

TECHNICAL APPENDIX

Implications of the changing nature of work for employment and inequality in Ghana

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Table 1: Detailed Ghana-specific recodes

Occupation, by ISCO-08		Occupation, by ISCO-88	
4-digits		3-digits	
Code	Label	Code	Label
1211	Finance managers	123	Other specialist managers
		* 131	Managers of small enterprises
1212	Human resource managers	123	Other specialist managers
		* 131	Managers of small enterprises
1213	Policy and planning managers	122	Production and operations managers
		* 123	Other specialist managers
1219	Business services and administration managers not elsewhere classified	122	Production and operations managers
		123	Other specialist managers
		* 131	Managers of small enterprises
1221	Sales and marketing managers	123	Other specialist managers
		* 131	Managers of small enterprises
1222	Advertising and public relations managers	123	Other specialist managers
		* 131	Managers of small enterprises
1223	Research and development managers	123	Other specialist managers
		* 131	Managers of small enterprises
1321	Manufacturing managers	122	Production and operations managers
		* 131	Managers of small enterprises
1322	Mining managers	122	Production and operations managers
		* 131	Managers of small enterprises
1323	Construction managers	122	Production and operations managers
		* 131	Managers of small enterprises
1324	Supply, distribution and related managers	122	Production and operations managers
		123	Other specialist managers
		* 131	Managers of small enterprises
1330	Information and communications technology service managers	122	Production and operations managers
		123	Other specialist managers
		* 131	Managers of small enterprises
1341	Child care services managers	122	Production and operations managers
		* 131	Managers of small enterprises
1342	Health services managers	122	Production and operations managers
		131	Managers of small enterprises
		* 223	Nursing and midwifery professionals
1343	Aged care services managers	122	Production and operations managers
		131	Managers of small enterprises
		* 223	Nursing and midwifery professionals
1344	Social welfare managers	122	Production and operations managers
		* 131	Managers of small enterprises

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1345	Education managers		122	Production and operations managers
		*	131	Managers of small enterprises
1346	Financial and insurance services branch managers		122	Production and operations managers
		*	131	Managers of small enterprises
1349	Professional services managers not elsewhere classified		122	Production and operations managers
		*	131	Managers of small enterprises
1411	Hotel managers		122	Production and operations managers
		*	131	Managers of small enterprises
1412	Restaurant managers		122	Production and operations managers
		*	131	Managers of small enterprises
1420	Retail and wholesale trade managers		122	Production and operations managers
		*	131	Managers of small enterprises
1439	Services managers not elsewhere classified		122	Production and operations managers
		*	131	Managers of small enterprises
2132	Farming, forestry and fisheries advisers		221	Life science professionals
		*	321	Life science technicians and related associate professional
2212	Specialist medical practitioners		221	Life science professionals
		*	222	Health professionals (except nursing)
2230	Traditional and complementary medicine professionals		322	Health associate professionals (except nursing)
		*	324	Traditional medicine practitioners and faith healers
2250	Veterinarians		221	Life science professionals
		*	222	Health professionals (except nursing)
2262	Pharmacists		211	Physicists, chemists and related professionals
		*	222	Health professionals (except nursing)
2263	Environmental and occupational health and hygiene professionals		* 222	Health professionals (except nursing)
			241	Business professionals
			315	Safety and quality inspectors
			322	Health associate professionals (except nursing)
2269	Health professionals not elsewhere classified		* 222	Health professionals (except nursing)
			322	Health associate professionals (except nursing)
			322	Health associate professionals (except nursing)
2320	Vocational education teachers		231	College, university and higher education teaching professionals
		*	232	Secondary education teaching professionals
2341	Primary school teachers		* 233	Primary and pre-primary education teaching professionals
			331	Primary education teaching associate professionals
2342	Early childhood educators		* 233	Primary and pre-primary education teaching professionals
			332	Pre-primary education teaching associate professionals
2352	Special needs teachers		234	Special education teaching professionals
		*	333	Special education teaching associate professionals
2353	Other language teachers		235	Other teaching professionals
		*	334	Other teaching associate professionals
2355	Other arts teachers		235	Other teaching professionals
		*	334	Other teaching associate professionals
2356	Information technology trainers		235	Other teaching professionals
		*	334	Other teaching associate professionals
2359	Teaching professionals not elsewhere classified		235	Other teaching professionals
		*	334	Other teaching associate professionals
2412	Financial and investment advisers		241	Business professionals
		*	341	Finance and sales associate professionals
2431	Advertising and marketing professionals		* 241	Business professionals
			245	Writers and creative or performing artists
2432	Public relations professionals		* 241	Business professionals
			245	Writers and creative or performing artists
2642	Journalists		245	Writers and creative or performing artists
		*	347	Artistic, entertainment and sports associate professionals
2652	Musicians, singers and composers		245	Writers and creative or performing artists
		*	347	Artistic, entertainment and sports associate professionals
2653	Dancers and choreographers		245	Writers and creative or performing artists
		*	347	Artistic, entertainment and sports associate professionals
2654	Film, stage and related directors and producers		122	Production and operations managers
		*	245	Writers and creative or performing artists
3112	Civil engineering technicians		* 311	Physical and engineering science technicians
			315	Safety and quality inspectors
3113	Electrical engineering technicians		* 311	Physical and engineering science technicians
			315	Safety and quality inspectors

