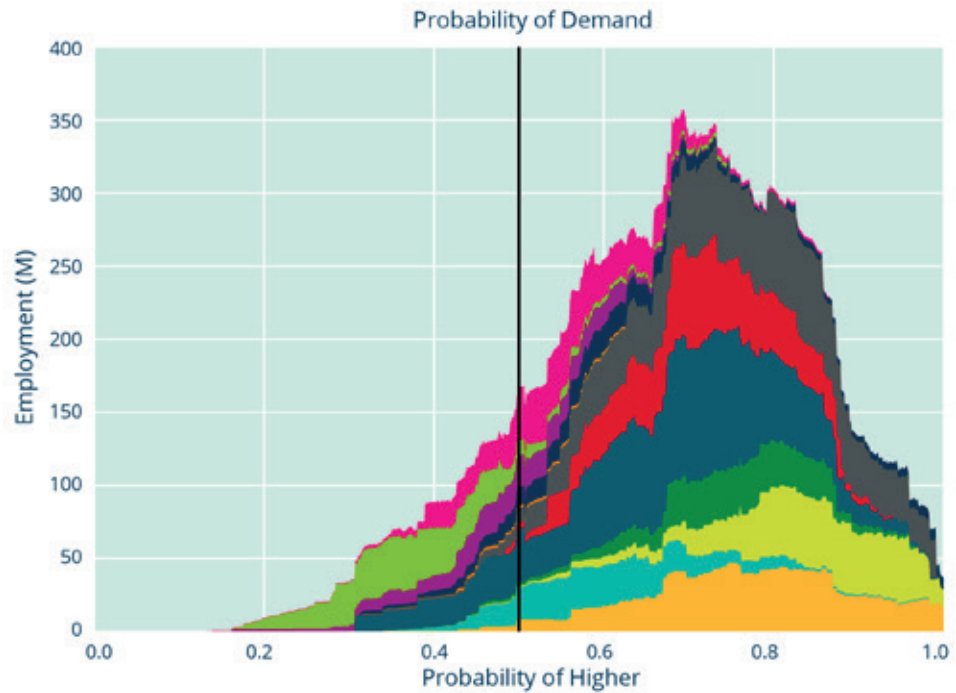


APPENDIX A. SENSITIVITY ANALYSIS

US – Extrapolations

Figure A1: Using trend extrapolation, the distribution of US employment according to its probability of future increased demand

Note that the total area under all curves is equal to total US employment.

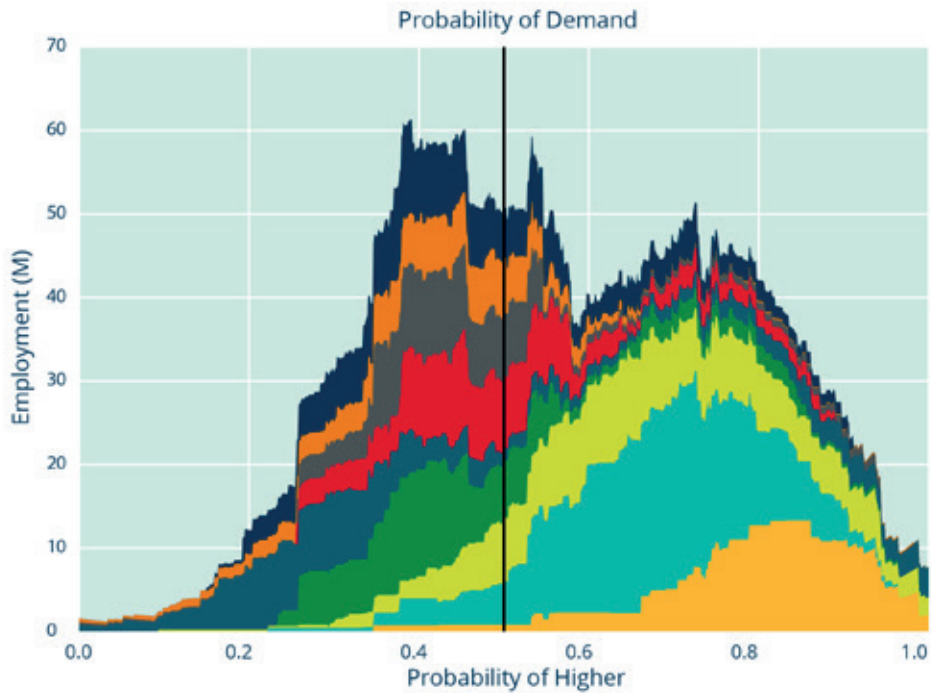


- Management, Business and Financial Occupations
- Computer, Engineering and Science Occupations
- Education, Legal, Community Service, Arts and Media Occupations
- Healthcare Practitioners and Technical Occupations
- Service Occupations
- Sales and Related Occupations
- Office and Administrative Support Occupations
- Farming, Fishing and Forestry Occupations
- Construction and Extraction Occupations
- Installation, Maintenance and Repair Occupations
- Production Occupations
- Transportation and Material Moving Occupations

UK – Extrapolations

Figure A2: Using trend extrapolation, the distribution of UK employment according to its probability of future increased demand

Note that the total area under all curves is equal to total UK employment.



- Management, Directors and Senior Officials
- Professional Occupations
- Associate Professional and Technical Occupations
- Administrative and Secretarial Occupations
- Skilled Trades Occupations
- Caring, Leisure and Other Service Occupations
- Sales and Customer Service Occupations
- Process, Plant and Machine Operatives
- Elementary Occupations

US – Relative rankings

Table A1: Relative rankings of major occupation groups in the US by our model, trained on expert judgment and by independent forecasts from the BLS.

RANKING FROM EXPERT JUDGMENT	RANKING FROM BLS PROJECTIONS 2014-2024
Education, Training and Library Occupations	Healthcare Support Occupations
Community and Social Service Occupations	Healthcare Practitioners and Technical Occupations
Personal Care and Service Occupations	Personal Care and Service Occupations
Architecture and Engineering Occupations	Computer and Mathematical Occupations
Management Occupations	Community and Social Service Occupations
Arts, Design, Entertainment, Sports and Media Occupations	Construction and Extraction Occupations
Legal Occupations	Business and Financial Operations Occupations
Healthcare Support Occupations	Education, Training and Library Occupations
Healthcare Practitioners and Technical Occupations	Life, Physical and Social Science Occupations
Life, Physical and Social Science Occupations	Food Preparation and Serving Related Occupations
Computer and Mathematical Occupations	Installation, Maintenance and Repair Occupations
Building and Grounds Cleaning and Maintenance Occupations	Building and Grounds Cleaning and Maintenance Occupations
Construction and Extraction Occupations	Management Occupations
Protective Service Occupations	Legal Occupations
Business and Financial Operations Occupations	Sales and Related Occupations
Food Preparation and Serving Related Occupations	Transportation and Material Moving Occupations
Sales and Related Occupations	Protective Service Occupations
Farming, Fishing and Forestry Occupations	Arts, Design, Entertainment, Sports and Media Occupations
Installation, Maintenance and Repair Occupations	Architecture and Engineering Occupations
Office and Administrative Support Occupations	Office and Administrative Support Occupations
Transportation and Material Moving Occupations	Production Occupations
Production Occupations	Farming, Fishing and Forestry Occupations

UK – Relative rankings

Table A2: Relative rankings of sub-major occupation groups in the UK by our model, trained on expert judgment and by independent forecasts from the KCES.

