SCOTLAND'S POPULATION 2009

The Registrar General's Annual Review of Demographic Trends 155th Edition

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ANNUAL REPORT OF THE REGISTRAR GENERAL of BIRTHS, DEATHS AND MARRIAGES for SCOTLAND 2009

155th Edition

To Scottish Ministers

I am pleased to let you have my Annual Report for the year 2009, which will be laid before the Scottish Parliament pursuant to Section 1(4) of the Registration of Births, Deaths and Marriages (Scotland) Act 1965.

Duncan Macniven Registrar General for Scotland 6 August 2010

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Introduction

Scotland's economy was in recession from the summer of 2008 to the autumn of 2009. If the recession has had an effect on Scotland's total population, the figures in this report should make it clear because it covers the calendar year 2009.

There is actually little, if any, evidence that the recession has affected Scotland's total population. There were just under 1,000 fewer births in 2009 than in 2008 – but there were still 1,200 more births in 2009 than in 2007. The steady decline in the number of deaths continued. Almost 22,000 more people moved to Scotland than left it in 2008/2009, slightly more than in the previous year. This was the third-highest movement of people into Scotland since current records began 60 years ago.

So, despite the recession, people are finding Scotland an attractive place to live and to raise children. But there is another side to the story. While the number of deaths has continued to fall and life expectancy has increased in every local authority area, the life expectancy of men and women in Scotland is still lower than the life expectancy of people in the rest of the UK and the European Union (except the East European member states). And there are major inequalities of life expectancy within Scotland. For the average man in north and east Glasgow, life expectancy is eight years shorter than the average in neighbouring East Dunbartonshire. For women, the difference is around six years.

The next census, which will create a complete picture of Scotland's society, will provide important information that will help us to work out the reasons for the relatively poor life expectancy in Scotland. The Scottish Parliament has approved 27 March 2011 as the date of the 2011 Census, the first census since 2001. To mark both the 10-year milestone and the fifteenth census for which the Registrar General for Scotland has been responsible, the 'special subject' chapter of this year's report is a history of the census in Scotland. Scotland was the first part of Britain to carry out a census. This was done in the mid-1750s, and showed a population of 1,265,380. The first regular census was in 1801, introduced because of the effect of an increasing population on food production, immigration and colonisation. It set the population at 1,559,068. In 1861, William Pitt Dundas (the first Scottish Registrar General) took on responsibility for the census, and the General Register Office for Scotland has taken a census every decade since then (except in 1941, because of the Second World War).

Over that time, the census has become steadily more detailed and more valuable. Chapter 10 of this report tells of the changes in each census, up to 2001. We are well-prepared to carry out a highly accurate count of Scotland's population, and its social characteristics, next year.

Important points

Population

The estimated population of Scotland on 30 June 2009 was 5,194,000.

The population of Scotland grew by around 25,500 in the 12 months between 1 July 2008 and 30 June 2009, an increase of 0.5%.

The increase in the population in the 12 months between 1 July 2008 and 30 June 2009 was mainly due to:

- 21,700 more people coming to Scotland than leaving; and
- 4,585 more births than deaths.

The age of the population of Scotland was as follows.

- 18% of people were aged under 16.
- 63% of people were of working age.
- 20% of people were of pensionable age.

Scotland's population has been fairly stable over the past 50 years. It peaked at 5.24 million in 1974 before falling to 5.05 million in 2002. It then increased each year to reach 5.19 million in 2009. The increase has mainly been the result of more people moving to Scotland than leaving.

There are differences in the changes in the population across Scotland. In the 10 years from 1999 to 2009, the council areas which had the highest population increases and reductions were as follows.

- West Lothian up 10%
- East Lothian up 9%
- Perth and Kinross up 8%
- Inverclyde down 6%
- Eilean Siar, East Dunbartonshire and West Dunbartonshire down 4%

In the 10 years from 1999 to 2009, the population grew older. The number of children under 16 reduced by 8% and the number of people aged 75 and over increased by 14%.

Current projections (estimates for future years largely based on past trends) suggest that the population of Scotland will rise to 5.54 million by 2033 and that the population will age significantly, with the number of people aged 60 and over increasing by 50%, from 1.17 million to 1.75 million.

Migration (people moving into and out of the country)

Since the 1950s, more people have tended to leave Scotland than move here. However, since 2002, this has changed.

In the year to 30 June 2009, the number of people moving to Scotland from other parts of the UK, and out of Scotland to other parts of the UK were as follows.

- 45,400 people came to Scotland from the rest of the UK.
- 41,300 people left Scotland for other parts of the UK.

This migration of people increased the population by around 4,100 people.

In the year to 30 June 2009, the number of people moving to Scotland from overseas, and out of Scotland to go overseas were as follows.

- 42,700 people came to Scotland from overseas.
- 25,200 people left Scotland to go overseas.

This migration of people increased the population by around 17,500 people – a record high.

Most people moving to and from Scotland are young – between 16 and 34. As a result of people moving to and from the rest of the UK, Scotland's population was boosted for every broad age group. Moves to and from overseas countries meant that the numbers of people in every age group up to 35 increased.

Births

There were 59,046 births registered in Scotland in 2009.

There were 995 (2%) fewer births in 2009 than in 2008. The number of births had increased in each of the previous six years.

The average age of mothers has increased from 27.4 in 1991 to 29.4 in 2009. Similarly, the average age of fathers has increased from 30 in 1991 to 32.3 in 2009.

The percentage of babies born to unmarried couples has been rising steadily for several years. In 2009 it was slightly more than 50% for Scotland as a whole.

86% of mothers who gave birth in Scotland in 2009 were born in the UK, including 76% who were born in Scotland. 6% of mothers had been born in the European Union (EU), including 3.5% from the countries which joined the EU in 2004 (such as Poland).

For 14% of births in 2009 neither parent was born in Scotland (compared to 9% in 2003) and for 9% of births neither parent was born in the UK (compared to 3% in 2003).

Deaths

There were 53,856 deaths registered in Scotland in 2009.

The number of deaths each year has slowly reduced over the past 30 years. The total for 2009 was the lowest since 1855 (when civil registration was introduced).

The main causes of deaths were:

- cancer, which caused 15,187 deaths (28% of all deaths);
- ischaemic (coronary) heart disease, which caused 8,274 deaths (15% of all deaths);
- respiratory system diseases (such as pneumonia), which caused 7,125 of deaths (13% of all deaths); and
- cerebrovascular disease (stroke), which caused 4,906 deaths (9% of all deaths).

The percentage of deaths caused by coronary heart disease has fallen from 29% in 1981 to 15% in 2009, but the percentage of deaths caused by cancer has risen from 22% to 28%.

Death rates from cancer, coronary heart disease and stroke in Scotland are well above the rates for the other countries in the UK.

In 2009, there were 1,282 deaths from causes entirely related to alcohol. After a sharp rise in the 1990s, the number of deaths from these causes has reduced in the last few years.

There were 317 stillbirths and 235 infant deaths in 2009. Death rates for both have improved significantly. The rate of stillbirths has dropped from 13.1 for every 1,000 births (live births and stillbirths) in 1971 to 5.3 in 2009. The infant death rate fell from 19.9 for every 1,000 live births in 1971 to 4 in 2009.

Standardised mortality ratios compare the average death rate in Scotland to those in different areas of Scotland, taking into account differences in age. There are large differences across Scotland, ranging from Glasgow, which has a standardised mortality ratio that is 27% higher than the Scottish average, to East Dunbartonshire which is 23% below the Scottish average.

Life expectancy

Life expectancy in Scotland has improved greatly over the last 25 years, increasing from 69.1 years for men and 75.4 years for women born around 1981 to 75.3 years for men and 80.1 years for women born around 2008.

Despite recent improvements, Scottish men and women have poor life expectancy compared to most of the EU – about four years lower for men, and almost five years lower for women, when compared to the countries where life expectancy is highest.

Marriages and civil partnerships

There were 27,254 marriages in Scotland in 2009. This includes 6,664 marriages (24%) where neither the bride nor groom lived in Scotland, but does not include people living in Scotland who marry elsewhere.

For first marriages, the average age at which people marry has increased by around two and a half years in the last 10 years, to 32.5 years for men and 30.7 years for women.

Just over half of all marriages (52%) were civil ceremonies, carried out by a registrar – compared to just under one-third (31%) in 1971. Just under half of these civil ceremonies took place in registration offices. Other locations for civil ceremonies were:

- hotels, where 3,000 ceremonies took place;
- castles and other historic buildings, where 1,000 ceremonies took place; and
- ships and barges, where 130 ceremonies took place.

Most religious marriages (6,143) were carried out by Church of Scotland ministers, with clergy from the Roman Catholic Church carrying out 1,788 marriages. Celebrants from the Humanist Society of Scotland, authorised to carry out marriages since 2005, officiated at 1,544 marriages.

In 2009 there were 498 civil partnerships – 219 male couples and 279 female couples.

In 2009, there were 10,371 divorces and 24 dissolutions of civil partnerships (when a civil partnership is ended) in Scotland.

Adoptions

In 2009, there were 455 adoptions recorded in Scotland, 37 more than in 2008. The number of adoptions each year is around a quarter of what it used to be in the early 1970s.

Households and housing

In the middle of 2009, there were 2.34 million households in Scotland – around 300,000 more than in 1991.

The number of households has been increasing steadily but this growth has slowed over the last two years. Between 2008 and 2009, the increase in the number of households (13,200) was lower than in the last five years.

Projections suggest that by 2033 the number of households in Scotland will increase to 2.8 million, which is an average of 19,300 extra households each year.

Most of that expected increase in the number of households is the result of an ageing population and more people living alone or in smaller households, not an increase in the population.

Across Scotland in 2009, 2.9% of homes were empty and 1.4% were second homes, though there are wide differences across the country. There are more empty homes in more deprived areas, and more second homes in the remote rural areas.

Very Near The Truth – a brief history of the census In Scotland

- Scotland was the first part of Britain to take a full census of the population this was carried out by Reverend Alexander Webster in the mid-1750s, when he estimated the population at 1,265,380.
- The census as we know it today began in 1801, when the population of Scotland was 1,559,068.
- Since then, censuses have been carried out every 10 years (except in 1941, because of the Second World War).
- The census has been run separately in Scotland since 1861 with the questions and arrangements for collecting the information geared to Scottish needs and circumstances.
- The first question about Gaelic was added in the 1881 Census.
- By the 1901 Census, Scotland's population was 4.5 million.
- Machines have been used to help process the census statistics since the 1911 Census, and computers have been used since the 1961 Census.
- No census was taken in 1941 but the arrangements that had already been made for collecting the information were used to set up a national register for issuing identity cards when war broke out in September 1939.
- A question about ethnic group was added in the 1991 Census, and a voluntary question about religion in the 2001 Census.
- The 2001 Census was believed to be the most complete and reliable of any census in Scotland, showing that the population was 5,062, 011.

Chapter 1 - Population

The latest estimate of Scotland's population (on 30 June 2009) is 5,194,000 – the highest since 1979 and an increase of 25,500 people on the previous year. There are almost 140,000 more people in Scotland than in 2002, when the population hit its lowest level since just after the Second World War.

The recent increase in Scotland's population has been driven mostly by net in-migration although, recently, there have also been more births than deaths. In the twelve months to 30 June 2009, in-migration exceeded out-migration by 21,700. This included a net gain of around 4,100 from the rest of the UK and a net gain of around 17,500 from overseas (including asylum seekers). People joining and leaving the armed forces contributed a net gain of around 100. In the same period, there were 4,585 more births than deaths (59,331 births and 54,746 deaths), the number of births having risen by 131 and the number of deaths having fallen by 554 compared to the year to end June 2008.

The rise in Scotland's population in the last seven years, and projected changes over the next 2 decades described below, should be seen in the context of the relative stability of the population over the last 50 years, as shown in Figure 1.1. The population reached a peak of 5.24 million in 1974 before falling to 5.05 million in 2002 and then rising again in the last seven years.





Figure 1.2 shows the trends in natural change (births minus deaths) and migration. Between 1966 and 1974, both natural change and net out-migration fell dramatically, although the natural increase generally remained greater than net out-migration. This resulted in a growth in population up to 1974. From that point on, through the late 1970s and the 1980s, net out-migration was higher than the natural increase, causing the population to decline. In recent years the trend in natural change has reversed and Scotland has experienced record levels of net in-migration resulting in small increases in the population over each of the last seven years.



Figure 1.2 Natural change and net migration, 1951-2009

Age Structure

The age/sex composition is one of the most important aspects of the population, as changes in the number of men and women in different age groups will have different social and economic impacts. For example, increases in the elderly population are likely to place a greater demand on health and social services.

Figure 1.3 shows the age structure of the population in 2009. Eighteen per cent of the population was aged under 16 while 20 per cent was of pensionable age (60 and over for women and 65 and over for men) and the remaining 63 per cent was of working age (16-59 for women, 16-64 for men). Amongst older people, particularly those aged over 75, the higher number of females reflects the longer expectation of life for women, partly as a result of male mortality rates during the Second World War. The sharp peak at age 61, and the bigger bulge between the ages of around 35 and 50, are the result of the two baby booms of 1947 and the 1960s. The small bulge between 15 and 30 are the children of the baby boomers which is known as the echo effect.



Figure 1.3 Estimated population by age and sex, 30 June 2009

The changing age structure of Scotland's population over the last ten years is illustrated in Figure 1.4. During this period the population has increased by around 122,050 (2.4 per cent), from 5.07 million to 5.19 million. The ageing of the population is evident from the decrease in population aged under 16 (-8 per cent) and the increase of those aged 45-59 (+13 per cent), those aged 60-74 (+12 per cent) and those aged over 75 (+14 per cent).



Figure 1.4 The changing age structure of Scotland's population, 1999-2009

Changes within Scotland

The map at Figure 1.5 shows the percentage change in population between 1999 and 2009 for each Council area.

The Council area with the greatest fall in population was Inverclyde where the population declined by 5,090 (-6 per cent). West Lothian (+10.5 per cent), East Lothian (+8.7 per cent) and Perth & Kinross (+7.9 per cent) saw the greatest percentage increases, while the largest increase in absolute numbers was in City of Edinburgh (+30,470).



The relative importance of migration and natural change differs between areas. In some areas of population increase, such as West Lothian and Aberdeenshire, the gain is attributable both to migration and to natural increase. East Lothian and Stirling experienced a population increase because of in-migration combined with a near-zero natural change. In other areas, the population increase is due to in-migration, despite the number of deaths exceeding the number of births. These included Perth & Kinross, Scottish Borders, Highland and Orkney Islands.

Similarly, some areas of population decline, such as Inverclyde, Dundee City, West Dunbartonshire, East Dunbartonshire and Renfrewshire have experienced population decreases both from migration and natural change. In contrast, the main factor in the population decline of Shetland Islands and Aberdeen City is net out-migration. In other areas such as Argyll & Bute and North, East and South Ayrshire the population decline was mainly attributable to more deaths than births. This analysis is shown in Table 1.1, which compares percentage change in population due to natural change and migration across the Council areas.

	Natural change ¹	Net civilian migration and other changes ¹	Percentage Population change ^{1,2}
SCOTLAND	-0.4	2.8	2.4
Council areas			
Inverclyde	-2.6	-3.4	-6.0
Eilean Siar	-4.8	1.0	-3.8
West Dunbartonshire	-1.2	-2.5	-3.7
East Dunbartonshire	-0.3	-3.3	-3.7
Dundee City	-1.3	-1.8	-3.1
Renfrewshire	-0.7	-1.8	-2.6
Argyll & Bute	-3.9	2.1	-1.7
Shetland Islands	1.9	-3.2	-1.3
South Ayrshire	-3.6	2.3	-1.2
North Ayrshire	-1.5	0.3	-1.2
Aberdeen City	0.2	-0.6	-0.4
East Ayrshire	-1.3	1.1	-0.3
Dumfries & Galloway	-2.9	3.1	0.2
Midlothian	0.9	-0.6	0.2
Angus	-1.9	2.5	0.6
East Renfrewshire	0.5	0.3	0.8
Glasgow City	-0.9	1.9	0.9
Moray	-0.5	1.4	1.0
North Lanarkshire	1.3	0.0	1.3
South Lanarkshire	-0.1	2.8	2.8
Orkney Islands	-1.9	4.7	2.8
Stirling	-0.1	4.0	3.9
Fife	-0.1	4.9	4.7
Clackmannanshire	0.5	4.2	4.8
Highland	-0.8	6.2	5.4
Falkirk	0.4	5.0	5.5
Scottish Borders	-2.2	8.7	6.5
Edinburgh, City of	0.7	6.1	6.8
Aberdeenshire	1.5	5.6	7.2
Perth & Kinross	-1.8	9.7	7.9
East Lothian	-0.1	8.8	8.7
West Lothian	4.2	6.3	10.5

Table 1.1 Components of population change for Council areas: 1999-2009

¹ The underlying data used to produce these figures can be found in Table 7

of the 'Mid-2009 Population Estimates Scotland' publication.

² Ordered by population change.

Projected population

The latest projections of Scotland's future population are based on the estimate of Scotland's population in June 2008. The projections, based on existing trends and making no allowance for the future impact of government policies and other factors, show the total population of Scotland rising from 5.17 million in 2008 to 5.54 million in 2033 (Figure 1.1). Longer term projections show the population peaking at around 5.57 million in the mid 2040s.

Until around 2026, natural change and migration both act to increase the size of the population as the number of births exceeds the number of deaths and there is net inmigration. After that point, the number of deaths exceeds the number of births, a consequence of the ageing of the population whilst the net migration into Scotland continues. Figure 1.6 shows the historical and projected future trends of births and deaths in Scotland.



Figure 1.6 Births and deaths, actual and projected, Scotland, 1951-2033

² 2008-based mid-year projections.

Between 2008 and 2033, Scotland's population is projected to age markedly. As shown in **Figure 1.7**, the number of children aged under 16 is projected to decrease by around 2 per cent, from 0.91 million to 0.90 million. The number of people aged 60 and over is projected to rise by 50 per cent, from 1.17 million to 1.75 million.





'Dependency ratios' are the number of dependants - children aged under 16 and people of pensionable age - per 1,000 working age population. Figure 1.8, which takes account of the increase in the pensionable age for both men and women*, shows little change in these ratios over the next 15-20 years, but a fairly rapid increase in the pension age population relative to the working age population in subsequent years.





As demographic behaviour is uncertain, a number of variant projections of the future population have been calculated, based on alternative assumptions of future fertility, mortality and migration, in addition to the 'principal projection' on which the previous paragraphs are based. The variant projections give users an indication of this uncertainty. They illustrate plausible alternative scenarios, rather than representing upper or lower limits of future demographic behaviour. These variant projections, and the assumptions used, can be found on the Office for National Statistics website: http://www.statistics.gov.uk/StatBase?Product.asp?vlnk=8519.

^{*} Pensionable age is 65 for men, 60 for women until 2010; between 2010 and 2020 pensionable age for women rises to 65. Between 2024 and 2026 the pensionable age for both men and women increases to 66 and changes again, in two further steps, to 68 by 2046.

Scotland's position within Europe

The population of most of the countries in Europe is projected to increase over the next few years. Scotland's population is projected to rise by 7.3 per cent between 2008 and 2033. The population of Europe (EU-27) is projected to increase by 5.1 per cent during this period. The rest of the UK, and certain countries such as Ireland, are projected to have much bigger increases. However Germany, and a number of Eastern European countries, are projecting a population decline as **Figure 1.9** shows.



Figure 1.9 Projected percentage population change in selected European countries 2008-2033

Source: ONS (UK and constituent countries) and Eurostat projections are 2008 based so the 2008 population estimates have been compared to the projected population for 2033 for these countries.

Scotland is not alone in having an ageing population. The pattern of change over the last twenty years, and the projected change in the age distribution, is similar to that of other countries in the UK and Europe, although the rate of change varies.

Chapter 2 - Births

Numbers

59,046 births were registered in Scotland in 2009, 995 (1.7 per cent) fewer than in 2008. This fall followed six consecutive annual increases in the number of births. The total in 2009 was 1,265 (2 per cent) higher than in 2007. However, it was still well below the most recent peak of over 100,000 per year in the early 1960s, and the level of around 65-70,000 per year between the mid-1970s and the early 1990s, as Figure 2.1 shows.





The proportion of births to unmarried parents (including births registered solely in the mother's name) has continued to rise, reaching 50.3 per cent in 2009 compared to 41.2 per cent ten years earlier and 26.0 per cent in 1989. However, the proportion of births registered solely in the mother's name was around 6-7 per cent in the 1980s and 1990s, falling over the past decade to 5.4 per cent in 2009, suggesting that the increase in births to unmarried parents has been in babies born to unmarried partners who are in a stable relationship.

Fertility Rates

The simplest fertility rate is the crude birth rate which is defined as the number of live births per 1,000 total population. Appendix 1 Table 1 on page 108 shows that in 2009 the crude birth rate for Scotland stood at 11.4 compared with around 18 forty years ago. Because it takes no account of the age/sex structure of the population, the crude birth rate has only limited value (e.g. for giving rough comparisons between areas with broadly similar age/sex structures). Appendix 1 Tables 2 and 3 show crude birth rates for

administrative areas in Scotland and selected European countries. Appendix 1 Table 2 also gives standardised birth rates for the administrative areas of Scotland: these adjusted birth rates take account of the population structures in the different areas.

