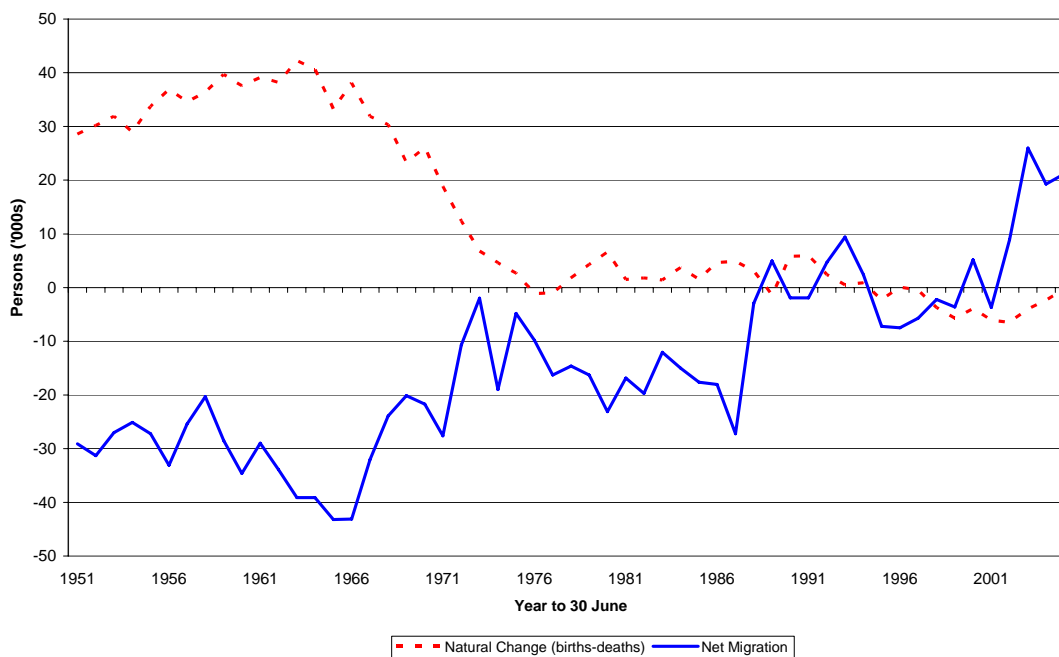


Levels and Distribution of Migrants In & Out of Scotland: an overview of internal and international migration

Nick Wright

Until around 15 years ago, Scotland experienced net emigration of its population, but with a positive natural change⁶ (caused by high birth rates) in part reducing the overall negative impact that outward migration had on the population. Since then, the death rate has overtaken the birth rate, whilst at the same time, net migration has become positive (in particular with the accession of eastern Europe to the EU in 2004), leading to a reversal of the situation, with net in-migration offsetting a natural decrease (see Figure 1).

Figure 1 - Natural change and net migration, 1951-2006



⁶ Natural Change is defined as the difference between births and deaths in a particular geography over a particular period of time. It is usually quoted as an annual figure – so, for example, the rate of natural change in City of Edinburgh in 2006 would be calculated as ‘the number of births in City of Edinburgh in 2006’ minus ‘the number of deaths in City of Edinburgh in 2006’. A positive rate of natural change indicates a naturally (i.e. ignoring migration effects) increasing population and a negative rate indicates a naturally decreasing population.

Therefore, if Scotland wishes to avoid experiencing long term population decline, it needs to continue attracting a steady positive flow of migrants. Recognising this, the Scottish Government have set a population growth target based on matching the average EU-15 population growth over the period of 2007 to 2017. (In practice this may be a very demanding target to meet).

However, measuring migration into and out of Scotland is difficult as there is no data collection in the UK that directly measures the number of migrants to or from Britain, or to countries within Britain. The General Register Office of Scotland (GROS) produce the official estimates of long term migration to and from Scotland (a long term migrant is one that enters (or leaves) the country and remains in (or out of) the country for at least 12 months). The Office for National Statistics (ONS) produce similar statistics for England and Wales and the Northern Ireland Statistics and Research Agency (NISRA) produce migration statistics for Northern Ireland.

Broadly speaking, there are two types of migrant into Scotland; migrants who come in or go out to the rest of the UK (internal migrants) and migrants who come in or go out to overseas (international migrants). These two types of migrant flow are estimated using different methods (and from 2007 onwards, GROS plans to publish the estimates of internal and international migrants separately, as international migrants tend to require more public services – language training etc – than internal migrants do).

Internal Migration

Internal migrants are relatively easy to measure – provided that they register with their GP when they move to Scotland. The NHS stores an administrative dataset known as the NHS Central Register (NHSCR) – which is a record of the dates that people enter, leave or move between Health Areas (Health Boards in Scotland, Northern Ireland & Wales, Strategic Health Authorities in England) in the UK. A person is considered to have entered a Health Area if they register with a GP in that Health Area. If they were previously registered with a GP elsewhere in the UK, then they automatically de-register with their old GP when they register with their new GP – this is also recorded on the NHSCR as a move between Health Area.

From this record, it is possible to count the number of records where a patient has (for example) deregistered with an English GP and then registered with a Scottish GP. This patient would then be assumed to have migrated from England to Scotland. In this manner, flows

between the Health Areas in all the constituent countries of the UK can be estimated, with an age / sex distribution. (The NHSCR does not provide enough information to allocate migrants below Health Board level). GROS also lag the data – they assume that it takes a migrant three months after arrival in Scotland to register with a GP – so an April entry on the NHSCR would be assigned to January of the same year.