RANKING FROM EXPERT JUDGMENT	RANKING FROM UKCES PROJECTIONS TO 2024
Teaching and Educational Professionals	Customer Service Occupations
Culture, Media and Sports Occupations	Corporate Managers and Directors
Health Professionals	Caring Personal Service Occupations
Science, Research, Engineering and Technology Professionals	Business, Media and Public Service Professionals
Corporate Managers and Directors	Health and Social Care Associate Professionals
Business, Media and Public Service Professionals	Health Professionals
Textiles, Printing and Other Skilled Trades	Business and Public Service Associate Professionals
Skilled Agricultural and Related Trades	Culture, Media and Sports Occupations
Other Managers and Proprietors	Science, Research, Engineering and Technology Professionals
Business and Public Service Associate Professionals	Other Managers and Proprietors
Health and Social Care Associate Professionals	Teaching and Educational Professionals
Protective Service Occupations	Skilled Construction and Building Trades
Leisure, Travel and Related Personal Service Occupations	Science, Engineering and Technology Associate Professionals
Science, Engineering and Technology Associate Professionals	Elementary Administration and Service Occupations
Caring Personal Service Occupations	Skilled Agricultural and Related Trades
Skilled Metal, Electrical and Electronic Trades	Leisure, Travel and Related Personal Service Occupations
Skilled Construction and Building Trades	Transport and Mobile Machine Drivers and Operatives
Elementary Administration and Service Occupations	Elementary Trades and Related Occupations
Elementary Trades and Related Occupations	Protective Service Occupations
Administrative Occupations	Administrative Occupations
Sales Occupations	Sales Occupations
Transport and Mobile Machine Drivers and Operatives	Textiles, Printing and Other Skilled Trades
Secretarial and Related Occupations	Skilled Metal, Electrical and Electronic Trades
Customer Service Occupations	Process, Plant and Machine Operatives
Process, Plant and Machine Operatives	Secretarial and Related Occupations

APPENDIX B. MINOR OCCUPATION GROUPS

US Minor Occupation Groups

Table B1: Probabilities of future increased demand for minor occupation groups

STANDARD OCCUPATION CLASSIFICATION (SOC)	OCCUPATION TITLE	AVERAGE PROBABILITY (EMPLOYMENT-WEIGHTED)
39-2000	Animal Care and Service Workers	0.796
21-2000	Religious Workers	0.754
25-2000	Preschool, Primary, Secondary and Special Education School Teachers	0.743
23-1000	Lawyers, Judges and Related Workers	0.739
25-1000	Post-secondary Teachers	0.734
17-2000	Engineers	0.718
21-1000	Counselors, Social Workers and Other Community and Social Service Specialists	0.707
25-3000	Other Teachers and Instructors	0.683
39-9000	Other Personal Care and Service Workers	0.680
19-3000	Social Scientists and Related Workers	0.676
11-2000	Advertising, Marketing, Promotions, Public Relations and Sales Managers	0.672
39-5000	Personal Appearance Workers	0.672
25-9000	Other Education, Training and Library Occupations	0.665
27-2000	Entertainers and Performers, Sports and Related Workers	0.661
11-9000	Other Management Occupations	0.658
39-1000	Supervisors Of Personal Care and Service Workers	0.651
31-2000	Occupational Therapy and Physical Therapist Assistants and Aides	0.637
31-1000	Nursing, Psychiatric and Home Health Aides	0.636
43-1000	Supervisors of Office and Administrative Support Workers	0.635
29-9000	Other Healthcare Practitioners and Technical Occupations	0.629
29-1000	Health Diagnosing and Treating Practitioners	0.627
19-1000	Life Scientists	0.625
19-2000	Physical Scientists	0.613
39-7000	Tour and Travel Guides	0.611
17-1000	Architects, Surveyors and Cartographers	0.611
39-4000	Funeral Service Workers	0.605
27-3000	Media and Communication Workers	0.600
39-6000	Baggage Porters, Bellhops and Concierges	0.593
11-3000	Operations Specialties Managers	0.580
11-1000	Top Executives	0.579
13-1000	Business Operations Specialists	0.579
27-1000	Art and Design Workers	0.579
33-1000	Supervisors of Protective Service Workers	0.566
15-1000	Computer Occupations	0.556
37-1000	Supervisors Of Building and Grounds Cleaning and Maintenance Workers	0.551
15-2000	Mathematical Science Occupations	0.549
47-2000	Construction Trades Workers	0.548
25-4000	Librarians, Curators and Archivists	0.545
37-2000	Building Cleaning and Pest Control Workers	0.542
49-1000	Supervisors Of Installation, Maintenance and Repair Workers	0.535
47-3000	Helpers, Construction Trades	0.530
33-3000	Law Enforcement Workers	0.517
37-3000	Grounds Maintenance Workers	0.515
47-1000	Supervisors Of Construction and Extraction Workers	0.515
53-2000	Air Transportation Workers	0.511
53-1000	Supervisors Of Transportation and Material Moving Workers	0.499
41-1000	Supervisors Of Sales Workers	0.496

Table B1: Continued

SOC	OCCUPATION TITLE	AVERAGE PROBABILITY (EMPLOYMENT-WEIGHTED)
33-2000	Fire Fighting and Prevention Workers	0.493
31-9000	Other Healthcare Support Occupations	0.492
41-9000	Other Sales and Related Workers	0.482
51-1000	Supervisors of Production Workers	0.477
35-3000	Food and Beverage Serving Workers	0.474
29-2000	Health Technologists and Technicians	0.474
35-1000	Supervisors of Food Preparation and Serving Workers	0.473
27-4000	Media and Communication Equipment Workers	0.459
41-4000	Sales Representatives, Wholesale and Manufacturing	0.456
35-9000	Other Food Preparation and Serving Related Workers	0.445
17-3000	Drafters, Engineering Technicians and Mapping Technicians	0.439
49-2000	Electrical and Electronic Equipment Mechanics, Installers and Repairers	0.433
33-9000	Other Protective Service Workers	0.419
43-6000	Secretaries and Administrative Assistants	0.412
19-4000	Life, Physical and Social Science Technicians	0.407
47-4000	Other Construction and Related Workers	0.406
45-2000	Agricultural Workers	0.405
45-1000	Supervisors of Farming, Fishing and Forestry Workers	0.391
41-2000	Retail Sales Workers	0.390
49-9000	Other Installation, Maintenance and Repair Occupations	0.387
43-4000	Information and Record Clerks	0.374
43-5000	Material Recording, Scheduling, Dispatching and Distributing Workers	0.367
53-5000	Water Transportation Workers	0.366
45-3000	Fishing and Hunting Workers	0.364
39-3000	Entertainment Attendants and Related Workers	0.354
41-3000	Sales Representatives, Services	0.335
35-2000	Cooks and Food Preparation Workers	0.333
53-6000	Other Transportation Workers	0.333
53-3000	Motor Vehicle Operators	0.330
53-7000	Material Moving Workers	0.314
23-2000	Legal Support Workers	0.310
43-9000	Other Office and Administrative Support Workers	0.304
13-2000	Financial Specialists	0.289
43-2000	Communications Equipment Operators	0.289
53-4000	Rail Transportation Workers	0.286
49-3000	Vehicle and Mobile Equipment Mechanics, Installers and Repairers	0.283
47-5000	Extraction Workers	0.277
51-6000	Textile, Apparel and Furnishings Workers	0.226
51-3000	Food Processing Workers	0.221
51-8000	Plant and System Operators	0.220
45-4000	Forest, Conservation and Logging Workers	0.194
51-4000	Metal Workers and Plastic Workers	0.173
51-7000	Woodworkers	0.166
43-3000	Financial Clerks	0.153
51-2000	Assemblers and Fabricators	0.140
51-5000	Printing Workers	0.133
51-9000	Other Production Occupations	0.113

UK Minor Occupation Groups

Table B2: Probabilities of future increased demand for minor occupation groups

SOC	OCCUPATION TITLE	AVERAGE PROBABILITY (EMPLOYMENT-WEIGHTED)
3440	Sports and Fitness Occupations	0.745
1180	Health and Social Services Managers and Directors	0.700
5430	Food Preparation and Hospitality Trades	0.699
2110	Natural and Social Science Professionals	0.694
2220	Therapy Professionals	0.689
1240	Managers and Proprietors in Health and Care Services	0.681
2310	Teaching and Educational Professionals	0.666
1220	Managers and Proprietors in Hospitality and Leisure Services	0.659
3420	Design Occupations	0.659
2210	Health Professionals	0.646
2140	Conservation and Environment Professionals	0.638
2120	Engineering Professionals	0.637
1110	Chief Executives and Senior Officials	0.633
3410	Artistic, Literary and Media Occupations	0.633
2230	Nursing and Midwifery Professionals	0.626
1130	Functional Managers and Directors	0.622
2150	Research and Development Managers	0.618
1210	Managers and Proprietors in Agriculture-related Services	0.615
5240	Electrical and Electronic Trades	0.613
2130	Information Technology and Telecommunications Professionals	0.606
6240	Cleaning and Housekeeping Managers and Supervisors	0.606
3560	Public Services and Other Associate Professionals	0.601
2440	Welfare Professionals	0.601
2450	Librarians and Related Professionals	0.599
7130	Sales Supervisors	0.599
1190	Managers and Directors in Retail and Wholesale	0.599
2470	Media Professionals	0.598
9270	Other Elementary Services Occupations	0.587
1150	Financial Institution Managers and Directors	0.570
2410	Legal Professionals	0.570
5110	Agricultural and Related Trades	0.567
2420	Business, Research and Administrative Professionals	0.564
3550	Conservation and Environmental Associate Professionals	0.557
1120	Production Managers and Directors	0.557
6210	Leisure and Travel Services	0.556
3130	Information Technology Technicians	0.555
2430	Architects, Town Planners and Surveyors	0.552
1160	Managers and Directors in Transport and Logistics	0.551
3230	Welfare and Housing Associate Professionals	0.551
2460	Quality and Regulatory Professionals	0.548
3540	Sales, Marketing and Related Associate Professionals	0.542
1170	Senior Officers in Protective Services	0.541
4160	Administrative Occupations: Office Managers and Supervisors	0.541
6220	Hairdressers and Related Services	0.538
3530	Business, Finance and Related Associate Professionals	0.535
3210	Health Associate Professionals	0.528
3310	Protective Service Occupations	0.525