A better approach is to consider the general fertility rate (GFR) which is based on the numbers of women of childbearing age. Figure 2.2 shows the general fertility rate (births per 1,000 females aged 15-44), along with the number of women aged 15-44. During the 'baby boom' of the 1960s, the GFR reached 99.5 (in 1962). It then fell sharply to around 60 during the late 1970s and 1980s before declining more slowly during the 1990s, eventually dipping below 50 at the start of the 21st century. It then rose slightly over the next few years to 57.2 in 2008 but fell to 56.6 in 2009. Interestingly, the female population aged 15-44 was relatively low during the 1980s was in part associated with the increasing numbers of women born in the 1950s and 1960s, passing through their childbearing years.





A more detailed picture is given by the age specific fertility rates (ASFRs) by mother's age, in five-year age groups, in Figure 2.3. This shows many significant age-related features of the pattern of childbearing over the last fifty years. The key point is that, as well as choosing to have fewer babies, women are also choosing to have them later in life. Other points of interest are:

- The 'baby boom' of the 1960s was mostly due to increased birth rates of women in their twenties.
- Since the early 1960s, women in their twenties have experienced a dramatic fall in fertility. For women aged 20-24 the fertility rate has fallen by around two-thirds, and for those aged 25-29 it fell by half.
- The rate for 15-19 year olds fell by around one-third during the 1970s and remained around 30 births per 1,000 women for the following twenty years. It has fallen to 25 births per 1,000 women over the past decade.
- Fertility rates for women aged 30 and above have gradually increased over the last thirty years. In particular, the rate for 30-34 year olds overtook that of 25-29 year olds in 2002 and now stands at 104 births per 1,000 women.
- Despite the recent increases, rates for women aged over 30 are still generally slightly lower than they were in the 1950s and 1960s.
- All the rates except that for teenagers showed a slight rise in recent years, until most of them fell in 2009.



Figure 2.3 Live births per 1,000 women, by age of mother, Scotland, 1951-2009

Since the mid-1970s, there has been a trend towards having children at older ages. The percentage of births to mothers aged under 20 fell from about 11 per cent (on average) between 1976 and 1980, and around 8 per cent in 1991-95, to under 7 per cent in 2009. Mothers aged 20-24 accounted for roughly a third of all births in 1976-1980, about 22 per

cent in 1991-95, and 19 per cent in 2009. The percentage of births to mothers aged 25-29 has also fallen, from around 35 per cent in 1976-80 and about 36 per cent in 1991-95, to 27 per cent in 2009. As a result, women aged over 30 accounted for nearly half of all births in 2009; 27 per cent were to mothers aged 30-34, 16 per cent were to 35-39 year olds and 4 per cent were to women aged 40 and over. These figures are all above the levels shown in 1976-80 and 1991-95.

Figure 2.4 further illustrates the ageing pattern of fertility by showing detailed ASFRs for selected years: 1951, 1964 (peak number of births), 1977 (end of steep decline), 1991 recent peak) and 2009. Though the levels differed considerably, the age patterns of fertility for 1951, 1964 and 1977 were roughly the same. However, the age distribution for 1991 shows a distinctly older peak and that for 2009 reveals a further reduction in fertility of women in their twenties, mirrored by an increase for women in their thirties, compared with 1977 and 1991.

The trend towards later childbearing is underlined by changes in the average age of mothers for all births. This was 29.4 in 2009, compared with 27.4 in 1991, 26.1 in 1977, and 27.4 in 1964. Similarly, the average age of fathers has increased to 32.3 in 2009 compared with 30.0 in 1991 and 28.6 in 1977. These figures exclude births registered in the mother's name only, where the father's details were not provided.



Figure 2.4 Live births per 1,000 women, by age, selected years

The total fertility rate (TFR) is a commonly used summary measure of fertility levels calculated by summing the age specific rates for a single year. It gives the average number of children that a group of women would expect to have if they experienced the observed ASFRs in each of their childbearing years. For a population to replace itself, the TFR needs to be around 2.1.

The TFR for Scotland since 1951 is plotted in Figure 2.5. Not surprisingly, it follows the same general pattern as the GFR described above. It rose to 3.09 in 1964 before dropping sharply to 1.70 in 1977. Since then, with a few minor fluctuations, it fell more slowly to the 2002 rate of 1.48 before increasing to 1.62 in 2005 and 1.80 in 2008 – its highest level for 26 years. In 2009 the TFR was 1.77.



Figure 2.5 Total fertility rate, Scotland, 1951-2009

Though widely used, in part because it is relatively easy to calculate, the TFR has serious deficiencies as it is based on only one year's observations. For example, when women are delaying childbearing, as they have been in Scotland, the TFR is likely to underestimate the number of children women will eventually have.

A more satisfactory measure is average completed family size. Figure 2.6 shows the completed family size (or cumulative cohort fertility) by age for women born in selected years. Those born in 1951 had attained an average completed family size of 2.03 by the time they reached 45, whereas for those born in 1956 and 1961 the figures were 1.93 and 1.87 respectively. The figure also permits the comparison of family size at selected ages for the various cohorts as they pass through the childbearing ages. Of crucial importance is the extent to which the later cohorts are falling behind in family building. For example, by age 30 the cumulative childbearing of the 1976 cohort was about 0.5 lower than that of the 1956 cohort. The 1981 cohort are the first in decades to show a higher fertility rate than the cohort before them. Whilst the increasing fertility rates of those aged over 30 may lead to further catching-up, it is highly unlikely that this will increase the average completed family size to the levels attained as recently as the cohorts born in the 1960s.



Figure 2.6 Cumulative cohort fertility rate for selected birth cohorts, Scotland

Age

Since the early 1980s, Scotland's fertility has been lower than fertility in the other parts of the United Kingdom. Figure 2.7 compares the TFRs for England, Wales, and Northern Ireland since 1971 with those for Scotland. Until the late 1970s, Scotland's TFR was slightly higher than that for England and Wales. However, since the early 1980s, Scotland's TFR has dropped steadily below the levels for England and Wales. In 1971, the TFR for Northern Ireland was markedly higher than for the other three countries. But since then the differential has been significantly reduced. The recent rise in fertility levels in Scotland has been paralleled elsewhere in the UK as has the downturn in 2009, except in England where the TFR remained at the 2008 level.



Figure 2.7 Total fertility rates, UK countries, 1971-2009

Country of birth of parents

86 per cent of births in 2009 were to mothers who had been born in the UK, including 76 per cent to women who were born in Scotland. A further 6 per cent of mothers had been born elsewhere in the European Union, including 3.5 per cent from the countries which joined the EU in 2004 (like Poland). Commonwealth countries were the birthplace of 5 per cent of mothers including 2 per cent from the Indian sub-continent. In the cases where the father's country of birth was known, 87 per cent had been born in the UK, including 75 per cent who were born in Scotland.

Considering only births for which both the mother's and the father's countries of birth were known, in 14 per cent of births in 2009 neither parent was born in Scotland and in 9 per cent of births neither was born in the UK. These figures compare to 9 per cent and 3 per cent respectively in 2003. The numbers of births to parents from EU and non-EU countries have both increased over this period.

Chapter 3 - Deaths

Numbers

53,856 deaths were registered in Scotland in 2009. This was 1,844 (3.3 per cent) fewer than in 2008, and was the lowest total recorded since the introduction of civil registration in 1855.

Figure 2.1 on page 25 shows that from 1951 up to the early 1990s the annual number of deaths remained relatively stable at about 60-65,000 a year. The total then declined slowly to just under 55,100 in 2006 which, until 2009, had been the lowest annual total recorded.

Causes of death

Table 3.1 shows major causes of deaths, by age group. In 2009 more than half of all deaths were due to the so-called 'three big killers'. There were 15,187 deaths from cancer (28 per cent of all deaths), 8,274 deaths from ischaemic (coronary) heart disease (15 per cent of all deaths) and 4,906 deaths from cerebrovascular disease (stroke) (9 per cent of all deaths).

Since 1980, the total number of deaths from these causes has reduced, as shown in Table 3.2, falling from 65 per cent of all deaths during 1980-82 and 1990-92, to 58 per cent during 2000-02 and to 53 per cent in 2009. The proportion of deaths caused by ischaemic heart disease has fallen from 29 per cent in 1980-82 to 15 per cent in 2009, and cerebrovascular disease declined from 14 per cent to 9 per cent. However, the number of deaths from cancer has increased, and as a proportion of all deaths has risen from 22 per cent to 28 per cent.

Death rates, by sex, for some of the most common causes of death are shown in Table 3.3.

Cancer

Of the 15,187 deaths from cancer in 2009, cancer of the trachea, bronchus and lung was the most common type, accounting for over a quarter (27 per cent) of all cancer deaths.

The next most frequent type of cancer death was bowel for men (836 deaths, of which 47 per cent were aged 75 and over) and breast for women (1,002 deaths, of which 43 per cent were aged 75 and over). Death rates for these two causes have been relatively stable in recent years. Cancers of the lymphoid, haematopoietic and related tissue caused 986 deaths and prostate cancer caused 790 deaths.

Over the last 25 years or so, male death rates from lung cancer have fallen by more than a quarter (from 119 per 100,000 population in 1980-82 to 87 in 2009). By contrast, the rates for women, though still lower than those for men, have increased by nearly 80 per cent (from 41 per 100,000 population in 1980-82 to 73 in 2009).

Table 3.1 The most common¹ causes of death, Scotland, 2009

Persons	appe IIA	0-14	15-34	35-44	45-54	55-64	65-74	75+
	15 197	10	1 J-J-	33-44 256	+J-J+	00-0 4 0.277	4 227	7 220
Trachoa, branchup and lung (C22-24)	13,107	19	00	200	104	2,317	4,227	1,529
Powel (C19, 21)	4,147	-	-	40	194	229	1,304	1,020
Broost (CE0)	1,578	-	0	Г/ БЛ	9J 115	107	204	441
Lymphoid beometencictic ate (CS1.06)	1,010	-	10	17	115	107	204	504
Lymphold, haematopoletic etc (Co1-96)	900	5 4	10		40	120	244	334
Officially tract (C64-68)	821	1	-	0	39	95	214	400
Desophagus (C15)	746	-	2	4	54	161	210	315
Prostate (C61)	790	-	-	-	8	54	196	532
Pancreas (C25)	691	-	-	9	40	104	197	341
Stomach (C16)	535	-	1	12	29	67	145	281
Other cancers (e.g. bladder, liver, ovary)	3,883	13	58	91	272	636	1037	1,776
Ischaemic heart disease (120-25)	8,274	-	16	109	409	865	1,628	5,247
Respiratory system diseases (J00-99)	7,125	16	31	56	153	487	1,215	5,167
Cereberovascular disease (I60-69)	4,906	1	8	51	119	239	626	3,862
Mental + behavioural disorders (F00-99)	3,327	-	221	200	126	137	198	2,445
Diseases of the digestive system (K00-93)	3,006	1	45	173	367	488	569	1,363
Diseases of the nervous system (G00-99)	1,652	15	31	37	85	138	298	1048
Accidents (V01-X59,Y85-86)	1,332	21	183	114	117	113	142	642
Diseases of the genitourinary system (N00-99)	1,269	-	2	12	17	45	143	1050
Endocrine, nutritional and metabolic diseases (E00-90)	873	7	33	22	55	94	182	480
Certain infectious and parasitic diseases (A00-B99)	838	13	11	25	47	69	147	526
Males		0-14	15-34	35-11	45-54	55-64	65-74	75+
	7 721	7	1 5-5 -	104	417	1 296	2 2/1	2 5 / 1
Trachea, bronchus and lung (C33-34)	2 196	'		24	102	407	730	0,041
Powel (C19, 21)	2,190	-	-	10	102	407	240	324
Broast (C50)	030	-	4	10	45	150	240	393
Lymphoid baematopoietic etc. (C81-96)	553	-	- 5	1/	32	- 75	153	271
Lirinary tract (C64-68)	402	1	-	14	23	63	1/7	254
Oesonbagus (C15)	492 507			7	25 45	128	147	18/
Prostate (C61)	790	_	_	-	-3	54	106	532
Pancreas (C25)	309	_		-	14	52	130	120
Stomach (C16)	303	-	-	-	14	19	00	123
Other encore (e.g. bledder, liver)	1 717	-	-	26	14	40	55	604
lashaamia haart diasaas (120.25)	1,717	3	20	30	134	323	1 000	094
Beenington earl disease (120-25)	4,600	- 7	9	83	319	002	1,088	2,449
Cereberevessuler diseases (JOO-99)	3,272	1	20	20	79	200	2007	2,213
Cereberovascular disease (160-69)	1,841	1	C	29	58	132	328	1,200
Niental + benavioural disorders (F00-99)	1,303	-	164	152	90	88	120	689
Diseases of the digestive system (K00-93)	1,421	1	28	109	231	294	293	465
Diseases of the nervous system (G00-99)	748	5	18	20	47	78	163	417
Accidents (VU1-X59,Y85-86)	744	15	153	90	85	11	85	239
Diseases of the genitourinary system (NOU-99)	514	-	1	6	9	24	76	398
Endocrine, nutritional and metabolic diseases (E00-90)	427	4	17	15	30	55	109	197
Certain infectious and parasitic diseases (A00-B99)	383	1	8	18	28	44	()	201
Females	All ages	0-14	15-34	35-44	45-54	55-64	65-74	75+
All cancers (C00-97)	7,456	12	50	152	477	1,091	1,886	3,788
Trachea, bronchus and lung (C33-34)	1,951	-	-	22	92	310	625	902
Bowel (C18-21)	742	-	1	7	50	92	168	424
Breast (C50)	1,002	-	9	53	115	187	203	435
Lymphoid, haematopoietic etc (C81-96)	433	2	5	3	16	53	91	263
Urinary tract (C64-68)	329	-	-	2	16	32	67	212
Oesophagus (C15)	239	-	2	1	9	33	63	131
Pancreas (C25)	382	-	-	5	26	52	87	212
Stomach (C16)	212	-	1	4	15	19	46	127
Other cancers (e.g. bladder, liver, ovary)	2.166	10	32	55	138	313	536	1082
Ischaemic heart disease (120-25)	3.674	-	7	26	90	213	540	2.798
Respiratory system diseases (J00-99)	3.853	9	11	30	74	227	548	2.954
Cereberovascular disease (160-69)	3.065	-	3	22	61	107	298	2.574
Mental + behavioural disorders (F00-99)	2.024	-	57	48	36	49	78	1,756
Diseases of the digestive system (K00-93)	1,585	-	17	64	136	194	276	898
Diseases of the nervous system (G00-99)	904	10	13	17	38	60	135	631
Accidents (V01-X59,Y85-86)	588	6	30	24	32	36	57	403
Diseases of the genitourinary system (N00-99)	755	-	1	6	8	21	67	652
Endocrine, nutritional and metabolic diseases (E00-90)	446	3	16	7	25	39	73	283
Certain infectious and parasitic diseases (A00-B99)	455	6	3	7	19	25	70	325

¹ The causes are listed in descending order of their total numbers of deaths. International Classification of Diseases codes (ICD10) are also shown.

Table 3.2 Number of deaths from selected causes, by sex, 1980-2009

	Car	ncer	lschaen dise	nic heart ease	Cerebro dise	vascular ease	Total deaths from these causes		n these	These causes as a % of all deaths	All deaths
Year	Males	Females	Males	Females	Males	Females	Males	Females	Persons	Persons	Persons
1980-82 ¹	7,269	6,634	10,173	8,150	3,470	5,638	20,912	20,422	41,334	65%	64,050
1990-92 ¹	7,664	7,324	8,964	7,846	2,913	5,029	19,541	20,199	39,740	65%	61,168
2000-02 ¹	7,674	7,394	6,342	5,664	2,465	4,250	16,481	17,308	33,789	58%	57,761
2009	7,731	7,456	4,600	3,674	1,841	3,065	14,172	14,195	28,367	53%	53,856

¹ Average over 3 year period.

Table 3.3 Death rates from selected causes, by sex, Scotland, 1980-2009

Males - rates per 100,000 population									
		Cancer							
Year	All types	Trachea, bronchus and lung	Prostate	Ischaemic heart disease	Cerebrovascular disease				
1980-82 ¹	291	119	19	408	139				
1990-92 ¹	314	111	27	367	119				
2000-02 ¹	321	93	32	261	101				
2009	307	87	31	183	73				

Females - rates per 100,000 population

		Cancer			
		Trachea,			
		bronchus and		Ischaemic	Cerebrovascular
	All types	lung	Breast	heart disease	disease
1980-82 ¹	247	41	45	304	210
1990-92 ¹	278	57	48	297	191
2000-02 ¹	288	64	43	216	162
2009	278	73	37	137	114

¹ Average over 3 year period.

Heart disease and stroke

Table 3.3 shows that, in contrast to the rises for cancer, death rates for ischaemic heart disease (coronary heart disease) and cerebrovascular disease (stroke) have significantly declined. Between 1980-82 and 2009, rates for males had fallen by 55 per cent for ischaemic heart disease and 47 per cent for stroke, compared with reductions of 55 and 46 per cent respectively for females.

Some other major causes of deaths

Other major causes of deaths registered in 2009 included:

- respiratory system diseases (e.g. pneumonia) 7,125 deaths, or 13 per cent;
- mental and behavioural disorders (e.g. due to alcohol or drugs) 3,327 deaths, or 6 per cent;
- diseases of the digestive system (e.g. chronic liver disease) 3,006 deaths, or 6 per cent;
- diseases of the nervous system (e.g. Alzheimer's disease) 1,652 deaths, or 3 per cent;
- accidents (e.g. falls, transport accidents) 1,332 deaths, or 2 per cent;
- diseases of the genitourinary system (e.g. renal failure) 1,269 deaths, or 2 per cent;
- endocrine, nutritional and metabolic diseases (e.g. diabetes) 873 deaths, or 2 per cent;
- certain infectious and parasitic diseases (e.g. septicaemia) 838 deaths, or 2 per cent.

Alcohol-related deaths

As well as alcoholic liver disease, there are numerous causes of death that are considered to be 'alcohol-related'. The main additional category is 'mental and behavioural disorders due to use of alcohol'. There are several other causes that are specifically alcohol related (e.g. alcoholic pancreatitis) as well as some (e.g. oesophageal cancer) where alcohol consumption is only responsible for a proportion of deaths. Following wide consultation, the Office for National Statistics (ONS) proposed a selection of diseases to be used for high-level public health monitoring of alcohol-related deaths. This includes only the causes of death which are regarded as most directly due to alcohol consumption and for which figures can be obtained from the death registration statistics.

On the basis of that definition, there were 1,282 alcohol related deaths in 2009. Figure 3.1 shows that the numbers of alcohol-related deaths for both sexes were relatively stable during the 1980s, but that there were significant increases, particularly for men, during the 1990s and early 2000s. Further analysis of the data shows that the number of deaths generally rose in all age groups, with the largest increases being among those aged 45-59. However, in recent years, the numbers of male deaths have been falling and female deaths appear to have stabilised.

The definition used to produce these figures does not include every kind of alcohol-related death. For example, it does not include deaths as a result of road accidents, falls, fires, suicide or violence involving people who had been drinking, or from some medical conditions which are considered partly attributable to alcohol.

Further information about the definition, and a more detailed breakdown of the numbers of alcohol-related deaths, are available from the GROS website, at: http://www.gro-scotland.gov.uk/statistics/deaths/alcohol-related-deaths



Figure 3.1 Alcohol-related deaths, Scotland, 1980-2009
Probable suicides

In 2009, deaths which, at the time when the data were finalised, GROS had been told were from intentional self-harm numbered 568 (429 males and 139 females). To allow for any under-recording of suicides, it is conventional to combine deaths classified, at that time, as 'due to events of undetermined intent' with those for 'intentional self-harm', as most of the former are believed to be suicides - so these are the numbers of 'probable suicides'. The total number of deaths classified to these two groups in 2009 was 746 - a reduction of 97 on the 843 deaths in 2008 and of 92 on the 838 deaths in 2007.

For men, the most frequent cause of these deaths was hanging, strangulation and suffocation, whereas for women it was poisoning. Further information about the numbers of probable suicides is available from the GROS website, at: http://www.gro-scotland.gov.uk/statistics/deaths/suicides

GROS publishes a wide range of other statistics on causes of death. In some cases, the figures are subject to caveats, for example because of the complexity of the definitions. They are available from the relevant parts of the GROS website (which include some background information on the basis of the statistics):

- drug-related deaths: http://www.gro-scotland.gov.uk/statistics/publications-and-data/drug-related-deaths;
- deaths involving healthcare associated infections (Clostridium difficile and MRSA): http://www.gro-scotland.gov.uk/statistics/deaths/clostridium-difficile-deaths http://www.gro-scotland.gov.uk/statistics/deaths/mrsa-deaths;
- increased winter mortality: http://www.gro-scotland.gov.uk/statistics/publications-and-data/increased-wintermortality

Main causes of death by age and sex

The main causes of death vary in frequency by age and sex. Accidents were the largest single cause amongst boys aged 1-14, followed by cancer and respiratory diseases. For girls aged 1-14, cancer was the most common cause, followed by diseases of the nervous system.

