

# 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	Physical and engineering science technicians
			315	Safety and quality inspectors
3115	Mechanical engineering technicians	*	311	Physical and engineering science technicians
			315	Safety and quality inspectors
3117	Mining and metallurgical technicians	*	311	Physical and engineering science technicians
			315	Safety and quality inspectors
3121	Mining supervisors	*	711	Miners, shotfirers, stone cutters and carvers
			811	Mining and mineral-processing-plant operators
3122	Manufacturing supervisors		817	Industrial robot operators
			821	Metal- and mineral-products machine operators
			822	Chemical-products machine operators
			823	Rubber- and plastic-products machine operators
			824	Wood-products machine operators
			825	Printing-, binding- and paper-products machine operators
			826	Textile-, fur- and leather-products machine operators
		*	827	Food and related products machine operators
			828	Assemblers
			829	Other machine operators and assemblers
3123	Construction supervisors	*	122	Production and operations managers
		*	712	Building frame and related trades workers
3139	Process control technicians not elsewhere classified	*	312	Computer associate professionals
		*	814	Wood-processing- and papermaking-plant operators
			817	Industrial robot operators
3153	Aircraft pilots and related associate professionals	*	314	Ship and aircraft controllers and technicians
		*	334	Other teaching associate professionals
3221	Nursing associate professionals	*	223	Nursing and midwifery professionals
			323	Nursing and midwifery associate professionals
3222	Midwifery associate professionals	*	223	Nursing and midwifery professionals
			323	Nursing and midwifery associate professionals
3257	Environmental and occupational health inspectors and associates	*	315	Safety and quality inspectors
		*	322	Health associate professionals (except nursing)
3339	Business services agents not elsewhere classified	*	241	Business professionals
		*	341	Finance and sales associate professionals
			342	Business services agents and trade brokers
3341	Office supervisors	*	343	Administrative associate professionals
		*	411	Secretaries and keyboard-operating clerks
			412	Numerical clerks
			413	Material-recording and transport clerks
			414	Library, mail and related clerk
			419	Other office clerks
			422	Client information clerks
3342	Legal secretaries	*	343	Administrative associate professionals
		*	411	Secretaries and keyboard-operating clerks
3344	Medical secretaries	*	343	Administrative associate professionals
		*	411	Secretaries and keyboard-operating clerks
3359	Regulatory government associate professionals not elsewhere classified	*	315	Safety and quality inspectors
		*	343	Administrative associate professionals
			344	Customs, tax and related government associate professionals
3411	Police inspectors and detectives	*	343	Administrative associate professionals
			345	Police inspectors and detectives
3413	Religious associate professionals	*	324	Traditional medicine practitioners and faith healers
			348	Religious associate professionals
3423	Fitness and recreation instructors and program leaders	*	334	Other teaching associate professionals
			347	Artistic, entertainment and sports associate professionals
3433	Gallery, museum and library technicians	*	343	Administrative associate professionals
			347	Artistic, entertainment and sports associate professionals
3435	Other artistic and cultural associate professionals	*	122	Production and operations managers
		*	334	Other teaching associate professionals
			347	Artistic, entertainment and sports associate professionals
3522	Telecommunications engineering technicians	*	311	Physical and engineering science technicians
		*	313	Optical and electronic equipment operators
4221	Travel consultants and clerks	*	341	Finance and sales associate professionals
			422	Client information clerks
5164	Pet groomers and animal care workers	*	513	Personal care and related workers
			612	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 works
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 worke
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 worke
		*	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		
		123	Other specialist managers	1312	Aquaculture and fisheries production managers		
		131	Managers of small enterprises	1211	Finance managers		
				1212	Human resource managers		
				1219	Business services and administration managers not elsewhere classified		
2	Professionals	1221	Sales and marketing managers				
		1222	Advertising and public relations managers				
		1223	Research and development managers				
		1321	Manufacturing managers				
		1322	Mining managers				
		1323	Construction managers				
		1324	Supply, distribution and related managers				
		1330	Information and communications technology service managers				
		1341	Childcare services managers				
		1344	Social welfare managers				
		1345	Education managers				
		1346	Financial and insurance services branch managers				
		1349	Professional services managers not elsewhere classified				
		1411	Hotel managers				
		1412	Restaurant managers				
		1420	Retail and wholesale trade managers				
		1431	Sports, recreation and cultural centre managers				
		1439	Services managers not elsewhere classified				
211	Physicists, chemists and related professionals	2111	Physicists and astronomers				
		2112	Meteorologists				
		2113	Chemists				
		2114	Geologists and geophysicists				
		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				
214	Architects, engineers and related professionals	2521	Database designers and administrators				
		2522	Systems administrators				
		2523	Computer network professionals				
		2529	Database and network professionals not elsewhere classified				
		2141	Industrial and production engineers				
2142	Civil 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
		711 Miners, shotfirers, stone cutters and carvers	3121 Mining supervisors 7542 Shotfirers and blasters 8111 Miners and quarrymen
		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, 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 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
		5212	Street food salespersons
		5243	Door to door salespersons
		5244	Contact centre salespersons
		9520	Street vendors (excluding food)
	912	9510	Street and related service workers
	913	9111	Domestic cleaners and helpers
		9112	Cleaners and helpers in offices, hotels and other establishments
		9121	Hand launderers and pressers
		9412	Kitchen helpers
	914	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).