Table B2: Continued

SOC	OCCUPATION TITLE	AVERAGE PROBABILITY (EMPLOYMENT-WEIGHTED)
3510	Transport Associate Professionals	0.497
8140	Construction Operatives	0.492
9120	Elementary Construction Occupations	0.492
6120	Childcare and Related Personal Services	0.484
3120	Draughtspersons and Related Architectural Technicians	0.483
3110	Science, Engineering and Production Technicians	0.480
5320	Building Finishing Trades	0.480
6140	Caring Personal Services	0.479
1250	Managers and Proprietors In Other Services	0.468
5250	Skilled Metal, Electrical and Electronic Trades Supervisors	0.466
7120	Sales-related Occupations	0.458
5330	Construction and Building Trades Supervisors	0.453
8230	Other Drivers and Transport Operatives	0.424
4110	Administrative Occupations: Government and Related Organisations	0.419
5310	Construction and Building Trades	0.415
3520	Legal Associate Professionals	0.361
5410	Textiles and Garments Trades	0.351
6230	Housekeeping and Related Services	0.350
4120	Administrative Occupations: Finance	0.350
8210	Road Transport Drivers	0.348
5230	Vehicle Trades	0.345
6130	Animal Care and Control Services	0.330
5440	Other Skilled Trades	0.328
5220	Metal Machining, Fitting and Instrument-making Trades	0.326
4130	Administrative Occupations: Records	0.324
9240	Elementary Security Occupations	0.321
4210	Secretarial and Related Occupations	0.320
9230	Elementary Cleaning Occupations	0.306
7110	Sales Assistants and Retail Cashiers	0.289
7220	Customer Service Managers and Supervisors	0.284
7210	Customer Service Occupations	0.280
9210	Elementary Administration Occupations	0.268
9110	Elementary Agricultural Occupations	0.266
9130	Elementary Process Plant Occupations	0.260
4150	Other Administrative Occupations	0.244
8120	Plant and Machine Operatives	0.241
8110	Process Operatives	0.230
5420	Printing Trades	0.218
5210	Metal Forming, Welding and Related Trades	0.210
8220	Mobile Machine Drivers and Operatives	0.192
8130	Assemblers and Routine Operatives	0.164
9250	Elementary Sales Occupations	0.102
9260	Elementary Storage Occupations	0.061

APPENDIX C. SKILLS RANKING BY AVERAGE DERIVATIVE

US Skills Ranking

Table C1: A ranking, by average derivative, of the importance of O*NET variables to future demand for US occupations

RANK	O*NET VARIABLE	CLASS	AVERAGE DERIVATIVE
1	Customer and Personal Service	Knowledge	2.578
2	Technology Design	Skills	2.565
3	Science	Skills	2.557
4	Service Orientation	Skills	2.229
5	Education and Training	Knowledge	2.087
6	Static Strength	Abilities	1.965
7	Philosophy and Theology	Knowledge	1.953
8	Instructing	Skills	1.847
9	Installation	Skills	1.843
10	Sociology and Anthropology	Knowledge	1.655
11	Fluency of Ideas	Abilities	1.602
12	Stamina	Abilities	1.570
13	Personnel and Human Resources	Knowledge	1.544
14	Complex Problem Solving	Skills	1.377
15	Management of Material Resources	Skills	1.227
16	Extent Flexibility	Abilities	1.226
17	Operations Analysis	Skills	1.189
18	Design	Knowledge	1.170
19	Equipment Selection	Skills	1.162
20	Psychology	Knowledge	1.071
21	Dynamic Strength	Abilities	1.067
22	Originality	Abilities	1.048
23	Management of Personnel Resources	Skills	1.041
24	Chemistry	Knowledge	1.040
25	Therapy and Counseling	Knowledge	1.016
26	Foreign Language	Knowledge	1.012
27	Arm-Hand Steadiness	Abilities	1.008
28	Learning Strategies	Skills	0.985
29	Physics	Knowledge	0.971
30	Active Learning	Skills	0.940
31	Memorization	Abilities	0.914
32	Administration and Management	Knowledge	0.902
33	Dynamic Flexibility	Abilities	0.844
34	Time Sharing	Abilities	0.841
35	Social Perceptiveness	Skills	0.745
36	Writing	Skills	0.737
37	Manual Dexterity	Abilities	0.721
38	Sound Localization	Abilities	0.659
39	Multilimb Coordination	Abilities	0.652
40	Gross Body Coordination	Abilities	0.634
41	Engineering and Technology	Knowledge	0.631
42	Speaking	Skills	0.622
43	Reading Comprehension	Skills	0.580
44	Trunk Strength	Abilities	0.552
45	Geography	Knowledge	0.533
46	Communications and Media	Knowledge	0.527
47	Telecommunications	Knowledge	0.514
48	Speech Recognition	Abilities	0.510
49	Information Ordering	Abilities	0.454
50	Inductive Reasoning	Abilities	0.441
51	Active Listening	Skills	0.391
52	Coordination	Skills	0.379
53	Depth Perception	Abilities	0.351
54	Far Vision	Abilities	0.348
55	Mechanical	Knowledge	0.341
56	Written Comprehension	Abilities	0.332
57	Problem Sensitivity	Abilities	0.330

Table C1: Continued

RANK	O*NET VARIABLE	CLASS	AVERAGE DERIVATIVE
58	Monitoring	Skills	0.267
59	Time Management	Skills	0.210
60	Deductive Reasoning	Abilities	0.171
61	Written Expression	Abilities	0.162
62	History and Archeology	Knowledge	0.160
63	Visual Color Discrimination	Abilities	0.155
64	Finger Dexterity	Abilities	0.142
65	Glare Sensitivity	Abilities	0.091
66	Judgment and Decision-making	Skills	0.069
67	Oral Expression	Abilities	0.050
68	Peripheral Vision	Abilities	0.046
69	Visualization	Abilities	0.043
70	Persuasion	Skills	0.034
71	Gross Body Equilibrium	Abilities	0.012
72	Oral Comprehension	Abilities	0.012
73	Spatial Orientation	Abilities	-0.053
74	Public Safety and Security	Knowledge	-0.081
75	Explosive Strength	Abilities	-0.103
76	Management of Financial Resources	Skills	-0.138
77	Critical Thinking	Skills	-0.176
78	Programming	Skills	-0.182
79	Speech Clarity	Abilities	-0.299
80	Speed of Limb Movement	Abilities	-0.326
81	Speed of Closure	Abilities	-0.328
82	Transportation	Knowledge	-0.365
83	Troubleshooting	Skills	-0.367
84	Systems Analysis	Skills	-0.391
85	Selective Attention	Abilities	-0.424
86	Sales and Marketing	Knowledge	-0.434
87	Near Vision	Abilities	-0.440
88	Category Flexibility	Abilities	-0.517
89	Negotiation	Skills	-0.559
90	Equipment Maintenance	Skills	-0.561
91	Systems Evaluation	Skills	-0.572
92	Clerical	Knowledge	-0.601
93	Night Vision	Abilities	-0.701
94	Repairing	Skills	-0.715
95	Response Orientation	Abilities	-0.737
96	Response Orientation	Abilities	-0.737
97	Auditory Attention	Abilities	-0.822
98	Operation Monitoring	Skills	-0.910
99	Flexibility of Closure	Abilities	-0.924
100	Hearing Sensitivity	Abilities	-0.944
101	Mathematics – Skills	Skills	-0.944
102	Law and Government	Knowledge	-0.949
103	Mathematical Reasoning	Abilities	-1.024
104	English Language	Knowledge	-1.079
105	Medicine and Dentistry	Knowledge	-1.233
106	Number Facility	Abilities	-1.399
107	Reaction Time	Abilities	-2.014
108	Quality Control Analysis	Skills	-2.027
109	Economics and Accounting	Knowledge	-2.043
110	Computers and Electronics	Knowledge	-2.052
111	Wrist-Finger Speed	Abilities	-2.053
112	Operation and Control	Skills	-2.334
113	Mathematics – Knowledge	Knowledge	-2.365

