Field Description	Field Abbreviation	Field Length	Field Type	Field Version
Location of employment (county/unitary authority level)	**XLOCUC01**	**4**	**Char**	**5.3.1**

VALID ENTRIES

England county codes:

C800	Bath and North East Somerset
C822	Bedford
C823	Central Bedfordshire
C889	Blackburn with Darwen
C890	Blackpool
C837	Bournemouth
C867	Bracknell Forest
C846	Brighton and Hove
C825	Buckinghamshire
C873	Cambridgeshire
C895	Cheshire East
C896	Cheshire West and Chester
C801	City of Bristol
C831	City of Derby
C810	City of Kingston upon Hull
C856	City of Leicester
C892	City of Nottingham
C879	City of Plymouth
C851	City of Portsmouth
C852	City of Southampton
C861	City of Stoke-on-Trent
C816	City of York
C908	Cornwall
C909	Cumbria
C841	Darlington
C830	Derbyshire
C878	Devon
C835	Dorset
C840	County Durham
C811	East Riding of Yorkshire
C845	East Sussex
C881	Essex
C916	Gloucestershire
C329	Greater London
C369	Greater Manchester
C876	Halton

C850	Hampshire
C805	Hartlepool
C884	Herefordshire
C919	Hertfordshire
C921	Isle of Wight
C420	Isles of Scilly
C886	Kent
C888	Lancashire
C855	Leicestershire
C925	Lincolnshire
C821	Luton
C887	Medway
C349	Merseyside
C806	Middlesbrough
C826	Milton Keynes
C926	Norfolk
C812	North East Lincolnshire
C813	North Lincolnshire
C802	North Somerset
C815	North Yorkshire
C928	Northamptonshire
C929	Northumberland
C891	Nottinghamshire
C931	Oxfordshire
C874	Peterborough
C836	Poole
C870	Reading
C807	Redcar and Cleveland
C857	Rutland
C893	Shropshire
C871	Slough
C933	Somerset
C803	South Gloucestershire
C379	South Yorkshire
C882	Southend-on-Sea
C860	Staffordshire
C808	Stockton-on-Tees
C935	Suffolk
C936	Surrey
C866	Swindon
C894	Telford and Wrekin
C883	Thurrock

C880	Torbay
C399	Tyne and Wear
C877	Warrington
C937	Warwickshire
C869	West Berkshire
C339	West Midlands
C938	West Sussex
C389	West Yorkshire
C865	Wiltshire
C868	Windsor and Maidenhead
C872	Wokingham
C885	Worcestershire

Welsh county codes:

C677	Blaenau Gwent - Blaenau Gwent
C672	Pen-Y-Bont Ar Ogwr - Bridgend
C676	Caerffili - Caerphilly
C681	Caerdydd - Cardiff
C669	Sir Gaerfyrddin - Carmarthenshire
C667	Sir Ceredigion - Ceredigion
C662	Conwy - Conwy
C663	Sir Ddinbych - Denbighshire
C664	Sir Y Fflint - Flintshire
C661	Gwynedd - Gwynedd
C660	Sir Ynys Môn - Isle of Anglesey
C675	Merthyr Tudful - Merthyr Tydfil
C679	Sir Fynwy - Monmouthshire
C671	Castell-Nedd Port Talbot - Neath Port Talbot
C680	Casnewydd - Newport
C668	Sir Benfro - Pembrokeshire
C666	Powys - Powys
C674	Rhondda, Cynon, Taff - Rhondda, Cynon, Taff
C670	Abertawe - Swansea
C678	Tor-Faen - Torfaen
C673	Bro Morgannwg - The Vale of Glamorgan
C665	Wrecsam - Wrexham

Scottish region codes:

C110	Aberdeenshire
C120	Angus
C130	Argyll and Bute
C100	City of Aberdeen
C180	City of Dundee
C230	City of Edinburgh

C260	City of Glasgow
C150	Clackmannanshire
C170	Dumfries and Galloway
C190	East Ayrshire
C200	East Dunbartonshire
C210	East Lothian
C220	East Renfrewshire
C240	Falkirk
C250	Fife
C270	Highland
C280	Inverclyde
C290	Midlothian
C300	Moray
C310	North Ayrshire
C320	North Lanarkshire
C330	Orkney Islands
C340	Perth and Kinross
C350	Renfrewshire
C355	Scottish Borders
C360	Shetland Islands
C370	South Ayrshire
C380	South Lanarkshire
C390	Stirling
C395	West Dunbartonshire
C400	West Lothian
C410	Western Isles (Eilean Siar)

