) mixing chemicals according to instructions;
- c) covering areas to specified depths with pesticides, applying knowledge of weather conditions, droplet sizes, elevation-to-distance ratios, and obstructions;
- d) spraying or releasing chemical solutions or toxic gases and setting traps to kill pests and vermin, such as mice, termites, and roaches;
- e) lifting, pushing, and swinging nozzles, hoses, and tubes in order to direct spray over designated areas;
- f) filling sprayer tanks with water and chemicals; and
- g) cleaning and servicing machinery to ensure operating efficiency.

Examples of the occupations classified here:

- Fumigator
- Pest controller
- Weed controller

Some related occupations classified elsewhere:

- Aerial crop sprayer 3153

7549 CRAFT AND RELATED WORKERS NOT ELSEWHERE CLASSIFIED

7549

This group covers craft and trade occupations not classified elsewhere in major group 7, Craft and related trades workers. For instance, the group includes those who mold, slice, grind and polish optical lenses.

Their tasks would include:

- a) heating, molding and pressing optical glass to make lens blanks; and
- b) grinding and polishing lens blanks.

Examples of the occupations classified here:

- Crafts and trade helper
- Optical lens finisher
- Optical lens molder

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Major Group 8.

PLANT AND MACHINE OPERATORS, AND ASSEMBLERS

Plant and machine operators, and assemblers operate and monitor industrial and agricultural machinery and equipment on the spot or by remote control, drive and operate trains, motor vehicles and mobile machinery and equipment, or assemble products from component parts according to strict specifications and procedures.

The work mainly calls for experience with and an understanding of industrial and agricultural machinery and equipment as well as an ability to cope with machine-paced operations and to adapt to technological innovations. Most occupations in this major group require skills at the second ISCO skill level. Tasks performed by plant and machine operators and assemblers usually include: operating and monitoring mining or other industrial machinery and equipment for processing metal, minerals, glass, ceramics, wood, paper, or chemicals; operating and monitoring machinery and equipment used to produce articles made of metal, minerals, chemicals, rubber, plastics, wood, paper, textiles, fur, or leather, and which process foodstuffs and related products; driving and operating trains and motor vehicles; driving, operating and monitoring mobile industrial and agricultural machinery and equipment; assembling products from component parts according to strict specifications and procedures. Supervision of other workers may be included.

81

STATIONARY PLANT AND MACHINE OPERATORS

Stationary plant and machine operators operate and monitor, on the spot or by remote control, industrial plant and machinery and equipment that are stationary, or for which mobility is not an integral part of operation. The work mainly calls for experience with and an understanding of the industrial plant, machinery or equipment being operated and monitored. Ability to cope with machine-paced operations and to adapt to innovations in machinery and equipment is often required.

Tasks performed by workers in this sub-major group usually include: setting up, operating and monitoring a variety stationary plant and machinery; detecting malfunctions and taking corrective action; examining outputs for defects and conformity to specifications and adjusting machine settings accordingly; performing maintenance, repairs and cleaning; recording data and maintaining production records. Supervision of other workers may be included.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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811

MINING AND MINERAL PROCESSING PLANT OPERATORS

Mining and mineral processing plant operators operate and monitor plant and machinery which extract rock and minerals from the earth, process minerals and stone, drill wells and bores, and manufacture and finish cement and stone products.

Tasks performed usually include: setting up, operating and monitoring a variety of mining and mineral processing plant and machinery such as drilling rigs and auxiliary machines and equipment, continuous mining machinery, and cutting, crushing, grinding, pumping and mixing plant and machinery; operating washing, separating, extracting and combining equipment to remove waste and recover minerals; operating plant and machinery to make cement, concrete, artificial stone, and precast concrete and stone products; monitoring the performance of a variety of plant and machinery, detecting malfunctions and taking corrective action; performing plant and machinery maintenance, repairs and cleaning; and maintaining production records.

8111 MINERS AND QUARRIERS

8111

8111

Miners and quarriers operate plant, machinery and hand tools to extract rock, minerals and non-metallic deposits from underground and surface mines and quarries.

Their tasks include:

- a) positioning, operating and monitoring the performance of a variety of underground and surface mining equipment including continuous mining, cutting and channelling plant;
- b) setting up and operating drilling equipment in underground and surface mines and quarries;
- c) operating machinery and using tools to remove loosened rock, ore, coal and other deposits;
- d) preparing, fitting and installing supports in underground workings including rock bolts;
- e) operating machinery to open new shafts, drives, air vents and rises;
- f) operating auxiliary plant such as pumps to expel air, water and mud;
- g) performing minor maintenance and repairs and lubricating and cleaning plant, machines and tools;
- h) completing records detailing operations completed during shifts; and
- i) collecting mineral samples for laboratory analysis.

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Examples of the occupations classified here:

Bogger operator
 Continuous miner operator
 Continuous mining machine operator
 Dragline operator (mining)
 Dredgeman (mining)
 Drilling machine operator (mine and quarry)
 Miner
 Mining plant operator
 Prime miner operator
 Quarrier
 Roof bolter (mining)

Some related occupations classified elsewhere:

Blaster 7542
 Driller (oil or gas well) 8113
 Mining Laborer 9311
 Mining Supervisor 3121
 Quarry Laborer 9311
 Shotfirer 7542

8112	MINERAL AND STONE PROCESSING PLANT OPERATORS	8112	8112
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Mineral and stone processing plant operators operate and monitor machinery and equipment for processing rocks, minerals and stone to recover refined products for immediate use or further processing.

Their tasks include:

- a) setting up and operating stationary plant and machinery which grind, crush, cut, saw and slice rocks, minerals and stones according to the specifications for the job;
- b) positioning blocks and slabs of stone onto machines for sawing, cutting and further working;
- c) monitoring and maintaining the flow of unprocessed rocks, minerals and stones from conveyors into machines;
- d) operating washing, separating, leaching, precipitating, filtering, extracting and combining equipment to remove waste material and recover minerals;
- e) combining mineral ores with solvents to facilitate further processing;
- f) separating metal and mineral concentrates from ore and alluvial deposits by thickening, flotation, gravity separation, filtration, and or magnetic and electrostatic separation;
- g) observing meters, gauges and control panels, and adjusting valves and controls to ensure the safe and efficient operation of equipment, and detecting malfunctions, and assisting with plant and machinery maintenance and repair;

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>h) examining processed materials visually or with hands to ensure compliance with established standards and job specifications, and may collect samples for testing in laboratories;</p> <p>i) recording information about processing completed during shifts, such as quantities, types and dimensions of materials produced; and</p> <p>j) sorting, stacking and moving processed minerals and stone for packaging, further processing or shipping.</p> <p>Examples of the occupations classified here:</p> <ul style="list-style-type: none"> Carving stone machine operator Coal washer Crushing/mineral ore machine operator Cutting machine operator, mine Flotation minerals worker Grinding/chemical and related process machine operator Milling/minerals machine operator Minerals floating worker Precipitator Splitting stone machine operator Stone cutting or processing machine operator Stone processing machine operator Stone processing plant operator Stone treater Tender jig machines operator <p>Some related occupations classified elsewhere:</p> <ul style="list-style-type: none"> Stone Cutter (hand or hand-powered tools) 7113 Stonemason 7113 Stone Polisher (hand or hand-powered tools) 7113 Stone Splitter (hand or hand-powered tools) 7113 Machine Operator (cast stone production) 8114 Stone Polishing Machine Operator 8114 		
		8113	<p>WELL DRILLERS AND BORERS AND RELATED WORKERS</p> <p>Well drillers and borers and related workers position, assemble and operate drilling machinery and related equipment to sink wells, extract ore, liquids and gases or for a variety of other purposes.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) dismantling, moving and assembling drilling rigs and auxiliary equipment; b) assembling and dismantling pipes, casings and drill heads, and replacing dysfunctional equipment; c) operating controls to lower and raise drill pipes and casings in and out of wells, regulate pressure in the well and control the speed of tools; 	8113	8113

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- d) preparing drilling fluid and checking the operation of pumps to ensure adequate circulation of fluid in drill pipe and well;
- e) monitoring gauges and other indicators and listening to equipment to detect malfunctions and unusual well conditions, and determining the need to change drilling or equipment;
- f) maintaining, adjusting, repairing and cleaning drilling rigs, hoisting and other machinery;
- g) maintaining records of drilling and servicing operations;
- h) operating machines and tools to extract dust, cuttings and lost and broken drilling equipment from holes and wells;
- i) closing and sealing wells no longer in use; and
- j) may supervise and train crew members.

Examples of the occupations classified here:

Artesian well driller
 Boring equipment/wells operator
 Bore sinker
 Cable driller (gas/oil well)
 Core driller
 Derrickman
 Derrick/oil and gas well operator
 Developmental driller
 Directional driller
 Dredgeman
 Drilling equipments/wells operator
 Drilling rig operator
 Gas/oil well rotary driller
 Gas/oil well puller
 Jumbo operator
 Powertong operator
 Toolpusher
 Tourpusher
 Well borer
 Well cable tools driller
 Well driller
 Well testing crew

Some related occupations classified elsewhere:

Blaster 7542
 Miner 8111
 Quarrier 8111

8114 CEMENT, STONE AND OTHER MINERAL PRODUCTS MACHINE OPERATORS

8212 p;
8152 p;
8151 p

8114

Cement, stone and other mineral products machine operators operate and monitor machines for manufacturing and finishing precast concrete, bitumen, and stone products, and making cast stone for building purposes.

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Their tasks include:

- a) operating extrusion, moulding, mixing, pumping, compacting, grinding and cutting machinery to manufacture and finish precast concrete and stone products;
- b) operating plant to produce cement, lime and clinker, including loading and unloading ingredients and operating continuous feed equipment such as pumps and conveyors;
- c) operating plant and machines which weigh and mix sand, gravel, cement, water and other ingredients to make concrete;
- d) operating plant and machinery which assembles and fills molds with concrete and artificial stone mixtures, removes castings from molds and finishes surfaces of precast products;
- e) cutting, grinding, drilling, sandblasting and polishing concrete products and stone blocks, slabs and products to the specifications for the job;
- f) checking production plans and specifications to determine and select materials, ingredients, procedures, components, settings and adjustments for extrusion, molding, mixing and compacting machines;
- g) monitoring plant and machines during operation by observing instruments such as temperature and pressure gauges, and adjusting controls and reporting malfunctions as necessary;
- h) collecting and examining samples of mixtures and finished products for conformity to specifications and adjusting machine settings accordingly;
- i) checking and maintaining production records, including information about quantities, dimensions and types of materials and goods produced; and
- j) arranging and assisting with plant and machinery maintenance and repair.

Examples of the occupations classified here:

- Cast concrete product maker
- Cast-concrete products machine operator
- Cast-stone products machine operator
- Cement production plant operator
- Concrete production machine operator
- Concrete-mixer operator
- Concrete-mixing-plant operator
- Mineral ore processing plant operator
- Mixer operator
- Stone polishing machine operator

Some related occupations classified elsewhere:

- Stone polisher (hand or hand-powered tools) 7113
- Clay brick and tile kiln operator 8181

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Kiln operator (cement production) 8114

Extruding clay press operator 8181

812

METAL PROCESSING AND FINISHING PLANT OPERATORS

Metal processing and finishing plant operators, operate and monitor single function process control machinery and equipment to control the conversion, processing and finishing of mineral ores and metals.

Tasks performed usually include: setting up, preparing and adjusting metal and ore processing and finishing machinery; coordinating and monitoring the operation of a particular aspect of metal processing production and finishing; verifying equipment for malfunctions, monitoring gauges, carrying out routine operating tests and arranging for maintenance; checking, testing and analyzing sample products; recording data and writing production logs.

8121 METAL PROCESSING PLANT OPERATORS

8123 p;
8121 p;
8124 p

8121

Metal processing plant operators, operate, monitor, adjust and maintain, single process machinery and equipment to process and convert mineral ores and refine, harden, roll and extrude metals.

Their tasks include:

- a) setting up, preparing and adjusting mineral ore and metal processing machinery to carry out one step in the overall mineral ore or metal processing operation;
- b) operating single-function machinery to grind, separate, filter, mix, treat, cast, roll, refine or otherwise process metals and mineral ores;
- c) observing gauges, meters, computer printouts, video monitors and products to ensure correct operation of machine and verify specified processing conditions;
- d) adjusting equipment, valves, pumps, controls and process equipment;
- e) controlling the preparation, measuring and feeding of raw materials and processing agents into plant;
- f) controlling process start-up and shut-down, troubleshooting and monitoring outside process equipment;
- g) verifying equipment for malfunctions, carrying out routine operating tests and arranging for maintenance; and
- h) analyzing sample products, performing tests, recording data and writing production logs.

