

APPENDIX TO “LABOUR MARKET INEQUALITY IN TWO ASIAN GIANTS: INDONESIA AND INDIA COMPARED”

[WIDER Working Paper 2024/29](#)

Kunal Sen

Table A1. Occupation code in Sakernas 2001, Indonesia

Occupation Code	Occupation Name
1	Army members
2	Navy members
3	Air force members
4	Police members
9	Other elements of defense and other security
11	Chemistry researchers
21	Architects and urban planners
22	Civil engineer
23	Electrical engineers
24	Mechanical engineers
28	Industrial engineers
29	Other engineers not elsewhere classified
31	Land survey and topographic technicians
32	Technical drawers
33	Civil engineering technicians
34	Electrical engineering technicians
35	Mechanical engineering technicians
38	Mining technicians
39	Other technicians not elsewhere classified
41	Pilots, navigators, and aircraft mechanics
42	Ship officers, ship and port guides
51	Biologists and zoologists
52	Bacteriologists, pharmacologists, livestock and other asso
54	Agronomists and other associate researchers
55	Life science technicians
61	Medical doctor
62	Medical doctor assistants
63	Dentist
64	Dental assistant
66	Veterinarian assistants
67	Pharmacist
68	Pharmacist assistants
69	Dieticians and nutritionists
71	Nurse Specialists
72	Nurses
73	Midwife specialists
74	Midwives
76	Physiotherapists and rehabilitation specialists for the di
79	Other health associated professional not elsewhere classif
83	System analysis experts
84	Technician in the field of statistics and mathematics
90	Economist
110	Accountant

Occupation Code	Occupation Name
121	Attorneys
122	Judge
123	Attorney
129	Notary and legal expert
131	Lecturer at university, college, other higher education in
132	Senior secondary school teaching professionals
133	Junior secondary school teaching professionals
134	Primary school teaching professionals
135	Preschool teaching professionals
136	Non-formal education teaching professionals
137	Special education teaching professionals
139	Other teaching professionals not elsewhere classified
141	Religious leader or ulama, the commentators, preachers an
142	Christian-Protestant pastor and other associate profession
143	Christian-Catholic priest and other associate professional
144	Monks and other associate professionals in Buddhism religi
145	Pastor or 'Pedanda' and other associate professionals in H
149	Other religious professionals not elsewhere classified
152	Journalists, reporters, information expert, news commentat
153	Editors, writers and other not elsewhere classified
161	Sculptors, painters and associate artists
162	Artists and illustration designers
163	Photographers and cameraman
169	Others not elsewhere classified
171	Composers, modifiers, musicians and singers
172	Choreographer and dancers
173	Directors and artists
174	Producers and performing art technicians
175	Comedians, jugglers and circus performers
176	Puppeteers, gamelan players and other associate artists
177	Protocols, broadcasters and associate professionals
179	Other associate performing artists not else classified
180	Athletes, coaches, sport administrators and other associat
193	Social worker
194	Human resource management expert
195	Linguists, translators, and language interpreter
199	Other professionals and technicians not elsewhere classifi
201	Legislators
202	Senior government officials
211	General Manager
212	Production manager, except for agricultural production
213	Marketing Manager
214	Financial Manager
215	Administration Manager
216	Personnel Manager

Occupation Code	Occupation Name
217	Manager of research and development
219	Other manager not else classifie
300	Administrative supervisor
310	Government officials
321	Stenographers and typists
322	Punchers
323	Telex clerks
329	Other stenographer, typist, and telex clerk not elsewhere
331	Bookkeepers
332	Cashiers
333	Treasurers
339	ther related bookkeepers, cashier, treasurers not elsewher
341	Bookkeeping machine operator and calculating machines
342	Computer operators and data-processing machines
349	Calculating machine operators and data processors not else
351	Head of the railway stations
352	Head of ports
354	Head of postal and giro office
359	Supervisors in the field of transportation and communicati
360	Land transportation trip workers
371	Letter deliverers
372	Other cargo distribution workers
380	Radio, telephone, and telegraph, or other communication de
391	Warehousing or logistical clerks
392	Material and production planning clerks
393	Office clerks, reports and correspondence
394	Receptionist and travel agency clerks
395	Library and chancery clerks
399	Other clerks not elsewhere classified
400	Large business and retail trade managers
410	Employers large and retail trade
421	Sales supervisor
422	Buyers
431	Technical equipment salespersons and technical service adv
432	Order seekers, mobile trading workers, and industrial prod
441	Insurance salesman
442	Salesperson for building and land rental
443	Salesperson for bonds
444	Salesperson for corporate service
445	Auctioneer and appraisers
451	Salesperson, shopkeepers, commercial goods demonstrators
452	Street vendors, mobile traders and salesmen
490	Sales workers not elsewhere classified

Occupation Code	Occupation Name
492	492
493	493
494	494
498	498
500	Business manager of food supply or catering and accommodat
510	Business owners providing food or caterers and accommodati
520	Domesticity service and related workers
531	Cooks
532	Waiters, waitresses, and bartenders
540	Maids and domestic workers and related workers that not el
551	Keepers and janitor
552	Cleaners and related workers and not elsewhere classified
560	Laundry persons and related workers
570	Beauticians, hair dressers, barbers, and related workers
581	Fire-fighters
582	Special police officers and securities
589	Other protective and security services workers
591	Guide
592	Undertaker and embalming bodies
593	Health service personnel
599	Other service for business
600	Manager and supervisor of agricultural and animal husbandr
611	Mixed-plantation farmer
612	Specific plant farmers
613	Breeders
621	General agricultural and animal husbandry workers
622	Seasonal-crop agricultural workers i.e. rice, cotton, suga
623	Annual-crop agricultural worker i.e. rubber, tea, palm oil
624	Livestock workers
625	Dairy cattle workers
626	Poultry workers
627	Nursery, plant and garden workers
628	Agricultural and animal husbandry machine operators
629	Agricultural and animal husbandry worker not elsewhere cla
630	Manager, businessmen and supervisors concession forestry b
631	Loggers and forest wood cutters
632	Forestry business workers
633	Forest products seekers, except wood
640	Manager, employers, and supervisors of fishery and huntin
641	Inland waters fish cultivation workers

Occupation Code	Occupation Name
642	Inland waters fish catching workers
643	Marine fish cultivation workers
644	Marine fish catching workers, except the ship captain and
645	Sea-product seekers, except fish
646	Hunters
649	Fishery and hunting worker related workers, not elsewhere
700	Production supervisors and foremen
711	Mining, panning, and digging workers
712	Preparation and processing of stone quarry workers
713	Oil well, natural gas and other mineral drilling workers a
721	Main metal melting and refining operators
722	Metal grinding operators or metal grinding machine operato
723	Main metal re-melting re-furnace operators
724	Metal melting operators
725	Metal molding makers
726	Thermostat and metal hardening operators
727	Wire and pipe makers
728	Metal coating workers
729	Other metal processing workers not elsewhere classified
731	Wood processing- and preservation-plant operators
732	Chainsaw and plywood pressing machinery operators and othe
733	Paper-pulp plant operators
734	Papermaking-plant operators
739	Other wood processing-, papermaking-, bamboo processing, r
741	Crushing-, grinding-, and chemical-mixing-machinery operat
742	Chemical-heat-treating-plan operators
743	Chemical-filtering- and separating-equipment operators
744	Chemical-still and reactor operators
745	Petroleum-refining-plant operators
749	Other chemical-processing-plant operators not elsewhere cl
751	Fiber-preparing machine operators and fiber-preparing work
752	Spinning and winding machine operators and workers
753	Machine setters, knitting workers and pattern-makers
754	Weaving machine operators and worker not elsewhere classif
755	Knitting machine operators and knitting workers
756	Bleaching- and Dyeing- workers and related workers
757	Batik makers
759	Other related spinning-, weaving-, knitting-, dyeing-worke
761	Tannery workers
762	Leather processing workers