Northern Ireland county codes:

C011	Derry City
C012	Limavady
C013	Strabane
C014	Omagh
C015	Fermanagh
C016	Coleraine
C017	Ballymoney
C018	Moyle
C019	Larne
C020	Ballymena
C021	Magherafelt
C022	Antrim
C023	Newtonabbey
C024	Carrickfergus
C025	Down

C026	Lisburn
C027	North Down
C028	Ards
C029	Castelreagh
C030	Cookstown
C031	Dungannon
C032	Craigavon
C033	Armagh
C034	Newry and Mourne
C035	Banbridge
C036	Belfast

Other codes:

NOTK	Not known

Other codes: All country codes listed in Employment.EMPCOUNTRY in the Cyy018 DLHE record coding manual, with the exception of ZZ 'Not known' (which maps to NOTK in this field, as listed below:

AF	Afghanistan
XQ	Africa not otherwise specified
AX	Åland Islands {Ahvenamaa}
AL	Albania
DZ	Algeria
AS	American Samoa
AD	Andorra
AO	Angola
AI	Anguilla
XX	Antarctica and Oceania not otherwise specified
AG	Antigua and Barbuda
AR	Argentina
AM	Armenia
AW	Aruba
XS	Asia (Except Middle East) not otherwise specified
AU	Australia
AT	Austria
AZ	Azerbaijan
BS	Bahamas, The
BH	Bahrain
BD	Bangladesh
BB	Barbados
BY	Belarus
BE	Belgium
BZ	Belize
BJ	Benin
BM	Bermuda

BT	Bhutan
BO	Bolivia [Bolivia, Plurinational State of]
BQ	Bonaire, Sint Eustatius and Saba
BA	Bosnia and Herzegovina
BW	Botswana
BR	Brazil
VG	British Virgin Islands [Virgin Islands, British]
BN	Brunei [Brunei Darussalam]
BG	Bulgaria
BF	Burkina [Burkina Faso]
MM	Burma [Myanmar]
BI	Burundi
KH	Cambodia
CM	Cameroon
CA	Canada
IC	Canary Islands
CV	Cape Verde
XW	Caribbean not otherwise specified
KY	Cayman Islands
CF	Central African Republic
XU	Central America not otherwise specified
TD	Chad
XL	Channel Islands not otherwise specified
CL	Chile
CN	China
CX	Christmas Island
CC	Cocos (Keeling) Islands
CO	Colombia
KM	Comoros
CG	Congo
CD	Congo (Democratic Republic) [Congo (The Democratic Republic of the)] {formerly Zaire}
CK	Cook Islands
CR	Costa Rica
HR	Croatia
CU	Cuba
CW	Curaçao
XA	Cyprus (European Union)
XB	Cyprus (Non-European Union)
XC	Cyprus not otherwise specified
CZ	Czech Republic
DK	Denmark
DJ	Djibouti

DM	Dominica
DO	Dominican Republic
TL	East Timor [Timor Leste]
EC	Ecuador
EG	Egypt
SV	El Salvador
XF	England
GQ	Equatorial Guinea
ER	Eritrea
EE	Estonia
ET	Ethiopia
XP	Europe not otherwise specified
EU	European Union not otherwise specified
FK	Falkland Islands [Falkland Islands (Malvinas)]
FO	Faroe Islands
FJ	Fiji
FI	Finland
FR	France {includes Corsica}
GF	French Guiana
PF	French Polynesia
GA	Gabon
GM	Gambia, The
GE	Georgia
DE	Germany
GH	Ghana
GI	Gibraltar
GR	Greece
GL	Greenland
GD	Grenada
GP	Guadeloupe
GU	Guam
GT	Guatemala
GG	Guernsey
GN	Guinea
GW	Guinea-Bissau
GY	Guyana
HT	Haiti
HN	Honduras
HK	Hong Kong (Special Administrative Region of China) [Hong Kong]
HU	Hungary
IS	Iceland
IN	India

