

Migration/Workplace Statistics

This tutorial provides an introduction to a web-based software interface known as WICID that allows users to select and download migration and journey-to-work flow data collected by the Census of Population.

After you've finished this unit, you will know how to:

- login to the system;
- select origins destinations and variables;
- refine your selections;
- extract data and download it to your PC;

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1 Introduction

This tutorial provides an introduction to a web-based software interface known as WICID that allows users to select and download migration and journey-to-work flow data collected by the Census of Population.

WICID is the Web-based Interface to Census Interaction Data. This software is at the heart of the Centre for Interaction Data Estimation and Research (CIDER), which is a Data Support Unit funded by the ESRC.

In the tutorial, you will learn how to login to the system, how to select origins, destinations and variables, how to refine your selections, how to extract data and how to download it for use on your own PC.

However, the tutorial begins with some introduction to census interaction data sets, the so-called migration and workplace statistics.

2 Migration/Workplace Statistics?

As well providing stock data on the counts of individuals or households with certain demographic and socio-economic characteristics of small areas (and aggregations thereof), the Census of Population in Britain collects data on *flows* of individuals between areas.

The two key data sets are known as:

- the Special Migration Statistics (SMS); and
- the Special Workplace Statistics (SWS).

2.1 Special Migration Statistics

Migration data from the Census are collectively known as the Special Migration Statistics (SMS). Data for different years are published in separate tables with different spatial aggregations and variables included.

Migration data from the Census are derived from the question asking the respondent's address one year prior to the census. If the address is different from the current one, the individual is deemed to have migrated and is counted as a migrant. The Census counts migrants rather than migrations. Migration data from the census does not account for temporary moves.

The SMS are data on flows of migrants in the 12-month period before the Census and these data are generated by the Census Offices from the answers to two questions (7 and 9) in the Census which, in 1991. In 2001 this data was generated from Question 14, see Figure 1:

Figure 1: 2001 Census - Question 14

[illegible]

Thus:

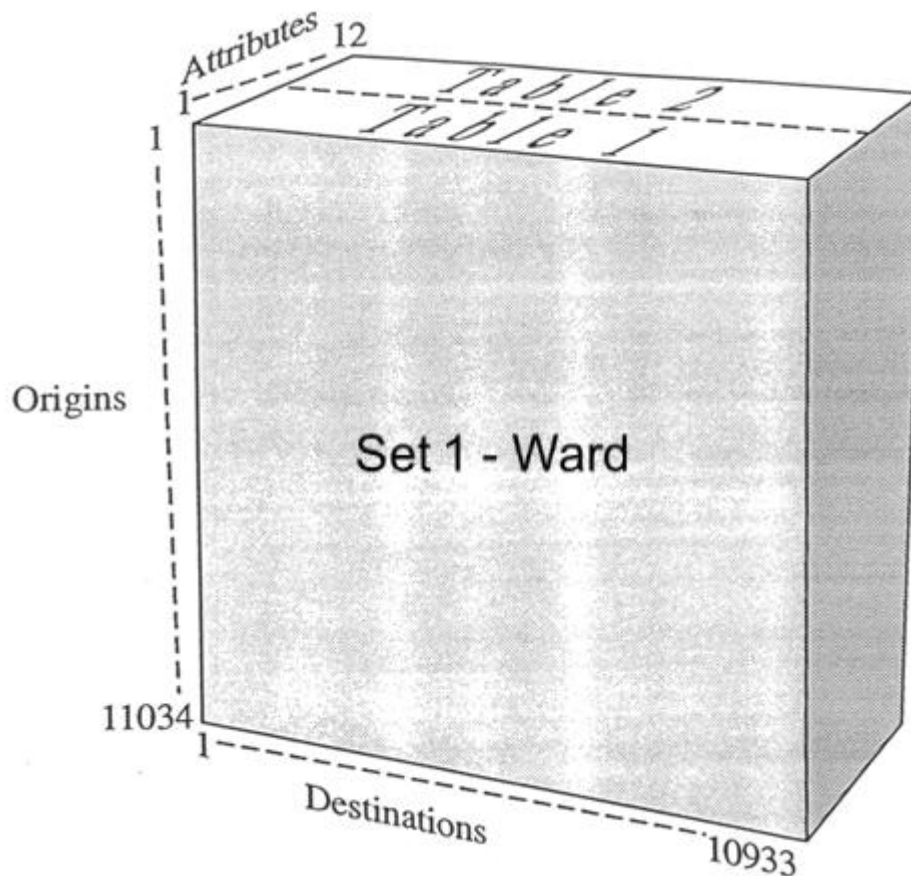
- a migrant is defined as a "person with usual address one year ago to that at the time of the Census";
- a migrant household is a household whose head is a migrant; and
- a wholly moving household is a household all of whose residents aged one and over were migrants.

There were two sets of SMS in 1991, known as SMS Sets 1 and 2. In 2001 there were three main sets of SMS data available at 3 geographical levels. These data sets get aggregated to different spatial scales and published in national and regional reports on Migration.

2.2 SMS Sets

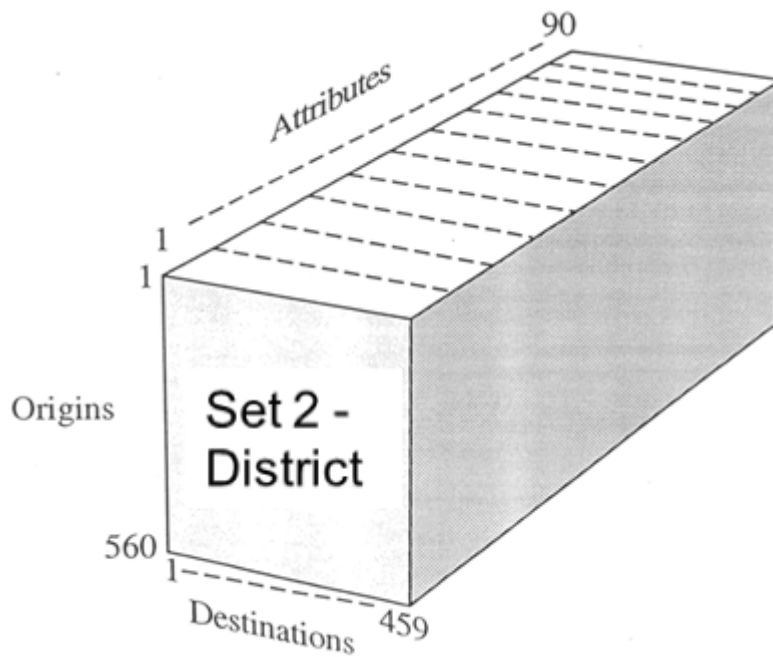
SMS Set 1 is the data set that contains flows between all the wards in Great Britain (10,933 in 1991) plus flows into these wards from places overseas. The data consists of 12 variables (attributes) organised in two tables as shown below:

Figure 2: SMS Set 1



SMS Set 2 is the data on migrant flows between local authority districts in Great Britain (459 in 1991) plus flows into these districts from places overseas. The data consists of 90 variables (attributes) organised in 11 tables as shown below:

Figure 3: SMS Set 2



Sets 1 and 2 are therefore very large data sets with matrices which may be sparsely populated. They are more complex than data sets of stock variables since they require the specification of areas of origin and areas of destination.

In 2001 the level 1, 2 and 3 SMS data contain flows between output areas, wards and local authority districts respectively. The same relationship between origins, destinations and attributes exists as in 1991, with the number of data set attributes decreasing as counts of origins and destinations increase. Wards and districts in 2001 do not correspond exactly with wards and districts in 1991.