GROS is supplied with data from the NHSCR, in the form of moves. Moves recorded on NHSCR records are not linked to specific patients, so a patient that moved from England to Scotland and then back to England in a year would actually be recorded as two ‘migrants’ – one person moving from England to Scotland and another person moving from Scotland to England. This leads to an inflation of internal migration figures in the NHSCR – which leads to an inflation of gross migrant flows – but not the net.

Table 1 below shows the flows (gross & net) of migrants to and from England & Wales and Northern Ireland; from 1996/97 to 2005/06.

Figure 2 below shows the 2006 geographical distribution of migrants moving between the rest of the UK and Scotland – the largest flows are to the Health Boards containing cities (Lothian, Grampian and Greater Glasgow).

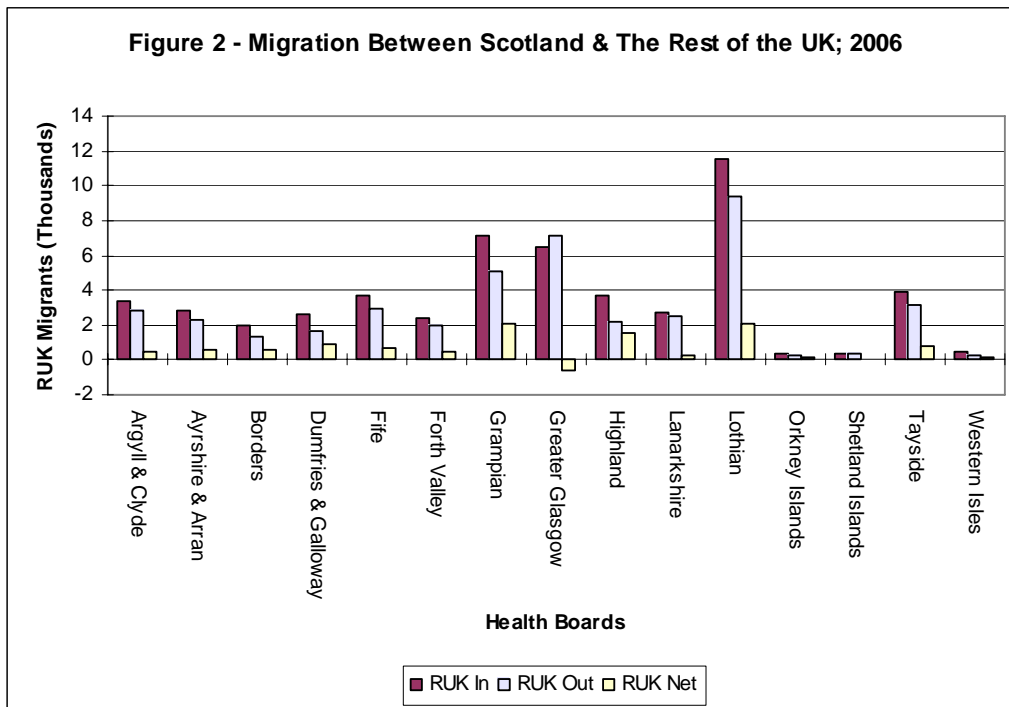


TABLE 1

Mid-Year Period	In-migrants to Scotland			Out-migrants from Scotland			Net-migrants to Scotland		
	England & Wales	Northern Ireland	Total	England & Wales	Northern Ireland	Total	England & Wales	Northern Ireland	Total
1996-1997	46,800	2,700	49,500	52,300	1,800	54,100	-5,500	900	-4,600
1997-1998	51,800	2,800	54,600	51,500	2,000	53,500	300	800	1,100
1998-1999	48,100	2,300	50,400	51,000	2,500	53,500	-2,900	-200	-3,100
1999-2000	46,400	2,300	48,700	53,000	2,300	55,300	-6,600	0	-6,600
2000-2001	53,100	1,800	54,900	48,900	2,500	51,400	4,200	-700	3,500
2001-2002	52,400	2,000	54,400	47,200	2,500	49,700	5,200	-500	4,700
2002-2003	52,600	1,700	54,300	45,000	2,200	47,200	7,600	-500	7,100
2003-2004	60,100	1,800	61,900	44,100	2,200	46,300	16,000	-400	15,600
2004-2005	55,400	2,000	57,400	42,400	2,400	44,800	13,000	-400	12,600
2005-2006	51,400	1,900	53,300	42,100	2,300	44,400	9,300	-400	8,900

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International Migration

The main source of data on international migration is obtained from the International Passenger Survey (IPS) – a continuous voluntary survey run by ONS in all the major routes of entry into Britain (airports, ports, the Channel Tunnel etc). When the IPS was set up (in the 1960s) it was not designed to measure immigration flows, but rather to provide information on why people visited Britain. Consequently, it is limited in its uses for estimating migration flows, as it only covers less than 1% of the passengers arriving in Britain. In practice this means that the sample sizes are far too small to obtain any detail about migrants to Scotland other than estimate an overall figure of in-migrants and out-migrants to/from Scotland as a whole.

GROS obtain an estimate of long-term migrants to and from Scotland from the IPS. A long-term migrant is someone who moves to a country with the intention of staying for 12 months or more. The figure obtained from the IPS is based on the number of respondents in the sample who say that they will be staying / leaving Scotland for 12 months or more, but is also adjusted to allow for the fact that some people change their mind – some short-term migrants (i.e. people who stay in a country for less than 12 months) will become long-term migrants, some people who intend to be long-term migrants will end up staying for less than 12 months.

Inward migrants are distributed to Health Boards within Scotland using the distribution of overseas migrants who registered with a GP in Scotland and are recorded on the NHSCR. This works for migrants moving to Scotland, as they are likely to register with a GP on arrival, so GROS can be reasonably confident that the age / sex and geographic distribution of inward migrants from overseas is accurate. However, as mentioned earlier, the NHSCR estimate contains both long-term migrants and short-term migrants, which may skew the distribution.

