

GSCO ISCO-28 Evidence Brief

Empirical Analysis of 146 National Occupation Classifications

A research-based candidate-revisions report for ILO Statistics Department consideration

Methodology v1.1 (full multilingual coverage after metadata cleanup)

Registries analyzed	165
Countries covered	142
ISCO-08 codes evaluated	434
Total entries indexed	231,596
SPLIT candidates	29
RELABEL candidates	69
REVIEW candidates	37
EMERGING flags	91

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Independent research input. Not affiliated with the International Labour Organization.

All findings are empirical observations from national classification data. No normative proposals are made by the author.

Candidate revisions are presented for ILO expert review and consideration.

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Section 1 — Executive Summary

1.1 Scope and Dataset

The Global Standard Classification of Occupations (GSCO) database aggregates 165 national occupational classification registries from 142 countries, harmonized to the ILO ISCO-08 4-digit code level. The present analysis covers 434 ISCO-08 4-digit occupation codes, evaluated against 231,596 individual occupation entries indexed across all registries. Data collection prioritizes official government statistical publications and NSO-issued classification documents.

The analysis is intended as empirical input for the ILO's ISCO-28 revision process. All scores and recommendations are derived algorithmically from observable cross-national patterns; no expert normative judgment has been applied. Candidate revisions are presented for ILO Statistics Department review and consideration.

1.2 Key Findings

Category	Count	Share	Interpretation
SPLIT	29	6.7%	High fragmentation + high adoption — candidate for sub-code introduction
RELABEL	69	15.9%	Low label stability — candidate for revised English title
REVIEW	37	8.5%	Low adoption across countries — candidate for scope review
EMERGING	91	21.0%	Elevated recency anomaly — candidate for new ISCO code consideration
STABLE	208	47.9%	No strong revision signal detected in current data

1.3 Top-5 Most Fragmented Codes

The following five codes exhibit the highest combined urgency scores, driven primarily by fragmentation evidence (number of distinct national sub-codes per adopting country):

ISCO Code	Label	Urgency	Countries	Avg Subcodes	Recommendation
8131	Chemical Products Plant and Machine Oper	0.406	121	32.1	SPLIT
2212	Specialist Medical Practitioners	0.587	122	27.1	SPLIT
2310	University and Higher Education Teachers	0.499	111	21.2	SPLIT
1112	Senior Government Officials	0.479	108	17.5	SPLIT
7233	Agricultural and Industrial Machinery Mech	0.469	118	16.8	SPLIT

1.4 Methodology Overview

Evidence scores are computed from four observable dimensions: (1) **Adoption** — the share of GSCO-indexed countries using the code; (2) **Fragmentation** — average number of distinct national sub-codes per adopting country; (3) **Stability** — consistency of English-language occupation titles across sources (proxy-based, without translation API); (4) **Recency anomaly** — elevated appearance in registries published in 2020 or later (available for 30 of 98 registries with known publication year). A weighted combined urgency score is computed for each code, with fragmentation weighted most heavily (0.4) given its direct relevance to ISCO revision rationale. Recommendation thresholds are data-adaptive (percentile-based) on the actual score distribution of all 434 evaluated codes. Full methodology is described in Section 2.

Section 2 — Methodology

2.1 Evidence Scores

Adoption Score (A)

Adoption is defined as the proportion of all GSCO-indexed countries whose national classification includes the ISCO code in question, either at the 4-digit level or with national sub-codes branching from it. Range: [0, 1]. A high adoption score indicates broad cross-national recognition of the occupational concept. Formula:

$$A(\text{code}) = \text{countries_using_code} / \text{total_indexed_countries}$$

Total indexed countries in this analysis: 142.

Fragmentation Score (F)

Fragmentation measures the average number of distinct national sub-codes per adopting country. A high fragmentation value indicates that countries systematically expand the ISCO code into multiple sub-occupations, empirical evidence that the 4-digit concept may be too broad for labour market purposes. Raw fragmentation is normalized to [0, 1] against the observed distribution across all 434 codes. Formula:

$$F_{\text{raw}}(\text{code}) = \text{mean}(\text{subcodes_per_country, over countries with subcodes})$$
$$F_{\text{norm}}(\text{code}) = \text{percentile_rank}(F_{\text{raw}}) / 100$$

Stability Score (S)

Stability is a proxy for conceptual consistency: it measures label overlap across national sources using a normalized token-overlap heuristic applied to English-language occupation labels. The score reflects the proportion of sources whose labels share a majority of content tokens with the modal label for that code. Note: no translation API is used; labels in non-English registries reduce the effective sample. This is a known limitation (see Section 2.4). Range: [0, 1]; higher = more stable.

Recency Anomaly Score (R)

Recency anomaly measures the elevated presence of an occupation code in registries published in 2020 or later, relative to pre-2020 registries. An elevated score suggests that the occupational concept has gained prominence in recent national classifications, which may indicate an emerging labour market phenomenon. Publication year is available for 30 of 165 analyzed registries. Range: [0, 1]; values above the 85th percentile trigger EMERGING flag.

2.2 Combined Urgency Formula

Combined urgency is a weighted linear combination of the four evidence scores:

$$U(\text{code}) = 0.2 \times A + 0.4 \times F_{\text{norm}} + 0.3 \times (1 - S) + 0.1 \times R$$

Note: stability enters as $(1 - S)$ so that low stability increases urgency. Fragmentation receives the highest weight (0.4) as it is the most direct observable signal that the ISCO-08 4-digit level is insufficient for national labour market classification purposes. Range of U: approximately [0, 1].

2.3 Adaptive Thresholds

Recommendation thresholds are data-adaptive (percentile-based) on the actual score distribution of all 434 ISCO-08 4-digit codes in the dataset. This approach avoids arbitrary absolute cutoffs and ensures the recommendation categories reflect the relative distribution of evidence rather than assumed standards. The rationale for each threshold is documented below:

Threshold	Value	Rationale
SPLIT: fragmentation (F_{norm})	0.2907	Top 10% fragmentation score
SPLIT: adoption minimum (A)	0.7606	Top 50% adoption (ensures broad cross-national relevance)

EMERGING: recency anomaly (R)	0.5499	Top 15% recency anomaly score
RELABEL: stability threshold (S)	0.3448	Bottom 20% stability (high label variance)
REVIEW: adoption minimum (A)	0.7113	Bottom 20% adoption (low cross-national coverage)

2.4 Limitations

- **Stability score is proxy-based.** No translation API is used. Labels in non-English registries contribute noise to the token-overlap heuristic, potentially over-estimating label instability for codes that are well-defined but named differently in different languages. Expert linguistic review is required before relying on RELABEL recommendations.
- **Recency data is incomplete.** Publication year is available for only 30 of 165 indexed registries. EMERGING flags may under-represent codes that have genuinely gained prominence in registries without documented publication year.
- **Suggested splits are cluster-derived, not semantically validated.** Sub-code clusters are identified by 5th-digit grouping patterns across national registries. The "concept" labels in suggested splits are generated from country co-occurrence patterns, not from expert occupational taxonomies. Semantic refinement and expert review is required before any proposed ISCO-28 sub-code specification.
- **Coverage varies by region.** GSCO currently indexes registries primarily from European, Latin American, and East/Southeast Asian countries. Sub-Saharan Africa and parts of South Asia are under-represented. Findings may not generalize equally to all regions.
- **Harmonization is code-level, not concept-level.** GSCO harmonizes by mapping national codes to ISCO-08 parent codes based on official crosswalk tables or NSO-provided mappings. Semantic misalignment within a mapped code cannot be detected without manual review.

Section 3 — Top Recommendations

This section presents detailed evidence for each ISCO-08 code identified as a candidate for revision. All candidate codes are empirical observations; no normative judgment is applied. Recommendations are presented for ILO Statistics Department consideration.

3.1 SPLIT Candidates (21 codes)

The following 21 codes meet the combined criteria for a SPLIT recommendation: normalized fragmentation above the 90th percentile AND adoption above the 50th percentile across all evaluated ISCO codes. Empirical evidence indicates that a substantial number of countries independently expanded these codes into multiple national sub-categories, suggesting the 4-digit concept may encompass functionally distinct occupations.

ISCO 8131 — Chemical Products Plant and Machine Operators [SPLIT]

Urgency [#####-----] 0.606

Countries using code	121	Countries with sub-codes	47
% of all countries	85.2%	Total sub-codes in DB	1509
Avg sub-codes/country	32.1	Adoption score	0.852
Fragmentation (norm)	0.924	Stability score	0.462

Label variance: 551 distinct labels from 1284 sources. Samples: 'gauger' | 'Machine Operator, Explosives Production' | 'Operator mesin penyulingan minyak bumi dan gas ala'

Suggested split clusters (empirical, expert review required):

Chemical Production Machine Operator

Source: EN labels majority

e.g. "Chemical Production Machine Operator", "Kiln-Operator, Chemical and Related Processes", "Machine Operator Pharmaceutical Products"

Countries: AE, AO, AU, BD, BR, BT, Brunei, CO +2

Machine Operator, Lead Production

Source: EN labels majority

e.g. "Machine Operator, Lead Production", "Machine Operator, Linoleum Production", "Machine Operator, Match Production"

Countries: AE, AO, BD, BR, BT, Brunei, CO, CZ +2

Cement Furnaceman

Source: EN labels majority

e.g. "Candle Production Machine Operator", "Cement Furnaceman", "Agarbati Production Machine Operator"

Countries: AE, BD, BO, BR, Cape Verde, Estonia, GT, HN +2

Maker, Soap

Source: EN labels majority

e.g. "Machine Operators, Glue-Mixing", "Machine Operators, Paint-Mixing", "Maker, Soap"

Countries: AE, AO, BD, BR, CZ, IN, IQ, JM +2

Assembler, Marking Devices (Pen and Pencil)

Source: EN labels majority

e.g. "Other chemical products plant and machine operators", "Chemical products plant and machine operators n.e.c.", "Assembler, Marking Devices (Pen and Pencil)"

Countries: Brunei, CZ, Estonia, ID, IN, JM, KH, KZ +2

Evidence: 121 countries include this code in their national classification; 47 of these expand it into an average of 32.1 national sub-codes, yielding 1509 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 2212 — Specialist Medical Practitioners [SPLIT]

Urgency [#####-----] 0.587

Countries using code	122	Countries with sub-codes	48
% of all countries	85.9%	Total sub-codes in DB	1300
Avg sub-codes/country	27.1	Adoption score	0.859
Fragmentation (norm)	0.780	Stability score	0.341

Label variance: 438 distinct labels from 688 sources. Samples: 'Surgeon' | 'Occupational Physician' | 'Dokter spesialis bedah umum melakukan kegiatan pem'

Suggested split clusters (empirical, expert review required):

Neurologist

Source: EN labels majority

e.g. "Anaesthetist", "Specialist Physician (General Medicine)", "Cardiologist"

Countries: AE, AO, AU, BD, BT, Brunei, CZ, Cape Verde +2

Ophthalmologist

Source: EN labels majority

e.g. "Paediatrician", "Renal Medicine Specialist", "Rheumatologist"

Countries: AE, AO, AU, BD, BT, Brunei, CZ, Cape Verde +2

Rheumatologist

Source: EN labels majority

e.g. "Paediatrician", "Paediatrician, Cardiology", "Paediatrician, Gastroenterology"

Countries: AE, AO, BD, BT, Brunei, CZ, Cape Verde, Estonia +2

Cardiologist

Source: EN labels majority

e.g. "Auditors, Company Secretaries and Corporate Treasurers nfd", "Anaesthetist", "Haematologist"

Countries: AE, AU, BD, BO, BR, CO, DK, Estonia +2

Paediatrician

Source: EN labels majority

e.g. "Physician, Respiratory Medicine", "Physician, Rheumatology", "Podiatrist"

Countries: AE, BD, Brunei, CZ, Cape Verde, GT, Germany, IQ +2

Evidence: 122 countries include this code in their national classification; 48 of these expand it into an average of 27.1 national sub-codes, yielding 1300 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 2310 — University and Higher Education Teachers [SPLIT]

Urgency [#####-----] 0.499

Countries using code	111	Countries with sub-codes	42
% of all countries	78.2%	Total sub-codes in DB	890
Avg sub-codes/country	21.2	Adoption score	0.782
Fragmentation (norm)	0.610	Stability score	0.451

Label variance: 337 distinct labels from 1252 sources. Samples: 'Docent' | 'Egyetemi, fiskolai oktató, tanár' | 'Dosen Ilmu Kedokteran dan Ilmu Hayat memberikan ku'

Suggested split clusters (empirical, expert review required):

Professor

Source: EN labels majority

e.g. "University Lecturer", "University Tutor", "Vocational Education Teacher / Polytechnic Teacher"

Countries: AE, AU, BD, BO, BT, Brunei, CZ, DK +2

Professor

Source: EN labels majority

e.g. "Air and Marine Transport Professionals nfd", "Assistant Lecturer", "Professor Emeritus"

Countries: AE, AO, AU, BD, CO, Estonia, GT, HN +2

Lecturer

Source: EN labels majority

e.g. "Other higher education institutions lecturers", "Professor", "Lecturer"

Countries: AE, BO, BT, Brunei, CZ, DK, IQ, JM +2

University and higher education teachers

Source: EN labels majority

e.g. "Other university and higher education professionals", "University and higher education teachers n.e.c.", "Professors/Assistant Professors, Other"

Countries: AE, Brunei, Estonia, ID, IN, IQ, Mauritius, Mongolia +2

University Tutor

Source: EN labels majority

e.g. "University Tutor", "Teaching assistant/Tutor in university", "TUTOR, LAW SCHOOL 2310.30"

Countries: AE, CZ, DK, IQ, JM, KH, Mongolia, PS +2

Evidence: 111 countries include this code in their national classification; 42 of these expand it into an average of 21.2 national sub-codes, yielding 890 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 1112 — Senior Government Officials [SPLIT]

Urgency [#####-----] 0.479

Countries using code	108	Countries with sub-codes	42
% of all countries	76.1%	Total sub-codes in DB	735
Avg sub-codes/country	17.5	Adoption score	0.761
Fragmentation (norm)	0.504	Stability score	0.395

Label variance: 440 distinct labels from 704 sources. Samples: 'Koks' | 'Ministru PREZIDENTA BIEDRA PALĪGS' | 'Duta Besar merupakan perwakilan diplomatik dalam m'

Suggested split clusters (empirical, expert review required):

Ambassador

Source: EN labels majority

e.g. "General Managers nfd", "Chairman of the Planning Commission", "Deputy Chairman of the Planning Commission"

Countries: AE, AO, AU, BD, BO, BR, BT, CO +2

Chairman (Government Organization)

Source: EN labels majority

e.g. "Corporate General Manager", "Chairman, University Grant Commission", "Chairman (Government Organization)"

Countries: AE, AU, BD, BR, Brunei, CZ, HN, IQ +2

Ombudsman

Source: EN labels majority

e.g. "Inspector General of Police", "Police Commissioner", "Additional Inspector General of Police"

Countries: BD, BR, Brunei, CZ, FR, HN, JM, KH +2

Additional Secretary

Source: EN labels majority

e.g. "Secretary (Government Administration)", "Additional Secretary", "Joint Secretary/Divisional Commissioner"

Countries: BD, BR, Brunei, CZ, FR, HN, JM, KH +2

Director (Government Organization)

Source: EN labels majority

e.g. "Director (Government Organization)", "Director (Intergovernmental Organization)", "Managing Director (Government Organization)"

Countries: BD, BR, Brunei, CZ, FR, Germany, HN, JM +2

Evidence: 108 countries include this code in their national classification; 42 of these expand it into an average of 17.5 national sub-codes, yielding 735 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 7233 — Agricultural and Industrial Machinery Mechanics and Repairers [SPLIT]

Urgency [#####-----] 0.469

Countries using code	118	Countries with sub-codes	46
% of all countries	83.1%	Total sub-codes in DB	772

Avg sub-codes/country	16.8	Adoption score	0.831
Fragmentation (norm)	0.483	Stability score	0.345

Label variance: 398 distinct labels from 864 sources. Samples: 'greaser' | 'Mechanic, Earth Moving Machinery' | 'Pekerja ini mengeset, memasang, memeriksa, merawat'

Suggested split clusters (empirical, expert review required):

Mechanic, Mining Machinery

Source: EN labels majority

e.g. "Textile, Clothing and Footwear Mechanic", "Mechanic, Mining Machinery", "Mechanic, Office Machinery"

Countries: AE, AR, AU, BD, BO, BR, BT, Brunei +2

Stationary Engine Fitter

Source: EN labels majority

e.g. "Stationary Engine Fitter", "Stationary Engine Repairer", "Train Engine Fitter"

Countries: AE, AR, BD, BO, BR, BT, Brunei, CO +2

Construction Machinery Mechanic

Source: EN labels majority

e.g. "Agricultural and Industrial Machinery Mechanics and Repairers", "Construction Machinery Mechanic", "Construction Machinery Repairer"

Countries: AE, BD, BR, DK, Estonia, GT, HN, ID +2

Construction machinery mechanic

Source: EN labels majority

e.g. "Construction machinery mechanic", "Mining Machinery Repairer", "Fitter, Train Engine"

Countries: AE, BR, BT, Brunei, CO, CZ, IQ, KE +2

Metal Fitters and Machinists nec

Source: EN labels majority

e.g. "Metal Fitters and Machinists nec", "Other agricultural and industrial machinery mechanics and repairers", "Agricultural and industrial machinery mechanics and repairers n.e.c."