Occupation Code	Occupation Name
771	Grain milling workers and related workers
772	Sugar processing and refining workers
773	Butcher and meat processing workers
774	Food preservation workers
775	Milk and dairy processing workers
776	Bread, cake and candy makers
777	Tea-, coffee-, and cocoa-processing workers
778	Bootleggers and lightweight
779	Other food and beverage processing workers not elsewhere c
781	Tobacco leaf processing workers
783	Cigarette makers
789	Tobacco processing workers not elsewhere classified
791	Seamstress
792	Leather and fur clothing makers
793	Hatter
794	Pattern maker and clothing cutter
795	Tailor, embroidery, embroidery, and hem workers
796	Car or motorbike seat makers and related workers
799	Other related sewing business workers not elsewhere classi
801	Shoe makers and shoe repairing workers
802	Shoe-part makers and related workers
803	Leather goods makers
811	Furniture makers
812	Wood processing machine operators
819	Other related wood-furniture makers not elsewhere classifi
820	Stone processing workers
831	Blacksmiths, forging-press workers and metal thread pressi
832	Toolmakers and related workers
833	Machine-tool setters
834	Machine-tool operators
835	Metal wheel-grinders, polishers and tool sharpeners
839	Blacksmiths, tool-makers, and machine-tool operators not e
841	Machinery installers and assemblers
842	Watch-, bell-, and precision-instruments workers
843	Motor vehicle mechanics
844	Aircraft engine mechanics
849	Machine mechanics, machine installers and assemblers and p
851	Electrical machinery assemblers
852	Electronic equipment assemblers
853	Electrical and electronic equipment installers
854	Electronic mechanics
855	Electrical installer
856	Telephone and telegraph installers

Occupation Code	Occupation Name
857	Electric line installers and cable jointers
859	Electrical equipment- setters, electrical and electronic w
861	Transmitter operators
862	Acoustic equipment film projector operators
871	Pipe fitters
872	Welder
873	Sheet-metal workers
880	Jewelry and precious-metal workers
891	Glass-making machine operators and glass makers and relate
892	Ceramics and clays machine operators and workers
893	Glass, ceramics, clay and limestone arsonists
894	Glass engravers and etchers
895	Glass and ceramic decorative painters
899	Glass and ceramics workers not elsewhere classified
901	Rubber- and plastic-product machine operators, except for
902	Tire production and retread tires workers
910	910
921	Compositors and typesetters
922	Printing machine operators
923	Stereotypers and electrotypers
924	Printing engravers and machine operators, except with phot
925	Photographic engravers
926	Bookbinders and related workers
927	Old fashion photographic printing workers
929	Other related printing and related workers not elsewhere c
931	Building painters
932	Vehicle painters
939	Painters not elsewhere classified
941	Musical instrument workers and tuners
942	Wickerwork and brush workers
943	Non-metallic mineral and related workers
944	Wood-curving-processing and related workers
945	Bamboo-processing workers
946	Rattan-processing workers
949	Other goods processing workers not elsewhere classified
951	Mason and tile pairs
952	Cast concrete and terrazzo workers
953	Roof tiles installers
954	Carpenters
955	Plasterers
956	Isolation or insulation workers
957	Glazier
959	Other construction workers not elsewhere classified
961	Power-production operators

Occupation Code	Occupation Name
969	Stationary machine and equipment operator not elsewhere cl
971	Port blue-collar workers and porters
972	Lifting truck cable assemblers and jointers
973	Crane operators and lifters
974	Earth-moving operators
979	Other forklift and lifter operators not elsewhere classifi
981	Boat sailors
982	Ship's engine room seamen'
983	Machinist and train stokers
984	Brake-, train signal-, and train slender operators
985	Motor vehicle drivers
986	Animal-drawn vehicle drivers
987	Rickshaws and pedal vehicle drivers
989	Other transport workers not elsewhere classified
999	Blue-collar workers not elsewhere classified

Table A2. Occupation code in Sakernas 2010, Indonesia

Occupation Code	Occupation Name
110	Army members
120	Navy members
130	Air force members
140	Police members
190	Other elements of defense and other security
1110	Legislators
1120	Senior government officials
1130	Traditional chiefs and heads of villages
1141	Senior officials of political-party organisations
1142	Senior officials of employer-, worker- and other economic-in
1143	Senior officials of humanitarian and other special-interest
1210	Directors and chief executives
1221	Production and operations department managers in agriculture
1222	Production and operations department managers in manufacturi
1223	Production and operations department managers in constructio
1224	Production and operations department managers in wholesale a
1225	Production and operations department managers in restaurants
1226	Production and operations department managers in transport,
1227	Production and operations department managers in business se
1228	Production and operations department managers in personal ca
1229	Production and operations department managers not elsewhere
1231	Finance and administration department managers
1232	Personnel and industrial relations department managers
1233	Sales and marketing department managers
1234	Advertising and public relations department managers
1235	Supply and distribution department managers
1236	Computing services department managers
1237	Research and development department managers
1239	Other department managers not elsewhere classified
1311	General managers in agriculture, hunting, forestry/ and fish
1312	General managers in manufacturing
1313	General managers in construction
1314	General managers in wholesale and retail trade
1315	General managers of restaurants and hotels
1316	General managers in transport, storage and communications

Occupation Code	Occupation Name
1317	General managers of business services
1318	General managers in personal care, cleaning and related serv
1319	General managers not elsewhere classified
2111	Physicists and astronomers
2112	Meteorologists
2113	Chemists
2114	Geologists and geophysicists
2121	Mathematicians and related professionals
2122	Statisticians
2131	Computer systems designers and analysts
2132	Computer programmers
2139	Computing professionals not elsewhere classified
2141	Architects, town and traffic planners
2142	Civil engineers
2143	Electrical engineers
2144	Electronics and telecommunications engineers
2145	Mechanical engineers
2146	Chemical engineers
2147	Mining engineers, metallurgists and related professionals
2148	Cartographers and surveyors
2149	Architects, engineers and related professionals not elsewher
2211	Biologists, botanists, zoologists and related professionals
2212	Pharmacologists, pathologists and related professionals
2213	Agronomists and related professionals
2214	Animal husbandry researchers
2221	Medical doctors
2222	Dentists
2223	Veterinarians
2224	Pharmacists
2229	Health professionals (except nursing) not elsewhere classifi
2231	Nursing professionals
2232	Midwifery professionals
2311	Economist
2312	Sociologists, anthropologists and related professionals
2313	Philosophers, historians and political scientists
2314	Language experts, translators, and interpreters
2315	Psychologists
2316	Social work professionals
2410	College, university and higher education teaching profession
2421	Senior secondary education teaching professionals
2422	Junior secondary education teaching professionals
2431	Primary education teaching professionals
2432	Pre-primary education teaching professionals
2440	Non-formal education teaching professionals
2450	Special education teaching professionals
2461	Education methods specialists

Occupation Code	Occupation Name
2462	School inspectors
2469	Other teaching professionals not elsewhere classified
2511	Lawyers
2512	Judges
2513	Attorney
2519	Legal professionals not elsewhere classified
2611	Accountants
2612	Personnel and careers professionals
2619	Business professionals not elsewhere classified
2911	Archivists and curators
2912	Librarians and related information professionals
2921	Authors and critics
2922	Journalists
2923	Writers and related professionals
2924	Sculptors, painters and related artists
2925	Composers, musicians and singers (except street singers)
2926	Choreographers and dancers
2927	Puppeteers, gamelan payers, and related artists
2928	Film, stage and related actors and directors
2931	Ulama and related professionals in Islam religion
2932	Christian-Prosestant priest and related professionals
2933	Christian-Catholic priest and related professionals
2934	Monks and related professionals in Budhaism religion
2935	Pastor and related personnel in Hinduism religion
2939	Other religious professionals not elsewhere classified
3111	Chemical and physical science technicians
3112	Civil engineering technicians
3113	Electrical engineering technicians
3114	Electronics and telecommunications 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 c
3121	Computer assistants
3122	Computer equipment operators
3123	Industrial robot controllers
3131	Photographers and image and sound recording equipment operat
3132	Broadcasting and telecommunications equipment operators
3133	Medical equipment operators
3139	Optical and electronic equipment operators not elsewhere cla
3141	Ship engineers
3142	Ship deck officers and pilots
3143	Aircraft pilots and related associate professionals