However, when migrants move from Scotland to overseas, there is no mechanism by which their GP is informed (other than the patient telling their GP, which rarely happens), so the NHSCR does not contain useable information on the age / sex / geographic distribution of migrants moving abroad. As a proxy, GROS assume that the type of people who move abroad are the same as the type of people who move to England & Wales, so GROS use the distribution of migrants moving to England and Wales instead.

Further adjustments are made for asylum seekers and people who switch from being migrants to visitors and vice versa.

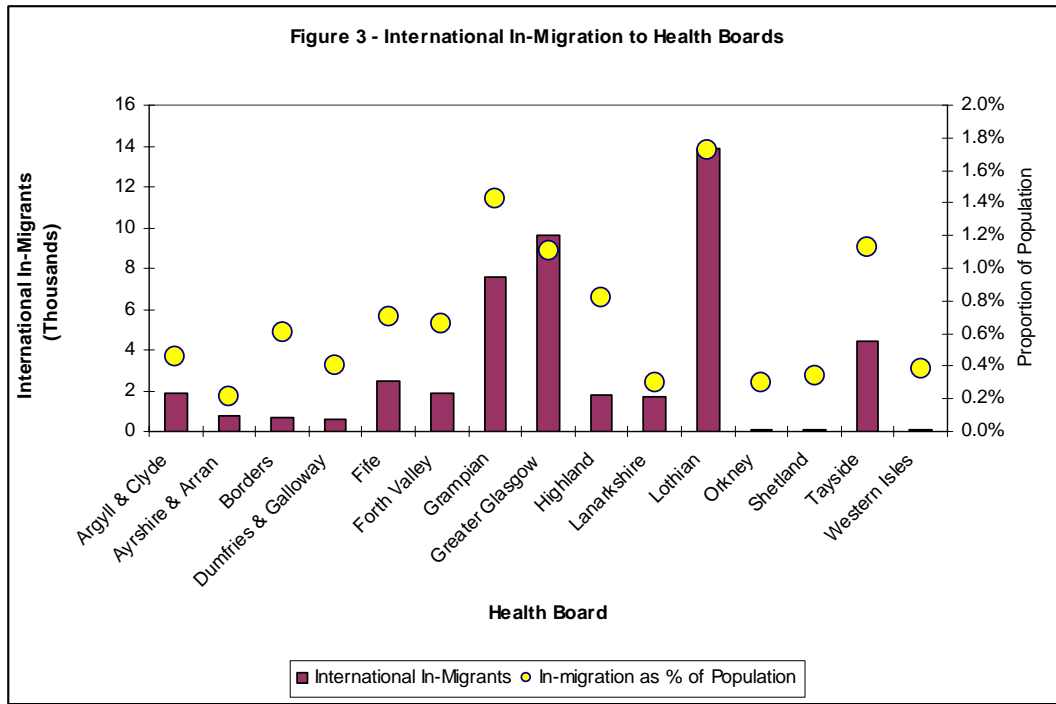
GROS are working on improving international migration estimates, in particular improving the distribution of international out-migrants, however in practice there is little concrete data available.

TABLE 2

Mid-Year Period	International migrants to & from Scotland		
	In	Out	Net
1998-1999	22,900	18,500	4,400
1999-2000	20,700	14,300	6,400
2000-2001	24,200	21,700	2,500
2001-2002	18,400	27,000	-8,600
2002-2003	30,300	29,000	1,300
2003-2004	36,200	26,000	10,200
2004-2005	35,200	29,600	5,600
2005-2006	42,000	31,000	11,000

Table 2 shows the levels of international migration to and from Scotland from 1998/99 to 2005/06. Out-migration figures in the table above include a ‘migration error’ adjustment, applied to bring GROS estimates in line with Census results. (When the GROS method for estimating the Scottish population was used to estimate the population from 1991 to 2001, the 2001 estimate was found to be considerably lower than the 2001 Census result. This discrepancy was assumed to be a result of unmeasured migration and the estimate is adjusted accordingly).

Figure 3 shows the distribution of in-migrants to Scotland in 2006, across the Health Boards. Large numbers of in-migrants move to areas with cities – Lothian, Grampian and Greater Glasgow.



Once GROS has determined the numbers of internal and international migrants to Health Boards, the numbers are then added together and an overall figure of migrants from / to outside Scotland in and out of each Health Board is determined.

The combined internal & international migrants are then further distributed to the Local Authorities (Councils) within each Health Board by means of the Community Health Index – a NHS administrative dataset that contains the postcodes of new patients registering with a GP. Migrants are apportioned using the distribution of new patients in the CHI, whilst keeping the number controlled to the Health Board total (including the Health Board age / sex totals).

Migration Differences Within Scotland

Migrants make up a much higher percentage of the population of urban areas on the east coast of Scotland – particularly Edinburgh and Aberdeen, but tend to be very low (as a proportion of the population) in the Greater Glasgow area. The following two maps show the no. of in-migrants (absolute and as a proportion of the population) by Local Authority.

Map 1⁷ shows the absolute number of in-migrants to each Local Authority in Scotland over the Mid-Year 2005/06 period. The largest numbers of migrants are moving to Grampian and the eastern Central Belt of Scotland.

Map 2 shows in-migrants as a proportion of the underlying population. This indicates that, whilst cities receive the highest absolute figures of migrants, migrations have quite an impact on rural areas too.