For males aged 15-34, the largest cause was suicide (intentional self-harm plus events of undetermined intent) followed by mental disorders (almost entirely associated with drug and alcohol abuse) and accidents. For females in this age group, mental disorders was the largest category. Suicide and cancer were the next most common causes.

Mental disorders was the most frequent cause of deaths for males aged 35-44, followed by suicide. For women aged 35-44, cancer was the main cause.

For both sexes and all age groups between 45 and 84, cancer was the main cause of death.

Mortality by age

The average age at death has increased steadily over the past thirty years. Figure 3.2 shows that the average ages at death for cancer, heart disease and stroke have generally increased in line with the average for all deaths.



Figure 3.2 Average age at death, selected causes, Scotland, 1978-2009

About 60 per cent of deaths in 2009 were of people aged 75 and over, and a further 19 per cent were between the ages of 65 and 74.

The relative stability in the total number of deaths over recent years masks significant reductions in age-specific mortality. Figure 3.3 shows, for both men and women, selected age-specific mortality rates over the last quarter of a century relative to the 1981 rates. The three age groups shown (45-64, 65-74 and 75 and over) account for around 95 per cent of all deaths.

At all these ages, there have been greater improvements in male than in female mortality. In the 45-64 age group, the death rates for men and women dropped by 50 per cent and 44 per cent respectively. In the 65-74 age group, males showed an improvement of 49 per cent compared to 43 per cent for females. The greatest differential is in the 75 plus age group, where male mortality has fallen by 33 per cent compared to only 19 per cent for females. These changes have narrowed the difference between female and (traditionally higher) male mortality.



Figure 3.3 Age specific mortality rates as a proportion of 1981 rate, 1981-2009



Geographical variations in mortality levels

Standardised mortality ratios (SMRs), which compare local death rates with death rates in Scotland as a whole, taking account of the different population structure of each area, are shown in Figure 3.4. Five of the 32 Scottish Council areas have a standardised mortality ratio that is more than 10 per cent higher than the Scottish value of 100. These are all in West Central Scotland. The worst, Glasgow City, is 27 per cent higher than the Scottish average. At the other end of the scale, 7 of the 32 Council areas have a standardised mortality ratio that is more than 10 per cent lower than the Scottish average. The lowest was East Dunbartonshire which was 23 per cent below (or better than) the Scottish average.





© Crown copyright 2010 All rights reserved General Register Office for Scotland License number: 100 18879 2010 Similarly, standardised mortality ratios can be calculated for each of the different parts of the United Kingdom, and compared with the overall UK figure. The standardised mortality ratio for Scotland is about one-sixth (17 per cent) higher than the UK figure.

Using 2008 data, the latest available, Figure 3.5 compares the death rates for the constituent countries of the UK for selected causes after adjusting for differences in age structure, by applying the European Standard Population age structure. (The results are on a different basis from those of previous reports which used the UK population age structure as the standard.) The Scottish rates for cancer, ischaemic heart disease, and cerebrovascular disease (stroke) are well above the rates for the other countries of the United Kingdom, for both men and women.



Figure 3.5 Age-adjusted mortality rates, by selected cause and sex, 2008



Appendix 1, Table 3 on page 110 shows the death rate for each of the European Union member states, and for some other countries in Europe. These are so-called "crude" death rates. They are calculated by expressing the number of deaths per thousand population. As a result, they do not take account of differences in the sex and age structures of the countries' populations. All else being equal, a country with an unusually high proportion of its population in the younger age groups could have an unusually low 'crude' death rate. So, though the figure for Scotland is higher than those for most of the countries that are shown, this could to some extent be due to the structure of the Scottish population. A better way to compare Scotland's mortality with other countries' is to use the estimates of life expectancy for each country (see Chapter 4).

Stillbirths, perinatal deaths and infant deaths

There were 317 stillbirths registered in Scotland in 2009. Stillbirths are registered separately from live births and from deaths, and so are not included in either of those figures.

Perinatal deaths consist of stillbirths plus deaths in the first week of life (the latter are registered as live births and as deaths). There were 120 deaths of children who were aged under one week old, so there was a total of 437 perinatal deaths.

Infant deaths are deaths in the first year of life, all of which are registered as live births and as deaths. In total, 235 infant deaths were registered in Scotland in 2009 (including those who died in the first week of life).

As can be seen in Figure 3.6, there have been significant improvements in the rates for stillbirths, perinatal deaths and infant deaths in the period since 1971. The stillbirth rate has reduced from 13.1 per 1,000 total births (live and still) in 1971 to 5.3 in 2009, despite a change in the definition of stillbirths in 1992 which reduced the minimum period of gestation from 28 weeks to 24 weeks (thus increasing the numbers classified as stillbirths). The perinatal death rate fell from 24.5 per 1,000 total births in 1971 to 7.4 in 2009 and the infant death rate fell from 19.9 per 1,000 live births in 1971 to 4.0 in 2009.





Whilst the current rates are comparable to those for the UK as a whole, Figures 3.7 and 3.8 show that there are several European countries that have significantly lower rates (see also Appendix 1, Table 3).





Figure 3.8 Infant death rate per 1,000 live births, selected countries, latest available figures



Chapter 4 - Life Expectancy

Although mortality rates in Scotland have generally fallen more slowly than in the rest of the UK and elsewhere in Europe, the improvements are still considerable and the impact is demonstrated in the steadily rising expectation of life.

The expectation of life at birth is a commonly used measure of mortality which is particularly helpful in comparing the 'health' of a nation through time and for making comparisons with other countries as well as for areas within Scotland. Figure 4.1 shows that the expectation of life at birth in Scotland has improved greatly over the last 25 years or so, increasing from 69.1 years for men and 75.4 years for women born around 1981 to 75.3 years and 80.1 years respectively for those born around 2008. Figure 4.1 also illustrates that improvements in life expectancy at birth are projected to continue, rising to 80.7 years for men and 85.2 years for women by 2033.



Figure 4.1 Expectation of life at birth, Scotland, 1981-2033¹

1. Figures to 2008 are based on 3 years of data. For example 2008 figure uses data for 2007-2009.

Source: Figures to 2008 from Interim Life Tables, ONS. Figures after 2008 are projected single year life expectancies, ONS.

However, Figures 4.2a and 4.2b show that Scottish men and women have relatively low expectation of life at birth compared with much of the European Union. The countries with lower life expectancy than Scotland were most of the Eastern European states which joined the EU on 1 May 2004 as well as Romania and Bulgaria which joined in January 2007. For men, the expectation of life in Scotland is about 4 years lower than the countries with the highest expectation of life whilst for women it is almost 5 years lower.





Figure 4.2b Life expectancy at birth, 2007, selected countries, Females



Within Scotland, there are considerable differences in life expectancy at birth between different Council areas as illustrated in Figure 4.3. For men, the Council area with the lowest life expectancy was Glasgow City (70.7 years), and the Council area with the highest life expectancy was East Dunbartonshire (78.0 years), 7.3 years more than Glasgow City. For women, East Dunbartonshire also had the highest life expectancy (82.5 years), 5.3 years more than Glasgow City, the area with the lowest figure (77.2 years).





1. Life expectancy at birth is an estimate which is subject to a margin of error. The accuracy of results can be indicated by calculating a confidence interval which provides a range within which the true value underlying life expectancy would lie (with 95 per cent probability).

Source: GROS life expectancy. Please note that the Scotland-level life expectancy estimate shown in this chart is for use only as a comparator for the corresponding sub-Scotland-level figures. The definitive Scotland-level life expectancy estimate (based on interim life tables) is published by the Office for National Statistics.

There are also differences between urban and rural areas as shown in Figure 4.4. Men in rural areas – remote and accessible – can expect to live around 3.5 years longer (77.2 and 77.5 years respectively) than men in large urban areas (73.7 years). Women in rural areas – remote and accessible – can expect to live around 2 years longer (81.4 and 81.2 years respectively) than women in large urban areas (79.3 years).

Figure 4.4 Life expectancy at birth, 95 per cent confidence intervals¹ for Urban and Rural² areas, 2006-2008 (Males and Females)



1. Life expectancy at birth is an estimate which is subject to a margin of error. The accuracy of results can be indicated by calculating a confidence interval which provides a range within which the true value underlying life expectancy would lie (with 95 per cent probability).

2. Scottish Government's 6-fold Urban Rural Classification version 2007-2008. See Appendix 2 for more details.

Source: GROS life expectancy. Please note that the Scotland-level life expectancy estimate shown in this chart is for use only as a comparator for the corresponding sub-Scotland-level figures. The definitive Scotland-level life expectancy estimate (based on interim life tables) is published by the Office for National Statistics

A more detailed picture of the large geographical variations in life expectancy can be seen in the 40 Scottish Community Health Partnership (CHP) areas. There are currently 40 CHP organisations in Scotland. The principal aim of the CHPs, which link NHS and Council services, is to improve the long-term health and wellbeing of communities and enhance the quality of health and social care services. Life expectancy at birth in the 40 CHP areas is shown in Figure 4.5. Men in East Dunbartonshire CHP area can expect to live over 8 years longer than men in North and East Glasgow CHP areas (78.0 years compared with 69.4 and 69.6 years respectively). Women in East Dunbartonshire CHP area can expect to live around 6 years longer than women in North and East Glasgow CHP areas (82.5 years compared with 76.0 and 76.8 years respectively).

Figure 4.5 Life expectancy at birth, 95 per cent confidence intervals¹ for Community Health Partnership Areas, 2006-2008 (Males and Females)



1. Life expectancy at birth is an estimate which is subject to a margin of error. The accuracy of results can be indicated by calculating a confidence interval which provides a range within which the true value underlying life expectancy would lie (with 95 per cent probability).

Source: GROS life expectancy. Please note that the Scotland-level life expectancy estimate shown in this chart is for use only as a comparator for the corresponding sub-Scotland-level figures. The definitive Scotland-level life expectancy estimate (based on interim life tables) is published by the Office for National Statistics.

The percentage change in life expectancy at birth in CHP areas over the 10 year period 1996-1998 to 2006-2008 is illustrated in Figures 4.6a and 4.6b (ordered from left to right by lowest to highest life expectancy in 1996-1998). The improvement at the national level over the 10 year period was 3.6 per cent for men (or 2.6 years) and 2.4 per cent for females (or 1.8 years) and is shown by the heavy horizontal lines across the charts.

In the 10 years since 1996-1998, life expectancy at birth has increased in every CHP area, although in 11 cases by a margin so small that it may be consequence of the volatile nature of life expectancy estimates in small areas. For men, the largest increase in life expectancy at birth was in West Lothian with 5.7 per cent (an improvement of 4.1 years) and for women in East Dunbartonshire with 3.8 per cent (an improvement of 3.0 years). The gap of 8.6 years between the area with the highest male life expectancy at birth and the area with the lowest has not changed over the 10 year period; for females it has increased by 0.7 years (from 5.8 years in 1996-1998 to 6.5 years in 2006-2008). The gap decreased most in North Highland (4.0 years in 2006-2008 compared with 6.2 years in 1996-1998).



Figure 4.6a Percentage change in life expectancy, 1996-1998 to 2006-2008, in Scotland and for each individual Community Health Partnership (CHP) Area, Males

CHP. ordered from left to right by lowest to highest life expectancy in 1996-1998



Figure 4.6b Percentage change in life expectancy, 1996-1998 to 2006-2008, in Scotland and for each individual Community Health Partnership (CHP) Area, Females

CHP. ordered from left to right by lowest to highest life expectancy in 1996-1998

In South West Glasgow, West Glasgow and Inverclyde CHPs (areas which had among the lowest life expectancy at birth in 1996-1998), male life expectancy improved by 4.5 per cent to 5.1 per cent (or 3.1 to 3.6 years) over the last 10 years which is around 1 to 1.5 percentage points more than the average improvement experienced by Scotland. In contrast, life expectancy at birth for men in North Glasgow and East Glasgow CHPs (the areas ranked lowest and second lowest respectively in 1996-1998) improved but to a lesser extent than the average rate of improvement for Scotland. In South East Glasgow CHP, life expectancy started out low 10 years ago and only improved marginally over the period.

The largest improvement in female life expectancy between 1996-1998 and 2006-2008 was in East Dunbartonshire CHP area (3.8 per cent or 3.0 years), which was also among the best performing in terms of life expectancy in 1996-1998. Female life expectancy in Edinburgh and Stirling CHP areas behaves in a similar way to East Dunbartonshire in that both CHP areas had a higher life expectancy than the national average in 1996-1998, and have improved at a much greater rate than the Scottish average. There are areas where female life expectancy in 1996-1998 – for example Dundee, West Lothian and East Glasgow CHP areas. These areas have improved by 2.9 per cent to 3.3 per cent. But there does not seem to be a pattern whereby all of the best performing areas in 1996-1998 pull further ahead.

A useful extension of life expectancy estimates is information on Healthy Life Expectancy (HLE) which is published by the Information and Statistics Division of the NHS. HLE is defined as the number of years people can expect to live in good health. The difference between HLE and life expectancy indicates the length of time people can expect to spend in poor health. More information on HLE in Scotland is available on the website of the Scottish Public Health Observatory (ScotPHO): http://www.scotpho.org.uk

Life expectancy decreases as deprivation increases, as illustrated by Figure 4.7. Men in the 10 per cent least deprived areas of Scotland can expect to live around 13.5 years longer than those in the 10 per cent most deprived areas (80.8 years compared with 67.3 years). Women in the 10 per cent least deprived areas of Scotland can expect to live around 9 years longer than those in the 10 per cent most deprived areas (84.1 years compared with 75.1 years).

Figure 4.7 Life expectancy at birth, 95 per cent confidence intervals¹ by level of deprivation², 2006-2008 (Males and Females)



1. Life expectancy at birth is an estimate which is subject to a margin of error. The accuracy of results can be indicated by calculating a confidence interval which provides a range within which the true value underlying life expectancy would lie (with 95 per cent probability).

2. Scottish Index of Multiple Deprivation (SIMD) 2009. For more information see Appendix 2.

Source: GROS life expectancy. Please note that the Scotland-level life expectancy estimate shown in this chart is for use only as a comparator for the corresponding sub-Scotland-level figures. The definitive Scotland-level life expectancy estimate (based on interim life tables) is published by the Office for National Statistics.

Note: An error has been found in the income domain of SIMD 2009. This affects the SIMD 2009 income domain and overall SIMD 2009. The effect of this error is expected to be minimal and is unlikely to change the key messages. For further information on this error see: http://www.scotland.gov.uk/Topics/Statistics/SIMD/

Chapter 5 - Migration

Unlike some countries, the UK does not have a comprehensive system of recording migrants, particularly those leaving the country, nor any legal requirement to notify change of address. So migration is the most difficult component of population change to measure and predict. Migration and the reasons for migrating are also much more susceptible to short-term changes in social and economic circumstances than births and deaths. The Registrar General's Annual Report for 2003 includes a full analysis of migration data for Scotland. This included analysis of 2001 Census information and gave an overview of data used in the population estimates for Scotland. More detailed information on the methodology for estimating migration is available on our website at: http://www.gro-scotland.gov.uk/statistics/migration/methodology.html

Trends in migration since 1951

Historically, Scotland has been a country of net out-migration, with more people leaving to live elsewhere than moving to live in Scotland. However, since the 1960s, net outmigration has greatly reduced and, in some years during the late 1980s and early 1990s, Scotland experienced net migration gains. As Figure 5.1 shows, Scotland has now entered a period of net in-migration. Over the last six years, there have been net gains of at least 19,000 per year. In 2008-09 the net migration gain was 21,700, the third highest since records started in 1951.



Figure 5.1 Estimated net migration, Scotland, 1951-2009

Net migration is the difference between much larger flows of migrants into and out of Scotland. The level of net migration can be significantly affected by relatively small changes in these gross flows from year to year, particularly if one flow rises while the other falls. In the last five years, migration into Scotland has typically been about 90,000 to

100,000 per year whilst migration from Scotland has ranged from around 65,000 to around 75,000.

In the year to 30 June 2009, around 45,400 people came to Scotland from England, Wales and Northern Ireland and around 41,300 people left Scotland for the rest of the UK. The net gain of around 4,100 is lower than the previous year's net gain of 11,500, mainly because of a drop in the number of people coming to Scotland from the rest of the UK.

During the same period, about 42,700 people came to Scotland from overseas and around 25,200 left Scotland to go overseas, giving a net migration gain from overseas of around 17,500. This is a record net migration gain from overseas, beating the previous record of 16,800 in the year to June 2007. Estimating international migration is particularly difficult as the estimate is based primarily on the International Passenger Survey (IPS). This is a sample survey conducted at main airports and ports across the UK, and the sample size for Scotland is very small (around 217 migrant contacts in 2008-09). Internationally, migrants are defined as people who change their country of usual residence for 12 months or more. So short-term seasonal migrant workers, including many from the Eastern European states which joined the EU in 2004, will not be counted in the migration estimates.

Origins and destinations of migrants

Figure 5.2 illustrates the trend in flows of people to and from the rest of the UK since 1981. There was a large drop in in-migration in 2008-09 following a small rise on the previous year. The downward trend in out-migration, which began in 2001, has continued.



Figure 5.2 Movements to/from the rest of the UK, 1981-2009

Figure 5.3 shows the trends in flows of people to and from overseas since 1991.

In-migration from overseas has been increasing since 2003 and is currently at its highest level since the series began in 1991. Out-migration to overseas has dropped following a large rise last year. The figures shown here are from the Long-Term International Migration (LTIM) series produced by the Office of National Statistics (ONS). The LTIM figures have been used to estimate overseas migration to and from Scotland for only the last three years, so previously published GROS estimates for international migration may not match those presented here.





Table 5.1 shows that 93 per cent of people coming to Scotland from the rest of the UK came from England. The biggest in-flows were of people from the North West, the South East and London. In-flows from Wales and Northern Ireland accounted for 4 per cent and 3 per cent of the total respectively. The proportions of people going from Scotland to Wales, Northern Ireland and each of the areas of England were similar to those coming from those areas. Scotland gained migrants from every part of the UK except Northern Ireland and London.

	Rest of U 2008	K inflow -09	Rest of Uk 2008	Coutflow -09	Net		
	Actual	Per cent	Actual	Per cent	Actual		
England	42,443	93	37,575	91	4,868		
North East	3,734	8	3,383	8	351		
North West	7,175	16	6,014	15	1,161		
Yorkshire and the Humber	4,912	11	3,641	9	1,271		
East Midlands	3,089	7	2,624	6	465		
West Midlands	2,902	6	2,540	6	362		
East	4,140	9	3,393	8	747		
London	6,298	14	6,967	17	-669		
South East	6,512	14	5,579	14	933		
South West	3,681	8	3,434	8	247		
Wales	1,703	4	1,505	4	198		
Northern Ireland	1,261	3	2,205	5	-944		
Total	45,407	100	41,285	100	4,122		

Table 5.1 Movements between Scotland and the rest of the UK by Country andRegion, mid-2008 to mid-2009

Age and sex of migrants

Figure 5.4 illustrates the ages of people moving between Scotland and the rest of the UK between mid-2008 and mid-2009. The peak age for migration into Scotland is 19, at which age there is a marked migration gain. The peak ages for migrating out of Scotland are 23 and 24 and this results in a migration loss at these ages. These large in and out flows result from an influx of students from outside Scotland starting higher education, followed by a move out of Scotland after graduation. The gains at the earlier ages and the later losses were, in 2008-09, almost exactly equal.





Figure 5.5 shows the age distribution of people moving between Scotland and overseas between mid-2008 and mid-2009. In contrast to moves to Scotland from the rest of the UK, the peak age for migration into Scotland is 23 and there are high numbers of migrants from age 19 to 30. This results in a net migration gain of young adults through to age 35.





For both rest of the UK and overseas moves, there also tend to be smaller peaks for moves of the very young, under the age of 5, as their parents move home before their children have started school. Later in life, there is no significant "retirement migration" in either direction. The pattern of migration is very similar for men and women.

Table 5.2 shows movements to and from the UK and overseas between mid-2008 and mid-2009 by age group. Migrants tend to be much younger than the general population: 49 per cent of in-migrants from the rest of the UK and 69 per cent of those from overseas are aged 16-34, compared with 24 per cent of the resident population. Only 5 per cent of people coming to Scotland from the rest of the UK were aged 65 and over, as were an estimated 1 per cent of overseas migrants. Scotland had a net gain of UK migrants in every age group except 25-34 and of international migrants in every age group to 45.