Occupation Code	Occupation Name
3144	Air traffic controllers
3145	Air traffic safety technicians
3151	Building and fire inspectors
3152	Safety, health and quality inspectors
3211	Life science technicians
3212	Agronomy and forestry technicians
3213	Farming and forestry advisers
3221	Medical assistants
3222	Sanitarians
3223	Dieticians and nutritionists
3224	Optometrists and opticians
3225	Dental assistants
3226	Physiotherapists and related associate professionals
3227	Veterinary assistants
3228	Pharmaceutical assistants
3229	Modern health associate professionals (except nursing) not e
3231	Nursing associate professionals
3232	Midwifery associate professionals
3241	Traditional medicine practitioners
3242	Faith healers
3310	special education teaching associate professionals
3320	Other teaching associate professionals
3411	Securities and finance dealers and brokers
3412	Insurance representatives
3413	Estate agents
3414	Travel consultants and organisers
3415	Technical and commercial sales representatives
3416	Buyers
3417	Appraisers, valuers and auctioneers
3419	Finance and sales associate professionals not elsewhere clas
3511	Trade brokers
3512	Clearing and forwarding agents
3513	Employment agents and labour contractors
3519	Business services agents and trade brokers not elsewhere cla
3911	Administrative secretaries and related associate professiona
3912	Legal and related business associate professionals
3913	Bookkeepers
3914	Statistical, mathematical and related associate professional
3919	Administrative associate professionals not elsewhere classif
3921	Customs and border inspectors
3922	Government tax and excise officials
3923	Government social benefits officials
3924	Government licensing officials
3929	Customs, tax and related government associate professionals
3930	Police inspectors and detectives
3940	Social work associate professionals

Occupation Code	Occupation Name
3951	Decorators and commercial designers
3952	Radio, television and other announcers
3953	Street, night-club and related musicians, singers and dancer
3954	Clowns, magicians, acrobats and related associate profession
3955	Athletes, sportspersons and related associate professionals
3960	Religious associate professionals
4111	Stenographers and typists
4112	Word-processor and related operators
4113	Computer and data entry operators
4114	Calculating-machine and bookkeeping machine operators
4115	Secretaries
4121	Accounting and bookkeeping clerks
4122	Statistical and finance clerks
4131	Stock clerks
4132	Production clerks
4133	Transport and communication clerks
4141	Library and filing clerks
4142	Mail carriers and sorting clerks
4143	Coding, proof-reading and related clerks
4144	Scribes and related workers
4190	Other office clerks
4211	Cashiers and ticket clerks
4212	Tellers and other counter clerks
4213	Pawnbrokers and money-lenders
4214	Debt-collectors and related workers
4221	Travel agency and related clerks
4222	Receptionists and information clerks
4223	Telephone switchboard operators
5111	Air steward and stewardess, and ship waiters
5112	Land transportation conductors including train steward and s
5113	Travel guides
5121	Housekeepers and related workers
5122	Cooks
5123	Waiters, waitresses and bartenders
5131	Child-care workers
5132	Institution-based personal care workers
5133	Home-based personal care workers
5139	Personal care and related workers not elsewhere classified
5141	Hairdressers, barbers, beauticians and related workers
5142	Companions and valets
5143	Undertakers and embalmers
5149	Other personal services workers not elsewhere classified
5151	Astrologers and related workers
5152	Fortune-tellers, palmists and related workers
5161	Fire-fighters
5162	Police officers

Occupation Code	Occupation Name
5163	Prison guards
5169	Protective services workers not elsewhere classified
5210	Fashion and other models
5220	Shop salespersons and demonstrators
5230	Stall and market salespersons
6111	Field crop and vegetable growers
6112	Tree and shrub crop growers
6113	Gardeners, horticultural and nursery growers
6114	Mixed-crop growers
6121	Dairy and livestock producers
6122	Poultry producers
6123	Apiarists and sericulturists
6124	Mixed-animal producers
6129	Market-oriented animal producers and related workers not els
6130	Market-oriented crop and animal producers
6141	Forestry workers and loggers
6142	Charcoal burners and related workers
6151	Aquatic-life cultivation workers
6152	Inland and coastal waters fishery workers
6153	Deep-sea fishery workers
6154	Hunters and trappers
6210	Subsistence agricultural and fishery workers
7111	Miners and quarry workers
7112	Shotfirers and blasters
7113	Stone splitters, cutters and carvers
7121	Builders, traditional materials
7122	Bricklayers and stonemasons
7123	Concrete placers, concrete finishers and related workers
7124	Carpenters and joiners
7129	Building frame and related trades workers not elsewhere clas
7131	Roofers
7132	Floor layers and tile setters
7133	Plasterers
7134	Insulation workers
7135	Glaziers
7136	Plumbers and pipe fitters
7137	Building and related electricians
7141	Painters and related workers
7142	Varnishers and related painters
7143	Building structure cleaners
7211	Metal moulders and coremakers
7212	Welders and flamecutters
7213	Sheet metal workers
7214	Structural-metal preparers and erectors
7215	Riggers and cable splicers

Occupation Code	Occupation Name
7216	Underwater workers
7221	Blacksmiths, hammer-smiths and forging-press workers
7222	Tool-makers and related workers
7223	Machine-tool setters and setter-operators
7224	Metal wheel-grinders, polishers and tool sharpeners
7231	Motor vehicle mechanics and fitters
7232	Aircraft engine mechanics and fitters
7233	Agricultural- or industrial-machinery mechanics and fitters
7241	Electrical mechanics and fitters
7242	Electronics fitters
7243	Electronics mechanics and servicers
7244	Telegraph and telephone installers and servicers
7245	Electrical line installers, repairers and cable jointers
7311	Precision-instrument makers and repairers
7312	Musical instrument makers and tuners
7313	Jewellery and precious-metal workers
7321	Abrasive wheel formers, potters and related workers
7322	Glass makers, cutters, grinders and finishers
7323	Glass engravers and etchers
7324	Glass, ceramics and related decorative painters
7331	Handicraft workers in wood and related materials
7332	Handicraft workers in textile, leather and related materials
7341	Compositors, typesetters and related workers
7342	Stereotypers and electrotypers
7343	Printing engravers and etchers
7344	Photographic and related workers
7345	Bookbinders and related workers
7346	Silk-screen, block and textile printers
7411	Butchers, fishmongers and related food preparers
7412	Bakers, pastry-cooks and confectionery makers
7413	Dairy-products makers
7414	Fruit, vegetable and related preservers
7415	Food and beverage tasters and graders
7416	Tobacco preparers and tobacco products makers
7421	Wood treaters
7422	Cabinet makers and related workers
7423	Woodworking machine setters and setter-operators
7424	Basketry weavers, brush makers and related workers
7431	Fibre preparers
7432	Weavers, knitters and related workers
7433	Tailors, dressmakers and hatters
7434	Furriers and related workers
7435	Textile, leather and related pattern-makers and cutters
7436	Sewers, embroiderers and related workers
7437	Upholsterers and related workers
7438	Batik makers