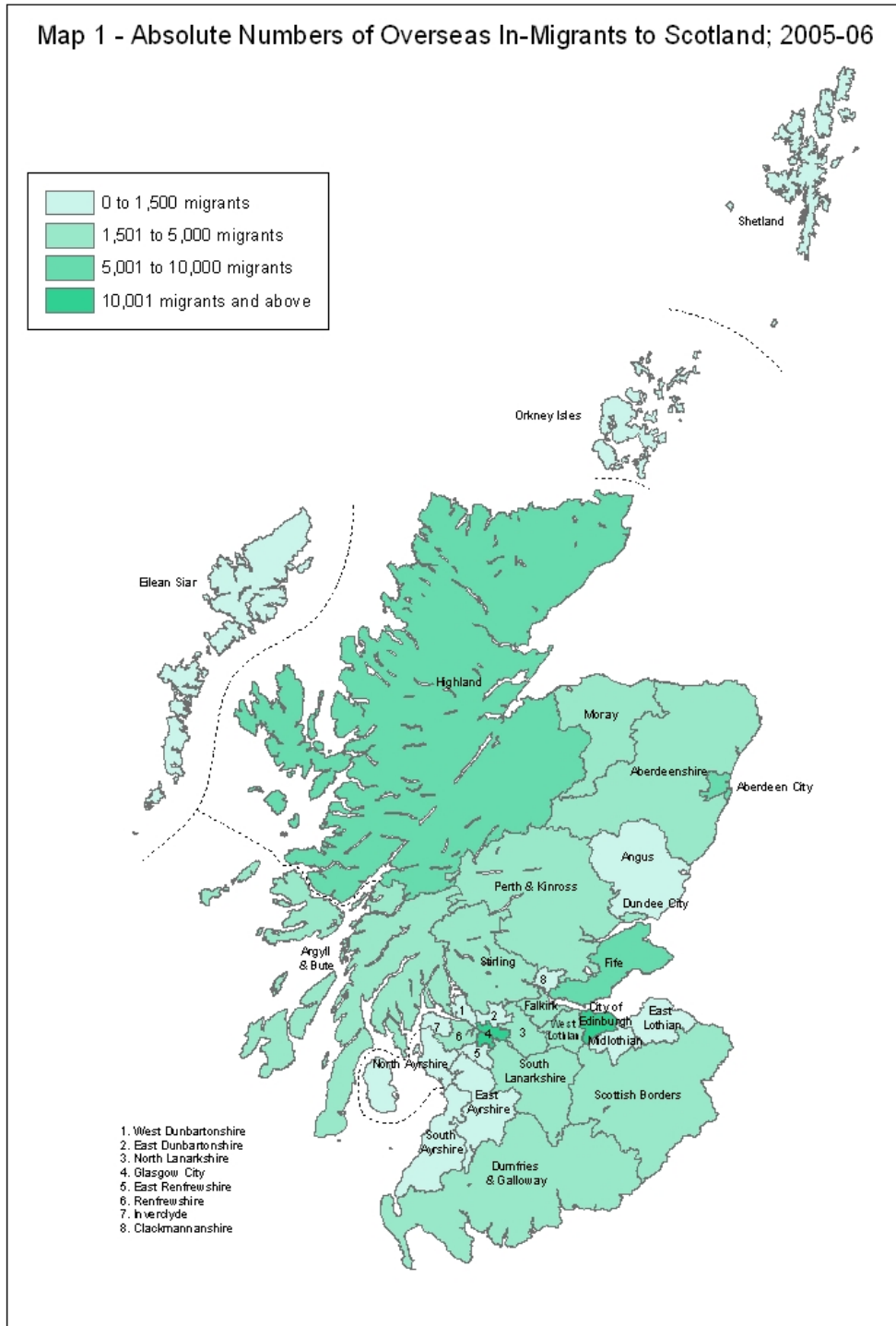
It is noticeable that Glasgow City does not receive as many migrants (as a proportion of its population) as Edinburgh, Aberdeen or Dundee. In fact, the entire West Central Scotland area around Glasgow received far fewer migrants (both as an absolute and as a proportion of their populations) than the eastern cities and northern rural areas of Scotland.

