Demographic Trends in Scotland: A Cause for Concern?

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1. Setting the scene: key demographic trends

The 2001 Census indicated that the Scottish population has declined by around 117,000 people to 5,062,000 over the last 20 years. Specific trends and areas of concern are detailed below:

Fertility
- The fertility rate in Scotland is below that required for the population to reproduce itself, (currently 1.48 births per woman compared with the required 2.1 per woman). In comparison, England has a fertility rate of an average of 1.64 births per woman.
- The birth rate has fallen by 21% since 1991 resulting in the number of births being increasingly exceeded by the death rate.
- Motherhood is being delayed. This is illustrated by the fall in births to women aged 20-24 between 1976-1980 and 1996-2000 which is almost matched by the increase in births to women aged 30-34.

Migration
- In 1998 Scotland experienced a net loss of around 3,000 migrants to the rest of the UK. Population projections by the General Register Office for Scotland (GRO) based on a new (lower) baseline, assume a net out-migration from Scotland of 1,000 a year. The revised assumption on migration reflects the findings of the 2001 Census, but is still very much lower than the levels of net migration loss experienced in the 1980s.
- Migration to Scotland is also an area of concern. Figures indicate that the majority of people emigrating to England are 15-34 year olds compared with Scotland where the majority of people coming in are over 45 years of age. This trend should be viewed alongside the net losses in younger people experienced in Scotland. This is likely to impact on the falling fertility rate in Scotland whilst influencing dependency ratios. One measure of dependency based on the number of pensioners per 1,000 people of working age indicates a rise from 290 to more than 310 by the year 2010.
- Within Scotland, there is also growing concern regarding net migration from the West to the East Coast. Population data suggests that Greater Glasgow has experienced a decline in population compared with the Lothians, Grampian and the Borders where there has been growth. The decline in relative terms is greatest in the Western Isles.

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1 Data from the 2001 Census - Office for National Statistics.
Possible implications
It has been argued that if current trends continue there will be less than five million people in Scotland by the end of the decade. This is an issue that cuts across reserved and devolved matters and has particular implications for the demand and supply of public services. Some examples of this are detailed below:

- Transport systems will have to adapt to changing demand due to East-West migration.
- Supply of school buildings and teachers will need to adapt to falling numbers of young people especially in some areas. For instance, the number of pupils in publicly funded primary schools is projected to fall by 19% over the next 10 years; the corresponding figure for secondary pupils is 13%.
- A shrinking supply of key workers could lead to increasing vacancies in certain occupations and inflationary pressures on wages.
- Scotland will not only have a declining but an ‘ageing population’. This may lead to a reduction in working-aged people to pay for and to provide services required by older people and others unable to work. For example, an ageing population may put further pressures on the NHS and have implications for the provision of free personal care.
- In addition to the changing age structure, the shifting geography of the population is also likely to have major implications for the provision and shape of services and the providers' ability to provide services which are equitable.

2. Overview of research and analytic work in this area
The following section provides a brief overview of relevant research and analysis, and key research centres in this area.

The Scottish Executive

Migration
- Research was conducted by the University of Dundee on behalf of the Scottish Office looking at the impact of migration in rural Scotland.
- In 1999 and 2000 the Scottish Household Survey asked people who had moved within the previous year where they had moved from (via their postcode). Following a request from Glasgow Council for data on migration in and out of Glasgow the data is currently being cleaned and coded. This should indicate people who have moved within Scotland but also those who have moved to Scotland from elsewhere. If the data is of a good quality, it may be added it to the main dataset.
- The Scottish Refugee Council are currently running a skills audit of refugees and asylum seekers in Glasgow on behalf of the Scottish Executive. This may give a policy steer on possible areas of work.
- There are plans in the longer-term for the Executive to develop a longitudinal study of refugees and other migrants. This may give an indication of why some people leave and some people stay. The Scottish Refugee Integration Forum has identified the need for statistical and tracking information on both a national and local level.