Examples of the occupations classified here:

Aluminum cutting machine operator

Annealer

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			Case-hardener Converting/non-ferrous metal extruder operator Drawing/wire machine operator Hardener Hardening/metal furnace operator Heat-treating/metal furnace operator Ladle pourer Machine wire drawer Metal drawer machine operator Metal extruder operator Metal extrusion plant operator Metal heat treating operator Non-ferrous metal converting and refining furnaceman Ore furnace operator Ore smelting blast furnaceman Refining/steel furnace operator (open hearth furnace) Seamless pipe and tube drawer Smelting/metal furnace operator (blast furnace) Steel converting Bessemer furnaceman Steel converting oxygen furnaceman Steel metal furnace (open hearth furnaceman) Steel refining electric arc furnaceman Steel roller Temperer		
			Some related occupations classified elsewhere:		
			Blast furnace operator 3135		
			Central control caster 3135		
			Metal coating machine operator 8122		
			Rolling mill control operator 3135		
8122			METAL FINISHING, PLATING AND COATING MACHINE OPERATORS Metal finishing-, plating and coating-machine operators operate and monitor equipment which finishes, plates and coats metal articles or parts, in order to give them improved resistance to corrosion and abrasion, for decorative purposes, or to impart electrical or magnetic properties. Their tasks include: a) operating and monitoring equipment which cleans metal articles in preparation for electroplating, galvanizing, enamelling or similar processes; b) operating and monitoring electroplating equipment; c) operating and monitoring hot-dip equipment used to coat iron and steel products; d) operating and monitoring machines which automatically coat wire with non ferrous metal;	8223	8122

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>e) operating and monitoring equipment used to spray molten metal or other substances on metal products to provide a protective or decorative coating or to build up worn or damaged surfaces;</p> <p>f) operating and monitoring equipment used to impart a rust-resistant finish to metal articles by treating them with chemicals and heating them;</p> <p>g) checking proper thickness of plating using micrometers, callipers or other devices recording data and writing production logs; and</p> <p>h) preparing and mixing metalizing solutions according to formulas or specifications.</p> <p>Examples of the occupations classified here:</p> <p>Metal coating machine operator Metal finishing machine operator Metal plating machine operator Polishing metal machine operator</p> <p>Some related occupations classified elsewhere:</p> <p>Metal processing control operator 3135</p>		
813			<p>CHEMICAL AND PHOTOGRAPHIC PRODUCTS PLANT AND MACHINE OPERATORS</p> <p>Chemical and photographic products plant and machine operators operate and monitor machines which process a variety of chemicals and other ingredients to produce pharmaceuticals, toiletries, explosives and photographic or other chemical products.</p> <p>Tasks performed usually include: operating and monitoring machines and equipment which blend, mix, package and otherwise process chemicals and chemical products to give them the desired properties for further industrial production, or to make finished products. Supervision of other workers may be included.</p>		
	8131		<p>CHEMICAL PRODUCTS PLANT AND MACHINE OPERATORS</p> <p>Chemical products plant and machine operators monitor and operate units and machinery to blend, mix, process and package a wide range of chemical products.</p> <p>Their tasks include:</p> <p>a) setting up, starting, controlling, adjusting and stopping machines and plant;</p> <p>b) monitoring reaction processes and transfers of products in conformance with safety procedures;</p>	8221 p; 8222 p	8131

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c) monitoring meters, gauges and electronic instrumentation on one or more chemical or formulation units, such as mixers, kettles, blenders, dryers, tableting, encapsulation, granulation and coating machines;

d) measuring, weighing and loading chemical ingredients following formulation cards;

e) taking samples and performing routine chemical and physical tests of products and recording production data; and

f) cleaning and performing minor repairs to machines and plant.

Examples of the occupations classified here:

Ammunition products machine operator
Candle production machine operator
Chemical and related processes kiln operator
Chemical heat treating operator
Converter operator (chemical processes)
Crushing, grinding and chemical-mixing machinery operator
Detergent products machine operator
Explosive products machine operator
Halogen gas production machine operator
Pharmaceutical and toiletry products machine operators

Some related occupations classified elsewhere:

Chemical processing plant controllers - 3133
Petroleum and natural gas refining plant operators - 3134

8132	PHOTOGRAPHIC PRODUCTS MACHINE OPERATORS	8224	8132
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Photographic products machine operators operate and monitor equipment which makes photographic film and paper, and which processes exposed photographic film and makes prints.

Their tasks include:

a) operating and monitoring equipment which makes photographic film and paper;

b) operating, monitoring and testing photographic processing and printing equipment, and maintaining operational standards;

c) preparing exposed film for different processing batches in dark rooms and dark chambers;

d) inspecting images, films, prints and adjusting settings on print-making equipment to produce required color, brightness, contrast, number, size and type of prints;

e) adjusting settings and running automatic developing equipment;

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f) operating equipment to transfer film to video tape or other electronic media;

g) performing photographic processing related tasks; and

h) operating automatic equipment (in retail establishments) to develop color negatives, prints and slides;

Examples of occupations classified here:

Darkroom technician
Developing/photography machine operator
Enlarging/photography machine operator
Film/color developer
Photograph enlarger
Photograph printer
Photographic film printer
Photographic processor
Photographic-film machine operator
Printing/photography (black and white) machine operator
Printing/photography (color) machine operator

Some related occupations classified elsewhere:

Photographers 3431

814

RUBBER, PLASTIC AND PAPER PRODUCTS MACHINE OPERATORS

Rubber, plastic and paper products machine operators operate and monitor machines which knead and blend rubber and rubber compounds, and plastics or produce different paper products from paper, paperboard, cardboard and similar materials.

Tasks performed usually include: operating and monitoring machines which knead and blend rubber and rubber compounds, and produce various components and products from natural and synthetic rubber and plastics; operating and monitoring machines which produce various paper products; examining outputs for defects and conformity to specifications and adjusting machine settings accordingly.

8141 RUBBER PRODUCTS MACHINE OPERATORS

8231

8141

Rubber-products machine operators operate and monitor machines which knead and blend rubber and rubber compounds, and produce various components and products from natural and synthetic rubber, such as molded footwear, domestic articles, insulating materials, industrial accessories, or tires.

Their tasks include:

a) operating and monitoring machines which knead, mix and blend rubber and rubber compounds for further processing;

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- b) operating and monitoring machines which produce sheets of rubber or rubberized fabric by a rolling process;
- c) operating and monitoring machines which extrude compounded rubber or shape vulcanized rubber by moulding;
- d) operating and monitoring machines which build up tires on a form, vulcanize tires and mould or rebuild used tires;
- e) examining outputs for defects and conformity to specifications; and
- f) locating defects and repairing worn and faulty tires by vulcanizing or other processes.

Examples of the occupations classified here:

- Extruding/rubber machine operator
- Latex worker
- Rubber calendar operator
- Rubber milling machine operator
- Rubber moulder
- Rubber products machine operator
- Tire maker
- Tire production machine operator
- Tire repairer
- Vulcanize

8142	PLASTIC PRODUCTS MACHINE OPERATORS	8232	8142
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Products machine operators operate and monitor machines which knead and blend compounds to obtain plastic materials and which make various plastic components and articles.

Their tasks include:

- a) operating and monitoring machines which knead and blend compounds to obtain plastic materials;
- b) operating and monitoring machines which shape plastic materials by moulding, extrusion, blowing, cutting and other means;
- c) operating and monitoring machines which laminate plastics and plastic impregnated materials or produce fiberglass;
- d) encasing uncoated wire, cord, cable and optic fiber in plastic;
- e) examining outputs for defects and conformity to specifications;
- f) recycling waste plastic materials; and
- g) making artificial eyes and contact lens discs, making and repairing spectacle frames and plastic parts of orthopaedic appliances.

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Examples of the occupations classified here:

Laminated press operator (plastics)
Machine cellophane bag maker
Molding machine operator (plastics)
Plastics boat builder
Plastics bottle blowing machine operator
Plastic cabling machine operator
Plastic extrusion machine operator
Plastic products machine operator
Optic fiber drawer
Plastic moulder
Plastic product fabricator

8143 PAPER PRODUCTS MACHINE OPERATORS 8143 p 8143

Paper products machine operators operate and monitor machines which produce boxes, envelopes, bags and other goods from paper, paperboard, cardboard and similar materials.

Their tasks include:

- a) operating and monitoring machines which glue paper to cardboard, cut it to the required length or cut and crease cardboard or paperboard to form box blanks;
- b) operating and monitoring pressing machines which form drinking cups or other containers from paper, paperboard or cardboard; and
- c) operating and monitoring machines which cut, fold and glue paper to make envelopes and paper bags, or which form bags from other similar materials.

Examples of the occupations classified here:

Machine operator (cardboard products)
Machine operator (envelope and paper bag production)
Machine operator (paper box production)
Paper box cutting- and creasing-press operator
Paper box maker machine operator
Paper mache moulder
Paper machine moulder
Paper products machine operator
Papermaking machine operator (back/wet end)
Supercalender operator

815 TEXTILE, FUR AND LEATHER PRODUCTS MACHINE OPERATORS

Textile, fur and leather products machine operators operate and monitor various types of machines which prepare, process and treat fibers, yarn, thread, leather, fur; produce, modify and repair footwear, garments and manufacture or dry clean textiles or fur and light leather articles.

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Tasks include operating and monitoring weaving and knitting machines which process yarn or thread into woven, non-woven and knitted products; operating and monitoring machines which prepare fibers, and spin, double, twist and wind yarn and thread from natural textile fibers; operating and monitoring sewing machines to make, repair, darn and renovate textile, fur, synthetic or leather garments or embroider ornamental designs on garments or other materials; operating and monitoring machines which bleach, shrink, dye, and otherwise treat fibers, yarn, cloth or dry clean garments, fur, rugs, carpets; operating and monitoring various machines which prepare leather or treat fur or wool-bearing pelts; operating and monitoring machines which produce, modify and repair standard, custom or orthopaedic footwear and leather articles, such as luggage, brief cases, handbags.

8151	FIBRE PREPARING, SPINNING AND WINDING MACHINE OPERATORS	8251	8151
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Fiber-preparing, spinning and winding machine operators operate and monitor machines which prepare fibers, and spin, double, twist and wind yarn and thread from natural textile fibers. They twist two or more strands of yarn to prepare single stronger, smoother, uniform and heavier strands and treat textiles to make them stiff and water resistant.

Their tasks include:

- a) operating and monitoring machines for tearing woolen rags into fiber;
- b) operating and monitoring machines for cleaning and turning woolen yarn waste into fluffed wool;
- c) operating and monitoring machines which combine textile fibers into uniform blends;
- d) operating and monitoring machines which clean and fluff textile fibers, transform them into sliver, comb them into sliver for first drawing, combine slivers into sliver lap or sliver laps into ribbon lap;
- e) operating draw frame machine) having number of drawing sets, each set combining several slivers into one of nearly same weight and thickness as any of original sliver;
- f) operating and monitoring machines which spin thread and yarn from roving, wind two or more threads onto bobbin, twist two or more strands of yarn or thread into single strands of yarn to increase strength, smoothness and/or uniformity of yarn, or wind yarn or thread from one package to another;
- g) operating and monitoring spinning frame that draws out and twists roving or sliver into yarn;

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- h) operating and monitoring machines for drawing slivers received from drawing machine into loosely twisted strands;
- i) preparing sizing for use in stiffening and finishing cloth and yarn by mixing ingredients such as starch, tallow, resins, soaps and water and boiling mixture for specified time in steam;
- j) treating textiles with chemicals to make them water resistant;
- k) cleaning rollers and cylinders of carding machines to remove wool waste; and
- l) operating and resurfacing metal drawing rolls of various spinning, combing and lapping machines with new rubber or leather covers.

Examples of the occupations classified here:

- Doubler (yarn)
- Fiber preparing machine operator
- Ring spinner
- Spinning machine operator
- Spinning/thread and yarn machine operator
- Twisting/thread and yarn machine operator
- Winding/thread and yarn machine operator

8152 WEAVING AND KNITTING MACHINE OPERATORS 8252 8152

Weaving and knitting machine operators set up, operate and monitor weaving and knitting machines which process yarn or thread into woven, non-woven and knitted products such as cloth, lace, carpets, rope, industrial fabric, hosiery and knitted garments or to quilt and embroider fabric.

Their tasks include:

- a) setting up and operating batteries of automatic, link-type knitting machines to knit garments of specified pattern and design;
- b) threading yarn, thread, and fabric through guides, needles, and rollers of machines for weaving, knitting, or other processing;
- c) tending automatic looms that simultaneously weave pile yarn, filling yarn, and warp yarn material to produce carpets and rugs with various colored designs;
- d) operating and monitoring loom on which yarn or twist is intersected and knotted at regular intervals to form mesh;
- e) operating and monitoring large automatic multi-needle machines to embroider material or to sew lengths of several layers of material to make yard goods, quilts or mattress coverings;

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- f) tending circular knitting machines with automatic pattern controls that knit seamless hose;
- g) operating and monitoring knitting machines to knit hosiery to shape of foot and leg;
- h) operating and monitoring machine for knitting heel and toes of socks into ribs or tops cut from circular fabric;
- i) operating and monitoring machine which seams openings in toes of socks;
- j) operating and monitoring crocheter machine to knit lace, trimming etc. of desired pattern or design;
- k) examining looms to determine causes of loom stoppage, such as warp filling, harness breaks, or mechanical defects;
- l) repairing or replacing worn or defective needles and other components; and
- m) cleaning, oiling, and lubricating machines, using air hoses, cleaning solutions, rags, oil cans, and/or grease guns.

Examples of the occupations classified here:

- Beam warper
- Combing textile fibers machine operator
- Jacquard card cutter
- Jacquard design copyist
- Jacquard weaver
- Knitting machine operator (general)
- Knitting setter (machine)
- Lace weaver (machine)
- Loom threader (machine)
- Machine crocheter
- Weaving machine operator

Some related occupations classified elsewhere:

- Carpet weaver 7318
- Cloth weaver 7318
- Knitter 7318

8153 SEWING MACHINE OPERATORS

8253

8153

Sewing machine operators operate and monitor sewing machines to make, repair, darn and renovate textile, fur, synthetic or leather garments or embroider ornamental designs on garments or other materials. They operate button hole making and eyelet holing machines to cut holes, stitch around holes, stitch buttons and fix eyelets to garments.