Countries: AU, Brunei, CZ, Estonia, ID, IN, KZ, Lithuania +2

Evidence: 118 countries include this code in their national classification; 46 of these expand it into an average of 16.8 national sub-codes, yielding 772 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 3115 — Mechanical Engineering Technicians [SPLIT]

Urgency [#####-----] 0.466

Countries using code	118	Countries with sub-codes	43
% of all countries	83.1%	Total sub-codes in DB	767
Avg sub-codes/country	17.8	Adoption score	0.831
Fragmentation (norm)	0.514	Stability score	0.399

Label variance: 430 distinct labels from 916 sources. Samples: 'Armourer' | 'automotive engineering technician' | 'Teknisi teknik penerbangan melakukan pekerjaan tek'

Suggested split clusters (empirical, expert review required):

Marine Surveyor

Source: EN labels majority

e.g. "Marine Surveyor", "Mechanical Engineering Technician", "Estimator, Mechanical Engineering"

Countries: AE, AU, BD, BR, BT, Brunei, CZ, DK +2

Dockmaster, Dry Dock

Source: EN labels majority

e.g. "Technician, Aeronautics Engineering", "Dockmaster, Dry Dock", "Dockmaster, Graving Dock"

Countries: AE, BD, BO, BR, CO, Estonia, GT, HN +2

Technician, Engineering/Mechanical (Instruments)

Source: EN labels majority

e.g. "Technician, Engineering/Mechanical (Industrial Machinery and Tools)", "Technician, Engineering/Mechanical (Instruments)", "Technician, Engineering/Mechanical (Lubrication)"

Countries: AE, BD, BR, Brunei, CZ, IQ, KE, KH +2

Occupations in precision mechanics-complex tasks

Source: EN labels majority

e.g. "Aeronautical engineering technician", "Occupations in paper-processing and packaging-complex tasks", "Occupations in welding and joining-complex tasks"

Countries: AE, Brunei, CZ, Germany, IQ, KE, KH, KZ +2

Other mechanical engineering technicians

Source: EN labels majority

e.g. "Other mechanical engineering technicians", "Mechanical engineering technicians n.e.c.", "Mechanical Engineering Technicians, Other"

Countries: Brunei, CZ, DK, Estonia, ID, IN, KZ, Lithuania +2

Evidence: 118 countries include this code in their national classification; 43 of these expand it into an average of 17.8 national sub-codes, yielding 767 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 8121 — Metal Processing Plant Operators [SPLIT]

Urgency [#####-----] 0.458

Countries using code	117	Countries with sub-codes	45
% of all countries	82.4%	Total sub-codes in DB	840
Avg sub-codes/country	18.7	Adoption score	0.824
Fragmentation (norm)	0.537	Stability score	0.443

Label variance: 419 distinct labels from 651 sources. Samples: 'cocsar' | 'Steel Roller Occupation Description' | 'Operator mesin pengolahan panas logam mengoperasikan'

Suggested split clusters (empirical, expert review required):

Annealer, Metal

Source: EN labels majority

e.g. "Annealer, Metal", "Continuous-Mill Roller, Steel/Cold-Roller, Steel", "Converter Blowing Operator, Steel Converting"

Countries: AE, BD, BO, BR, CO, DK, Estonia, GT +2

Furnace-Operator, Melting/Metal

Source: EN labels majority

e.g. "Furnace-Operator, Melting/Metal", "Furnace-Operator, Refining/Non-Ferrous Metal Occupation Description", "Furnace-Operator, Refining/Steel (Open-Hearth Furnace)"

Countries: AE, AO, BD, BR, BT, Brunei, CZ, HN +2

Machine Operator, Die-Casting

Source: EN labels majority

e.g. "Machine Operator, Casting/Continuous Rod (Non-Ferrous Metal)", "Machine Operator, Die-Casting", "Machine Operator, Drawing/Metal"

Countries: AO, BD, BT, Brunei, CZ, Germany, IN, KE +2

Steel Roller Occupation Description

Source: EN labels majority

e.g. "Metal Heat Treating Operator", "Operator, Mill Table", "Operator, Rolling Mill/Non-Ferrous Metal"

Countries: AO, BD, BT, Brunei, CZ, IN, KE, KH +2

Wire drawer

Source: EN labels majority

e.g. "Wire drawer", "Steel Roller", "Die Casting Machine Operator"

Countries: AO, BT, Brunei, CZ, IN, KE, KZ, MD +2

Evidence: 117 countries include this code in their national classification; 45 of these expand it into an average of 18.7 national sub-codes, yielding 840 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 2144 — Mechanical Engineers [SPLIT]

Urgency [#####-----] 0.437

Countries using code	117	Countries with sub-codes	43
% of all countries	82.4%	Total sub-codes in DB	716

Avg sub-codes/country	16.6	Adoption score	0.824
Fragmentation (norm)	0.479	Stability score	0.445

Label variance: 417 distinct labels from 941 sources. Samples: 'Modeller' | 'Engineer, Mechanical/Nuclear Power' | 'Ahli Teknik Mobil Mempelajari, merancang dan membe'

Suggested split clusters (empirical, expert review required):

Mechanical Engineer

Source: EN labels majority
 e.g. "Mechanical Engineer", "Aeronautical Engineer", "Naval Architect / Marine Designer"
 Countries: AE, AU, BD, BR, BT, Brunei, CO, CZ +2

Engineer, Mechanical

Source: EN labels majority
 e.g. "Engineer, Mechanical/Instruments", "Engineer, Mechanical/Motors and Engine (Except Marine)", "Engineer, Mechanical/Motors and Engines (Marine)"
 Countries: AE, BD, BR, BT, Brunei, CO, CZ, IQ +2

Mechanical engineer

Source: EN labels majority
 e.g. "Aeronautical Engineer", "Designer, Motorcar", "Engine Designer"
 Countries: AE, BD, BO, BR, DK, Estonia, GT, HN +2

Technologist, Engineering/Mechanical

Source: EN labels majority
 e.g. "Engineer, Other Mechanical", "Technologist, Engineering/Mechanical", "Technologist, Welding"
 Countries: BD, BR, Brunei, CO, CZ, KH, KZ, LV +2

Aeronautical engineer

Source: EN labels majority
 e.g. "Aeronautical engineer", "Occupations in paper-processing and packaging-highly complex tasks", "Occupations in welding and joining-highly complex tasks"
 Countries: Brunei, CZ, Germany, KH, KZ, LV, Latvia, Mauritius +2

Evidence: 117 countries include this code in their national classification; 43 of these expand it into an average of 16.6 national sub-codes, yielding 716 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 2131 — Biologists, Botanists, Zoologists and Related Professionals [SPLIT]

Urgency [#####-----] 0.434

Countries using code	121	Countries with sub-codes	47
% of all countries	85.2%	Total sub-codes in DB	723
Avg sub-codes/country	15.4	Adoption score	0.852
Fragmentation (norm)	0.443	Stability score	0.399

Label variance: 405 distinct labels from 951 sources. Samples: 'Físico' | 'Biophysics Specialist' | 'Ahli Patologis Hewan Melakukan penelitian mengenai'

Suggested split clusters (empirical, expert review required):

Biologist

Source: EN labels majority
 e.g. "Agronomist", "Aquaculture or Fisheries Scientist", "Life Scientist (General)"
 Countries: AE, AO, AU, BD, BO, BR, BT, Brunei +2

Botanist

Source: EN labels majority
 e.g. "Entomologist", "Zoologist", "Biotechnologist"
 Countries: AO, AU, BD, BO, BR, BT, Brunei, CZ +2

Biochemist

Source: EN labels majority
 e.g. "Animal Behaviorist", "Bacteriologist", "Bacteriologist, Agricultural"
 Countries: AE, BD, BR, CA, CO, Estonia, GT, HN +2

Zoologist

Source: EN labels majority

e.g. "Cystologist, Plant", "Ecologist", "Ecologist, Animal"

Countries: AO, BD, BO, BR, BT, Brunei, CZ, Cape Verde +2

Microbiologist

Source: EN labels majority

e.g. "Histologist", "Histologist, Plant", "Hydrobiologist"

Countries: AO, BD, BO, BR, Brunei, CZ, Germany, JM +2

Evidence: 121 countries include this code in their national classification; 47 of these expand it into an average of 15.4 national sub-codes, yielding 723 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 4323 — Transport Clerks [SPLIT]

Urgency [#####-----] 0.430

Countries using code	109	Countries with sub-codes	43
% of all countries	76.8%	Total sub-codes in DB	572
Avg sub-codes/country	13.3	Adoption score	0.768
Fragmentation (norm)	0.383	Stability score	0.410

Label variance: 375 distinct labels from 944 sources. Samples: 'picher' | 'Controller, Clerical: Train' | 'Juru tata usaha transportasi mencatat aspek operas'

Suggested split clusters (empirical, expert review required):

Clerk, Transport

Source: EN labels majority

e.g. "Statistical Clerk", "Classified Advertising Clerk", "Production Clerk"

Countries: AE, AO, AU, BD, Brunei, CO, CZ, DK +2

Transport Clerk

Source: EN labels majority

e.g. "Clerical Controller (Transport Service)", "Clerical Dispatcher (Transport Service)", "Clerk, Air Transport Operations"

Countries: AE, BD, BO, BT, Estonia, GT, HN, ID +2

Dispatcher, Clerical/Railway

Source: EN labels majority

e.g. "Dispatcher, Clerical/Gas Pipeline", "Dispatcher, Clerical/Oil Pipeline", "Dispatcher, Clerical/Railway"

Countries: AO, BD, CO, CZ, DK, Germany, KE, KH +2

Supervisor, Jetty

Source: EN labels majority

e.g. "Officer Claims, Railway", "Officer, Ferry", "Others Transport Clerks"

Countries: AO, BD, CZ, DK, Germany, KE, KH, KZ +2

Transport clerks n.e.c.

Source: EN labels majority

e.g. "Clerical and Office Support Workers nec", "Clerical and Administrative Workers nec", "Transport clerks n.e.c."

Countries: AU, CZ, DK, Estonia, ID, IN, KZ, Lithuania +2

Evidence: 109 countries include this code in their national classification; 43 of these expand it into an average of 13.3 national sub-codes, yielding 572 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 3119 — Physical and Engineering Science Technicians Not Elsewhere Classified [SPLIT]

Urgency [#####-----] 0.429

Countries using code	112	Countries with sub-codes	41
% of all countries	78.9%	Total sub-codes in DB	597

Avg sub-codes/country	14.6	Adoption score	0.789
Fragmentation (norm)	0.419	Stability score	0.424

Label variance: 454 distinct labels from 1077 sources. Samples: 'TEHNI■IS' | 'Environmental Engineering Technician' | 'Meliputi teknis ilmu fisika dan teknik yang tidak'

Suggested split clusters (empirical, expert review required):

Laser Technician

Source: EN labels majority

e.g. "Plastics Technician", "Fire Protection Equipment Technician", "Other Physical and Engineering Science Not Elsewhere Classified Occupation Description"

Countries: AO, AU, BD, BT, Brunei, CO, CZ, IN +2

Fire Investigator

Source: EN labels majority

e.g. "Assistant Surveyor, Building", "Assistant Surveyor, Quantity", "Assistant, Surveyor"

Countries: AE, BD, BO, DK, Estonia, GT, HN, ID +2

Technician, Engineering/Methods

Source: EN labels majority

e.g. "Technician, Engineering/Industrial Layout", "Technician, Engineering/Methods", "Technician, Engineering/Planning"

Countries: AO, BD, CZ, Germany, JM, KE, KH, LV +2

Science Technicians nec

Source: EN labels majority

e.g. "Science Technicians nec", "Other physical and engineering science technicians n.e.c.", "Physical and engineering science technicians n.e.c."

Countries: AU, Brunei, CO, CZ, Estonia, ID, IN, JM +2

Occupations in stonemasonry-complex tasks

Source: EN labels majority

e.g. "Technician, Quantity Surveyor", "Technician, Surveyor", "Technician, Time and Motion Study"

Countries: BD, CZ, Germany, JM, KH, LV, Latvia, MD +2

Evidence: 112 countries include this code in their national classification; 41 of these expand it into an average of 14.6 national sub-codes, yielding 597 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 1120 — Managing Directors and Chief Executives [SPLIT]

Urgency [#####-----] 0.425

Countries using code	109	Countries with sub-codes	43
% of all countries	76.8%	Total sub-codes in DB	494
Avg sub-codes/country	11.5	Adoption score	0.768
Fragmentation (norm)	0.331	Stability score	0.340

Label variance: 305 distinct labels from 496 sources. Samples: 'Rektör' | 'Directeurs généraux d'entreprise' | 'VAD■T■JA VIETNIEKS/ DIREKTORA VIETNIEKS/ ■ENER■LDI'

Suggested split clusters (empirical, expert review required):

Director, Organization

Source: EN labels majority

e.g. "Director, Organization", "Director General, Enterprise", "Director General, Organization"

Countries: AR, BD, BO, BT, Brunei, CA, CZ, DK +2

Chairman, Enterprise

Source: EN labels majority

e.g. "Chairman, Enterprise", "Chairman, Organization", "Chief Executive"

Countries: AE, AO, BD, BO, CA, CO, Estonia, FR +2

President, Enterprise

Source: EN labels majority

e.g. "Deputy Managing Director", "President, Enterprise", "President, Organization"

Countries: AR, BD, BO, BT, Brunei, CA, CZ, DK +2

Director

Source: EN labels majority

e.g. "Director", "General Manager", "Director, Lodging and Catering Services/Director Food and Beverage Service"

Countries: BO, BT, Brunei, CZ, FR, IN, IQ, MO +2

Managing directors and executive board members-highly complex tasks

Source: EN labels majority

e.g. "Managing directors and executive board members-highly complex tasks", "Managers at universities and colleges"

Countries: BO, CZ, FR, Germany, MO, Mongolia, TH, TR +1

Evidence: 109 countries include this code in their national classification; 43 of these expand it into an average of 11.5 national sub-codes, yielding 494 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 8114 — Cement, Stone and Other Mineral Products Machine Operators [SPLIT]

Urgency [#####-----] 0.417

Countries using code	108	Countries with sub-codes	44
% of all countries	76.1%	Total sub-codes in DB	473
Avg sub-codes/country	10.8	Adoption score	0.761
Fragmentation (norm)	0.309	Stability score	0.361

Label variance: 272 distinct labels from 533 sources. Samples: 'Patroller' | 'Asfaltbetona gatavošanas iekārtu OPERATORS' | 'Operator mesin pengolahan semen, batu dan mineral'

Suggested split clusters (empirical, expert review required):

Concrete Production Machine Operator

Source: EN labels majority

e.g. "Housekeepers nfd", "Cast-Concrete Products Machine Operator", "Cast-Stone Products Machine Operator"

Countries: AE, AU, BD, BR, CO, DK, Estonia, GT +2

Machine Operator, Concrete Mixing

Source: EN labels majority

e.g. "Concrete Products Machine Operator", "Stone Processing Machine Operator", "Concrete Batching Plant Operator"

Countries: AE, AO, AU, BD, BO, BR, BT, Brunei +2

Patroller

Source: EN labels majority

e.g. "Concrete-mixer operator (including concrete mixing plant operator)", "Concrete Mixing Plant Operator (Including Concrete Mixer Operator)", "Production of building materials-skilled tasks"

Countries: AO, BO, BR, BT, Brunei, CZ, Cape Verde, Germany +2

Concrete Block Maker (Machine)

Source: EN labels majority

e.g. "Stone polishing machine operator", "Concrete Pump Operator", "Concrete Block Maker (Machine)"