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3 Projected numbers of pupils have been estimated using information collected via the latest Pre-school and School Censuses, and population projections obtained from the General Register Office for Scotland.
Education and adult learning

- The Education Department is intending to take forward two main pieces of work involving demographics over the next few months, related to the demand and supply for the services provided by the Education Department. They are as follows:
  - To have a detailed look at what 'client' or target groups (e.g. different ages, needs etc.) there are and how they are likely to change over time. This will involve using the new census results as well as population projections.
  - To examine the impact of demographic change on the children's services workforce, with a particular emphasis on those areas where there are currently recruitment problems and/or where the public sector is trying to employ from a shrinking pool of potential employees.

The Department has identified the need to have some macro-economic/labour market scenarios (including migration) to draw from. The Policy Unit is currently considering whether they are best placed to take this central work forward.

- There is also ongoing work relating to teacher workforce planning by the Economists that will be influenced by demographics.

- ELLD are currently working on a review of research around motivation to learn and factors influencing engagement with learning. Parts of this will be of relevance to understanding the consequences of demographic change e.g. in relation to older learners.

Labour market issues

- Economists in ELLD:ASD have contributed to work in this area. Social research may be involved in developing the area further.

Infrastructure and planning

- Research which has a bearing upon housing and demographic issues is often progressed by Communities Scotland. HAAR highlighted the impact of population decline for housing and the economy as part of seeking research bids for 2003-04 but the proposal was not identified as a priority by policy colleagues. This may reflect the view that issues of housing supply and affordable housing are seen as being within the remit of the planners and Communities Scotland.

- There is a policy interest in areas of low demand for housing (although this seems to be as much a function of desirability as population decline) but this is being addressed through a Communities Scotland research project.

- The size and structure of the population will clearly affect the numbers of people eligible for SE programmes (most notably in HAAR: the central heating programme) although there is currently no research planned in this area.

- The Local Government Team is a major end user of demographic data and will be commissioning an update of a number of data sets relating to rural and urban settlement patterns, and population dispersion sourced from the 2001 census outputs.

- Planners are interested in the wider issues around household planning although this is very much in the early stages of analysis. Demographic change has been identified as a key area of analysis in developing the National Planning Framework.

Health / Community Care

- Manpower planning in the Health Service is underway. Although a clear research strategy to address workforce issues has not yet been formulated, they are likely to feature in other research priorities within the Health Department.
Work is currently underway to review the range and capacity of community care services over the next 5, 10 and 15 years (led by social work statistical colleagues) and includes a strategic review of the care home sector. There are implications for research in that it is possible that there will be a shift in attitudes to community care services and expectations of ageing as younger generations get older.

There is considerable interest in demographic issues throughout the Health Department with a number of divisions actively exploring analytical work to inform priority setting and policy development. In Service Policy and Planning Directorate, an urgent priority for analytical work is for economic evaluation of the provision of good quality community care services in the light of demographic trends.

**Policy Unit**
Various discussions have been underway within the Policy Unit regarding the issue of population change. Recently, the Unit submitted a paper to the First Minister outlining some of the issues in relation to enterprise and immigration. Furthermore, there are a number of initiatives underway which impact on this area as detailed below.

**Futures Work**
The Unit has been asked to provide two 'futures' papers, analysing existing trends and policies to develop a picture of how Scotland will look in the future.

- The first of these will describe 'Scotland in 2006' and is intended to inform long-term policy making by providing a description of key policy areas at the end of the current Spending Review period, based on current policies and economic and social trends.
- The second, 'Scotland in 2025' is intended to provide a context for the proposed National Planning Framework. The paper will analyse some of the key social and economic factors - for instance technological change or demographics - that will impact on Scotland in the next 20 years and seek to describe their likely impact on the way we will build and use land in Scotland in 2025.

This work stems from the 'futures work' undertaken by the Performance and Innovation Unit in the Cabinet office (now the Strategy Unit). This is discussed in a following section.

**Fresh Talent**
This initiative seeks to retain Scots and attract migrants into Scotland. Work is underway with Scottish Enterprise (see below).