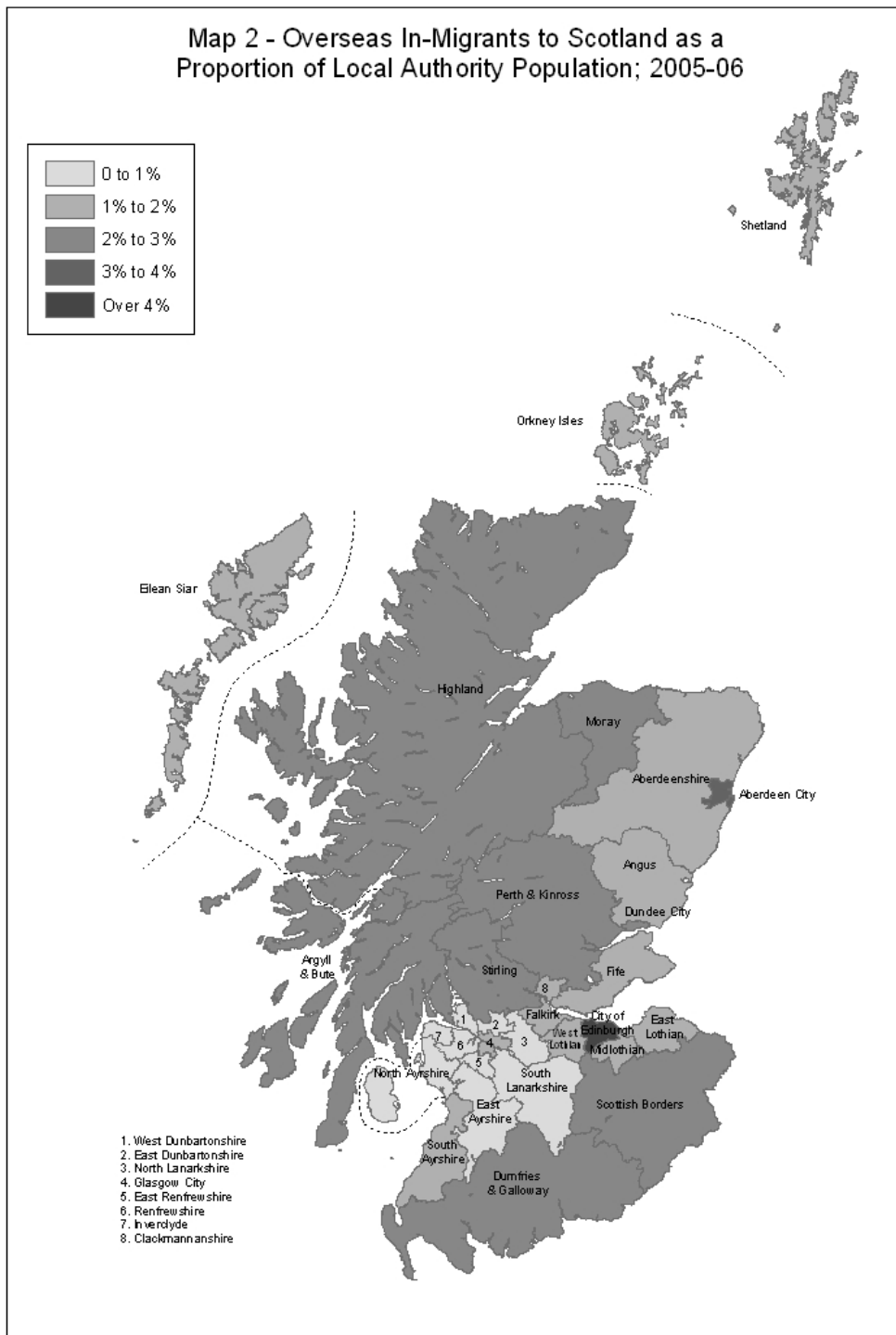
In general this reflects the relative economic dynamism of the City of Edinburgh and Aberdeen City compared to Glasgow City – and it should be noted that the Glasgow figures are boosted by asylum seekers, as asylum seekers who arrive in Scotland are almost entirely allocated housing in Glasgow City. (Note also that the Highlands Local Authority contains Inverness, which also is a recipient of large numbers of in-migrants).

Another striking pattern is the difference in the age distribution of migrants to different council areas in Scotland.

⁷ A colour version of Map 1 is given in the insert.

Map 1 - Absolute Numbers of Overseas In-Migrants to Scotland; 2005-06





The four figures below show the age distribution of inward, outward and net migration to four Local Authorities in Scotland, chosen to represent a city (using the City of Edinburgh as an example); a 'commuter belt' area (i.e. a suburban / rural Local Authority adjacent to a city - in this case East Lothian, which is in the Edinburgh commuter belt); a rural area, far from large urban centres (Orkney) and finally a West Central Scotland Local Authority – West Central Scotland – generally the area surrounding Glasgow City (although not necessarily including Glasgow City itself and with East Dunbartonshire and East Renfrewshire as exceptions) - is notable for far higher levels of deprivation; lower life expectancy and lower educational levels than the rest of Scotland. In this case, North Lanarkshire has been chosen.

- Figure 4 – City of Edinburgh
- Figure 5 – East Lothian
- Figure 6 – Orkney
- Figure 7 – North Lanarkshire

The age distribution of net migration into the 'city' Local Authority (see Figure 4) shows a clear peak where people in their late teens or early twenties move to the city in search of further education or employment and a lesser peak when people in the mid-twenties (likely to be graduates) move to the city in search of employment. There is net negative migration later in life, when migrants around their mid thirties move out to suburban and rural areas.

This pattern is neatly mirrored by the 'commuter belt' Local Authority (see Figure 5) – which shows a trough for migrants in their late teens or early twenties leaving to go to a city and then net inward migration of people in their early thirties, who wish to live in a suburban or rural area and yet still commute to work in a city.

The late teen / early twenties trough is more extreme in rural areas (see Figure 6), where the lack of educational / employment opportunities is likely to be greater and a larger proportion of the population in that age group leave the area. These areas also receive net inward migration of people in their mid to late thirties and above.