2.3 Special Workplace Statistics

The SWS are data on the flows of individuals between their place of usual residence and their place of work. These data derived by the Census Offices from two questions (17 and 18) which, in 1991, were as follows:

Figure 4: 1991 Census - Questions 17 & 18

17 Address of place of work

Please give the full address of the person's place of work.
 For a person employed on a site for a long period, give the address of the site.
 For a person employed on an offshore installation, write 'offshore installation'.
 For a person not working regularly at one place who reports daily to a depot or other fixed address, give that address.
 For a person not reporting daily to a fixed address, tick box 1.
 For a person working mainly at home, tick box 2.
 Armed Forces — leave blank.

Please write full address and postcode of workplace below in **BLOCK CAPITALS**

Post-code

No fixed place ☐ 1
 Mainly at home ☐ 2

18 Daily journey to work

Please tick the appropriate box to show how the longest part, by distance, of the person's daily journey to work is normally made.
 For a person using different means of transport on different days, show the means most often used.
 Car or van includes three-wheeled cars and motor caravans.

British Rail train ☐ 1

Underground, tube, metro ☐ 2

Bus, minibus or coach (public or private) ☐ 3

Motor cycle, scooter, moped ☐ 4

Driving a car or van ☐ 5

Passenger in car or van ☐ 6

Pedal cycle ☐ 7

On foot ☐ 8

Other ☐ 9

please specify

Works mainly at home ☐ 0

In 1991, there were three sets of SWS:

- Set A provides counts of employed and self-employed persons by usual residence;
- Set B provides counts of employed and self-employed by workplace; and
- Set C provides counts of flows employed and self-employed between usual residence and workplace.

Set C is the origin-destination flow data and there are 274 variables arranged in 9 tables.

In 2001, there are three sets of SWS for England, Wales and Northern Ireland. As with the SMS these are levels 1, 2 and 3. There is also a comparable dataset for Scotland known as the Special Travel Statistics (STS) available at the same three levels, but with an additional set produced for postal sectors.

Figure 4a: 2001 Census - Question 33

33 What is the address of the place where you work in your *main* job?

♦ **If you report to a depot, write in the depot address.**

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Postcode

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

- ☐ Mainly work at or from home ☐ Offshore installation
- ☐ No fixed place

Figure 4b: 2001 Census - Question 34

34 How do you usually travel to work?

♦ **✓ one box only.**

♦ **✓ the box for the longest part, *by distance*, of your usual journey to work.**

- ☐ Work mainly at or from home
- ☐ Underground, metro, light rail, tram
- ☐ Train
- ☐ Bus, minibus or coach
- ☐ Motor cycle, scooter or moped
- ☐ Driving a car or van
- ☐ Passenger in a car or van
- ☐ Taxi
- ☐ Bicycle

2.4 Interaction Data Sets

WICID allows users to access the interaction data sets produced from the 1981, 1991 and 2001 Censuses.

Figure 5a shows an overview of the datasets and coverage. More detailed information regarding the Special Migration Statistics (figure 5b) and Special Workplace Statistics (figure 5c) are also shown.

Interaction Datasets

Dataset	Time period(s)	Coverage
Special Migration Statistics (SMS)	1981, 1991, 2001	UK
Special Workplace Statistics (SWS)	1981, 1991, 2001	UK
Special Travel Statistics (STS)	2001	Scotland
Commissioned Migration and Commuting data	2001	Dependent on dataset
Patient register migration data	Annual Mid 1998-99 to 2007-08	England and Wales (whole UK estimated)

Figure 5b: Special Migration Statistics (SMS)

Year	Tables	Base Geography	Notes
1981	Set 2 x 5	1981 ward	(re-estimated for 1991 wards by Boyle and Feng)
1991	Set 1 x 2	1991 ward	
	Set 2 x 12	1991 district	
	Table 100 x 2	1991 district	Flows adjusted to enumerate students at term-time address
2001	Level 1 x 10	2001 district	
	Level 2 x 5	2001 ward	
	Level 3 x 1	2001 output area	

Figure 5c: Special Workplace Statistics (SWS)

Year	Tables	Base Geography	Notes
1981	Set C x 5	1981 ward	(re-estimated for 1991 wards by Boyle and Feng)
1991	Set C x 9	1991 ward	
	Set A x 1	1991 ward	Origin only
	Set B x 1	1991 ward	Destination only
2001	Level 1 x 7	2001 district	
	Level 2 x 6	2001 ward	
	Level 3 x 1	2001 output area	
2001	STS	As SWS	Scotland only – same as SWS except includes flows to place of study

2.5 Why are the SMS and SWS Useful?

In the absence of a population registration system in Britain, the Special Migration Statistics are the most comprehensive set of data on internal migration and on immigration flows from overseas that are available. Other data sources such as the NHS central register of patients transferring between doctors and the International Passenger Survey, for example, both provide some migration data but not at the detailed spatial scale that the Census provides.

The SMS allow researchers to answer questions such as:

- What are the spatial patterns of population redistribution at different spatial scales across the country and within our cities and rural areas?
- What are the characteristics of migrants in terms of their age, sex, ethnic group, social class, employment status, level of qualification, housing tenure?
- What are the most important determinants of migration: employment opportunities, house prices, education, income levels, weather?
- How is migration influenced by policy?

In other words, good understanding of the patterns and process of migration allows better predictive models for using in evaluating regional development policies and projecting population distributions in the future.

The Special Workplace Statistics are the only comprehensive source of data on journey-to-work flows in Britain. They allow researchers to answer questions such as:

- What are the spatial patterns of commuting in our major towns and cities?
- How much long-distance commuting occurs?
- How do distances of commuting vary by mode of transport?

- What are the characteristics of those who commute?

In other words, the SWS data sets not only help us to have a good understanding of patterns of commuting, but they enable us to define functional regions or travel-to-work areas and to formulate policies to alleviate traffic congestion.

2.6 Migration and Commuting Patterns

There are a range of studies that can be carried out using these data sets. At the simplest level, this might involve creating maps of flows between selected areas. As examples, the maps below show (a) Most popular method of travel to work to London by Output Area and (b) Student flows to Leeds in 2001:

Most popular method of travel to work in London by output area

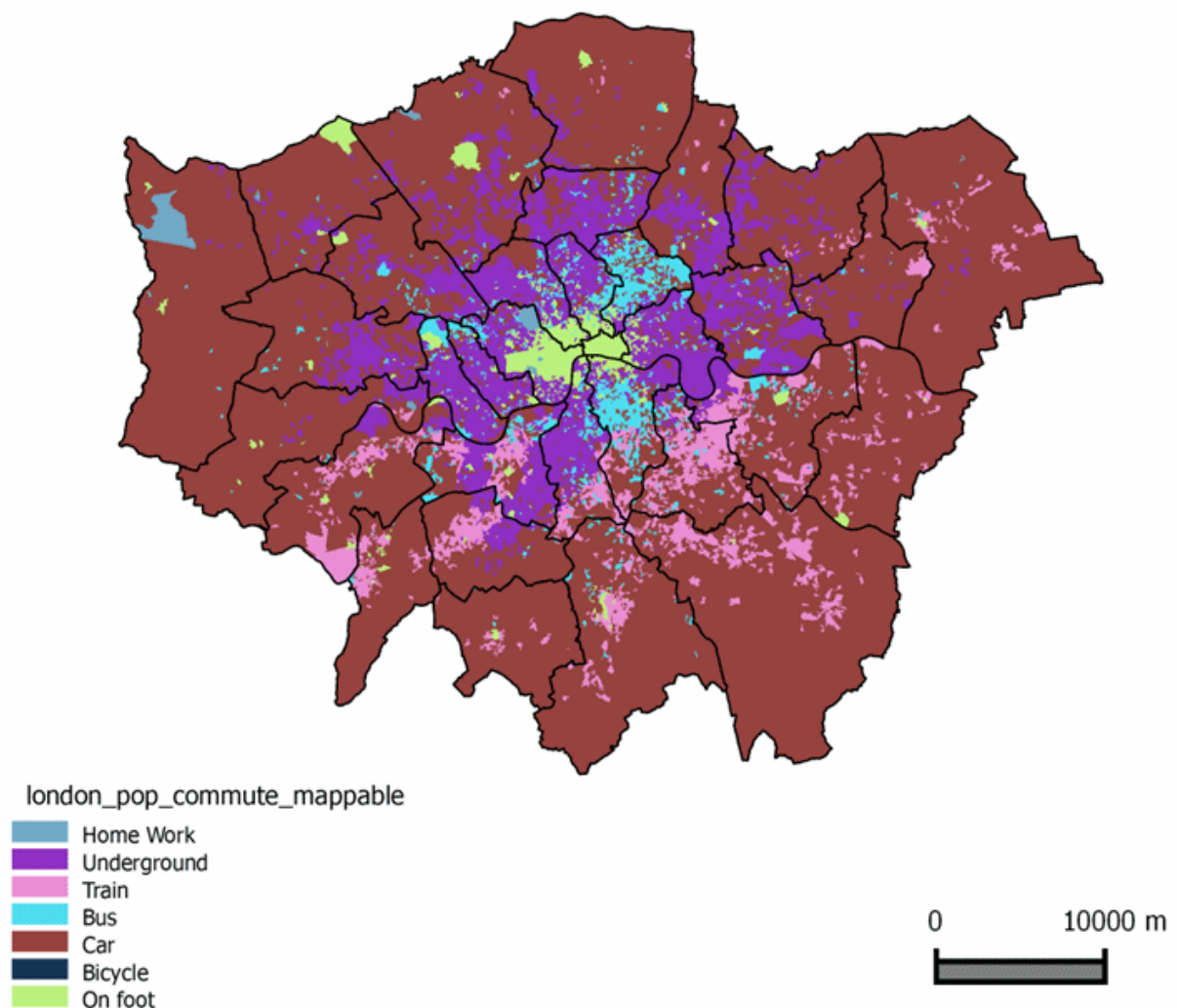


Figure 6: Most popular method of travel to work to London by Output Area

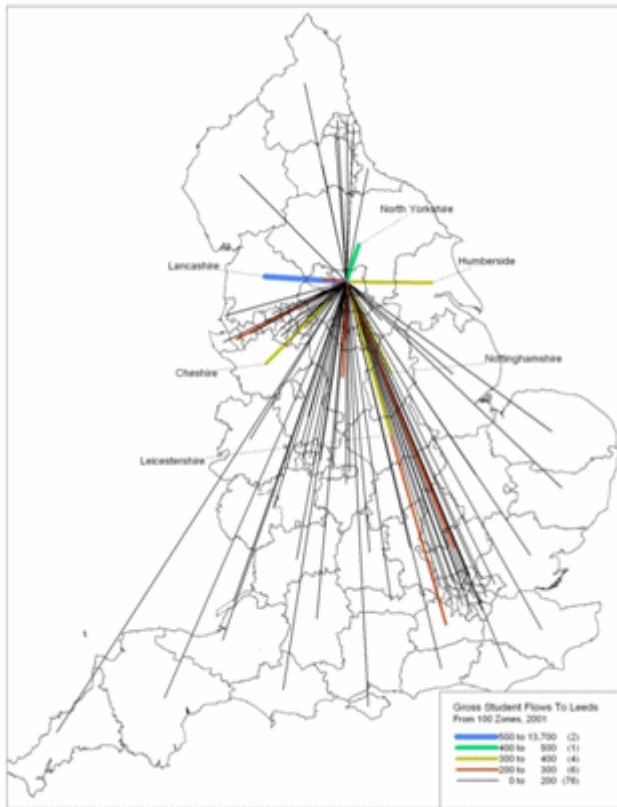



Figure 7: Student flows to Leeds

Examples of more sophisticated analysis might include:

- Comparing patterns of net migration for districts by age group or ethnicity;
- Comparing male and female commuting flows for one city by social class;
- Identifying changes in flow patterns between 1991 and 2001;
- Computing indices of regional connectivity, migration efficiency or migration concentration;
- Calibrating spatial interaction models of migration or commuting flows;
- Using statistical models to link migration or commuting flows with explanatory variables.

3 Running WICID

In order to run WICID, you must access the Centre for Interaction Data Estimation and Research (CIDER) website at: <http://cider.census.ac.uk/> website. [Note: This link opens in a new window]

CIDER 

Census.ac.uk

Offsite links:
[Census Programme Registration](#)
[Update](#)
[Submit info about outputs](#)

CIDER links:
[Available Data](#)
[Contact CIDER](#)
[News](#)
[FAQs](#)
[CIDER - related publications and information](#)

Support
[Feedback](#)
[Help](#)

Welcome to CIDER - the *Centre for Interaction Data Estimation and Research*. Part of the ESRC funded [Census of Population Programme](#), CIDER is a Data Support Unit with the specific remit of providing access to and supporting interaction data sets produced from UK Censuses of Population. Census interaction data are data that relate to *flows* of people between places. Whereas most Census data relate to counts of people at specific locations, interaction data describe interactions between origins and destinations.

CIDER was previously known as the Census Interaction Data Service (CIDS), under the 2001-2006 ESRC/JISC programme funding round.

CIDER is the home of WICID - the Web-based Interface to Census Interaction Data, which provides access to our datasets.

About the data

Currently migration and commuting data from the 1981, 1991 and 2001 Censuses are available through WICID. Soon additional non-census datasets will also be available from the system.

- [Detailed information](#) about our data sets
- [Tutorial information](#) is available describing how to use the interface

Getting the data

There are three ways of getting to the data. In order to use most of the data sets, it is necessary to be registered.

- [Off the shelf](#) - a library of prepared data sets
- [Flow summaries](#) - a quick summary of the most significant flows associated with a chosen area
- [WICID](#) - a flexible query builder

New Interaction Data Training Available

CIDER is now able to offer customised training on any aspect of the WICID interface or offer expertise and guidance on using interaction data.

Click [HERE](#) for more information.

Note that there are four options. If you want to extract interaction flow data, you must be a registered user and clicking 'Registration' will provide you with details of how to do this and links to the Census.ac.uk web pages.

The 'Related publications and information' option will provide details of recent presentations about WICID and other news, whilst the 'Contact CIDER' option allows you to email any one of the members of the project team.

Click 'WICID' to start using the data extraction system.

3.1 Logging into WICID

You can login via the UK Federation (Shibboleth). You will need to select your institution, and then enter your institutional username and password

Select your home organisation

Selection options

The service you are trying to reach requires that you authenticate with your home organisation. Please select an organisation using one of the methods below.

Choose from list

Aberdeen College Staff

Remember for session

Select

Search by keyword

Search

{w} Need assistance? Visit the UK federation [web site](#).

Once you have successfully logged in, you will be taken to the WICID homepage.



CIDER [Home] → General query builder
Logged in as: shib_127410 [Logout now]

Offsite links:
[Census Programme Registration](#)
[Update](#)
[Submit info about outputs](#)

CIDER links:
[Available Data](#)
[Contact CIDER](#)
[News](#)
[FAQs](#)
[Credits](#)
[CIDER - related publications and information](#)

Support
[Feedback](#)
[Help](#)

WICID Data Geography Finalise Run Output

General query interface

The general query interface allows you to flexibly construct queries to extract data, analyse it, and produce output.

Summary of current query

Geography

Origins 0 Nothing selected yet
Destinations 0 Nothing selected yet

Interaction data

Data items 0 Nothing selected yet

Options

- Reset - Reset the entire query and start again

[WICID Help](#)

3.2 WICID Help System and Feedback

You will have noted on the side navigation of the WICID homepage that there are two links.