UK Skills Ranking

Table C2: A ranking, by average derivative, of the importance of O*NET variables to future demand for UK occupations

RANK	O*NET VARIABLE	CLASS	AVERAGE DERIVATIVE
1	Judgment and Decision-making	Skills	4.528
2	Fluency of Ideas	Abilities	4.366
3	Originality	Abilities	4.229
4	Science	Skills	4.228
5	Operations Analysis	Skills	3.976
6	Gross Body Equilibrium	Abilities	3.708
7	Gross Body Coordination	Abilities	3.225
8	Medicine and Dentistry	Knowledge	2.896
9	Economics and Accounting	Knowledge	2.851
10	Sales and Marketing	Knowledge	2.834
11	Psychology	Knowledge	2.828
12	Complex Problem Solving	Skills	2.725
13	Sociology and Anthropology	Knowledge	2.616
14	Active Learning	Skills	2.493
15	Foreign Language	Knowledge	2.463
16	Systems Evaluation	Skills	2.351
17	Education and Training	Knowledge	2.283
18	Service Orientation	Skills	2.116
19	Management of Personnel Resources	Skills	2.107
20	Learning Strategies	Skills	2.077
21	Stamina	Abilities	2.047
22	Programming	Skills	1.873
23	Manual Dexterity	Abilities	1.843
24	Information Ordering	Abilities	1.831
25	Time Management	Skills	1.802
24	Information Ordering	Abilities	1.831
25	Time Management	Skills	1.802
26	Trunk Strength	Abilities	1.710
27	Dynamic Strength	Abilities	1.645
28	Finger Dexterity	Abilities	1.612
29	Quality Control Analysis	Skills	1.578
30	Visual Colour Discrimination	Abilities	1.453
31	Physics	Knowledge	1.439
32	Far Vision	Abilities	1.347
33	Visualisation	Abilities	1.235
34	Extent Flexibility	Abilities	1.196
35	Arm-Hand Steadiness	Abilities	1.190
36	Deductive Reasoning	Abilities	1.136
37	History and Archeology	Knowledge	1.132
38	Coordination	Skills	1.095
39	Geography	Knowledge	0.940
40	Therapy and Counselling	Knowledge	0.938
41	Systems Analysis	Skills	0.935
42	Explosive Strength	Abilities	0.916
43	Chemistry	Knowledge	0.887
44	Administration and Management	Knowledge	0.826
45	Management of Material Resources	Skills	0.814
46	Dynamic Flexibility	Abilities	0.796
47	Oral Expression	Abilities	0.796
48	Spatial Orientation	Abilities	0.779
49	Communications and Media	Knowledge	0.772
50	Near Vision	Abilities	0.710
51	Mathematics – Knowledge	Knowledge	0.697
52	Social Perceptiveness	Skills	0.657
53	Active Listening	Skills	0.615
54	Category Flexibility	Abilities	0.462
55	Critical Thinking	Skills	0.439

Table C2: Continued

RANK	O*NET VARIABLE	CLASS	AVERAGE DERIVATIVE
56	Equipment Selection	Skills	0.434
57	Problem Sensitivity	Abilities	0.404
58	Management of Financial Resources	Skills	0.353
59	Writing	Skills	0.330
60	Inductive Reasoning	Abilities	0.265
61	Telecommunications	Knowledge	0.205
62	Oral Comprehension	Abilities	0.201
63	Technology Design	Skills	0.194
64	Philosophy and Theology	Knowledge	0.181
65	Installation	Skills	0.159
66	Personnel and Human Resources	Knowledge	0.150
67	Monitoring	Skills	0.108
68	Memorisation	Abilities	0.087
69	Rate Control	Abilities	0.070
70	Time Sharing	Abilities	0.037
71	Speed of Limb Movement	Abilities	0.035
72	Speed of Closure	Abilities	-0.030
73	Auditory Attention	Abilities	-0.070
74	Peripheral Vision	Abilities	-0.114
75	Selective Attention	Abilities	-0.148
76	Reaction Time	Abilities	-0.151
77	Wrist-Finger Speed	Abilities	-0.165
78	Written Expression	Abilities	-0.200
79	Clerical	Knowledge	-0.203
80	Depth Perception	Abilities	-0.219
81	Night Vision	Abilities	-0.225
82	Speaking	Skills	-0.267
83	Speech Recognition	Abilities	-0.326
84	Persuasion	Skills	-0.431
85	Multilimb Coordination	Abilities	-0.432
86	Customer and Personal Service	Knowledge	-0.522
87	English Language	Knowledge	-0.571
88	Glare Sensitivity	Abilities	-0.665
89	Instructing	Skills	-0.678
90	Flexibility of Closure	Abilities	-0.696
91	Transportation	Knowledge	-0.698
92	Operation Monitoring	Skills	-0.780
93	Number Facility	Abilities	-0.808
94	Hearing Sensitivity	Abilities	-0.848
95	Mathematical Reasoning	Abilities	-0.868
96	Negotiation	Skills	-1.058
97	Response Orientation	Abilities	-1.174
98	Design	Knowledge	-1.230
99	Troubleshooting	Skills	-1.277
100	Mathematics – Skills	Skills	-1.320
101	Mathematical Reasoning	Abilities	-1.024
102	English Language	Knowledge	-1.079
103	Medicine and Dentistry	Knowledge	-1.233
104	Number Facility	Abilities	-1.399
105	Reaction Time	Abilities	-2.014
106	Quality Control Analysis	Skills	-2.027
107	Economics and Accounting	Knowledge	-2.043
108	Computers and Electronics	Knowledge	-2.052
109	Wrist-Finger Speed	Abilities	-2.053
110	Operation and Control	Skills	-2.334
111	Mathematics – Knowledge	Knowledge	-2.365
112	Rate Control	Abilities	-2.684
113	Mathematics – Knowledge	Knowledge	-2.365

APPENDIX D. UK-US OCCUPATION CROSSWALK

METHODOLOGY

Given that the UK lacks a comprehensive system for collecting and disseminating information on occupational and skills requirements, it is necessary to exploit the US information that is already collected for O*NET. This is done by mapping, or 'crosswalking', the US and UK SOC taxonomies. Specifically, our crosswalk is based on the application programming interface (API) for the LMI for All/O*NET SOC to UK SOC crosswalk (UK Commission for Employment and Skills, 2017b) (under o-net/soc2onet/).

A feature of O*NET is that there are significantly more occupations in the database than in the UK SOC (at four-digit level). As a result, some UK occupations are crosswalked to more than one equivalent US occupation in LMI for All. Where a direct single match is not possible, we match the UK SOC to the occupation with the highest employment. This simple rule is justified on the grounds that it is more likely to be representative of the other occupations in the group.

To generate employment estimates, we use the BLS Occupational Employment Statistics (OES), a semi-annual survey of approximately 200,000 non-farm business establishments. As the O*NET occupational classification (eight-digit) is slightly more detailed than the six-digit 2010 SOC system, for which employment is reported, we are required to ignore the last two digits. After investigation, we believe that the information loss associated with this approach is minimal and superior to more complex procedures. We use May 2015 employment data – as in the rest of the analysis – and compare it with estimates from more recently available data (May 2016) and from 2006 (May 2006) to ensure that the results are robust over time.

In a small number of cases, two or more occupations account for the highest employment in a group. This arises from the fact while some occupation codes differ at the eight-digit level, they are identical at the six-digit level. As a general rule in such cases we select the more generic occupation since it better approximates the level of detail found in the UK SOC. In many cases this is easy to establish from the respective position of the occupations in the SOC hierarchy. For example, Statisticians (15-2041.00) is chosen over Biostatisticians (15-2041.01). In other cases, we apply our judgment to determine which code is most generic.