Countries: AO, BR, BT, Brunei, Cape Verde, JM, Japan, KE +2

Cement and Other Mineral Products Machine Operators, Other

Source: EN labels majority

e.g. "Other cement, stone and other mineral products machine operators", "Cement, stone and other mineral products machine operators n.e.c.", "Cement and Other Mineral Products Machine Operators, Other"

Countries: Brunei, CZ, Estonia, ID, IN, JM, KH, Lithuania +2

Evidence: 108 countries include this code in their national classification; 44 of these expand it into an average of 10.8 national sub-codes, yielding 473 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 2320 — Vocational Education Teachers [SPLIT]

Urgency [#####-----] 0.416

Countries using code	113	Countries with sub-codes	41
% of all countries	79.6%	Total sub-codes in DB	602

Avg sub-codes/country	14.7	Adoption score	0.796
Fragmentation (norm)	0.423	Stability score	0.453

Label variance: 227 distinct labels from 727 sources. Samples: 'ICT Trainer' | 'Çocuk Gelişimi Ve Eğitim Öretmeni' | 'Instruktur teknik otomotif mengajar keterampilan d'

Suggested split clusters (empirical, expert review required):

Teacher, Commercial

Source: EN labels majority

e.g. "Architects, Designers, Planners and Surveyors nfd", "Automotive Technology Instructor", "Other Vocational Education Teacher"

Countries: AE, AO, AU, BD, BO, CO, Estonia, GT +2

Vocational Education Teacher

Source: EN labels majority

e.g. "Technical and vocational education teacher", "Vocational Education Teacher", "Vocational Centre Instructors"

Countries: AE, BT, Brunei, CZ, DK, IQ, KE, KH +2

Technical/Skills Trainer

Source: EN labels majority

e.g. "Secondary school teacher", "Technical/Skills Trainer", "Instructor, sea training"

Countries: BT, Brunei, CZ, DK, KH, Mauritius, Mongolia, RS +2

In-company instructors in vocational training-complex tasks

Source: EN labels majority

e.g. "Teachers for occupation-specific subjects at vocational schools-complex tasks", "In-company instructors in vocational training-complex tasks"

Countries: CZ, DK, Germany, Mongolia, RS, TH, TR, UZ

Title Examiners, Abstractors, and Searchers

Source: EN labels majority

e.g. "Vocational education teachers n.e.c.", "Vocational education teachers n.e.o", "OTHER VOCATIONAL EDUCATION TEACHERS -"

Countries: Estonia, ID, Mauritius, Mongolia, TH, TR, TT, US

Evidence: 113 countries include this code in their national classification; 41 of these expand it into an average of 14.7 national sub-codes, yielding 602 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 7412 — Electrical Mechanics and Fitters [SPLIT]

Urgency [#####-----] 0.416

Countries using code	119	Countries with sub-codes	45
% of all countries	83.8%	Total sub-codes in DB	575
Avg sub-codes/country	12.8	Adoption score	0.838
Fragmentation (norm)	0.368	Stability score	0.363

Label variance: 296 distinct labels from 678 sources. Samples: 'Wireman' | 'Elektromehaničko iekstru MEHANIŠ' | 'Pekerja ini bertugas memasang dan menyambungkan ge'

Suggested split clusters (empirical, expert review required):

Electrical Mechanic

Source: EN labels majority

e.g. "Armature Builder", "Automotive Electrician", "Chargeman, High Voltage/Restriction"

Countries: AE, AO, BD, BO, Cape Verde, DK, Estonia, GT +2

Automotive Electrician

Source: EN labels majority

e.g. "Automotive Electrician", "Electrician (General)", "Electrician (Special Class)"

Countries: AE, AU, BD, BT, Brunei, CO, CZ, HN +2

Foreman, Maintenance

Source: EN labels majority

e.g. "Foreman, Maintenance", "Fitter, Generator", "Lift Mechanic"

Countries: BD, BT, Brunei, CO, CZ, Germany, HN, JM +2

Electrical Generator Fitter

Source: EN labels majority

e.g. "Electrical lift, escalator and related equipment fitter", "Electrical Generator Fitter", "Elevator Technician/Elevator Erector/Elevator Installer"

Countries: BT, Brunei, CO, CZ, JM, KE, KH, KZ +2

Electrical mechanics and fitters n.e.c.

Source: EN labels majority

e.g. "Other electrical mechanics and fitters", "Electrical mechanics and fitters n.e.c.", "Electrical Mechanics and Fitters n.e.c."

Countries: Brunei, Estonia, ID, JM, KZ, Lithuania, Mauritius, TH +2

Evidence: 119 countries include this code in their national classification; 45 of these expand it into an average of 12.8 national sub-codes, yielding 575 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 8111 — Miners and Quarriers [SPLIT]

Urgency [#####-----] 0.407

Countries using code	121	Countries with sub-codes	46
% of all countries	85.2%	Total sub-codes in DB	472
Avg sub-codes/country	10.3	Adoption score	0.852
Fragmentation (norm)	0.295	Stability score	0.285

Label variance: 229 distinct labels from 419 sources. Samples: 'Miner' | 'Continuous Miner Operator' | 'Pekerja penggalian menggali batu granit, batu kapu'

Suggested split clusters (empirical, expert review required):

Quarrier

Source: EN labels majority

e.g. "Driller", "Miner", "Quarrier"

Countries: AO, AU, BD, BO, BR, BT, Brunei, CO +2

Miner

Source: EN labels majority

e.g. "Bogger Operator", "Continuous Miner Operator", "Dragline Operator (Mining)"

Countries: AE, BD, BR, DK, Estonia, GT, HN, ID +2

Miner

Source: EN labels majority

e.g. "Miner", "Driller", "Occupations in underground and surface mining-skilled tasks"

Countries: AO, BO, BR, BT, Brunei, CO, CZ, Cape Verde +2

Other miners and quarriers

Source: EN labels majority

e.g. "Other miners and quarriers", "Miners and quarriers n.e.c.", "Mines, Quarrymen and Related Workers, Other"

Countries: Brunei, CZ, Estonia, ID, IN, KH, KR, KZ +2

Mining driller

Source: EN labels majority

e.g. "Mining driller", "Mining Machine Operator", "Industrial Compressor Operator"

Countries: BR, BT, Brunei, CO, CZ, JM, KE, KH +2

Evidence: 121 countries include this code in their national classification; 46 of these expand it into an average of 10.3 national sub-codes, yielding 472 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 3112 — Civil Engineering Technicians [SPLIT]

Urgency [#####-----] 0.401

Countries using code	126	Countries with sub-codes	47
% of all countries	88.7%	Total sub-codes in DB	559
Avg sub-codes/country	11.9	Adoption score	0.887
Fragmentation (norm)	0.343	Stability score	0.345

Label variance: 345 distinct labels from 920 sources. Samples: '■enör' | 'Tehnician/tehnician■ corozione' | 'Teknisi teknik bangunan melakukan tugas-tugas tekn'

Suggested split clusters (empirical, expert review required):

Building Inspector

Source: EN labels majority

e.g. "Building Inspector", "Construction Estimator", "Surveying or Spatial Science Technician"

Countries: AE, AU, BD, BT, Brunei, CA, CO, CZ +2

Fire Inspector

Source: EN labels majority

e.g. "Medical Technicians nfd", "Building Inspector", "Building Surveyor"

Countries: AE, AU, BD, BO, BR, CA, DK, Estonia +2

Building Inspector

Source: EN labels majority

e.g. "Structural engineering technician", "Survey Technician", "Occupations in construction scheduling and supervision (without specialisation)-skilled tasks"

Countries: BT, Brunei, CO, CZ, Germany, JM, KE, KH +2

Production of building materials-complex tasks

Source: EN labels majority

e.g. "Building technician", "Production of building materials-complex tasks", "Occupations in metal constructing-complex tasks"

Countries: Brunei, CO, CZ, Germany, JM, KH, KR, KZ +2

Other civil engineering technicians

Source: EN labels majority

e.g. "Other civil engineering technicians", "Civil engineering technicians n.e.c.", "Civil Engineering Technicians, Other"

Countries: Brunei, CZ, Estonia, ID, IN, KR, KZ, Lithuania +2

Evidence: 126 countries include this code in their national classification; 47 of these expand it into an average of 11.9 national sub-codes, yielding 559 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 7231 — Motor Vehicle Mechanics and Repairers [SPLIT]

Urgency [#####-----] 0.400

Countries using code	118	Countries with sub-codes	47
% of all countries	83.1%	Total sub-codes in DB	511
Avg sub-codes/country	10.9	Adoption score	0.831
Fragmentation (norm)	0.313	Stability score	0.358

Label variance: 246 distinct labels from 583 sources. Samples: 'Oto Trimci' | 'Engine Fitter (Motor Vehicle)' | 'Mekanik dan tukang reparasi kendaraan bermotor men'

Suggested split clusters (empirical, expert review required):

Motorcycle Mechanic

Source: EN labels majority

e.g. "Motor Mechanic (General)", "Diesel Motor Mechanic", "Motorcycle Mechanic"

Countries: AE, AO, AR, AU, BD, BR, Brunei, CA +2

Garage Mechanic

Source: EN labels majority

e.g. "Assistant Motor Vehicle Mechanics and Repairers", "Automotive Brakes Systems Service Technician", "Chief, Mechanic"

Countries: AE, BD, BO, BR, BT, CA, CO, Estonia +2

Workshop Assistant

Source: EN labels majority

e.g. "Small Engine Mechanic", "Workshop Assistant", "Worker, Workshop Maintenance"

Countries: AE, AO, AR, BD, BR, Brunei, CZ, DK +2

Motor Vehicle Mechanics, Other

Source: EN labels majority

e.g. "Motor vehicle mechanics and repairers n.e.c.", "Motor Vehicle Mechanics, Other", "Mechanics and repairers,motor vehicle n.e.c"

Countries: CZ, DK, Estonia, ID, IN, KZ, Lithuania, Mauritius +2

Mechatronician

Source: EN labels majority

e.g. "Motor vehicle mechanic", "Truck and Trailer Mechanic", "Mechatronician"

Countries: AE, AR, Brunei, CZ, IQ, JM, KE, KH +2

Evidence: 118 countries include this code in their national classification; 47 of these expand it into an average of 10.9 national sub-codes, yielding 511 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 7322 — Printers [SPLIT]

Urgency [#####-----] 0.393

Countries using code	116	Countries with sub-codes	43
% of all countries	81.7%	Total sub-codes in DB	495
Avg sub-codes/country	11.5	Adoption score	0.817
Fragmentation (norm)	0.332	Stability score	0.406

Label variance: 280 distinct labels from 625 sources. Samples: 'Printer' | '■ablon Operatörü (Tekstil)' | 'Pekerja ini menjalankan mesin cetak gravure dan me'

Suggested split clusters (empirical, expert review required):

Printer

Source: EN labels majority

e.g. "Block Printer Occupation Description", "Cutter, Stencil/Silk-Screen", "Digital Press Operator"

Countries: AE, BD, BO, BT, CO, CZ, DK, Estonia +2

Screen Printer

Source: EN labels majority

e.g. "Screen Printer", "Printing Machinist", "Small Offset Printer"

Countries: AE, AO, AU, BD, Brunei, HN, IN, IQ +2

Screen printer

Source: EN labels majority

e.g. "Screen printer", "Occupations in printing technology-skilled tasks", "Machine Man, Rotary Printing"

Countries: AO, Brunei, Germany, HN, IN, IQ, KE, KH +2

Textile printer

Source: EN labels majority

e.g. "Textile printer", "Operator, Press: Large Sheet-Fed", "Operator, Press: Lithographic"

Countries: Brunei, IQ, KE, KH, MO, Mauritius, TH, TR +1

Other printers

Source: EN labels majority

e.g. "Other printers", "Printers n.e.c.", "Printers, Others"

Countries: Brunei, Estonia, ID, IN, Lithuania, Mauritius, TH, TT +1

Evidence: 116 countries include this code in their national classification; 43 of these expand it into an average of 11.5 national sub-codes, yielding 495 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 7321 — Pre-press Technicians [SPLIT]

Urgency [#####-----] 0.389

Countries using code	117	Countries with sub-codes	43
% of all countries	82.4%	Total sub-codes in DB	506
Avg sub-codes/country	11.8	Adoption score	0.824
Fragmentation (norm)	0.339	Stability score	0.419

Label variance: 281 distinct labels from 490 sources. Samples: 'Router' | 'Photographer, Photogravure' | 'Pekerja pracetak mengoreksi, memformat, mengatur d'

Suggested split clusters (empirical, expert review required):

Photogravurist

Source: EN labels majority
e.g. "Compositor", "Dark Room Assistant", "Electronic Pre-Press Technician"
Countries: AE, BD, BO, BR, CZ, DK, Estonia, GT +2

Compositor, Printing

Source: EN labels majority
e.g. "Graphic Pre-press Trades Worker", "Plate Mounter (Screen Printing)", "Pre-Press Technicians"
Countries: AE, AU, BD, BR, BT, Brunei, CO, HN +2

Typesetter

Source: EN labels majority
e.g. "Plate maker (printing)", "Plate Maker (Printing)", "Occupations in digital and print media design-skilled tasks"
Countries: AE, BR, BT, Brunei, CO, Germany, JM, KE +2

Plate mounter (screen printing)

Source: EN labels majority
e.g. "Plate mounter (screen printing)", "Occupations in digital and print media design-complex tasks#", "Desktop Publishing Operator"
Countries: AE, BR, Brunei, Germany, JM, KE, KH, MO +2

Typesetter, Linotype

Source: EN labels majority
e.g. "Other pre-press technicians", "Pre-press technicians n.e.c.", "Pre-Press Technicians, Others"
Countries: Brunei, Estonia, ID, IN, KE, Lithuania, Mauritius, TH +1

Evidence: 117 countries include this code in their national classification; 43 of these expand it into an average of 11.8 national sub-codes, yielding 506 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 2141 — Industrial and Production Engineers [SPLIT]

Urgency [#####-----] 0.387

Countries using code	118	Countries with sub-codes	44
% of all countries	83.1%	Total sub-codes in DB	445
Avg sub-codes/country	10.1	Adoption score	0.831
Fragmentation (norm)	0.291	Stability score	0.365

Label variance: 308 distinct labels from 715 sources. Samples: 'metodist' | 'Tekstil■s gamybos technologas' | 'Ahli Teknik Sistem dan Metoda Kerja industry Membu'

Suggested split clusters (empirical, expert review required):

Industrial engineer

Source: EN labels majority
e.g. "Analyst, Communication/Except Computer", "Systems Analyst/Except Computers", "Designer, Systems/Except Computers"
Countries: AE, BD, BO, BR, CO, DK, Estonia, GT +2

Industrial Engineer

Source: EN labels majority
e.g. "Industrial Engineer", "Production or Plant Engineer", "Engineer, Industrial Safety"
Countries: AU, BD, BR, BT, Brunei, CZ, IN, KE +2

Technologist, Textile

Source: EN labels majority
e.g. "Engineer, Other Industry and Production", "Engineer, Production", "Technologist, Cement"
Countries: BD, BR, BT, Brunei, CZ, IN, KE, KH +2

Automation engineer

Source: EN labels majority
e.g. "Technologist, Metal", "Automation engineer"
Countries: BD, BR, Brunei, CZ, KH, KZ, Mongolia, RO +2

Industrial and production engineers n.e.c.