Support
[Feedback](#)
[Help](#)

The Feedback link gives your comments on the WICID interface or about the system in general. It also allows you to ask questions.

The Help link gives access to the Help system and a window will open that allow you to scroll through the Help pages and select that section that you require.

3.3 The General Query Interface

Users begin their query building at this page. Origin and destination geographies and data variables have to be selected, although the system requires that users select a dataset before they can select geographies.

A traffic light metaphor is used to indicate that selection is complete and data can be outputted. Initially the lights are red but when origins, destinations and data variables have been selected for which counts are available, the lights should have turned to green.

The screenshot shows the CIDER General Query Interface. At the top, there's a header with the CIDER logo, a navigation bar with links like [Home] and General query builder, and a user login status: Logged in as: shib_127410 [Logout now]. On the right, there's a Census.ac.uk logo. Below the header, there's a sidebar with 'Offsite links' (Census Programme Registration Update, Submit info about outputs) and 'CIDER links' (Available Data, Contact CIDER, News, FAQs, Credits, CIDER - related publications and information). The main content area is titled 'General query interface' and contains a 'Summary of current query' section. This section has a 'Geography' box with 'Origins' and 'Destinations' (both showing '0 Nothing selected yet'), an 'Interaction data' box, and a 'Data items' box (showing '0 Nothing selected yet'). Below this is an 'Options' section with a 'Reset' button and a description: 'Reset - Reset the entire query and start again'. At the bottom, there's a 'WICID HELP' button.

3.4 Geographical Areas

Census data are available at different levels within England, Wales and Scotland. No data from the 1981 and 1991 Censuses are available for Northern Ireland.

The basic Census geographies for internal interaction data are:

- Output areas
- Wards
- Districts
- Counties
- Regions
- Countries

These geographies vary slightly between Censuses. For example output areas only exist from 2001, and boundaries for wards and districts do not remain comparable between Census years.

Other aggregations of output areas, wards or districts are available for some data sets such as:

- Lower/middle layer super output areas
- 1997 parliamentary constituencies
- Family Health Service Authorities

There are further geographies for origins of immigration flows:

- Foreign origins
- Broad groups of foreign origins

Various other geographies exist, with a selection of other foreign and miscellaneous origin categories, district classifications and geographies common between 1991 and 2001 available to users.

3.5 Variable Selection

The next step in the tutorial is to select the variables that you want to extract data for. From the General query interface, select **Data** and this will identify a set of optional general selection tools. These are explained below:

General selection tools

[Quick selection](#) Some data sets include predefined totals - total migrants for example - that can be easily selected.

[Select by dataset and table](#) This method allows you to select cells within tables as described in published documents.

[Select by variable](#) This method allows you to select from a list of variables; you will then be presented with a list of selected variables.

In this example, we will use the **Select by dataset and table** option, and then **Migration data**, then **2000-01**. Clicking this gives a list of all the data sets available:

wicid

Data

Geography

Finalise

Run

Output

Status: 0 data items currently selected

[Unselect all][Show list]

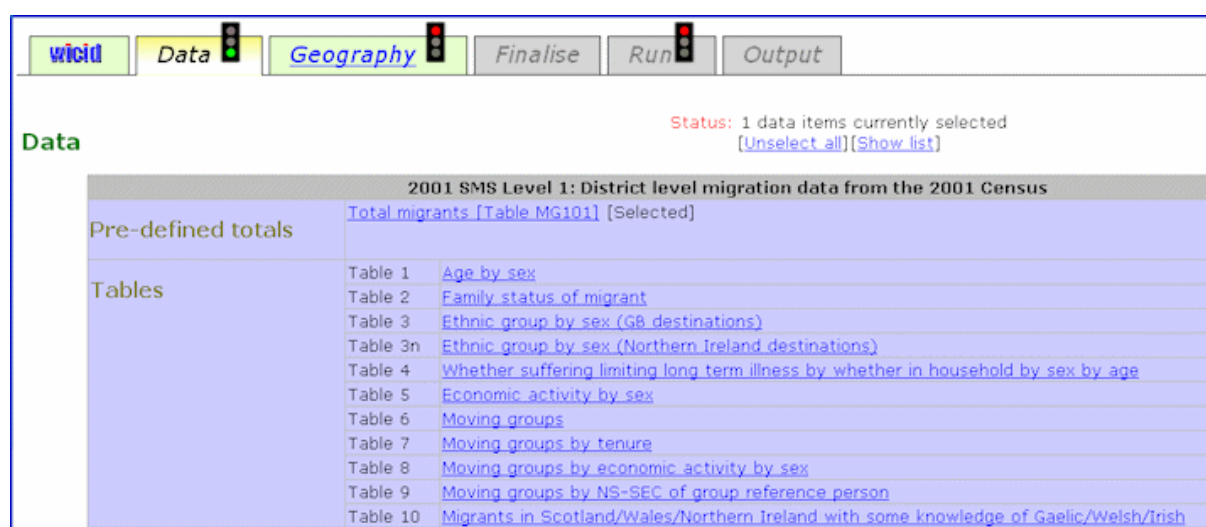
Data

Migration data: 2000-01

The table below shows all data sets in the WICID system that meet the data family and time period selection. Data sets are shown in grey if you do not have permission to use them, or if they are not compatible with any currently selected geographical areas. Select one of the data sets in the table in order to choose tables from that data set.

Data set	Migration data
2001 SMS Level 1	District level migration data from the 2001 Census
2001 SMS Level 2	Ward level migration data from the 2001 Census
2001 SMS Level 3	Output area level migration data from the 2001 Census
2001 SMS Level 2 (Scotland: postal sectors)	Postal sector level migration data from the 2001 Census
2001 C0548 Migrants by religion	Migration to districts in England and Wales by religion
2001 C0711A: Migrants by ethnic group and age	District level migration flows in Britain by ethnic group and age
2001 C0711B: Migrants from outside UK by ethnic group	Migration to districts in England and Wales by ethnic group
2001 C0711C: Migrants from no usu. address / same address by ethnic group	Migration to districts in England and Wales by ethnic group
2001 C0723A: Migrants by age and ethnic group	England and Wales region to ward migration by age and ethnic group
2001 C0723B: Migrants by age and ethnic group	England and Wales ward to region migration by age and ethnic group
2001 C0946: Migration by religion and whether born in UK	Migration by religion and whether born in UK

We want migration flows from the London to other regions in 2001, so select **2001 SMS Level 1** to generate a page of tables available and select **Total migrants** (Note that [Selected] will appear when clicked, and the Data tab will change to a green light):