ID	Indonesia
IR	Iran [Iran, Islamic Republic of]
IQ	Iraq
IE	Ireland
IM	Isle of Man
IL	Israel
IT	Italy {Includes Sardinia, Sicily}
CI	Ivory Coast [Côte D'ivoire]
JM	Jamaica
JP	Japan
JE	Jersey
JO	Jordan
KZ	Kazakhstan
KE	Kenya
KI	Kiribati
KP	Korea (North) [Korea, Democratic People's Republic of]
KR	Korea (South) [Korea, Republic of]
QO	Kosovo
KW	Kuwait
KG	Kyrgyzstan
LA	Laos [Lao People's Democratic Republic]
LV	Latvia
LB	Lebanon
LS	Lesotho
LR	Liberia
LY	Libya
LI	Liechtenstein
LT	Lithuania
LU	Luxembourg
MO	Macao (Special Administrative Region of China) [Macao]
MK	Macedonia [Macedonia, The Former Yugoslav Republic of]
MG	Madagascar
MW	Malawi
MY	Malaysia
MV	Maldives
ML	Mali
MT	Malta
MH	Marshall Islands
MQ	Martinique
MR	Mauritania
MU	Mauritius
YT	Mayotte

MX	Mexico
FM	Micronesia [Micronesia, Federated States of]
XR	Middle East not otherwise specified
MD	Moldova [Moldova, Republic of]
MC	Monaco
MN	Mongolia
ME	Montenegro
MS	Montserrat
MA	Morocco
MZ	Mozambique
NA	Namibia
NR	Nauru
NP	Nepal
NL	Netherlands
NC	New Caledonia
NZ	New Zealand
NI	Nicaragua
NE	Niger
NG	Nigeria
NU	Niue
NF	Norfolk Island
XT	North America not otherwise specified
XG	Northern Ireland
MP	Northern Mariana Islands
NO	Norway
PS	Occupied Palestinian Territories [Palestine, State of] {formerly West Bank (including East Jerusalem) and Gaza Strip}
OM	Oman
PK	Pakistan
PW	Palau
PA	Panama
PG	Papua New Guinea
PY	Paraguay
PE	Peru
PH	Philippines
PN	Pitcairn, Henderson, Ducie and Oeno Islands [Pitcairn]
PL	Poland
PT	Portugal {includes Madeira, Azores}
PR	Puerto Rico
QA	Qatar
RE	Réunion
RO	Romania

RU	Russia [Russian Federation]
RW	Rwanda
WS	Samoa
SM	San Marino
ST	Sao Tome and Principe
SA	Saudi Arabia
XH	Scotland
SN	Senegal
RS	Serbia
SC	Seychelles
SL	Sierra Leone
SG	Singapore
SX	Sint Maarten (Dutch Part)
SK	Slovakia
SI	Slovenia
SB	Solomon Islands
SO	Somalia
ZA	South Africa
XV	South America not otherwise specified
GS	South Georgia and The South Sandwich Islands
SS	South Sudan
ES	Spain {includes Ceuta, Melilla}
LK	Sri Lanka
BL	St Barthélemy
SH	St Helena, Ascension and Tristan da Cunha
KN	St Kitts and Nevis
LC	St Lucia
MF	St Martin (French Part) [St Martin]
PM	St Pierre and Miquelon
VC	St Vincent and The Grenadines
SD	Sudan
SR	Surinam [Suriname]
SJ	Svalbard and Jan Mayen
SZ	Swaziland
SE	Sweden
CH	Switzerland
SY	Syria [Syrian Arab Republic]
TW	Taiwan [Taiwan, Province of China]
TJ	Tajikistan
TZ	Tanzania [Tanzania, United Republic of]
TH	Thailand
TG	Togo

TK	Tokelau
TO	Tonga
TT	Trinidad and Tobago
TN	Tunisia
TR	Turkey
TM	Turkmenistan
TC	Turks and Caicos Islands
TV	Tuvalu
UG	Uganda
UA	Ukraine
AE	United Arab Emirates
XK	United Kingdom
US	United States
VI	United States Virgin Islands [Virgin Islands, U. S.]
UY	Uruguay
UZ	Uzbekistan
VU	Vanuatu
VA	Vatican City [Holy See (Vatican City State)]
VE	Venezuela [Venezuela, Bolivarian Republic of]
VN	Vietnam [Viet Nam]
XI	Wales
WF	Wallis and Futuna
EH	Western Sahara
YE	Yemen
ZM	Zambia
ZW	Zimbabwe

ADDITIONAL INFORMATION

This algorithm uses look-up tables provided from data initially supplied by ONS. Full postcodes are mapped to UK counties/unitary authorities for UK domiciled students for whom a full postcode is supplied. Outward postcodes are mapped to counties/unitary authorities for other UK domiciled students for whom a postcode is supplied. Country codes are generated for other UK (postcodes not assignable to counties/unitary authorities) and non-UK locations of employment.

