

# SCOTLAND'S POPULATION 2001

The Registrar General's Annual Review  
of Demographic Trends



General Register Office  
*for*  
**SCOTLAND**  
*information about Scotland's people*

The Registrar General's Annual Review  
of Demographic Trends

# SCOTLAND'S POPULATION 2001

(Laid before the Scottish Parliament pursuant to Section 1(4) of the Registration of Births, Deaths and Marriages (Scotland) Act 1965.)

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# **ANNUAL REPORT**

## **of the REGISTRAR GENERAL of BIRTHS, DEATHS AND MARRIAGES for SCOTLAND 2001**

To Scottish Ministers

My Annual Report this year is in a new format, designed to bring out key demographic trends and issues more clearly for a wider audience.

The Report will be laid before the Scottish Parliament pursuant to Section 1(4) of the Registration of Births, Deaths and Marriages (Scotland) Act 1965.

**John Randall**  
Registrar General  
October 2002



## CONTENTS

|   | <i>page</i> |
|---|-------------|
| <b>Index of illustrations</b>                                   | <b>vi</b>   |
| <b>Introduction</b>   | <b>1</b>    |
| <b>Chapter 1              Overview</b>                          | <b>2</b>    |
| <b>Chapter 2              Population</b>                        | <b>4</b>    |
| <b>Chapter 3              Births</b>                            | <b>12</b>   |
| <b>Chapter 4              Deaths</b>                            | <b>22</b>   |
| <b>Chapter 5              Migration</b>                         | <b>32</b>   |
| <b>Chapter 6              Marriages, Divorces and Adoptions</b> | <b>40</b>   |
| <br>  |             |
| <b>Appendix 1            Summary Tables</b>                     | <b>48</b>   |
| <br>  |             |
| <b>Appendix 2            Notes and Definitions</b>              | <b>52</b>   |
| <br>  |             |
| <b>Contact points</b>   | <b>56</b>   |

## **Index of illustrations**

### **Population**

- 2.1 Estimated population of Scotland, 1901-2001
- 2.2 Natural change and net migration, Scotland, 1951-2001
- 2.3 Estimated population by age and sex, 30 June 2001
- 2.4 The changing age structure of Scotland's population, 1981-2001
- 2.5 Percentage population change by Council area, 1981-2001
- 2.6 Births and deaths, actual and projected, Scotland, 1951-2021
- 2.7 The projected change in age structure of Scotland's population, 2000-2021
- 2.8 Projected percentage population change, EU Countries, 2000-2020

### **Births**

- 3.1 Live births, Scotland, 1901-2001
- 3.2 Estimated female population aged 15-44 and total fertility rate, 1951-2001
- 3.3 Live births, per 1,000 women, by age of mother, Scotland, 1951-2001
- 3.4 Births, per 1,000 women
- 3.5 Cumulative cohort fertility rate for selected cohorts, Scotland
- 3.6 Total fertility rates, UK, 1951-2001
- 3.7 Total fertility rate, selected countries, 2000
- 3.8 Live births per 1,000 women aged 15-44, by Council area, 2001
- 3.9 Proportion of births by marital status and type of registration, Scotland, 1974-2001

### **Deaths**

- 4.1 Deaths, Scotland, 1901-2001
- 4.2 Stillbirth, perinatal and infant death rates, Scotland, 1951-2001
- 4.3 Expectation of life at birth, Scotland, 1952-2040
- 4.4 Age specific mortality rates as a proportion of 1981 rate, 1981-2001
- 4.5 Standardised mortality ratios, by Council area, 2001
- 4.6 Deaths per 1,000 population, selected countries, 2000
- 4.7 Expectation of life at birth, by sex, selected countries, 1999
- 4.8 Age adjusted mortality rates, by selected cause and sex, 2000
- 4.9 Deaths, by cause and age group, Scotland, 2001

### **Migration**

- 5.1 Estimated net migration, Scotland, 1951-2001
- 5.2 Estimated net migration, moves to/from the rest of the UK and overseas, Scotland, 1951-2001
- 5.3 Movements between Scotland and the rest of the UK, by age, mid 2000 – mid 2001
- 5.4 Moves between Health Board areas within Scotland, by age and sex, mid 2000 – mid 2001
- 5.5 Movements between Health Board areas within Scotland, to/from the rest of the UK and to/from the rest of the world, 1981-2001
- 5.6 Net migration rates per 1,000 population for Health Board areas, 1991-2001