Their tasks include:

- a) operating or tending sewing machines to perform garment sewing operations, such as joining, reinforcing, seaming or decorating garments or garment parts;

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			<p>b) attaching buttons, hooks, zippers, fasteners, or other accessories to fabric, using feeding hoppers or clamp holders;</p> <p>c) tending semiautomatic sewing machines with multiple-sewing heads controlled by pattern chain that embroiders various designs on garments;</p> <p>d) operating machines, such as single or double needle serging and flat-bed felling machines, to automatically join, reinforce, or decorate material or articles;</p> <p>e) operating fur sewing machines to join fur pelt strips to required size and shape and join pelts into garment sections or shells;</p> <p>f) operating stitching machines to sew leather parts together for leather garments, handbags, gloves;</p> <p>g) monitoring machine operation to detect problems such as defective stitching, breaks in thread, or machine malfunctions; and</p> <p>h) performing equipment maintenance tasks such as replacing needles.</p> <p>Examples of the occupations classified here:</p> <p>Embroidery machine operator Piping operator (garment) Industrial sewing machine operator Sewing machine operator</p> <p>Some related occupations classified elsewhere:</p> <p>Embroiderer 7533 Furrier 7531 Handicraft /textiles worker 7318 Sewer 7533 Tailor 7531</p>		
8154			<p>BLEACHING, DYEING AND FABRIC CLEANING MACHINE OPERATORS</p> <p>Bleaching, dyeing and fabric cleaning machine operators operate and monitor machines that bleach, shrink, dye, and otherwise treat fibers, yarn or cloth.</p> <p>Their tasks include:</p> <p>a) starting and controlling machines and equipment to bleach, dye, or otherwise process and finish fabric, yarn, thread, and/or other textile goods;</p> <p>b) tending machines that shrink woven or knitted cloth to predetermined size or strengthen the weave by interlocking the fibers;</p> <p>c) tending a variety of automatic machines that comb and polish furs;</p> <p>d) operating and monitoring machines that treat silk to give it body and weight;</p>	8254	8154

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e) operating and monitoring machines that impregnate textiles with chemicals to render them waterproof;

f) dyeing articles to change or restore their colors;

g) operating and monitoring machines that stretch, or impart luster, or other type of finish to textiles;

h) tending and regulating equipment that fumigates and removes foreign matter from furs;

i) operating machines that comb, dry and polish furs, clean, sterilize and fluff feathers and blankets;

j) keying in processing instructions to program electronic equipment;

k) observing display screens, control panels, equipment, and cloth entering or exiting processes to determine if equipment is operating correctly; and

l) cleaning machine filters and lubricating equipment.

Examples of the occupations classified here:

Bleaching machine operator
Curing machine operator
Dyeing machine operator
Evaporator operator
Fabric bleaching machine operator
Finishing machine operator
Silk degummer
Silk weighter
Still turpentine operator
Textile bleacher
Textile calendar operator
Textile dyeing machine operator
Textile fuller
Textile shrinker
Textile washer
Wool carbonizer
Yarn dyer

Some related occupations classified elsewhere:

Hand launderer 9121
Hand presser 9121
Laundry machine operator 8157

8155	FUR AND LEATHER PREPARING MACHINE OPERATORS	8255 p	8155
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Fur and leather preparing machine operators operate and monitor various machines that prepare leather or treat fur or wool-bearing pelts. They trim, scrape, clean, tan, buff and dye animal hides, pelts or skins to produce leather stock and finished furs.

Their tasks include:

a) operating and monitoring machines which remove flesh and fat from hides or pelts to clean and soften them prior to processing;

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			<p>b) operating and monitoring machines which remove long coarse hair from fur pelts, trim hair to even length and dye, stretch and smooth dressed pelts;</p> <p>c) operating and monitoring machines to remove epidermis hair roots, pigment cells and lime salts from grain side of skin;</p> <p>d) operating and monitoring machines to reduce thickness of hide or skin to uniform size;</p> <p>e) operating and monitoring machines to polish or roughen hides or skins to specified finish;</p> <p>f) operating and monitoring machines which separate residual wool from skins, or flesh and hair from hides;</p> <p>g) operating and monitoring machines in which hides are split edgeways to form two or more pieces or to give uniform thickness;</p> <p>h) operating and monitoring machines which treat hides and skins in solutions to convert them into leather;</p> <p>i) treating surface of leather with oil and operating glazing machine to give glossy finish to leather;</p> <p>j) operating and monitoring machines which apply dyes and stains to leather; and</p> <p>k) maintaining and repairing vats and other machinery.</p> <p>Examples of the occupations classified here:</p> <p>Dehairing/hide machine operator</p> <p>Staining/leather machine operator</p> <p>Tanning machine operator</p> <p>Some related occupations classified elsewhere:</p> <p>Pelt dyer 7535</p> <p>Tanner 7535</p>		
8156			<p>SHOEMAKING AND RELATED MACHINE OPERATORS</p> <p>Shoemaking and related machine operators operate and monitor machines which produce and repair standard or special footwear, handbags and other accessories, mainly made of leather.</p> <p>Their tasks include:</p> <p>a) operating and monitoring machines which mark patterns and cut shoe parts;</p> <p>b) operating and monitoring machines which sew shoe parts together, or edge, polish, or apply ornaments and perform finishing tasks; and</p> <p>c) operating and monitoring machines which produce luggage, handbags, belts and other accessories, as well as other items such as saddles, collars or harnesses.</p>	8256	8156

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Examples of the occupations classified here:

Footwear production machine operator
Leather production machine operator
Shoemaking machine operator

Some related occupations classified elsewhere:

Cobbler 7536
Handicraft worker (leather) 7318

8157	LAUNDRY MACHINE OPERATORS	8254 p	8157
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Laundry machine operators operate laundry, dry cleaning, pressing and fabric treatment machines in laundries and dry-cleaning establishments.

Their tasks include:

- a) sorting articles for cleaning according to the type color, fabric and cleaning treatment required;
- b) placing sorted articles into receptacles and onto conveyor belts for moving to repair and cleaning areas;
- c) checking and removing stains from garments, and replacing buttons and making minor repairs;
- d) loading and unloading washing machines, driers and extractors;
- e) adding cleaning agents and starches to articles;
- f) smoothing articles and guiding them through cleaning and pressing machines;
- g) stopping and starting machines to untangle, straighten and remove articles;
- h) placing articles on shelves and hanging articles for delivery and collection; and
- i) packaging articles and preparing orders for dispatch.

Examples of the occupations classified here:

Dry-cleaning machine operator
Laundry machine operator
Laundry pressing machine operator

Some related occupations classified elsewhere:

Hand launderer 9121
Hand presser 9121

8159	TEXTILE, FUR AND LEATHER PRODUCTS MACHINE OPERATORS NOT ELSEWHERE CLASSIFIED	8259 p	8159
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This unit group covers textile, fur and leather products machine operators not classified elsewhere in Minor group 815, Textile, fur and leather products machine operators. For instance, the group includes those engaged in operating and monitoring machines which make hats, tents, mattresses or miscellaneous articles such as braids or other trimmings.

Their tasks include:

- a) operating and monitoring machines which form and make hats out of textiles, fur or leather;
- b) operating and monitoring machines which make miscellaneous articles such as braids or other trimmings;
- c) operating and monitoring machines that fold cloth into measured length;
- d) operating and monitoring machines that wind thread, twine, or yarn into balls preparatory to shipping or further processing; and
- e) operating and monitoring machines to measure size of pieces of leather.

Examples of the occupations classified here:

- Braid making machine operator
- Chemical bleacher operator
- Chemical processing plant operator, n.e.c.
- Coal-gas maker
- Coke burner
- Coke production plant operator
- Felt hood former
- Fertilizer plant operator
- Fuel tender
- Fur fiber mixer (machine)
- Hat blocking machine operator
- Hat making machine operator
- Radioactive materials chemical processer
- Synthetic fiber production plant operator
- Tent making machine operator
- Textile pattern making machine operator

816 FOOD AND RELATED PRODUCTS MACHINE OPERATORS

Food and related machine operators set, operate and attend machinery used to slaughter animals, trim meat from carcasses; bake, freeze, heat, crush, mix, blend and otherwise process foodstuffs, beverages and tobacco leaves.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			Task performed usually include: operating and monitoring machinery used to restrain, stun, slaughter animals and trim carcasses into standard meat and fish cuts; setting, operating and attending machinery and ovens to mix, bake and otherwise prepare bread and flour confectionery products; operating machinery to crush, mix, malt, cook and ferment grains and fruits to produce beer, wines, malt liquors, vinegar, yeast and related products; attending equipment to make jam, toffee, cheese, processed cheese, margarine, syrup, ice, pasta, ice-cream, sausages, chocolate, maize starch, edible fats and dextrin; operating equipment to cool, heat, dry, roast, blanch, pasteurize, smoke, sterilize, freeze, evaporate and concentrate foodstuffs and liquids used in food processing; mixing, pulping, grinding, blending and separating foodstuffs and liquids with churning, pressing, sieving, grinding and filtering equipment; processing tobacco leaves by machine to make cigarettes, cigars, pipe and other tobacco products.		
		8160	<p>FOOD AND RELATED PRODUCTS MACHINE OPERATORS</p> <p>Food and related machine operators set, operate and attend machinery used to slaughter animals, trim meat from carcasses; bake, freeze, heat, crush, mix, blend and otherwise process foodstuffs, beverages and tobacco leaves.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) operating and monitoring machinery used to restrain, stun, slaughter animals and trim carcasses into standard meat and fish cuts; b) setting, operating and attending machinery and ovens to mix, bake and otherwise prepare bread and flour confectionery products; c) operating machinery to crush, mix, malt, cook and ferment grains and fruits to produce beer, wines, malt liquors, vinegar, yeast and related products; d) attending equipment to make jam, toffee, cheese, processed cheese, margarine, syrup, ice, pasta, ice-cream, sausages, chocolate, maize starch, edible fats and dextrin; e) operating equipment to cool, heat, dry, roast, blanch, pasteurize, smoke, sterilize, freeze, evaporate and concentrate foodstuffs and liquids used in food processing; f) mixing, pulping, grinding, blending and separating foodstuffs and liquids with churning, pressing, sieving, grinding and filtering equipment; and g) processing tobacco leaves by machine to make cigarettes, cigars, pipe and other tobacco products. 	8261; 8269 p	8160

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Examples of the occupations classified here:

Bakery products machine operator
Bread production machine operator
Chocolate production machine operator
Cigar and cigarettes production machine operator

Cigarette maker, machine
Dairy products machine operator
Fish processing machine operator
Freezer, meat and fish
Meat processing machine operator
Milk processing machine operator
Preserving cook, general
Sterilizing machine operator (food)
Tobacco processing machine operator

Some related occupations classified elsewhere:

Bottling machine operator - 8183

817

WOOD PROCESSING AND PAPERMAKING PLANT OPERATORS

Wood processing and papermaking plant operators monitor, operate, and control automated lumber mill equipment sawing wood, cutting veneer and making plywood, and otherwise preparing wood for further use. Pulp mill machine operators operate and monitor various types of processing machinery and equipment to produce pulp.

Their tasks include:

- a) examining logs and rough lumber to determine size, condition, quality and other characteristics to decide best lumber cuts to carry out, or operating automated equipment to convey logs through laser scanners which determine the most productive and profitable cutting patterns;
- b) sorting, stacking and placing logs and wood billets onto conveyors and lathes from trucks for processing into chips, veneers and pulp;
- c) operating and monitoring screening equipment, bleaching equipment, digesters, mixing tanks, washers, and other pulp processing machinery and equipment to carry out one or more cellulose processing steps;
- d) observing equipment and machinery panel indicators, gauges, level indicators and other equipment instruments to detect machinery and equipment malfunctions and ensure process steps are carried out according to specifications;
- e) operating and monitoring plywood core-laying machines and hot-plate plywood presses and machines which cut veneer; and

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f) transporting processed wood products, such as plywood, chipboard sheets and panels to work areas.

8171	PULP AND PAPERMAKING PLANT OPERATORS	8142 p; 8143 p	8171
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Pulp and papermaking plant operators operate and monitor multi-function process control machinery and processing equipment to control the processing of wood, scrap pulp and other cellulose materials in the production of pulp.

Their tasks include:

- a) coordinating and monitoring the operation of screening equipment, washing equipment, digesters, mixing tanks and other pulp processing equipment from automated panel boards in central control room to control the processing of wood, scrap pulp, recyclable paper and other cellulose materials;
- b) operating and monitoring screening equipment, bleaching equipment, digesters, mixing tanks, washers and other pulp processing machinery and equipment to carry out one or more cellulose processing steps;
- c) controlling start-up and shut-down of process machinery and equipment, and observing equipment and machinery panel indicators, gauges, level indicators and other equipment instruments to detect machinery and equipment malfunctions and ensure process steps are carried out according to specifications;
- d) analyzing instrument readings and production test samples and making adjustments to pulp production process and equipment as required; and
- e) completing and maintaining production reports.

Examples of the occupations classified here:

- Assembly-line/automated operator
- Beater operator (paper and pulp)
- Cardboard lining machine operator
- Chipper/paper pulp operator
- Digester operator
- Grinding machine operator (wood)
- Paper bag and envelope maker (machine)
- Paper box maker (machine)
- Paper box-cutting and creasing press operator
- Paper pulp plant operator
- Papermaking plant operator
- Pulp and paper assistant bleacher operator
- Pulp and paper digester operator
- Pulp and paper grinderman/woman
- Pulp and paper refiner operator
- Pulping control operator
- Pulping Technician
- Repulper operator

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Supercalendar operator
Thermo-mechanical pulp assistant operator

8172 WOOD PROCESSING PLANT OPERATORS 8141 p 8172

Wood processing plant operators monitor, operate, and control automated lumber mill equipment for sawing timber logs into rough lumber, cutting veneer, making plywood and particle board, and otherwise preparing wood for further use.