DEPENDENT FIELDS

None

TECHNICAL SPECIFICATION

Please note: in the following specification, the table suffix '_(Y2)NOV' refers to a year-specific reference derived from the reporting year. For 2012/13, Y1 is 12 and Y2 is 13, thus for 2012/13 the table suffix would be 13NOV, and for 2013/14 the suffix would be 14NOV, and so on.

The table FULLPC_LOOKUP_(Y2)NOV consists of 6 columns; Full Postcode (F_FULLPC, VARCHAR2, 8), X coordinate (F_OSEAST, NUMBER), Y coordinate (F_OSNRTH, NUMBER), Region (F_GOR, CHAR, 2), Country (F_CTRY, VARCHAR2, 2) and County/Unitary Authority code (F_XDOMUC01, VARCHAR2, 4). This table has been supplied in an Oracle table provided by Data Management.

The table OUTPC_LOOKUP_(Y2)NOV consists of 7 columns; Outward Postcode (F_OUTPC, VARCHAR2, 4), Full Postcode (F_FULLPC, VARCHAR2, 8), X coordinate (F_OSEAST, NUMBER), Y coordinate (F_OSNRTH, NUMBER), Region (F_GOR, CHAR, 2), Country (F_CTRY, VARCHAR2, 2) and County/Unitary Authority code (F_XDOMUC01, VARCHAR2, 4). This table has been supplied in an Oracle table provided by Data Management.

The table T_OVERSEAS_LOOKUP_V7 consists of 3 columns; Country of domicile (F_DOMICILE, VARCHAR2, 4), Region of domicile (F_REGION, VARCHAR2, 4) and Country of domicile (ISO code) (F_DOMICILE_ISO, VARCHAR2, 2). This table has been supplied in an Oracle table provided by Data Management.

Unknown EMPCOUNTRY value (ZZ Not known) does not appear in T_OVERSEAS_LOOKUP_V7 and is assigned a value NOTK. All other country domicile codes should be matched in T_OVERSEAS_LOOKUP_V7, F_DOMICILE_ISO. If any other code appears in EMPCOUNTRY that is not contained in T_OVERSEAS_LOOKUP_V7, the function should return a Null to be picked up by impossible values testing to highlight this issue.

Validation exists to ensure that EMPPCODE is completed with a valid postcode (EMPCOUNTRY must be returned based on a set of schema enumeration values), and either EMPPCODE or EMPCOUNTRY are returned where coverage dictates. Although unlikely, validation is switchable for these fields. Consequently the technical specification steps have been designed to account for all possible permutations of data returned to HESA - allowing for possible validation switches.

The function is to be performed top down, as follows.

1. The contents of EMPPCODE to be converted to UPPER CASE.

2. If set of characters from EMPPCODE found in FULLPC_LOOKUP_(Y2)NOV.F_FULLPC, then return FULLPC_LOOKUP_(Y2)NOV.F_XDOMUC01 into XLOCUC01.

3. Else, trim characters in EMPPCODE (maximum of 4 characters) up to first space (if there is one).

4. If set of trimmed characters from EMPPCODE found in OUTPC_LOOKUP_(Y2)NOV.F_OUTPC, then return OUTPC_LOOKUP_(Y2)NOV.F_XDOMUC01 into XLOCUC01.

5. Else, if set of trimmed characters from EMPPCODE not found in OUTPC_LOOKUP_(Y2)NOV.F_OUTPC or EMPPCODE is Null, and EMPCOUNTRY is Null or ZZ, then return NOTK into XLOCUC01.