Source: EN labels majority

e.g. "Other industrial and production related engineers", "Industrial and production engineers n.e.c.", "Industrial and production engineers n.e.c"
Countries: Brunei, CZ, Estonia, ID, KZ, Lithuania, Mauritius, TH +2

Evidence: 118 countries include this code in their national classification; 44 of these expand it into an average of 10.1 national sub-codes, yielding 445 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 7223 — Metal Working Machine Tool Setters and Operators [SPLIT]

Urgency [#####-----] 0.387

Countries using code	114	Countries with sub-codes	43
% of all countries	80.3%	Total sub-codes in DB	658
Avg sub-codes/country	15.3	Adoption score	0.803
Fragmentation (norm)	0.441	Stability score	0.581

Label variance: 477 distinct labels from 1343 sources. Samples: 'T■S■JS' | 'Ciparu vad■bas fr■z■šanas OPERATORS' | 'Operator dan penyetal mesin pengerjaan logam menga'

Suggested split clusters (empirical, expert review required):

Finisher, Metal

Source: EN labels majority

e.g. "Boring Machine Operator", "Casting Machine Operator", "Finisher, Metal"

Countries: AE, BD, BO, BR, CO, Cape Verde, DK, Estonia +2

Fitter and Turner

Source: EN labels majority

e.g. "Fitter (General)", "Fitter and Turner", "Metal Machinist (First Class)"

Countries: AO, AU, BD, BR, BT, Brunei, CZ, GT +2

Machine Tool Setter

Source: EN labels majority

e.g. "Tool Production Machine Operator", "Metalworking machine setter-operator", "Machine Tool Setter"

Countries: AO, BD, BR, BT, Brunei, CZ, Germany, IN +2

Metal Stamper

Source: EN labels majority

e.g. "Occupations in laser-assisted metalworking-complex tasks", "Metal Stamper", "Operator, Machine: Cutting (Metal)"

Countries: BR, CZ, Germany, IN, KE, KH, LV, Latvia +2

And Operators

Source: EN labels majority

e.g. "Other metal working machine tool setters and operators", "Metal working machine tool setters and operators n.e.c.", "Metal Working Machine Tool Setters and Operators, Others"

Countries: Brunei, CZ, Estonia, ID, IN, Lithuania, TH, TR +2

Evidence: 114 countries include this code in their national classification; 43 of these expand it into an average of 15.3 national sub-codes, yielding 658 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 2132 — Farming, Forestry and Fisheries Advisers [SPLIT]

Urgency [#####-----] 0.383

Countries using code	116	Countries with sub-codes	46
% of all countries	81.7%	Total sub-codes in DB	480
Avg sub-codes/country	10.4	Adoption score	0.817
Fragmentation (norm)	0.300	Stability score	0.396

Label variance: 298 distinct labels from 523 sources. Samples: 'Zoolog' | 'tehnician silvic - exploatare' | 'Ahli Penelitian Tanah Melakukan penelitian mengena'

Suggested split clusters (empirical, expert review required):

Agronomist

Source: EN labels majority

e.g. "Agricultural Consultant", "Forester / Forest Scientist", "Agricultural Research Scientist"

Countries: AE, AO, AU, BD, BR, BT, Brunei, CA +2

Agronomist

Source: EN labels majority

e.g. "Adviser, Agricultural", "Adviser, Farming", "Adviser, Forestry"

Countries: AE, BD, BO, BR, CA, DK, Estonia, GT +2

Fisheries scientist/adviser

Source: EN labels majority

e.g. "Fisheries scientist/adviser", "Agricultural Adviser", "Metallurgical and materials engineers"

Countries: AO, BT, Brunei, CA, CO, CZ, Cape Verde, JM +2

Forestry scientist/adviser

Source: EN labels majority

e.g. "Forestry scientist/adviser", "Forestry Adviser", "Occupations in farming (without specialisation)-complex tasks"

Countries: AO, BT, Brunei, CO, CZ, Cape Verde, Germany, JM +2

Agronomists and Related Professionals, Other

Source: EN labels majority

e.g. "Other farming, forestry and fishery advisers", "Farming, forestry and fisheries advisers n.e.c.", "Agronomists and Related Professionals, Other"

Countries: Brunei, CZ, Estonia, ID, IN, JM, KZ, Lithuania +2

Evidence: 116 countries include this code in their national classification; 46 of these expand it into an average of 10.4 national sub-codes, yielding 480 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 2142 — Civil Engineers **[SPLIT]**

Urgency [#####-----] 0.380

Countries using code	120	Countries with sub-codes	46
% of all countries	84.5%	Total sub-codes in DB	523
Avg sub-codes/country	11.4	Adoption score	0.845
Fragmentation (norm)	0.327	Stability score	0.430

Label variance: 289 distinct labels from 576 sources. Samples: 'Ecologist' | 'Civil Engineering Technologist' | 'Ahli Teknik Konstruksi Landasan Pesawat Udara Mera'

Suggested split clusters (empirical, expert review required):

Civil Engineer

Source: EN labels majority

e.g. "Civil Engineer", "Geotechnical Engineer", "Structural Engineer"

Countries: AE, AO, AU, BD, BR, BT, Brunei, CZ +2

Civil Engineer

Source: EN labels majority

e.g. "Civil Engineer", "Engineer, Civil/Aerodrome Construction", "Engineer, Civil/Bridge Construction"

Countries: AE, BD, BO, BR, CO, DK, Estonia, GT +2

Structural engineer

Source: EN labels majority

e.g. "Engineer, Civil/Soil Mechanics", "Engineer, Civil/Structural", "Engineer, Civil/Tower Construction"

Countries: AO, BD, BR, BT, Brunei, CZ, KE, KH +2

Technologist, Building Materials

Source: EN labels majority

e.g. "Engineer, Other Civil", "Engineer, Structural Occupation Description", "Technologist, Building Materials"

Countries: BD, BR, BT, Brunei, CZ, KH, KZ, LV +2

Building construction engineer

Source: EN labels majority

e.g. "Building construction engineer", "Occupations in metal constructing-highly complex tasks", "Occupations in construction scheduling and supervision (without specialisation)-highly complex tasks"

Countries: BR, Brunei, CZ, Germany, KH, KZ, LV, Latvia +2

Evidence: 120 countries include this code in their national classification; 46 of these expand it into an average of 11.4 national sub-codes, yielding 523 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 3422 — Sports Coaches, Instructors and Officials [SPLIT]

Urgency [#####-----] 0.375

Countries using code	115	Countries with sub-codes	46
% of all countries	81.0%	Total sub-codes in DB	514
Avg sub-codes/country	11.2	Adoption score	0.810
Fragmentation (norm)	0.322	Stability score	0.462

Label variance: 265 distinct labels from 607 sources. Samples: 'Umpire' | 'Masa Tenisi Antrenörü' | 'Pelatih, instruktur dan kru olahraga bekerja denga'

Suggested split clusters (empirical, expert review required):

Sports Coach

Source: EN labels majority

e.g. "Diving Instructor (Open Water)", "Gymnastics Coach or Instructor", "Snowsport Instructor"

Countries: AE, AO, AU, BD, BO, BR, BT, Brunei +2

Referee, sports

Source: EN labels majority

e.g. "Sports Development Officer", "Sports Umpire", "Other Sports Official"

Countries: AE, AO, AU, BO, BT, Brunei, CO, CZ +2

Referee

Source: EN labels majority

e.g. "Electrical Distribution Trades Workers nfd", "Coach, Aerobics", "Coach, Instructor and Other Sports Officials (Indoor)"

Countries: AE, AU, BD, BR, DK, Estonia, GT, HN +2

Martial arts instructor

Source: EN labels majority

e.g. "Martial arts instructor", "Sports instructors (without specialisation)-complex tasks", "Coaches in ball sports-complex tasks"

Countries: AE, AO, Brunei, CZ, Cape Verde, Germany, IQ, JM +2

And Officials

Source: EN labels majority

e.g. "Other sports coaches, instructors and officials", "Sports coaches, instructors and officials n.e.c.", "Sports Coaches, Instructors and Officials, Other"

Countries: Brunei, Estonia, ID, IN, JM, Lithuania, Mauritius, Singapore +1

Evidence: 115 countries include this code in their national classification; 46 of these expand it into an average of 11.2 national sub-codes, yielding 514 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 2149 — Engineering Professionals Not Elsewhere Classified [SPLIT]

Urgency [#####-----] 0.356

Countries using code	114	Countries with sub-codes	44
% of all countries	80.3%	Total sub-codes in DB	508
Avg sub-codes/country	11.6	Adoption score	0.803
Fragmentation (norm)	0.332	Stability score	0.537

Label variance: 332 distinct labels from 1156 sources. Samples: 'PARFIM■RS' | 'Engenheiro de tempos e movimentos' | 'Ahli Teknis Bahan Peledak merancang, menguji, dan '

Suggested split clusters (empirical, expert review required):

Biomedical Engineer

Source: EN labels majority

e.g. "Materials Engineer", "Quantity Surveyor", "Agricultural Engineer"

Countries: AU, BD, BR, BT, Brunei, CO, CZ, ID +2

Biomedical Engineer

Source: EN labels majority

e.g. "Adviser, Technical Service", "Biomedical Engineer", "Engineer, Process"

Countries: AE, BD, BO, BR, Cape Verde, DK, Estonia, GT +2

Materials engineer

Source: EN labels majority

e.g. "Materials engineer", "Safety Engineer", "Surveyor, quantity"

Countries: BR, BT, Brunei, CO, CZ, KH, KZ, LV +2

Engineering professionals n.e.c.

Source: EN labels majority

e.g. "Engineering Professionals nec", "Other engineering and related professionals n.e.c.", "Engineering Professionals not elsewhere classified"

Countries: AU, BO, BT, Brunei, CO, CZ, Estonia, ID +2

Quantity surveyor

Source: EN labels majority

e.g. "Quantity surveyor", "Occupations in blasting engineering-highly complex tasks", "Occupations in wood-working and -processing (without specialisation)-highly complex tasks"

Countries: BR, Brunei, CZ, Germany, KH, KZ, LV, Latvia +2

Evidence: 114 countries include this code in their national classification; 44 of these expand it into an average of 11.6 national sub-codes, yielding 508 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 8212 — Electrical and Electronic Equipment Assemblers [SPLIT]

Urgency [#####------] 0.354

Countries using code	118	Countries with sub-codes	44
% of all countries	83.1%	Total sub-codes in DB	481
Avg sub-codes/country	10.9	Adoption score	0.831
Fragmentation (norm)	0.315	Stability score	0.489

Label variance: 277 distinct labels from 642 sources. Samples: 'AKUMULATORISTS' | 'Yüksek Gerilim Trafo Montaj İşçisi' | 'Perakit peralatan elektro-mekanik merakit berbagai'

Suggested split clusters (empirical, expert review required):

Electrical Equipment Assembler

Source: EN labels majority

e.g. "Assembler, Office Machinery", "Assembler, Precision Instrument", "Assembler, Refrigeration and Air-Conditioning Equipment"

Countries: AE, BD, BO, BR, BT, Brunei, CO, CZ +2

Armature Assembler

Source: EN labels majority

e.g. "Armature Assembler", "Assembler, Audio-Visual Equipment", "Assembler, Battery"

Countries: AE, BD, BR, DK, Estonia, GT, HN, ID +2

Watch Assembler

Source: EN labels majority

e.g. "Watch Assembler", "Telephone/Fax Installer", "Electronic equipment assembler"

Countries: BD, BO, BR, BT, Brunei, CO, CZ, IN +2

Assembler, Watch

Source: EN labels majority

e.g. "Audio-visual equipment assembler", "Electronic Equipment Assembler (Telephone, Computer, etc.)", "Assembler, Watch"

Countries: AR, BO, BR, BT, Brunei, CO, KE, KH +2

Equipment Assemblers

Source: EN labels majority

e.g. "Other electrical and electronic equipment assemblers", "Electrical and electronic equipment assemblers n.e.c.", "Electrical and Electronic Equipment Assemblers, Other"

Countries: Brunei, Estonia, ID, IN, KH, KR, KZ, Lithuania +2

Evidence: 118 countries include this code in their national classification; 44 of these expand it into an average of 10.9 national sub-codes, yielding 481 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 3122 — Manufacturing Supervisors [SPLIT]

Urgency [#####-----] 0.351

Countries using code	119	Countries with sub-codes	45
% of all countries	83.8%	Total sub-codes in DB	509
Avg sub-codes/country	11.3	Adoption score	0.838
Fragmentation (norm)	0.326	Stability score	0.510

Label variance: 367 distinct labels from 1034 sources. Samples: 'Örme ■efi' | 'Maistru în fabricarea produselor lactate' | 'Supervisor manufaktur mengkoordinasikan dan mengaw'

Suggested split clusters (empirical, expert review required):

Assembly Supervisor/Inspector

Source: EN labels majority

e.g. "Civil Engineering Draftspersons and Technicians nfd", "Area Coordinator (Manufacturing)", "Assembly Supervisor/Inspector"

Countries: AE, AU, BD, BO, BR, DK, Estonia, GT +2

Supervisor, Manufacturing

Source: EN labels majority

e.g. "Production Manager (Manufacturing)", "Supervisor, Manufacturing", "Supervisor, Packaging"

Countries: AE, AO, AU, BD, BR, BT, Brunei, CO +2

Supervisor and Foreman, Rubber Goods Making

Source: EN labels majority

e.g. "Technician, Log Yard", "Technician, Warehouse", "Assembly supervisor"

Countries: AO, BD, Brunei, CO, CZ, GT, HN, IN +2

Supervisor and Foreman, Shoemaking

Source: EN labels majority

e.g. "Supervisors in floristry", "Supervisors in conditioning and processing of natural stone and minerals, production of building materials", "Supervisors in industrial glass-making and -processing"

Countries: AO, CO, CZ, GT, Germany, HN, IN, KE +2

Supervisor and Foreman, Blacksmith

Source: EN labels majority

e.g. "Managers in floristry", "Supervisor and Foreman, Material and Freight Handling", "Supervisor and Foreman, Checking, Sorting, Packing and Related Activities"

Countries: AO, CO, CZ, Germany, IN, KE, KH, KZ +2

Evidence: 119 countries include this code in their national classification; 45 of these expand it into an average of 11.3 national sub-codes, yielding 509 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

ISCO 8172 — Wood Processing Plant Operators [SPLIT]

Urgency [#####-----] 0.341

Countries using code	115	Countries with sub-codes	42
% of all countries	81.0%	Total sub-codes in DB	424
Avg sub-codes/country	10.1	Adoption score	0.810
Fragmentation (norm)	0.291	Stability score	0.528

Label variance: 255 distinct labels from 561 sources. Samples: 'CORTIÇA' | 'Wood processingplant operators' | 'Operator mesin pengolahan kayu bertugas mengawasi,'

Suggested split clusters (empirical, expert review required):

Cutter, Veneer

Source: EN labels majority

e.g. "Circular Saw Operator", "Cutter, Veneer", "Lathe Feeder, Veneer"

Countries: AE, BD, BO, CO, CZ, Cape Verde, DK, Estonia +2

Sawmill Operator

Source: EN labels majority

e.g. "Sawmilling Operator", "Other Wood Processing Machine Operator", "Machine Operator, Wood Products Occupation Description"

Countries: AU, BD, BT, Brunei, GT, HN, IN, KE +2

Sawyer, Sawmill

Source: EN labels majority

e.g. "Sawyer, Sawmill", "Veneer Lathe Operator", "Wood Processing Plant Sawyer"

Countries: BD, BT, Brunei, Germany, HN, KE, KH, KZ +2

Stationary Plant Operators nec

Source: EN labels majority

e.g. "Stationary Plant Operators nec", "Other wood processing plant operators", "Wood processing plant operators n.e.c."

Countries: AU, Brunei, Estonia, ID, IN, KH, KZ, Lithuania +2

Plywood core layer

Source: EN labels majority

e.g. "Plywood core layer", "Sawmill Machine Operator", "Operator, Machine: Shaving (Wood)"

Countries: BT, Brunei, KE, KH, KZ, RO, TJ, TR

Evidence: 115 countries include this code in their national classification; 42 of these expand it into an average of 10.1 national sub-codes, yielding 424 total sub-code entries across the database. Analysis of national sub-code digit patterns identifies 5 candidate split clusters. Semantic validation by ILO occupational experts is required before any ISCO-28 specification.

3.2 Top-30 RELABEL Candidates

Codes with low label stability (bottom 20% stability score) across national sources. Empirical evidence suggests the current ISCO-08 English title may not adequately capture the occupational concept as used in national classifications. Expert review of the English label and ISCO concept definition is recommended.

ISCO	Label (truncated)	Urgency	Adoption	Stability	Countries
2654	Film, Stage and Related Directors and ...	0.431	0.747	0.331	106
3339	Business Services Agents Not Elsewhere...	0.414	0.718	0.311	102
1345	Education Managers	0.406	0.718	0.324	102
2423	Personnel and Careers Professionals	0.403	0.782	0.292	111
2261	Dentists	0.400	0.725	0.222	103
6112	Tree and Shrub Crop Growers	0.391	0.838	0.318	119
2424	Training and Staff Development Profess...	0.390	0.718	0.308	102
4321	Stock Clerks	0.389	0.761	0.331	108
2166	Graphic and Multimedia Designers	0.388	0.718	0.333	102
3142	Agricultural Technicians	0.388	0.852	0.315	121
6111	Field Crop and Vegetable Growers	0.386	0.859	0.328	122
3152	Ships Deck Officers and Pilots	0.384	0.810	0.297	115
1342	Health Services Managers	0.383	0.725	0.328	103
2354	Other Music Teachers	0.381	0.655	0.236	93
2263	Environmental and Occupational Health ...	0.380	0.704	0.323	100
2240	Paramedical Practitioners	0.379	0.549	0.286	78
6121	Livestock and Dairy Producers	0.374	0.880	0.336	125
2133	Environmental Protection Professionals	0.373	0.782	0.295	111
2529	Database and Network Professionals Not...	0.373	0.718	0.291	102
2111	Physicists and Astronomers	0.372	0.859	0.322	122
4419	Clerical Support Workers Not Elsewhere...	0.371	0.683	0.311	97
2631	Economists	0.370	0.768	0.332	109
3256	Medical Assistants	0.370	0.669	0.258	95
1113	Traditional Chiefs and Heads of Villag...	0.367	0.578	0.344	82
3135	Metal Production Process Controllers	0.367	0.711	0.338	101
3512	Information and Communications Technol...	0.367	0.775	0.300	110
1311	Agricultural and Forestry Production M...	0.366	0.852	0.298	121
8157	Laundry Machine Operators	0.366	0.704	0.274	100
3255	Physiotherapy Technicians and Assistan...	0.366	0.704	0.337	100
6330	Subsistence Mixed Crop and Livestock F...	0.364	0.486	0.325	69

3.3 Top-30 REVIEW Candidates

Codes with low cross-national adoption (bottom 20% adoption rate). Low adoption may indicate that the occupational concept is not recognized as a distinct category in most national labour markets, or that it is subsumed into broader categories. Scope review is recommended.