• Figure 4 – City of Edinburgh

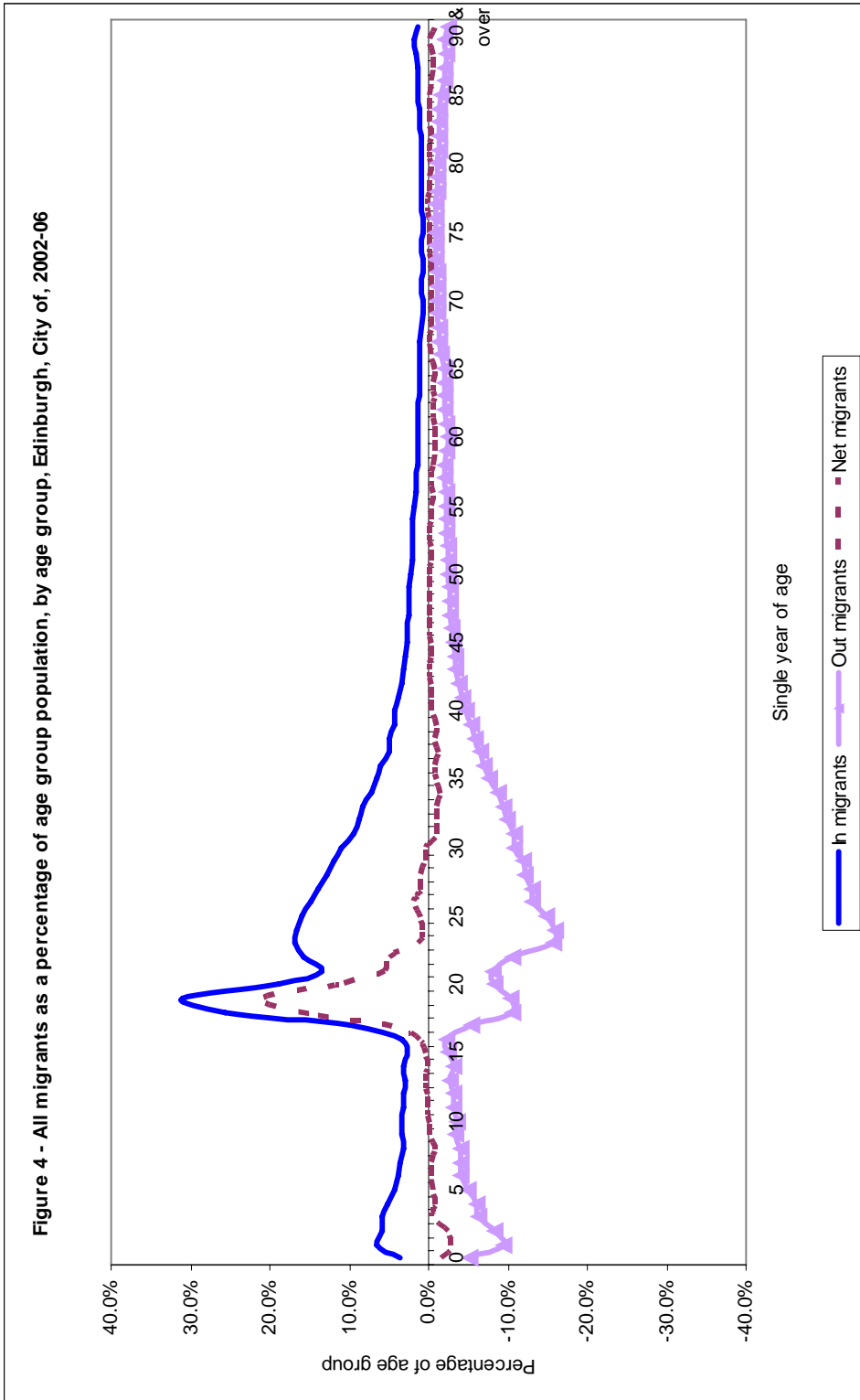


Figure 5 - East Lothian

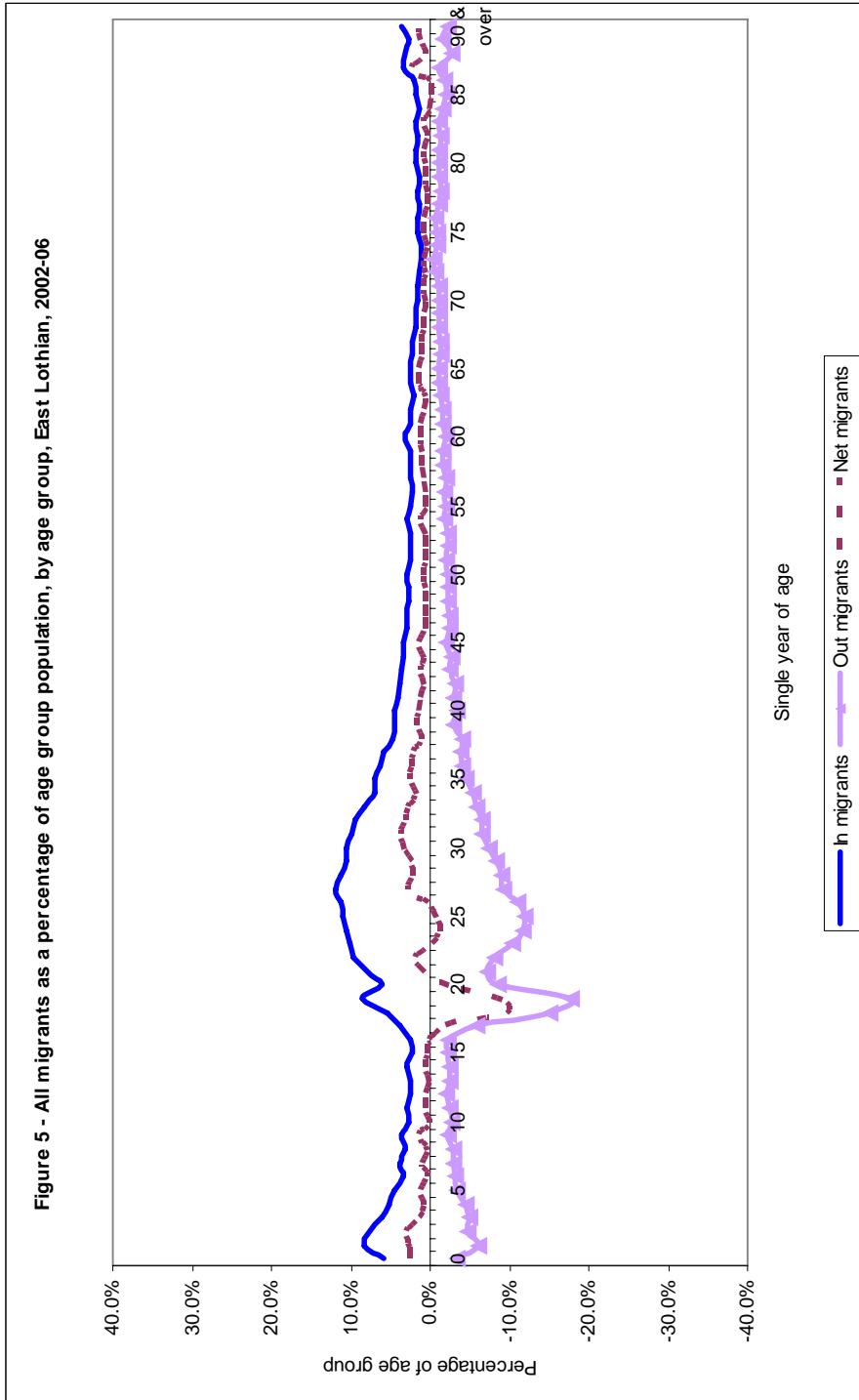