We assess the degree of error introduced by using only one O*NET code as a result of our 'highest employment' rule. Ideally, the code with the highest employment should account for all the employment in the group. We find evidence that, in many cases, these codes do account for the lion's share of employment. In sum, our one-to-one crosswalk generated using this rule contains 283 unique US SOC codes, which account for 70% of total US employment.

The LMI for All API does not provide a crosswalk for 23 UK occupations. As a result, we manually choose 23 satisfactory US matches (designated by * below). Four UK occupations have no US counterpart with relevant job tasks and skills data in O*NET and are consequently excluded.

Table D1: The UK-to-US Occupation Crosswalk based on LMI for All data

UK SOC	UK TITLE	US O*NET SOC	US TITLE
1115	Chief executives and senior officials	11-1011.00	Chief Executives
1121	Production managers and directors in manufacturing	11-1021.00	General and Operations Managers
1122	Production managers and directors in construction	11-9021.00	Construction Managers
1123*	Production managers and directors in mining and energy	11-3051.00	Industrial Production Managers
1131	Financial managers and directors	11-3031.02	Financial Managers, Branch or Department
1132	Marketing and sales directors	11-2021.00	Marketing Managers
1133	Purchasing managers and directors	11-9199.04	Supply Chain Managers
1134	Advertising and public relations directors	11-2031.00	Public Relations and Fundraising Managers
1135*	Human resource managers and directors	11-3121.00	Human Resources Managers
1136	Information technology and telecommunications directors	11-3021.00	Computer and Information Systems Managers
1139	Functional managers and directors n.e.c.	43-1011.00	First-line Supervisors of Office and Administrative Support Workers
1150	Financial institution managers and directors	11-3031.02	Financial Managers, Branch or Department
1161	Managers and directors in transport and distribution	11-3071.01	Transportation, Storage and Distribution Managers
1162	Managers and directors in storage and warehousing	53-1021.00	First-line Supervisors of Helpers, Laborers and Material Movers, Hand
1172	Senior police officers	33-1012.00	First-line Supervisors of Police and Detectives
1173	Senior officers in fire, ambulance, prison and related services	33-2022.00	Forest Fire Inspectors and Prevention Specialists
1181	Health services and public health managers and directors	11-9111.00	Medical and Health Services Managers
1184	Social services managers and directors	11-9151.00	Social and Community Service Managers
1190	Managers and directors in retail and wholesale	41-1011.00	First-line Supervisors of Retail Sales Workers
1211	Managers and proprietors in agriculture and horticulture	19-1031.02	Range Managers
1213*	Managers and proprietors in forestry, fishing and related services	19-1032.00	Foresters
1221	Hotel and accommodation managers and proprietors	39-9041.00	Residential Advisors
1223	Restaurant and catering establishment managers and proprietors	35-1012.00	First-line Supervisors of Food Preparation and Serving Workers
1224	Publicans and managers of licensed premises	11-9051.00	Food Service Managers
1225	Leisure and sports managers	39-1021.01	Spa Managers
1226*	Travel agency managers and proprietors	41-3041.00	Travel Agents
1241	Health care practice managers	11-9111.00	Medical and Health Services Managers
1242	Residential, day and domiciliary care managers and proprietors	11-9111.00	Medical and Health Services Managers
1251	Property, housing and estate managers	11-9141.00	Property, Real Estate and Community Association Managers
1252	Garage managers and proprietors	49-1011.00	First-line Supervisors of Mechanics, Installers and Repairers
1253	Hairdressing and beauty salon managers and proprietors	39-1021.00	First-line Supervisors of Personal Service Workers
1254	Shopkeepers and proprietors – wholesale and retail	41-2031.00	Retail Salespersons
1255	Waste disposal and environmental services managers	17-2081.00	Environmental Engineers
1259	Managers and proprietors in other services n.e.c.	21-2021.00	Directors, Religious Activities and Education
2111	Chemical scientists	19-2031.00	Chemists
2112	Biological scientists and biochemists	17-2199.01	Biochemical Engineers
2113	Physical scientists	19-2042.00	Geoscientists, except Hydrologists and Geographers
2114	Social and humanities scientists	19-4061.00	Social Science Research Assistants

Table D1: Continued

UK SOC	UK TITLE	US O*NET SOC	US TITLE
2119	Natural and social science professionals n.e.c.	11-9121.00	Natural Sciences Managers
2121	Civil engineers	17-2051.00	Civil Engineers
2122	Mechanical engineers	17-2141.00	Mechanical Engineers
2123	Electrical engineers	17-2071.00	Electrical Engineers
2124	Electronics engineers	17-2072.00	Electronics Engineers, except Computer
2126*	Design and development engineers	17-2112.00	Industrial Engineers
2127	Production and process engineers	17-2112.00	Industrial Engineers
2129	Engineering professionals n.e.c.	13-1199.01	Energy Auditors
2133	IT specialist managers	11-3021.00	Computer and Information Systems Managers
2134*	IT project and programme managers	15-1199.09	Information Technology Project Managers
2135*	IT business analysts, architects and systems designers	15-1199.09	Information Technology Project Managers
2136*	Programmers and software development professionals	15-1131.00	Computer Programmers
2137	Web design and development professionals	43-9031.00	Desktop Publishers
2139*	Information technology and telecommunications professionals n.e.c.	15-1143.01	Telecommunications Engineering Specialists
2141	Conservation professionals	19-1031.01	Soil and Water Conservationists
2142	Environment professionals	19-2041.00	Environmental Scientists and Specialists, Including Health
2150*	Research and development managers	11-9121.01	Clinical Research Coordinators
2211	Medical practitioners	29-1069.02	Dermatologists
2212	Psychologists	19-3031.02	Clinical Psychologists
2213	Pharmacists	29-1051.00	Pharmacists
2214	Ophthalmic opticians	29-1041.00	Optometrists
2215	Dental practitioners	29-1021.00	Dentists, General
2216	Veterinarians	29-1131.00	Veterinarians
2217	Medical radiographers	29-2032.00	Diagnostic Medical Sonographers
2218	Podiatrists	29-1081.00	Podiatrists
2219	Health professionals n.e.c.	31-9092.00	Medical Assistants
2221	Physiotherapists	29-1123.00	Physical Therapists
2222	Occupational therapists	29-1122.00	Occupational Therapists
2223	Speech and language therapists	29-1127.00	Speech-Language Pathologists
2229	Therapy professionals n.e.c.	29-1126.00	Respiratory Therapists
2231	Nurses	29-2061.00	Licensed Practical and Licensed Vocational Nurses
2232	Midwives	29-9099.01	Midwives
2311	Higher education teaching professionals	25-1011.00	Business Teachers, Postsecondary
2312	Further education teaching professional	25-1194.00	Vocational Education Teachers, Post-secondary
2314	Secondary education teaching professionals	25-2031.00	Secondary School Teachers, except Special and Career/Technical Education
2315	Primary and nursery education teaching professionals	25-2021.00	Elementary School Teachers, except Special Education
2316*	Special needs education teaching professionals	25-2053.00	Special Education Teachers, Middle School
2317	Senior professionals of educational establishments	11-9033.00	Education Administrators, Post-secondary
2318	Education advisers and school inspectors	11-9032.00	Education Administrators, Elementary and Secondary School
2319	Teaching and other educational professionals n.e.c.	25-3021.00	Self-enrichment Education Teachers
2412	Barristers and judges	13-1041.06	Coroners
2413	Solicitor	23-1011.00	Lawyers
2419	Legal professionals n.e.c.	23-1011.00	Lawyers
2421	Chartered and certified accountants	13-2011.01	Accountants
2423	Management consultants and business analysts	13-2099.02	Risk Management Specialists
2424	Business and financial project management professionals	13-1111.00	Management Analysts
2425	Actuaries, economists and statisticians	15-2041.00	Statisticians
2426	Business and related research professionals	33-3021.03	Criminal Investigators and Special Agents