wicid **Data** **Geography** **Finalise** **Run** **Output**

Data

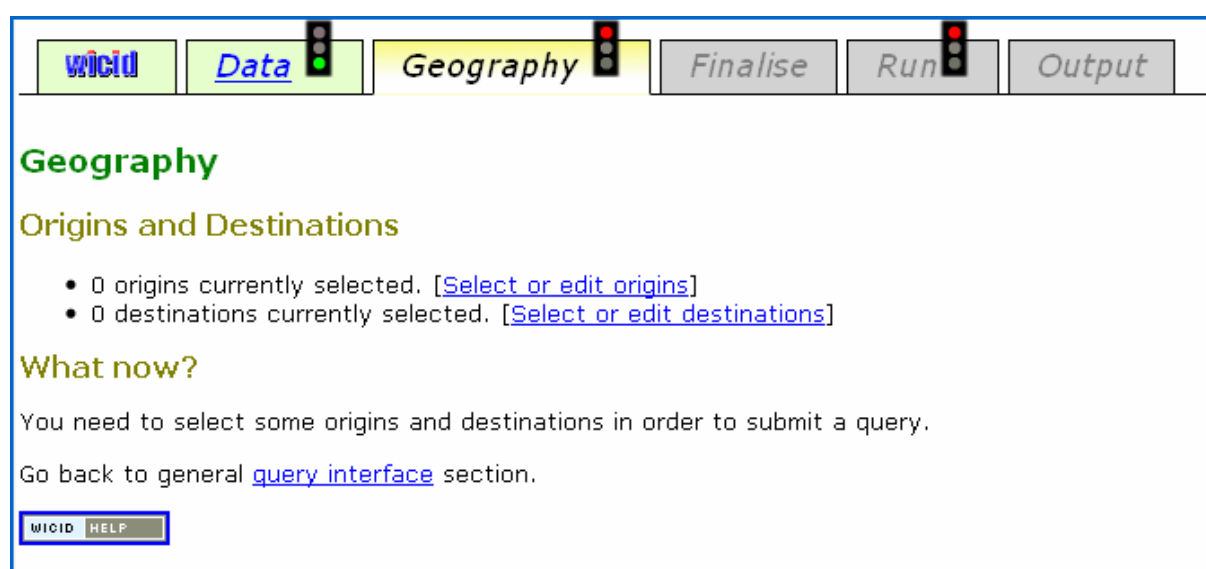
Status: 1 data items currently selected
[\[Unselect all\]](#) [\[Show list\]](#)

2001 SMS Level 1: District level migration data from the 2001 Census

Pre-defined totals	Total migrants [Table MG101] [Selected]
Tables	Table 1 Age by sex
	Table 2 Family status of migrant
	Table 3 Ethnic group by sex (GB destinations)
	Table 3n Ethnic group by sex (Northern Ireland destinations)
	Table 4 Whether suffering limiting long term illness by whether in household by sex by age
	Table 5 Economic activity by sex
	Table 6 Moving groups
	Table 7 Moving groups by tenure
	Table 8 Moving groups by economic activity by sex
	Table 9 Moving groups by NS-SEC of group reference person
	Table 10 Migrants in Scotland/Wales/Northern Ireland with some knowledge of Gaelic/Welsh/Irish

3.6 Geography Selection Methods

If Geography is selected from the General query interface, you will be asked to choose between the selection of origins and destinations:



wicid **Data** **Geography** **Finalise** **Run** **Output**

Geography

Origins and Destinations

- 0 origins currently selected. [\[Select or edit origins\]](#)
- 0 destinations currently selected. [\[Select or edit destinations\]](#)

What now?

You need to select some origins and destinations in order to submit a query.

Go back to general [query interface](#) section.

wicid **HELP**

Click **Select or edit origins**

There are a number of general selection tools that are specified in the list below:

General selection tools

Quick selection	This method allows you to select all areas in a particular geography in one go.
Copy selection	Set origins to be the same as currently selected destinations, or vice versa.
Type-in box	This method allows you to select areas by typing their sequence numbers, OPCS codes or names into a text box. It is quick if you already know the OPCS codes of areas in which you are interested, or if you want to search the whole country by placename.
List selection	This method shows a list of all areas in your selected geography. It is useful if you not know the code numbers to use the type-in method; but the list is cumbersome geographies that have a large number of components.
Map selection	This method allows you to select areas via a map interface.

- In [Section 3.7](#), we see how to use the **List selection** tool
- in [Section 3.8](#), use of the **Map selection** tool is outlined.

The example we use in what follows involves the selection of total migrants flows from the South East to other standard regions.

3.7 Choosing by List Selection

Click on *List geographies compatible with data sets related to time periods: 2001,2000-01*

WIDIA Data Geography Finalise Run Output

Status: 0 origins currently selected

Origins

Select geography options

Please select one of the options below to list the available geographies.

- List [all geographies](#)
- List geographies compatible with data sets related to time periods: [Time series: 1999 onwards \(non-census data\). Multiple Year data](#)
- List geographies compatible with data sets related to time periods: [2001,2000-01](#)
- List geographies compatible with data sets related to time periods: [1991,1990-91](#)
- List geographies compatible with data sets related to time periods: [1981,1980-81](#)
- List geographies compatible with data sets related to time periods: [Unclassified](#)

Alternative options

- [Return](#) to general area selection page.

WIDIA HELP

Lets select *UK Government Office Regions (1999-)* from the following list:

Geography selection

Please selection the geography that you want to use for your selection.

Geography	Number of areas
Main Geographies	
 UK Government Office Regions (1999-)	12
 UK interaction data districts 2001	426
 UK interaction data wards 2001 [†]	10608
 UK Output Areas 2001 [†]	223060
 UK Standard Table Wards 2001 [†]	10558
 CIDS 1991/2001 common geography - 'districts'	417
 CIDS 1991/2001 common geography - 'intermediate'	218
 CIDS 1991/2001 common geography - '100 zones'	100
 CIDS 1991/2001 common geography - 'city regions'	47
 United Kingdom - member countries	4
 Great Britain and Northern Ireland	2
 Scottish postal sectors (2001 SMS and STS) [†]	859
 Lower Layer Super Output Areas [†]	41773
 Middle Layer Super Output Areas [†]	9319
 2001OA Classification - Group [†]	21
 2001OA Classification - Subgroup [†]	52
 2001 UK districts (including NI districts) [†]	434
 2001 UK Local Authority Classification [†]	6
 NUTS 2 UK Regions	37
 UK North and South Geography [†]	2
 United Kingdom	1
 2001 GB Districts plus Northern Ireland	409

You should now see the following page:

wicid	Data	Geography	Finalise	Run	Output
-------	------	-----------	----------	-----	--------

Status: 0 origins currently selected

Origins

Geography selection: confirmation

You are about to select from a list of all areas in the geography *UK Government Office Regions (1999-)*

- [Confirm](#) that you wish to proceed using this geography

or

- [Cancel](#) and return to general origins selection page
- [Change](#) the geography to be used for selection

Advanced geography selection options

Do you want to select all areas that fall within another larger area?

It is possible to use an alternative higher level geography for the list (e.g. *United Kingdom - member countries, Great Britain (Great Britain)*), such that choosing one of the higher areas will cause all members of the geography *UK Government Office Regions (1999-)* to be added to your list of selected areas. To do this then...

- [Select](#) a higher level geography

wicid

HELP

Click *Confirm*

Other options allow you to cancel the selection or change the geography.

There is also an advanced geography selection option that allows the user to select all the areas at a selected lower level within one or more higher level zones, e.g. all the wards in one district.

Once the geography is confirmed, a list of the relevant zones appears and the user ticks those required (London in this example) and click on **Add chosen areas**:

Origins

Status: 0 origins currently selected
[Unselect all][[Show list of selected areas](#)]

[Switch](#) to selection of destinations

List of areas

[[Change number of areas shown per page](#) | [Change order used to list areas](#) | [Reset list layout and order](#)]

[Previous page]
Add chosen areas
Add all areas
[Next page]

Select: *UK Government Office Regions (1999-)* areas

☐ 1 / North East
☐ 2 / North West
☐ 3 / Yorkshire and The Humber
☐ 4 / East Midlands
☐ 5 / West Midlands
☐ 6 / East of England
☒ 7 / London
☐ 8 / South East
☐ 9 / South West
☐ 10 / Wales
☐ 11 / Scotland
☐ 12 / Northern Ireland

A screen now appears confirming your selection, now follow the link to *select destinations*

Origins

Status: 1 origins currently selected
[Unselect all][[Show list of selected areas](#)]

[Switch](#) to selection of destinations

→ Added 1 area from geography 'UK Government Office Regions (1999-)' to set of selected origins

- You have successfully selected some origins
- You have not yet selected any destinations
- You have successfully selected some data