ISCO	Label (truncated)	Urgency	Adoption	Stability	Countries
7318	Handicraft Workers in Textile, Leather...	0.468	0.669	0.463	95
9329	Manufacturing Labourers Not Elsewhere ...	0.434	0.697	0.465	99
1349	Professional Services Managers Not Els...	0.423	0.683	0.448	97
7523	Woodworking Machine Tool Setters and O...	0.409	0.697	0.406	99
1431	Sports, Recreation and Cultural Centre...	0.392	0.711	0.471	101
2636	Religious Professionals	0.391	0.711	0.406	101
2659	Creative and Performing Artists Not EI...	0.379	0.690	0.357	98
0110	[ISCO-08 0110 — title not in DB]	0.379	0.634	0.492	90
2619	Legal Professionals Not Elsewhere Clas...	0.372	0.704	0.368	100
6310	Subsistence Crop Farmers	0.367	0.528	0.349	75
7516	Tobacco Preparers and Tobacco Products...	0.365	0.676	0.389	96
1219	Business Services and Administration M...	0.363	0.711	0.492	101
6320	Subsistence Livestock Farmers	0.360	0.493	0.375	70
7535	Pelt Dressers, Tanners and Fellmongers	0.360	0.690	0.469	98
9624	Water and Firewood Collectors	0.358	0.486	0.369	69
7549	Craft and Related Workers Not Elsewher...	0.352	0.556	0.415	79
3257	Environmental and Occupational Health ...	0.344	0.704	0.471	100
8350	Ships■ Deck Crews and Related Workers	0.344	0.697	0.493	99
8183	Packing, Bottling and Labelling Machin...	0.343	0.704	0.467	100
3314	Statistical, Mathematical and Related ...	0.341	0.711	0.351	101
7533	Sewing, Embroidery and Related Workers	0.340	0.690	0.528	98
4415	Filing and Copying Clerks	0.332	0.690	0.376	98
1346	Financial and Insurance Services Branc...	0.330	0.711	0.425	101
3253	Community Health Workers	0.330	0.690	0.389	98
9623	Meter Readers and Vending-machine Coll...	0.327	0.711	0.381	101
4227	Survey and Market Research Interviewer...	0.324	0.697	0.397	99
2164	Town and Traffic Planners	0.322	0.690	0.467	98
6223	Deep-sea Fishery Workers	0.320	0.711	0.396	101
6224	Hunters and Trappers	0.319	0.704	0.417	100
9334	Shelf Fillers	0.317	0.711	0.399	101

Section 4 — Major Group Health Check

Analysis of recommendation distribution and average urgency scores across the ten ISCO-08 major occupational groups. Average urgency is the mean combined urgency score of all 4-digit codes within the major group.

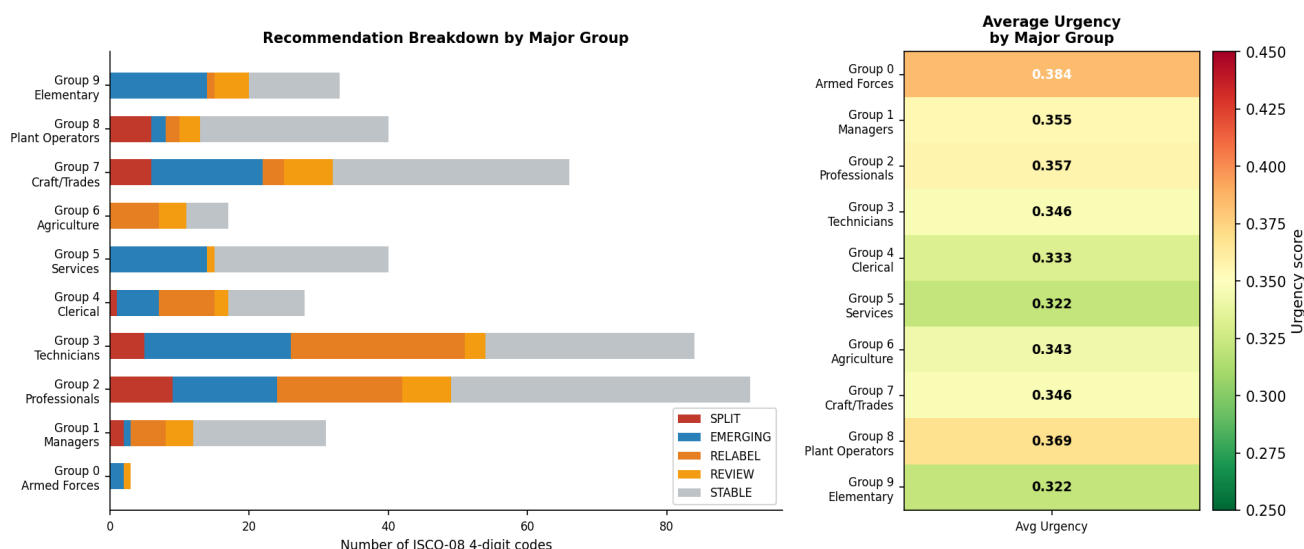


Figure 1. Left: recommendation category counts per ISCO major group. Right: average combined urgency score per major group (green = low urgency, red = high urgency).

4.2 Per-Group Summary

Group	Name	Codes	Avg Urgency	SPLIT	EMERGING	RELABEL	REVIEW	STABLE
0	Armed Forces Occupations	3	0.384	0	2	0	1	0
1	Managers	31	0.355	2	1	5	4	19
2	Professionals	92	0.357	9	15	18	7	43
3	Technicians and Associate Professionals	84	0.346	5	21	25	3	30
4	Clerical Support Workers	28	0.333	1	6	8	2	11
5	Services and Sales Workers	40	0.322	0	14	0	1	25
6	Skilled Agricultural, Forestry and Fishery Workers	17	0.343	0	0	7	4	6
7	Craft and Related Trades Workers	66	0.346	6	16	3	7	34
8	Plant and Machine Operators, and Assemblers	46	0.369	6	2	2	3	27
9	Elementary Occupations	33	0.322	0	14	1	5	13

4.3 Narrative Observations

Group 0 (Armed Forces Occupations) exhibits the highest average urgency score (0.384), driven by elevated fragmentation in 0 SPLIT-candidate codes and 2 EMERGING flags. Group 9 (Elementary Occupations) shows the lowest average urgency (0.322), indicating relative stability in the current ISCO-08 structure for this occupational domain.

Group 2 (Professionals) accounts for the largest absolute number of SPLIT candidates (11 of 21 total), reflecting the high degree of occupational specialization in professional labour markets and the tendency of countries to introduce specialist sub-categories within broad professional groups. Group 9 (Elementary Occupations) shows the highest concentration of REVIEW flags (22 of 33 codes), suggesting that many elementary occupation concepts have low cross-national recognition as distinct categories.

Section 5 — Emerging Occupations Watch

91 ISCO-08 4-digit codes in the dataset exhibit elevated recency anomaly scores, indicating increased adoption in national classifications published in 2020 or later relative to pre-2020 registries. This pattern empirically suggests heightened national labour market interest in these occupational concepts in the most recent classification cycle. A subset may be candidates for new ISCO codes, expanded sub-code structures, or revised concept definitions in ISCO-28.

Note: recency data is available for 30 of 165 indexed registries. The 91 codes flagged as EMERGING represent the top 15% recency anomaly scores among all evaluated codes, subject to the data coverage limitation noted in Section 2.4.

5.1 Top 20 Codes by Recency Anomaly Score

ISCO	Label	Recency Score	Countries	Registries (2020+)
7543	Product Graders and Testers (excluding...	0.592	94	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6
5321	Health Care Assistants	0.592	102	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6
0310	[ISCO-08 0310 — title not in DB]	0.578	79	au_anzsco_2022, bd_bsco, bt_bsco, cu_cnuo2022 +6
7316	Signwriters, Decorative Painters, Engr...	0.578	99	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6
0210	[ISCO-08 0210 — title not in DB]	0.578	80	au_anzsco_2022, bd_bsco, bt_bsco, cu_cnuo2022 +6
8160	Food and Related Products Machine Oper...	0.564	102	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6
3435	Other Artistic and Cultural Associate ...	0.564	94	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6
7536	Shoemakers and Related Workers	0.564	104	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6
3230	Traditional and Complementary Medicine	0.564	102	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6
3343	Administrative and Executive Secretari...	0.564	100	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6
2269	Health Professionals Not Elsewhere Cla...	0.564	97	au_anzsco_2022, bd_bsco, bt_bsco, cu_cnuo2022 +6
3351	Customs and Border Inspectors	0.564	98	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6
3521	Broadcasting and Audiovisual Technicia...	0.550	107	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6
5419	Protective Services Workers Not Elsewh...	0.550	100	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6
2641	Authors and Related Writers	0.550	107	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6
5329	Personal Care Workers in Health Servic...	0.550	97	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6
2120	Mathematicians, Actuaries and Statisti...	0.550	104	au_anzsco_2022, bd_bsco, bt_bsco, ca_noc2021 +6
2642	Journalists	0.550	107	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6
3359	Government Regulatory Associate Profes...	0.550	96	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6
7126	Plumbers and Pipe Fitters	0.550	104	au_anzsco_2022, bd_bsco, bt_bsco, cr_cocr2023 +6

5.2 Full EMERGING Category Codes

The following 91 codes are classified as EMERGING based on the recency anomaly threshold. All are presented as candidates for ILO expert review:

ISCO	Label	Urgency	Recency	Countries
8160	Food and Related Products Machine Operators	0.664	0.564	102
3435	Other Artistic and Cultural Associate Profess...	0.492	0.564	94
3521	Broadcasting and Audiovisual Technicians	0.437	0.550	107
5419	Protective Services Workers Not Elsewhere Cla...	0.397	0.550	100

2641	Authors and Related Writers	0.395	0.550	107
5329	Personal Care Workers in Health Services Not ...	0.394	0.550	97
7543	Product Graders and Testers (excluding Foods ...	0.394	0.592	94
2120	Mathematicians, Actuaries and Statisticians	0.394	0.550	104
7536	Shoemakers and Related Workers	0.392	0.564	104
2642	Journalists	0.392	0.550	107
3230	Traditional and Complementary Medicine Associ...	0.392	0.564	102
3343	Administrative and Executive Secretaries	0.392	0.564	100
0310	[ISCO-08 0310 — title not in DB]	0.392	0.578	79
3359	Government Regulatory Associate Professionals...	0.391	0.550	96
2269	Health Professionals Not Elsewhere Classified	0.389	0.564	97
7126	Plumbers and Pipe Fitters	0.386	0.550	104
3351	Customs and Border Inspectors	0.383	0.564	98
7316	Signwriters, Decorative Painters, Engravers a...	0.383	0.578	99
0210	[ISCO-08 0210 — title not in DB]	0.381	0.578	80
5321	Health Care Assistants	0.372	0.592	102
7119	Building Frame and Related Trades Workers Not...	0.372	0.550	100
7317	Handicraft Workers in Wood, Basketry and Rela...	0.372	0.550	100
4322	Production Clerks	0.371	0.564	107
9629	Elementary Workers Not Elsewhere Classified	0.369	0.564	97
1343	Aged Care Services Managers	0.369	0.550	100
3352	Government Tax and Excise Officials	0.363	0.550	95
7314	Potters and Related Workers	0.361	0.564	100
3259	Health Associate Professionals Not Elsewhere ...	0.360	0.592	99
7315	Glass Makers, Cutters, Grinders and Finishers	0.360	0.550	99
7544	Fumigators and Other Pest and Weed Controller...	0.360	0.564	98
2250	Veterinarians	0.359	0.550	101
7127	Air Conditioning and Refrigeration Mechanics	0.357	0.550	104
4412	Mail Carriers and Sorting Clerks	0.354	0.550	104
3354	Government Licensing Officials	0.353	0.578	94
3353	Government Social Benefits Officials	0.352	0.550	95
3344	Medical Secretaries	0.350	0.578	100
4413	Coding, Proofreading and Related Clerks	0.349	0.564	98
7531	Tailors, Dressmakers, Furriers and Hatters	0.349	0.550	101
5120	Cooks	0.349	0.550	103
2264	Physiotherapists	0.347	0.550	98
3214	Medical and Dental Prosthetic Technicians	0.347	0.550	110
2265	Dieticians and Nutritionists	0.346	0.564	98
3155	Air Traffic Safety Electronics Technicians	0.346	0.564	99
5244	Contact Centre Salespersons	0.346	0.578	100
3240	Veterinary Technicians and Assistants	0.345	0.550	108
9129	Other Cleaning Workers	0.343	0.578	101
7541	Underwater Divers	0.342	0.550	99
5322	Home-based Personal Care Workers	0.340	0.578	102
3154	Air Traffic Controllers	0.340	0.550	103

9215	Forestry Labourers	0.339	0.550	95
5249	Sales Workers Not Elsewhere Classified	0.338	0.564	100
2262	Pharmacists	0.337	0.550	102
3334	Real Estate Agents and Property Managers	0.336	0.564	106
9214	Garden and Horticultural Labourers	0.335	0.564	99
7114	Concrete Placers, Concrete Finishers and Rela...	0.334	0.550	103
5153	Building Caretakers	0.331	0.550	99
3355	Police Inspectors and Detectives	0.331	0.578	98
2266	Audiologists and Speech Therapists	0.330	0.550	99
3342	Legal Secretaries	0.330	0.550	101
2523	Computer Network Professionals	0.329	0.564	107
9612	Refuse Sorters	0.328	0.550	96
8344	Lifting Truck Operators	0.328	0.564	101
2433	Technical and Medical Sales Professionals (ex...	0.327	0.550	107
2162	Landscape Architects	0.327	0.578	103
2161	Building Architects	0.326	0.564	105
9121	Hand Launderers and Pressers	0.325	0.564	101
5242	Sales Demonstrators	0.324	0.550	104
4226	Receptionists (general)	0.321	0.564	95
7125	Glaziers	0.321	0.578	107
9412	Kitchen Helpers	0.321	0.550	101
3323	Buyers	0.320	0.564	104
9621	Messengers, Package Deliverers and Luggage Po...	0.319	0.550	101
7532	Garment and Related Patternmakers and Cutters	0.318	0.578	102
7534	Upholsterers and Related Workers	0.318	0.578	101
9123	Window Cleaners	0.317	0.564	101
9216	Fishery and Aquaculture Labourers	0.316	0.578	97
9510	Street and Related Services Workers	0.314	0.578	101
4225	Inquiry Clerks	0.314	0.550	99
2434	Information and Communications Technology Sal...	0.313	0.578	102
5311	Child Care Workers	0.312	0.550	114
4313	Payroll Clerks	0.310	0.550	105
9520	Street Vendors (excluding Food)	0.310	0.592	95
5246	Food Service Counter Attendants	0.310	0.578	97
2267	Optometrists and Ophthalmic Opticians	0.308	0.564	96
5243	Door-to-door Salespersons	0.307	0.578	101
3324	Trade Brokers	0.304	0.564	102
9622	Odd-job Persons	0.303	0.578	99
5312	Teachers ■ Aides	0.301	0.578	108
5212	Street Food Salespersons	0.298	0.550	107
9611	Garbage and Recycling Collectors	0.298	0.550	99
3331	Clearing and Forwarding Agents	0.281	0.564	106

Section 6 — Cross-References and Acknowledgments

6.1 ILO ISCO-08 Reference

All occupational codes, labels, and major group definitions in this report derive from the ILO International Standard Classification of Occupations 2008 (ISCO-08). Reference: International Labour Office (2012). International Standard Classification of Occupations: ISCO-08. Volume 1: Structure, group definitions and correspondence tables. Geneva: ILO. ISBN 978-92-2-125952-1.