Table D1: Continued

UK SOC	UK TITLE	US O*NET SOC	US TITLE
2429	Business, research and administrative professionals n.e.c.	43-1011.00	First-line Supervisors of Office and Administrative Support Workers
2431	Architects	17-1011.00	Architects, except Landscape and Naval
2432	Town planning officers	19-3051.00	Urban and Regional Planners
2433	Quantity surveyors	13-1051.00	Cost Estimators
2434	Chartered surveyors	17-1022.00	Surveyors
2435	Chartered architectural technologists	17-3011.01	Architectural Drafters
2436	Construction project managers and related professionals	19-3099.01	Transportation Planners
2442	Social workers	21-1021.00	Child, Family and School Social Workers
2443	Probation officers	21-1092.00	Probation Officers and Correctional Treatment Specialists
2444	Clergy	21-2011.00	Clergy
2449*	Welfare professionals n.e.c.	11-9151.00	Social and Community Service Managers
2451	Librarians	25-4021.00	Librarians
2452	Archivists and curators	25-4012.00	Curators
2461	Quality control and planning engineers	17-2199.02	Validation Engineers
2462	Quality assurance and regulatory professionals	11-9199.02	Compliance Managers
2463	Environmental health professionals	19-2041.00	Environmental Scientists and Specialists, Including Health
2471	Journalists, newspaper and periodical editors	27-3041.00	Editors
2472	Public relations professionals	27-3031.00	Public Relations Specialists
2473	Advertising accounts managers and creative directors	27-1011.00	Art Directors
3111	Laboratory technicians	29-2011.00	Medical and Clinical Laboratory Technologists
3112	Electrical and electronics technicians	17-3023.01	Electronics Engineering Technicians
3113	Engineering technicians	17-3023.03	Electrical Engineering Technicians
3114	Building and civil engineering technicians	17-3022.00	Civil Engineering Technicians
3115	Quality assurance technicians	19-4099.01	Quality Control Analysts
3116	Planning, process and production technicians	17-3029.09	Manufacturing Production Technicians
3119	Science, engineering and production technicians n.e.c.	19-4099.03	Remote Sensing Technicians
3121	Architectural and town planning technicians	19-4061.01	City and Regional Planning Aides
3122	Draughtspersons	17-3011.01	Architectural Drafters
3131	IT operations technicians	15-2041.02	Clinical Data Managers
3132*	IT user support technicians	15-1151.00	Computer User Support Specialists
3213	Paramedics	29-2041.00	Emergency Medical Technicians and Paramedics
3216	Dispensing opticians	29-2081.00	Opticians, Dispensing
3217	Pharmaceutical technicians	29-2052.00	Pharmacy Technicians
3218	Medical and dental technicians	29-2021.00	Dental Hygienists
3219	Health associate professionals n.e.c.	29-1122.01	Low Vision Therapists, Orientation and Mobility Specialists and Vision Rehabilitation Specialists
3231	Youth and community workers	21-1093.00	Social and Human Service Assistants
3233	Child and early years officers	21-1021.00	Child, Family and School Social Workers
3234	Housing officers	11-9141.00	Property, Real Estate and Community Association Managers
3235	Counsellors	21-1012.00	Educational, Guidance, School, and Vocational Counselors
3239	Welfare and housing associate professionals n.e.c.	43-4051.03	Patient Representatives
3312	Police officers (sergeant and below)	33-3051.01	Police Patrol Officers
3313	Fire service officers (watch manager and below)	33-2011.01	Municipal Firefighters
3314	Prison service officers (below principal officer)	33-3012.00	Correctional Officers and Jailers
3315	Police community support officers	33-3051.01	Police Patrol Officers
3319	Protective service associate professionals n.e.c.	11-9199.08	Lost Prevention Managers
3411	Artists	27-1013.00	Fine Artists, Including Painters, Sculptors, and Illustrators
3412	Authors, writers and translators	27-3042.00	Technical Writers
3413	Actors, entertainers and presenters	27-2011.00	Actors

Table D1: Continued

UK SOC	UK TITLE	US O*NET SOC	US TITLE
3414	Dancers and choreographers	27-2031.00	Dancers
3415	Musicians	27-2042.02	Musicians, Instrumental
3416	Arts officers, producers and directors	27-2012.01	Producers
3417	Photographers, audiovisual and broadcasting equipment operators	27-4021.00	Photographers
3421	Graphic designers	27-1024.00	Graphic Designers
3422	Product, clothing and related designers	27-1025.00	Interior Designers
3441	Sports players	27-2021.00	Athletes and Sports Competitors
3442	Sports coaches, instructors and officials	27-2022.00	Coaches and Scouts
3443	Fitness instructors	39-9031.00	Fitness Trainers and Aerobics Instructors
3538	Financial accounts managers	11-9199.03	Investment Fund Managers
3511	Air traffic controllers	53-2021.00	Air Traffic Controllers
3512	Aircraft pilots and flight engineers	53-2011.00	Airline Pilots, Copilots and Flight Engineers
3513	Ship and hovercraft officers	53-5021.01	Ship and Boat Captains
3520	Legal associate professionals	23-2011.00	Paralegals and Legal Assistants
3531	Estimators, valuers and assessors	13-1031.02	Insurance Adjustors, Examiners and Investigators
3532	Brokers	13-1199.03	Customs Brokers
3534	Finance and investment analysts and advisers	13-2051.00	Financial Analysts
3535	Taxation experts	13-2082.00	Tax Preparers
3536	Importers and exporters	13-1199.03	Customs Brokers
3537	Financial and accounting technicians	43-3031.00	Bookkeeping, Accounting and Auditing Clerks
3539	Business and related associate professionals n.e.c.	13-1111.00	Management Analysts
3541	Buyers and procurement officers	13-1023.00	Purchasing Agents, except Wholesale, Retail and Farm Products
3542	Business sales executives	41-4012.00	Sales Representatives, Wholesale and Manufacturing, except Technical and Scientific Products
3543	Marketing associate professionals	41-3011.00	Advertising Sales Agents
3544	Estate agents and auctioneers	41-9022.00	Real Estate Sales Agents
3545	Sales accounts and business development managers	11-2022.00	Sales Managers
3546	Conference and exhibition managers and organisers	13-1121.00	Meeting, Convention and Event Planners
3550	Conservation and environmental associate professionals	19-4091.00	Environmental Science and Protection Technicians, Including Health
3561*	Public services associate professionals	11-3011.00	Administrative Services Managers
3562	Human resources and industrial relations officers	13-1041.03	Equal Opportunity Representatives and Officers
3563	Vocational and industrial trainers and instructors	25-9031.00	Instructional Coordinators
3564	Careers advisers and vocational guidance specialists	21-1012.00	Educational, Guidance, School and Vocational Counsellors
3565	Inspectors of standards and regulations	13-1041.01	Environmental Compliance Inspectors
3567	Health and safety officers	29-9011.00	Occupational Health and Safety Specialists
4112	National government administrative occupations	43-4061.00	Eligibility Interviewers, Government Programmes
4113	Local government administrative occupations	43-4031.02	Municipal Clerks
4114*	Officers of non-governmental organisations	11-1011.00	Chief Executives
4121	Credit controllers	43-4041.01	Credit Authorizers
4122	Book-keepers, payroll managers and wages clerks	43-3031.00	Bookkeeping, Accounting and Auditing Clerks
4123	Bank and post office clerks	43-3071.00	Tellers
4124	Finance officers	43-3031.0	Bookkeeping, Accounting and Auditing Clerks
4129	Financial administrative occupations n.e.c.	11-3031.01	Treasurers and Controllers
4131	Records clerks and assistants	43-5061.00	Production, Planning and Expediting Clerks
4132	Pensions and insurance clerks and assistants	43-9041.01	Insurance Claims Clerks
4133	Stock control clerks and assistants	43-5081.01	Stock Clerks, Sales Floor
4134	Transport and distribution clerks and assistants	43-5071.00	Shipping, Receiving and Traffic Clerks
4135	Library clerks and assistants	43-4121.00	Library Assistants, Clerical
4138	Human resources administrative occupations	43-3051.00	Payroll and Timekeeping Clerks
4151	Sales administrators	43-4151.00	Order Clerks
4159	Other administrative occupations n.e.c.	43-9061.00	Office Clerks, General