Moven	nents betwe	en S	cotland and	d the	rest of the	UK ¹														
	0-15	0-15 16-24		1	25-34		35-44		45-54		55-64		65-74		75-84		85+	1	All ages	
		%		%		%		%		%		%		%		%		%	%	
IN	6,815	15	11,025	24	11,252	25	7,055	16	4,309	9	2,786	6	1,171	3	598	1	396	1	45,407 100	
OUT	5,956	14	9,822	24	12,489	30	5,927	14	3,314	8	2,022	5	948	2	528	1	279	1	41,285 100	
NET	859		1,203		-1,237		1,128		995	ļ	764		223		70		117		4,122	
Moven	nents betwe	en S	cotland and	d Ove	erseas (incl	uding	asylum se	eker	s) ²											
	0-15		16-24		25-34		35-44		45-54		55-64		65-74		75-84	ļ	85+		All ages	
		%		%		%		%		%		%		%		%		%	%	
IN	5,826	14	14,494	34	14,793	35	4,190	10	1,988	5	857	2	364	1	135	0	53	0	42,700 100	
OUT	3,594	14	5,924	24	7,743	31	3,669	15	1,997	8	1,209	5	573	2	315	1	176	1	25,200 100	
NET	2,232		8,570		7,050		521		-9		-352		-209		-180		-123		17,500	
Total r	net migratior	n (inc	luding asyl	um s	eekers and	roun	ding) ³													
	0-15		16-24		25-34		35-44		45-54		55-64		65-74		75-84		85+		All ages	
NET	3,154		9,246		5,958		1,864		1,042	l	475		19		-97		10		21,671	
Age di	stribution of	the	mid-2009 re	eside	nt populatio	on of	Scotland													
	0-15		16-24		25-34		35-44		45-54		55-64		65-74		75-84		85+		All ages	
		%		%		%		%		%		%		%		%		%	%	
Total	912,340	18	623,084	12	644,682	12	746,010	14	756,006	15	643,366	12	469,991	9	295,004	6	103,517	2	5,194,000 100	

Table 5.2 Rest of UK/Overseas moves by age group: 2008-2009

¹ National Health Service Central Register (NHSCR) patient movements mid-2008 to mid-2009.

² Totals are based primarily on International Passenger Survey (IPS) data. However, the sample size in Scotland is too small to give an age breakdown so an age distribution is assumed using NHSCR data.

³ Note that the movements between Scotland and the rest of the UK and overseas will not sum to the total net migration as they exclude movements to and from the armed forces and rounding adjustments.

Migration and the distribution of people in Scotland

In many parts of Scotland, migration is the most important component of population change. Net migration rates (here, the amount of net migration between 1999 and 2009 as a proportion of the 1999 population) are a useful indicator when comparing migration between areas of different sizes. Information on net rates for Council areas is shown in Figure 5.6.

The patterns of migration over the period 1999 to 2009 indicate that the highest net outmigration rates were in Shetland Islands, East Dunbartonshire and Inverclyde. The highest net in-migration rates were in Perth & Kinross, East Lothian and Scottish Borders.



The role of UK and overseas migration show a slightly different pattern. Migration between mid-2008 and mid-2009 to and from areas outside Scotland, as a proportion of the resident population, is shown in Figure 5.7. The highest net in-migration rates were in the city areas of Aberdeen, Edinburgh and Glasgow as well as Perth & Kinross. The highest net out-migration rates were in South Lanarkshire, East Renfrewshire and Inverclyde.

Figure 5.7 Net migration with areas outside Scotland as percentage of population by Council area, mid-2008 to mid-2009



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Improvements in migration statistics

Since the early 2000s, and especially since Eastern European countries joined the EU in May 2004, migration has played a larger part in Scotland's demographic change than in the previous decade. So it has become more important to have high quality statistics on migration and the population, for policy development and for planning and providing public services. GROS is part of an inter-departmental effort, led by the Office of National Statistics, to improve the estimates of migration and migrant populations in the United Kingdom, both nationally and at a local level. The Improvements to Migration and Population Statistics (IMPS) cross-government programme involves:

- Improving the data available on numbers entering and leaving the United Kingdom;
- Making effective use of new and existing administrative and survey data sources;
- Improving local population estimates and projections used in allocating resources and developing services;
- Improving the public reporting of population and migration statistics;
- Establishing a wider range of timely indicators and analysis to inform the evidence base on migration and its impacts on policy and public services.

Within Scotland, we plan to use the improved statistical information thus available, to improve progressively the population estimates and projections which we prepare and publish. This includes:

- The development of indicators of migration at Council level and early indications of changes in population trends;
- Increased accuracy of estimates of migration, thanks to improvements to the design and sample size of the International Passenger Survey;
- The estimation of short term migrant numbers for Scotland;
- Better quality and more comprehensive information of passenger numbers and movements to and from the UK (although not their destination within the UK), from the e-Borders programme;
- Information on non-European Economic Area (EEA) nationals intending to work or study in the UK from the Points Based System of migration approval.

Chapter 6 – Marriages and civil partnerships

Marriages

There were 27,524 marriages in Scotland in 2009, 1,379 (4.8 per cent) fewer than in 2008. Figure 6.1 shows that, following a decline from over 40,000 marriages a year in the early 1970s, the annual total levelled out at around 30,000 in the mid-1990s, but has fallen in each year since 2005. The highest total recorded since 1993 was 32,154 in 2004 whilst the 2009 total is the lowest since Victorian times.

The information in this section covers all marriages registered in Scotland, regardless of where the bride and groom lived. In 2009, there were 6,664 marriages (24 per cent) where neither the bride nor groom was resident in Scotland. This represents a slight fall from 7,354 (25 per cent) in 2008. Gretna continues to be a popular venue for marriages, though the 3,542 registered in 2009 was 15 per cent down on 2008 and over a third down on the record total of 5,555 in 2004. In 2009, 84 per cent (2,990) of the marriages at Gretna did not involve a Scots resident.

Of course, many couples who live in Scotland go abroad to be married. These marriages are not included, and only some come to the attention of the Registrar General through notification to British consular authorities.



Figure 6.1 Marriages, Scotland, 1971-2009

Marital status at marriage

Figure 6.2 shows the percentage of marriages by marital status at the time of marriage between 1971 and 2009. The percentage of people marrying who had been divorced rose from just under 6 per cent in 1971, to over a quarter in 2001 (28 per cent for grooms and 26 per cent for brides). The majority of this shift reflects a reduction in the proportion of marriages where one of the partners had never been married. The percentage fell slightly to 25 per cent in 2009 (26 per cent for grooms and 24 per cent for brides). The proportion of those marrying who were widowed has also declined slightly. In 2009 it was 2 per cent.



Figure 6.2 Marriages, by marital status and sex of persons marrying, 1971-2009

Age at marriage

The average age at marriage continues to rise for both males and females. For first marriages, the average age of grooms who were bachelors has risen from 30.1 in 1999 to 32.5 in 2009; the comparable figures for brides who were spinsters are 28.2 in 1999 and 30.7 in 2009.

Marriages by type of ceremony

Civil marriages are conducted by registrars, and they have wide discretion over the form of the ceremony, to meet couples' wishes, as long as there are no religious references. There were 14,238 civil marriages in 2009, when they accounted for just over half (52 per cent) of all marriages compared to just under one-third (31 per cent) in 1971 (Figure 6.3).

The trend in civil marriages mainly reflects a decline in the number of religious ceremonies during the past thirty to forty years. The small increase in religious marriages observed during the period 1997-2002 was largely associated with the increase of 'tourism' marriages, of which a significant proportion were carried out at Gretna. Since then, there has been a decrease in the number of religious marriages, from 16,890 in 2003 to 13,285 in 2009. Religious marriages are conducted by a wide range of celebrants. The largest number of religious marriages were carried out by ministers of the Church of Scotland, who conducted 6,143 marriages in 2009. The other religious bodies conducting more than 500 marriages in 2009 were the Roman Catholic Church (1,788), Scottish Episcopal Church and other churches of the Anglican Communion (703), Assemblies of God (675) and the Methodist Church in Scotland (538).

Humanist celebrants have been authorised to conduct marriages in Scotland since 2005. In 2009 they officiated at 1,544 marriages, compared with 1,026 in 2008, 710 in 2007 and 434 in 2006.



Figure 6.3 Marriages, by type of ceremony, 1971-2009

Until 2002, civil marriages could only be held in registration offices. The Marriage (Scotland) Act 2002 allowed registrars to conduct ceremonies in other approved places,

from June 2002. In June 2010, there were more than 800 approved venues in Scotland, including castles, hotels, clubs and a small number of outdoor venues in gardens or the countryside. During 2009, 7,431 civil ceremonies (27 per cent of all marriages and 52 per cent of civil marriages) were conducted at these 'approved places'. Although showing a fall from the 8,003 ceremonies in 2008, this represented an increase of 114 per cent on 2003, the first full year of the new arrangements.

In 2009, 54 per cent of the religious marriages were celebrated in places of worship while just under half (48 per cent) of civil marriages took place in registration offices. Hotels were the venue for about 2,000 religious and 3,000 civil ceremonies, while approximately 1,100 religious and 1,000 civil marriages took place in castles and other historic buildings. Around 70 religious and 130 civil marriages were held on ships and barges or close to water.

Civil Partnerships

The Civil Partnership Act 2004, which applies throughout the UK and came into force on 5 December 2005, allows same-sex couples to register their partnership.

During 2006, the first full year of operation, 1,047 partnerships were registered in Scotland. In 2007, 688 partnerships were registered. This decrease was expected, because many long-standing relationships would have been registered as civil partnerships in the first full year of registration in 2006. In 2008, there was a further decrease to 525 registered partnerships and in 2009 there were 498 registrations – 219 male couples and 279 female couples (Figure 6.4).



Figure 6.4 Civil partnerships, 2006-2009

(2005 not shown as the Act only came into force on 5 December 2005)

Chapter 7 - Divorces and dissolutions

Number of Divorces

The number of divorces in 2009 was 10,371, 10 per cent (1,142) fewer than the 11,513 in 2008. Changes to divorce legislation were introduced by the Family Law (Scotland) Act 2006. The changes, which came into effect on 4 May 2006, reduced separation periods for divorce with consent to one year (previously two years) and without consent to two years (previously five years).

Figure 7.1 shows the number of divorces between 1971 and 2009. There was a marked increase in the number of divorces up to a peak of 13,365 in 1985. The early 2000s saw a slight fall from the levels recorded in the late 1980s and 1990s - perhaps because more couples are cohabiting without getting married, since divorce proceedings are not necessary to sever such relationships. The recent peak in 2006 (13,076 divorces, the highest figure since 1993), and the subsequent decreases in annual figures, were expected as a result of the change in legislation, because some divorces which were finalised under the new arrangements in 2006 would, under the old arrangements, have taken place in later years.

The information in this report covers divorces granted in Scotland, regardless of where the marriage took place.



Figure 7.1 Divorces and marriages, Scotland, 1971-2009

Duration of marriages that ended in divorce

In 2009 the median duration of marriage ending in divorce was 15 years, compared with 12 years in 1999 and 11 years in 1985. Again, this change is probably due to more couples cohabiting rather than getting married, since the end of such relationships are not subject to divorce proceedings.

Dissolutions of civil partnerships

The Civil Partnership Act 2004, which came into force on 5 December 2005, allows samesex partnerships to be dissolved in the same way that marriages can be ended by divorce.

The first dissolution in Scotland was finalised in 2007. In 2009 24 partnerships were dissolved by 7 male couples and 17 female couples. This was up from the 14 dissolutions finalised in 2008.

Future publication of statistics on divorces and dissolutions

This chapter is shorter than in previous years because the Scottish Government has become the main publisher of statistics on divorces and dissolutions in Scotland, with effect from the figures for April 2009 onwards.

Other statistics on divorces and dissolutions will become available from the Civil Justice section on the Scottish Government Crime and Justice Statistics website via http://www.scotland.gov.uk/Topics/Statistics/Browse/Crime-Justice

Chapter 8 - Adoptions and gender recognition

Adoptions

The Registrar General recorded 455 adoptions during 2009. This is 37 more than in 2008, but half the number recorded per year in the late 1980s, and around a quarter of the number recorded per year in the early 1970s.

Of the children adopted in 2009, 24 per cent were adopted by a step-parent and 69 per cent were adopted by non-relatives of the child. Only 14 per cent of children adopted in 2009 were aged under 2, nearly all of whom were adopted by non-relatives. By contrast, only 14 per cent of the 77 adoptions of children aged 10 or over were by non-relatives.

Gender Recognition

The Gender Recognition Act 2004 came into force on 4 April 2005. The Act applies throughout the UK and enables transsexual people to apply to the Gender Recognition Panel to obtain a Gender Recognition Certificate. Successful applicants are considered from the date of issue of the Certificate to be legally of their acquired gender.

The Registrar General for Scotland has set up a Gender Recognition Register in which is registered the birth of a transsexual person whose acquired gender has been legally recognised, showing any new name(s) and the acquired gender. This enables the transsexual person to enjoy all the rights appropriate to a person of his or her acquired gender and to apply to the Registrar General for Scotland for a new birth certificate showing these new details. In 2009, there were 18 entries in the Gender Recognition Register, 2 more than in 2008. The Gender Recognition Register is not open to public scrutiny.

Chapter 9 - Households and housing

In mid-2009, there were 2.34 million households in Scotland, which is around 300,000 more than in 1991. The number of households in Scotland has been increasing steadily, by between 11,000 and 23,000 each year since 1991. The rate of growth has slowed in the past two years and the increase of 13,200 households from 2008 to 2009 was the lowest in the last five years.

By 2033, the number of households in Scotland is projected to increase to 2.8 million, which is an average of 19,300 additional households per year. Most of the increase is the result of an ageing population and more people living alone or in smaller households, rather than an increase in the overall population. Looking to the future, there is a projected increase in the number of people in older age groups, with a fall in the number of younger people. This has an impact on household structure, as elderly people are more likely to live alone or with just one other person and children tend to live in larger households.

Variations within Scotland

Over the last five years, the number of households has increased in every Council area in Scotland except Inverclyde (where it fell slightly). These trends are likely to continue, with the number of households in almost every Council area projected to increase over the next 25 years. Figure 9.1 on the following page shows the projected percentage change in the number of households in each Council area between 2008 and 2033.

In some areas, the number of households is projected to rise markedly, with 13 of the 32 Council areas projected to increase by at least 20 per cent. The largest projected increases are in Clackmannanshire (41 per cent), East Lothian (40 per cent) and Perth and Kinross (38 per cent). Aberdeenshire, City of Edinburgh, West Lothian and Orkney Islands also have projected increases over 30 per cent. In contrast, Inverclyde has a projected decrease of 5 per cent over the same period.



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Household type

Figure 9.2 shows the number of households of each type in 1981 and 2008 and the projected number in 2033. There is a substantial increase in households containing just one adult (a projected increase of nearly a half over the next twenty five years). There are also increases in households with two adults (a projected increase of almost a quarter), and households with one adult with children.

In contrast, the number of larger households is falling, with households containing two or more adults with children, or three or more adults, projected to decrease by more than a quarter over the next twenty five years.



Figure 9.2 Households in Scotland by household type: 1981, 2008 and 2033

Age group

Figure 9.3 shows the number of households in 1981 and 2008, and the projected number in 2033, by the age of the head of household. The 'head of household' is normally the first person included on the census form.

Scotland's population is ageing, with a projected increase in the number of people in the older age groups. This trend is reflected in the projected number of households, with the largest increases in households headed by people aged 60 or over (an increase of almost 50 per cent, from 783,000 to 1,150,000, between 2008 and 2033). In contrast, households headed by someone aged under 60 are projected to increase by just 7 per cent, to around 1,660,000. The number of households headed by someone aged 85 or over is projected to more than double over the same period, from 73,000 to 196,000.




One-adult households

Thirty-eight per cent of dwellings in Scotland are entitled to a Council Tax discount because there is only one adult living there (alone, with children, or with those 'disregarded' for Council Tax purposes). There are more one-adult households in urban areas (42 per cent in large urban areas, compared to 29 per cent in rural areas) and in deprived areas (52 per cent in the most deprived areas, compared to 28 per cent in the least deprived areas), as illustrated in Figures 9.4 and 9.5.









 Dwellings entitled to a Council Tax discount, as there is only one adult living there (either alone, with children, or with those 'disregarded' for Council Tax purposes).
Scottish Index of Multiple Deprivation (SIMD) 2009. For more information see Appendix 2.

Note: An error has been found in the income domain of SIMD 2009. This affects the SIMD 2009 income domain and overall SIMD 2009. The effect of this error is expected to be minimal and is unlikely to change the key messages. For further information on this error see: http://www.scotland.gov.uk/Topics/Statistics/SIMD/

Type of housing

There are higher proportions of flats in urban areas, and in more deprived areas, as shown in Figures 9.6 and 9.7. In contrast, there are higher proportions of detached houses in rural areas, and in less deprived areas.









Note: An error has been found in the income domain of SIMD 2009. This affects the SIMD 2009 income domain and overall SIMD 2009. The effect of this error is expected to be minimal and is unlikely to change the key messages. For further information on this error see: http://www.scotland.gov.uk/Topics/Statistics/SIMD/

Vacant dwellings and second homes

Across Scotland as a whole, 2.9 per cent of dwellings are vacant and 1.4 per cent are second homes, though there is wide variation across the country. Remote rural areas have the lowest percentage of dwellings which are occupied (88 per cent), with higher percentages of vacant dwellings (4.5 per cent of all dwellings in these areas) and second homes (7.3 per cent), as shown in Figure 9.8. The most deprived areas have the highest percentage of dwellings which are vacant (4.6 per cent), as shown in Figure 9.9. The Council areas with the highest percentage of dwellings which are vacant are Eilean Siar, Dundee City and Invercived.



Figure 9.8 Vacant dwellings and second homes, by urban-rural classification, 2009





Note: An error has been found in the income domain of SIMD 2009. This affects the SIMD 2009 income domain and overall SIMD 2009. The effect of this error is expected to be minimal and is unlikely to change the key messages. For further information on this error see: http://www.scotland.gov.uk/Topics/Statistics/SIMD/

Figure 9.10 shows the percentage of dwellings which are second homes in each 'data zone' in Scotland. A data zone is a standard geography which was designed to contain an average of around 750 people at the time of creation in 2004. Certain remote rural areas have the highest proportions of second homes, particularly parts of the west coast and some of the islands, Highland Perthshire, and the area around the Cairngorms National Park. This also illustrates the variation within Council areas.

Figure 9.10 Percentage of dwellings which are second homes, in each data zone in Scotland, 2009



Chapter 10 - Very Near The Truth

A Brief History of the Census in Scotland

Ian White, Office for National Statistics

The material in this article is taken from a book that the Office for National Statistics plans to publish before the 2011 Census and which is, itself, a pot pourri of material gleaned from the official reports of the decennial censuses in Great Britain over the period 1801-2001, and from a range of other sources.

Early Scottish Censuses

The first attempts to get an accurate picture of the population, geography and economy of Scotland were in the 1620s, using the network of ministers of the Church of Scotland. But the time and effort involved limited the results. Between 1684 and 1690, Sir Robert Sibbald, the Geographer Royal for Scotland and co-founder of Edinburgh's botanical gardens, made further attempts by circulating 'General queries' through the same network of parish ministers. Though some progress was made, the results provided a very incomplete picture of the nation. In the first half of the 18th century, the General Assembly of the Church of Scotland proposed a 'geographical description of Scotland' and took some action on this between 1720 and 1744. But these were troubled times for the country and the proposals foundered during the second Jacobite rising.

The first successful collection of contemporary 'census' data in Scotland - almost a half a century before the first statutory census - was by Alexander Webster, a Scottish minister and writer, in the *Account of the number of people in Scotland*. Webster was born in Edinburgh in 1707 and studied mathematics at the university there before becoming, despite his nickname Bonum Magnum on account of his capacity for drinking claret, a minister of the Church of Scotland. He served at Culross in Fife from 1733 to 1737 and from then until his death in 1784 at Tolbooth Church in Edinburgh.

He gained public attention in 1742 when he proposed to the General Assembly of the Church of Scotland a scheme for providing pensions for the widows of Scots clergy and of the teaching staff at the universities of Edinburgh, St Andrews and Glasgow. The proposal was taken up by Dr Robert Wallace, the Moderator of the General Assembly, through an Act of Parliament in 1743 for "raising and establishing a fund for a provision for the widows and children of the ministers of the Church of Scotland". The work of organising and administering this – at least in its early days – was given to Webster under Wallace's careful supervision. He proved to be more than capable of the task, since the tables which he drew up from information from all the presbyteries of Scotland were based on a methodology later followed by insurance companies in calculating longevity.

As a result, and on his own election as Moderator in 1753, Webster was invited to make an enumeration of Scotland's population at the request of Robert Dundas, 3rd Lord Arniston when he was Lord of the Court of Session (or perhaps it was his more illustrious son when he was Lord Advocate - the record as to which is not quite clear). So Webster wrote in 1755 to over 900 ministers, from lists developed from the earlier 1743 enquiry, requiring them to submit population returns for their parishes identifying age, sex, fighting men, protestants and papists. His request was reinforced by a threat to withhold funding for charity schools in any parish which failed to comply. In his introduction to the *Account*, Webster, writing in the third person, noted that:

"As few parishes in Scotland keep district Registers of births and burials, the author was obliged to have recourse to a more laborious tho' more certain method of finding out the number of inhabitants.....

By this means and by various other methods taken to prevent mistakes, he obtained certain information of the exact number of souls, throughout a great part of the Kingdom, and particularly in the more northern counties including the whole Highlands and Islands".