3114	Electronics engineering technicians	*	311 315	Physical and engineering science technicians Safety and quality inspectors
3115	Mechanical engineering technicians	*	311 315	Physical and engineering science technicians Safety and quality inspectors
3117	Mining and metallurgical technicians	*	311 315	Physical and engineering science technicians Safety and quality inspectors
3121	Mining supervisors	*	711 811	Miners, shotfirers, stone cutters and carvers Mining and mineral-processing-plant operators
3122	Manufacturing supervisors		817 821 822 823 824 825 826 * 827 828 829	Industrial robot operators Metal- and mineral-products machine operators Chemical-products machine operators Rubber- and plastic-products machine operators Wood-products machine operators Printing-, binding- and paper-products machine operators Textile-, fur- and leather-products machine operators Food and related products machine operators Assemblers Other machine operators and assemblers
3123	Construction supervisors		122 * 712	Production and operations managers Building frame and related trades workers
3139	Process control technicians not elsewhere classified	*	312 * 814 817	Computer associate professionals Wood-processing- and papermaking-plant operators Industrial robot operators
3153	Aircraft pilots and related associate professionals	*	314 * 334	Ship and aircraft controllers and technicians Other teaching associate professionals
3221	Nursing associate professionals	*	223 323	Nursing and midwifery professionals Nursing and midwifery associate professionals
3222	Midwifery associate professionals	*	223 323	Nursing and midwifery professionals Nursing and midwifery associate professionals
3257	Environmental and occupational health inspectors and associates	*	315 * 322	Safety and quality inspectors Health associate professionals (except nursing)
3339	Business services agents not elsewhere classified	*	241 * 341 342	Business professionals Finance and sales associate professionals Business services agents and trade brokers
3341	Office supervisors	*	343 * 411 412 413 414 419 422	Administrative associate professionals Secretaries and keyboard-operating clerks Numerical clerks Material-recording and transport clerks Library, mail and related clerk Other office clerks Client information clerks
3342	Legal secretaries	*	343 * 411	Administrative associate professionals Secretaries and keyboard-operating clerks
3344	Medical secretaries	*	343 * 411	Administrative associate professionals Secretaries and keyboard-operating clerks
3359	Regulatory government associate professionals not elsewhere classified	*	315 * 343 344	Safety and quality inspectors Administrative associate professionals Customs, tax and related government associate professionals
3411	Police inspectors and detectives	*	343 345	Administrative associate professionals Police inspectors and detectives
3413	Religious associate professionals	*	324 348	Traditional medicine practitioners and faith healers Religious associate professionals
3423	Fitness and recreation instructors and program leaders	*	334 347	Other teaching associate professionals Artistic, entertainment and sports associate professionals
3433	Gallery, museum and library technicians	*	343 347	Administrative associate professionals Artistic, entertainment and sports associate professionals
3435	Other artistic and cultural associate professionals	*	122 * 334 347	Production and operations managers Other teaching associate professionals Artistic, entertainment and sports associate professionals
3522	Telecommunications engineering technicians	*	311 * 313	Physical and engineering science technicians Optical and electronic equipment operators
4221	Travel consultants and clerks	*	341 422	Finance and sales associate professionals Client information clerks
5164	Pet groomers and animal care workers	*	513 612	Personal care and related workers Animal producers and related workers
5246	Food service counter attendants		522	Shop salespersons and demonstrators