Their tasks include:

- a) examining logs and rough lumber to determine size, condition, quality and other characteristics to decide best lumber cuts to carry out, or operating automated equipment to convey logs through laser scanners which determine the most productive and profitable cutting patterns;
- b) operating and monitoring log in-feed and conveyor systems;
- c) operating and monitoring automated lumber mill equipment from control rooms or equipment consoles head saws, resaws and multiblade saws to saw logs, cants, flitches, slabs or wings and remove rough edges from sawn timber into dressed lumber of various sizes, and saw or split shingles and shakes;
- d) operating and monitoring plywood core-laying machines and hot-plate plywood presses and machines which cut veneer; and
- e) cleaning and lubricating sawmill equipment.

Examples of the occupations classified here:

Band-saw operator
Circular-saw operator
Edge sawyer
Log cut-off operator
Painting machine operator (wood)
Plywood core laying operator
Plywood press-operator
Ripsaw operator
Sawmill machine operator
Sawmill planer operator
Sawmill sawyer (general)
Sawmill trimmer operator
Treating wood machine operator
Veneer cutter
Wood grader
Wood processing plant operator
Wood-processing plant sawyer

Some related occupations classified elsewhere:

Wood treaters 7521

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	818		<p>OTHER STATIONARY PLANT AND MACHINE OPERATORS</p> <p>This unit group includes stationary plant and machine operators not classified elsewhere in sub-major group 81, Stationary plant and machine operators. The group includes, for instance, operators of machines which make silicon chips and splice cables and ropes.</p> <p>Task performed usually include: monitoring kilns, furnaces and other machinery and equipment used in the manufacture of glass, ceramics, porcelain, tiles or bricks; operating machines to anneal, harden or decorate glass and ceramics; maintaining and operating stationary steam engines, boilers, turbines and auxiliary equipment; operating and monitoring machines which weigh, pack and label products, or fill containers with products;</p>		
	8181		<p>GLASS AND CERAMICS PLANT OPERATORS</p> <p>Glass and ceramics plant operators operate and monitor kilns, furnaces and other machinery and equipment used in the manufacture of glass, ceramics, porcelain, tiles or bricks. They operate machines to anneal, harden or decorate glass and ceramics.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) operating and monitoring glass-making furnaces to make glass by melting and fusing pre-mixed ingredients; b) tending hot or cold-end spray equipment used to coat glassware with surface hardener; c) operating and maintaining machines that press or blow molten glass in molds to form or shape containers, such as bottles, jars and drinking glasses; d) operating hand press to mould glass into required shape; e) operating drawing kiln to process molten glass into continuous sheet of flat glass; f) operating and monitoring floating-glass production plant; g) operating and maintaining finishing machines to grind, drill, sand, bevel, decorate, wash or polish glass or glass products; h) setting and operating press machines to mould ceramic articles from moist clay; 	8131 p; 8139 p	8181

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- i) operating machines to mix clay with water to knead it into a suitable plastic condition or semi-liquid form for making ceramic products;
- j) operating and monitoring kilns which bake pottery, porcelain ware and bake bricks and tiles;
- k) operating and monitoring machines for making glaze or abrasives;
- l) operating and monitoring machines which extrude molten glass to form fiberglass filaments; and
- m) observing finished products to identify splits, cracks, breaks, color and other imperfections.

Examples of the occupations classified here:

Abrasives maker
 Brick and tile kiln-operator
 Ceramics kiln operator
 Ceramics plant operator
 Clay mixer
 Clay slip maker
 Fiberglass maker
 Float-glass bath operator
 Glass former
 Glass kiln operator
 Glass mixer
 Glass plant operator
 Glass production furnace operator
 Glass temperer
 Glass tube maker
 Glass-annealing furnaceman
 Glass-blowing machine operator
 Glass-drawing machine operator
 Glass-making furnaceman
 Glass-pressing machine operator
 Glaze maker
 Mixing/clay & glass machine-operator
 Painting ceramic machine operator
 Painting glass machine operator
 Plate-glass polisher
 Plate-glass rollerman
 Porcelain ware kiln operator
 Pottery and porcelain kiln-operator

Some related occupations classified elsewhere:

Blower, glass 7315
 Cutter, glass -7315
 Moulder, brick and tile 7314

8182	STEAM ENGINE AND BOILER OPERATORS	8162	8182
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Steam engine and boiler operators maintain and operate various types of steam engines, boilers, turbines and auxiliary equipment to provide power and other utility services for commercial, industrial and institutional buildings, at work sites and aboard ships or self-propelled vessels.

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Their tasks include:

- a) operating, cleaning, lubricating and monitoring steam engines, boilers and auxiliary equipment such as pumps, compressors and air-conditioning equipment to supply and maintain steam and power for buildings, marine vessels or pneumatic tools;
- b) analyzing and recording instrument readings, troubleshooting and performing minor repairs to prevent equipment or system failure;
- c) monitoring and inspecting performance of equipment for efficient operation and ensuring boiler water, chemical, and fuel levels are maintained at required levels;
- d) firing coal furnaces by hand or with stokers and gas or oil-fed boilers, using automatic gas feeds or oil pumps;
- e) testing boiler water quality or arrange for testing, adjusting and taking necessary corrective action, such as adding chemicals to prevent corrosion and harmful deposits;
- f) monitoring ship's engine, machinery and equipment indicators, recording variables and reporting abnormalities to ship engineer officer on watch; and
- g) operating and maintaining off-loading liquid pumps and valves.

Examples of the occupations classified here:

- Boiler fireman
- Boiler operator
- Boiler tender
- Railway steam-engine fireman
- Ship fireman
- Ship oiler and greaser
- Ship's boiler operator
- Steam engine operator
- Stoker
- Thermal plant operator

Some related occupations classified elsewhere:

- Ship's engineer 3151
- Stationary engine fitter 7233

8183	PACKING, BOTTLING AND LABELLING MACHINE OPERATORS	8290 p	8183
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Packing, bottling and labelling machine operators operate and monitor machines which weigh, pack and label various products, or fill different containers with products.

Their tasks include:

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a) operating and monitoring machines that weigh, wrap, seal and pack various products;

b) operating and monitoring machines that fill and seal tubes, bottles, cans, boxes, bags and other containers with products, such as food, beverages, paints, oils and lotions; and

c) operating and monitoring machines that, by gluing or other methods, label products, packages and various containers.

Examples of the occupations classified here:

Barista
Bottle filler
Bottling machine-operator
Canning food machine operator
Canning fruit machine operator
Canning vegetable machine operator
Fruit juice production machine operator
Labelling machine operator
Packing machine operator
Wrapping machine operator

Some related occupations classified elsewhere:

Hand packer 9321

8189	STATIONARY PLANT AND MACHINE OPERATORS NOT ELSEWHERE CLASSIFIED	8290 p	8189
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This unit group includes stationary plant and machine operators not classified elsewhere in sub-major group 81, Stationary plant and machine operators. The group includes, for instance, operators of machines which make silicon chips and splice cables and ropes.

Examples of the occupations classified here:

Cable and rope splicing machine operator
Rides operator
Silicon chip production machine operator

82

ASSEMBLERS

Assemblers assemble prefabricated parts or components to form subassemblies, products and equipment, according to strictly laid down procedures. The products worked on may be moved from one worker to the next along assembly lines.

Tasks performed by workers in this sub-major group usually include: assembling components into various types of products and equipment, according to strictly laid down procedures.

821

ASSEMBLERS

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Assemblers assemble prefabricated parts or components to form subassemblies, products and equipment, according to strictly laid down procedures. The products worked on may be moved from one worker to the next along assembly lines.

Tasks performed usually include: assembling components into various types of products and equipment, according to strictly laid down procedures; reviewing work orders, specifications, diagrams and drawings to determine materials needed and assembly instructions; recording production and operational data on specified forms; inspecting and testing completed components and assemblies, wiring installations and circuits; rejecting faulty assemblies and components.

8211 MECHANICAL MACHINERY ASSEMBLERS

8271

8211

Mechanical machinery assemblers assemble, according to strictly laid down procedures, component parts of mechanical machinery such as engines, motor vehicles, turbines and aircraft.

Their tasks include:

- a) assembling and installing prefabricated parts or components to form subassemblies, mechanical machinery, engines and finished motor vehicles;
- b) reviewing work orders, specifications, diagrams and drawings to determine materials needed and assembly instructions;
- c) recording production and operational data on specified forms;
- d) inspecting and testing completed components and assemblies; and
- e) rejecting faulty assemblies and components;

Examples of the occupations classified here:

- Aircraft assembler
- Assembly line operator (automated)
- Assembly-line worker (agricultural machinery)
- Assembly-line worker (aircraft engine)
- Assembly-line worker (heavy machinery)
- Engine assembler
- Engine installer
- Gearbox assembler
- Internal combustion engine fitter assembler (except aircraft and marine)
- Turbine assembler
- Vehicle assembler

Some related occupations classified elsewhere:

- Bicycle assembler 8219
- Electro-mechanical equipment assembler 8212

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		8212	<p>ELECTRICAL AND ELECTRONIC EQUIPMENT ASSEMBLERS</p> <p>Electrical and electronic equipment assemblers assemble or modify, according to strictly laid down procedures, components of electrical, electro-mechanical and electronic equipment.</p> <p>Their tasks include:</p> <p>a) assembling component parts and electrical and electronic systems and positioning, aligning and fastening units to assemblies, sub-assemblies, or frames using hand or power tools, soldering and micro-welding equipment.;</p> <p>b) reviewing work orders, specifications, diagrams and drawings to determine materials needed and assembly instructions:</p> <p>c) recording production and operational data on specified forms;</p> <p>d) operating wire-coiling machines to wind wire coils used in electrical equipment and components such as registers, transformers, armature wires, electric motors and generators; and</p> <p>e) inspecting and testing completed components and assemblies, wiring installations and circuits and rejecting faulty assembly components;</p> <p>Examples of the occupations classified here:</p> <p>Armature/coil assembler Auxiliary machine operator Coil winder (hand/machine) Computer assembler Console operator Electric line installation machine operator Electrical equipment assembler Electromechanical equipment assembler Electronic equipment assembler Etcher (printed circuit board) Rubber assembler Surface mount technology machine operator Telephone assembler Television assembler Watch assembler</p> <p>Some related occupations classified elsewhere: Electronics mechanics and servicers – 7421 Precision instrument-makers 7311</p>	8272 p; 8273 p	8212
		8219	<p>ASSEMBLERS NOT ELSEWHERE CLASSIFIED</p> <p>Assemblers not elsewhere classified assemble, according to strictly laid down procedures various products that do not include electronic, electrical, or mechanical components.</p> <p>Their tasks include:</p>	8290 p	8219

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- a) assembling component parts and positioning, aligning and fastening units to assemblies, sub-assemblies, or frames using hand or power tools, soldering and micro-welding equipment;
- b) reviewing work orders, specifications, diagrams and drawings to determine materials needed and assembly instructions;
- c) recording production and operational data on specified forms;
- d) inspecting and testing components and completed assemblies; and
- e) rejecting faulty products.

Examples of the occupations classified here:

- Ammunition assembler
- Box builder
- Bicycle assembler
- Composite products assembler
- Door assembler
- Eyeglass frame assembler
- Furniture finisher, wood
- Jewellery assembler
- Knife assembler
- Leather products assembler
- Luggage finisher
- Metal products (except mechanical) assembler
- Paperboard products assembler
- Pen and pencil assembler
- Plastic products assembler
- Plastic toy assembler
- Rubber products assembler
- Sun-blinds assembler
- Textile products assembler
- Thermos bottle assembler
- Wood products assembler

83

DRIVERS AND MOBILE PLANT OPERATORS

Drivers and mobile plant operators drive and tend trains and motor vehicles, or drive, operate and monitor industrial and agricultural machinery and equipment, or execute deck duties on board ship and other water-borne craft.

Tasks performed by workers in this sub-major group usually include: driving and tending trains and motor vehicles; driving, operating and monitoring mobile industrial and agricultural machinery and equipment; carrying out deck duties on board ship and other water-borne craft.

831

LOCOMOTIVE ENGINE DRIVERS AND RELATED WORKERS

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Locomotive engine drivers and related workers drive, or assist in driving, locomotive engines to transport passengers and freight, take charge of and safeguard railway freight trains during runs, control the movement of railway traffic by operating signals, switch rolling stock and make up trains in railway yards, make up trains for hauling in mines and control their movement.

Tasks performed usually include driving or assisting in driving railway engines, operating railway signals, switching rolling stock and making up trains in railway yards, making up trains in mines and controlling their movement.

8311	LOCOMOTIVE ENGINE DRIVERS	8311	8311
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Locomotive-engine drivers drive, or assist in driving, locomotive engines to transport passengers and freight.

Their tasks include:

- a) driving or assisting in driving a steam, electric or diesel-electric locomotive engine;
- b) driving an underground or elevated passenger train;
- c) driving a locomotive to haul carriages underground or on the surface of a mine or quarry;
- d) watching for track hazards, observing signals and indicator gauges; and
- e) operating communications systems to communicate with train crews and traffic controllers to ensure safe operation and scheduling of trains.