Occupation Code	Occupation Name
7441	Pelt dressers, tanners and fellmongers
7442	Shoe-makers and related workers
8112	Mineral-ore- and stone-processing-plant operators
8113	Well drillers and borers and related workers
8121	Ore and metal furnace operators
8122	Metal rolling-mill operators
8123	Metal-heat-treating-plant operators
8124	Metal caster operators
8125	Metal heater operators
8126	Metal drawers and extruders
8131	Glass and ceramics kiln and related machine operators
8139	Glass, ceramics and related plant operators not elsewhere cl
8141	Wood-processing-plant operators
8142	Paper-pulp plant operators
8143	Papermaking-plant operators
8151	Crushing-, grinding- and chemical-mixing-machinery operators
8152	Chemical-heat-treating-plant operators
8153	Chemical-filtering- and separating-equipment operators
8154	Chemical-still and reactor operators (except petroleum and n
8155	Petroleum- and natural-gas-refining-plant operators
8159	Chemical-processing-plant operators not elsewhere classified
8161	Power-production plant operators
8162	Steam-engine and boiler operators
8163	Incinerator, water-treatment and related plant operators
8171	Automated-assembly-line operators
8172	Industrial-robot operators
8211	Machine-tool operators
8212	Cement and other mineral products machine operators
8221	Pharmaceutical- and toiletry-products machine operators
8222	Ammunition- and explosive-products machine operators
8223	Metal finishing-, plating- and coating-machine operators
8224	Photographic-products machine operators
8229	Chemical-products machine operators not elsewhere classified
8231	Rubber-products machine operators
8232	Plastic-products machine operators
8240	Wood-products machine operators
8251	Printing-machine operators
8252	Bookbinding-machine operators
8253	Paper-products machine operators
8261	Fibre-preparing-, spinning- and winding-machine operators
8262	Weaving- and knitting-machine operators
8263	Sewing-machine operators
8264	Bleaching-, dyeing- and cleaning-machine operators
8265	Fur and leather-preparing-machine operators

Occupation Code	Occupation Name
8266	Shoemaking- and related machine operators
8269	Textile-, fur- and leather-products machine operators not el
8271	Meat- and fish-processing-machine operators
8272	Dairy-products machine operators
8273	Grain- and spice-milling-machine operators
8274	Baked-goods, cereal and chocolate-products machine operators
8275	Fruit-, vegetable- and nut-processing-machine operators
8276	Sugar production machine operators
8277	Tea-, coffee-, and cocoa-processing-machine operators
8278	Brewers, wine and other beverage machine operators
8279	Tobacco production machine operators
8281	Mechanical-machinery assemblers
8282	Electrical-equipment assemblers
8283	Electronic-equipment assemblers
8284	Metal-, rubber- and plastic-products assemblers
8285	Wood and related products assemblers
8286	Paperboard, textile and related products assemblers
8290	Other machine operators and assemblers
8311	Locomotive-engine drivers
8312	Railway brakemen, signallers and shunters
8321	Motor-cycle drivers
8322	Car, taxi and van drivers
8323	Bus and tram drivers
8324	Heavy-truck and lorry drivers
8331	Motorised farm and forestry plant operators
8332	Earth-moving- and related plant operators
8333	Crane, hoist and related plant operators
8334	Lifting-truck operators
8340	Deck crews of ships and related workers
9111	Street food vendors
9112	Street vendors, non-food products
9113	Door-to-door and telephone salespersons
9120	Shoe cleaning and other street services elementary occupatio
9131	Domestic helpers and cleaners
9132	Helpers and cleaners in offices, hotels and other establishm
9133	Hand-launderers and pressers
9141	Building caretakers
9142	Vehicle, window and related cleaners
9151	Messengers, package and luggage porters and deliverers
9152	Doorkeepers, watchpersons and related workers
9153	Vending-machine money collectors, meter readers and related
9161	Garbage collectors
9162	Sweepers and related labourers

Occupation Code	Occupation Name
9211	Farm-hands and labourers
9212	Forestry labourers
9213	Fishery, hunting and trapping labourers
9311	Mining and quarrying labourers
9312	Construction and maintenance labourers: roads, dams and simi
9313	Building construction labourers
9321	Assembling labourers
9322	Hand packers and other manufacturing labourers
9331	Rickshaw or pedal vehicle drivers
9332	Drivers of animal-drawn vehicles and machinery
9333	Freight handlers

Table A3. Occupation code in Sakernas 2020, Indonesia

Occupation Code	Occupation Name
0	Army and Police
1	Manager
2	Professional
3	Technician and Professional Assistant
4	Administrative Staff
5	Service Industry Workers and Sales Staff
6	Skilled Workers in Agriculture, Forestry, and Fisheries
7	Workers in Processing, Crafts, and Others not mentioned
8	Machine Operators and Assemblers
9	Unskilled Workers

Table A4. Concordance - National Classification of Occupation (NCO) between 1968 and 2004, India

Code (NCO-1968)	Description	NCO-2004 (3 Digit)	Occupation Groups
200	Elected Officials, Union Government	111	1
201	Elected Officials, State Government	111	1
202	Elected Officials, Local Bodies	111	1
209	Elected Officials, N.E.C.	112	1
210	Administrative & Executive Officials, Union Government	112	1
211	Administrative & Executive Officials, State Government	112	1
212	Administrative & Executive Officials, Quasi Government	112	1
213	Administrative & Executive Officials, Local Bodies	112	1
219	Administrative & Executive Officials, Govt. & Local Bodies, N.E.C	113	1
220	Working Proprietors, Directors & Managers, Wholesale	121	1
221	Working Proprietors, Directors & Managers, Retail Trade	121	1
229	Working Proprietors, Directors And Managers Wholesale & Retail Trade, N.E.C	121	1
230	Directors And Managers, Bank	121	1
231	Directors And Managers, Insurance	121	1
240	Working Proprietors ,Directors &Managers, Mining, Quarrying And Well Drilling	121	1
241	Working Proprietors, Directors & Managers, Construction	121	1
242	Working Proprietors, Directors & Managers, Electricity, Gas And Water	121	1
243	Working Proprietors, Directors & Managers, Manufacturing	121	1
249	Manufacturing And Related Concerns, N.E.C	121	1
250	Working Proprietors, Directors ,Managers & Related Executives, Transport	122	1
252	Warehouse	122	1
260	Working Proprietors, Directors & Managers, Lodging &Catering Services	122	1
261	Working Props, Dirs & Managers, Recreation & Entertain	122	1
269	Working Proprietors, Directors, Managers,& Related Executives, Other Services	122	1
601	Manager, Plantation	122	1
602	Farm Managers, Horticulture	122	1
603	Farm Manager, Livestock Farm	122	1
604	Farm Manager, Dairy Farm	122	1
605	Farm Manager, Poultry Farm	122	1
609	Farm Managers And Supervisors, N.E.C.	122	1
239	Directors And Managers, Financial Institution N.E.C	123	1
251	Directors, Managers & Related Executives, Communication	123	1
360	Station Masters And Station Superintendents, Transport	123	1
369	Transport & Communication Supervisor, N.E.C.	123	1
000	Physicist	211	1
001	Chemists (Excluding Pharmaceutical Chemists)	211	1
002	Geologists And Geophysicists	211	1
003	Meteorologist	211	1
009	Physical Scientists, N.E.C	211	1
100	Mathematicians	212	1
101	Statisticians	212	1
102	Actuaries	212	1
103	System Analysts And Programmers	213	1
109	Mathematicians, Statisticians & Related Workers ,N.E.C	213	1

020	Architects And Town Planners	214	1
021	Civil Engineers	214	1
022	Electrical And Electronic Engineers	214	1
023	Mechanical Engineers	215	1
024	Chemical Engineers	215	1
025	Metallurgists	215	1
026	Mining Engineers	215	1
027	Industrial Engineers	215	1
028	Surveyors	215	1
029	Architects, Engineers, Technologists And Surveyors ,N.E.C	215	1
050	Biologists, Zoologists, Botanists And Related Scientists	221	1
051	Bacteriologists, Pharmacologists & Related Scientists	221	1
052	Silviculturists	221	1
053	Agronomists And Agricultural Scientists	221	1
059	Life Scientists, N.E.C	222	1
070	Physicians And Surgeons, Allopathic	222	1
071	Physicians And Surgeons, Ayurvedic	222	1
072	Physicians And Surgeons, Homoeopathic	222	1
073	Physician And Surgeons, Unani	222	1
074	Dental Surgeons	223	1
075	Veterinarians	223	1
078	Public Health Physicians	223	1
079	Physicians And Surgeons, N.E.C.	223	1
150	Teachers, University And Colleges	231	1
151	Teachers, Higher Secondary & Secondary Schools	232	1
301	Other Supervisors (Inspectors, Etc.)	233	1
159	Teachers, N.E.C.	234	1
120	Accountants And Auditors	241	1
121	Cost And Works Accountants	241	1
136	Personnel And Occupational Specialists	241	1
140	Lawyers	242	1
141	Judges And Magistrates	242	1
134	Librarians, Archivists And Curators	243	1
149	Jurists, N.E.C.	243	1
110	Economists	244	1
130	Sociologists And Anthropologists	244	1
131	Historians, Archaeologists & Political Scientists & Related Workers	244	1
132	Geographers	244	1
135	Philologists, Translators And Interpreters	244	1
133	Psychologists	245	1
137	Labour, Social Welfare & Political Workers	245	1
160	Poets, Authors And Critics	245	1
161	Editors And Journalists	245	1
169	Poets, Authors, Journalists And Related Workers, N.E.C	245	1
170	Sculptors, Painters And Related Artists	245	1
180	Composers, Musicians And Singers	245	1
181	Choreographers And Dancers	245	1