Figure 6 - Orkney

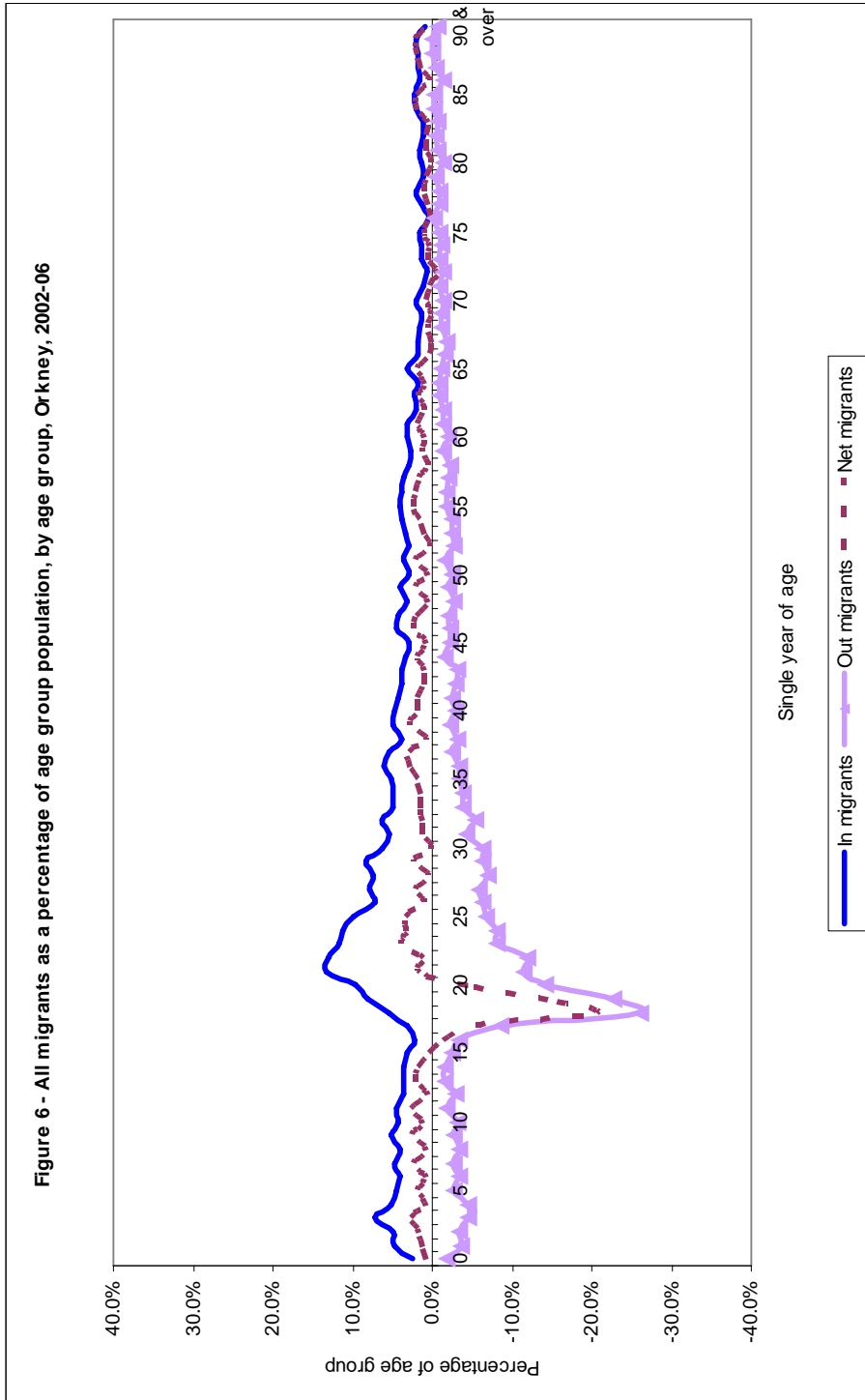
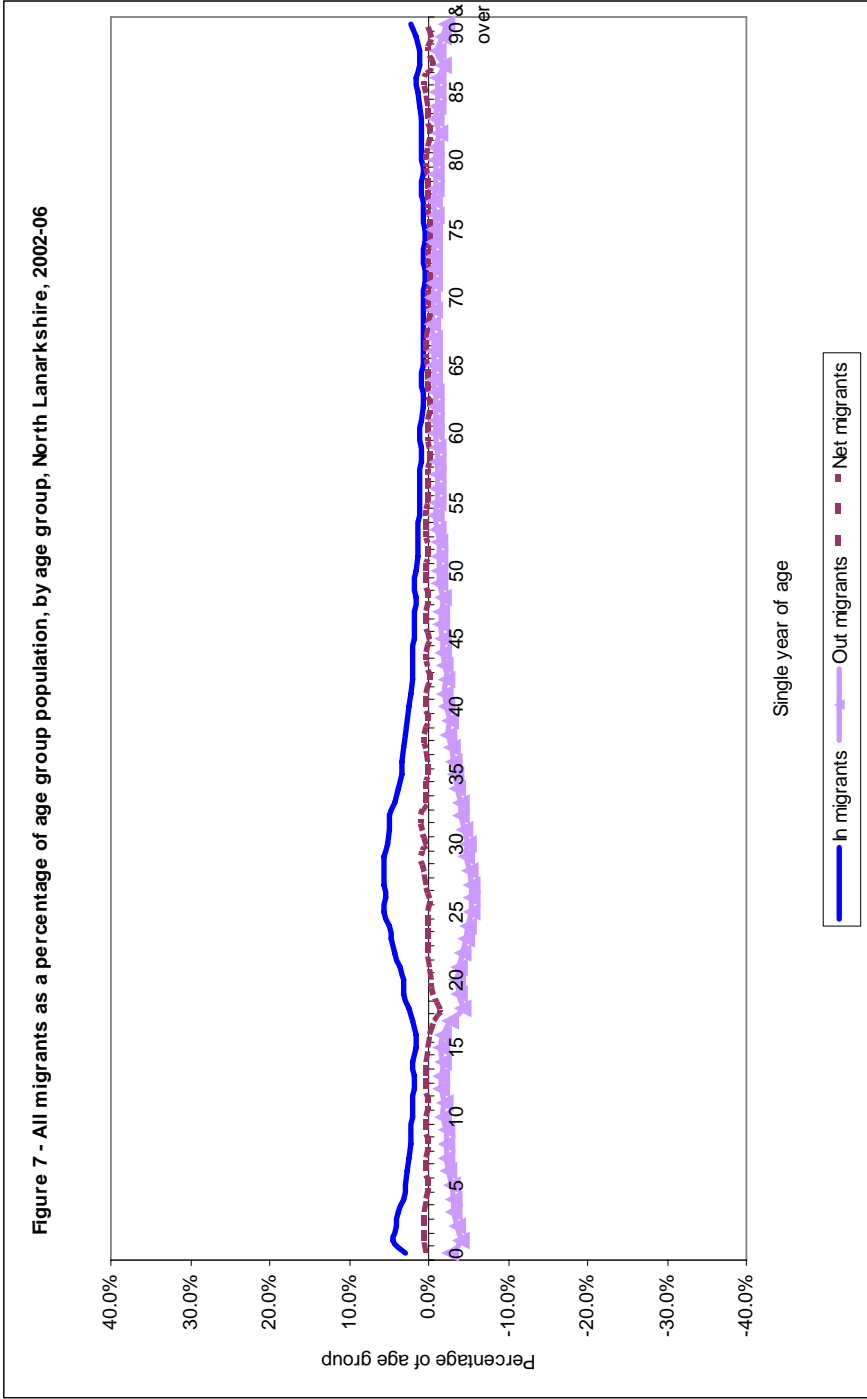