### **Marriages & Divorces**

- 6.1 Marriages, Scotland, 1951–2001
- 6.2 Marriages, by marital status of persons marrying, 1951-2001
- 6.3 Marriages by type of ceremony, Scotland, 1951-2001
- 6.4 Civil and religious marriages at Gretna, 1992-2001
- 6.5 Divorces, Scotland, 1952-2001
- 6.6 Number of divorces, by grounds for divorce, Scotland, 1981-2001
- 6.7 Duration of marriages ending in divorce, 1981 and 2001
- 6.8 Adoption, by age of child and relationship of the adopter(s), 2001

## INTRODUCTION

My aim in this report is to highlight recent demographic trends and foster an informed public debate on the important issues affecting the future of Scotland's population.

While this is the 147th Annual Report produced by the Registrar General since the General Register Office for Scotland was established in the mid-nineteenth century, and is laid before the Scottish Parliament under statute, the format of the report is radically different from that of its predecessors. The detailed statistical tables which comprised the bulk of previous reports are available as a supplement to this report on our website ([www.gro-scotland.gov.uk](http://www.gro-scotland.gov.uk)). This report is much shorter, containing text and charts designed to bring out key trends and issues more clearly for a wider audience.

Now is an appropriate time to make this change. We are in the first years of the new Scottish Parliament and at the start of a new millennium. The first results from the 2001 Census were published last month, and there is growing public interest and debate focusing on the important demographic issues facing modern Scotland. I hope this new report will provide an informed basis for this debate, and for the taking of decisions affecting the future of Scotland.

I should enter a couple of caveats:

- my job as Registrar General is to set out the facts and describe the trends. It is for others (the Scottish Executive, local Councils, and a host of other organisations and individuals) to take decisions in response to the trends and projections. This report does not therefore contain policy prescriptions.
- some of the figures contained in the report are subject to revision as the implications of the recent 2001 Census results are worked through and as new information becomes available. Nonetheless, I do not expect the main trends highlighted in this report to be substantially changed by the Census results. We will of course continue to update our estimates and projections as new information becomes available in the future.

The main chapters of this report deal with changes in Scotland's population size and structure; and then with each of the components of population change: births, deaths, and migration. There is also a chapter on marriages, divorces and adoptions. The aim throughout is to place recent trends in Scotland in a wider historical and geographical context. An overview of key facts in the report as a whole is given at the start. A small number of more detailed summary tables are given in Appendix 1.

I hope you will find the report useful. There are indications that some of the historic trends which have affected demographic change in Scotland for many decades may now be changing. For example, net emigration from Scotland in recent years has been much lower than in the 1960s or even the 1980s; while a declining birth rate (so that deaths now exceed births) is now a major factor in explaining why Scotland's population has declined. It is important that policy makers are aware of the most recent trends, and take decisions on the wide range of policies which are affected by demographic change on an informed basis.

Finally, we would welcome comments on the format of this report. In future years we plan that the Annual Report, while retaining the new format, should concentrate on particular demographic themes (for example, fertility trends), and perhaps include articles written by outside experts. The contact point for sending comments is given at the end. We will consider all views in the planning of future reports.

JOHN RANDALL  
Registrar General for Scotland  
October 2002

# CHAPTER 1 – OVERVIEW

The demographic issues facing Scotland at the beginning of the 21st century are very different from those facing Scotland 50 years ago. Although the overall population is very similar to what it was 50 years ago at just over 5 million, this apparent stability masks big changes in the age structure and geographical distribution of the population within Scotland. The population is now considerably older than fifty years ago, with half the population aged over 38 years in 2001 and ten per cent aged over 71 years compared with 31 years and 64 years, respectively, in 1951; while there has been a shift away from west central Scotland to many areas in eastern and rural Scotland.