6.2 ESCO Mapping Notes

The European Skills, Competences, Qualifications and Occupations (ESCO) classification provides occupational concepts at the ISCO-08 4-digit and sub-group level for EU member states. Several GSCO SPLIT candidates (notably codes 2212, 2310, 2320, 2651, 2652) correspond to ESCO occupational concepts that already introduce sub-level distinctions within the ISCO-08 4-digit code. This convergence between ESCO practice and GSCO fragmentation evidence strengthens the empirical case for these split candidates. ESCO v1.2 was used as a reference; full cross-mapping is not included in this brief but is available in the GSCO database.

6.3 Data Source Acknowledgments

GSCO aggregates official national occupational classification documents published by national statistical offices (NSOs), ministries of labour, and official government bodies. All source documents are in the public domain or explicitly released for research use. GSCO does not claim copyright over the source classifications. Individual source acknowledgments are listed in Appendix B.

The GSCO project acknowledges the following international frameworks as methodological references: ILO ISCO-08, ESCO v1.2 (European Commission), O*NET (U.S. Department of Labor), and ANZSCO 2013 (ABS/Stats NZ). No formal affiliation exists with any of these organizations.

6.4 Disclaimer

This report is an independent research input. It is not affiliated with, commissioned by, or endorsed by the International Labour Organization or any national statistical authority. The findings represent empirical observations from a database of national classification documents and do not constitute normative recommendations. All candidate revisions require expert review by ILO Statistics Department staff before any consideration in the ISCO-28 revision process.

Appendix A — Full Recommendations Table (434 codes)

All 434 ISCO-08 4-digit codes evaluated in the GSCO analysis, sorted by combined urgency score (descending). Column definitions: Code = ISCO-08 4-digit code; Label = English label (truncated); Rec = recommendation category; U = combined urgency score; A = adoption score; F = fragmentation (normalized); S = stability score; N = countries using code.

Code	Label	Rec	U	A	F	S	N
8160	Food and Related Products Machine Operat...	EMERGING	0.664	0.718	1.000	0.495	102
8131	Chemical Products Plant and Machine Oper...	SPLIT	0.606	0.852	0.924	0.462	121
2212	Specialist Medical Practitioners	SPLIT	0.587	0.859	0.780	0.341	122
2310	University and Higher Education Teachers	SPLIT	0.499	0.782	0.610	0.451	111
3435	Other Artistic and Cultural Associate Pr...	EMERGING	0.492	0.662	0.392	0.297	94
1112	Senior Government Officials	SPLIT	0.479	0.761	0.504	0.395	108
7233	Agricultural and Industrial Machinery Me...	SPLIT	0.469	0.831	0.483	0.345	118
7318	Handicraft Workers in Textile, Leather a...	REVIEW	0.468	0.669	0.472	0.463	95
3115	Mechanical Engineering Technicians	SPLIT	0.466	0.831	0.514	0.399	118
8181	Glass and Ceramics Plant Operators	STABLE	0.460	0.747	0.475	0.439	106
8121	Metal Processing Plant Operators	SPLIT	0.458	0.824	0.537	0.443	117
2144	Mechanical Engineers	SPLIT	0.437	0.824	0.479	0.445	117
3521	Broadcasting and Audiovisual Technicians	EMERGING	0.437	0.753	0.326	0.326	107
9329	Manufacturing Labourers Not Elsewhere Cl...	REVIEW	0.434	0.697	0.399	0.465	99
2131	Biologists, Botanists, Zoologists and Re...	SPLIT	0.434	0.852	0.443	0.399	121
2654	Film, Stage and Related Directors and Pr...	RELABEL	0.431	0.747	0.323	0.331	106
4323	Transport Clerks	SPLIT	0.430	0.768	0.383	0.410	109
3119	Physical and Engineering Science Technic...	SPLIT	0.429	0.789	0.419	0.424	112
1120	Managing Directors and Chief Executives	SPLIT	0.425	0.768	0.331	0.340	109
2652	Musicians, Singers and Composers	STABLE	0.424	0.739	0.387	0.441	105
1349	Professional Services Managers Not Elsew...	REVIEW	0.423	0.683	0.350	0.448	97
8342	Earthmoving and Related Plant Operators	STABLE	0.417	0.739	0.364	0.448	105
8114	Cement, Stone and Other Mineral Products...	SPLIT	0.417	0.761	0.309	0.361	108
2320	Vocational Education Teachers	SPLIT	0.416	0.796	0.423	0.453	113
7412	Electrical Mechanics and Fitters	SPLIT	0.416	0.838	0.368	0.363	119
3339	Business Services Agents Not Elsewhere C...	RELABEL	0.414	0.718	0.243	0.311	102
7523	Woodworking Machine Tool Setters and Ope...	REVIEW	0.409	0.697	0.293	0.406	99
8111	Miners and Quarriers	SPLIT	0.407	0.852	0.295	0.285	121
1345	Education Managers	RELABEL	0.406	0.718	0.243	0.324	102
5223	Shop Sales Assistants	STABLE	0.406	0.739	0.367	0.486	105
2423	Personnel and Careers Professionals	RELABEL	0.403	0.782	0.241	0.292	111
3112	Civil Engineering Technicians	SPLIT	0.401	0.887	0.343	0.345	126
2359	Teaching Professionals Not Elsewhere Cla...	STABLE	0.401	0.718	0.268	0.363	102
2261	Dentists	RELABEL	0.400	0.725	0.144	0.222	103
7231	Motor Vehicle Mechanics and Repairers	SPLIT	0.400	0.831	0.313	0.358	118
5419	Protective Services Workers Not Elsewher...	EMERGING	0.397	0.704	0.201	0.325	100
2641	Authors and Related Writers	EMERGING	0.395	0.753	0.255	0.370	107
8343	Crane, Hoist and Related Plant Operators	STABLE	0.395	0.725	0.282	0.421	103
5329	Personal Care Workers in Health Services...	EMERGING	0.394	0.683	0.109	0.226	97
7543	Product Graders and Testers (excluding F...	EMERGING	0.394	0.662	0.225	0.410	94
2120	Mathematicians, Actuaries and Statistici...	EMERGING	0.394	0.732	0.251	0.384	104
7322	Printers	SPLIT	0.393	0.817	0.332	0.406	116

7536	Shoemakers and Related Workers	EMERGING	0.392	0.732	0.267	0.415	104
2642	Journalists	EMERGING	0.392	0.753	0.266	0.394	107
3230	Traditional and Complementary Medicine A...	EMERGING	0.392	0.718	0.137	0.251	102
3343	Administrative and Executive Secretaries	EMERGING	0.392	0.704	0.219	0.370	100
0310	[ISCO-08 0310 — title not in DB]	EMERGING	0.392	0.556	0.167	0.406	79
1431	Sports, Recreation and Cultural Centre M...	REVIEW	0.392	0.711	0.308	0.471	101
2635	Social Work and Counselling Professional...	STABLE	0.392	0.725	0.278	0.417	103
6112	Tree and Shrub Crop Growers	RELABEL	0.391	0.838	0.266	0.318	119
3359	Government Regulatory Associate Professi...	EMERGING	0.391	0.676	0.235	0.410	96
2636	Religious Professionals	REVIEW	0.391	0.711	0.264	0.406	101
2424	Training and Staff Development Professio...	RELABEL	0.390	0.718	0.181	0.308	102
4321	Stock Clerks	RELABEL	0.389	0.761	0.218	0.331	108
7321	Pre-press Technicians	SPLIT	0.389	0.824	0.339	0.419	117
2269	Health Professionals Not Elsewhere Class...	EMERGING	0.389	0.683	0.203	0.375	97
2166	Graphic and Multimedia Designers	RELABEL	0.388	0.718	0.196	0.333	102
3142	Agricultural Technicians	RELABEL	0.388	0.852	0.269	0.315	121
8219	Assemblers Not Elsewhere Classified	STABLE	0.388	0.739	0.274	0.426	105
2141	Industrial and Production Engineers	SPLIT	0.387	0.831	0.291	0.365	118
3153	Aircraft Pilots and Related Associate Pr...	STABLE	0.387	0.732	0.246	0.391	104
7223	Metal Working Machine Tool Setters and O...	SPLIT	0.387	0.803	0.441	0.581	114
1330	Information and Communications Technolog...	STABLE	0.386	0.732	0.257	0.403	104
6111	Field Crop and Vegetable Growers	RELABEL	0.386	0.859	0.270	0.328	122
7126	Plumbers and Pipe Fitters	EMERGING	0.386	0.732	0.241	0.398	104
2632	Sociologists, Anthropologists and Relate...	STABLE	0.386	0.732	0.235	0.385	104
3152	Ships Deck Officers and Pilots	RELABEL	0.384	0.810	0.218	0.297	115
3351	Customs and Border Inspectors	EMERGING	0.383	0.690	0.119	0.276	98
2132	Farming, Forestry and Fisheries Advisers	SPLIT	0.383	0.817	0.300	0.396	116
1342	Health Services Managers	RELABEL	0.383	0.725	0.189	0.328	103
7316	Signwriters, Decorative Painters, Engrav...	EMERGING	0.383	0.697	0.226	0.421	99
1324	Supply, Distribution and Related Manager...	STABLE	0.382	0.732	0.435	0.655	104
2354	Other Music Teachers	RELABEL	0.381	0.655	0.073	0.236	93
5414	Security Guards	STABLE	0.381	0.725	0.202	0.362	103
0210	[ISCO-08 0210 — title not in DB]	EMERGING	0.381	0.563	0.192	0.471	80
2263	Environmental and Occupational Health an...	RELABEL	0.380	0.704	0.163	0.323	100
2142	Civil Engineers	SPLIT	0.380	0.845	0.327	0.430	120
2240	Paramedical Practitioners	RELABEL	0.379	0.549	0.079	0.286	78
2659	Creative and Performing Artists Not Else...	REVIEW	0.379	0.690	0.202	0.357	98
0110	[ISCO-08 0110 — title not in DB]	REVIEW	0.379	0.634	0.253	0.492	90
8151	Fibre Preparing, Spinning and Winding Ma...	STABLE	0.378	0.817	0.286	0.403	116
8182	Steam Engine and Boiler Operators	STABLE	0.376	0.739	0.192	0.355	105
2651	Visual Artists	STABLE	0.375	0.753	0.282	0.455	107
3422	Sports Coaches, Instructors and Official...	SPLIT	0.375	0.810	0.322	0.462	115
6121	Livestock and Dairy Producers	RELABEL	0.374	0.880	0.267	0.336	125
2165	Cartographers and Surveyors	STABLE	0.373	0.718	0.196	0.383	102
2133	Environmental Protection Professionals	RELABEL	0.373	0.782	0.165	0.295	111
8132	Photographic Products Machine Operators	STABLE	0.373	0.789	0.211	0.352	112
2529	Database and Network Professionals Not E...	RELABEL	0.373	0.718	0.137	0.291	102
5321	Health Care Assistants	EMERGING	0.372	0.718	0.133	0.320	102

2111	Physicists and Astronomers	RELABEL	0.372	0.859	0.229	0.322	122
7119	Building Frame and Related Trades Worker...	EMERGING	0.372	0.704	0.181	0.382	100
2619	Legal Professionals Not Elsewhere Classi...	REVIEW	0.372	0.704	0.173	0.368	100
7317	Handicraft Workers in Wood, Basketry and...	EMERGING	0.372	0.704	0.236	0.457	100
7422	Information and Communications Technolog...	STABLE	0.372	0.824	0.276	0.407	117
4322	Production Clerks	EMERGING	0.371	0.753	0.138	0.299	107
8154	Bleaching, Dyeing and Fabric Cleaning Ma...	STABLE	0.371	0.796	0.262	0.384	113
4419	Clerical Support Workers Not Elsewhere C...	RELABEL	0.371	0.683	0.125	0.311	97
1211	Finance Managers	STABLE	0.370	0.775	0.220	0.389	110
2631	Economists	RELABEL	0.370	0.768	0.188	0.332	109
3256	Medical Assistants	RELABEL	0.370	0.669	0.075	0.258	95
8152	Weaving and Knitting Machine Operators	STABLE	0.370	0.817	0.260	0.391	116
9629	Elementary Workers Not Elsewhere Classif...	EMERGING	0.369	0.683	0.222	0.463	97
1343	Aged Care Services Managers	EMERGING	0.369	0.704	0.079	0.257	100
7511	Butchers, Fishmongers and Related Food P...	STABLE	0.368	0.761	0.287	0.475	108
6113	Gardeners; Horticultural and Nursery Gro...	STABLE	0.368	0.838	0.283	0.428	119
1111	Legislators	STABLE	0.367	0.782	0.262	0.440	111
1113	Traditional Chiefs and Heads of Villages	RELABEL	0.367	0.578	0.116	0.344	82
3135	Metal Production Process Controllers	RELABEL	0.367	0.711	0.150	0.338	101
6310	Subsistence Crop Farmers	REVIEW	0.367	0.528	0.087	0.349	75
3512	Information and Communications Technolog...	RELABEL	0.367	0.775	0.152	0.300	110
1311	Agricultural and Forestry Production Man...	RELABEL	0.366	0.852	0.206	0.298	121
8157	Laundry Machine Operators	RELABEL	0.366	0.704	0.100	0.274	100
3255	Physiotherapy Technicians and Assistants	RELABEL	0.366	0.704	0.136	0.337	100
3341	Office Supervisors	STABLE	0.366	0.718	0.179	0.382	102
7516	Tobacco Preparers and Tobacco Products M...	REVIEW	0.365	0.676	0.166	0.389	96
1213	Policy and Planning Managers	STABLE	0.365	0.739	0.179	0.365	105
2611	Lawyers	STABLE	0.364	0.775	0.201	0.382	110
2221	Nursing Professionals	STABLE	0.364	0.831	0.232	0.358	118
2511	Systems Analysts	STABLE	0.364	0.782	0.183	0.346	111
6330	Subsistence Mixed Crop and Livestock Far...	RELABEL	0.364	0.486	0.034	0.325	69
3352	Government Tax and Excise Officials	EMERGING	0.363	0.669	0.094	0.317	95
1219	Business Services and Administration Man...	REVIEW	0.363	0.711	0.252	0.492	101
3221	Nursing Associate Professionals	RELABEL	0.363	0.683	0.140	0.301	97
8141	Rubber Products Machine Operators	STABLE	0.363	0.831	0.257	0.411	118
8341	Mobile Farm and Forestry Plant Operators	STABLE	0.363	0.747	0.166	0.350	106
2151	Electrical Engineers	STABLE	0.362	0.775	0.265	0.469	110
2351	Education Methods specialists	RELABEL	0.362	0.782	0.181	0.329	111
7232	Aircraft Engine Mechanics and Repairers	RELABEL	0.362	0.852	0.185	0.292	121
7512	Bakers, Pastry-cooks and Confectionery M...	STABLE	0.362	0.739	0.264	0.482	105
3117	Mining and Metallurgical Technicians	STABLE	0.362	0.824	0.212	0.350	117
7314	Potters and Related Workers	EMERGING	0.361	0.704	0.210	0.461	100
4312	Statistical, Finance and Insurance Clerks...	RELABEL	0.361	0.775	0.165	0.337	110
3259	Health Associate Professionals Not Elsew...	EMERGING	0.360	0.697	0.123	0.363	99
6320	Subsistence Livestock Farmers	REVIEW	0.360	0.493	0.068	0.375	70
7315	Glass Makers, Cutters, Grinders and Fini...	EMERGING	0.360	0.697	0.213	0.470	99
7535	Pelt Dressers, Tanners and Fellmongers	REVIEW	0.360	0.690	0.216	0.469	98
7544	Fumigators and Other Pest and Weed Contr...	EMERGING	0.360	0.690	0.080	0.301	98