Examples of the occupations classified here:

- Elevated train driver
- Engine/mine and quarry driver
- Locomotive engine driver
- Railway engine driver
- Train driver including Light Rail transit (LRT) and Metro rail transit (MRT)
- Underground train driver

Some related occupations classified elsewhere:

- Tram driver 8331

8312	RAILWAY BRAKE, SIGNAL AND SWITCH OPERATORS	8312	8312
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Railway brakemen, signallers and shunters take charge of and safeguard railway freight trains during runs, control the movement of railway traffic by operating signals, switch rolling stock and make up trains in railway yards, make up trains for hauling in mines and control their movement.

Their tasks include:

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- a) taking charge of and safeguarding freight train during run;
- b) controlling flow of railway traffic over section of line by operating signals and switches from control panel or signal box;
- c) switching and coupling rolling stock in railway yards and sidings in accordance with orders about loading, unloading and make-up of trains;
- d) making up trains for hauling by locomotive or cable and directing their movement along haulage ways in a mine or quarry; and
- e) checking train systems and equipment such as air conditioning and heating systems, brakes and brake hoses prior to train run.

Examples of the occupations classified here:

- Freight train railway brakeman
- Mine and quarry brakeman
- Railway braker
- Railway shunter
- Railway signaller
- Railway signalman
- Railways operations/maintenance towerman

832

CAR, VAN AND MOTORCYCLE DRIVERS

Car, van and motorcycle drivers drive and tend motor cycles, motorized tricycles, cars or vans to transport passengers, materials or goods.

Tasks performed usually include: driving and tending motor cycles, motorized tricycles, cars or vans in order to transport materials, goods or passengers.

8321 MOTORCYCLE DRIVERS

8321

8321

Motor-cycle drivers drive and tend motor cycles or motorized tricycles equipped to transport materials, goods or passengers.

Their tasks include:

- a) driving and tending motor cycle or motorized tricycle to transport materials, goods and passengers;
- b) observing traffic rules and signals;
- c) cleaning and washing vehicle as well as performing maintenance and minor repairs;
- d) keeping a record of journeys; and
- e) delivering messages.

Examples of the occupations classified here:

- Dispatch rider
- Motorcycle driver
- Motorcyclist
- Tricycle driver

Some related occupations classified elsewhere:

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			Driver (pedal vehicle) 9331		
	8322		CAR, TAXI AND VAN DRIVERS	8322	8322
			Car, taxi and van drivers drive and tend motor cars and vans to transport passengers, mail or goods.		
			Their tasks include:		
			a) driving and tending passenger, vans, cars or taxis;		
			b) driving and tending cars, vans or small trucks to deliver mail or goods;		
			c) assisting passengers with handling of luggage;		
			d) collecting fares, payments for deliveries, or documents certifying deliveries;		
			e) operating telecommunications equipment to report location and availability and follow directions of control center;		
			f) determining most appropriate route;		
			g) assisting physically challenged passengers; and		
			h) operating equipment to facilitate the loading and unloading of physically challenged passengers.		
			Examples of the occupations classified here:		
			Ambulance driver		
			Chauffeur/family driver		
			Company driver		
			Courier driver		
			Jeepney driver		
			Taxi/FX driver		
			Van driver		
			Some related occupations classified elsewhere:		
			Driver, bus 8331		
			Driver, heavy track 8332		
			Driver, auto-rickshaw 8321		
	833		HEAVY TRUCK AND BUS DRIVERS		
			Heavy truck and bus drivers drive and tend heavy trucks, lorries, buses or street tramcars to transport goods, liquids, heavy materials, mail or passengers.		
			Tasks performed usually include: driving and tending heavy trucks, lorries, buses or street tramcars in order to transport goods, liquids, heavy materials, mail or passengers.		
	8331		BUS AND TRAM DRIVERS	8323 p	8331
			Bus and tram drivers drive and tend buses or street tramcars to transport passengers, mail or goods.		
			Their tasks include:		
			a) driving and tending motor bus, trolley bus or motor coach to transport local or long mail or goods;		

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>b) driving and tending street tramcar transporting passengers;</p> <p>c) opening and closing doors before or after passengers board or alight;</p> <p>d) assisting passengers with luggage;</p> <p>e) controlling lighting, heating and ventilation on buses and trams;</p> <p>f) observing traffic to ensure safe progress; and</p> <p>g) collecting fares or verifying passenger has necessary ticket.</p> <p>Examples of the occupations classified here:</p> <p>Bus driver</p> <p>Motor coach driver</p> <p>School bus driver</p> <p>Tram driver</p> <p>Truck driver</p>		
		8332	<p>HEAVY TRUCK AND LORRY DRIVERS</p> <p>Heavy-truck and lorry drivers drive and tend heavy motor vehicles to transport goods, liquids and heavy</p> <p>Their tasks include:</p> <p>a) driving and tending a heavy motor vehicle, such as a lorry with or without trailer or a dump-truck, to transport goods, liquids or heavy materials over short or long distances;</p> <p>b) determining the most appropriate routes;</p> <p>c) ensuring goods are stowed and securely covered, to prevent loss and damage;</p> <p>d) assisting with or carrying out loading or unloading operations, using various lifting or tipping devices;</p> <p>e) carrying out minor maintenance to vehicles, and arranges major maintenance and repairs; and</p> <p>f) estimating weights to comply with load limitations, and ensuring the safe distribution of weights.</p> <p>Examples of the occupations classified here:</p> <p>Concrete mixer driver</p> <p>Dump truck driver</p> <p>Fire truck driver</p> <p>Heavy truck driver</p> <p>Road train driver</p> <p>Shuttle-car operator (mine)</p> <p>Trailer driver</p> <p>Some related occupations classified elsewhere:</p> <p>Van driver 8322</p>	8324	8332
	834		<p>MOBILE PLANT OPERATORS</p>		

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Mobile plant operators drive, tend, operate and monitor special -purpose motorized, machinery or equipment used for clearing or preparing land; digging, moving, and spreading earth, rock and similar materials; and lifting or moving heavy objects.

Tasks performed usually include: preparing and positioning plant for operation; adjusting speed, height and depth of implements; driving and operating mobile plant; operating attachments to lift, swing and release trees, logs, earth and other heavy objects or materials; operating and monitoring lifting trucks and stationary or mobile cranes in construction, transportation and storage operations; servicing machinery and performing minor repairs.

8341	MOBILE FARM AND FORESTRY PLANT OPERATORS	8331	8341
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Mobile farm and forestry plant operators drive, tend, operate and monitor one or more types of special purpose motorized, mobile machinery or equipment used in agricultural, horticultural and forestry operations.

Their tasks include:

- a) driving and tending tractor drawn or self-propelled special -purpose farm machinery to plough land and sow, fertilize, cultivate and harvest crops;
- b) driving and tending tractor-drawn or self-propelled special -purpose forestry machinery to clear land, plant, harvest and carry trees and timber or perform other forestry operations;
- c) preparing and positioning plant for operation;
- d) adjusting speed, height and depth of implements;
- e) operating plant to hold, lift and cut trees;
- f) operating attachments to lift, swing, release and sort trees and logs, and operating auxiliary plant such as chipping machines and log splitting machines;
- g) feeding felled trees into processors to strip limbs and cut into logs and loading logs onto stockpiles and into trucks; and
- h) servicing machinery and performing minor repairs.

Examples of the occupations classified here:

- Harvester operator
- Loader operator
- Logging plant operator
- Motorized farm equipment operator
- Motorized farm plant operator
- Motorized forestry plant operator
- Timber carrier driver
- Tractor driver
- Tree faller operator

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Some related occupations classified elsewhere:

Bulldozer operator 8342

8342	EARTHMOVING AND RELATED PLANT OPERATORS	8332	8342
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Earthmoving and related plant operators operate machines to excavate, grade, level, smooth and compact earth or similar materials.

Their tasks include:

- a) operating and monitoring excavating machinery equipped with moveable shovel, grab-bucket or dragline bucket, to excavate and move earth, rock, sand, gravel or similar materials;
- b) operating and monitoring machinery for digging trenches for sewers, drainage, water, oil, gas or similar pipelines;
- c) operating and monitoring machinery equipped with concave steel blade to move, distribute and level earth, sand, snow and other materials;
- d) operating and monitoring equipment to remove sand, gravel and mud from bottom of body of water;
- e) operating and monitoring machines for hammering wooden, concrete or steel piles into ground;
- f) operating and monitoring power roller to compact and smooth layers of materials in making roads, pavements and similar work; and
- g) operating and monitoring machines which spread and smooth concrete or bituminous or tar preparations to construct roadways, roads or similar surfaces.

Examples of the occupations classified here:

- Bulldozer Operator
- Excavator operator
- Front-end loader Operator
- Hydraulic, back hoe, excavator operator
- Mobile Plant Operator
- Pay loader
- Pile-driver Operator
- Sand pro operator
- Snow groomer operator
- Road grader and scraper operator
- Road surface laying machinery operator
- Road-roller operator
- Tar spreading machine operator
- Trench-digging machine operator
- Wheel loader operator

8343	CRANE, HOIST AND RELATED PLANT OPERATORS	8333	8343
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Crane, hoist and related plant operators operate and monitor stationary and mobile cranes and other hoisting equipment.

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Their tasks include:

- a) operating and monitoring stationary or mobile cranes by raising and lowering jibs and booms, to lift, move, position or place equipment and materials;
- b) operating and monitoring equipment for hoisting, lowering or raising workers and materials on construction sites or in mines;
- c) operating and monitoring ski-lifts and similar equipment;
- d) operating and monitoring machinery used to haul ferry or barge with goods, passengers and vehicles across short stretches of water;
- e) operating and monitoring machinery to open and close bridge for the passage of road and water traffic;
- f) operating and monitoring cranes equipped with dredging attachments to dredge waterways and other areas; and
- g) operating cranes mounted on boats or barges to lift, move and place equipment and materials.

Examples of the occupations classified here:

- Bridge or gantry crane operator
- Construction hoist operator
- Crawler crane operator
- Floating crane master (gov)
- Mine cageman
- Mine hoist operator
- Mobile crane operator
- Opening bridge operator
- Rough terrain crane operator
- Stationary jib crane operator
- Truck mounted crane operator
- Winch operator

8344 LIFTING TRUCK OPERATORS

8334

8344

Lifting-truck operators drive, operate and monitor lifting-truck or similar vehicle to transport, lift and stack pallets with goods.

Their tasks include:

- a) operating and monitoring lifting-truck and similar equipment to load and unload, transport, lift and stack goods and pallets in terminals, harbors, warehouses, factories and other establishments;
- b) positioning lifting devices under, over, or around loaded pallets, skids and boxes, and securing material or products for transport to designated areas;
- c) inspecting equipment to identify wear and damage;
- d) performing routine maintenance on vehicles and equipment; and
- e) keeping records of work undertaken and breakdowns of vehicles.

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Examples of the occupations classified here:

Fork lift operator
Lifting truck operator
Tower crane operator

835

SHIPS' DECK CREWS AND RELATED WORKERS

Ship's deck crews and related workers carry out deck duties on board ship and similar duties on board other water-borne craft.

Tasks performed usually include: standing look-out watches at sea and when entering or leaving harbor or other narrow waters; steering ship according to instructions; handling ropes and wires, and operating mooring equipment; maintaining and, in some cases, operating ship's equipment, cargo gear, rigging, life-saving and fire fighting appliances; performing deck and hull cleaning, scraping, painting and other maintenance duties as required; breaking out, rigging and stowing cargo-handling gear, stationary rigging and running gear.

8350

SHIPS' DECK CREWS AND RELATED WORKERS

8340

8350

Ship's deck crews and related workers carry out deck duties on board ship and similar duties on board other water-borne craft.

Their tasks include:

- a) standing look-out watches at sea and when entering or leaving harbor or other narrow waters;
- b) steering ship according to instructions;
- c) handling ropes and wires, and operates mooring equipment;
- d) maintaining and, in some cases, operating ship's equipment, cargo gear, rigging, life-saving and firefighting appliances;
- e) performing deck and hull cleaning, scraping, painting and other maintenance duties as required; and
- f) breaking out, rigging and stowing cargo-handling gear, stationary rigging and running gear.

Examples of the occupations classified here:

Able seaman
Bargeman
Boatman
Boatswain
Coxswain
Dockman-diver
Dockman-rigger
Ferry hand
Fourth mate
Launch master
Launch patron

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Launch service supervisor
 Ordinary seaman
 Pumpboat operator
 Reefer repairman
 Sailor
 Seaman
 Seaperson
 Second mate
 Ship's deck crew
 Third mate
 Tug hand
 Yacht crew

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Major Group 9.

ELEMENTARY OCCUPATIONS

Elementary occupations involve the performance of simple and routine tasks which may require the use of hand-held tools and considerable physical effort. Most occupations in this major group require skills at the first ISCO skill level.

Tasks performed by workers in elementary occupations usually include: cleaning, restocking supplies and performing basic maintenance in apartments, houses, kitchens, hotels, offices and other buildings; washing cars and windows; helping in kitchens and performing simple tasks in food preparation; delivering messages or goods; carrying luggage and handling baggage and freight; stocking vending machines or reading and emptying meters; collecting and sorting refuse; sweeping streets and similar places; performing various simple farming, fishing, hunting or trapping tasks performing simple tasks connected with mining, construction and manufacturing including product-sorting; packing and unpacking produce by hand and filling shelves; providing various street services; pedalling or hand-guiding vehicles to transport passengers and goods; driving animal-drawn vehicles or machinery. Supervision of other workers may be included.

