POPULATION AND MIGRATION STATISTICS COMMITTEE (SCOTLAND)

OPTIONS FOR THE DISTRIBUTION OF MIGRANTS

Introduction

This paper provides an overview of the investigation into how best to distribute migrants within Scotland, carried out by GROS in October 2007.

Origin & Destination of Foreign / Rest of UK Migrants (External Distribution of Migrants)

Currently, for in-migrants, GROS use the count & distribution of (non-Scotland) UK migrants derived from the NHSCR and the count of overseas migrants from the IPS, using the NHSCR distribution of foreign migrants. For out-migrants, the counts are again taken from the NHSCR (domestic) and IPS (foreign). The distribution used for UK out-migrants is the NHSCR , and for overseas migrants the system currently uses a combination of NHSCR out-migrants to abroad and the rest of the UK. These figures are available separately at health board level, although not routinely published. GROS aim to publish these figures on the GROS website in January 2007.

Migrants are then distributed between the Local Authorities within each Health Board using the CHI distribution, although at this stage both overseas and UK migrants are combined.

Internal Distribution of In-Migrants

It is possible through further analysis of the CHI to attach the three letter code indicating the origin / destination of the migrant (if outside Scotland) to each record. This code allows us to calculate separate distributions to and from Health Boards for England & Wales migrants; Northern Ireland migrants; Armed Forces and overseas migrants.

We propose altering the MYE and CHI process to include this information, to allow customers to know the numbers of different types of migrants at Local Authority level.

In-migrants are currently distributed to Health Board level using NHSCR data and to Local Authority level using CHI distributions. We are currently carrying out analysis of the CHI to understand the relationship between these two sources. In the longer term postcode details will be added to the NHSCR, it might be possible to amend the distribution of migrants to use the total number from the NHSCR and IPS, and to use the NHSCR to distribute to Health Boards and Local Authorities.

In their internal distribution of international in-migrants, ONS use the Labour Force Survey to assign IPS migrants to Government Office Regions, Scotland & Wales. ONS then distribute migrants to intermediate New Migrant Geographies (based on 2001 Census data) based on IPS responses. Further distribution to Local Authorities is based on Census data. It would not be possible to assign IPS migrants within Scotland based on their responses, because the sample size is too small, however, internal distribution could be based on the 2001 Census,

which would bring GROS more or less into line with the ONS method. (Similarly, the Labour Force Survey sample is too small to realistically assign migrants within Scotland).

However, it is debatable whether it is preferable using Census data from 6 years ago, rather then current NHSCR / CHI records to distribute migrants within Scotland.

Internal Distribution of Out-Migrants

Currently GORS use the NHSCR distribution of out-migrants (to the rest of the UK) to assign both international & national out-migrants to Local Authorities. The CHI is used to distribute out-migrants within Health Boards This is problematic because it is harder to record people who live Scotland on medical records, because it relies on people informing their GP that they are de-registering, which people tend not to do.

ONS again created New Migrant Geographies for out-migrants, based on the 2001 Census. Out-migrants are distributed to GORs, Scotland and Wales by IPS responses, then further assigned to New Migrant Geographies based on the IPS distribution smoothed over 3 years. Further distribution to English Local Authority level is carried out using a 'Propensity to Migrate' stepwise multiple regression model developed by ONS.

The 'Propensity to Migrate' model model consists of a number of socio-economic and demographic factors as explanatory variables to predict the likelihood of migration. These explanatory variables are selected using a statistical technique known as forward stepwise regression, which selected 5 variables out of 111 potential variables which could affect decisions to migrate. In brief, more people migrate from areas with high population densities and high levels of in-migration and less people migrate from areas with a high percentage of Black ethnic groups, lower socio-economics groupings and females aged 10 to 14.

GROS are planning to investigate applying the 'Propensity to Migrate' model to distribute out-migrants throughout Scotland. The variables which affect migration in Scotland may be different from those that affect out-migration in England, so GROS would need to repeat the stepwise regression to select explanatory variables and it is likely that the work be a significant undertaking.

Other sources of migration data

National Insurance Number (NINO) registrations contain information on the nationality of applicants and allows for the estimation of distributions of migrants by where they are working, assuming that they work in the same place that they applied for their NINO. GROS are planning to look at this data as something to quality assure internal distributions of in-migrants. Similarly the Worker Registration Scheme (WRS) contains data on migrants, where they are working and what sector they work in, again, data that could be used to quality assure in-migrant distributions. Neither dataset has any information on out-migrants and the WRS only applies to migrants from the EU Accession countries (excluding Cypress & Malta) known as the 'A8'.

Nick Wright, November 2007