Figure 7 – North Lanarkshire



The West Central Scotland Local Authority (see Figure 7) shows a quite different pattern – with very little net inward or outward migration at any age – suggesting that young people are not leaving to attend university or look for work in a city and that people are not migrating to the area in search of work either. Whilst, to a certain extent, there will be employment / further educational opportunities within the Local Authority itself, the difference between this type of Local Authority and the ‘commuter belt’ type Local Authority is striking – especially as many of the Local Authorities in West Central Scotland could be considered part of the Glasgow City commuter belt.

Further Sources of Data

The NHSCR, IPS and CHI are the sources that GROS use to estimate migrants; however there are other data collections which also provide useful data. The Worker Registration Scheme⁸ provides information on where migrants from eastern Europe are working in Scotland, when they started working and what field they are working in. (In general, eastern European migrants to Scotland end up working in hospitality and agriculture).

Data is also available on National Insurance Number Registrations⁹, which detail all foreign nationals who applied for a National Insurance Number in a given year – and provides useful information on the nationality of international immigrants working in Scotland.

Mothers Place of Birth data is collected by the Vital Events branch of GROS – for every child born in Scotland, his or her mother’s place of birth is also recorded. Averaged over 2001 to 2005, the data shows that City of Edinburgh has the highest proportion of births to mothers from outside of Scotland (approx. 33%) and North Lanarkshire the lowest (approx. 7%). The largest proportion of births to mothers from elsewhere in the UK was in Moray (where around 24% of births were to mothers from England, Wales or Northern Ireland) likely due to the presence of RAF Lossiemouth and RAF Kinloss bases.

Summary

It is evident that migration is important to Scotland’s future prosperity – more so than the UK in general - as it is viewed as being crucial to economic growth and without it, the country faces long term population decline. Equally important for planning and policy

⁸<http://www.homeoffice.gov.uk/about-us/freedom-of-information/released-information/foi-archive-immigration/3144--worker-registration-scheme?view=Html>

⁹ http://www.dwp.gov.uk/asd/asd1/niall/nino_allocation.asp

purposes are reliable and accurate statistics on the levels of migration into and out of Scotland.

The General Register Office for Scotland base internal migration estimates on administrative data sets held by the NHS – ultimately these measure migrants who register with a GP, but cannot provide information on those who do not. International migrants are estimated using the International Passenger Survey (and distributed using NHS administrative data).

Ultimately there is no one data collection in the UK that directly measures the number of international migrants to or from Scotland. All data sources provide a piece of the picture – but not the whole. However, this is a situation that all statistical offices across the UK are seeking to improve (and an area in which we expect to make progress) in the future.

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