		* 523	Stall and market salespersons
5414	Security guards	* 516	Protective services workers
		915	Messengers, porters, doorkeepers and related workers
6111	Field crop and vegetable growers	131	Managers of small enterprises
		* 611	Market gardeners and crop growers
6112	Tree and shrub crop growers	131	Managers of small enterprises
		* 611	Market gardeners and crop growers
6113	Gardeners, horticultural and nursery growers	131	Managers of small enterprises
		* 611	Market gardeners and crop growers
6114	Mixed crop growers	131	Managers of small enterprises
		* 611	Market gardeners and crop growers
6121	Livestock and dairy producers	131	Managers of small enterprises
		* 612	Animal producers and related workers
6122	Poultry producers	131	Managers of small enterprises
		* 612	Animal producers and related workers
6130	Mixed crop and animal producers	131	Managers of small enterprises
		* 613	Market-oriented crop and animal producers
6210	Forestry and related workers	131	Managers of small enterprises
		* 614	Forestry and related workers
6221	Aquaculture workers	131	Managers of small enterprises
		* 615	Fishery workers, hunters and trappers
6222	Inland and coastal waters fishery workers	131	Managers of small enterprises
		* 615	Fishery workers, hunters and trappers
6223	Deep-sea fishery workers	131	Managers of small enterprises
		* 615	Fishery workers, hunters and trappers
7113	Stonemasons, stone cutters, splitters and carvers	711	Miners, shotfirers, stone cutters and carvers
		* 712	Building frame and related trades workers
7223	Metal working machine tool setters and operators	* 722	Blacksmiths, tool-makers and related trades workers
		821	Metal- and mineral-products machine operators
7317	Handicraft workers in wood, basketry and related materials	* 733	Handicraft workers in wood, textile, leather and related materials
		742	Wood treaters, cabinet-makers and related trades workers
7318	Handicraft workers in textile, leather and related materials	733	Handicraft workers in wood, textile, leather and related materials
		* 743	Textile, garment and related trades workers
7322	Printers	* 734	Craft printing and related trades workers
		825	Printing-, binding- and paper-products machine operators
7323	Print finishing and binding workers	* 734	Craft printing and related trades workers
		825	Printing-, binding- and paper-products machine operators
7523	Woodworking-machine tool setters and operators	* 742	Wood treaters, cabinet-makers and related trades workers
		824	Wood-products machine operators
7541	Underwater divers	* 615	Fishery workers, hunters and trappers
		721	Metal moulders, welders, sheet-metal workers, structural-metal preparers, and related trades workers
8111	Miners and quarriers	* 711	Miners, shotfirers, stone cutters and carvers
		811	Mining and mineral-processing-plant operators
8131	Chemical products plant and machine operators	815	Chemical-processing-plant operators
		815	Chemical-processing-plant operators
		* 822	Chemical-products machine operators
8132	Photographic products machine operators	* 734	Craft printing and related trades workers
		822	Chemical-products machine operators
8152	Weaving and knitting machine operators	* 743	Textile, garment and related trades workers
		826	Textile-, fur- and leather-products machine operators
8219	Assemblers not elsewhere classified	828	Assemblers
		* 829	Other machine operators and assemblers
9214	Garden and horticultural labourers	* 611	Market gardeners and crop growers
		921	Agricultural, fishery and related labourers
9612	Refuse sorters	916	Garbage collectors and related labourers
		* 932	Manufacturing labourers