3258	Ambulance Workers	RELABEL	0.360	0.683	0.065	0.267	97
2421	Management and Organization Analysts	RELABEL	0.359	0.831	0.180	0.310	118
2250	Veterinarians	EMERGING	0.359	0.711	0.136	0.361	101
6210	Forestry and Related Workers	STABLE	0.359	0.796	0.222	0.387	113
8112	Mineral and Stone Processing Plant Opera...	STABLE	0.358	0.859	0.240	0.370	122
2146	Mining Engineers, Metallurgists and Rela...	STABLE	0.358	0.796	0.240	0.421	113
9624	Water and Firewood Collectors	REVIEW	0.358	0.486	0.052	0.369	69
7127	Air Conditioning and Refrigeration Mecha...	EMERGING	0.357	0.732	0.137	0.353	104
7421	Electronics Mechanics and Servicers	STABLE	0.357	0.831	0.261	0.426	118
3411	Legal and Related Associate Professional...	RELABEL	0.357	0.845	0.172	0.302	120
2149	Engineering Professionals Not Elsewhere ...	SPLIT	0.356	0.803	0.332	0.537	114
2411	Accountants	RELABEL	0.356	0.866	0.213	0.343	123
3139	Process Control Technicians Not Elsewher...	STABLE	0.356	0.739	0.174	0.380	105
8189	Stationary Plant and Machine Operators N...	STABLE	0.355	0.739	0.183	0.402	105
1439	Services Managers Not Elsewhere Classifi...	STABLE	0.355	0.718	0.204	0.441	102
5142	Beauticians and Related Workers	STABLE	0.354	0.796	0.197	0.368	113
7319	Handicraft Workers Not Elsewhere Classif...	STABLE	0.354	0.718	0.197	0.443	102
2643	Translators, Interpreters and Other Ling...	STABLE	0.354	0.725	0.236	0.495	103
4412	Mail Carriers and Sorting Clerks	EMERGING	0.354	0.732	0.147	0.377	104
7514	Fruit, Vegetable and Related Preservers	STABLE	0.354	0.718	0.171	0.405	102
2422	Policy Administration Professionals	STABLE	0.354	0.817	0.269	0.465	116
8212	Electrical and Electronic Equipment Asse...	SPLIT	0.354	0.831	0.315	0.489	118
4416	Personnel Clerks	RELABEL	0.354	0.697	0.082	0.306	99
3354	Government Licensing Officials	EMERGING	0.353	0.662	0.102	0.376	94
3211	Medical Imaging and Therapeutic Equipmen...	RELABEL	0.353	0.887	0.178	0.281	126
1322	Mining Managers	STABLE	0.352	0.747	0.178	0.402	106
3353	Government Social Benefits Officials	EMERGING	0.352	0.669	0.074	0.329	95
5164	Pet Groomers and Animal Care Workers	STABLE	0.352	0.725	0.162	0.404	103
2113	Chemists	STABLE	0.352	0.845	0.234	0.393	120
7549	Craft and Related Workers Not Elsewhere ...	REVIEW	0.352	0.556	0.106	0.415	79
3333	Employment Agents and Contractors	RELABEL	0.352	0.718	0.086	0.308	102
2153	Telecommunications Engineers	STABLE	0.351	0.761	0.163	0.372	108
7522	Cabinet-makers and Related Workers	STABLE	0.351	0.753	0.279	0.535	107
2633	Philosophers, Historians and Political S...	STABLE	0.351	0.732	0.155	0.390	104
3122	Manufacturing Supervisors	SPLIT	0.351	0.838	0.326	0.510	119
2145	Chemical Engineers	STABLE	0.350	0.831	0.237	0.407	118
3344	Medical Secretaries	EMERGING	0.350	0.704	0.098	0.354	100
3322	Commercial Sales Representatives	STABLE	0.350	0.753	0.194	0.431	107
3252	Medical Records and Health Information T...	RELABEL	0.349	0.732	0.082	0.292	104
4413	Coding, Proofreading and Related Clerks	EMERGING	0.349	0.690	0.091	0.352	98
8155	Fur and Leather Preparing Machine Operat...	STABLE	0.349	0.782	0.190	0.390	111
7531	Tailors, Dressmakers, Furriers and Hatte...	EMERGING	0.349	0.711	0.237	0.528	101
5120	Cooks	EMERGING	0.349	0.725	0.186	0.452	103
6221	Aquaculture Workers	RELABEL	0.348	0.775	0.130	0.328	110
1321	Manufacturing Managers	STABLE	0.348	0.768	0.277	0.520	109
8159	Textile, Fur and Leather Products Machin...	STABLE	0.348	0.782	0.161	0.356	111
2264	Physiotherapists	EMERGING	0.347	0.690	0.104	0.372	98
3214	Medical and Dental Prosthetic Technician...	EMERGING	0.347	0.775	0.116	0.332	110

8171	Pulp and Papermaking Plant Operators	STABLE	0.347	0.789	0.246	0.459	112
2265	Dieticians and Nutritionists	EMERGING	0.346	0.690	0.100	0.374	98
3155	Air Traffic Safety Electronics Technicia...	EMERGING	0.346	0.697	0.106	0.379	99
5244	Contact Centre Salespersons	EMERGING	0.346	0.704	0.101	0.371	100
2512	Software Developers	STABLE	0.346	0.782	0.139	0.348	111
2519	Software and Applications Developers and...	RELABEL	0.346	0.725	0.095	0.327	103
4311	Accounting and Bookkeeping Clerks	STABLE	0.346	0.789	0.171	0.385	112
1114	Senior Officials of Special-interest Org...	STABLE	0.346	0.739	0.246	0.501	105
2621	Archivists and Curators	STABLE	0.345	0.775	0.181	0.410	110
3240	Veterinary Technicians and Assistants	EMERGING	0.345	0.761	0.094	0.318	108
3133	Chemical Processing Plant Controllers	RELABEL	0.345	0.831	0.177	0.345	118
7132	Spray Painters and Varnishers	RELABEL	0.345	0.831	0.146	0.323	118
3257	Environmental and Occupational Health In...	REVIEW	0.344	0.704	0.182	0.471	100
1411	Hotel Managers	STABLE	0.344	0.789	0.157	0.371	112
3132	Incinerator and Water Treatment Plant Op...	STABLE	0.344	0.852	0.243	0.422	121
8350	Ships■ Deck Crews and Related Workers	REVIEW	0.344	0.697	0.195	0.493	99
2230	Traditional and Complementary Medicine P...	RELABEL	0.343	0.768	0.103	0.307	109
7413	Electrical Line Installers and Repairers	STABLE	0.343	0.824	0.169	0.358	117
3514	Web Technicians	RELABEL	0.343	0.725	0.081	0.322	103
3118	Draughtspersons	STABLE	0.343	0.803	0.239	0.466	114
5151	Cleaning and Housekeeping Supervisors in...	STABLE	0.343	0.761	0.142	0.356	108
9129	Other Cleaning Workers	EMERGING	0.343	0.711	0.091	0.364	101
2622	Librarians and Related Information Profe...	STABLE	0.343	0.768	0.148	0.365	109
8183	Packing, Bottling and Labelling Machine ...	REVIEW	0.343	0.704	0.178	0.467	100
8122	Metal Finishing, Plating and Coating Mac...	STABLE	0.342	0.817	0.262	0.486	116
2356	Information Technology Trainers	RELABEL	0.342	0.669	0.057	0.330	95
7541	Underwater Divers	EMERGING	0.342	0.697	0.091	0.366	99
3113	Electrical Engineering Technicians	STABLE	0.342	0.866	0.236	0.414	123
7323	Print Finishing and Binding Workers	STABLE	0.342	0.803	0.226	0.443	114
7124	Insulation Workers	STABLE	0.341	0.803	0.163	0.390	114
8172	Wood Processing Plant Operators	SPLIT	0.341	0.810	0.291	0.528	115
3314	Statistical, Mathematical and Related As...	REVIEW	0.341	0.711	0.087	0.351	101
7221	Blacksmiths, Hammersmiths and Forging Pr...	STABLE	0.341	0.831	0.195	0.391	118
5322	Home-based Personal Care Workers	EMERGING	0.340	0.718	0.093	0.369	102
2655	Actors	STABLE	0.340	0.739	0.102	0.349	105
4411	Library Clerks	RELABEL	0.340	0.747	0.093	0.338	106
3154	Air Traffic Controllers	EMERGING	0.340	0.725	0.116	0.389	103
7533	Sewing, Embroidery and Related Workers	REVIEW	0.340	0.690	0.206	0.528	98
3332	Conference and Event Planners	RELABEL	0.340	0.739	0.088	0.339	105
1344	Social Welfare Managers	STABLE	0.339	0.725	0.099	0.358	103
4131	Typists and Word Processing Operators	RELABEL	0.339	0.845	0.133	0.310	120
9215	Forestry Labourers	EMERGING	0.339	0.669	0.080	0.380	95
7234	Bicycle and Related Repairers	RELABEL	0.339	0.725	0.066	0.321	103
4110	General Office Clerks	STABLE	0.339	0.761	0.136	0.387	108
1341	Child Care Services Managers	RELABEL	0.338	0.725	0.072	0.321	103
5249	Sales Workers Not Elsewhere Classified	EMERGING	0.338	0.704	0.081	0.366	100
1323	Construction Managers	STABLE	0.338	0.761	0.141	0.381	108
7115	Carpenters and Joiners	STABLE	0.338	0.747	0.173	0.451	106

2163	Product and Garment Designers	STABLE	0.338	0.739	0.181	0.468	105
2413	Financial Analysts	STABLE	0.338	0.768	0.176	0.438	109
4221	Travel Consultants and Clerks	RELABEL	0.338	0.852	0.146	0.318	121
1212	Human Resource Managers	STABLE	0.338	0.768	0.138	0.387	109
5411	Firefighters	STABLE	0.337	0.739	0.133	0.405	105
2152	Electronics Engineers	STABLE	0.337	0.768	0.244	0.535	109
2431	Advertising and Marketing Professionals	STABLE	0.337	0.838	0.166	0.370	119
9122	Vehicle Cleaners	RELABEL	0.337	0.718	0.068	0.333	102
3513	Computer Network and Systems Technicians	RELABEL	0.337	0.739	0.097	0.325	105
2262	Pharmacists	EMERGING	0.337	0.718	0.120	0.409	102
2412	Financial and Investment Advisers	STABLE	0.337	0.859	0.188	0.372	122
3432	Interior Designers and Decorators	STABLE	0.337	0.831	0.213	0.425	118
3413	Religious Associate Professionals	RELABEL	0.336	0.803	0.130	0.334	114
3334	Real Estate Agents and Property Managers	EMERGING	0.336	0.747	0.104	0.376	106
7212	Welders and Flame Cutters	STABLE	0.336	0.873	0.209	0.390	124
9214	Garden and Horticultural Labourers	EMERGING	0.335	0.697	0.102	0.408	99
3251	Dental Assistants and Therapists	RELABEL	0.335	0.739	0.076	0.334	105
7513	Dairy Products Makers	STABLE	0.334	0.739	0.141	0.402	105
3134	Petroleum and Natural Gas Refining Plant...	STABLE	0.334	0.718	0.138	0.432	102
3312	Credit and Loans Officers	RELABEL	0.334	0.782	0.107	0.343	111
3433	Gallery, Museum and Library Technicians	RELABEL	0.334	0.796	0.110	0.339	113
8113	Well Drillers and Borers and Related Wor...	STABLE	0.334	0.852	0.203	0.392	121
7114	Concrete Placers, Concrete Finishers and...	EMERGING	0.334	0.725	0.145	0.448	103
9112	Cleaners and Helpers in Offices, Hotels ...	STABLE	0.334	0.810	0.155	0.372	115
2634	Psychologists	STABLE	0.333	0.732	0.199	0.497	104
5222	Shop Supervisors	STABLE	0.333	0.732	0.093	0.371	104
5221	Shopkeepers	STABLE	0.333	0.718	0.114	0.394	102
3141	Life Science Technicians (excluding Medi...	STABLE	0.333	0.831	0.189	0.393	118
9313	Building Construction Labourers	STABLE	0.333	0.768	0.117	0.357	109
7313	Jewellery and Precious Metal Workers	STABLE	0.332	0.817	0.264	0.518	116
3511	Information and Communications Technolog...	RELABEL	0.332	0.768	0.094	0.343	109
7311	Precision-instrument Makers and Repairer...	STABLE	0.332	0.838	0.281	0.530	119
7521	Wood Treaters	STABLE	0.332	0.732	0.131	0.410	104
9312	Civil Engineering Labourers	STABLE	0.332	0.796	0.142	0.370	113
4415	Filing and Copying Clerks	REVIEW	0.332	0.690	0.079	0.376	98
3311	Securities and Finance Dealers and Broke...	STABLE	0.331	0.789	0.172	0.431	112
5153	Building Caretakers	EMERGING	0.331	0.697	0.109	0.428	99
3522	Telecommunications Engineering Technicia...	STABLE	0.331	0.768	0.135	0.406	109
2656	Announcers on Radio, Television and Othe...	STABLE	0.331	0.718	0.137	0.442	102
3355	Police Inspectors and Detectives	EMERGING	0.331	0.690	0.137	0.479	98
1346	Financial and Insurance Services Branch ...	REVIEW	0.330	0.711	0.124	0.425	101
1412	Restaurant Managers	STABLE	0.330	0.789	0.118	0.353	112
3253	Community Health Workers	REVIEW	0.330	0.690	0.078	0.389	98
4132	Data Entry Clerks	RELABEL	0.330	0.845	0.118	0.320	120
2266	Audiologists and Speech Therapists	EMERGING	0.330	0.697	0.083	0.396	99
2513	Web and Multimedia Developers	STABLE	0.330	0.768	0.112	0.359	109
3342	Legal Secretaries	EMERGING	0.330	0.711	0.072	0.372	101
8142	Plastic Products Machine Operators	STABLE	0.329	0.845	0.291	0.549	120

6130	Mixed Crop and Animal Producers	RELABEL	0.329	0.810	0.067	0.261	115
2523	Computer Network Professionals	EMERGING	0.329	0.753	0.086	0.372	107
9612	Refuse Sorters	EMERGING	0.328	0.676	0.067	0.394	96
8344	Lifting Truck Operators	EMERGING	0.328	0.711	0.088	0.406	101
9623	Meter Readers and Vending-machine Collec...	REVIEW	0.327	0.711	0.079	0.381	101
2433	Technical and Medical Sales Professional...	EMERGING	0.327	0.753	0.117	0.414	107
2162	Landscape Architects	EMERGING	0.327	0.725	0.047	0.349	103
2521	Database Designers and Administrators	STABLE	0.327	0.782	0.099	0.358	111
2612	Judges	STABLE	0.326	0.768	0.133	0.423	109
2161	Building Architects	EMERGING	0.326	0.739	0.081	0.383	105
5169	Personal Services Workers Not Elsewhere ...	STABLE	0.326	0.761	0.115	0.388	108
8143	Paper Products Machine Operators	STABLE	0.325	0.817	0.175	0.435	116
8332	Heavy Truck and Lorry Drivers	STABLE	0.325	0.838	0.192	0.422	119
9121	Hand Launderers and Pressers	EMERGING	0.325	0.711	0.117	0.454	101
3116	Chemical Engineering Technicians	STABLE	0.325	0.831	0.168	0.419	118
3212	Medical and Pathology Laboratory Technic...	RELABEL	0.324	0.894	0.129	0.307	127
3313	Accounting Associate Professionals	STABLE	0.324	0.768	0.106	0.389	109
4227	Survey and Market Research Interviewers	REVIEW	0.324	0.697	0.075	0.397	99
7133	Building Structure Cleaners	STABLE	0.324	0.803	0.101	0.347	114
5242	Sales Demonstrators	EMERGING	0.324	0.732	0.077	0.386	104
3412	Social Work Associate Professionals	STABLE	0.323	0.845	0.193	0.429	120
3131	Power Production Plant Operators	STABLE	0.323	0.845	0.195	0.438	120
3222	Midwifery Associate Professionals	RELABEL	0.323	0.775	0.069	0.321	110
2143	Environmental Engineers	STABLE	0.322	0.803	0.110	0.363	114
4229	Client Information Workers Not Elsewhere...	STABLE	0.322	0.718	0.063	0.373	102
2164	Town and Traffic Planners	REVIEW	0.322	0.690	0.122	0.467	98
1312	Aquaculture and Fisheries Production Man...	STABLE	0.322	0.796	0.105	0.355	113
4226	Receptionists (general)	EMERGING	0.321	0.669	0.073	0.435	95
7125	Glaziers	EMERGING	0.321	0.753	0.099	0.418	107
7214	Structural Metal Preparers and Erectors	STABLE	0.321	0.831	0.207	0.479	118
3321	Insurance Representatives	STABLE	0.321	0.761	0.102	0.401	108
4120	Secretaries (general)	STABLE	0.321	0.747	0.089	0.397	106
9412	Kitchen Helpers	EMERGING	0.321	0.711	0.104	0.446	101
6223	Deep-sea Fishery Workers	REVIEW	0.320	0.711	0.086	0.396	101
3323	Buyers	EMERGING	0.320	0.732	0.129	0.472	104
9621	Messengers, Package Deliverers and Lugga...	EMERGING	0.319	0.711	0.148	0.509	101
6224	Hunters and Trappers	REVIEW	0.319	0.704	0.081	0.417	100
7312	Musical Instrument Makers and Tuners	STABLE	0.319	0.838	0.207	0.477	119
7532	Garment and Related Patternmakers and Cu...	EMERGING	0.318	0.718	0.163	0.537	102
3421	Athletes and Sports Players	STABLE	0.318	0.817	0.205	0.490	116
6129	Animal Producers Not Elsewhere Classifie...	STABLE	0.318	0.810	0.132	0.388	115
4211	Bank Tellers and Related Clerks	STABLE	0.318	0.866	0.160	0.393	123
7534	Upholsterers and Related Workers	EMERGING	0.318	0.711	0.127	0.496	101
9334	Shelf Fillers	REVIEW	0.317	0.711	0.071	0.399	101
9123	Window Cleaners	EMERGING	0.317	0.711	0.035	0.369	101
6222	Inland and Coastal Waters Fishery Worker...	STABLE	0.317	0.775	0.083	0.374	110
5412	Police Officers	STABLE	0.317	0.718	0.130	0.470	102
2355	Other Arts Teachers	REVIEW	0.317	0.662	0.091	0.461	94