Scotland's population on 30 June 2001 was 5,064,200. The number of births recorded in 2001 was 52,527, while deaths totalled 57,382. The number of births and deaths were both the lowest ever-recorded in Scotland. There were 301 stillbirths and 290 deaths of children aged under 1 (infant deaths) registered in 2001, both at historically low levels. 29,621 couples were married in Scotland in 2001, the second lowest total ever recorded, while the 10,631 divorces processed was the lowest total in twenty years.

Some key facts are:

## Population

1. Scotland's population reached a peak in 1974 and since then has been on a gradually declining trend, although with some fluctuations. (page 4)
2. We are projecting a gradual fall in population to continue. (page 9)
3. Scotland is the only country within the UK with recent and projected declines in population, and there are relatively few countries in the world which are currently declining in population. (page 11)
4. Scotland has recorded a natural decrease (an excess of deaths over births), since 1997, while net migration loss has reduced. (page 5)
5. The natural decrease is projected to continue to grow and is the main factor in the projected population decline. (page 9)
6. Scotland's population is ageing (and is projected to continue ageing) with higher proportions in the older age groups and smaller proportions in the younger age groups. (page 10)
7. The numbers of children have reached a new low and, despite the losses through death and migration for people born in earlier years, the population aged under 1 is now lower than for any other single age up to 60. (page 4)
8. The distribution of population within Scotland is changing. In general, the larger urban areas (except Edinburgh) are declining, and many areas around the bigger cities and some rural areas are increasing in population. (page 8)

## Births

9. Birth rates in Scotland are lower than in any other country in the UK, and we are projecting this to continue, but the rates are similar to the average for European countries, some of which (Spain, Italy, Germany, Austria and Greece) have lower birth rates than Scotland. (page 16)
10. Falling birth rates reflect the fact that women are having fewer children and having them later and as a consequence average completed family size fell below two for women born after 1953. (page 15)

- 11.** The proportion of births to unmarried parents is continuing to increase, but most births are jointly registered by parents living at the same address. (page 20)

## Deaths

- 12.** Death rates have fallen significantly in Scotland since 1981, but less rapidly than most other countries of the UK. (page 27)
- 13.** Stillbirths, perinatal and infant mortality rates continue to fall and are at historically low levels, but remain above the EU average. (page 23)
- 14.** Mortality rates are falling for both men and women, but male life expectancy at birth has remained 4-6 years less than that for women over the last 50 years. (page 24)
- 15.** The main causes of death in Scotland are cancers and heart disease; over the last decade there has been a big fall in the latter but not in the former. (page 28)

## Migration

- 16.** Net emigration from Scotland is much lower than 40 years ago and even 15 years ago. (page 32)
- 17.** Recent 2001 Census results suggest that net emigration is more likely to be weighted towards males and the younger age groups than previously thought. (page 38)
- 18.** The pattern of net migration between Scotland and the rest of the UK varies markedly by age group for both males and females, with a net inflow peaking at age 19 and a net outflow peaking at age 23. (page 35)
- 19.** Moves between Health Board areas within Scotland are highest for males and females in their twenties and thirties, with large peaks at student ages (18–22). (page 35)

## Marriages, divorces and adoptions

- 20.** The number of marriages has continued to fall, with the average age of first marriage continuing to increase, and a higher proportion of marriages involving people who have been married previously. (page 41)
- 21.** Civil marriages account for some 40 per cent of all marriages in Scotland, double the proportion in the early 1960s. (page 42)
- 22.** The number of divorces, while much higher than 30 years ago, has decreased slightly over the past decade. (page 44)
- 23.** The number of adoptions is 40 per cent lower than 10 years ago and is the second lowest total, after 2000, since 1931. (page 47)

## CHAPTER 2 – POPULATION

The latest estimate of Scotland's population (for 30 June 2001) is 5,064,200. Children aged 15 and under accounted for 19 per cent of the population, people of working age (16-59F/64M) 62 per cent, and people of pensionable age (60F/65M+) 19 per cent.