Source: authors' compilation based on ILO (2016). For those occupations that have no unique match, we use the employment distribution from the 2005/06 GLSS to map the 4-digit level ISCO-08 occupations to the dominant 3-digit level ISCO-88 category (indicated by *).

Table 2: Detailed Ghana-specific mapping

Occupation, by ISCO-88				Occupation, by ISCO-08			
1-digit		3-digits		4-digits			
Code	Label	Code	Label	Code	Label		
1	Managers	111	Legislators and senior government officials	1111	Legislators		
		112	Senior government officials	1112	Senior government officials		
		113	Traditional chiefs and heads of villages	1113	Traditional chiefs and heads of village		
		114	Senior officials of special-interest organisations	1114	Senior officials of special-interest organizations		
		121	Directors and chief executives	1120	Managing directors and chief executives		
		122	Production and operations managers	1311	Agricultural and forestry production managers		
				1312	Aquaculture and fisheries production managers		
		123	Other specialist managers	1213	Policy and planning managers		
131	Managers of small enterprises	1211	Finance managers	1211	Finance managers		
		1212	Human resource managers	1212	Human resource managers		
		1219	Business services and administration managers not elsewhere classified	1219	Business services and administration managers not elsewhere classified		
		1221	Sales and marketing managers	1221	Sales and marketing managers		
		1222	Advertising and public relations managers	1222	Advertising and public relations managers		
		1223	Research and development managers	1223	Research and development managers		
		1321	Manufacturing managers	1321	Manufacturing managers		
		1322	Mining managers	1322	Mining managers		
		1323	Construction managers	1323	Construction managers		
		1324	Supply, distribution and related managers	1324	Supply, distribution and related managers		
		1330	Information and communications technology service managers	1330	Information and communications technology service managers		
		1341	Childcare services managers	1341	Childcare services managers		
		1344	Social welfare managers	1344	Social welfare managers		
		1345	Education managers	1345	Education managers		
		1346	Financial and insurance services branch managers	1346	Financial and insurance services branch managers		
		1349	Professional services managers not elsewhere classified	1349	Professional services managers not elsewhere classified		
		1411	Hotel managers	1411	Hotel managers		
1412	Restaurant managers	1412	Restaurant managers				
1420	Retail and wholesale trade managers	1420	Retail and wholesale trade managers				
1431	Sports, recreation and cultural centre managers	1431	Sports, recreation and cultural centre managers				
1439	Services managers not elsewhere classified	1439	Services managers not elsewhere classified				
2	Professionals	211	Physicists, chemists and related professionals	2111	Physicists and astronomers		
				2112	Meteorologists		
				2113	Chemists		
				2114	Geologists and geophysicists		
		212	Mathematicians, statisticians and related professionals	2120	Mathematicians, actuaries and statisticians		
				213	Computing professionals	2511	Systems analysts
						2512	Software developers
						2513	Web and multimedia developers
						2514	Applications programmers
2519	Software and applications developers and analysts not elsewhere classified						
2521	Database designers and administrators						
2522	Systems administrators						
2523	Computer network professionals						
2529	Database and network professionals not elsewhere classified						
214	Architects, engineers and related professionals	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 2151 Electrical engineers 2152 Electronics engineers 2153 Telecommunications engineers 2161 Building architects 2162 Landscape architects 2164 Town and traffic planners 2165 Cartographers and surveyors
221	Life science professionals	2131 Biologists, botanists, zoologists and related professionals 2133 Environmental protection professionals
222	Health professionals (except nursing)	2211 Generalist medical practitioners 2212 Specialist medical practitioners 2250 Veterinarians 2261 Dentists 2262 Pharmacists 2263 Environmental and occupational health and hygiene professionals 2269 Health professionals not elsewhere classified
223	Nursing and midwifery professionals	1342 Health services managers 1343 Aged care services managers 2221 Nursing professionals 2222 Midwifery professionals 3221 Nursing associate professionals 3222 Midwifery associate professionals
231	College, university and higher education teaching professionals	2310 University and higher education teachers
232	Secondary education teaching professionals	2320 Vocational education teachers 2330 Secondary education teachers
233	Primary and pre-primary education teaching professionals	2341 Primary school teachers 2342 Early childhood educators
235	Other teaching professionals	2351 Education methods specialists 2354 Other music teachers
241	Business professionals	2411 Accountants 2413 Financial analysts 2421 Management and organization analysts 2422 Policy administration professionals 2423 Personnel and careers professionals 2424 Training and staff development professionals 2431 Advertising and marketing professionals 2432 Public relations professionals
242	Legal professionals	2611 Lawyers 2612 Judges 2619 Legal professionals not elsewhere classified
243	Archivists, librarians and related information professionals	2621 Archivists and curators 2622 Librarians and related information professionals
244	Social science and related professionals	2631 Economists 2632 Sociologists, anthropologists and related professionals 2633 Philosophers, historians and political scientists 2634 Psychologists 2635 Social work and counselling professionals 2643 Translators, interpreters and other linguists
245	Writers and creative or performing artists	2641 Authors and related writers 2651 Visual artists