91

CLEANERS AND HELPERS

Cleaners and helpers perform various tasks in private households, hotels, offices, hospitals and other establishments, as well as in aircraft, trains coaches, trams and similar vehicles, in order to keep the interiors and fixtures clean, and launder and press garments and textiles by hand.

Tasks performed by workers in this sub-major group usually include: sweeping or vacuum cleaning, washing and polishing floors, furniture and other objects; taking care of linen and bed-making; helping with preparation of meals and cleaning in kitchens; washing and cleaning cars and windows; pressing or laundering garments and textiles by hand.

911

DOMESTIC, HOTEL AND OFFICE CLEANERS AND HELPERS

Domestic, hotel and office cleaners and helpers sweep, vacuum clean, wash, polish, take care of household linen, purchase household supplies; perform various tasks in order to keep clean and tidy the interiors and fixtures of hotels, offices and other establishments, as well as of aircraft, trains, buses and similar vehicles.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Tasks performed usually include: sweeping or vacuum cleaning, washing and polishing floors, furniture and other objects in hotels, offices and other establishments; making beds, supplying towels, soap and related items; helping with preparation of meals and washing dishes; cleaning, disinfecting and deodorising kitchens, bathrooms and toilets.</p>		
		9111	<p>DOMESTIC CLEANERS AND HELPERS</p> <p>Domestic cleaners and helpers sweep, vacuum clean, wash and polish, take care of household linen, purchase household supplies, prepare food, serve meals and perform various other domestic duties.</p> <p>Their tasks include:</p> <p>a) sweeping, vacuum-cleaning, polishing and washing floors and furniture, or washing windows and other fixtures;</p> <p>b) washing, ironing and mending linen and other textiles;</p> <p>c) washing dishes;</p> <p>d) helping with preparation, cooking and serving of meals and refreshments;</p> <p>e) purchasing food and various other household supplies;</p> <p>f) cleaning, disinfecting and deodorising kitchens, bathrooms and toilets; and</p> <p>g) cleaning windows and other glass surfaces.</p> <p>Examples of the occupations classified here are:</p> <p>Domestic cleaner/helper Houseboy Household attendant Housemaid Market aide</p> <p>Some related occupations classified elsewhere:</p> <p>Hotel cleaner - 9112 Domestic housekeeper - 5152 Hand launderer - 9121 Street sweeper - 9613</p>	9131	9111
		9112	<p>CLEANERS AND HELPERS IN OFFICES, HOTELS AND OTHER ESTABLISHMENTS</p> <p>Cleaners and helpers in offices, hotels and other establishments perform various cleaning tasks in order to keep clean and tidy the interiors and fixtures of hotels, offices and other establishments, as well as of aircraft, trains, buses and similar vehicles.</p> <p>Their tasks include:</p> <p>a) sweeping or vacuum-cleaning, washing and polishing floors, furniture and other fixtures in buildings, coaches, buses, trams, trains and aircraft;</p>	9132	9112

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b) making beds, cleaning bathrooms, supplying towels, soap and related items;

c) cleaning kitchens and generally helping with kitchen work, including dishwashing; and

d) picking up rubbish, emptying garbage containers and taking contents to waste areas to removal.

Examples of the occupations classified here are:

Cleaner, aircraft

Cleaner, hotel

Cleaner, office

Cleaner, trains & buses

Cleaning crew, restaurants & food chains

Lavatory attendant

Room attendant

Some related occupations classified elsewhere:

Caretaker, building - 5153

Cleaner, domestic - 9111

Housekeeper, domestic - 5152

Sweeper, street - 9613

Helper, kitchen - 9412

Dishwasher - 9412

912

VEHICLE, WINDOW, LAUNDRY AND OTHER HAND CLEANING WORKERS

Vehicle, window, laundry and other hand cleaning workers clean windows, showcases or other surfaces of buildings or vehicles and press, launder or dry-clean linen and other textiles by hand.

Tasks usually include: cleaning, washing and polishing cars; washing windows or other glass surfaces with water or various solutions, drying and polishing them; laundering and pressing linen, clothing, fabrics and similar articles by hand in a laundry or other establishments; cleaning by hand and with chemical solutions clothing, fabrics leather goods and similar articles in dry-cleaning or other establishments.

9121 HAND LAUNDERERS AND PRESSERS

9133

9121

Hand launderers and pressers launder, press or dry-clean garments, linen and other textiles by hand.

Their tasks include:

a) laundering and pressing linen, clothing, fabrics and similar articles by hand in a laundry or other establishment;

b) cleaning, by hand and with chemical solutions, clothing, fabrics, leather goods and similar articles, in a dry-cleaning or other establishment;

c) replacing buttons and making minor repairs; and

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>d) placing articles on shelves and hanging articles for delivery and collection.</p> <p>Examples of the occupations classified here are:</p> <p>Drycleaner, hand Launderer, hand Presser, hand Spotter (dry cleaner)</p> <p>Some related occupations classified elsewhere:</p> <p>Dry-cleaning machine operator - 8157 Pressing machine operator (laundry) - 8157 Laundry machine operator - 8157</p>		
9122			<p>VEHICLE CLEANERS</p> <p>Vehicle cleaners, wash, clean and polish vehicles.</p> <p>Their tasks include:</p> <p>a) cleaning, washing and polishing cars and other vehicles, by hand or using hand-held power tools; b) vacuuming vehicle interiors and dry cleaning carpets and upholstery; c) applying cleaning agents to remove stains from vehicle exteriors and interiors; d) washing tires and wheel arches and blackening tires;</p> <p>e) washing and polishing vehicle windows; and f) emptying and cleaning compartments in vehicles.</p> <p>Examples of the occupations classified here are:</p> <p>Car detailer Vehicle washer (hand) Wiper</p>	9142 p	9122
9123			<p>WINDOW CLEANERS</p> <p>Window cleaners wash and polish windows and other glass fittings.</p> <p>Their tasks include:</p> <p>a) washing windows or other glass surfaces with water or various solutions, drying and polishing them; b) using ladders, swinging scaffolds, bosun's chairs, hydraulic bucket trucks and other equipment to reach and clean windows in multi – storey buildings; and c) selecting appropriate cleaning or polishing implement.</p> <p>Examples of the occupations classified here are:</p> <p>Window cleaner</p>	9142 p	9123
9129			<p>OTHER CLEANING WORKERS</p>	9142 p	9129

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Other cleaning workers clean surface, materials and objects, such as carpets, walls, swimming pools and cooling towers, using specialized cleaning equipment and chemicals.

Their tasks include:

- a) cleaning carpets and upholstered furniture using cleaning machines and their attachments;
- b) selecting and applying cleaning agents to remove stains from carpets;
- c) treating carpets with soil-repellent chemicals and deodorants, and treating for pests;
- d) cleaning stone walls, metal surfaces and fascias using high pressure water cleaners and solvents; and
- e) applying chemicals and high pressure cleaning methods to remove micro-organisms from water and filtration systems and using wet vacuums and other suction equipment to remove scale, accumulated dirt and other deposits from swimming pools, cooling tower components and drains.

Examples of the occupations classified here are:

- Carpet cleaner
- Cooling tower cleaner
- Graffiti cleaner
- Swimming pool cleaner

92

AGRICULTURAL, FORESTRY AND FISHERY LABORERS

Agricultural, forestry and fishery laborers perform simple and routine tasks in the production of crops and livestock, cultivation and maintenance of gardens and parks, exploitation and conservation of forests, and conduct of aquaculture and fisheries operations.

Tasks performed usually include: digging, raking and shovelling using hand tools; loading, unloading and stacking supplies, produce and other materials; watering, thinning, weeding and tending crops by hand or using hand tools; planting, harvesting picking and collecting produce by hand; feeding, watering, and cleaning animals and keeping their quarters clean; monitoring livestock, reporting on their condition; preparing and operating nets, lines and other fishing tackle and deck equipment; grading, sorting, bunching and packing produce into containers; performing minor repairs on fixtures, buildings equipment, vessels and fences.

921

AGRICULTURAL, FORESTRY AND FISHERY LABORERS

Agricultural, forestry and fishery laborers perform simple and routine tasks in the production of crops and livestock, cultivation and maintenance of gardens and parks, exploitation and conservation of forests, and conduct of aquaculture and fisheries operations.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			<p>Tasks performed usually include: digging, raking and shovelling using hand tools; loading unloading and stacking supplies, produce and other materials; watering, thinning, weeding and tending crops by hand or using hand tools; planting, harvesting picking and collecting produce by hand; feeding, watering, and cleaning animals and keeping their quarters clean; monitoring livestock, reporting on their condition; preparing and operationg nets, lines and other fishing tackle and deck equipment; grading, sorting, bunching and packing produce into containers; performing minor repairs on fixtures, buildings equipment, vessels and fences.</p>		
	9211		<p>CROP FARM LABORERS</p> <p>Crop farm laborers perform simple and routine tasks in the production of crops such as fruit, nuts, grains and vegetables on farms.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) digging and shovelling to clear ditches or for other purposes; b) loading and unloading supplies, produce and other materials; c) raking, pitching and stacking straw, hay and similar material; d) watering, thinning, and weeding crops by hand or using hand tools; e) picking fruit, nuts, vegetables and other crops; f) planting and harvesting field crops, such as rice, by hand; g) grading, sorting, bunching and packing produce into containers; and h) performing minor repairs on fixtures, buildings and fences. <p>Examples of the occupations classified here are:</p> <ul style="list-style-type: none"> Cane planter/Sakada Farm worker Farmhands laborer Fruit/vegetable picker <p>Some related occupations classified elsewhere:</p> <ul style="list-style-type: none"> Skilled farm worker (field crops) - 6111 Construction laborer - 9313 Firewood collector - 9624 Water collector - 9624 	9211 p	9211
	9212		<p>LIVESTOCK FARM LABORERS</p> <p>Livestock farm laborers perform simple and routine tasks in farm production of animals, including poultry and insects.</p>	9211 p	9212

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Their tasks include:

- a) digging and shovelling to clear ditches or for other purposes;
- b) loading and unloading supplies, produce and other materials;
- c) feeding, watering, and cleaning animals and keeping their quarters clean;
- d) monitoring livestock and reporting on their condition;
- e) assisting with maintaining the health and welfare of livestock;
- f) assisting with herding, droving and separating livestock for milking, shearing, transportation or slaughter and between pastures;
- g) collecting eggs and placing in incubators;
- h) raking, pitching, stacking and storing hay, straw and other types of animal feed and bedding grading, sorting, packing produce into containers; and
- g) performing minor repairs on fixtures, buildings and fences.

Examples of the occupations classified here are:

Livestock farm laborer

Some related occupations classified elsewhere:

Shepherd – 6121

Skilled farm worker (livestock) - 6121

Drover - 6121

Firewood collector - 9624

Water collector - 9624

9213	MIXED CROP AND LIVESTOCK FARM LABORERS	9211 p	9213
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Mixed crop and livestock farm laborers perform simple and routine tasks in farm production of both crops and animals.

Their tasks include:

- a) digging and shovelling to clear ditches or for other purposes;
- b) loading and unloading supplies, produce and other materials;
- c) raking, pitching and stacking straw, hay and similar material;
- d) watering, thinning, and weeding crops by hand or using hand tools;
- e) picking fruit, nuts, vegetables and other crops and collecting eggs;
- f) planting and harvesting field crops, such as rice, by hand;
- g) feeding, watering, and cleaning animals and keeping their quarters clean;
- h) monitoring livestock, reporting on their condition;

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i) assisting with herding, droving and separating livestock for milking, shearing, transportation or slaughter and between pastures;

j) grading, sorting, bunching and packing produce into containers; and

k) performing minor repairs on fixtures, buildings and fences.

Examples of the occupations classified here are:

Farm laborer

Some related occupations classified elsewhere:

Skilled farm worker (mixed crop and livestock) - 6130

Firewood collector - 9624

Water collector - 9624

9214	GARDEN AND HORTICULTURAL LABORERS	9211 p	9214
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Garden and horticultural laborers perform simple and routine tasks in operations to cultivate and maintain trees, shrubs, flowers and other plants in parks and private gardens, to produce saplings, bulbs and seeds, or grow vegetables and flowers by intensive cultivation techniques.

Their tasks include:

a) loading, unloading and moving supplies, produce and equipment;

b) preparing garden sites and plots using hand tools and simple machines;

c) assisting with planting and transplanting flowers, shrubs, trees and lawns;

d) maintaining gardens by watering, weeding and mowing lawns;

e) cleaning gardens and removing rubbish;

f) assisting with propagating, planting and potting seeds, bulbs and cuttings;

g) tending plants by hand watering and weeding;

h) harvesting and packaging plants for sale and transport; and

i) performing minor repairs on fixtures, buildings and fences.

Examples of the occupations classified here are:

Garden laborer

Gardener

Greenkeeper

Horticultural laborer

Lawn mower

Nursery laborer

Some related occupations classified elsewhere:

Market gardener - 6113

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Landscape gardener - 6113
Horticulturist - 6113
Crop farm laborer - 9211

9215 FORESTRY LABORERS 9212 9215

Forestry laborers perform simple and routine tasks to cultivate and maintain natural and plantation forests, and logging, felling and sawing trees.

Their tasks include:

- a) digging holes for tree planting;
- b) stacking and loading logs and timber;
- c) clearing undergrowth in forest stands and thinning young plantations;
- d) maintaining look-out for fires in forests;
- e) removing major branches and tree tops, trimming branches and sawing trunks into logs;
- f) operating and maintaining manual and hand held machine saws to fell trees and cut felled trees and branches into logs;
- g) collecting seeds, and planting seedlings; and
- h) performing minor repairs and maintenance of forest roads, buildings, facilities, and equipment.