Over the period 1981-2001 the main factor leading to population decline was net emigration from Scotland; but the level of net emigration has fallen during the latter part of this period (even allowing for the additional migration loss implied by the recent 2001 Census results). The biggest impact on population change is now declining births. Deaths have fallen too but much more slowly. In 1981 there were 5,000 more births than deaths and 6,000 more in 1991, but by 2001 deaths exceeded births by nearly 4,800. A result of improving mortality is that people are living longer, resulting in an ageing population. The number of children has reached a new low and the population aged under 1 is now lower than for any other single age up to 60. In contrast the under 1 population in 1981 was higher than any other age up to 8.

### 2001 Census – Caution

Throughout this report the Registrar General's annual mid-year estimates of population are used for comparing population trends and for use as denominators in calculating rates per head.

The latest 2001 mid-year estimates are based on the 2001 Census and are some 50,400 less than the previously published 2000 mid-year estimates. This fall does not represent change in a single year but rather an accumulated error in the previous mid-year estimates since 1981, which are expected to be the results of errors in estimating migration in the 1980s and 1990s. Given the new baseline established by the 2001 Census it will be necessary to revise previous population estimates.

These revisions for population estimates covering the series 1982–2000 will be made by end-February 2003. Revisions are being made back to 1982 because it is now evident that the adjustments made for underenumeration in the 1991 Census were excessive and need to be revisited.

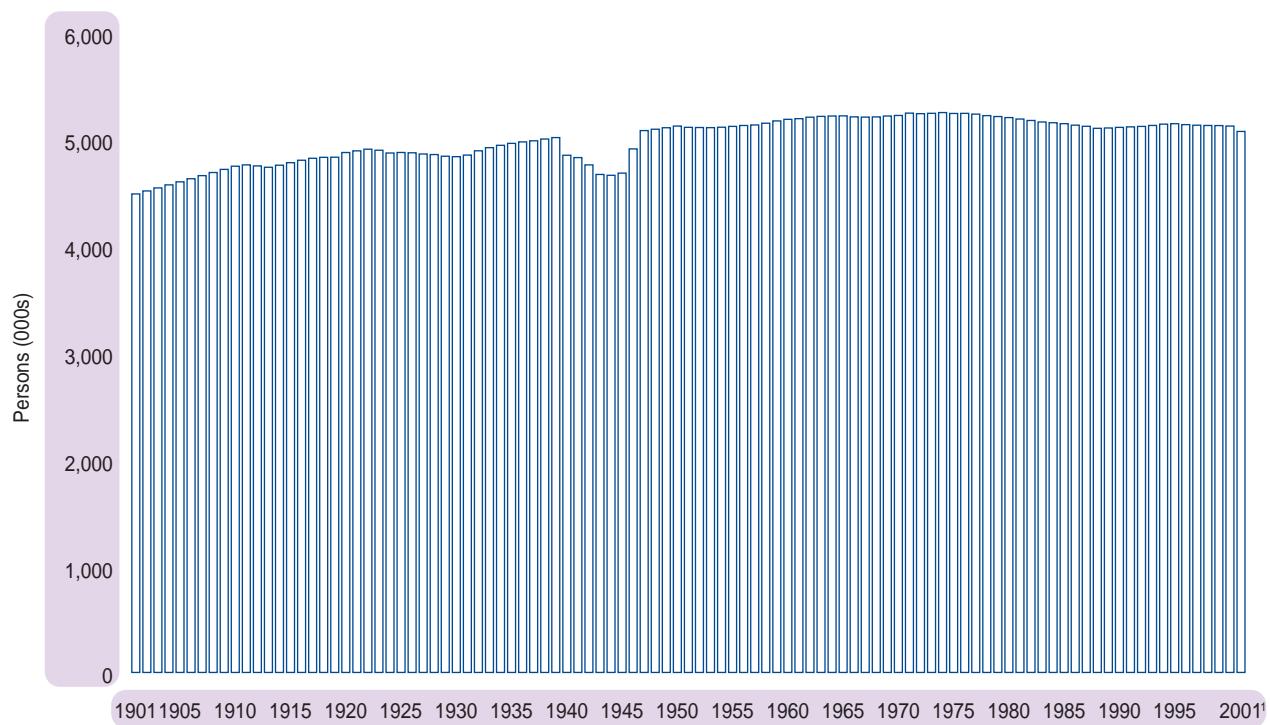
Even though the population trends presented in this chapter for 1982-2000 are subject to revision, the fact of a declining population will not change. Comparisons of change over time are made with 1981 to present an accurate picture of change.