182	Actors	246	1
183	Stage & Film Directors & Producers (Performing Arts)	246	1
190	Ordained Religious Workers	246	1
191	Non-Ordained Religious Workers	246	1
010	Physical Science Technicians	311	1
031	Civil Engineering Overseers And Technicians	311	1
032	Electrical And Electronic Engineering Overseers And Technicians	311	1
037	Survey Technicians	311	1
030	Draughtsmen	312	1
033	Mechanical Engineering Overseers And Technicians	312	1
034	Chemical Engineering Technicians	312	1
035	Metallurgical Technicians	312	1
036	Mining Technicians	312	1
039	Engineering Technicians, N.E.C	312	1
199	Professional Workers N.E.C.	312	1
086	X-Ray Technicians	313	1
172	Movie Camera Operators	313	1
173	Photographers, Other	313	1
391	Telegraphists And Signallers	313	1
392	Radio Communication And Wireless Operators	313	1
860	Supervisors, Broadcasting, Audio-Visual Projection & Sound Equipment Operators	313	1
861	Radio Broadcasting Television N Operators	313	1
862	Sound Equipment Operators & Cinema Projectionists	313	1
040	Aircraft Pilots	314	1
041	Flight Engineers	314	1
042	Flight Navigators	314	1
043	Ship's Deck Officers And Pilots	314	1
044	Ships Engineers	314	1
570	Fire Fighters	315	1
060	Life Science Technicians	322	1
077	Dieticians And Nutritionists	322	1
080	Vaccinators, Inoculators And Medical Assistants	322	1
087	Optometrists And Opticians	322	1
076	Pharmacists	323	1
081	Dental Assistants	323	1
082	Veterinary Assistants	323	1
083	Pharmaceutical Assistants	323	1
084	Nurses	323	1
085	Midwives And Health Visitors	323	1
088	Physiotherapists And Occupational Therapists	323	1
089	Technicians , N.E.C	323	1
152	Teachers, Middle School	331	1
153	Teachers, Primary	331	1
154	Teachers, Pre-Primary	332	1
155	Teachers, Special Education	333	1
156	Teachers, Craft	334	1
440	Agents And Salesmen, Insurance	341	1

441	Agents, Brokers And Salesmen, Real Estate	341	1
442	Agents And Brokers, Securities And Shares	341	1
443	Agents, Brokers & Salesmen, Advertising & Other Business Services	341	1
449	N.E.C	341	1
411	Purchasing Agents	342	1
420	Technical Salesmen And Service Advisors	342	1
421	Commercial Travellers	342	1
429	Technical Salesmen And Commercial Travellers, N.E.C	342	1
444	Auctioneers	342	1
445	Valuers And Appraisers	342	1
104	Statistical Investigators And Related Workers	343	1
111	Economic Investigators And Related Workers	343	1
142	Legal Assistants	343	1
300	Clerical Supervisors,(Office. Superintendents), Head Clerks, Section Heads	343	1
302	Ministerial And Office Assistants	343	1
139	Social Scientists And Related Workers, N.E.C.	344	1
572	Customs Examiners, Patrollers & Related Workers	344	1
571	Policemen And Detectives	345	1
171	Commercial Artists, Interior Decorators& Designers	347	1
184	Circus Performers	347	1
189	Composers And Performing Artists, N.E.C.	347	1
193	Athletes, Sportsmen And Related Workers	348	1
321	Typists	411	1
322	Tele-Typists	411	1
323	Card & Tape punching Machine Operators	411	1
340	Book-Keeping & Calculating Machine Operators	411	1
341	Automatic Data Processing Machine Operators	411	1
349	Computing Machine Operators, N.E.C	411	1
310	Village Officials	412	1
320	Stenographers And Steno-Typists	412	1
330	Book Keepers And Accounts Clerks	412	1
339	Bookkeepers, Cashiers & Related Workers, N.E.C.	412	1
351	Store Keeper And Related Workers	413	1
353	Library Clerks	414	1
355	Coders	414	1
361	Postmasters, Telegraph Masters And Other Supervisors	414	1
379	Transport Conductors And Guards, N.E.C	414	1
380	Postmen	414	1
350	Clerks, General	419	1
354	Time Keepers	419	1
359	Clerical & Related Workers(Including Proof Readers &Copy Holders), N.E.C	419	1
331	Cashiers	421	1
356	Ticket Sellers	421	1
450	Money Lenders (Including Indigenous Bankers)	421	1
451	Pawn Brokers	421	1
459	Money Lenders And Pawn Brokers, N.E.C.	421	1
352	Receptionists	422	1

390	Telephone Operators	422	1
357	Ticket Collectors, Checkers and Examiners	511	2
370	Guards And Breaks Men, Railway	511	2
371	Conductors, Transport	511	2
539	Maids And Related Housekeeping Service Workers, N.E.C	511	2
590	Guides	511	2
500	Hotel And Restaurant Keepers	512	2
510	House Keepers, Matrons And Stewards	512	2
520	Cooks And Cook Bearers	512	2
521	Butlers, Bearers And Waiters	512	2
522	Bartenders And Related Workers	512	2
358	Office Attendants (Peons, Daftries, Etc)	513	2
530	Ayahs, Nurse, Maids	513	2
560	Hair Dressers, Barbers, Beauticians & Related Workers	514	2
591	Undertakers And Embalmers	514	2
192	Astrologers, Palmists And Related Workers	515	2
573	Protection Force, Home Guard And Security Workers	517	2
400	Merchants And Shopkeepers, Wholesale Trade	522	2
401	Merchants And Shopkeepers, Retail Trade	522	2
410	Sales Supervisors	522	2
412	Selling Agents	522	2
419	Manufacturers Agents, N.E.C.	522	2
430	Salesmen, Shop Assistants And Demonstrators	522	2
439	Salesmen, Shop Assistants & Related Workers, N.E.C.	523	2
600	Farm Managers & Supervisors, Crop Production	611	2
610	Cultivators (Owners)	611	2
611	Cultivators (Tenants)	611	2
619	Cultivators, N.E.C	611	2
620	Planters	611	2
625	Orchard, Vineyard And Related Workers	611	2
641	Tappers, (Palm, Rubber Trees, Etc.)	611	2
652	Gardeners And Nursery Workers	611	2
621	Livestock Farmers	612	2
622	Dairy Farmers	612	2
623	Poultry Farmers	612	2
624	Insect Rearers	612	2
651	Farm Workers, Animal, Birds And Insect Rearing	612	2
659	Other Farm Workers, N.E.C.	612	2
629	Farmers, Other Than Cultivators, N.E.C.	613	2
660	Foresters And Related Workers	614	2
661	Harvesters & Gatherers Of Forest Products Including Lac(Except Logs)	614	2
662	Log Fellers And Wood Cutters	614	2
663	Charcoal Burners & Forest Product Processors	614	2
669	Loggers And Other Forestry Workers, N.E.C.	614	2
670	Hunters	615	2
671	Trappers	615	2
679	Hunters And Related Workers, N.E.C.	615	2