**Relevant work outwith the Scottish Executive**

**Scottish Enterprise**
Scottish Enterprise have published research and a number of issues papers and guidance notes regarding population change in Scotland and the impact on the labour market. It is also currently supporting a programme of research investigating trends in migration flows and location decisions of highly skilled individuals in the Scottish economy. This programme is managed by the Scottish Enterprise, Future Skills Scotland and the Scottish Executive and has four stages as follows:

- A review of global research, policy and practice around the role of the attributes of a place in the location decisions of individuals. This has already been undertaken internally by Scottish Enterprise and is available.

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A secondary data-based analysis of Scotland’s migration flows highlighting the recent quantitative levels of these flows and the qualitative nature of these flows with a view to identifying key target groups. This stage is currently being commissioned.

Primary research with a relatively small group of intermediaries and other interested parties to help identify the key factors most likely to influence the location decisions of Highly Skilled Individuals in a Scottish context. This is currently out for tender – work to be completed mid May.

Using the outputs from the previous two phases, to undertake a relatively large-scale exploration of the extent and ways in which these factors influence location decisions. The output of this stage will include detailed proposals for public policy actions to address the findings of the research programme.

Highlands & Islands Enterprise (HIE)
HIE are considering research on in-migration to the Highlands and Islands and the impact of an ageing population.

Office for National Statistics (ONS)
The ONS is running a Labour Market and Demography Project. This holds data on the expected impact of the changing population structure on the labour market. The following issues are being addressed:

Demographic influences on population size focusing on:
- Past and future trends in the size and composition of the labour force (Summer 2002)
- Migration and its impact on the structure of the labour force in local areas (autumn 2002)

Demographic influences on propensity to work focusing on:
- Household and family influences on labour market supply (Autumn 2002)
- Factors influencing the over-50s’ decisions and abilities to work (Winter 2002)
- Early life-decisions among those aged 16-25 (Spring 2003).

Recently, a literature review was undertaken as part of the project looking at the implications of population ageing for the labour market.

The Home Office
A research study entitled ‘Migration: an economic and social analysis’ was produced by the Research, Development and Statistics Directorate of the Home Office with the assistance of the then Performance and Innovation Unit.

The Department for Work & Pensions (DWP)
A study was carried out recently looking at migrants into the UK as a whole based on 2001 data from the Labour Force Survey.

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6 Barham, C. Labour Market Trends, vol 110, no 3. ISSN: 1361-4819
7 Sylvia Dixon, Labour Market Division, Office for National Statistics.
8 Published as RDS Occasional Paper No.67 on 22 January 2001.
The Cabinet Office

The Cabinet Office launched the Strategic Challenges project as precursor to the Strategic Futures work. The aim was to identify some of the key challenges - both threats and opportunities - which the UK government was likely to encounter over the next 10 to 20 years. Demographics were identified of one of the six key forces driving change. The next step was to look at how the drivers of change and key trends might impact - in very broad terms - on government objectives. (See section on Policy Unit earlier.)

Academic research centres

Centre for Applied Population Research (CAPR), University of Dundee
Allan Findlay, Professor of Geography
The most significant funded research to be undertaken in 2000-01 was an ESRC funded project (£41k) awarded to Findlay (with Aileen Stockdale of the University of Aberdeen) to analyse English in-migration to Scottish cities. The centre has also launched a programme of collaborative research with health geographers at the University of St. Andrews to establish the Scottish Longitudinal Survey (SLS). This major research project will facilitate analysis of a wide range of health and population issues such as the determinants of occupational health and occupational mobility in Scotland. The project has been boosted by a further award of £620k by the Chief Scientists Office to allow a 5 percent sample to be the basis for the SLS.

School of Geography & Geosciences, University of St. Andrews
Paul Boyle, Professor
Professor Boyle is an expert in health geography, migration and methods for measuring population mixing. Responsibilities include the Longitudinal Studies Centre – Scotland and a number of ESRC funded projects on migration.

Simulating Social Policy in an Ageing Society (SAGE), London School of Economics, Kings College London and University of Southampton
The SAGE Research Group, funded by ESRC, examines social policy in an ageing society and is both inter-disciplinary and inter-institutional. Current research is focusing on the implications of the ageing population for a broad range of policies and will result in research outputs relevant to the public and private sectors, voluntary and academic organisations.