Examples of the occupations classified here are:

Kaingeros
Laborer, forestry
Tree planter
Tree trapper

Some related occupations classified elsewhere:

Forestry worker (skilled)- 6210

9216 FISHERY AND AQUACULTURE LABORERS 9213 p 9216

Fishery and aquaculture laborers, perform simple and routine tasks to cultivate, catch and harvest fish and seafood in aquaculture and inland, coastal and deep sea fishing operations.

Their tasks include:

- a) cleaning the sea-bed and feeding fish and molluscs that are being cultivated;
- b) gathering seaweed, sea mosses, clams and other molluscs;
- c) preparing nets, lines and other fishing tackle and other deck equipment;
- d) operating fishing gear to catch fish and other marine life;
- e) cleaning, sorting and packing fish and seafood in ice and salt and stowing catch in hold;
- f) cleaning deck surfaces and fish hold; and

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g) handling mooring lines during docking.

Examples of the occupations classified here are:

Bantay Dagat
Fishery caretaker
Laborer/helper, fishery
Pond Aide
Prawn hatchery worker

Some related occupations classified elsewhere:

Fish farmer - 6221
Coastal fishery skipper - 6222
Fisherman/woman (coastal waters) - 6222
Fisherwoman/man (inland waters) - 6222
Deep sea fisherman/woman - 6223
Trawler skipper - 6223

93

LABORERS IN MINING, CONSTRUCTION, MANUFACTURING AND TRANSPORT

Laborers in mining, construction, manufacturing and transport perform simple and routine manual tasks in mining, quarrying, civil engineering, building, manufacturing, transport and storage operations, and operate human powered and animal drawn vehicles and machinery.

Task performed by workers in this sub-major group usually include: digging holes and spreading excavated materials, sand, soil, and gravel using hand-held tools; sorting, loading, unloading, moving stacking and storing materials, equipment, products, supplies, baggage and cargo by hand; cleaning machinery, equipment, tools and work sites; packing and unpacking material and products and filling containers and shelves with products by hand; operating human powered and animal drawn vehicles and machinery.

931

MINING AND CONSTRUCTION LABORERS

Mining and construction laborers perform simple and routine manual tasks in mining, quarrying, civil engineering and building operations.

Tasks usually include: digging and filling holes and trenches using hand held tools; shovelling and spreading excavated materials, sand, soil, and gravel; sorting, loading, unloading, stacking and storing tools, materials and equipment and transporting them around work sites; cleaning machinery, equipment, tools and work sites and removing obstructions.

9311

MINING AND QUARRYING LABORERS

9311

9311

Mining and quarrying laborers perform routine tasks in mining and quarrying operations.

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Their tasks include:

- a) assisting miners and quarriers in maintaining machinery, equipment, and mine and quarry installations;
- b) assembling and dismantling mining equipment;
- c) removing tunnel supports from disused workings in mines and quarries;
- d) removing dangerous projections from mine and quarry workings;
- e) removing waste and serviceable materials and equipment from work areas after extraction activities have been completed, and clearing rock and mineral spills;
- f) cleaning machinery, equipment, tools, roadways and haulage tracks; and
- g) sorting, loading, unloading, stacking and storing tools, materials and supplies used by other mine workers.

Examples of the occupations classified here are:

- Digging/ quarry laborer
- Gold panner
- Mining laborer
- Pan handler

Some related occupations classified elsewhere:

- Driller (mining) - 8111
- Miner - 8111
- Mining plant operator - 8111
- Quarrier - 8111
- Driller (oil or gas well) - 8113
- Drilling plant operator - 8113

9312 CIVIL ENGINEERING LABORERS

9312

9312

Civil engineering laborers perform routine tasks in connection with the building and maintenance of roads, railways, dams and other civil engineering projects.

Their tasks include:

- a) digging and filling holes and trenches using hand held tools;
- b) shovelling and spreading gravel and related materials;
- c) trimming and cutting rocks and concrete and bitumen surfaces using jack-hammers;
- d) loading and unloading construction materials, excavated material and equipment and transporting them around construction sites using wheelbarrows and hand trucks; and
- e) cleaning worksites and removing obstructions.

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Examples of the occupations classified here are:

Construction laborer
Maintenance laborer
Road service worker

9313 BUILDING CONSTRUCTION LABORERS 9313 9313

Building construction laborers perform routine tasks in connection with building construction and demolition work.

Their tasks include:

- a) cleaning used building bricks and doing other simple work on demolition sites;
- b) mixing pouring and spreading materials such as concrete, plaster and mortar digging and filling holes and trenches using hand held tools;
- c) spreading sand, soil, gravel and similar materials;
- d) loading and unloading construction materials, excavated material and equipment and transporting them around construction sites using wheelbarrows, hods and hand trucks; and
- e) cleaning work sites and removing obstructions.

Examples of the occupations classified here are:

Bricklayer's assistant
Hod carrier
Laborer, construction building
Laborer, demolition

Some related occupations classified elsewhere:

Bricklayer - 7112
House builder - 7111
Building wrecker - 7119

932 MANUFACTURING LABORERS 932

Manufacturing laborers perform a variety of manual tasks in manufacturing, assist the work of machine operators and assemblers, and undertake product-sorting and hand-assembling of components.

Tasks performed usually include: packing material and various products by hand; filling bottles, boxes, bags and other containers with products by hand; labelling products and containers by hand; conveying goods, material, equipment to work area; cleaning machinery, equipment and tools; carrying out manual sorting of products or components; carrying out simple hand-assembling of components.

9321 HAND PACKERS 9322 9321

Hand packers weigh, pack and label materials and products by hand.

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Their tasks include:

- a) weighing, wrapping, sealing and packing material and various products by hand;
- b) filling bottles, cans, boxes, bags and other containers with products by hand; and
- c) labelling products, packages and various containers by hand.

Examples of the occupations classified here are:

- Food Packer
- Labeller, hand
- Laborer, manufacturing (hand)
- Packer, hand
- Wrapper, hand

Some related occupations classified elsewhere:

- Labelling machine operator - 8183
- Packing machine operator - 8183
- Wrapping machine operator - 8183

9329	MANUFACTURING LABORERS NOT ELSEWHERE CLASSIFIED	9321	9329
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Manufacturing laborers not elsewhere classified assist the work of machine operators and assemblers and perform a variety of manual tasks in manufacturing, excluding packing and labelling finished products.

Their tasks include:

- a) conveying goods, material, equipment, etc. to work area, removing finished pieces;
- b) loading and unloading vehicles, trucks and trolleys;
- c) clearing machine blockages, cleaning machinery, equipment and tools; and
- d) carrying out manual sorting of products or components.

Examples of the occupations classified here are:

- Bottle sorter
- Laborer, assembling
- Production helper
- Stacker
- Technician helper

Some related occupations classified elsewhere:

- Assembler, electrical equipment - 8212
- Assembler, electronic equipment - 8212
- Assembler, leather products - 8219
- Assembler, rubber products - 8219
- Hand packer - 9321

933	TRANSPORT AND STORAGE LABORERS
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SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Transport and storage laborers propel cycles and similar vehicles and drive animal-drawn vehicles to transport passengers or goods, drive animal-drawn machinery, handle freight and baggage and stock shelves.

Tasks performed usually include: propelling cycles and similar vehicles to transport passengers or goods, driving animal-drawn vehicles to transport passengers or goods, driving animal-drawn machinery, carrying out freight handling by hand, and stocking shelves and display areas in stores.

9331	HAND AND PEDAL VEHICLE DRIVERS	9331	9331
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Hand or pedal vehicle drivers propel cycles and similar vehicles to transport passengers or goods.

Their tasks include:

- a) loading or unloading goods, or assisting passengers in getting on or off a vehicle;
- b) moving vehicle in the desired direction with due regard to other traffic and traffic regulations;
- c) inspecting vehicle components to identify wear and damage;
- d) maintaining vehicle, making minor repairs and installing replacement parts; and
- e) collecting fares or charges.

Examples of the occupations classified here are:

- Driver, cycle rickshaw
- Driver, pedal vehicle
- Puller, rickshaw
- Pusher, cart

Some related occupations classified elsewhere:

- Bicycle racer - 3421
- Motorcycle rider - 8321

9332	DRIVERS OF ANIMAL-DRAWN VEHICLES AND MACHINERY	9332	9332
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Drivers of animal-drawn vehicles and machinery drive animal-drawn vehicles to transport passengers or goods, as well as animal-drawn machinery usually in connection with farming.

Their tasks include:

- a) harnessing animals and hitching them to vehicles or machinery;
- b) loading or unloading goods, or assisting passengers in getting on or off a vehicle;
- c) driving animals in the desired direction with due regard to other traffic and traffic regulations;

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- d) collecting fares or charges;
- e) driving animals to haul wagons in mines or quarries;
- f) driving animals hitched to farm or other machinery;
- g) driving working elephants;
- h) maintaining vehicle or machinery, making minor repairs and installing replacement parts; and
- i) grooming and feeding animals.

Examples of the occupations classified here are:

Driver, animal train
Driver, animal-drawn vehicle/road

Some related occupations classified elsewhere:

Jockey - 3421

9333	FREIGHT HANDLERS	9333	9333
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Freight handlers carry out tasks such as packing, carrying, loading and unloading furniture and other household items, or loading and unloading ship and aircraft cargoes and other freight, or carrying and stacking goods in various warehouses.

Their tasks include:

- a) carrying goods to be loaded on or unloaded from vans, trucks, wagons, ships, or aircraft;
- b) loading and unloading grain, coal, sand and similar goods by placing them on conveyor-belts, pipes, etc.;
- c) connecting hoses between main shore installation pipes and tanks of barges, tankers and other ships to load and unload petroleum, liquefied gases and other liquids;
- d) carrying and stacking goods in warehouses and similar establishments; and
- e) sorting cargo prior to loading and unloading.

Examples of the occupations classified here are:

Boat loader
Dock
Handler, freight
Railway & road vehicle loader
Stevedore
Truck helper
Warehouse porter

Some related occupations classified elsewhere:

Operator, crane -8343
Operator, truck/lifting - 8344

9334	SHELF FILLERS	9333 p	9334
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SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
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Shelf fillers stock shelves and display areas and keep stock clean and in order in supermarkets and other retail and wholesale shops.

Their tasks include:

- a) placing goods neatly in bins and on racks, and stacking bulky goods on floors;
- b) filling shelves with goods ensuring goods with the earliest use-by dates are at the front of shelves;
- c) removing goods with past due use-by dates;
- d) maintaining shelf order by removing stock belonging in a different location;
- e) noting what has been sold and collecting goods needed from the stockroom;
- f) obtaining articles for customers from shelf or stockroom;
- g) directing customers to location of articles sought; and
- h) receiving, opening, unpacking, and inspecting for damage merchandise from manufacturer or distributor.

Examples of the occupations classified here are:

Filler, stock
Handler, stock
Store helper

94 941

FOOD PREPARATION ASSISTANTS

Food preparation assistants prepare and cook to order a small variety of pre-cooked food or beverages, clear tables, clean kitchen areas and wash dishes.

Tasks performed by workers usually include: preparing simple or pre-prepared foods and beverages such as sandwiches, pizzas, fish and chips, salads, and coffee; washing, cutting, measuring and mixing foods for cooking; operating cooking equipment such as grills, microwaves and deep-fat fryers; cleaning kitchens, food preparation areas and service areas; cleaning cooking and general utensils used in kitchens and restaurants .

9411 FAST FOOD PREPARERS

9132 p

9411

Fast food preparers prepare and cook to order a limited range of foods or beverages that involve simple preparation processes and a small number of ingredients. They may take orders from customers and serve at counters or tables.

Their tasks include:

- a) preparing simple or pre-prepared foods and beverages such as sandwiches, hamburgers, pizzas, fish and chips, salads, and coffee;

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- b) washing, cutting, measuring and mixing foods for cooking;
- c) operating large-volume single-process cooking equipment such as grills, deep-fat fryers or griddles;
- d) re-heating pre-prepared food, cleaning food preparation areas, cooking surfaces and utensils;
- e) taking and serving food and beverage orders in eating places that specialize in fast service and carry-out food;
- f) ordering and taking delivery of fast food ingredients;
- g) maintaining sanitation, health, and safety standards in work areas;
- h) operating large-volume cooking equipment such as grills, deep-fat fryers, or griddles; and
- i) verifying that prepared food meets requirements for quality and quantity.

Examples of the occupations classified here are:

Fast-food cook
Short order Cook

Some related occupations classified elsewhere:

Chef-3434
Cook-5120
Food service counter attendant - 5246

9412 KITCHEN HELPERS

9132 p

9412

Kitchen helpers clear tables, clean kitchen areas, wash dishes, preparing ingredients and perform other duties to assist workers who prepare or serve food and beverages.

Their tasks include:

- a) cleaning kitchens, food preparation areas and service areas;
- b) assisting cooks and chefs in preparation of food by washing, peeling, chopping, cutting up, measuring and mixing ingredients;
- c) assembling dishes for service;
- d) unpacking and storing supplies in refrigerators, cupboards and other storage areas;
- e) washing dishes and cooking utensils and putting them away;
- f) checking, transferring, weighing and storing supplies in refrigerators, cupboards and other storage areas; and
- g) preparing, cooking, toasting and heating simple food items.

Examples of the occupations classified here are:

Commis helper
Hand dish washer

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Kitchen assistant
Kitchen hand
Kitchen helper
Kitchen porter
Kitchen steward
Pantry attendant

Some related occupations classified elsewhere:

Cook - 5120
Fast food preparer - 9411

95

STREET AND RELATED SALES AND SERVICE WORKERS

Street and related sales and service workers provide sell goods, excluding food for immediate consumptions, and provide a variety of services on streets and in other public places such as stations.