He arrived at a population for Scotland of 1,265,380, of whom 488,652 were under 18 and 125,899 were over 56. Webster had to make estimates of the population of parishes for which he did not receive complete replies to his enquiry. But, despite uncertainty about the precision of the figures, the care that Webster and the many ministers took in its compilation and the pioneering nature of the work make it understandable that Webster claimed (again writing in the third person) that:

"... the Account he has given of the Number of the People will be found to come very near the truth, and to be sufficiently exact for answering every valuable purpose"

Webster's census was a pioneering work in the British Isles. It remained significant for those who followed him: it was transcribed by James Crauford Dunlop (Registrar General for Scotland from 1921 to 1930) and an analysis of its findings by James Gray Kyd (Registrar General for Scotland from 1937 to 1948) was published by the Scottish History Society in 1952.

Webster's work was followed up by a national survey 'parish by parish', proposed by the eminent economist Sir James Denham Steuart in 1767 in his *Enquiry into the principle of Oeconomy*, and which was later taken up by the noted eccentric David Stewart Erskine, 11th Earl of Buchan in 1781 in his proposals for:

"a general parochial survey of Scotland in order to further historical understanding and advance national improvement."

However, only a few parishes were ever surveyed by Erskine, and by the time that the limited results were published in 1792, it had been overtaken by the far more substantial work of Sir John Sinclair of Ulbster as part of the *First Statistical Account of Scotland*.

Sinclair (1754-1835) was a politician and writer on finance and agriculture. He was the eldest son of George Sinclair of Ulbster, a member of the family of the Earls of Caithness, and was born at Thurso Castle, Caithness. After studying at the University of Edinburgh, University of Glasgow and Trinity College, Oxford, he was admitted to the Faculty of Advocates in Scotland and called to the English bar, but never practised. In 1780, he was returned to the House of Commons for the Caithness constituency and subsequently represented several English constituencies, his parliamentary career extending, with few interruptions, until 1811. His reputation as a financier and economist had been established by the publication, in 1784, of his History of the Public Revenue of the British Empire, and in 1793 national ruin was prevented by the adoption of his plan for the issue of Exchequer Bills. It was on his advice that, in 1797, William Pitt issued the 'loyalty loan' of £18 million for the prosecution of the war against France.



Sir Henry Raeburn, Sir John Sinclair, 1st Bart of Ulbster, National Gallery of Scotland

But his services to agricultural science were no less significant. Because of his interests in the improvement of estate management (for which he was popularly known at the time as 'Agricultural Sir John') and, as first President of the Board of Agriculture, he set out a proposal to develop Steuart's and Erskine's ideas by conducting a detailed parochial survey to ascertain "the natural history and political state of Scotland". In May 1790, Sir John sent structured questionnaires, containing over 160 questions, to the network of over 900 parish ministers. These questions covered for each parish the geography, topology and climate, its natural resources and natural history; the population and related matters; agricultural and industrial production; and a miscellany of other data.

Not all ministers replied at first and by June 1792 Sinclair was still awaiting returns from some 400 'deficient clergy' as he called them. He was then forced to write letters whose tone changed from earnest flattery to cold scorn and impatience and, for the most persistent refusers, he resorted to thinly-veiled pecuniary threats and even threatened enforcement by billeting soldiers from his own private militia – the Rothesay and Caithness Fencibles. In June 1796, Sinclair sent out 'statistical missionaries' to follow-up the most stubborn offenders. This persistence was eventually effective. The project was complete by 1799, and Sir John was able, by the end of century, to lay before the General Assembly in 21 volumes:

"a unique survey of the state of the whole country, locality by locality".

Nothing similar had been attempted in Britain since the Domesday Book, and nothing at all on such a scale in Scotland. A flavour of the style and content of the abstract can be seen in the contribution offered by the Reverend James Thomson on the Parish of Aberlour in the County of Banff (an example chosen because of the author's particular love of the local malt whisky – though there was yet no distillery there at that time):

"According to Dr Webster's state of the population, the number of inhabitants was 1010. There are, at present, about 920 souls; about 450 males, and 470 females. The births and deaths bear not the ordinary proportion to the population. By summing the baptisms and burials for 20 years, that the baptisms are, at an average, 25, deaths 13, and marriages 8. Though there are scarce any remarkable for longevity, yet the people are generally healthy, and, a few excepted, who are carried off by small pox and consumptions, arrive at the age of 70, 80, and not a few at 84. The whole are of the Established Church, except about 10 or 11, who are Roman Catholics. The inhabitants, except a very few servants and cottagers who come from Strathspey and Badenoch, are natives, descended from ancestors who have lived in the parish for many generations; and as there are very few who come from other places, so there are as few who leave the parish: For since the year 1782, when there were whole families emigrating from the neighbouring parishes to North America, none, except a few aspiring young men, who have had a more liberal education than their neighbours, have left this parish, and gone, some to London, some to the West India Islands. There is but one residing heritor."

Thus Sinclair's *Statistical Account*, though building on the several previous incomplete or failed attempts to gain an accurate picture of the state of the nation, represented a new beginning for the understanding of Scottish, and indeed British, population and society.

Though the returns were neither compiled nor published at the same time, so disqualifying the enquiry as a 'census' in the way that we understand the concept today, they had the great merit of being prepared locally by those with the best local knowledge. Incidentally, Sinclair is recorded as being the first person to use the word 'statistics' in the English language. In volume 20 of his *Account* he explains:

"Many people were at first surprised at my using the words "statistics" and "statistical", but in the course of a very extensive tour through the northern parts of Europe which I happened to take in 1786, I found that in Germany they were engaged in a species of political enquiry to which they had given the name "statistics", and though I apply a different meaning to the word – for by 'statistics' is meant in Germany an inquiry for the purposes of ascertaining the political strength of a country or questions respecting matters of state, whereas the idea that I annex to the term is an inquiry into the state of country for the purposes of ascertaining the purposes of future improvement. As I thought that a new word might attract more public attention, I resolved on adopting it, and I hope it is now completely naturalised and incorporated with out language".

Later at the age of 80, and just a year before he died, Sinclair became the oldest founder member of the Statistical Society of London – now the Royal Statistical Society.

The 1801 Census

It was not until the start of the 19th Century that regular censuses, of the kind we know today, were carried out in Scotland or any other part of Britain. In 1753, there had been an unsuccessful attempt to pass a Bill in Parliament authorising an annual census throughout Britain It was opposed, mainly by those who feared that the results might disclose to foreign enemies the weakness of the country, or that it would impair the liberty of the individual. The Bill was approved by a large majority in the Commons but the Parliamentary session ran out, and the Bill lapsed and was never re-introduced.

But it was becoming clear during the latter part of the 18th Century that the population was increasing. Concern about the effect of that increase on food production, emigration and colonisation, reawakened calls for a census – spurred by a critical food shortage due to a succession of poor harvests at the end of the 18th Century (including a particularly disastrous one in 1800) and a shortage of agricultural workers because many were serving in the militia in the war against France. A second Census Bill came before Parliament later that year and had an easy passage. The arguments for the census during the course of the debate included:

- the intimate knowledge of any country must form the rational basis of legislation and diplomacy;
- an industrious population was the basic power and resource of any nation, and therefore its size needed to be known;
- the number of men who were required for conscription to the militia in different areas should reflect the area's population and there was a need to know the number of seamen available to fight in the Napoleonic wars;
- the need to plan the production of corn and thus to know the number of people who had to be fed;
- it would indicate the Government's intention to promote the public good; and
- the life insurance industry would be stimulated by the results.

The Act was designed explicitly for the whole of Great Britain, though differences in the local administration between Scotland and England (as well as differences in the climate!) meant that the two censuses were conducted quite separately. In England and Wales, the Overseers of the Poor were appointed to act as enumerators, assisted where necessary by church officials or constables. But in Scotland the responsibility was placed on schoolmasters, who were to deliver the census questions after 10 March (the earliest that a census in Great Britain has ever been taken) and submit the completed returns by 24 October.

The 1801 Census was divided into two parts. The first, carried out by the enumerators, sought to collect the numbers of males and females, people employed in agriculture, trade, manufacturing, handicraft, or other work, inhabited and uninhabited houses, and families. The replies to the question on employment were not consistent. In some cases, women, children and servants were classified with the householder and in other cases they were included as 'others'. The family was still regarded as a single economic unit, and the concept of an individual with his or her own occupation separate from the family was unfamiliar.

The second part of the census looked at whether the population was increasing or decreasing. The clergy were asked to give details from their records of baptisms and burials over the preceding 100 years, and of marriages from 1754 to 1800. At each subsequent census up to and including 1841 the clergy in England and Wales were required to make similar returns for the preceding decade. However, because of the paucity of the parish returns in Scotland in 1801, no attempt was made to collect this information north of the border either in 1811 or 1821.

John Rickman (1771-1840), who was previously a clerk in the House of Commons, and who had been closely involved in the preparation of the Census Bill, was appointed to prepare the abstracts and reports not only for this first census but also for the next three.

In Scotland the information was collected at any time between 10 March and 1 June resulting in possible double counting. Rickman, writing his observations in the Report of the 1801 Census, justified this since:

"in the colder climate it was not certain that all parts of the country would be easily accessible so early in the year"

By modern standards, the whole census operation was completed in a remarkably short time. The first abstracts were printed and laid before Parliament on 31 December 1801 – a year to the day after the Bill received Royal Assent. Rickman's results for Scotland produced a total population of 1,559,068.

Summary of Scotland.

-	но	USES,		PERS	0 N S.	oc			
SHIRE OF	Inhabited.	By how many Families iccupied.	Uninhabited.	Males.	F emales,	Perfons chiefly em- ployed in Agriculture	Perfons chiefly employed in Trade, Manu- factures, or Handicia't.	All other Per- ions not com- prized in the Two preceding Clafics.	TOTAL OF PERSONS.
ABERDFEN	25,249	31,701	573	55,625	67,457	43,044	27,699	52,288	T 123,082
ARGYLE	13,100	14,278	32	33,767	38,092	19,188	4,196	43,884	71,859
AYR	13,603	18,145	2.72	39,665	44,640	33,185	42,045	8,760	84,306
BANFF	7,789	8,677	166	15 06	19,740	11,177	4,890	18,288	35,807
BERWICK	5,965	6,835	273	۱ ¦,2 ,۱	16,327	6,396	3,343	19,-67	30,621
BUTE	1,911	2,501	17	5,55=	6,239	3,161	4,821	3,809	11,791
CAITHNESS	4,433	A,652	140	10,187	12,126	13.263	2,201	7,145	22,609
CLACIMANAN	2,100	2,617	64	5, 164	5,791	872	1,037	8 949	10,858
CROMARTY	410	5 52	7	1,351	1,701	262	575	1,371	3,052
DUMBARTON	3.375	6,418	107	9,796	10,914	4,633	7,052	5,131	20,710
DUMFRIES	10,755	11,05/	246	25,407	29,190	10,691	6,317	37,146	54,59T
	77 773	28.186	Y.1.97	54.2.74	68.720	7,758	21,036	90,256	122,954
	5,002	6,334	1:4	11,762	14,942	8,131	4,410	14,164	26,705
Elerin		66.608	-66	47.057	6.701	0.651	17.200	53.866	01,743
	17,005	22,294	900 817	42,752	53,666	8,627	14,827	47,450	99,127
FURFAR	20,195 r.8rt	7.210	A.36	13.800	16,076	5,346	3,224	20,342	29,986
HADDINGTON	3,031	75.252	100	22,801	40,491	14 068	3,864	36,361	74,292
INVLKNESS	- 699	6 7-0	- 39	11 101	14.746	7.024	6.023	12,210	26,349
KINCARDINE	5,000	T.686	302	2,116	2,600	657	638	5,170	6,725
STEWARTRY OF 7	1,372	1,000	37	5,140	3,,	r 8r6	7.507	20.827	20.211
KIRCUDBRIGHT	5,600	0,033	101	13,010	1,19	5,0,0	-9-95	87.264	146.600
LANARK	32,2,9	36,481	1,544	68,100	78 599	15,704	30,000	0.,204	140,099
LINLIFHGOW	2,796	3,832	160	8,129	9,715	4,166	3,829	9,849	17,844
NAIRN	1,940	1,945	32	3,633	4,615	2,901	898	4 4 50	0,257
ORKNEY AND SHETLAND	8,016	8,°25	105	20,793	26,031	14,653	2,476	8,478	46,824
PFEBLES	1 682	1,843	61	4,160	4.575	2,010	886	5,839	8,735
PERTH	23,382	23,971	952	58,808	67,5,8	3 24,104	22,-73	76,385	126,305
RENEREW	7.8:7	17,217	1 20	36,068	41,989	3,804	21,746	52,4.6	78,056
R055	11,014	11,304	120	24,143	28,148	3 23,097	4,589	18,382	52,291
ROXBURGH	6,156	7,430	241	15,813	17,969	7,148	3,964.	23,170	33,682
SILKINK	086	1,162	27	2,35	5 2,714	1,023	583	3,222	5,070
STIRLING	7.03)	11,625	292	23,37	26,950	\$,45 ^{\$}	11,8~8	18,617	50,825
SUTHERLAND	4,315	4,384	. 9	10,429	12,69	16,163	670	4,234	23,117
WIGTOWN	4,665	4 995	132	10,570	12,34	6,995	1,815	10,622	22 913
	244,553	354,079	9,537	7 34,58	864,45	7 365 516	293,373	833,9*4	1,559,068

OBSERVATION.

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No Returns have been received from the United Parish of Kilfirichen and Kurz caen, from the Parish of Tyree, and from the Islands of Rurn, (1rma, and Mack, in A. GVLESHAF; from the United Parish of Kirk ichail, and (ultre id ter, and the Parish of Rifolis, in CROMAPTYCHIRE; and from the Pirifa of Dallof, in LANARA-SILE. The Population of these Place is chimited to exceed the Number of 8,692 Performance

1811-1831 Censuses

The 1801 model was generally followed for the next three 'Rickman' censuses. But there were some changes in content, reflecting the lessons learned by Rickman from his analysis of the 1801 data.

In 1811, a distinction was made between houses being built and those uninhabited for other reasons. As a consequence of the inconsistency in the 1801 responses on employment, information was collected about families engaged in occupations rather than people.

In 1821 there was the first attempt to analyse the age of the population. This was important for a number of reasons, particularly because of the growing demand from Friendly Societies for accurate life tables. Information was sought for quinary age-groups and the enumerator was instructed to collect the information only:

"...if you are of the opinion that in making the enquiry the ages of the several individuals can be obtained in a manner satisfactory to yourself and not inconvenient to the parties ..."

The question on age was not repeated in 1831, because Rickman considered that there was no need to update the 1821 age distribution. But enumerators were instructed to enquire into the cause of any 'remarkable difference' in the number of people present in each household compared with 1821. The 1831 Census also sought more details about occupations of males aged 20 and over - the start of an occupation classification still recognisable today:-

- Agriculture including graziers, cowkeepers, shepherds, other farm servants, gardeners and nurserymen;
- Manufacture or making machinery (but not including labourers in warehouses, porters and messengers who were to be classified separately);
- Retail trade or handicraft as masters, shopmen, journeymen, apprentices or in any capacity requiring skill but again not as labourers, porters and messengers;
- Merchants, bankers, capitalists, professional persons, artists, architects, teachers, clerks, surveyors and other educated men;
- Miners, fishermen, boatmen, excavators of canals, roadmakers, toll collectors together with labourers, porters and messengers; and
- Others which included retired tradesman, superannuated labourers and males diseased or disabled in body and mind.

Rickman, who had done so much to establish the census, saw the establishment of the General Register Office in England and Wales in 1837 and then handed over his census duties to the first Registrar General for England and Wales, Thomas Lister. Rickman died before the 1841 Census was conducted, though it was largely his plans for the new census that Lister carried through.

Incidentally, exactly what actually happened to the official returns for the 1831 and earlier censuses after Rickman had finished with them is not clearly recorded. There is some

evidence that Rickman kept some in his own possession but by 1846 they were reported to have been deposited in the Tower of London and by 1862 they were in the new Public Record Office repository at Chancery Lane in London. In 1904 a joint Public Record Office/Home Office review recommended that the returns be destroyed since most of their contents had been reproduced verbatim in the published reports and because pressure on space at Chancery Lane was mounting. We must presume, therefore, that this is what happened since there is no further record of them.

1841 Census: the first 'modern' census

Like Rickman before him, the first Registrar General, Thomas Lister, proved to be meticulous in planning the 1841 Census. No longer were the Overseers of the Poor to be the enumerators in England, but rather the local machinery of the new registration service was employed. The equivalent service was not set up in Scotland until 1855 so, as in previous censuses, the deputy sheriff of each county acted as registrar, and the schoolmasters as the enumerators.

The 1841 Census was on a grander scale than any of its predecessors. It was the first 'modern' census in that it broke from the Rickman pattern of returns recorded locally in summary form only and then sent to London in a digested format Instead, a separate form was provided for each householder to complete and the names and characteristics of each individual were listed.

Lister initially planned that enumerators would still collect the information themselves by house to house enquires as Rickman had done. He believed that most householders were too illiterate to fill in the census schedules properly. He was only persuaded after a test in London had shown how many more enumerators would have to be employed to record the same information. The use of household schedules had to be hastily authorised by a supplementary Census Act passed only two months before the enumeration was due to take place. The enumerator had to ensure that, as far as possible, the form was complete, and then he had to transfer the answers to his own record book. The full returns themselves were then sent to London for analysis.

Drawing on some of the recommendations of the Statistical Society of London (later to become the Royal Statistical Society), the enumerators collected a much wider range of information than hitherto. In addition to the 1831 questions, the form included new questions on foreign born and nationality, and the 1821 question on age was re-instated. Although the form was simple by modern standards, at a time when a large number of people were indeed, as Lister imagined, illiterate, it was remarkable that householders, even with the help of enumerators, were able to answer the questions.

The system adopted in 1841 stood the test of time and remained essentially unaltered for the next 160 years. For us today it is difficult to imagine what a tremendous feat it must have been for the General Register Office to process the 19th Century censuses with hundreds of clerks carefully tabulating, with their pens and black leaded pencils on large sheets of paper, the details of every individual in the country.

1851 Census

The 1851 form was substantially expanded and collected information in a more rigorous way. Addresses had to include house numbers rather than just street names, and there were questions on exact age, marital status and relationship to head of household – the latter giving rise to this Punch cartoon:-



FILLING UP THE CENSUS PAPER. Wife of his Bosom. "Upon my word, Mr. Prewitt! Is this the Way you Fill up your Census So you call Yourself the 'Head of the Family'-do you-and me a 'Female!'"

New questions on birthplace and infirmity were also included. So much more detail was asked about occupations - even about second occupation - that an occupational classification was required. This was the first scientific attempt to produce such a classification and was to have long-lasting implications for statistical and socio-economic analysis, remaining basically the same until the 1921 Census. William Farr (who was the General Register Office's first 'compiler of abstracts' and who became the 19th Century's most pre-eminent social demographer and epidemiologist) used the information to classify people by occupation and age. The analysis, which covered 332 occupations by five year age-groups, was an enormous task. But the resulting information, together with data from death registration, made it possible to produce, for the first time, a study of occupational mortality. Among his conclusions he noted that:

"Miners die in undue proportions, particularly at the advanced ages when their strength begins to decline Tailors die in considerable numbers at the younger ages of 25-45 Labourers' mortality is at nearly the same rate as the whole population, except in the very advanced ages, when the Poor Law apparently affords inadequate relief to the worn-out workman."

1861 Census

From 1861 onwards, the census in Scotland was administratively separate from England and Wales following the appointment of the first Registrar General for Scotland in 1854 and the introduction of the civil registration service in 1855. There was a separate Census Act for Scotland in 1860 and the census was run from the new Scottish General Register Office in New Register House at the east end of Edinburgh's Princes Street.



The content of the 1861 Census in Scotland was, unsurprisingly, little different from that in England and Wales, and officials at the General Register Office in Edinburgh were

supplied beforehand with the English forms and instructions so as to achieve the greatest degree of comparability. However, one feature of cross-border disharmony reported in the 1861 Scottish Census Report, which was to become a feature of the Scottish reports throughout the rest of the century, was a discussion about the definition of a house. The term 'dwelling house' was explicitly defined in the Scottish 1860 Census Act to include:

"all building and tenements of which the whole or any part shall be used for the purposes of human habitation"

whereas the English definition was:

" a distinct building separated by party walls",

a definition that Dundas, taking Scottish architectural practice into account, thought unintelligible He reported how 'party walls' - though a term not defined - may bisect blocks of houses and even individual dwellings.

There were two other notable differences between the questions asked in Scotland and those in England and Wales. First, Scottish enumerators enquired whether there were people who were temporarily absent from the household on census night. This was intended to identify the number of fisherman absent at sea. The results showed that some 22,000 men and 12,300 women were not present in their own household and that, respectively, 18,400 and 17,500 were temporarily present elsewhere in Scotland - the differences only partially relating to fishermen but mainly to other temporary migrants. More importantly, a question was included about the number of rooms with windows, in order to cast light on overcrowding. The census report noted that, on average, each room with a window was occupied by 1.7 people. The question was repeated in successive censuses until 1951, with England and Wales following the Scottish lead in 1891.