680	Fishermen, Deep Sea	615	2
681	Fishermen, Inland And Coastal Waters	615	2
682	Conch & Shell Gatherers, Sponge & Pearl Divers	615	2
689	Fishermen And Related Workers, N.E.C	616	2
711	Miners	711	2
712	Quarrymen	711	2
714	Shot Firers	711	2
715	Miners And Quarrymen, Other	711	2
719	Miners, Quarrymen & Related Workers, N.E.C.	711	2
829	Stone Cutters And Carvers, N.E.C.	711	2
718	Mineral Treaters	712	2
811	Carpenter	712	2
816	Shipwrights And Boat Builders	712	2
951	Bricklayers, Stone Masons And Tile Setters	712	2
952	Reinforced Concreters, Cement Finishers And Terrazzo Workers	712	2
953	Roofers	713	2
954	Parquetry Workers	713	2
955	Plasterers	713	2
956	Insulators	713	2
958	Hut Builders And Thatcher	713	2
851	Electricians, Electrical Fitters And Related Workers	714	2
855	Electrical Wiremen	714	2
871	Plumbers And Pipe Fitters	714	2
879	Plumbers, Welders, Sheet Metal & Structural Metal Preparers & Erectors, N.E.C	714	2
931	Painters, Construction	714	2
932	Painters, Spray And Sign Writing	714	2
939	Painters, N.E.C.	714	2
950	Supervisors & Foremen, Bricklaying Other Construction Work	714	2
957	Glaziers	714	2
959	Construction Workers, N.E.C.	714	2
930	Supervisors And Foremen, Painting	715	2
725	Metal Moulder And Core Makers	721	2
872	Welders And Flame Cutters	721	2
873	Sheet Metal Workers	721	2
874	Metal Plate And Structural Metal Workers	721	2
831	Blacksmiths, Hammersmith & Forging G Press Operators	722	2
832	Metal Markers	722	2
833	Tool Makers And Metal Pattern Makers	722	2
834	Machine Tool Setters	722	2
836	Metal Grinders, Polishers And Tool Sharpeners	722	2
870	Supervisors, Foremen, Plumbing, Welding Structural & Sheet Metal Working	722	2
972	Riggers And Cable Splicer	722	2
830	Supervisors & Foremen, Blacksmith, Tool Making And Machine Tool Operations	723	2
843	Motor Vehicle Mechanics	723	2
844	Aircraft Engine Mechanics	723	2
845	Mechanics, Repairmen, Other	723	2
963	Oilers & Greasers (Including Cleaners Motor Vehicle)	723	2

399	Telephone And Telegraph Operators, N.E.C.	724	2
840	Instrument Making (Except Electrical)	724	2
852	Electronics Fitters	724	2
854	Radio Television Mechanics And Repairmen	724	2
856	Telephone And Telegraph Installers And Repairmen	724	2
850	Installing & Repairing	725	2
857	Electric Linemen And Cable Jointers	725	2
859	Electrical Fitters & Related Electrical & Electronic Workers, N.E.C	725	2
841	Watch, Clock & Precision Instrument Makers(Except Electrical)	731	2
849	Electrical),N.E.C	731	2
881	Jewellers, Goldsmiths & Silversmiths	731	2
882	Jewellery Engravers	731	2
883	Other Metal Engravers (Except Printing)	731	2
889	Jewellers & Precious Metal Workers, N.E.C (Except Printing)	731	2
941	Musical Instrument Makers And Tuners	731	2
880	Supervisors, Jewellery And Precious Metal Working	732	2
891	Glass Formers, Cutters, Grinders And Finishers	732	2
892	Potters And Related Clay & Abrasive Formers	732	2
894	Glass Engravers And Etchers	732	2
895	Glass And Ceramics Painters And Decorators	732	2
940	Supervisors And Foremen Production & Related Activities, N.E.C	732	2
921	Compositors	734	2
922	Type Setters And Photo-Type Setters	734	2
924	Stereo-Typers And Electro-Typers	734	2
925	Engravers, Printing(Except Photo Engravers)	734	2
926	Photo Engravers	734	2
928	Photographic Dark Room Workers	734	2
929	Printers And Related Workers, N.E.C.	734	2
920	Supervisors & Foremen Printing & Related Work	735	2
927	Book Binders And Related Workers	735	2
771	Grain Millers, Parches And Related Workers	741	2
774	Butchers And Meat Preparers	741	2
776	Dairy Product Processors	741	2
777	Bakers, Confectioners, Candy & Sweet Meat Makers, Other Food Processors	741	2
731	Wood Treaters	742	2
739	Wood Preparation And Paper Making Workers N.E.C	742	2
770	Supervisors & Foremen, Food & Beverage Processing	742	2
781	Tobacco Prepares	742	2
782	Cigar Makers	742	2
784	Bidi Makers	742	2
789	Tobacco Prepares And Tobacco Product Makers, N.E.C.	742	2
812	Cabinet Makers	742	2
813	Wood Working Machine Operators	742	2
814	Cart Builders And Wheel Wrights	742	2
815	Coach And Body Builders	742	2
819	Carpenters, Cabinet Makers & Related Workers, N.E.C.	742	2
942	Basketry Weavers And Brush Makers	742	2

751	Fibre Preparers	743	2
754	Weaving & Knitting Machine Setters & Pattern Card Preparers	743	2
755	Weavers And Related Workers	743	2
756	Carpet Makers And Finishers	743	2
790	Supervisors & Foremen, Tailoring, Dress Making, Sewing, Upholstery work	743	2
791	Tailors And Dress Makers	743	2
792	Fur Tailors and Related Workers	743	2
793	Milliners, Hat And Cap Makers	743	2
761	Tanners And Fell Mongers	744	2
762	Pelt Dressers	744	2
769	Fell Mongers And Pelt Dressers, N.E.C.	744	2
794	Pattern Makers And Cutters	744	2
795	Sewers And Embroiders	744	2
796	Upholsterers And Related Workers	744	2
799	Tailors, Dressmakers, Sewers, Upholsterers & Related Workers, N.E.C	744	2
801	Shoe Makers & Shoe Repairers	744	2
803	Harness And Saddle Makers	744	2
809	Leather, Cutters, Lasters & Sewers & Related Workers, N.E.C	744	2
713	Drillers, Mines And Quarries	811	1
716	Well Drillers, Petroleum And Gas	811	1
717	Well Drillers, Other Than Petroleum And Gas	811	1
821	Stone Cutter And Carvers	811	1
710	Supervisor & Foreman, Mining, Quarrying, Well Drilling & Related Activities	812	1
721	Metal Smelting, Converting & Refining Furnace Men	812	1
722	Metal Rolling Mill Workers	812	1
723	Metal Melters And Reheaters	812	1
724	Metal Casters	812	1
726	Metal Annealers, Temperers And Case Hardeners	812	1
727	Metal Drawers And Extruders	812	1
720	Supervisors & Foremen, Metal Smelting Converting Refining	813	1
893	Glass And Ceramic Kilnmen	813	1
732	Sawyers, Plywood Makers & Related Wood Processing Workers	814	1
733	Paper Pulp Preparers	814	1
734	Paper Makers	814	1
890	Supervisors & Foremen, Glass Forming, Pottery & Related Activities	814	1
899	Glass Formers, Potters & Related Workers, N.E.C.	814	1
730	Supervisor & Foreman, Wood Preparation & Paper Making	815	1
741	Crushers, Grinders And Mixers	815	1
742	Cookers, Roasters And Related Heat Treaters	815	1
743	Filter And Separator Operators	815	1
744	Still And Reactor Operators	815	1
740	Supervisor & Foreman, Chemical Processing & Related Activities	816	1
745	Petroleum Refining Workers,	816	1
749	Chemical Processors And Related Workers, N.E.C.	816	1
962	Boilermen And Firemen	816	1
969	Stationary Engine & Related Equipment Operators, N.E.C	816	1
982	Ships' Engine Room Ratings	816	1