Tasks include: buying or making various items for sale; loading and unloading items for sale and transporting them; obtaining the materials necessary to perform services; approaching people on the street to offer goods or services; cleaning and polishing shoes; cleaning and polishing car windows; running errands; assisting drivers to find a parking place and ensuring car is not damaged during driver's absence; handing out leaflets and free newspapers; receiving immediate payment.

951

9510

STREET AND RELATED SERVICE WORKERS

9120 p

9510

Street and related service workers provide a variety of services on streets and in other public places, including cleaning shoes, washing car windows, running errands, looking after property, and providing other on-the-spot street services.

Their tasks include:

- a) obtaining the materials necessary to perform services;
- b) approaching people on the street to offer services;
- c) cleaning and polishing shoes;
- d) cleaning and polishing car windows;
- e) running errands;
- f) assisting drivers to find a parking place and ensuring car is not damaged during driver's absence;
- g) handing out leaflets and free newspapers; and
- h) receiving immediate payment.

Examples of the occupations classified here are:

Car washer
Car window washer
Car guard

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Errand boy
Free newspaper distributor
Leaflet distributor
Shoe polisher/cleaner

Some related occupations classified elsewhere:

Leaflet and newspaper deliverer - 9621
Forecourt attendant - 5245

952	9520	STREET VENDORS (excluding food)	9111 9112 p	9520
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Street vendors (excluding food) sell a usually limited range of goods (excluding food for immediate consumption) in streets and public places such as stations, cinemas or theatres.

Their tasks include:

- a) buying or receiving items for sale, or making simple items;
- b) loading and unloading basket, tray, push-cart, bicycle, hand truck or other vehicle, to transport goods to the streets or public places such as stations or cinemas;
- c) displaying goods or calling out to attract customer's attention;
- d) approaching potential customers on street and offering goods for sale; and
- e) receiving immediate payment.

Examples of the occupations classified here are:

Candy vendor (street)
Cigarette ambulant vendor
Hawker
Newspaper ambulant vendor
Peddler
Street/ambulant non-food vendor

Some related occupations classified elsewhere:

Market salesperson - 5211
Street stall salesperson - 5211
Street food vendor - 5212
Free newspaper distributor - 9510

96

REFUSE WORKERS AND OTHER ELEMENTARY WORKERS

Refuse workers and other elementary workers collect garbage from buildings, yards, streets and other public places or keep streets and other public places or perform odd jobs for private households or establishments.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
			Tasks include: collecting, loading and unloading garbage; sweeping streets, parks and other public places; chopping firewood; carrying water; beating dust out of carpets and performing other odd-job tasks.		
	961		REFUSE WORKERS		
			Refuse workers collect, process and recycle garbage from buildings, yards, streets and other public places, or keep streets and other public places clean.		
			Tasks usually include: collecting, loading and unloading garbage; sweeping streets, parks and other public places; sorting and recycling garbage such as paper, glass, plastic or aluminium.		
	9611		GARBAGE AND RECYCLING COLLECTORS	9161	9611
			Garbage collectors collect and remove rubbish and items for recycling from buildings, yards, streets and other places.		
			Their tasks include:		
			a) collecting rubbish and recyclable materials and locating it into bins and garbage and recycling trucks;		
			b) riding on or in garbage and recycling trucks;		
			c) lifting garbage bins and emptying contents into trucks and larger containers; and		
			d) unloading garbage and recycling trucks.		
			Examples of the occupations classified here are:		
			Garbage collector		
			Garbage dumper		
			Some related occupations classified elsewhere:		
			Garbage truck driver- 8332		
	9612		REFUSE SORTERS	9161 p 9321 p	9612
			Refuse sorters identify, collect and sort discarded items suitable for recycling at dump sites and recycling enterprises or in buildings, streets and other public places.		
			Their tasks include:		
			a) searching through refuse and collecting items for recycling from dump sites, domestic, commercial and industrial premises or from public places such as streets;		
			b) sorting cardboard, paper, glass, plastic, aluminium or other recyclable materials by type;		
			c) placing recyclable items and materials in designated compartments and containers for storage or transportation;		

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d) identifying and setting aside items of furniture, equipment, machinery, or components that are suitable for repair or re-use;

e) transporting recyclable items by hand or using non-motorized vehicles; and

f) selling recyclable or reusable materials.

Examples of the occupations classified here are:

Magbobote

Recycling worker

Scrap merchant

Sorter, newspaper and other paper products

Waste picker

Some related occupations classified elsewhere:

Refuse collector - 9611

Street sweeper - 9613

9613 SWEEPERS AND RELATED LABORERS

9162

9613

Sweepers and related laborers sweep and clean streets, parks, airports, stations and other public places.

Their tasks include:

a) sweeping streets, parks, airports, stations and similar public places;

b) beating dust out of carpets by using a carpet-beater; and

c) cleaning rubbish, leaves from driveways and grounds.

Examples of the occupations classified here are:

Market sweeper

Metro aide

Park sweeper

Street sweeper

962

OTHER ELEMENTARY WORKERS

Other elementary workers deliver and carry messages and packages, collect money and stock vending machines, read meters, collect water and firewood, collect and issue tickets for parking or events.

Tasks performed usually include: chopping wood, collecting water and firewood; delivering messages, packages and other items within or between establishments, or elsewhere; performing duties as a post-runner; issuing and collecting tickets and passes; calculating parking charges; filling storage areas of vending machines and collecting money from containers; reading electricity, gas or water meters and recording consumption.

SUB-MAJOR GROUP	MINOR GROUP	UNIT GROUP	OCCUPATIONAL TITLES AND DEFINITIONS	1992 PSOC	2008 ISCO
		9621	<p>MESSENGERS, PACKAGE DELIVERERS AND LUGGAGE PORTERS</p> <p>Messengers, package deliverers and luggage porters carry and deliver messages, packages and other items within an establishment or between establishments, to households and elsewhere, or carry luggage especially at hotels, stations and airports.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) delivering messages, packages and other items within an establishment or between establishments, or elsewhere; b) performing the duties of a post-runner; c) delivering various goods to and from enterprises, shops, households and other places; d) carrying and delivering luggage at hotels, stations, airports, and elsewhere; e) receiving and marking baggage by completing attaching claim checks; f) planning and following the most efficient route; and g) sorting items to be delivered according to the delivery route. <p>Examples of the occupations classified here are:</p> <ul style="list-style-type: none"> Baggage handler Bell boy Delivery helper Deliveryman/crew Luggage porter Messenger Newspaper deliverer Post runner <p>Some related occupations classified elsewhere:</p> <ul style="list-style-type: none"> Mail carrier - 4412 Postman/woman - 4412 	9151	9621
		9622	<p>ODD JOB PERSONS</p> <p>Odd job persons clean, paint and maintain buildings, grounds and facilities, and undertake simple repairs.</p> <p>Their tasks include:</p> <ul style="list-style-type: none"> a) repairing broken windows, screens, doors, fences, barbecues, picnic tables, shelves, cupboards and other items; b) replacing defective items such as light bulbs; c) repairing and painting interior and exterior surfaces such as walls, ceilings and fences; d) adjusting doors and windows; e) replacing tap washers; f) putting up handrails and grab rails; and 		9622

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g) unloading coal or wood and putting it into cellars of private households or establishments.

Examples of the occupations classified here are:

Handyperson
Hotel useful
Odd-job person

9623	METER READERS AND VENDING-MACHINE COLLECTORS	9623
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Meter readers and vending-machine collectors stock vending machines and collect money from them or from parking meters and other coin-boxes, or read electricity, gas or water meters.

Their tasks include:

- a) filling storage areas of vending machines and collecting money from their containers;
- b) collecting money from parking meters and similar coin-boxes;
- c) reading electricity, gas or water meters and recording consumption;
- d) keeping records of merchandise distributed and money collected;
- e) proceeding along established routes to take readings of meter dials;
- f) verifying readings in cases where consumption appears to be abnormal, and record possible reasons for fluctuations; and
- g) inspecting meters for unauthorized connections, defects, and damage such as broken seals.

Examples of the occupations classified here are:

Meter reader
Vending machine collector

9624	WATER AND FIREWOODS COLLECTOR	9624
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Water and firewood collectors collect water and firewood and transport them on foot or using hand or animal carts.

Their tasks include:

- a) cutting and collecting wood from forests for sale in market or as fuel or for own consumption;
- b) visiting forests or fields to pick pieces of dried wood from ground and arranging them in heaps;
- c) cutting decayed branches and trunks of trees using axe and hand -saw;
- d) tying collected wood into small faggots and carrying them or transporting them on a cart to the market for sale or to village or household for use;

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e) drawing water from wells, rivers or ponds etc. for domestic use; and

f) collecting water in leather bags, buckets or other containers from taps, rivers, ponds or wells and delivering the water to work sites, the houses of clients or to own household for drinking, cleaning of drains or storage in tanks.

Examples of the occupations classified here are:

Firewood collector

Water collector

9629	ELEMENTARY WORKERS NOT ELSEWHERE CLASSIFIED	9152 p	9629
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This unit group covers elementary workers not classified elsewhere in major group 9, Elementary workers. For instance, the group includes those who issue and collect parking or admission tickets, provide personal items to patrons or customers in cloak rooms and assist patrons at entertainment events.

Their tasks include:

a) selling and collecting admission tickets and passes from patrons at entertainment events or collecting tags from patrons;

b) examining tickets or passes to verify authenticity, using criteria such as colour and date issued;

c) guiding patrons to exits or providing other instructions or assistance in case of emergency;

d) directing patrons to restroom, concession stands and telephones;

e) directing vehicle drivers to parking spaces;

f) patrolling parking areas in order to prevent vehicle damage and vehicle property thefts;

g) calculating parking charges, and collecting fees from customers; and

h) assigning dressing room facilities, locker space, or clothing containers to patrons of athletic or bathing establishments.

Examples of the occupations classified here are:

Barker

Cloak room attendant

Fairground attendant

Golf caddie

Parking attendant

Pin boy

Recreation facilities attendant/aide

Ticket collectors

Usher

Some related occupations classified elsewhere:

Parking valet - 8322

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Major Group 0.

ARMED FORCES OCCUPATIONS

Armed forces occupations include all jobs held by members of the armed forces. Members of the armed forces are those personnel who are currently serving in the armed forces, including auxiliary services, whether on a voluntary or compulsory basis, and who are not free to accept civilian employment and are subject to military discipline. Included are regular members of the army, navy, air force and other military services, as well as conscripts enrolled for military training or other service for a specified period.

Excluded from this group are:

Jobs held by persons in civilian employment of government establishments concerned with defense issues; police (other than military police); customs inspectors and members of border or other armed civilian services.

Many jobs performed by members of the armed forces are similar, in terms of the nature of the work performed, to civilian occupations such as medical doctors, radio operators, cooks, secretaries and heavy truck drivers. Conceptually, it may be appropriate therefore, to classify such jobs in the armed forces with similar civilian jobs. This approach is adopted in several national occupation classifications. Typically such classifications also identify a number of military specific occupational groups. In many countries, however, it is not possible to produce information about the nature of the work performed by members of the armed forces. In adapting ISCO-08 for national purposes countries may wish, therefore, to consider what approach best suits their circumstances and user needs. For purposes of international comparability, however, where data pertaining to members of the armed forces are reported and classified by occupation, they should be included where possible in ISCO-08 major group 0, Armed forces occupations.

01	011	0110	COMMISSIONED ARMED FORCES OFFICERS	0111	0110
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Commissioned armed forces officers provide leadership and management to organizational units in the armed forces and/or perform similar tasks to those performed in a variety of civilian occupations outside the armed forces. This group includes all members of the armed forces holding the rank of second lieutenant (or equivalent) or higher.

Examples of the occupations classified here are:

Admiral

Admiral of the fleet

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			Air commodore Air marshal Brigadier (army) Captain (air force, army, navy) Colonel (army) Commodore (navy) Field marshal Flying officer (military) General (army) Group captain, (air force) Lieutenant Lieutenant colonel (army) Lieutenant commander (navy) Lieutenant, flight Major (army) Midshipman Naval officer (military) Navy commander Officer cadet (armed forces) Officer cadet (army) Pilot officer Second lieutenant (army) Squadron leader Sublieutenant (navy) Wing commander		
02	021	0210	NON-COMMISSIONED ARMED FORCES OFFICERS Non-commissioned armed forces officers enforce military discipline and supervise the activities of those employed in Armed forces occupations, other ranks, and/or perform similar tasks to those performed in a variety of civilian occupations outside the armed forces. This group includes members of the armed forces holding ranks such as sergeant, warrant officer and sergeant major. Examples of the occupations classified here are: Boatswain (navy) Flight sergeant Master Sergeant Quarter master Sergeant (army) Sergeant major Warrant officer	0112 0113 0119	0210
03	031	0310	ARMED FORCES OCCUPATIONS, OTHER RANKS	0121 0122	0310

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Armed forces occupations, other ranks include all conscripted and non-conscripted members of the armed forces except commissioned and non-commissioned officers. They perform specific military tasks and/or perform similar tasks to those performed in a variety of civilian occupations outside the armed forces.

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0129

Examples of the occupations classified here are:

- Airman
- Bombardier
- Corporal (air force)
- Corporal (army)
- Coxswain (navy)
- Gunners mate
- Infantryman/woman
- Paratrooper
- Rifleman/woman
- Seaman (navy)