### Population since 1901

The Scottish population has been relatively stable in the last 100 years as shown in **Figure 2.1**. It reached a peak of 5.24 million in 1974 and since then has been on a gradually declining trend with some fluctuations.

The change in trend since 1974 is mainly the result of a downturn in the number of births since that time. Up to 1974 population growth was fuelled by the large excess of births over deaths, which more than offset high migration losses occurring at the same time.

Figure 2.1 Estimated population of Scotland, 1901-2001



Note: The decline in the population between 1940 and 1946 is a result of the Second World War and members of the Armed Forces serving outwith Scotland not included in the resident population.

<sup>1</sup>See text box, 2001 Census—Caution, which explains the discontinuity between 2001 and earlier years.

Trends in natural change and migration, the two primary components of population change, are shown in **Figure 2.2**. This shows that natural change was running at +30,000 or more each year between 1956 and 1970, but by 1974 natural change had fallen to less than +7,000 where it has remained ever since. Indeed, in the last 5 years deaths have exceeded births. This large downward shift in natural change was accompanied by a reduction in net emigration from Scotland. If net migration levels of the 1950s and 1960s (over 30,000 in many years) had continued, Scotland's population would have fallen at a much greater rate.

## Age structure

One of the most important aspects of the population is its age-sex composition. Changes in the balance between the three main age groups of the population (children, labour force, and pensionable age) will have many social and economic implications. For example an increase in the elderly population will make more demands on the health service, while an ageing population generally means a reduction in the working age population which supports dependent populations such as the elderly.