William Pitt Dundas would divide his day between the posts of Registrar General and Deputy Clerk Register, at the insistence of the Treasury, who were keen to cut administrative costs in Scotland. He would also spend lengthy periods in London and travelling abroad. But Dundas insisted that he should be supported in his work by a qualified Superintendent of Statistics. The work of the eminent William Farr in London was paralleled in Scotland by Dr James Stark. Though the 1861 Census reports may have adopted the pattern of previous censuses, the Scottish vital statistics were presented somewhat differently from those of England and Wales, and the Registrar General's Annual Reports (written by Stark) had much to say about social conditions in Scotland.

In keeping with the Treasury's desire to reduce administrative costs in Scotland, the cost of the 1861 Census, at £18,400, was almost £8,000 less than its predecessor managed from London.

The Late Victorian Censuses

William Pitt Dundas oversaw the 1861 and 1871 Censuses. He retired in April 1880. But when Roger Montgomerie, who succeeded him, died suddenly of enteric fever six months later, Dundas returned temporarily to his old office to oversee the preparations for the 1881 Census until Sir Stair Agnew was appointed as Registrar General in January 1881.

The content of the census remained essentially the same throughout the latter decades of the century. But some important questions were added.

The 1871 Census included a question on the unemployed (though no analysis of this information was provided in the statistical commentary) and the 1901 Census enquired into the number of people in certain industries who worked in their own home. In the report on occupation for that Census, females with an occupation were, for the first time, analysed by marital status.

The 1881 Census was the first to include a question on the Gaelic language. A question on the Irish language had been included in the 1861 Irish Census, and the Gaelic Society of Inverness, established in 1871 to promote the use of Gaelic and halt its perceived decline, urged the Home Secretary to include a similar question in Scotland on the grounds of:

"the well-being of the people of the Scottish Highlands and the promotion of education in that part of the country."

No such a question was included in the Census Bill initially introduced in Parliament. But the Gaelic Society, together with the Federation of Celtic Associations of Scotland and the Committee of the Free Church of Scotland in the Highlands, persuaded Mr Fraser Mackintosh MP to suggest the inclusion of a question asking about people who could speak only Gaelic, or Gaelic and English. No amendment was actually proposed at the time and, indeed, the Census (Scotland) Act 1880 received Royal Assent with no provision for such a question. However, the 1881 Census form did include a question, added after the final preparations for the census had been made, by overprinting the schedule in red in the question relating to birthplace the instruction:

"Gaelic to be added opposite the name of each person who speaks Gaelic habitually"

Its position on the page, and the omission of any reference to it from the notes for the householders, may well have made it more difficult for the form-filler to answer, particularly as the use of the word 'habitually' may have been misunderstood. So it is likely that the returns for the question were incomplete. Certainly the Gaelic Society thought so, and complained that the number of habitual Gaelic speakers reported as being 231,000 was well below the 300,000 it had suggested. However, the evidence from the census certainly strengthened the demand for more time to be allocated to the teaching of Gaelic in Scottish schools, and a grant became available shortly afterward for the purpose. A question on Gaelic has been explicitly included in all subsequent Scottish censuses.

Questions had been asked in the 1851 and 1861 Censuses about blind and deaf-anddumb people, but in 1871 the categories of 'lunatic' and 'imbecile' were added to the list of the infirm, and distinctions were made between the different type of mental state:

- a lunatic was some one who had periods of sanity
- an imbecile was someone who had later in life become demented
- an idiot was mentally handicapped from birth
- a moron had a mental age of 8-12, and
- a cretin had mental retardation caused by a thyroid deficiency

However, in deference to political correctness of the day, in 1901 the term 'idiot' was replaced with 'feeble minded'.

By the time that Sir Stair Agnew had carried out the 1901 Census, the population of Scotland had more than doubled from 1.6 million a century earlier to 4.5 million.



The 1901 Census Staff

1911 Census

The most important innovations in the content of the 1911 Census were the introduction of separate questions about occupation and industry, and a special enquiry into marriage and fertility, resulting from the concern at the time about the effect of a declining birth rate since the 1870s. The large number of questions was lampooned by the Scots writer Neil Munro in a short story *Erchie and the Census*:

"Having filled in all the details regarding the Duffy family, Erchie winked at his wife and proceeded to invent a variety of interrogations which the Registrar-General had omitted from the schedule.

"Ony cats, dogs, canaries, or other domestic pets?" he asked solemnly. "Michty!" exclaimed the coalman. "I didna think they would cairry the thing as far as that. We hae a cat – a – a kind o'Tom, like".

"Cat – Thomasina," said Erchie, with a graphic pretence at writing down this interesting item. "Whit spechie?"

"Torty-shell."

"Torty-shell, richt! Hoo mony pianos, gramaphones, motor-caurs, or other musical instruments?"

"The only musical instrument we hae in the hoose is Maggie's mandolin, and she doesna play on't," said Duffy.

"A mandolin's no' a musical instrument within the strict meanin' o' the Act, we'll hae to put it doon under Infirmities," said Erchie scribbling away with a dry pen."

The outbreak of war in 1914 interrupted the preparation and publication of the usual reports. The detailed tables for Scotland were never published, but the *Report on the 1911 Census of Scotland*, in which only abstracts were published, noted that:

"The original tables, though unpublished, will be preserved in the Registrar General's Department, and will be available for purposes of statistical study to any interested in them".

The 1911 Census was also the first where enumerators in England, Wales and Ireland did not have to transcribe information from the schedules into their own record books, and the form completed by the householder has remained the master entry. In Scotland, however, when researchers and genealogists access the records on-line in 2011, they will still see the enumerators' transcripts as in the previous censuses: the original household returns were not preserved until the 1921 Census.

The 1911 Census was a watershed: punch card and mechanical sorting were used to process the data collected. This speeded up the operation and enabled new and more detailed statistical analyses to be made. Adopted from the Hollerith technology used in the 1890 US Census, the punch card had 36 columns in which the operators recorded the coded information by round holes in numbered positions so that a machine could sort and collate all the cards which were similarly coded.



The new method of processing not only enabled the census results to be provided in much greater statistical detail but also made it possible for the data to be re-sorted to overcome the problems associated with the subsequent, and frequent, realignment of local government boundaries. It allowed the previous practice of publishing the census results in topic-related volumes to be replaced by the presentation of results for each city and county separately.

By the time of the 1911 Census, the early Victorian census records had been used for a new purpose. In 1908, the Old Age Pensions Act was passed and, for some elderly applicants who could provide neither birth, baptismal nor marriage certificates, entries from the relevant census returns were accepted as proof of age and identity. At first the English Registrar General was very reluctant to provide this service, contending that:

"This is not the purpose for which the Census has been taken, and in any case, there are practical difficulties in searching the early record books."

Ultimately though, special forms and procedures were drawn up for the purpose. In the following year, 1909, the record books for the 1841 and 1851 Scottish Censuses were transferred to Edinburgh at the request of the fifth Registrar General for Scotland, Sir James Patten McDougall. These earlier Scottish returns had been processed by the General Register Office in England and kept in London, where McDougall discovered them buried away in some 'cellars in Westminster'.

1920 Census Act and the 1921 Census

Until 1920, each census had been carried out under its own special Act of Parliament. After more than a hundred years, the census had become established as a regular and necessary institution and its basic structure - and the topic content - had changed little over the previous three censuses. So, urged on by the Registrars General, Sir Bernard Mallett in England and Wales and Sir James Patten McDougall in Scotland, a permanent Act of Parliament was passed, removing the need for separate primary legislation for each census: Parliament would authorise each census more simply by a secondary Order. Moreover, at a time of rapid demographic and social change after the First World War, the new Act allowed for the census to be taken every five years (though only once – in 1966 – has this power been used). The Census Act 1920 is still in force today, albeit with some amendments along the way.



It had been intended to take the 1921 Census on 24 April. But a strike by coal miners, railwaymen and transport workers threatened successful enumeration throughout Great Britain. So it was decided to postpone census day until 19 June - the only occasion when the date of the census has had to be changed. But the later date turned out be less satisfactory since many people were on holiday and were missed altogether.

The decision to postpone the Census was taken only days before the original date. Over 11¹/₂ million schedules had already been printed and distributed, and these contained time-

specific information about precisely when people were to fill in their forms and hand them over to the enumerator. The problem taxed the new Registrars General Sylvanus Percival Vivian in England and Wales and Dr James Craufurd Dunlop in Scotland. Either they had to reprint the schedules at a huge cost or provide supplementary information to each household. Vivian was advised that for a cost of just £2,000 he could have an amendment slip quickly produced showing the revised date and, to save taxpayers' money, advertising space on the back of the slip could be sold. Vivian realised that not only could he offset the cost of printing the leaflets but even some of the costs of the postponement of the Census itself. The Treasury approved the plan. But the advertising was for the *Sunday Illustrated* newspaper and serious concerns were expressed, including a letter to the Registrar General from the Wesleyan Methodist Church, complaining:

"The fact that a Sunday Newspaper should be advertised on a government document seriously offends the conscience of a large number of people.... Registrars and enumerators feel keenly the indignity of having to distribute an advertisement of a Sunday paper"

As a consequence of this experience, no advertising has since been carried on any census material.

The question set was changed for the new Census. The age question asked for date of birth rather than exact age, to improve the accuracy of response. The long-standing question on infirmities was dropped because it no longer gave reliable information. In view of the depth of the enquiry into fertility and marriage in the 1911 Census, these too were omitted, giving way to other topics which were considered to be more relevant. The report on the 1911 Census had said that there was a practical limit to the number of questions which householders could be expected to answer, and around 25 was regarded as the limit. However, in the immediate post-war years there was growing concern with traffic problems arising from the trend for people to live further from their workplace, so the 1921 Census was the first to include a question on place of work, to help measure commuter flows, and name of employer, to enable industry to be better coded.

A major new enquiry related to the ages and numbers of children, to assess dependency and orphanhood, and the results from this were particularly helpful in the preparation of the financial framework of the Widows', Orphans' and Old Age Contributory Pensions Act 1925. There were also new questions about full- or part-time education, following the development of secondary education at the start of the century. From 1921, the census has asked increasingly detailed questions about educational qualifications.

A major development in the 1921 Census was the further revision of the occupational classification. The practice of officially classifying the population by occupation had been developed by William Farr in the 1851 and subsequent censuses. However, it was only in the 1911 Census that the concepts of occupation and industry were distinctly recognised, and a scheme of 'social classes' was designed, with three basic social classes (the upper, middle and working classes), two intermediate groups between these classes and three industrial groups for those working specifically in mining, textiles and agriculture. In 1921, this class scheme was substantially revised – a revision made possible by the introduction of the first proper classification of occupations with the encouragement of the Royal Statistical Society. The three industrial social classes were re-allocated between the other

classes and the new five class scheme was used primarily for the analysis of infant and occupational mortality and fertility. Thus were inaugurated the Registrar General's Social Classes, re-named Social Class based on Occupation in 1990 and totally revised in 2001 to form the National Statistics Socio-Economic Classification (NS-SEC).

1931 Census

In the 1931 Census, a question on usual residence was introduced, to enable counts to be made of the resident population which would be closer to the definition of the population base used for the population estimates than was the traditional 'persons present' count. Until then, the best approximation to the resident population could be achieved only by taking the census on a Sunday which, it had been generally believed, was the day when it was most likely that residents would be at home. By the early 1930s, however, greater mobility was making it increasingly difficult to find a single date during the year at which local populations could be regarded as being unaffected by inward and outward movement hence the need to experiment with a question on usual residence. The practice of holding the census on a Sunday, however, has remained ever since.

Reflecting the high levels of unemployment in the years of severe economic depression in the late 1920s and early 1930s, the Census asked about the former occupation and industries of persons who had not been employed for a long period nor who had any prospect of employment in that industry in the future.

But some questions in the 1921 Census were omitted in 1931 - about education, dependency, orphanhood, houses being built, and place of work. This was linked to a plan to hold a census in 1936, taking advantage of the new power in the 1920 Census Act to hold a census every five years. It was reasoned (as indeed was envisaged at the time when the Census Act was being drafted) that different questions could be asked in alternate censuses, thus lightening the burden in any one census. The plan was to ask fewer questions in 1931 than in 1921, which was regarded has having been at the limit of public acceptability, and reinstating other questions in 1936. In the event, however, no census was taken in 1936 and, with the intervention of the Second World War, there was to be no full census again for another 20 years.

In 1931, public broadcasts via the medium of the new-fangled 'wireless' were used to publicise the census. The importance of using the press in the 1921 Census to explain the purpose of the Census had been recognised, but the development of radio broadcasting made it possible in 1931 to give out, orally and nationally, a wide range of information. The BBC arranged 6 weekly talks on *Numbering the people* prior to Census Day on 26 April. These covered such subjects as:

- A short history of the Census and its indispensability for social and administrative purposes, by the Registrar General for England and Wales on 17 February;
- Medico-statistical utilities of the Census, by the Chief Medical Statistician at the General Register Office on 24 March;
- Utility of Census material for insurance purposes, on 3 March;
- Census-taking among primitive people, on 10 March;
- How the Census is taken, by a local census officer on 17 March; and

• Steps taken to ensure that Census returns are treated as strictly confidential, again by the Registrar General on 24 March.

The series concluded with a broadcast on census night itself by the Registrar General giving advice about how to fill up the census form. Without doubt, they played a valuable part in educating the public and encouraging them to participate. In Scotland, with the cooperation of the Education Department and local education authorities and teachers, arrangements were made for giving lessons on the census in schools. Together, these initiatives resulted in what the Registrar General later described as:

"... a gratifying improvement in the quality of the Census Returns".

The 1939 National Registration

Preparations for taking the 1941 Census were interrupted by the outbreak of war on 3 September 1939 and the census never went ahead. The National Registration Act 1939, which set up a national register for the issue of identity cards, authorised the Registrars General to compile the register using the administrative machinery already being prepared for the census. But the new registration recorded far less information than the census – simply name, address, sex, marital status, age and occupation. Some statistics from the 1939 register were published in 1944, but they were not comparable with those from previous censuses.



The 1951 and 1961 Censuses and the dawning of the computer age

The first post-war census was far wider in scope than any of the earlier ones, despite Sylvanus Vivian's view in 1931 that the limit of the public's acceptability had been reached in the 1921 Census. The fact that there had been an interval of twenty years since the previous census in Scotland, in which time there had been significant legislative and social changes, no doubt justified such a large enquiry. Almost all the questions that had been asked in the 1921 and 1931 Censuses were included again, plus new questions to identify full- and part-time employment and age at which full-time education was completed. New questions about the exclusive or shared use of household amenities were also included, in an attempt to assess and improve the quality of post-war housing.

An important innovation in output from the 1951 Census was the extraction of a one per cent sample of all records which was used to provide early preliminary figures on all topics in advance of the main results.

The most significant new feature of the 1961 Census was the use of a computer to process the results. The decision was made in 1957, when manufacturers were invited to put forward proposals. In all, seven companies submitted proposals. It seemed at first that the needs of the census might be met by a relatively small system that would not require the use of magnetic tape. However, it soon became clear that far more was required. During the following year, the Ministry of Defence decided that an IBM 705 system should be obtained for use by the Royal Army Pay Corps that would have a magnetic core storage of 40,000 characters backed by a magnetic drum capable of holding a further

60,000 characters. It was used to process the census results for Scotland as well as England and Wales. It was thought that, as the IBM 705 was considerably more powerful than the alternatives that were then being considered, there would be sufficient spare capacity for the machine to process the 1961 Census in its 'spare time', with a modified programme to cope with processing the data from the Scottish Gaelic language question. Despite the use of this latest technology, there were major delays in the final publication of the results. Though the preliminary report was published within two months, the first county report did not appear until March 1963, and it was $4\frac{1}{2}$ years before the computer processing was complete and $5\frac{1}{2}$ years before the final national tables were published. In the event, 72 man years were spent in programming compared with the 32 initially estimated.



A second major development in the 1961 Census was the introduction of field sampling methods. It was decided that, in view of the anticipated faster production timetable for the main outputs, a sample of records to provide preliminary figures, as in 1951, was not justified. Instead, consideration was given to the production of census results for certain topics on a sample basis only. This would clearly have the benefit of helping to reduce the cost of the census, though at the expense of a reduction in statistical accuracy, particularly at the smaller area level. The conclusion was that census counts that were necessary at the local area level, such as age, sex, marital status, birthplace and nationality, should be tabulated in full, but that a 10 per cent sample would suffice for some other variables, which were harder to code and more generally used only at the national level. Rather than carrying out a full enumeration but processing only a sample of the topics, the opportunity was taken to lessen the burden on the public by adopting a long and short form for the first time. The long form contained the full range of questions and was slipped into the enumerators' packs of shorter forms as every tenth form. In this way it was hoped that the 10 per cent sample of households in each enumeration district would be chosen randomly and without the bias that might occur through the enumerator's tendency to start delivery at a corner dwelling. Unfortunately, these plans were not entirely successful: there was evidence that, when the enumerator failed to deliver a long form to the designated address, it was often delivered next door instead.

The full list of questions included in the 1961 Census was even longer than the set covered in 1951 but, through the introduction of the field sampling, nine out of ten households were required to provide far less information than at any previous census since 1891. New questions were included on the long form on tenure of accommodation, professional qualifications (at the particular request of the Minister for Science, to establish the location of the country's scientific manpower), address one year ago and number of years lived at usual residence (to throw further light on the level and direction of internal migration) and persons usually resident but absent on census night (to enable household composition to be calculated on a usual residence basis).

In addition, enumerators were asked for the first time to identify whether a building was wholly or partially residential and whether it contained more than one dwelling. The question about fertility, which had previously been restricted to married women aged under 50, was extended to all women who were, or had been, married.

Advantage was taken of broadcasting by referring to the Census both in news items and in popular programmes such as the long-running radio soap *The Archers*, and by featuring short light-hearted fillers between television programmes during the run into the census. The experiment of product placing the census into regular programming was not generally successful, but one programme did lend itself to the idea when an enumerator demonstrated her mime on Eamonn Andrews' popular Sunday night show *What's My Line*. As Michael Firth, the Registrar General for England and Wales, noted in the 1961 General Report:

"The effect of her appearance on the previous evening was to ease the enumerators' job of distributing schedules on the Monday. No longer were there blank apprehensive and enquiring householders; instead there was ready cooperation when the enumerator called."

1966 Sample Census

The 1920 Census Act allowed for a census to be taken every five years but the Registrars General had continued to rely on the decennial census to meet the needs of users. The rapidly-changing demographic profile in the 1960s - with increasing birth and migration rates and greater mobility - together with the need for more up-to-date information than that was provided by the delayed results from the 1961 Census, prompted the decision, around the end of 1963, to carry out a mid-term census in 1966.

To reduce costs, however, it was proposed that the census should be on a 10 per cent sample basis for the whole of Britain, except for six Special Study areas in Scotland that were to be fully enumerated In England and Wales the sampling frame was a list, taken from the 1961 Census, of one in ten structurally separate private dwellings and small communal establishments (such as hotels which were expected to have fewer than 15 persons present) and all large establishments. In Scotland the basic sample was drawn from the 1964/65 Valuation Roll. A test was held in April 1964, involving around 1,700 households in some 22 areas across Scotland, to evaluate the proposed sampling method. The sample was then updated from a list of new dwellings up to February 1966 (census day in Scotland was 23 April) supplied by local valuation assessors, and from information on recently occupied accommodation provided by town and county clerks.

The Special Study areas, covering the counties of Roxburgh, Sutherland and Zetland, together with Lewis and Harris, Fort William and a surrounding area, and Livingston New Town and its surrounds, were selected for a full enumeration since more detailed information was needed for special economic and planning studies. Data from the 100 per cent count for these areas was then sampled from a list of addresses selected in the same way as for all other areas in Scotland, to produce consistent statistics.

The number of questions was slightly greater than on the 1961 long form. There were three entirely new topics (cars and garaging, means of transport to work and additional employment) and the questions on a number of regular topics sought more detailed information, in particular exact date of birth (rather than age at last birthday), usual residence five years before the census (in addition to the one-year question), town and county of usual address of mother at the time of birth (rather than just the country), economic activity in the year preceding the census (as well as during the preceding week), and all degrees, diplomas and vocational qualifications (as well as professional qualifications). The use of a 'fixed shower' replaced the 'cold-water tap' in the amenities question, and a distinction was made between those WCs with an entrance within the building and those with an entrance outside the building in the garden, backyard, or lane. The questions about fertility, nationality and use of the Gaelic language were dropped.

The 1971 Census and the Income Question

The plans for the 1971 Census were the most ambitious yet. The development of computer processing unlocked significant increases in the volume and detail of output. Because of public concern about the privacy of data held on computer, the British Computer Society (BCS) offered to carry out an independent review of IT arrangements shortly after the 1971 Census. This was accepted and the BCS was invited back to carry out similar reviews before the 1981 and 1991 Censuses.

The methods of collecting the information were reviewed with the aim of improving the quality of the results. Two important steps had to be taken. Firstly, the workloads for field staff had to be reduced. Secondly, better instructions and training had to be given to the people doing the job. Reducing workload could only mean employing more people, particularly since the size of the task was greater than in 1961 because of a larger population, more households and yet more questions. The census field force in Scotland had hitherto been based on the registration service but it was clear that this would not cope with the extra demands. So a new census supervisory structure was created, with 4 Field Liaison Officers, about 400 Census Officers and a similar number of Assistant Census Officers, and 14,300 Enumerators.