984	Firemen, Railways	816	1
960	Supervisors & Foremen, Stationary & Related Equipment Operations	817	1
961	Stationary Engine & Related Equipment Operators	817	1
835	Machine Tool Operators	821	1
839	Blacksmiths, Toolmakers, Machine Tool Operators, N.E.C	821	1
728	Metal Platters And Coaters	822	1
729	Metal Processors, N.E.C.	822	1
820	Supervisors And Foremen, Stone Cutting And Carving	822	1
949	Production And Related Workers, N.E.C.	822	1
901	Plastics Product Makers	823	1
902	Rubber Product Makers (Except Tyre Makers & Vulcanisers)	823	1
903	Tyre Makers And Vulcanisers	823	1
900	Supervisors & Foremen, Rubber & Plastics Product Making	824	1
810	Processes	825	1
911	Paper And Paper Board Product Makers	825	1
923	Printing Pressman	825	1
549	Building Caretakers, Sweepers, Cleaners & Related Workers, N.E.C	826	1
752	Spinners And Winders	826	1
753	Warpers And Sizers	826	1
757	Knitters	826	1
758	Bleachers, Dyers And Textile Product Finishers	826	1
759	Spinners, Weavers, Knitters, Dyers & Related Workers, N.E.C	826	1
910	Supervisors & Foremen Paper & Paper Board Product Making	826	1
750	Supervisors & Foremen, Spinning, Weaving, Knitting, Dyeing & Related	827	1
760	Supervisors & Foremen, Tanning & Pelt Dressing	827	1
772	Crushers And Pressers, Oil Seeds	827	1
800	Supervisor & Foremen, Shoe & Leather Goods Making	827	1
802	Shoe Cutters, Lasters, Sewers And Related Workers	827	1
773	Khandsari, Sugar And Gur Makers	828	1
775	Food Preservers And Canners	828	1
778	Tea, Coffee & Cocoa Prepares	828	1
779	Brewers & Aerated Water & Beverage Makers	828	1
780	Supervisors & Foremen Tobacco & Tobacco Product Makers	828	1
783	Cigarette Makers	828	1
842	Machinery Fitters And Machine Assemblers	828	1
853	Electric And Electronic Equipment Assemblers	828	1
970	Supervisors & Foremen, Material & Freight Handling & Related Equipment	829	1
983	Drivers, Railways	831	1
985	Pointsmen, Signalmen And Shunters, Railways	831	1
986	Tram Car And Motor Vehicle Drivers	832	1
650	Farm Machinery Operators	833	1
973	Crane And Hoist Operators	833	1
974	Earth Moving & Related Machinery Operators	833	1
979	Material Handling Equipment Operators, N.E.C.	833	1
981	Ships Deck Ratings, Barge Crews And Boatmen	834	1
049	Aircraft And Ship'S Officers, N.E.C		1
090	Scientific Medical And Technical Persons, Other		1

119	Economists And Related Workers, N.E.C.		1
129	Accountants, Auditors And Related Workers, N.E.C.		1
179	Sculptors, Painters, Photographers & Related Creative Artists, N.E.C		1
259	Storage And Communication, N.E.C		1
299	Administrative, Executive & Managerial Workers, N.E.C		1
309	Clerical And Other Supervisors, Other		1
329	Stenographer, Typist & Card & Tape Punching Operators, N.E.C		1
409	Merchants & Shop Keepers & Wholesale & Retail Trade, N.E.C.		1
490	Sales Workers, N.E.C		2
529	Cooks, Waiters And Related Workers, N.E.C.		2
579	Protective Service Workers, N.E.C.		2
869	Broadcasting Station & Sound Equipment Operators & Cinema Projectionists		1
909	Rubber And Plastics Product Makers, N.E.C		2
919	Paper And Paper Product Makers, N.E.C.		2
431	Street Vendors, Canvassers And News Vendors	911	
599	Service Workers, N.E.C.	912	
531	Domestic Servants	913	
550	Laundrymen, Washermen And Dhobis	913	
551	Dry Cleaners And Pressers	913	
559	Launderers, Dry Cleaners And Pressers, N.E.C	913	
540	Building Caretakers	914	
381	Messengers And Dispatch Riders	915	
389	Mail Distributors And Related Workers, N.E.C	915	
574	Watchmen, Chowkidars And Gate Keepers	915	
541	Sweepers, Cleaners And Related Workers	916	
542	Watermen	916	
630	Agricultural Labourers	920	
640	Plantation Labourers	920	
649	Plantation Labourers And Related Workers, N.E.C.	920	
999	Labourers, Other	931	
943	Non-Metallic Mineral Product Makers	932	
975	Checkers, Testers, Sorters, Weighers And Counters	932	
976	Packers, Labellers And Related Workers	932	
971	Loaders And Unloaders	933	
980	Supervisors & Foremen, Transport Equipment Operation	933	
987	Drivers, Animal And Animal Drawn Vehicles	933	
988	Cycle Rickshaw Drivers And Rickshaw Pullers	933	
989	Transport Equipment Operators And Drivers, N.E.C.	933	
X01	Workers Without Occupations, Metric And Above		
X02	Workers Without Occupations, Literate		
X09	Workers Without Occupations, Others		
X10	Workers Reporting Occupations Unidentified Or Unclassified		
X99	Workers Not Reporting Any Occupation		

Table B1. Work status Codes, Indonesia

Code	Name	
1	Self employed Self employed by temporary or unpaid	
2	worker	
3	Self employed by permanent/paid worker	
4	Labour or employees or personnel	T
5	Free worker in agriculture	
6	Free worker in non-agriculture	
7	Unpaid worker	

Source: Sakernas Survey Instrument

Table B2. Work Status Codes, India

UPA Codes	Description
11	Worked in household enterprise (self-employed): own account worker
12	Worked in household enterprise (self-employed): employer
21	Worked as helper in household enterprise (unpaid family worker)
31	Worked as regular salaried/ wage employee
41	Worked as casual wage labour: in public works
51	Worked as casual wage labour: in other types of work
81	Did not work but was seeking and/or available for work
91	Attended educational institution
92	Attended domestic duties only
93	Attended domestic duties and was also engaged in free collection of goods (vegetables, roots, firewood, cattle feed, etc.), sewing, tailoring, weaving, etc. for household use
94	Rentiers, pensioners, remittance recipients, etc.
95	not able to work due to disability
96 & 97	Others (including begging, prostitution, etc.)

Source: EUS and PLFS Survey Instrument

Table C1. Distribution of Workers by Work Status (Defined by Occupation Group), India

Work Status		1988	2000	2012	2022
A. Proportion of employment by work status					
Self-employed					
Formal		0.12	0.22	0.64	1.26
Informal	Upper-tier	6.98	0.62	0.67	1.27
	Lower-tier	47.76	48.85	48.69	51.98
Wage Employment in Total Employment					
Wage-employed					
Formal		6.84	8.69	11.73	13.13
Informal	Upper-tier	4.33	5.23	6.48	7.44
	Lower-tier	33.96	36.40	31.78	24.94
Formal		6.96	8.90	12.37	14.39
Informal	Upper-tier	11.32	5.85	7.15	8.70
	Lower-tier	81.72	85.25	80.47	76.91
Upper-tier informal in total informal employment		12.16	6.42	8.16	10.17
Upper-tier informal in informal self-employment		12.76	1.25	1.36	2.38
Upper-tier informal in informal wage-employment		11.32	12.56	16.94	22.97

Source: Our calculations, from EUS and PLFS.

Table C2. Average worker characteristics by (work status defined by occupation group), India

Year	Self-employed			Wage-employed			Total
	Formal	Informal		Formal	Informal		
		Upper-tier	Lower-tier		Upper-tier	Lower-tier	
A. Average Age (Years)							
1988	35.46	32.05	34.2	36.67	32.58	31.89	33.36
2000	39.77	40.38	34.4	37.51	33.36	32.74	34.06
2012	39.62	42.65	36.76	36.23	33.77	34.7	35.91
2022	41.42	42.87	38.78	35.99	35.00	36.48	37.64
B. Female Share							
1988	4.59	3.51	32.62	12.97	8.38	34.89	28.93
2000	4.22	12.44	26.40	16.77	11.30	32.93	27.02
2012	3.95	7.76	22.95	19.22	13.18	24.15	22.03
2022	3.97	8.08	29.58	22.76	16.25	24.36	25.80
C. Urban Share							
1988	74.63	25.37	13.43	72.64	68.99	10.42	19.77
2000	68.42	17.46	18.73	63.33	65.39	11.93	22.67
2012	77.82	19.89	22.72	65.13	64.62	13.62	27.85
2022	64.20	20.79	18.59	57.89	56.22	15.61	26.41

Source: Our calculations, from EUS and PLFS.