6. Else, if set of trimmed characters from EMPPCODE not found in OUTPC_LOOKUP_(Y2)NOV.F_OUTPC or EMPPCODE is Null, and set of characters in EMPCOUNTRY found in T_OVERSEAS_LOOKUP_V7.F_DOMICILE_ISO, then return T_OVERSEAS_LOOKUP_V7.F_DOMICILE_ISO into XLOCUC01.

7. Else, if set of trimmed characters from EMPPCODE not found in OUTPC_LOOKUP_(Y2)NOV.F_OUTPC or EMPPCODE is Null, and set of characters in EMPCOUNTRY are not found in T_OVERSEAS_LOOKUP_V7.F_DOMICILE_ISO, then return Null in XLOCUC01.

Null is not a XLOCUC01 valid entry, and are to be identified at impossible values testing and flagged to HESA's Data Management team.

(The deriving to a Null is an error, highlighting that a value in the collection's EMPCOUNTRY code list is not contained within T_OVERSEAS_LOOKUP_V7's F_DOMICILE_ISO column. This is designed so that the derived process does not fail if an invalid EMPCOUNTRY code is processed).

Carry out processing top down:

Employment. EMPPCODE (CHAR 8)	**Employment. EMPCOUNTRY (CHAR 2)**	**XLOCUC01**
1. The contents of EMPPCODE to be converted to UPPER CASE		
2. EMPPCODE value found in FULLPC_LOOKUP_(Y2)NOV. F_FULLPC		FULLPC_LOOKUP_(Y2)NOV. F_XDOMUC01
3. Trim characters (max. of 4) to first space (if there is one), from EMPPCODE		

Employment. EMPPCODE (CHAR 8)	Employment. EMPCOUNTRY (CHAR 2)	XLOCUC01
4. Set of characters in EMPPCODE (max. of 4) trimmed to first space (if there is one), found in OUTPC_LOOKUP_(Y2)NOV.F_OUTPC		OUTPC_LOOKUP_(Y2)NOV. F_XDOMUC01
5, 6, 7. Set of characters in EMPPCODE (max. of 4) trimmed to first space (if there is one) not found in OUTPC_LOOKUP_(Y2)NOV. F_OUTPC or EMPPCODE is Null	5. EMPCOUNTRY is Null or ZZ	NOTK
	6. Set of characters in EMPCOUNTRY found in T_OVERSEAS_LOOKUP_V7. F_DOMICILE_ISO	T_OVERSEAS_LOOKUP_V7. F_DOMICILE_ISO
	7. Set of characters in EMPCOUNTRY not found in T_OVERSEAS_LOOKUP_V7. F_DOMICILE_ISO	Null

---

Revision 4.2.1 2012-05-31 Modification to technical specification, with the addition of a temporary table processing stage to convert 4-character country codes to 2-character country codes when they are returned from the postcode lookup function (for postcodes not assignable to county/unitary authority). Technical specification note 8 added for this requirement.

Revision 5.1.1 2012-10-11 No change to valid entry output, but significant change to Technical specification with source data changing from LOCEMP to two C11018 (2011/12) XML structure fields EMMPCODE and EMPCOUNTRY. Null added as an impossible values capture when value not found, rather than causing the function to fail.

Revision 5.2.1 2013-09-30 Technical specification revised to remove the TEMP processing stage, which is no longer required with the complete move of the source data tables to ISO-3166-1 and the consequent removal of old-style HESA country codes in the postcode lookup tables for F_CTRY; and W, X and Y region codes in F_GOR. T_OVERSEAS_LOOKUP_V6 updated to T_OVERSEAS_LOOKUP_V7 to reflect the move to ISO_3166-1 codes in F_REGION. Table suffixes changed to be non-year specific, with explanatory sentence added. Valid entry PS relabelled from 'Occupied Palestinian Territories [Palestinian Territory, Occupied] {formerly West Bank (including East Jerusalem) and Gaza Strip}' to 'Occupied Palestinian Territories [Palestine, State of] {formerly West Bank (including East Jerusalem) and Gaza Strip}' to align with ISO 3166-1.

Revision 5.3.1 2014-04-23 Valid entry BO relabelled to 'Bolivia [Bolivia, Plurinational State of]', LY to 'Libya' and and VE 'Venezuela [Venezuela, Bolivarian Republic of]' to reflect the ISO-3166-1 and the National Statistics Country Classification (NSCC) standards.