The 1971 Census form was larger in both format and content than in any other previous census. A new question on parents' country of birth was included and, although no information was sought on nationality, people born overseas were asked their year of first entry into the UK. The question on address five years ago, first asked in the sample 1966 Census, was included in a full census for the first time to improve migration estimation. New information was collected on the dates of birth of all children born alive to women aged under 60, aimed at providing data on trends in family size and spacing.

An attempt was made to identify structurally-separate dwellings by asking if the household shared any room, hall, passage or staircase with another. This enabled the first attempt to classify households according to the degree of sharing with other households – a task which remains notoriously difficult.

A question on income was considered for inclusion for the first time in the 1971 Census and was a major feature of the preparatory tests in 1968 and 1969. But response rates among those households receiving an income question was poor. A follow-up found that a fifth of householders who had refused to complete a form with the income question on it specifically cited the inclusion of the income question as the reason for refusal. And there was evidence of resentment and objection to the question from letters to the Registrar General and MPs, as well as adverse publicity in the press. So the question was dropped, partly to avoid the danger of undermining the overall response rate and partly because there were strong grounds to suspect the accuracy of the replies. Instead, a voluntary sample survey of incomes was held in 1972 as a follow-up to the census. This was not completely successful either, and only achieved a response rate of 43 per cent – much lower than for other government social surveys.

Three improvements were made in enumeration which had a wider effect on the outputs of the census. First, enumerators transcribed some basic information onto sheets for optical mark reading directly by the computer. This was the first use of such technology in the census and provided the data for a set of innovative preliminary tables, before the main results were ready for release. Second, the census districts on which the enumeration was arranged were for the first time based on local authority areas rather than registration districts. Third, enumerators were issued with Ordnance Survey maps of their enumeration districts (rather than a tracing of the boundary and description of the district as in earlier censuses) which allowed them to reference properties precisely on the National Grid. That paved the way for one of the most significant developments in the analysis of census outputs - the study of small area statistics. Although some small area data had been produced from the 1961 Census, consultation with users and extensive trialling in 1968-69 led to the decision that the National Grid should be used as an alternative output geography. So data from the census (and from the next census, in 1981) was made available for each 1 kilometre grid square. The resulting maps, published in an atlas entitled People in Britain, were made possible by developments in computer processing and gave a new view of the spatial distribution of the population which made census data accessible to a wider public and, in particular, to schools and colleges.

The 1981 Census and technological advances

The 1981 Census was the first to be heralded by a White Paper announcing the government's proposals for the census (although a White Paper had been published about the short lived plans for a mid-term census in 1976, which were abandoned for financial reasons).

Preparations for the 1981 Census were carried out against a background of increasing awareness of Scotland's distinct characteristics and needs, evidenced by the passage of the Scotland Act 1978 which paved the way for legislative devolution - although these plans were abandoned after gaining insufficient support in a referendum in 1979 A significant number of uniquely Scottish questions were considered for inclusion in the questionnaire. Though some were dropped before the final version, there was still a greater number of differences than in the past between the Scottish questionnaire and the one used south of the border (the Welsh version only differing from its English equivalent through the inclusion of a question on Welsh language). The appearance of the questionnaire, too, was notably different from the English and Welsh versions

As was the case in the first Scottish census 120 years before, the main variations related to housing, where the Scottish questionnaire was designed to provide finer detail about the characteristics of the housing stock and on densities of occupation. For example, in England and Wales the enumerators were asked to record the household's accommodation in one of five categories of building/structure type while in Scotland there were nine categories. The Scottish questionnaire also sought extra information on the floor level of the household's accommodation, the number of rooms and shared access.

By contrast, the questions about household members were almost identical across Great Britain, though the Scottish questionnaire continued the Gaelic language question and chose not to distinguish between 'married' and 're-married'. After the 1971 Census, it had become evident that the term 'head of household' was contentious where the husband and wife regarded themselves as joint heads, and was not appropriate in households where several unrelated adults shared the accommodation on equal terms. In the 1981 Census, therefore, the responsibility for completing the form was placed on each head or joint head (or on all members of the household aged 16 or over where there was no head).

Improvements were made in the field operation, including the identification of areas likely to be difficult to enumerate, efforts to recruit unemployed people as field staff and a centralised payroll computer system. To improve confidentiality, greater care was taken to assign enumerators to areas where they were not known, minimising the risk of enumerating people with whom they were personally acquainted. This was diametrically opposite to the view taken in the Rickman censuses that an intimate knowledge of an area was an essential requirement for the enumerator.

But the biggest change in the fieldwork was the geographic work underlying it. In 1973, the General Register Office for Scotland decided to map and maintain boundaries containing the addresses in each postcode area across the whole of Scotland. The postcode was used in two ways in 1981: enumerator workloads were created by assembling postcodes into suitably sized areas and published statistics for enumeration and other areas were based on an aggregation of information about postcode areas. This policy was unique to

Scotland in 1981 and made it easier for enumerators, and users of census outputs, to relate the enumeration and output areas to actual groups of households. It was developed further in each subsequent Scottish census.



To avoid the negative comment about the proposed income question in the 1971 Census, and amidst increasing public concern about privacy, a good deal more attention was given to publicity and to public relations generally. Interest was shown by both national and local media, and coverage was especially good on Radio 4, with interviews and discussions on a variety of programmes including the *Today* programme, *Woman's Hour* and the satirical *Week Ending*.

The 1961 Census had been the first to use a computer to process the census data. But the 1981 Census was the first to fully exploit the power of a mainframe computer to carry out innovative and sophisticated automated editing. During the 1970s, the General Register Office for Scotland installed its own mainframe computer and data entry system to speed up the collection of data from the registration of births, deaths and marriages, and improve the range and quality of population statistics. This new computer capacity, coupled with

the variations that had been introduced in the questionnaire, led to a decision that the data from all Scottish questionnaires should be coded and captured in Scotland. The data from the uniquely Scottish questions were then edited manually and on computer in Scotland. Incorrectly captured data, missing values and inconsistencies between data items were corrected using rules programmed into the computer and by employing a 'hot deck' method of imputation which created a matrix of values from recently processed, and therefore geographically close, complete and consistent records and imputing these 'correct' values into records where items were missing or inconsistent. Meantime, the data common to questionnaires throughout Great Britain were edited by a system developed by the Office for Population Censuses and Surveys. Once the complete set of data for Great Britain had been cleaned and made consistent, a copy of the Scottish data was sent back north of the border for the production of statistical tables.

This so-called 'Scottish Data System' was a significant development for the embryonic IT department of the General Register Office for Scotland, and the number of expert staff employed by the organisation increased accordingly, along with the purchase of a second, more powerful, mainframe computer that was dedicated to the census. Before the days of high-speed telecommunications, successful operation relied on the physical transfer of data on multiple reel-to-reel 9 track magnetic tapes and vast quantities of computer printout. These arrangements worked despite coinciding with nationwide industrial action by civil servants.

The 1991 Census and the ethnic group question

From an enumeration, data processing and statistical output production point of view the 1981 Census was generally regarded as highly successful. However, there were a number of logistical and data consistency issues that arose through having a separately developed Scottish Data System in Edinburgh to deal with the comparatively few uniquely Scottish data items and another one, developed and operated by the Office for Population Census and Surveys, which dealt with the considerably larger number of common data items. Similar consistency issues arose around the production of statistical tables and their interpretation by users. So in the early planning for the 1991 Census, there was a general agreement that for reasons of efficiency, consistency and economy there should be as few differences between the questionnaires as possible. This in turn led to a decision to create common data capture, processing and output production systems that would handle questionnaires from Scotland, Wales and England.

There was one big change in the question set for 1991 - the inclusion of an ethnic group question in a British census for the first time, after careful testing to find a broadly-acceptable wording and a final trial in 1989 in Berwickshire, East Lothian and Edinburgh (as well as in Birmingham, Wandsworth and Merton, and Scarborough in England). It proved to be one of the major successes in the 1991 Census and its inclusion provided information of immense value throughout the subsequent decade. Other new topics covered limiting long-term illness, central heating and a question about the term-time address of students.

The postcode of enumeration address was captured from the questionnaire and entered on the database for the first time, despite opposition from some by MPs who feared that the information would be used for directing mail shots and identifying high risk areas for insurance and mortgage purposes. The question on hours worked was reinstated, having been omitted in 1981. For the first time, an attempt was made to collect information from wholly absent households, albeit on a voluntary basis, by asking householders to complete a form on their return home. For those households noted as absent by the enumerator that did not subsequently return a form, the processing system used imputation methods to create a full set of household and personal data.

Also for the first time in the census, microdata was made available to users in the form of two Samples of Anonymised Records. Known more commonly in other counties as Public Use Samples, these SARs complemented the traditional tabular output of aggregated statistics by providing abstracts of individual records with names and other identifiers removed.

Recognising the increasing difficulty in contacting households, the Census Offices retained the services of an advertising agency to heighten public awareness. The main element of the resulting publicity campaign was an award-winning 30 second television commercial featuring a talking baby, inspired by a then current John Travolta movie. This was supplemented by a 10 second advert using an animated version of the census logo, with its slogan "It counts because you count". The successful campaign did much to counter the increasing hostility towards the census created by public resistance, especially in Scotland, to the government's 'community charge' (or poll tax, as its opponents called it). Despite these efforts, however, non-response to the 1991



Census 1991 It counts because

Census, estimated to have been around 2.2 per cent for Great Britain, was the highest yet recorded.

The robustness of the 1920 Census Act has already been noted. But, for the 1991 Census, a new Act had to be hastily drafted to close a loophole that had been created by the repeal in 1989 of parts of the 1911 Official Secrets Act, including the provision which safeguarded personal information after the census had been taken. The Census (Confidentiality) Act 1991 was passed only a few weeks before census day and created an offence of unlawful disclosure of personal census information as well as extending the previous confidentiality provisions to include post-enumeration census-related surveys and to encompass any person employed for the purpose of taking the census.

Most censuses have their own particular crisis. For the 1991 Census, it was undoubtedly the student problem. A routine audit check noted that more people than expected were being imputed as students. This was the result of the new question about students' term-time address, introduced late in the programme when it was realised that the census would be conducted in vacation time for many universities. It had been anticipated that there would be some inconsistencies between the new question and the regular question about economic activity in the week before the census. In the event, many non-students answered the new question in error, thereby inflating the number of 'students' recorded. By the time the error was spotted, an estimated 400,000 people had been misclassified, and the input database had to be corrected. Fortunately, data had been copied from the mainframe database at various stages, to be held in reserve as a contingency against any such problems occurring. Although the census outputs were delayed by some six months, this precaution averted a major disaster.

But before then, in 1990, the General Register Office for Scotland had averted another potential disaster. Contractors were putting a new surface on the roof of the census office at Ladywell House in Edinburgh when their boiler of hot tar blew over and ignited the whole length of the roof. Immediately below, staff were mapping the Scottish enumeration districts. Most of the maps were fortunately stored in metal chests and survived both the fire and the vast quantities of water not only from the firemen's hoses but also, during the following days, from torrential rain pouring through the hole in the roof. The only effect was a delay in planning the enumeration districts.

Flooding not only affected the mapping at Ladywell House, but plagued the refurbishment of the building at Hillington near Glasgow, which had been chosen to process most of the census forms for the whole of Britain. The building, the size of three football pitches, had been a Rolls Royce factory which during the Second World War had manufactured Merlin engines for Spitfires. Fortunately, the start of the coding operation was not delayed, but flooding recurred during the processing when seagull nests blocked the gutters.

Before the hole in the roof was fixed......

..... and afterwards





After the success of using postcodes in 1981, and the emergence of suitable technology, the General Register Office for Scotland made a pioneering decision to digitise the boundaries of all postcode boundaries in Scotland (130,000 postcodes from 5,500 maps). Enumeration districts were planned from scratch to bring workloads up to the level of those in England and Wales. To meet user demands for continuity with outputs produced in 1971 and 1981, and also allow greater flexibility for aggregation to ad-hoc output areas, the General Register Office for Scotland introduced a new form of 'output area' (OA), each designed to exceed a minimum threshold for population size. This was achieved using actual household and resident counts, the digitised postcode boundaries and geographic information system techniques.

Local statistics for small areas had increased in volume and complexity considerably over the years. In 1991, there was an expansion of output into two separate but related tiers called local based statistics and small area statistics. A data modification technique called Barnardisation (or blurring) was used to ensure that no information in the tables could be related to any identifiable person or household with any degree of certainty. However, this approach was later criticised by census users because it had a distorting effect, especially on table totals and for areas created by aggregating small areas into larger areas.

The 2001 Census – the bicentennial census

The 2001 Census in Scotland was the first to be approved by the devolved Scottish Parliament created in 1999, rather than by the Westminster Parliament. The Scottish Parliament, like its counterpart in London, insisted on an important change to the question set – the inclusion of a voluntary question about religion. Since the 1920 Census Act envisaged that all questions would be compulsory, this required fresh primary legislation – the Census (Amendment) (Scotland) Act 2000. In the Scottish census, two questions about religion were included, asking about religion of upbringing and current religion, whereas in England and Wales only the latter question was asked. This was the first question about religion to be included in the census since 1851, and there was a race to complete the passage of the new Act through the Scottish Parliament in time for preparations to be finalised.

Other new questions were asked about general health, the provision of unpaid care, time since last paid employment, the size of workforce at place of work and supervision of employees. The answer categories in some questions, such as ethnic group, were updated. And all the questions included in the 1991 Census were asked again in 2001 – except for questions relating to usual address and whereabouts on census night.

A new approach was taken to the return of the census forms by the householder. Instead of enumerators collecting all the completed forms, householders were given the option of posting them back. This allowed a smaller number of enumerators to be employed and was a popular innovation, with 91 per cent of forms posted back. It was particularly important because an outbreak of foot and mouth disease among farm animals made it difficult for enumerators to visit households in rural areas for fear of spreading the infection.

The return of questionnaires by post was one of four key tasks outsourced to the private sector for the first time. Contractors were also responsible for paying the small army of nearly 9,000 field staff and for running a call centre to answer questions on the telephone. A fourth, and major, contract covered the printing of about 3 million scannable questionnaires, the capture and coding of the information on the completed questionnaires, the creation of microfilm from the scanned images and the destruction of the paper questionnaires This made it easier to take advantage of modern developments in scanning and optical mark and character recognition, with efficiency improvements, and enabled all the data on the census questionnaires to be coded and captured rather than taking a 10 per cent sample of the replies to the less frequently-used topics. The questionnaires were turned into shredded bales of paper which were pulped and used to manufacture toilet rolls, saving about 2,000 mature trees. For the first time, the paper returns were not kept for archival purposes, with microfilm serving as the physical archive.

The biggest innovations came with the publication of the statistics. The 2001 Census results covered the whole population rather than omitting people who were not recorded on the household forms and people in households which the enumerators failed to locate - which was estimated to have been 1.9 per cent of the population in 1991. A new approach – christened the One Number Census - allowed these groups to be identified by a follow-up survey and added to the census results. A new method of filling data gaps - called donor imputation - was used in 2001. The census database searched for a similar person

or household and the values were copied into the records with the missing data items. The confidentiality protection measures for outputs were improved to meet the competing demands for more protection for smaller areas, wider dissemination of results and a richer and more usable dataset - and to overcome the anomalies in the output previously created by Barnardisation. Records of households and communal establishment residents were swapped with similar records in the same area and the minimum number of households in an OA was increased.

For the first time, the bulk of the results were made available free of charge on the internet, through a website entitled Scotland's Census Results Online (SCROL). The aim of the SCROL website was to improve the use of, and access to, census statistics using visualisation and analysis tools to help the user understand and interpret the results. Production and dissemination of tabular outputs was significantly improved and simplified by powerful and easy to use table production software called Supercross. This enabled the General Register Office for Scotland to publish outputs much faster than before: most of the results from the 2001 Census were made available in March 2003.



The use of the One Number Census methodology meant that the results of the 2001 Census covered the entire population of Scotland and were believed to be the most complete and reliable results obtained by any census in Scotland. They showed that the population was 5,062,011, a little over three times the size of the population at the first statutory census in 1801.

Appendix 1 – Summary tables

Table 1 Population and vital events, Scotland, 1855 to 2009

Year	Estimated	Live births ¹		Stillbirths ²		Infant deaths		Deaths		Marriages	Divorces	Civil Partnerships ³	
1 oui	('000s)	Number	Rate ⁴	Number	Rate ⁵	Number	Rate ⁶	Number	Rate ⁴			Male	Female
	(/		. tato		. tuto		. tato		liaio				
1855-60	3,018.4	102,462	34.1			12,250	119.6	62,644	20.8	20,645	19		
1861-65	3,127.1	109,764	35.1			13,166	119.9	69,265	22.1	22,013	14		
1866-70	3,275.6	114,394	34.9			13,971	122.1	71,974	22.0	22,832	9		
1871-75	3,441.4	120,376	35.0			15,314	127.2	77,988	22.7	25,754	24		
1876-80	3,628.7	126,086	34.8			14,921	118.3	74,801	20.6	24,956	54		
1881-85	3,799.2	126,409	33.3			14,864	117.6	74,396	19.6	26,176	74		
1886-90	3,943.9	123,977	31.4			14,943	120.5	74,320	18.8	25,702	94		
1891-95	4.122.5	125.800	30.5			15.895	126.4	78.350	19.0	27.962	115		
1896-1900	4.345.1	130.209	30.0			16.857	129.5	78.021	17.9	31.771	146		
1901-05	4.535.7	132.399	29.2			15.881	119.9	77.313	17.1	31.838	181		
1906-10	4.679.9	128,987	27.6			14.501	112.4	75.534	16.1	31.811	195		
1911-15	4,748.3	120,654	25.4			13,604	112.8	74,466	15.7	33,857	264		
1916-20	4.823.8	109,750	22.8			10,869	99.0	72,365	15.0	37,437	531		
1921-25	4 879 6	112 245	23.0			10 299	91.8	67 652	13.9	34 720	427		
1926-30	4,075.0	96 674	20.0			8 260	85.4	66 017	13.6	32 605	478		
1931-35	4 905 1	89 306	18.2			7 212	80.8	64 839	13.2	34 986	507		
1936-40	4,000.1	87 734	17.6			6 650	75.8	67 166	13.5	42 941	750		
1941-45	4,330.0 4 711 Q	01,70 4 01 503	10 4	3 303	 35.7	6 202	67.7	66 302	13.8	43 772	1 413		
1946-50	5 054 3	101 222	20.0	3 047	29.2	4 789	47.3	63 854	12.6	43 206	2 4 3 5		
1951-55	5 103 6	01 366	17.0	2 300	25.2	3 000	32.0	61 838	12.0	40,200	2,700		
1951-55	5,105.0	08 663	10.2	2,330	20.0	2 755	27.0	61 065	12.1	41,710	1 702		
1950-00	5 201 0	102 642	10.2	2,307	10.1	2,755	27.5	63 300	12.0	40.235	2 253		
1966-70	5,201.0	02,042	17.0	2,000	15.0	2,500	20.0	62 707	12.2	40,233	2,255		
1900-70	5,204.5	93,033 75 544	17.9	1,410	10.0	1,970	21.2 10.0	62,191	12.1	42,032	4,000		
1971-75	5,234.7	75,541	14.4	939	12.3	1,421	10.0	03,000	12.2	41,404	0,004		
1976-80	5,213.9 E 4E4 0	00,700	12.0	529	6.U	900	13.7	04,343 62,722	12.3	37,801	9,000		
1981-85	5,151.9 5,090.5	00,422 CE E 4 4	12.9	369	5.6	695	10.5	63,723	12.4	35,750	12,937		
1986-90	5,089.5	00,044	12.9	350	5.3	000	8.4 0.0	62,796	12.3	35,440	12,070		
1991-95	5,093.5	63,571	12.5	382	6.0	418	6.6	61,171	12.0	32,866	12,614		
1996-2000	5,077.5	00,000	11.2	327	5.7 5.7	310	5.0 7.4	59,478 64.044	11.7	29,900	10,963		
1991	5083.3	67,024	13.1	369	5.5	473	7.1	61,041	12.0	33,762	12,400		
1992	5085.6	65,789	12.9	356	5.4	449	6.8	60,937	11.9	35,057	12,487		
1993	5092.5	63,337	12.4	409	6.4	412	6.5	64,049	12.5	33,366	13,292		
1994	5102.2	61,656	12.0	381	6.1	382	6.2	59,328	11.6	31,480	12,601		
1995	5103.7	60,051	11.7	397	6.6	375	6.2	60,500	11.8	30,663	12,292		
1996	5092.2	59,296	11.6	381	6.4	365	6.2	60,654	11.8	30,242	12,313		
1997	5083.3	59,440	11.6	319	5.3	316	5.3	59,494	11.6	29,611	12,241		
1998	5077.1	57,319	11.2	351	6.1	320	5.6	59,164	11.6	29,668	12,354		
1999	5072.0	55,147	10.8	286	5.2	276	5.0	60,281	11.8	29,940	11,872		
2000	5062.9	53,076	10.4	298	5.6	305	5.7	57,799	11.3	30,367	11,139		
2001	5,064.2	52,527	10.4	301	5.7	290	5.5	57,382	11.3	29,621	10,651		
2002	5,054.8	51,270	10.1	278	5.4	270	5.3	58,103	11.5	29,826	10,859		
2003	5,057.4	52,432	10.4	296	5.6	265	5.1	58,472	11.6	30,757	10,863		
2004	5,078.4	53,957	10.6	317	5.8	266	4.9	56,187	11.1	32,154	11,275		
2005	5,094.8	54,386	10.7	292	5.3	284	5.2	55,747	10.9	30,881	10,911	53	31
2006	5,116.9	55,690	10.9	296	5.3	248	4.5	55,093	10.8	29,898	13,076	580	467
2007	5,144.2	57,781	11.2	327	5.6	272	4.7	55,986	10.9	29,866	12,810	339	349
2008	5,168.5	60,041	11.6	325	5.4	253	4.2	55,700	10.8	28,903	11,513	245	280
2009	5,194.0	59,046	11.4	317	5.3	235	4.0	53,856	10.4	27,524	10,371	219	279

¹ Live births only, prior to 1939.