			2654 Film, stage and related directors and producers 2655 Actors
	246 Religious professionals		2636 Religious professionals
3 Technicians and 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 3522 Telecommunications engineering technicians
	312 Computer associate professionals		3511 Information and communications technology operations technicians 3512 Information and communications technology user support technicians 3513 Computer network and systems technicians 3514 Web technicians
	313 Optical and electronic equipment operators		3211 Medical imaging and therapeutic equipment technicians 3431 Photographers 3521 Broadcasting and audio-visual technicians
	314 Ship and aircraft controllers and technicians		3151 Ships' engineers 3152 Ships' deck officers and pilots 3154 Air traffic controllers 3155 Air traffic safety electronics technicians
	315 Safety and quality inspectors		7543 Product graders and testers (excluding foods and beverages)
	321 Life science technicians and related associate professional		2132 Farming, forestry and fisheries advisers 3141 Life science technicians (excluding medical) 3142 Agricultural technicians 3143 Forestry technicians 3212 Medical and pathology laboratory technicians
	322 Health associate professionals (except nursing)		2240 Paramedical practitioners 2264 Physiotherapists 2265 Dieticians and nutritionists 2266 Audiologists and speech therapists 2267 Optometrists and ophthalmic opticians 3213 Pharmaceutical technicians and assistants 3240 Veterinary technicians and assistants 3251 Dental assistants and therapists 3253 Community health workers 3254 Dispensing opticians 3255 Physiotherapy technicians and assistants 3256 Medical assistants 3257 Environmental and occupational health inspectors and associates 3259 Health associate professionals not elsewhere classified
	324 Traditional medicine practitioners and faith healers		2230 Traditional and complementary medicine professionals 3230 Traditional and complementary medicine associate professionals 3413 Religious associate professionals
	333 Special education teaching associate professionals		2352 Special needs teachers
	334 Other teaching associate professionals		2353 Other language teachers 2355 Other arts teachers 2356 Information technology trainers