## CHAPTER 2 – POPULATION

Figure 2.2 Natural change and net migration, Scotland, 1951-2001

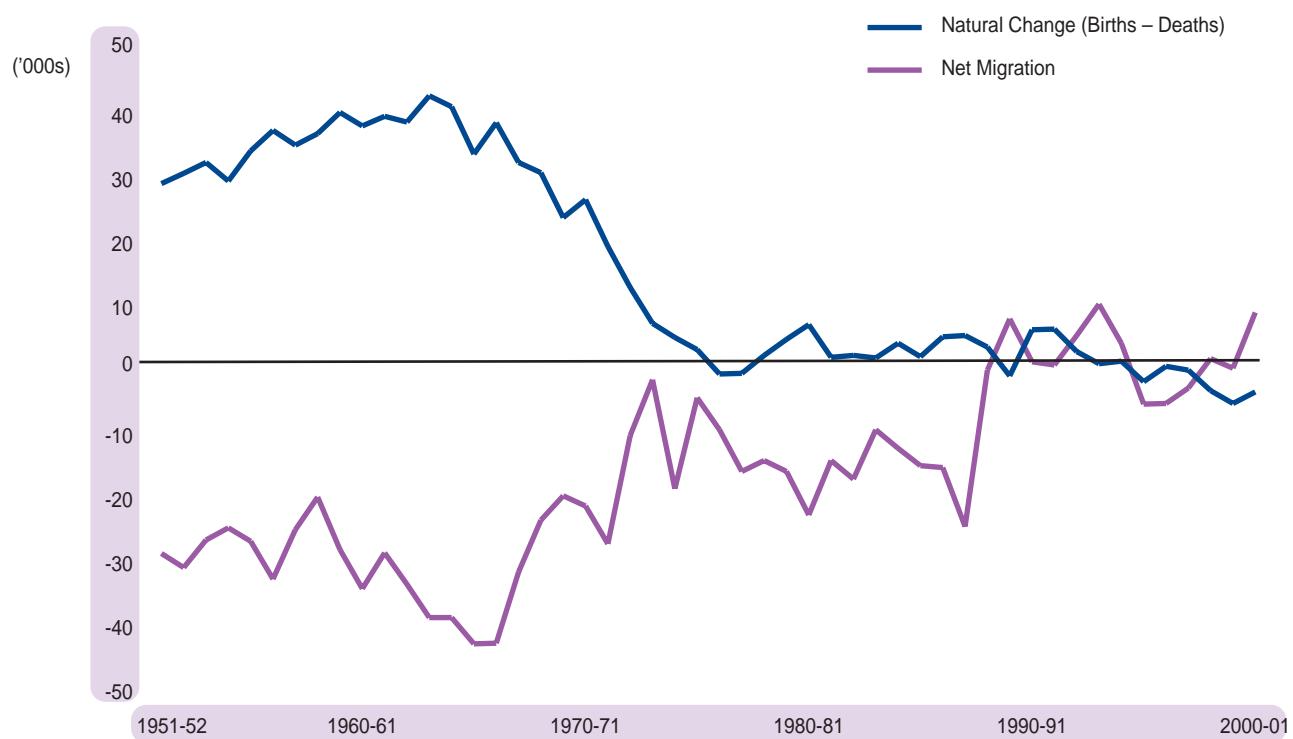
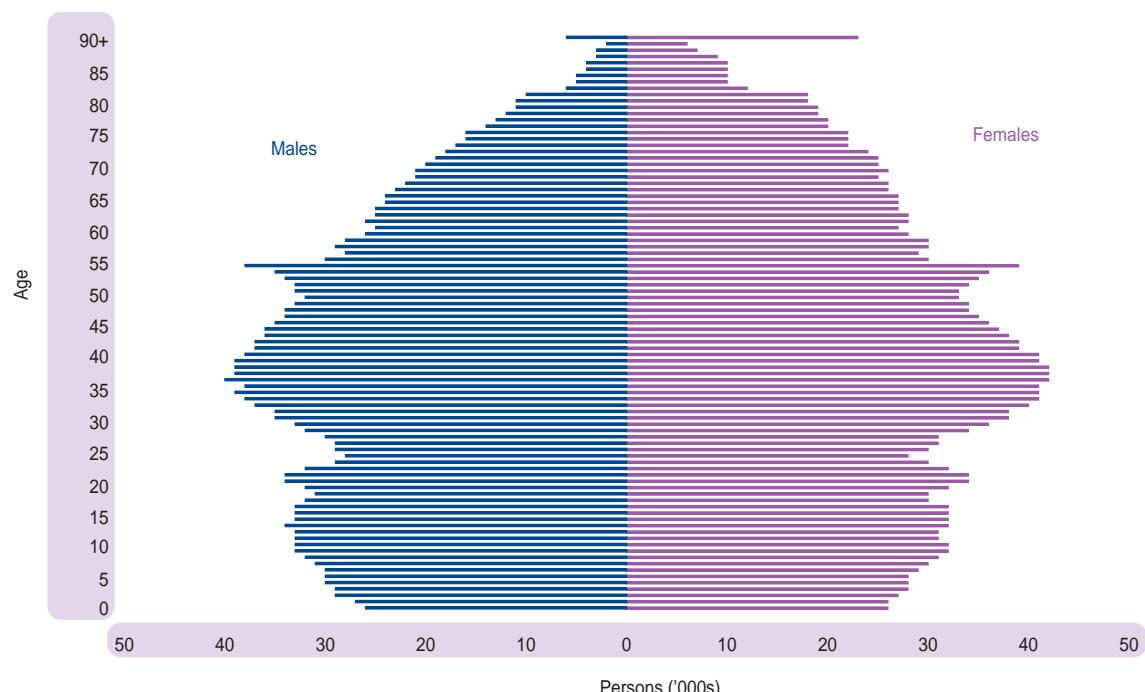


Figure 2.3 gives the age structure of the population for both males and females in 2001. It is possible to use past trends in fertility and mortality as a guide to explain the peaks and troughs at different ages. The peaks at ages 55 and mid-thirties reflect the baby boom after the Second World War and in the 1960s. Declining births in more recent years are

Figure 2.3 Estimated population by age and sex, 30 June 2001



evident by the tapering of the population under the age of 30. The trough at ages 23-25 can be explained by a much lower level of births in 1976-1978 and the more stable levels of 10-20 year olds reflect a levelling off of the decline in births during the eighties when more women were passing through their childbearing ages. The shrinking numbers at the base of the population represent the continuing decline in births since 1990.