Recommended next move - [select destinations](#)

Alternative options

- [Select more areas](#) using the same geography settings
- [Change](#) the geography to be used for selection
- [Return](#) to general origins selection
- [Return](#) to general query interface

Once selected, follow this route:

- List selection
- All geographies
- UK Government Office Regions (1999-)
- Confirm

Select all geographies except for London, and then the *Add chosen areas* icon:

[Previous page]	Add chosen areas	Add all areas	[Next page]
-----------------	------------------	---------------	-------------

Select: *UK Government Office Regions (1999-)* areas

- ☒ 1 / North East
- ☒ 2 / North West
- ☒ 3 / Yorkshire and The Humber
- ☒ 4 / East Midlands
- ☒ 5 / West Midlands
- ☒ 6 / East of England
- ☐ 7 / London
- ☒ 8 / South East
- ☒ 9 / South West
- ☒ 10 / Wales
- ☒ 11 / Scotland
- ☒ 12 / Northern Ireland

The system will respond indicating that destinations have been selected as follows and suggesting that the recommended next move is to produce the output:

➔ Added 11 areas from geography 'UK Government Office Regions (1999-)' to set of selected destinations

- You have successfully selected some origins
- You have successfully selected some destinations
- You have successfully selected some data

Recommended next move - [produce output](#)

The next section (3.8) shows you how to do the above using the Map selection. If you prefer, you can move straight on to [Section 3.9](#).

3.8 Choosing by Map Selection

An alternative method of selecting zones is via the Map selection tool. First of all select **2001 Census hierarchy**

[\[Home\]](#) → [Query](#) → [Geography](#) → [Origins](#) → Map set selection
 Logged in as: shib_127410 [[Logout now](#)]

Offsite links:
[Census Programme Registration](#)
[Update](#)
[Submit info about outputs](#)

CIDER links:
[Available Data](#)
[Contact CIDER](#)
[News](#)
[FAQs](#)
[Credits](#)
[CIDER - related publications and information](#)

Support
[Feedback](#)
[Help](#)

[wcid](#)
[Data](#)
[Geography](#)
[Finalise](#)
[Run](#)
[Output](#)

Status: 0 origins currently selected
[Link to selection of destinations](#)

Origins

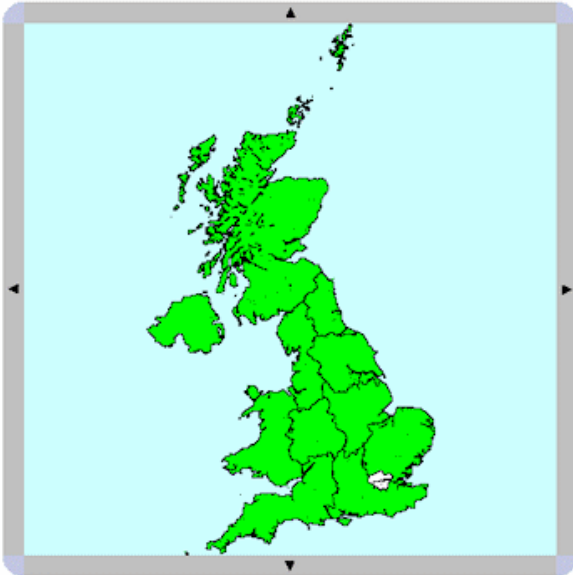
Select map set

Please select a group of boundaries from which you will select areas

- Use [1991 Census hierarchy](#) boundaries
- Use [2001 Census hierarchy](#) boundaries

Simply click the region required from the map and this zone will be added to the selection. In this example, the only origin selected is London.

Origins Status: 1 origins currently selected
[\[Unselect all\]](#) [\[Show list of selected areas\]](#)



Current scale: 1:8,585,615

Area selection options

- ☐ Select the area of UK Government Office Regions (1999-) clicked by the mouse
- ☐ Select elements of UK interaction data districts 2001 in area of UK Government Office Regions (1999-) clicked by the mouse

Panning and zooming options

- ☐ Zoom to area of UK Government Office Regions (1999-) clicked by the mouse and display elements of UK interaction data districts 2001
- ☒ Recentre the map at the point clicked
- ☐ Zoom in to the map at the point clicked
- ☐ Zoom out from the map at the point clicked


Other options

- [Set map size options](#)
- [Set map labelling options](#)
- [Set map colour options](#)
- [Reset to original scale and view](#)

Legend

- Unselected areas
- N UK Government Office Regions (1999-)

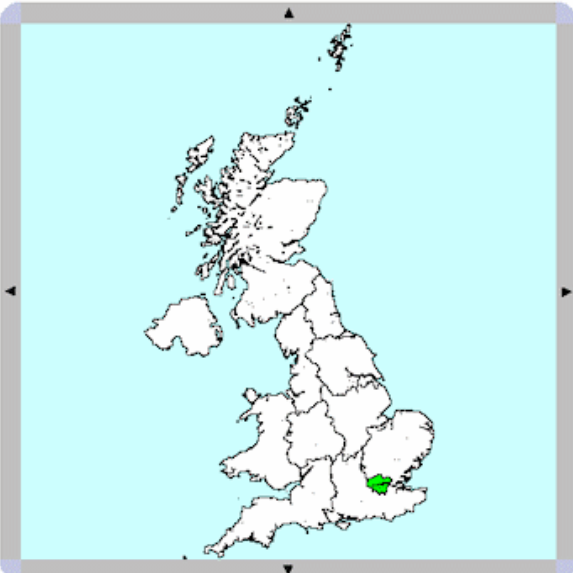
Reference map



Click the **Switch** to destinations link (right hand side of the screen) and select the nine other regions in the same way:

Destinations Status: 11 destinations currently selected
[\[Unselect all\]](#) [\[Show list of selected areas\]](#)

Added 1 area from geography 'UK Government Office Regions (1999-)' to set of selected areas



Current scale: 1:8,585,615

Area selection options

- ☒ Select the area of UK Government Office Regions (1999-) clicked by the mouse
- ☐ Select elements of UK interaction data districts 2001 in area of UK Government Office Regions (1999-) clicked by the mouse

Panning and zooming options

- ☐ Zoom to area of UK Government Office Regions (1999-) clicked by the mouse and display elements of UK interaction data districts 2001
- ☐ Recentre the map at the point clicked
- ☐ Zoom in to the map at the point clicked
- ☐ Zoom out from the map at the point clicked


Other options

- [Set map size options](#)
- [Set map labelling options](#)
- [Set map colour options](#)
- [Reset to original scale and view](#)

Legend

- Unselected areas
- N UK Government Office Regions (1999-)