		2359 Teaching professionals not elsewhere classified
		3153 Aircraft pilots and related associate professionals
		3423 Fitness and recreation instructors and program leaders
		3435 Other artistic and cultural associate professionals
		5165 Driving instructors
	341 Finance and sales associate professionals	2412 Financial and investment advisers 2433 Technical and medical sales professionals (excluding ICT) 2434 Information and communications technology sales professionals 3311 Securities and finance dealers and brokers 3312 Credit and loans officers 3315 Valuers and loss assessors 3321 Insurance representatives 3322 Commercial sales representatives 3323 Buyers 3334 Real estate agents and property managers 3339 Business services agents not elsewhere classified 4221 Travel consultants and clerks
	342 Business services agents and trade brokers	3324 Trade brokers 3331 Clearing and forwarding agents 3333 Employment agents and contractors
	343 Administrative associate professionals	3313 Accounting associate professionals 3314 Statistical, mathematical and related associate professionals 3332 Conference and event planners 3343 Administrative and executive secretaries 3359 Regulatory government associate professionals not elsewhere classified 3411 Police inspectors and detectives 3433 Gallery, museum and library technicians
	344 Customs, tax and related government associate professionals	3351 Customs and border inspectors 3352 Government tax and excise officials 3353 Government social benefits officials 3354 Government licensing officials
	345 Police inspectors and detectives	3355 Police inspectors and detectives
	346 Social work associate professionals	3412 Social work associate professionals
	347 Artistic, entertainment and sports associate professionals	2163 Product and garment designers 2166 Graphic and multimedia designers 2642 Journalists 2652 Musicians, singers and composers 2653 Dancers and choreographers 2656 Announcers on radio, television and other media 2659 Creative and performing artists not elsewhere classified 3421 Athletes and sports players 3422 Sports coaches, instructors and officials 3432 Interior designers and decorators
4	Clerical support workers	411 Secretaries and keyboard-operating clerks
		3341 Office supervisors 3342 Legal secretaries 3344 Medical secretaries 4120 Secretaries (general) 4131 Typists and word processing operators 4132 Data entry clerks
	412 Numerical clerks	4311 Accounting and bookkeeping clerks 4312 Statistical, finance and insurance clerks 4313 Payroll clerks

	413	Material-recording and transport clerks	4321 Stock clerks 4322 Production clerks 4323 Transport clerks	
	414	Library, mail and related clerk	3252 Medical records and health information technicians 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	
	419	Other office clerks	4110 General office clerks 4227 Survey and market research interviewers 4416 Personnel clerks 4419 Clerical support workers not elsewhere classified	
	421	Cashiers, tellers 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 5230 Cashiers and ticket clerks	
	422	Client information clerks	4222 Contact centre information clerks 4223 Telephone switchboard operators 4224 Hotel receptionists 4225 Enquiry clerks 4226 Receptionists (general) 4229 Client information workers not elsewhere classified	
5	Services and sales workers	511	Travel attendants and related workers	5111 Travel attendants and travel stewards 5112 Transport conductors 5113 Travel guides
		512	Housekeeping and restaurant services workers	3434 Chefs 5120 Cooks 5131 Waiters 5132 Bartenders 5151 Cleaning and housekeeping supervisors in offices, hotels and other establishments 5152 Domestic housekeepers 9411 Fast food preparers
		513	Personal care and related workers	3258 Ambulance workers 5164 Pet groomers and animal care workers 5311 Child care workers 5312 Teachers' aides 5321 Health care assistants 5322 Home-based personal care workers 5329 Personal care workers in health services not elsewhere classified
		514	Other personal services workers	5141 Hairdressers 5142 Beauticians and related workers 5162 Companions and valets 5163 Undertakers and embalmers 5169 Personal services workers not elsewhere classified
		515	Astrologers, fortune-tellers and related workers	5161 Astrologers, fortune-tellers and related workers
		516	Protective services workers	5411 Fire-fighters 5412 Police officers 5413 Prison guards 5414 Security guards 5419 Protective services workers not elsewhere classified
		521	Fashion and other models	5241 Fashion and other models
		522		5221 Shop keepers