Table D1: Continued

UK SOC	UK TITLE	US O*NET SOC	US TITLE
4161	Office managers	11-3011.00	Administrative Services Managers
4162	Office supervisors	43-1011.00	First-line Supervisors of Office and Administrative Support Workers
4211	Medical secretaries	43-6013.00	Medical Secretaries
4212	Legal secretaries	43-6012.00	Legal Secretaries
4213	School secretaries	43-6014.00	Secretaries and Administrative Assistants, except Legal, Medical and Executive
4214	Company secretaries	43-6014.00	Secretaries and Administrative Assistants, except Legal, Medical and Executive
4215	Personal assistants and other secretaries	43-6014.00	Secretaries and Administrative Assistants, except Legal, Medical and Executive
4216	Receptionists	43-4171.00	Receptionists and Information Clerks
4217	Typists and related keyboard occupations	43-3021.01	Statement Clerks
5111	Farmers	19-4099.02	Precision Agriculture Technicians
5112	Horticultural trades	45-1011.07	First-line Supervisors of Agricultural Crop and Horticultural Workers
5113	Gardeners and landscape gardeners	37-1012.00	First-line Supervisors of Landscaping, Lawn Service and Groundskeeping Workers
5114	Groundsmen and greenkeepers	37-3011.00	Landscaping and Groundskeeping Workers
5119	Agricultural and fishing trades n.e.c.	45-1011.06	First-line Supervisors of Aquacultural Workers
5211	Smiths and forge workers	51-4022.00	Forging Machine Setters, Operators and Tenders, Metal and Plastic
5212	Moulders, core makers and die casters	51-4072.00	Molding, Coremaking and Casting Machine Setters, Operators and Tenders, Metal and Plastic
5213	Sheet metal workers	47-2211.00	Sheet Metal Workers
5214	Metal plate workers and riveters	47-2011.00	Boilermakers
5215	Welding trades	51-4121.06	Welders, Cutters and Welder Fitters
5216	Pipe fitters	47-2152.01	Pipefitters and Steamfitters
5221	Metal machining setters and setter-operators	51-4031.00	Cutting, Punching and Press Machine Setters, Operators and Tenders, Metal and Plastic
5222	Tool makers, tool fitters and markers-out	51-4111.00	Tool and Die Makers
5223	Metal working production and maintenance fitters	49-9041.00	Industrial Machinery Mechanics
5224	Precision instrument makers and repairers	49-9062.00	Medical Equipment Repairers
5225	Air-conditioning and refrigeration engineers	49-9021.02	Refrigeration Mechanics and Installers
5231	Vehicle technicians, mechanics and electricians	49-3023.01	Automotive Master Mechanics
5232	Vehicle body builders and repairers	49-3021.00	Automotive Body and Related Repairers
5234	Vehicle paint technicians	51-9122.00	Painters, Transportation Equipment
5235	Aircraft maintenance and related trades	49-3011.00	Aircraft Mechanics and Service Technicians
5236	Boat and ship builders and repairers	49-3051.00	Motorboat Mechanics and Service Technicians
5237	Rail and rolling stock builders and repairers	53-4011.00	Locomotive Engineers
5241	Electricians and electrical fitters	47-2111.00	Electricians
5242	Telecommunications engineers	49-2022.00	Telecommunications Equipment Installers and Repairers, except Line Installers
5244	TV, video and audio engineers	27-4011.00	Audio and Video Equipment Technicians
5245	IT engineers	17-2061.00	Computer Hardware Engineers
5249	Electrical and electronic trades n.e.c.	49-9051.00	Electrical Power-line Installers and Repairers
5250	Skilled metal, electrical and electronic trades supervisors	51-1011.00	First-line Supervisors of Production and Operating Workers
5311	Steel erectors	47-2221.00	Structural Iron and Steel Workers
5312	Bricklayers and masons	47-2081.00	Drywall and Ceiling Tile Installers
5313	Roofers, roof tilers and slaters	47-2181.00	Roofers
5314	Plumbers and heating and ventilating engineers	47-2152.02	Plumbers
5315	Carpenters and joiners	47-2031.01	Construction Carpenters
5316	Glaziers, window fabricators and fitters	47-2121.00	Glaziers
5319	Construction and building trades n.e.c.	47-4031.00	Fence Erectors
5321	Plasterers	47-2161.00	Plasterers and Stucco Masons
5322	Floorers and wall tilers	47-2044.00	Tile and Marble Setters
5323	Painters and decorators	47-2141.00	Painters, Construction and Maintenance

Table D1: Continued

UK SOC	UK TITLE	US O*NET SOC	US TITLE
5330	Construction and building trades supervisors	47-1011.00	First-line Supervisors of Construction Trades and Extraction Workers
5411	Weavers and knitters	51-6063.00	Textile Knitting and Weaving Machine Setters, Operators and Tenders
5412	Upholsterers	51-6093.00	Upholsterers
5413	Footwear and leather working trades	51-6041.00	Shoe and Leather Workers and Repairers
5414	Tailors and dressmakers	51-6052.00	Tailors, Dressmakers and Custom Sewers
5419	Textiles, garments and related trades n.e.c.	51-9031.00	Cutters and Trimmers,Hand
5421*	Pre-press technicians	51-5111.00	Prepress Technicians and Workers
5422*	Printers	51-5112.00	Printing Press Operators
5423*	Print finishing and binding workers	51-5113.00	Print Binding and Finishing Workers
5431	Butchers	51-3021.00	Butchers and Meat Cutters
5432	Bakers and flour confectioners	51-3011.00	Bakers
5433	Fishmongers and poultry dressers	51-3022.00	Meat, Poultry and Fish Cutters and Trimmers
5434	Chefs	35-1011.00	Chefs and Head Cooks
5435	Cooks	35-2014.00	Cooks, Restaurant
5436	Catering and bar managers	11-9051.00	Food Service Managers
5441	Glass and ceramics makers, decorators and finishers	51-9195.05	Potters, Manufacturing
5442	Furniture makers and other craft woodworkers	51-7011.00	Cabinetmakers and Bench Carpenters
5443	Florists	27-1023.00	Floral Designers
5449	Other skilled trades n.e.c.	51-9121.00	Coating, Painting and Spraying Machine Setters, Operators and Tenders
6121	Nursery nurses and assistants	39-9011.00	Childcare Workers
6122	Childminders and related occupations	39-9011.00	Childcare Workers
6123	Playworkers	39-9011.00	Childcare Workers
6125	Teaching assistants	25-9041.00	Teacher Assistants
6126	Educational support assistants	25-9041.00	Teacher Assistants
6131	Veterinary nurses	29-2056.00	Veterinary Technologists and Technicians
6132	Pest control officers	37-2021.00	Pest Control Workers
6139	Animal care services occupations n.e.c.	39-2021.00	Nonfarm Animal Caretakers
6141	Nursing auxiliaries and assistants	31-9099.01	Speech-language Pathology Assistants
6142	Ambulance staff (excluding paramedics)	53-3011.00	Ambulance Drivers and Attendants, except Emergency Medical Technicians
6143	Dental nurses	31-9091.00	Dental Assistants
6144	Houseparents and residential wardens	39-9041.00	Residential Advisors
6145	Care workers and home carers	39-9021.00	Personal Care Aides
6146	Senior care workers	39-1021.00	First-line Supervisors of Personal Service Workers
6147*	Care escorts	39-9021.00	Personal Care Aides
6148	Undertakers, mortuary and crematorium assistants	39-4021.00	Funeral Attendants
6211	Sports and leisure assistants	39-9032.00	Recreation Workers
6212	Travel agents	43-4181.00	Reservation and Transportation Ticket Agents and Travel Clerks
6214*	Air travel assistants	53-2031.00	Flight Attendants
6215	Rail travel assistants	53-4031.00	Railroad Conductors and Yardmasters
6219*	Leisure and travel service occupations n.e.c.	43-4051.00	Customer Service Representatives
6221	Hairdressers and barbers	39-5012.00	Hairdressers, Hairstylists and Cosmetologists
6222	Beauticians and related occupations	39-5092.00	Manicurists and Pedicurists
6231	Housekeepers and related occupations	39-9021.00	Personal Care Aides
6232	Caretakers	37-2011.00	Janitors and Cleaners, except Maids and Housekeeping Cleaners
6240	Cleaning and housekeeping managers and supervisors	39-1021.00	First-line Supervisors of Personal Service Workers
7111	Sales and retail assistants	41-2031.00	Retail Salespersons
7112	Retail cashiers and checkout operators	41-2011.00	Cashiers
7113	Telephone salespersons	41-9041.00	Telemarketers