Reference map

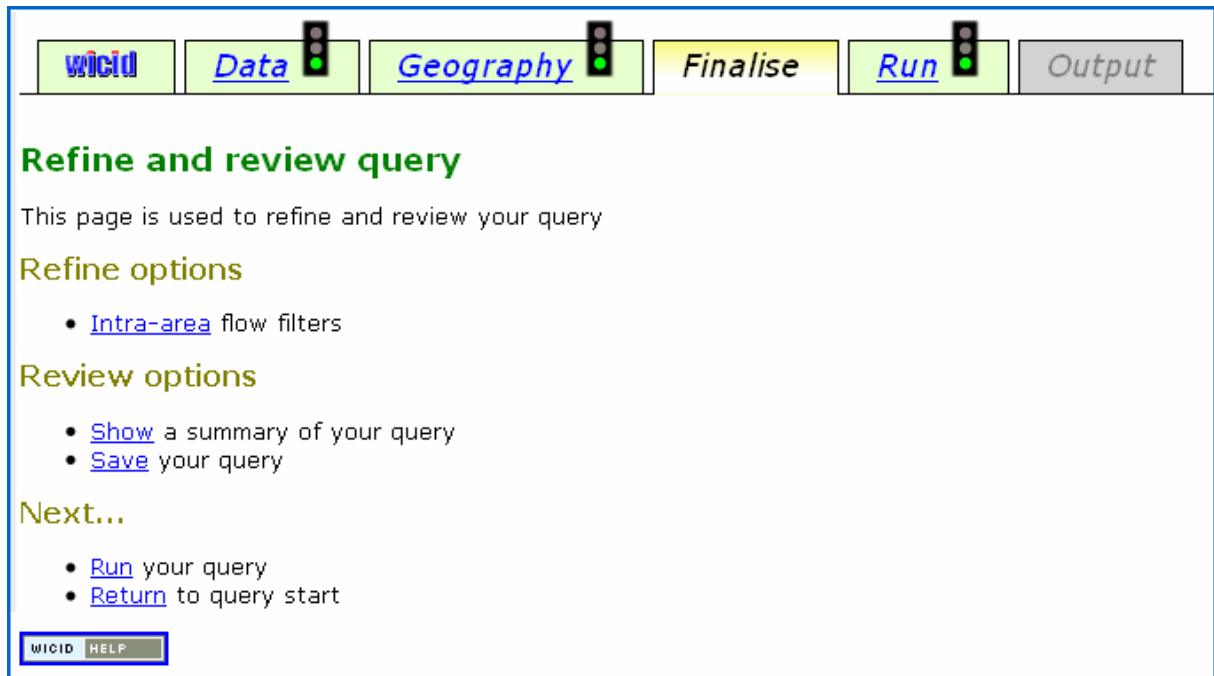


The status field above the map will indicate how many zones have been selected and there are various options available for selection and display.

3.9 Finalise

At this stage, your origins and destinations have been selected and the data variable or variables have been specified

The next step is to click on the *Finalise* tab.



The screenshot shows a web interface with a navigation bar at the top containing six tabs: 'wicid', 'Data', 'Geography', 'Finalise', 'Run', and 'Output'. The 'Finalise' tab is highlighted in yellow. Below the tabs, the main content area has a green heading 'Refine and review query' followed by the text 'This page is used to refine and review your query'. There are two sections: 'Refine options' with a bullet point for 'Intra-area flow filters', and 'Review options' with bullet points for 'Show a summary of your query' and 'Save your query'. A 'Next...' section follows with bullet points for 'Run your query' and 'Return to query start'. At the bottom left, there is a small box with 'WICID' and 'HELP' buttons.

wicid	Data	Geography	Finalise	Run	Output
-------	------	-----------	----------	-----	--------

Refine and review query

This page is used to refine and review your query

Refine options

- [Intra-area](#) flow filters

Review options




- [Show](#) a summary of your query
- [Save](#) your query

Next...

- [Run](#) your query
- [Return](#) to query start

WICID HELP

Click on the "**Show** a summary of your query" link. This will generate the summary as follows:

Wield	Data 	Geography 	Finalise	Run 	Output
-----------------------	--	---	--------------------------	---	------------------------

Refine and review query

Summary of current query

Geography

Origins 1 UK Government Office Regions (1999-): (Sequence number,GOR code,GOR name)
7,H,London

Destinations 11 UK Government Office Regions (1999-): (Sequence number,GOR code,GOR name)
1,A,North East to 6,G,East of England;8,J,South East to 12,N,Northern Ireland

Interaction data

Data items 1 2001 SMS Level 1:
Total migrants [Table MG101]

Output size

The current query will require extraction of up to 11 values
File size of tabular output estimated to be around: 1.20 KB

Refine options

- [Intra-area](#) flow filters

Review options

- [Show](#) a summary of your query
- [Save](#) your query

Next...

- [Run](#) your query
- [Return](#) to query start

From here you can start again to rebuild your query from scratch, modify the data by clicking on any of the tabs again or go on to extract the data.


The system has various modification facilities that allow new variables to be created from variables selected, but these functions are not demonstrated here.

3.10 Data Extraction

You will have already have reviewed your query when you clicked the Finalise table. The traffic lights should have turned green so the query can now be run, click on the **Run** tab:

[wcid](#)
[Data](#)
[Geography](#)
[Finalise](#)
[Run](#)
[Output](#)

Run query



Query Complete!

Your data has now been extracted. Please choose the **continue** option below to select output options, or alternatively select one of the other options.

Extraction took 0.56 seconds

Options

- [Continue](#) to output pages
- [WICID query homepage](#)
- [CIDER homepage](#)

Click *Continue* to go to the output pages:

[wcid](#)
[Data](#)
[Geography](#)
[Finalise](#)
[Run](#)
[Output](#)

Output

[Tabular output](#)

This is the general output section, where you can generate tables of output. These can be viewed on-screen or downloaded in a variety of formats.

[Analysis](#)

Use a number of analytical tools to generate statistical summaries of your data, and produce a variety of indices.

WICID [HELP](#)

Now click *Tabular output*

3.11 Planning Your Output

At this stage, you can plan the layout, format and labelling of your output using the output planner:

wicid

Data

Geography

Finalise

Run

Output

Tabular output - plan

This page allows you to alter the characteristics of the output.

Data items to output

You currently have 1 items selected for output

- [Change selection](#) of variables to output.

Layout options

General options

Output layout

- ☒ Origin - destination matrix
- ☐ Origin - destination pair list [\[Advanced settings...\]](#)
- ☐ Published table frameworks [\[Advanced settings...\]](#)
- ☐ Export data (fast but inflexible)

Origin and destination labels

Current labels to use in output [\[Change\]](#)

- UK Government Office Regions (1999-): GOR name

Output format

- ☒ HTML table [\[Advanced settings...\]](#)
- ☐ Comma separated values

Preview Output and Download

Options

- Return to [output page](#)

Click *Preview Output and Download* to see the first 5 counts extracted:

wicidDataGeographyFinaliseRunOutput

Tabular output - preview

This is a preview of part of your selected output.

- Only the first 5 destinations are shown

[Output size estimate](#)

Output will contain up to 11 values

Output size estimated to be around 1.20 KB

2001 SMS Level 1

Origin geography: UK Government Office Regions (1999-) **Destination geography:** UK Government Office Regions (1999-)

Layer: Total migrants [Table MG101]

Origins	Destinations				
	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands
London	3370	9678	8267	11015	9513

Notes

- Census output is Crown copyright and is reproduced with the permission of the Controller of HMSO and the Queen's Printer for Scotland Source: 2001 Census: Special Migration Statistics (Level 1)

Output options

- [On screen](#) - tabulate on screen (only for small amounts of output)
- [Download file](#) - download output
- [Planner](#) - return to output planner

Options

- Return to [output page](#)

The options available are as follows:

Output options

- [On screen](#) - tabulate on screen (only for small amounts of output)
- [Download file](#) - download output
- [Planner](#) - return to output planner

3.12 Downloading the Data

Clicking on the **Download file** link will create a default filename:

File download details

Filename

Clicking on the Download now button will enable you to navigate to a directory of your choice and rename the file as you wish.