		Shop salespersons and demonstrators	5222 Shop supervisors 5223 Shop sales assistants 5242 Sales demonstrators 5245 Service station attendants 5249 Sales workers not elsewhere classified	
	523	Stall and market salespersons	5211 Stall and market salespersons 5246 Food service counter attendants	
6	Skilled agricultural, forestry and fishery workers	611	Market gardeners and crop growers	6111 Field crop and vegetable growers 6112 Tree and shrub crop growers 6113 Gardeners, horticultural and nursery growers 6114 Mixed crop growers 9214 Garden and horticultural labourers
		612	Animal producers and related workers	6121 Livestock and dairy producers 6122 Poultry producers 6123 Apiarists and sericulturists 6129 Animal producers not elsewhere classified
		613	Market-oriented crop and animal producers	6130 Mixed crop and animal producers
		614	Forestry and related workers	6210 Forestry and related workers
		615	Fishery workers, hunters and trappers	6221 Aquaculture workers 6222 Inland and coastal waters fishery workers 6223 Deep-sea fishery workers 6224 Hunters and trappers 6310 Subsistence crop farmers 6320 Subsistence livestock farmers 6330 Subsistence mixed crop and livestock farmers 6340 Subsistence fishers, hunters, trappers and gatherers 7541 Underwater divers
7	Craft and related trades workers	711	Miners, shotfirers, stone cutters and carvers	3121 Mining supervisors 7542 Shotfirers and blasters 8111 Miners and quarriers
		712	Building frame and related trades workers	3123 Construction supervisors 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
		713	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 7411 Building and related electricians
		714	Painters, building structure cleaners and related trades workers	7131 Painters and related workers 7132 Spray painters and varnishers 7133 Building structure cleaners 7544 Fumigators and other pest and weed controllers
		721	Metal moulders, welders, sheet-metal workers, structural-metal preparers, and related trades workers	7211 Metal moulders and coremakers 7212 Welders and flamecutters 7213 Sheet-metal workers 7214 Structural-metal preparers and erectors 7215 Riggers and cable splicers
		722	Blacksmiths, tool-makers and related trades workers	7221 Blacksmiths, hammermiths 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 fitters		7127 Air conditioning and refrigeration mechanics 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	
724	Electrical and electronic equipment mechanics and fitters		7412 Electrical mechanics and fitters 7413 Electrical line installers and repairers 7421 Electronics mechanics and servicers 7422 Information and communications technology installers and servicers	
731	Precision workers in metal and related materials		3214 Medical and dental prosthetic technicians 7311 Precision-instrument makers and repairers 7312 Musical instrument makers and tuners 7313 Jewellery and precious-metal workers	
732	Potters, glass-makers and related trades workers		7314 Potters and related workers 7315 Glass makers, cutters, grinders and finishers 7316 Sign writers, decorative painters, engravers and etchers 7549 Craft and related workers not elsewhere classified	
733	Handicraft workers in wood, textile, leather and related materials		7317 Handicraft workers in wood, basketry and related materials 7319 Handicraft workers not elsewhere classified	
734	Craft printing and related trades workers		7321 Pre-press technicians 7322 Printers 7323 Print finishing and binding workers 8132 Photographic products machine operators	
741	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	
742	Wood treaters, cabinet-makers and related trades workers		7521 Wood treaters 7522 Cabinet-makers and related workers 7523 Woodworking-machine tool setters and operators	
743	Textile, garment and related trades workers		7318 Handicraft workers in textile, leather and related materials 7531 Tailors, dressmakers, furriers and hatters 7532 Garment and related pattern-makers and cutters 7533 Sewing, embroidery and related workers 7534 Upholsterers and related workers 8152 Weaving and knitting machine operators	
744	Pelt, leather and shoemaking trades workers		7535 Pelt dressers, tanners and fellmongers 7536 Shoemakers and related workers	
8	Plant and machine operators and assemblers	811	Mining and mineral-processing-plant operators	8112 Mineral and stone processing plant operators 8113 Well drillers and borers and related workers
		812	Metal-processing plant operators	3135 Metal production process controllers 8121 Metal processing plant operators
		813	Glass, ceramics and related plant operators	8181 Glass and ceramics plant operators
		814	Wood-processing- and papermaking-plant operators	3139 Process control technicians not elsewhere classified