Table C3. Average worker characteristics by Educational Status (Defined by Occupation Group), India

Year	Self-employed			Wage-employed			Total
	Formal	Informal		Formal	Informal		
		Upper-tier	Lower-tier		Upper-tier	Lower-tier	
Illiterate/Below Primary							
1988	0.00	0.00	73.18	9.67	34.77	82.64	65.19
2000	8.58	30.58	51.17	7.16	23.07	72.27	53.33
2012	5.21	23.89	37.48	5.99	17.14	54.98	37.73
2022	3.62	15.42	27.36	3.80	10.94	39.32	25.58
Primary/Below Secondary							
1988	0.00	0.00	17.20	8.71	22.88	10.22	13.27
2000	21.07	36.70	29.71	16.64	39.49	22.31	26.42
2012	21.95	31.46	32.73	15.05	34.80	33.30	30.89
2022	28.45	40.96	38.79	14.81	35.54	44.01	36.60
Secondary & Higher Secondary							
1988	50.66	92.96	8.46	51.52	39.51	7.01	18.21
2000	40.76	24.19	14.75	37.90	30.87	5.09	14.20
2012	42.90	37.03	22.87	31.68	37.58	10.99	21.30
2022	36.36	31.51	24.37	27.14	38.82	15.20	23.76
Graduates & Above							
1988	49.34	7.04	1.16	30.10	2.84	0.12	3.33
2000	29.59	8.53	4.38	38.30	6.57	0.33	6.05
2012	29.94	7.62	6.92	47.29	10.48	0.72	10.07
2022	31.56	12.10	9.49	54.24	14.70	1.47	14.06

Source: Our calculations, from EUS and PLFS.

Table D1. Marginal effect of multinomial logit regression, pooled data, Indonesia

Work status	Age	Age ²	Female	Married	Urban	Education level				Province
						Primary	Secondary	Higher Secondary	Graduation	
Pooled										
Formal SE	0.00*** (0.00)	0.00*** (0.00)	- (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.01*** (0.00)	0.00 (0.00)
Upper informal SE	0.00*** (0.00)	0.00*** (0.00)	- (0.00)	0.00*** (0.00)	0.01*** (0.00)	0.00*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.02*** (0.00)	0.00 (0.00)
Lower informal SE	- (0.00)	0.00*** (0.00)	0.13*** (0.00)	0.06*** (0.00)	0.16*** (0.00)	0.09*** (0.00)	-0.14*** (0.00)	-0.22*** (0.00)	-0.29*** (0.00)	-0.05*** (0.00)
Formal WE	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.03*** (0.00)	0.07*** (0.00)	0.15*** (0.00)	0.27*** (0.00)	0.47*** (0.00)	0.02*** (0.00)
Upper informal WE	0.00*** (0.00)	0.00*** (0.00)	- (0.00)	- (0.00)	0.07*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.03*** (0.00)	0.01*** (0.00)	0.05*** (0.00)
Lower informal WE	0.01*** (0.00)	0.00*** (0.00)	- (0.00)	- (0.00)	0.05*** (0.00)	0.00* (0.00)	-0.03*** (0.00)	-0.09*** (0.00)	-0.22*** (0.00)	-0.01*** (0.00)

Source: Our calculations.

Table D2. Marginal effect of ordered logit regression, pooled data, Indonesia

Work status	Age	Age ²	Female	Married	Urban	Education level				Province
						Primary	Secondary	Higher Secondary	Graduation	
Lower informal	0.00*** (0.00)	0.00*** (0.00)	0.04*** (0.00)	0.01*** (0.00)	-0.09*** (0.00)	-0.07*** (0.00)	-0.14*** (0.00)	-0.28*** (0.00)	-0.63*** (0.00)	-0.05*** (0.00)
Upper informal	0.00*** (0.00)	0.00*** (0.00)	-0.01*** (0.00)	0.00*** (0.00)	0.03*** (0.00)	0.02*** (0.00)	0.05*** (0.00)	0.09*** (0.00)	0.21*** (0.00)	0.02*** (0.00)
Formal	0.00*** (0.00)	0.00*** (0.00)	-0.03*** (0.00)	-0.01*** (0.00)	0.06*** (0.00)	0.05*** (0.00)	0.09*** (0.00)	0.19*** (0.00)	0.42*** (0.00)	0.03*** (0.00)

Source: Our calculations

Table D3. Marginal effect of multinomial logit regression, pooled data, India

	Formal SE	Upper Informal SE	Lower Informal SE	Formal WE	Upper informal WE	Lower informal WE
Age	-0.00002 (0.000)	-0.001*** (0.000)	-0.011*** (0.000)	0.009*** (0.000)	-0.001*** (0.000)	0.004*** (0.000)
Age²	0.000001* (0.000)	0.00002*** (0.000)	0.0002*** (0.000)	-0.0001*** (0.000)	0.000001 (0.000)	-0.0001*** (0.000)
female	-0.001*** (0.000)	-0.030*** (0.001)	0.074*** (0.002)	0.012*** (0.001)	-0.015*** (0.001)	-0.040*** (0.002)
Currently Married	0.001*** (0.000)	0.011*** (0.001)	0.053*** (0.003)	-0.013*** (0.001)	-0.003*** (0.001)	-0.048*** (0.003)
Urban	0.001*** (0.000)	-0.003*** (0.001)	-0.032*** (0.002)	0.068*** (0.001)	0.036*** (0.001)	-0.069*** (0.002)
Primary	0.0004*** (0.000)	0.010*** (0.001)	0.093*** (0.003)	0.029*** (0.001)	0.002*** (0.001)	-0.134*** (0.003)
Secondary & Higher	0.001*** (0.000)	0.078*** (0.001)	0.045*** (0.003)	0.140*** (0.002)	0.007*** (0.001)	-0.271*** (0.002)
Secondary						
Graduates & Above	0.003*** (0.000)	0.041*** (0.002)	-0.004 (0.004)	0.368*** (0.004)	-0.011*** (0.001)	-0.397*** (0.002)
ST	-0.0002 (0.000)	-0.020*** (0.002)	-0.071*** (0.004)	0.009*** (0.002)	-0.006*** (0.002)	0.087*** (0.003)
SC	-0.0002 (0.000)	-0.019*** (0.001)	-0.199*** (0.003)	0.018*** (0.001)	-0.004*** (0.001)]	0.204*** (0.002)

Source: Our calculations.

Table D4. Marginal effect of ordered logit regression, pooled data, India

	Lower Informal	Upper Informal	Formal
Age	-0.005*** (0.000)	0.001*** (0.000)	0.004*** (0.000)
Age²	0.0001*** (0.000)	-0.00002*** (0.000)	-0.00004*** (0.000)
female	0.018*** (0.002)	-0.005*** (0.000)	-0.013*** (0.001)
Currently Married	0.007*** (0.002)	-0.002*** (0.000)	-0.005*** (0.001)
Urban	-0.105*** (0.001)	0.028*** (0.000)	0.076*** (0.001)
Primary	-0.045*** (0.001)	0.020*** (0.001)	0.025*** (0.001)
Secondary & Higher Secondary	-0.222*** (0.002)	0.085*** (0.001)	0.137*** (0.001)
Graduates & Above	-0.446*** (0.004)	0.132*** (0.001)	0.315*** (0.004)
ST	0.014*** (0.003)	-0.004*** (0.001)	-0.010*** (0.002)
SC	0.008*** (0.002)	-0.002*** (0.000)	-0.006*** (0.001)

Source: Our calculations