3114	Electronics Engineering Technicians	STABLE	0.317	0.831	0.214	0.503	118
7224	Metal Polishers, Wheel Grinders and Tool...	STABLE	0.316	0.796	0.193	0.499	113
9216	Fishery and Aquaculture Labourers	EMERGING	0.316	0.683	0.068	0.440	97
2432	Public Relations Professionals	STABLE	0.316	0.838	0.123	0.383	119
2353	Other Language Teachers	REVIEW	0.315	0.683	0.097	0.460	97
6114	Mixed Crop Growers	RELABEL	0.315	0.796	0.075	0.329	113
8156	Shoemaking and Related Machine Operators	REVIEW	0.315	0.683	0.133	0.518	97
8153	Sewing Machine Operators	STABLE	0.314	0.824	0.143	0.416	117
9510	Street and Related Services Workers	EMERGING	0.314	0.711	0.114	0.491	101
3151	Ships■ Engineers	STABLE	0.314	0.817	0.111	0.384	116
4225	Inquiry Clerks	EMERGING	0.314	0.697	0.054	0.412	99
7411	Building and Related Electricians	STABLE	0.313	0.831	0.139	0.394	118
8311	Locomotive Engine Drivers	STABLE	0.313	0.866	0.138	0.374	123
7131	Painters and Related Workers	STABLE	0.313	0.838	0.111	0.371	119
2653	Dancers and Choreographers	STABLE	0.313	0.761	0.159	0.494	108
2434	Information and Communications Technolog...	EMERGING	0.313	0.718	0.058	0.415	102
3423	Fitness and Recreation Instructors and P...	STABLE	0.313	0.810	0.157	0.436	115
5112	Transport Conductors	STABLE	0.313	0.845	0.178	0.440	120
3315	Valuers and Loss Assessors	STABLE	0.312	0.747	0.148	0.498	106
5230	Cashiers and Ticket Clerks	STABLE	0.312	0.803	0.126	0.414	114
9333	Freight Handlers	STABLE	0.312	0.796	0.178	0.498	113
3111	Chemical and Physical Science Technician...	STABLE	0.312	0.887	0.237	0.502	126
9332	Drivers of Animal-drawn Vehicles and Mac...	STABLE	0.312	0.732	0.057	0.356	104
5311	Child Care Workers	EMERGING	0.312	0.803	0.133	0.454	114
2514	Applications Programmers	STABLE	0.311	0.761	0.083	0.412	108
8321	Motorcycle Drivers	RELABEL	0.311	0.852	0.083	0.321	121
3254	Dispensing Opticians	STABLE	0.311	0.725	0.060	0.406	103
4313	Payroll Clerks	EMERGING	0.310	0.739	0.060	0.402	105
9520	Street Vendors (excluding Food)	EMERGING	0.310	0.669	0.102	0.520	95
8211	Mechanical Machinery Assemblers	STABLE	0.310	0.859	0.218	0.497	122
9111	Domestic Cleaners and Helpers	STABLE	0.310	0.831	0.090	0.346	118
5211	Stall and Market Salespersons	STABLE	0.310	0.753	0.092	0.429	107
5246	Food Service Counter Attendants	EMERGING	0.310	0.683	0.062	0.455	97
5245	Service Station Attendants	STABLE	0.309	0.718	0.058	0.413	102
3143	Forestry Technicians	STABLE	0.309	0.803	0.100	0.396	114
2267	Optometrists and Ophthalmic Opticians	EMERGING	0.308	0.676	0.062	0.461	96
9311	Mining and Quarrying Labourers	STABLE	0.308	0.817	0.117	0.407	116
7215	Riggers and Cable Splicers	STABLE	0.307	0.789	0.136	0.471	112
5243	Door-to-door Salespersons	EMERGING	0.307	0.711	0.068	0.452	101
2522	Systems Administrators	STABLE	0.306	0.782	0.096	0.417	111
5152	Domestic Housekeepers	STABLE	0.306	0.775	0.085	0.407	110
5413	Prison Guards	STABLE	0.306	0.768	0.079	0.412	109
2341	Primary School Teachers	STABLE	0.306	0.768	0.102	0.426	109
2114	Geologists and Geophysicists	STABLE	0.306	0.824	0.239	0.577	117
7542	Shotfirers and Blasters	REVIEW	0.305	0.669	0.084	0.494	95
4222	Contact Centre Information Clerks	STABLE	0.305	0.838	0.102	0.364	119
3324	Trade Brokers	EMERGING	0.304	0.718	0.089	0.480	102
4212	Bookmakers, Croupiers and Related Gaming...	STABLE	0.304	0.796	0.094	0.400	113

9211	Crop Farm Labourers	STABLE	0.304	0.838	0.164	0.460	119
8312	Railway Brake, Signal and Switch Operato...	STABLE	0.303	0.817	0.147	0.477	116
9622	Odd-job Persons	EMERGING	0.303	0.697	0.076	0.486	99
7113	Stonemasons, Stone Cutters, Splitters an...	STABLE	0.302	0.831	0.174	0.488	118
9213	Mixed Crop and Livestock Farm Labourers	STABLE	0.302	0.761	0.055	0.387	108
5312	Teachers■ Aides	EMERGING	0.301	0.761	0.071	0.444	108
3213	Pharmaceutical Technicians and Assistant...	RELABEL	0.300	0.852	0.073	0.335	121
9613	Sweepers and Related Labourers	REVIEW	0.300	0.676	0.084	0.505	96
7122	Floor Layers and Tile Setters	STABLE	0.300	0.852	0.175	0.482	121
9411	Fast Food Preparers	STABLE	0.300	0.732	0.086	0.461	104
8322	Car, Taxi and Van Drivers	STABLE	0.300	0.859	0.172	0.468	122
7211	Metal Moulders and Coremakers	STABLE	0.300	0.866	0.171	0.463	123
3431	Photographers	STABLE	0.300	0.824	0.134	0.457	117
1222	Advertising and Public Relations Manager...	STABLE	0.300	0.845	0.101	0.380	120
3121	Mining Supervisors	STABLE	0.299	0.859	0.093	0.372	122
7515	Food and Beverage Tasters and Graders	STABLE	0.298	0.725	0.131	0.531	103
5212	Street Food Salespersons	EMERGING	0.298	0.753	0.076	0.456	107
9611	Garbage and Recycling Collectors	EMERGING	0.298	0.697	0.070	0.486	99
6123	Apiarists and Sericulturists	STABLE	0.297	0.817	0.078	0.375	116
7213	Sheet Metal Workers	STABLE	0.297	0.866	0.169	0.473	123
7121	Roofers	STABLE	0.297	0.831	0.126	0.441	118
2222	Midwifery Professionals	STABLE	0.297	0.789	0.085	0.438	112
7123	Plasterers	STABLE	0.296	0.838	0.119	0.450	119
6122	Poultry Producers	STABLE	0.295	0.873	0.136	0.427	124
5131	Waiters	STABLE	0.295	0.824	0.116	0.440	117
1221	Sales and Marketing Managers	STABLE	0.294	0.831	0.144	0.474	118
2211	Generalist Medical Practitioners	STABLE	0.294	0.880	0.113	0.406	125
7112	Bricklayers and Related Workers	STABLE	0.294	0.866	0.135	0.431	123
9331	Hand and Pedal Vehicle Drivers	STABLE	0.293	0.768	0.068	0.422	109
5241	Fashion and Other Models	STABLE	0.293	0.732	0.080	0.485	104
5141	Hairdressers	STABLE	0.293	0.831	0.119	0.445	118
4223	Telephone Switchboard Operators	STABLE	0.292	0.824	0.073	0.397	117
9212	Livestock Farm Labourers	STABLE	0.290	0.796	0.097	0.454	113
4214	Debt Collectors and Related Workers	STABLE	0.289	0.810	0.083	0.442	115
5161	Astrologers, Fortune-tellers and Related...	STABLE	0.288	0.732	0.088	0.470	104
2342	Early Childhood Educators	STABLE	0.287	0.753	0.077	0.465	107
7222	Toolmakers and Related Workers	STABLE	0.286	0.845	0.159	0.516	120
8331	Bus and Tram Drivers	STABLE	0.285	0.845	0.099	0.420	120
5163	Undertakers and Embalmers	STABLE	0.285	0.789	0.102	0.473	112
5113	Travel Guides	STABLE	0.284	0.845	0.136	0.491	120
5111	Travel Attendants and Travel Stewards	STABLE	0.284	0.859	0.137	0.476	122
2330	Secondary Education Teachers	REVIEW	0.283	0.697	0.220	0.727	99
4224	Hotel Receptionists	STABLE	0.281	0.753	0.081	0.503	107
3331	Clearing and Forwarding Agents	EMERGING	0.281	0.747	0.099	0.553	106
5162	Companions and Valets	STABLE	0.279	0.761	0.067	0.474	108
7111	House Builders	STABLE	0.275	0.831	0.109	0.493	118
2352	Special Needs Teachers	STABLE	0.273	0.796	0.154	0.583	113
4213	Pawnbrokers and Money-lenders	STABLE	0.272	0.817	0.067	0.437	116

9321	Hand Packers	STABLE	0.271	0.803	0.115	0.528	114
2112	Meteorologists	STABLE	0.268	0.873	0.121	0.504	124
3434	Chefs	STABLE	0.268	0.789	0.082	0.523	112
5165	Driving Instructors	REVIEW	0.261	0.697	0.046	0.568	99
5132	Bartenders	STABLE	0.255	0.810	0.086	0.545	115
1223	Research and Development Managers	STABLE	0.250	0.824	0.099	0.566	117
3123	Construction Supervisors	STABLE	0.246	0.824	0.131	0.609	117
1420	Retail and Wholesale Trade Managers	STABLE	0.225	0.747	0.143	0.783	106

Appendix B — Data Sources (Indexed Registries)

The following 166 national occupational classification registries are indexed in the GSCO database and contributed to the analysis in this report. All sources are publicly available government or NSO publications.

Country / Region	Classification	Language	ISCO	Entries
AE	national_registry	ar		4075
AFRISTAT (francophone Africa region)	ISCO-08 FR (AFRISTAT)	fr	ISCO-08	435
Albania	LKP - Lista Kombetare e Profesioneve	sq	ISCO-08	472
Algeria	CODE DES CATEGORIES SOCIO-PROFESSIONNELLES		CITP-88	29
Algeria	CODE DES PROFESSIONS - QUATRIEME RECENSEME		unknown	395
AM	national_registry	hy		600
AM	national_registry	hy		588
Andorra	national_registry	ca	ISCO-88	477
AO	national_registry	pt		969
Arab League (ILO Regional Working Group)	national_registry	ar	ISCO-08	619
Argentina	CNO 2017 (Clasificador Nacional de Ocupaci	es	ISCO-08 (2	919
AT	ESCO v1.2.0	de		2942
AU	ANZSCO 2022	en		1425
Austria	ÖISCO-08 (Austrian implementation of ISCO-	de	ISCO-08	436
Azerbaijan	ISCO-08 Azerbaijan adaptation	az	ISCO-08	438
BA	KZBiH-08	bs		4246
BA	KZBiH-08	bs		588
Bangladesh	BSCO 2020 (Bangladesh Standard Classificat	en	ISCO-08	5387
Barbados	BSOC (Barbados Standard Occupational Class	en	ISCO-08	922
BE	ESCO v1.2.0	nl		2942
Belarus	■■■■-2017 (■■■■ 014-2017)	ru	ISCO-08 al	423
Benin	Nomenclature des Métiers de l'Artisanat au	fr	national a	248
BG	ESCO v1.2.0	bg		2942
BH	national_registry	en		491
Bhutan	national_registry	en	ISCO-08	1309
Bolivia	COBOL (Clasificación Boliviana de Ocupacio	es	ISCO-08	2214
Botswana	BSCO 2016	en	ISCO-08	436
Brazil	CBO 2002 (Classificação Brasileira de Ocup	pt	ISCO-88 (I	2614
Brunei Darussalam	BDSOC-2011	en	ISCO-08	1381
CA	NOC 2021	en		678
Cabo Verde	CNP CV-Rev.1 2010 (Classificação Nacional	pt	ISCO-08 ba	699
Cameroon	Nomenclature camerounaise des metiers 2013	fr	ISCO-08 (C	203
Chile	CIUO-08.CL (Chilean adaptation of ISCO-08)	es	ISCO-08	607
CN	GB/T 6565-2015	zh		511
CO	CUOC 2022	es		1133
Costa Rica	COCR-2023	es	ISCO-08	574
Cote d'Ivoire	Nomenclature des Metiers et Professions CI	fr	CITP-08	540
Croatia	ESCO v1.2.0 (Croatia, HR)	hr	ISCO-08	1701
Croatia	NKZ-10 (Nacionalna klasifikacija zanimanja	hr	ISCO-08	567
CU	national_registry	es		635

RS	national_registry	sr		4313
RU	national_registry	ru		9935
RU	national_registry	ru		617
Rwanda	Rwanda Customised International Standard C	en	ISCO-08	612
Rwanda	Rwanda Customized International Standard C	en	ISCO-08	435
SA	national_registry	ar		2738
SA	national_registry	ar		2618
Saint Lucia	ISCO-08 (Statistics Saint Lucia)	en	ISCO-08	590
San Marino	Repertorio delle Professioni RP-2017 (ISTA	it	ISTAT CP20	325
Sao Tome and Principe	national_registry	pt	ISCO-88 (v	38
SE	ESCO v1.2.0	sv		2942
SI	ESCO v1.2.0	sl		2942
Sierra Leone	SLE IHS 2014 ISCO-08 occupation codes	en	ISCO-08	437
Singapore	Singapore Standard Occupational Classifica	en	ISCO-08	1617
SK	ESCO v1.2.0	sk		2942
SN	national_registry	fr		537
South Africa	OFO 2017	en	ISCO-08	1511
Spain	ESCO v1.2.0 (Spain, ES)	es	ISCO-08	1701
Sri Lanka	LKSCO (Sri Lanka adaptation of ISCO-08)	en	ISCO-08	511
Sweden	SSYK 2012 (Standard för svensk yrkesklassi	sv	ISCO-08 (s	429
Switzerland	CH-ISCO-19 (Schweizer Berufsnumenklatur)	de	ISCO-08 al	1252
Taiwan	Taiwan Standard Occupational Classificatio	zh	ISCO-08 (s	339
Tanzania	ISCO-08 International Standard Classificat	en	ISCO-08	345
Thailand	TSCO (Thailand Standard Classification of	th	ISCO-08	2812
TJ	national_registry	ru		1714
TM	national_registry	ru		634
Togo	Nomenclature des Professions et Métiers RG	fr	ISCO-88 ba	548
Trinidad and Tobago	TTSOC (ISCO-08 adoption)	en	ISCO-08	3915
Tunisia	Nomenclature d'Activités Tunisienne (NAT 2	fr	N/A	662
Turkey	ISCO-TR (TUIK Meslek Sınıflaması, ISCO-08	tr	ISCO-08	7202
UA	DK 003:2010	uk		9179
UA	DK 003:2010	uk		821
Ukraine	DK 003:2010	uk	ISCO-08	820
US	O*NET-SOC 2018	en		1016
UY	national_registry	es		1650
UZ	national_registry	ru		10910
VN	national_registry	vi		595
XK	national_registry	sq		620

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