² See Notes and Definitions.

³ The Civil Partnership Act 2004 came into effect in December 2005.

⁴ Rate per 1,000 population.

⁵ Rate per 1,000 live and still births.

⁶ Rate per 1,000 live births.
Table 2 Estimated population, births, stillbirths, deaths, marriages and civil partnerships, numbers and rates, by Council area, Scotland, 2009

	Estimated	L	Live births			Stillbirths		Infant deaths		Deaths			Civil
Area	Population at 30 Jun	Number	Rate ¹	Standard- ised Rate	Number	Rate ²	Number	Rate ³	Number	Rate ¹	Standard- ised Rate	Marriages	Partner- ships
SCOTLAND	5,194,000	59,046	11.4	11.4	317	5.3	235	4.0	53,856	10.4	10.7	27,524	498
Council areas													
Aberdeen City	213,810	2,564	12.0	10.2	15	5.8	11	4.3	2,056	9.6	10.3	813	14
Aberdeenshire	243,510	2,903	11.9	14.1	10	3.4	6	2.1	2,185	9.0	9.1	1,195	8
Angus	110,250	1,165	10.6	13.3	8	6.8	9	7.7	1,190	10.8	9.1	479	2
Argyll & Bute	90,040	815	9.1	12.9	4	4.9	-	-	1,050	11.7	9.5	914	16
Clackmannanshire	50,540	610	12.1	13.1	1	1.6	3	4.9	498	9.9	10.9	184	-
Dumfries & Galloway	148,510	1,507	10.1	13.3	8	5.3	5	3.3	1,790	12.1	9.7	4,632	43
Dundee City	143,390	1,768	12.3	11.1	8	4.5	13	7.4	1,693	11.8	10.8	480	9
East Ayrshire	120,210	1,362	11.3	12.2	5	3.7	5	3.7	1,328	11.0	11.0	331	5
East Dunbartonshire	104,680	929	8.9	11.3	6	6.4	1	1.1	907	8.7	8.0	259	1
East Lothian	96,830	1,062	11.0	12.9	5	4.7	6	5.6	1,023	10.6	9.9	461	10
East Renfrewshire	89,240	848	9.5	12.0	5	5.9	7	8.3	835	9.4	8.8	357	7
Edinburgh, City of	477,660	5,475	11.5	8.4	28	5.1	21	3.8	4,202	8.8	9.4	2,522	122
Eilean Siar	26,180	227	8.7	11.5	-	-	-	-	352	13.4	10.5	102	1
Falkirk	152,480	1,874	12.3	12.5	7	3.7	6	3.2	1,480	9.7	10.2	767	8
Fife	363,460	4,135	11.4	12.0	23	5.5	24	5.8	3,874	10.7	10.3	1,662	22
Glasgow City	588,470	7,512	12.8	9.9	46	6.1	29	3.9	6,571	11.2	13.1	2,293	111
Highland	220,490	2,374	10.8	13.0	19	7.9	12	5.1	2,254	10.2	9.3	1,594	23
Inverclyde	80,210	813	10.1	11.1	1	1.2	5	6.2	971	12.1	11.5	239	6
Midlothian	80,810	947	11.7	12.7	6	6.3	1	1.1	802	9.9	10.3	408	4
Moray	87,660	966	11.0	13.9	4	4.1	4	4.1	897	10.2	9.5	393	3
North Ayrshire	135,510	1,498	11.1	12.3	10	6.6	9	6.0	1,608	11.9	11.3	678	10
North Lanarkshire	326,320	4,067	12.5	12.3	29	7.1	16	3.9	3,306	10.1	11.7	909	7
Orkney Islands	19,960	199	10.0	12.3	2	10.0	1	5.0	209	10.5	9.3	122	-
Perth & Kinross	145,910	1,425	9.8	11.6	7	4.9	7	4.9	1,531	10.5	8.9	976	10
Renfrewshire	169,910	1,869	11.0	11.4	7	3.7	8	4.3	1,929	11.4	11.7	478	4
Scottish Borders	112,680	1,159	10.3	13.3	9	7.7	3	2.6	1,259	11.2	9.6	682	13
Shetland Islands	22,210	273	12.3	14.3	4	14.4	-	-	196	8.8	8.7	74	-
South Ayrshire	111,440	1,054	9.5	11.6	3	2.8	4	3.8	1,379	12.4	9.9	726	3
South Lanarkshire	310,930	3,467	11.2	11.7	19	5.5	7	2.0	3,212	10.3	10.6	1,086	16
Stirling	88,740	863	9.7	10.3	3	3.5	5	5.8	816	9.2	9.1	694	10
West Dunbartonshire	90,920	1,082	11.9	12.0	7	6.4	2	1.8	1,051	11.6	12.0	409	5
West Lothian	171,040	2,234	13.1	13.1	8	3.6	5	2.2	1,402	8.2	10.6	605	5

¹ Rate per 1,000 population.

² Rate per 1,000 live and still births.

³ Rate per 1,000 live births.

Table 3 International populations and vital statistics rates, selected countries, latest available figures

Country	Estimated population 2009	Live births		Stillbirths ¹		Infant deaths		Deaths		Marriages	
	('000s)	Year	Rate ²	Year	Rate ³	Year	Rate ⁴	Year	Rate ²	Year	Rate ²
Scotland	5 10/	2008	11.6	2008	5 /	2008	12	2008	10.8	2008	5.6
European Union	0,104	2000	11.0	2000	0.4	2000	7.2	2000	10.0	2000	0.0
Austria	8.355	2008	9.3	2007	3.8	2008	3.7	2008	9.0	2008	4.2
Belgium	10.750	2008	11.7	1997	4.7	2007	4.0	2004	9.7	2008	4.3
Bulgaria	7,606	2008	10.2	2007	7.5	2008	8.6	2006	14.7	2008	3.6
Cyprus	797	2008	11.6			2007	3.7	2007	6.4	2008	7.7
Czech Republic	10,467	2008	11.5	2007	2.7	2008	2.8	2008	10.1	2008	5.0
Denmark	5,511	2008	11.8	2007	5.1	2008	4.0	2006	10.2	2008	6.8
Estonia	1,340	2008	11.9	2007	4.1	2008	5.0	2008	12.4	2008	4.6
Finland	5,326	2008	11.2	2007	3.2	2008	2.6	2008	9.2	2008	5.8
France	64,351	2008	13.0	2001	4.8	2007	3.7	2007	8.4	2008	4.1
Germany	82,002	2007	8.3	2006	3.6	2007	3.9	2006	10.0	2008	4.6
Greece	11,260	2008	10.3	2007	3.9	2007	3.5	2008	9.6	2008	4.8
Hungary	10,031	2008	9.9	2007	4.9	2007	5.9	2008	12.9	2008	4.0
Irish Republic	4,450	2008	16.9	2005	4.1	2007	3.1	2008	6.1	2007	5.2
Italy	60,045	2008	9.6	2005	2.6	2007	3.7	2007	9.6	2008	4.1
Latvia	2,261	2008	10.6	2007	5.2	2008	6.7	2007	14.5	2008	5.7
Lithuania	3,350	2008	10.4	2007	5.0	2008	4.9	2008	13.0	2008	7.2
Luxembourg	493	2008	11.4	2006	2.9	2008	1.8	2006	7.8	2008	3.9
Malta	414	2008	10.0	2007	3.1	2008	9.9	2008	7.9	2008	6.0
Netherlands	16,486	2007	11.1	2007	3.3	2007	4.1	2008	8.2	2008	4.5
Poland	38,136	2008	10.9	2006	4.8	2008	5.6	2007	9.9	2008	6.8
Portugal	10,627	2008	9.8	2007	3.7	2007	3.4	2004	9.7	2008	4.1
Romania	21,499	2008	10.3	2006	5.2	2008	11.0	2008	11.8	2008	6.9
Slovakia	5,412	2008	10.6	2007	3.8	2008	5.9	2005	9.9	2008	5.2
Slovenia	2,032	2008	10.8	2007	5.1	2007	2.8	2007	9.2	2008	3.3
Spain	45,828	2005	10.8	2005	3.1	2007	3.7	2005	8.9	2008	4.2
Sweden	9,256	2008	11.8	2007	3.0	2008	2.5	2007	10.0	2008	5.5
United Kingdom ⁵	61,792	2008	12.9	2008	5.1	2008	4.7	2008	9.4	2007	4.5
Other Europe											
Croatia	4,435	2008	9.9	2006	4.4	2008	4.5	2008	11.8	2008	5.3
Macedonia	2,049	2008	11.2	2007	9.4	2007	10.3	2003	8.9	2008	7.2
Norway	4,799	2008	12.7	2006	4.0	2008	2.7	2007	8.9	2008	5.3
Switzerland	7,702	2008	10.0	2006	4.6	2007	3.9	2007	8.1	2008	5.4
Turkey	71,517	2008	17.8	2007	5.3	2008	16.0	1998	6.3	2008	9.0

Sources: Eurostat, WHO/Europe

¹ The definition of a stillbirth varies from country to country and over time. The position in the UK is described in the

Notes and Definitions.

² Rate per 1,000 population.

³ Rate per 1,000 live and still births.

⁴ Rate per 1,000 live births.

⁵ Excludes Isle of Man and Channel Islands.

Appendix 2 – Notes and definitions

This appendix gives general notes on some of the data and conventions used in this report as well as providing definitions for some of the terms used.

General

Conventions for tables

Where a range of years is listed in a table (for example, '1980-82'), the data we have given will be an average for that length of time.

In all tables 'year' means 'calendar year' unless we tell you otherwise. Many of the ranges of years start at census years (for example, 1991).

The date events happen and the date of registration

The data for births and deaths in the Population chapter are for mid-year periods (from 1 July of one year to 30 June of the next) and relate to the date the event happened and not to the date the event was registered. For example, a birth on 30 June 2009 which was registered on 4 July 2009 would be included in the mid-2009 figures, which relate to the period from 1 July 2008 to 30 June 2009.

All of the other data for births and deaths, as well the data for stillbirths, marriages and civil partnerships, are for calendar years and relate to the date the event was registered, and not the date the event actually happened. For example, a birth on 31 December 2008 which was registered on 4 January 2009 would be included in the 2009 figures. Almost all births and stillbirths are registered within 21 days, as the law requires. The same is true of marriages and civil partnerships, where the legal periods are three days, and deaths, where the legal period is eight days.

Place the relevant person usually lives and the place the event happens

Births, stillbirths, and deaths are generally allocated to the area the relevant person (the mother for births and stillbirths, and the person who has died for deaths) usually lives if this is in Scotland, otherwise they are allocated to the area in which the event happened. However, a death may be allocated to the area where the person used to live if the area is in Scotland and the person had lived at their usual address for less than 12 months.

Marriage and civil partnership figures relate to the area the event took place.

Age

Ages relate to the person's age on their last birthday.

When working out average ages (such as the average age at death, and the average age of mothers at childbirth) we have added half a year to people's age at their last birthday. For example, to work out the overall average age at death, we

have assumed that the average age of 77-year-olds who died was 77 years and 6 months.

Age standardisation

A straight comparison of rates alone between areas may present a misleading picture because of differences in sex and age between the different populations. Because of this, we have used standardisation in certain tables and charts. Standardisation allows areas with different age and sex structures to be easily compared, comparing the actual number of events that happen in an area with the total number of events that would be expected in the standard population. In this report, the standard population refers to the overall Scottish population for the year or years in question.

Lists of groups of countries

EU-15 refers to the countries that were member states of the European Union before 1 May 2004, which were Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom.

EU-25 refers to the EU-15, plus the countries that became member states of the European Union between 1 May 2004 and 31 December 2006, which were Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovenia and Slovakia.

EU-27 refers to the EU-25, plus the countries that became member states of the European Union after 1 January 2007, which were Bulgaria and Romania.

Population

All population figures refer to estimates at 30 June of the relevant year.

Population covered

The estimated population of an area includes all those who usually live there, whatever their nationality. Students are treated as living at their term-time address. Members of UK and non-UK armed forces stationed in Scotland are included, but UK forces stationed outside Scotland are not. Short-term international migrants (who stay for less than 12 months) are also not included.

Population projections

The Registrar General asks the Office for National Statistics (ONS) to prepare population projections with input from GROS statisticians. The latest national projections were published in October 2009, and were based on 2008 population estimates.

Migration

Net migration figures (the number of people moving to Scotland minus the number of people moving out of Scotland) include people joining and leaving the Armed Forces but do not include other changes, such as changes in the numbers of Armed Forces stationed in Scotland.

UK regions

For the purposes of this document, the regions of the UK are Scotland, Wales, Northern Ireland and the Government Office Regions of England. You can find a map at http://www.statistics.gov.uk/geography/gor.asp

Births

Cohort

A well-defined group of people who have had a common experience and are observed through time. For example, 'the birth cohort of 1976' refers to the people born in that year.

General fertility rate (GFR)

The number of births per 1,000 women of childbearing age (15 to 44).

Total fertility rate (TFR)

The average number of children that would be born, per woman, to a cohort of women who experienced, throughout their childbearing years, the fertility rates for the calendar year in question.

Age specific fertility rate (ASFR)

The number of births per person for a specific age during a specified time.

Marital status of parents

'Married parents' refers to parents who are married to each other. 'Unmarried parents' refers to parents who are unmarried, or who are married but not to each other.

Deaths

Cause-of-death coding

From 1 January 2000, deaths in Scotland have been coded in line with the International Statistical Classification of Diseases and Related Health Problems (Tenth Revision), also known as ICD10. We put the underlying causes of death into classes based on information collected on the medical certificate of cause of death, together with any extra information the certifying doctor provides later. We also take account of changes that Procurators Fiscal tell us about. The Crown Office supply extra information about suicides.

Our website provides more detailed information about death certificates, coding the causes of death, and how we produce statistics of deaths from certain causes – http://www.gro-scotland.gov.uk/statistics/deaths/death-certificates-and-coding-the-causes-of-death

Stillbirth

Section 56(1) of the Registration of Births, Deaths and Marriages (Scotland) Act 1965 (as amended by the Still-Birth (Definition) Act 1992) defines a stillbirth as a child born after the 24th week of pregnancy which does not breathe or show any other sign of life.

Perinatal deaths

This refers to stillbirths and deaths in the first week of life.

Infant deaths

This refers to all deaths in the first year of life.

Life expectancy

The average number of extra years a person can expect to live if current mortality trends continue for the rest of that person's life. Most commonly referred to in relation to life expectancy at birth.

Marriages

Civil marriages were introduced by the Marriage (Scotland) Act 1939, which came into force on 1 July 1940.

Civil partnerships

The Civil Partnership Act 2004, which applies throughout the UK, came into force on 5 December 2005. The act allows same-sex couples aged 16 and over to get legal recognition of their relationship. In Scotland, the first civil partnership was registered on 20 December 2005.

Divorces

The data on divorces relate to the date on which the decrees were granted.

Dissolutions of civil partnerships

The data on dissolutions of civil partnerships relate to the date on which the decree was granted. The first dissolution of a civil partnership in Scotland was granted in April 2007.

Adoptions

The Registrar General for Scotland registers adoptions under the Adoption of Children (Scotland) Act 1930.

Households and housing

Like population projections, household projections are produced every two years, and are mainly used for informing decisions about future housing need and providing services. The latest household projections, covering the length of time from 2008 to 2033, take account of the results of the latest population projections. They also include information from the last two censuses to help project trends in how households are structured by type of household and by the age of the head of household. The head of household is defined in the census as the first person on the census form who is aged 16 or over and usually lives at the address in question. The projections give an indication of what would happen if past trends continue. They do not take account of policy initiatives, or other factors that may affect future populations. Projections for small groups are likely to be less reliable than those for larger groups. You can get household estimates and projections publications from: www.gro-scotland.gov.uk/statistics/household-estimates-projections.

Urban and rural classifications

'Large urban areas' refers to settlements of over 125,000 people.

'Other urban areas' refers to settlements of 10,000 to 125,000 people.

'Accessible small towns' refers to settlements of between 3,000 and 10,000 people that are within 30 minutes' drive of a settlement of 10,000 people or more.

'Remote small towns' refers to settlements of between 3,000 and 10,000 people that are not within 30 minutes' drive of a settlement of 10,000 people or more.

'Accessible rural' settlements are settlements of less than 3,000 people that are within 30 minutes' drive of a settlement of 10,000 people or more.

'Remote rural' settlements are settlements of less than 3,000 people that are not within 30 minutes' drive of a settlement of 10,000 people or more.

Deprivation

The Scottish Index of Multiple Deprivation helps find small-area concentrations of deprivation across all of Scotland in a fair way. It is based on 38 indicators in eight fields – income, employment, health, education, skills and training, housing, geographic access and crime.

Notes on statistical publications

National Statistics

This is a National Statistics publication. It has been produced to the high professional standards set out in the UK Statistics Authority Code of Practice for Official Statistics (www.statisticsauthority.gov.uk/assessment/code-of-practice). These statistics go through regular quality-assurance reviews to make sure that they meet customers' needs. They are produced in a way that is free from any political interference.

Enquiries

If you have any enquiries about this publication you should contact us using the details below.

Statistics Customer Services General Register Office for Scotland Ladywell House Edinburgh EH12 7TF Phone: 0131 314 4299 Email: customer@gro-scotland.gsi.gov.uk

General Register Office for Scotland

We, the General Register Office for Scotland, are the department of the devolved Scottish Administration responsible for the registration of births, marriages, civil partnerships, deaths, divorces and adoptions in Scotland. We are responsible for the Census of Population in Scotland, which we use, with other sources of information, to produce population and household statistics. We make important family history information available. Our website is www.gro-scotland.gov.uk.

Our aim is to provide relevant and reliable information, analysis and advice that meets the needs of government, business and the people of Scotland.

You can get other detailed statistics that we have produced from the Statistics section on our website (www.gro-scotland.gov.uk/statistics). Statistics from the 2001 Census are on Scotland's Census Results On-Line website (www.scrol.gov.uk) and on the Census section of our website (www.gro-scotland.gov.uk/census).

We provide information about future publications on our website

(www.gro-scotland.gov.uk/futurepb.html). If you would like us to tell you about future statistical publications, you can register your interest on the Scottish Government ScotStat website at www.scotland.gov.uk/scotstat.

Comments and complaints

If you are not satisfied with our service, please write to: Kirsty MacLachlan Head of Demography Division General Register Office for Scotland Room 1/2/7 Ladywell House Ladywell Road Edinburgh EH12 7TF. Phone: 0131 314 4242 Email: kirsty.maclachlan@gro-scotland.gsi.gov.uk

We also welcome any comments or suggestions that would help us to improve the standards of our service.

Related organisations

Organisation	Contact				
The Scottish Government (SG) forms the bulk of the devolved Scottish Administration. The aim of the statistical service in the SG is to provide relevant and reliable statistical information, analysis and advice that meets the needs of government, business and the people of Scotland.	Office of the Chief Statistician Scottish Government 1.N04, St Andrew's House Edinburgh, EH1 3DG. Phone: (0131) 244 0442 E-mail: statistics.enquiries@scotland.gsi.gov.uk Website: www.scotland.gov.uk/Topics/Statistics				
The Office for National Statistics (ONS) is responsible for producing a wide range of economic and social statistics. It also carries out the Census of Population for England and Wales.	Customer Contact Centre Room 1.015 Office for National Statistics Cardiff Road Newport, NP10 8XG. Phone: 0845 601 3034 Minicom: 01633 812399 Email: info@statistics.gsi.gov.uk Website: www.ons.gov.uk				
The Northern Ireland Statistics and Research Agency (NISRA) is Northern Ireland's official statistics organisation. The agency is also responsible, for registering births, marriages, adoptions and deaths in Northern Ireland, and the Census of Population.	Northern Ireland Statistics and Research Agency McAuley House 2-14 Castle Street Belfast, BT1 1SA. Phone: 028 9034 8100 Website: www.nisra.gov.uk				



Plain English Campaign's Crystal Mark only applies to pages 7 to 13 and 111 to 119 of this document.

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