Oxford Population Project (OXPOP)
Oxford Population & Migration Group, Department of Social Policy and Social Work, University of Oxford
OXPOP is a comparative study of demographic trends in industrial populations and aims to create and analyse a database of demographic trends in industrial countries from the Second World War to the present.

Centre for Population Studies (CPS), Department of Epidemiology and Population Health, London School of Hygiene and Tropical Medicine
CPS is a research unit engaged in the measurement and explanation of population trends and in the evaluation of attempts to modify them. The Centre is active in research both on Britain and Europe and on the demography of developing countries.

10 The Cabinet Office - The Future and How To Think About It.
Institute for Employment Research, University of Warwick
Anne Green
Work on migration including mobility, desirability and cost benefit analysis.

ESRC
Although there is not a specific programme identified for demographics or population change, many of the themes identified include consideration of the impact of population trends on issues such as transport and mobility. They also have a theme looking at the lifecourse, the family and generations which poses questions such as ‘What are the consequences for individuals and society of a changing population, and what does it mean to be growing older today?’ Furthermore, there is a theme for scenario setting and policy interventions, which highlights the following questions:

- What are credible scenarios of future social and economic trends, and what are their implications for social stability and cohesion in the future?
- What are the strengths and weaknesses across policy instruments for social and welfare provision?
- What empirical and theoretical tools and techniques can social science provide to assist society and policymakers with the development and evaluation of effective policies?

Joseph Rowntree Foundation (JRF)
The JRF has published various papers regarding the impact on housing caused by migration tending to focus on migration from the North (Northern England and Scotland) to the South East.\textsuperscript{11} The organisation is currently undergoing a period of change and review and is not calling for papers at present and has not yet identified thematic priorities for 2003.

\textsuperscript{11} August 2000 - Ref 820 - The impact of migration on housing requirements. A report edited by Richard Bate, Richard Best and Alan Holmans brings together papers from distinguished contributors and looks at new data from the Office for National Statistics.
3. Research issues: possible areas for investigation

There are many research questions relating to the impact of population change on public services that have already been highlighted in the previous section. The following section details some of the broader questions regarding population trends that we may also wish to address.

Population trends
- Projections are based on the assumption that current trends will continue – this may not be the case. How can we best predict trends such as fertility rates and dependency ratios? Further work on projections modelling using different assumptions is required.
- To what extent is natural population decline – the excess of deaths over births - contributing to the overall population loss and the ageing of the population?
- It is assumed that increased qualifications and skills are directly equated with economic development – however there is not a clear causal relationship. Further investigation is required.
- How can we maintain the employability of older workers who wish to continue working? How can we ensure that their skills remain relevant?

Fertility rates
- We do not fully understand why the Scottish fertility rate is so low. Data suggests that it may reflect life choices since the lowest rates are in cities where house prices are high and dual-earning couples are common. Are there other factors involved? Do we think this pattern will change in the future and if so how?
- We know there in a delay in motherhood but we do not fully understand the wider impact of this delay. For example, does delayed motherhood mean that people are more likely to have less children and that the family is therefore ‘completed’ in a shorter time?
- How will changes in family formation impact upon the availability of informal care? What will be the capacity for self-resourcing one's own retirement?
- There is a need for detailed investigation as to the policy implications of population change. For example:
  - Tax incentives to encourage couples to have more children
  - Addressing ways of facilitating combining parenthood and full-time employment – better provision and improved culture around valuing parenthood.

Migration
- How much of a problem is net migration gain of older people? Further investigation is needed as to the balance between increased dependency and the positive impact that migration can have upon local economies.
- Further investigation is required to identify the factors that influence the decision to stay or the decision to leave Scotland?
- Do those who leave when young return when they are older? If they do return, at what stage does this happen and do they bring their children with them?
- Will our ageing society become a more polarised society?

Geographic variations
- Within the net population change what will the pattern, of growth and decline be at regional and local level, the implications for service provision and land use, and for resource allocation?