4 Examples

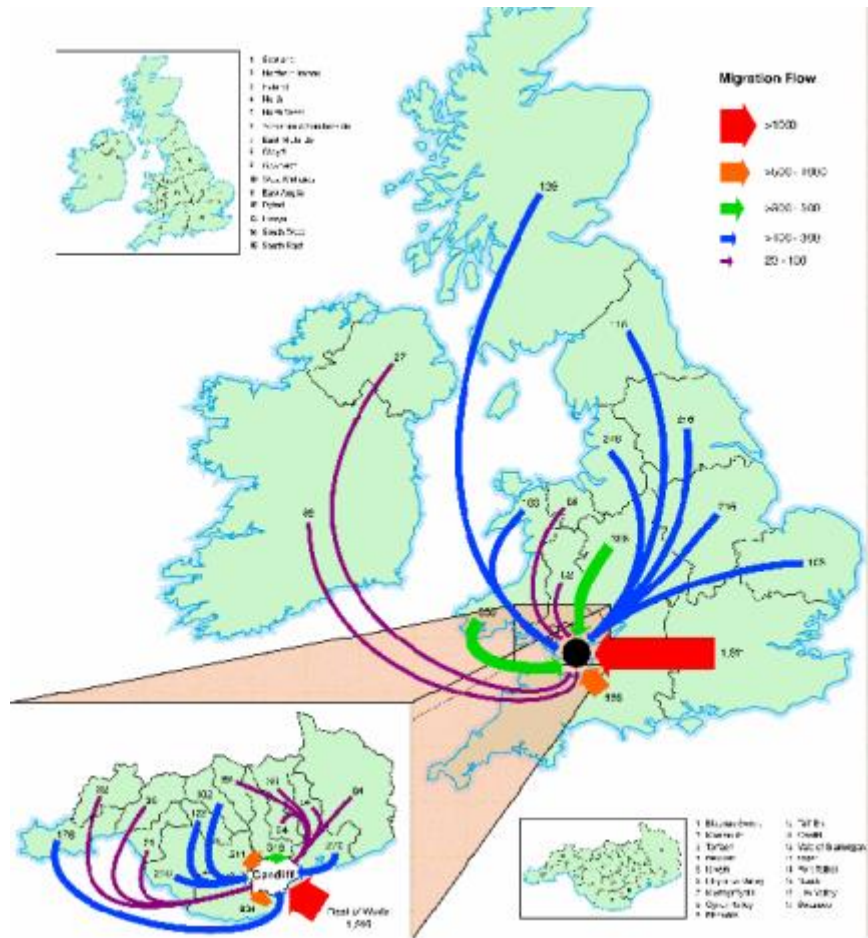
- [Example 1](#)
- [Example 2](#)

4.1 Example 1

Extract the total in-migration flows to Cardiff district in 1990-91, from other districts of South Wales, other counties of Wales, other regions of Great Britain, Northern Ireland, the Irish Republic and the rest of the world.

Geography	
Origins	33 GB Districts 1991: (Sequence number,District name,OPCS/ONS code) 379,Blaenau Gwent,50BS to 383,Torfaen,50SX;388,Cynon Valley,52TD to 394,Taff-Ely,52TJ;398,Cardiff,54TN to 403,Swansea,55TT GB Counties 1991: (Sequence number,County name,OPCS/ONS code) 48,Clwyd,48 to 49,Dyfed,49;51,Gwynedd,51;53,Powys,53 GB Standard Regions 1991: (Sequence number,Standard Region name) 1,North to 8,North West;10,Scotland 1991SMS Foreign origins: (Sequence number,Country name,OPCS/ONS code) 1,Northern Ireland,504 to 2,Irish Republic,605 1991SMS Misc. origin totals: (Sequence number,Origin label,OPCS/ONS code) 3,Total inflow from overseas,333333
Destinations	1 GB Districts 1991: (Sequence number,District name,OPCS/ONS code) 398,Cardiff,54TN
Data	
Variables	1 1991 SMS Set 2: Total migrants
Handling of special cases	
1991 SMS Set 2 Flows of migrants from unstated origins left unselected	

These can be mapped as follows:



4.2 Example 2

Extract the flows of migrants to the UK in 2001.

Geography

Origins 55 2001 C0711 - Foreign origins: (Sequence number, Country code, Country name)
1,003, Channel Islands and Isle of Man to 42,206, Turkey; 44,214, U.S.A to 56,944, Other Oceania

Destinations 1 United Kingdom: (Sequence number, Destinations labels)
1, United Kingdom

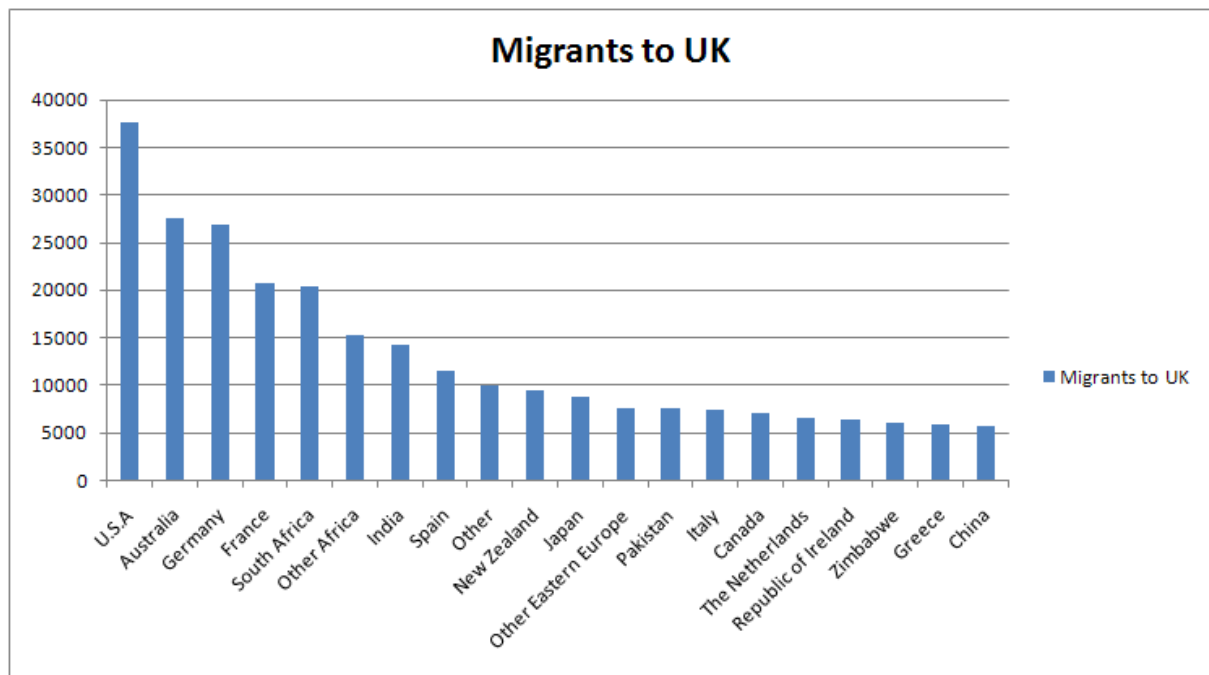
Interaction data

Data items 1 2001 C0711B: Migrants from outside UK by ethnic group:
Total migrants

Output size

The current query will require extraction of up to 55 values
File size of tabular output estimated to be around: 890 bytes

The top 20 can be graphed as follows:



© Source: The 2001 Census, Crown Copyright

Source: 2001 Commissioned table C0711B: Migrants from outside UK by ethnic group

5 Doing It Yourself

Congratulations, you have now worked through the tutorial.

Here are a few suggested data extractions for you to try yourself:

1. Select your home local authority district and build a query to extract the migration flows into that district for males and females in 2000-01 from all other districts in the UK.
2. Build a query to extract the same data for 1990-91 and compare the counts with those for 2000-01.
3. Construct a query to extract immigration data from foreign origins into this district in 2000-01.
4. Select a major provincial city and extract the commuting flows between the wards that make up that city.
5. Identify from the previous query which ward or wards constitute the city centre in terms of jobs (e.g. City and Holbeck and University wards in Leeds), and extract the commuting flows to these destinations from other wards by (a) mode of transport or (b) social class.

You may be required to put together a report from what you have done. The report should contain copies of the queries that you have constructed, the data files that you have extracted and any graphs and maps that you have used to display the data.