Table D1: Continued

UK SOC	UK TITLE	US O*NET SOC	US TITLE
7114	Pharmacy and other dispensing assistants	31-9095.00	Pharmacy Aides
7115	Vehicle and parts salespersons and advisers	41-2022.00	Parts Salespersons
7121	Collector salespersons and credit agents	41-3021.0	Insurance Sales Agents
7122	Debt, rent and other cash collectors	43-3011.00	Bill and Account Collectors
7123	Roundspersons and van salespersons	53-3031.00	Driver/Sales Workers
7124	Market and street traders and assistants	41-9091.00	Door-to-Door Sales Workers, News and Street Vendors and Related Workers
7125	Merchandisers and window dressers	27-1026.00	Merchandise Displayers and Window Trimmers
7129	Sales-related occupations n.e.c.	41-9011.00	Demonstrators and Product Promoters
7130	Sales supervisors	41-1011.00	First-line Supervisors of Retail Sales Workers
7211	Call and contact centre occupations	43-4051.00	Customer Service Representatives
7213	Telephonists	43-2011.00	Switchboard Operators, Including Answering Service
7214	Communication operators	43-5031.00	Police, Fire and Ambulance Dispatchers
7215	Market research interviewers	43-4111.00	Interviewers, except Eligibility and Loan
7219	Customer service occupations n.e.c.	43-4051.00	Customer Service Representatives
7220	Customer service managers and supervisors	43-4051.00	Customer Service Representatives
8111	Food, drink and tobacco process operatives	51-3092.00	Food Batchmakers
8112	Glass and ceramics process operatives	51-9195.04	Glass Blowers, Molders, Benders and Finishers
8113	Textile process operatives	51-6064.00	Textile Winding, Twisting and Drawing Out Machine Setters, Operators and Tenders
8114	Chemical and related process operatives	51-9023.00	Mixing and Blending Machine Setters, Operators and Tenders
8115	Rubber process operatives	51-9197.00	Tire Builders
8116	Plastics process operatives	51-2091.00	Fiberglass Laminators and Fabricators
8117	Metal making and treating process operatives	51-4021.00	Extruding and Drawing Machine Setters, Operators and Tenders, Metal and Plastic
8118	Electroplaters	51-4193.00	Plating and Coating Machine Setters, Operators and Tenders, Metal and Plastic
8119	Process operatives n.e.c.	51-9195.07	Molding and Casting Workers
8121	Paper and wood machine operatives	51-9196.00	Paper Goods Machine Setters, Operators and Tenders
8122	Coal mine operatives	47-5061.00	Roof Bolters, Mining
8123	Quarry workers and related operatives	47-5013.00	Service Unit Operators, Oil, Gas and Mining
8124	Energy plant operatives	51-8013.00	Power Plant Operators
8125	Metal working machine operatives	51-4041.00	Machinists
8126	Water and sewerage plant operatives	51-8031.00	Water and Wastewater Treatment Plant and System Operators
8127*	Printing machine assistants	51-5112.00	Printing Press Operators
8129	Plant and machine operatives n.e.c.	51-9041.00	Extruding, Forming, Pressing and Compacting Machine Setters, Operators and Tenders
8131	Assemblers (electrical and electronic products)	51-4121.07	Solderers and Brazers
8132	Assemblers (vehicles and metal goods)	51-2031.00	Engine and Other Machine Assemblers
8133	Routine inspectors and testers	51-9061.00	Inspectors, Testers, Sorters, Samplers and Weighers
8134	Weighers, graders and sorters	45-2041.00	Graders and Sorters, Agricultural Products
8135	Tyre, exhaust and windscreen fitters	49-3093.00	Tire Repairers and Changers
8137	Sewing machinists	51-6031.00	Sewing Machine Operators
8139	Assemblers and routine operatives n.e.c.	51-2092.00	Team Assemblers
8141	Scaffolders, staggers and riggers	49-9096.00	Riggers
8142	Road construction operatives	47-2051.00	Cement Masons and Concrete Finishers
8143	Rail construction and maintenance operatives	47-4061.00	Rail-track Laying and Maintenance Equipment Operators
8149	Construction operatives n.e.c.	47-4041.00	Hazardous Materials Removal Workers
8211	Large goods vehicle drivers	53-3032.00	Heavy and Tractor-Trailer Truck Drivers
8212	Van drivers	53-3033.00	Light Truck or Delivery Services Drivers
8213	Bus and coach drivers	53-3022.00	Bus Drivers, School or Special Client
8214	Taxi and cab drivers and chauffeurs	53-3041.00	Taxi Drivers and Chauffeurs
8215	Driving instructors	25-3021.00	Self-enrichment Education Teachers

Table D1: Continued

UK SOC	UK TITLE	US O*NET SOC	US TITLE
8221	Crane drivers	53-7021.00	Crane and Tower Operators
8222	Fork-lift truck drivers	53-7051.00	Industrial Truck and Tractor Operators
8223	Agricultural machinery drivers	45-2091.00	Agricultural Equipment Operators
8229	Mobile machine drivers and operatives n.e.c.	47-2073.00	Operating Engineers and Other Construction Equipment Operators
8231	Train and tram drivers	53-4041.00	Subway and Streetcar Operators
8232	Marine and waterways transport operatives	53-5021.02	Mates – Ship, Boat and Barge
8233	Air transport operatives	53-2022.00	Airfield Operations Specialists
8234	Rail transport operatives	53-4021.00	Railroad Brake, Signal and Switch Operators
8239	Other drivers and transport operatives n.e.c.	53-1031.00	First-line Supervisors of Transportation and Material-moving Machine and Vehicle Operators
9111	Farm workers	45-2092.02	Farmworkers and Laborers, Crop
9112	Forestry workers	37-3013.00	Tree Trimmers and Pruners
9119	Fishing and other elementary agriculture occupations n.e.c.	37-3011.00	Landscaping and Groundskeeping Workers
9120	Elementary construction occupations	47-2061.00	Construction Laborers
9132	Industrial cleaning process occupations	47-4071.00	Septic Tank Servicers and Sewer Pipe Cleaners
9134	Packers, bottlers, canners and fillers	53-7064.00	Packers and Packagers, Hand
9139	Elementary process plant occupations n.e.c.	51-9198.00	Helpers–Production Workers
9211	Postal workers, mail sorters, messengers and couriers	43-5052.00	Postal Service Mail Carriers
9219	Elementary administration occupations n.e.c.	43-9051.00	Mail Clerks and Mail Machine Operators, except Postal Service
9231	Window cleaners	37-2011.00	Janitors and Cleaners, except Maids and Housekeeping Cleaners
9232	Street cleaners	47-4051.00	Highway Maintenance Workers
9233	Cleaners and domestics	37-2012.00	Maids and Housekeeping Cleaners
9234	Launderers, dry cleaners and pressers	51-6011.00	Laundry and Dry-Cleaning Workers
9235	Refuse and salvage occupations	53-7081.00	Refuse and Recyclable Material Collectors
9236	Vehicle valeters and cleaners	53-7061.00	Cleaners of Vehicles and Equipment
9239	Elementary cleaning occupations n.e.c.	37-2011.00	Janitors and Cleaners, except Maids and Housekeeping Cleaners
9241	Security guards and related occupations	33-9032.00	Security Guards
9242	Parking and civil enforcement occupations	53-6021.00	Parking Lot Attendants
9244	School midday and crossing patrol occupations	33-9091.00	Crossing Guards
9249	Elementary security occupations n.e.c.	33-3011.00	Bailiffs
9251	Shelf fillers	53-7062.00	Laborers and Freight, Stock and Material Movers, Hand
9259	Elementary sales occupations n.e.c.	43-5081.04	Order Fillers, Wholesale and Retail Sales
9260	Elementary storage occupations	53-7062.00	Laborers and Freight, Stock and Material Movers, Hand
9271*	Hospital porters	31-9092.00	Medical Assistants
9272	Kitchen and catering assistants	35-3021.00	Combined Food Preparation and Serving Workers, Including Fast Food
9273	Waiters and waitresses	35-3031.00	Waiters and Waitresses
9274	Bar staff	35-3011.00	Bartenders
9275	Leisure and theme park attendants	39-3091.00	Amusement and Recreation Attendants
9279	Other elementary services occupations n.e.c.	39-3031.00	Ushers, Lobby Attendants and Ticket Takers