		8171 Pulp and papermaking plant operators 8172 Wood processing plant operators
815	Chemical-processing-plant operators	3133 Chemical processing plant controllers 3134 Petroleum and natural gas refining plant operators
816	Power-production and related plant operators	3131 Power production plant operators 3132 Incinerator and water treatment plant operators 8182 Steam engine and boiler operators
821	Metal- and mineral-products machine operators	8114 Cement, stone and other mineral products machine operators
822	Chemical-products machine operators	8122 Metal finishing, plating and coating machine operators 8131 Chemical products plant and machine operators
823	Rubber- and plastic-products machine operators	8141 Rubber products machine operators 8142 Plastic products machine operators
825	Printing-, binding- and paper-products machine operators	8143 Paper products machine operators
826	Textile-, fur- and leather-products machine operators	8151 Fibre preparing, spinning and winding 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
827	Food and related products machine operators	3122 Manufacturing supervisors 8160 Food and related products machine operators
828	Assemblers	8211 Mechanical machinery assemblers 8212 Electrical and electronic equipment assemblers
829	Other machine operators and assemblers	8183 Packing, bottling and labelling machine operators 8189 Stationary plant and machine operators not elsewhere classified 8219 Assemblers not elsewhere classified
831	Locomotive engine drivers and related workers	8311 Locomotive engine drivers 8312 Railway brake, signal and switch operators
832	Motor vehicle drivers	8321 Motorcycle drivers 8322 Car, taxi and van drivers 8331 Bus and tram drivers 8332 Heavy truck and lorry drivers
833	Agricultural and other 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
834	Ships' deck crews and related workers	8350 Ships' deck crews and related workers
9	Elementary occupations	911 Street vendors and related workers
		912 Shoe cleaning and other street services elementary occupations
		913 Domestic and related helpers, cleaners and launderers
		914
		5212 Street food salespersons 5243 Door to door salespersons 5244 Contact centre salespersons 9520 Street vendors (excluding food)
		9510 Street and related service workers
		9111 Domestic cleaners and helpers 9112 Cleaners and helpers in offices, hotels and other establishments 9121 Hand launderers and pressers 9412 Kitchen helpers
		5153 Building caretakers

	Building caretakers, window and related cleaners	9122 Vehicle cleaners 9123 Window cleaners 9129 Other cleaning workers
915	Messengers, porters, doorkeepers and related workers	9621 Messengers, package deliverers and luggage porters 9623 Meter readers and vending-machine collectors 9629 Elementary workers not elsewhere classified
916	Garbage collectors and related labourers	9611 Garbage and recycling collectors 9613 Sweepers and related labourers 9622 Odd job persons 9624 Water and firewood collectors
921	Agricultural, fishery and related labourers	9211 Crop farm labourers 9212 Livestock farm labourers 9213 Mixed crop and livestock farm labourers 9215 Forestry labourers 9216 Fishery and aquaculture labourers
931	Mining and construction labourers	9311 Mining and quarrying labourers 9312 Civil engineering labourers 9313 Building construction labourers
932	Manufacturing labourers	9321 Hand packers 9329 Manufacturing labourers not elsewhere classified 9612 Refuse sorters
933	Transport labourers and freight handlers	9331 Hand and pedal vehicle drivers 9332 Drivers of animal-drawn vehicles and machinery 9333 Freight handlers 9334 Shelf fillers

Source: authors' compilation based on ILO (2016). For those occupations that have no unique match, we use the employment distribution from the 2005/06 GLSS to map the 4-digit level ISCO-08 occupations to the dominant 3-digit level ISCO-88 category.

References

ILO (2016). 'ISCO-08 Structure, Index Correspondence with ISCO-88'. Geneva: ILO. Available at: <https://www.ilo.org/public/english/bureau/stat/isco/isco08/index.htm> (accessed 16 March 2020).