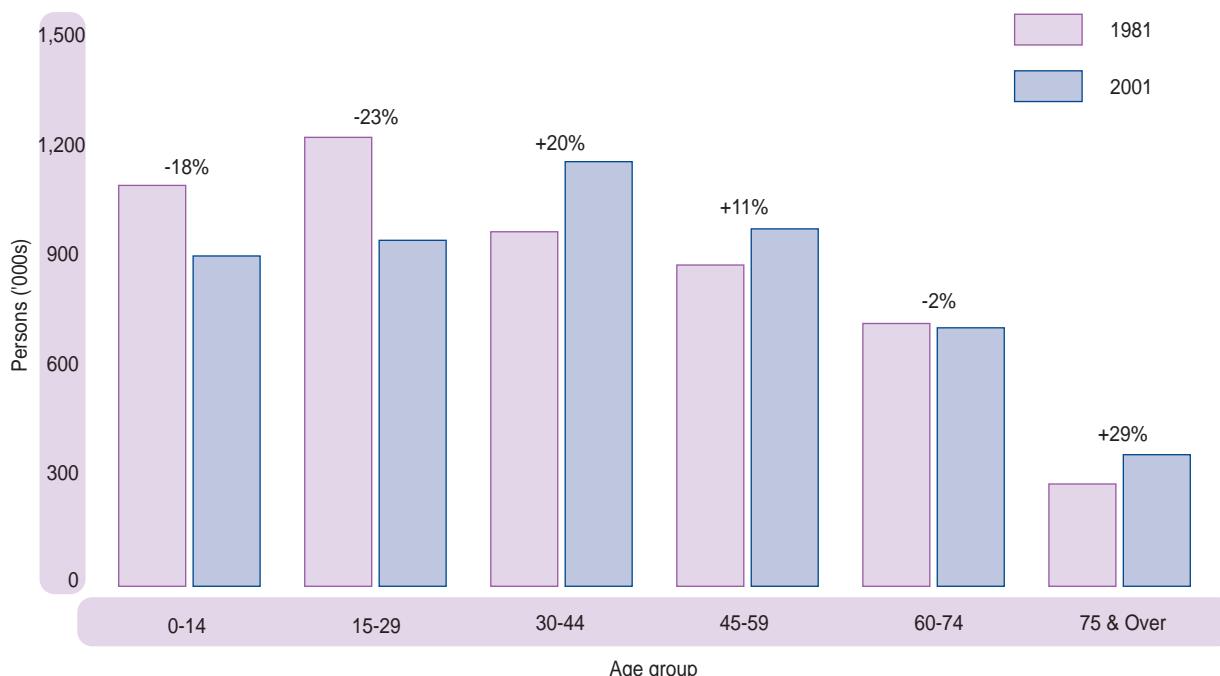
At the more elderly ages, particularly over 75, the higher number of females reflects the longer expectation of life for women, partly as a result of higher rates of male mortality during the Second World War. The effects of a 'flu epidemic in 1922 and lower levels of fertility during the First World War are also evident, as seen in the sharp decline in population aged over 81.

**Figure 2.4** illustrates how the age structure of the population has changed since 1981. Of particular note are the decrease of 18 per cent in the number of children under 15 and the increase of 29 per cent in the numbers aged 75 and over. During this time the median age (age at which half the population is older than the value and half is younger) has grown by 5 years from 33 in 1981 to 38 in 2001.

Looking at **Figure 2.3** again, it can be predicted that the ageing of the population will continue even if the decline in births is reversed or levels off. The big increase in people of retirement age as a result of the 1960s baby boom is still 30 or so years away. Before then, there will be smaller increases in the more elderly age groups as those born in the post Second World War baby boom move into retirement in the next 10 to 15 years. The phased raising of pensionable age for women from 60 to 65 between 2010 and 2020 will mitigate the effect.

The ageing of the population is not unique to Scotland. This pattern of change over the last twenty years is consistent with other countries in the UK and Europe, although the rate of change varies. The chapters on births and deaths provide more detailed comparisons of trends in births and deaths in other countries.

Figure 2.4 The changing age structure of Scotland's population, 1981-2001

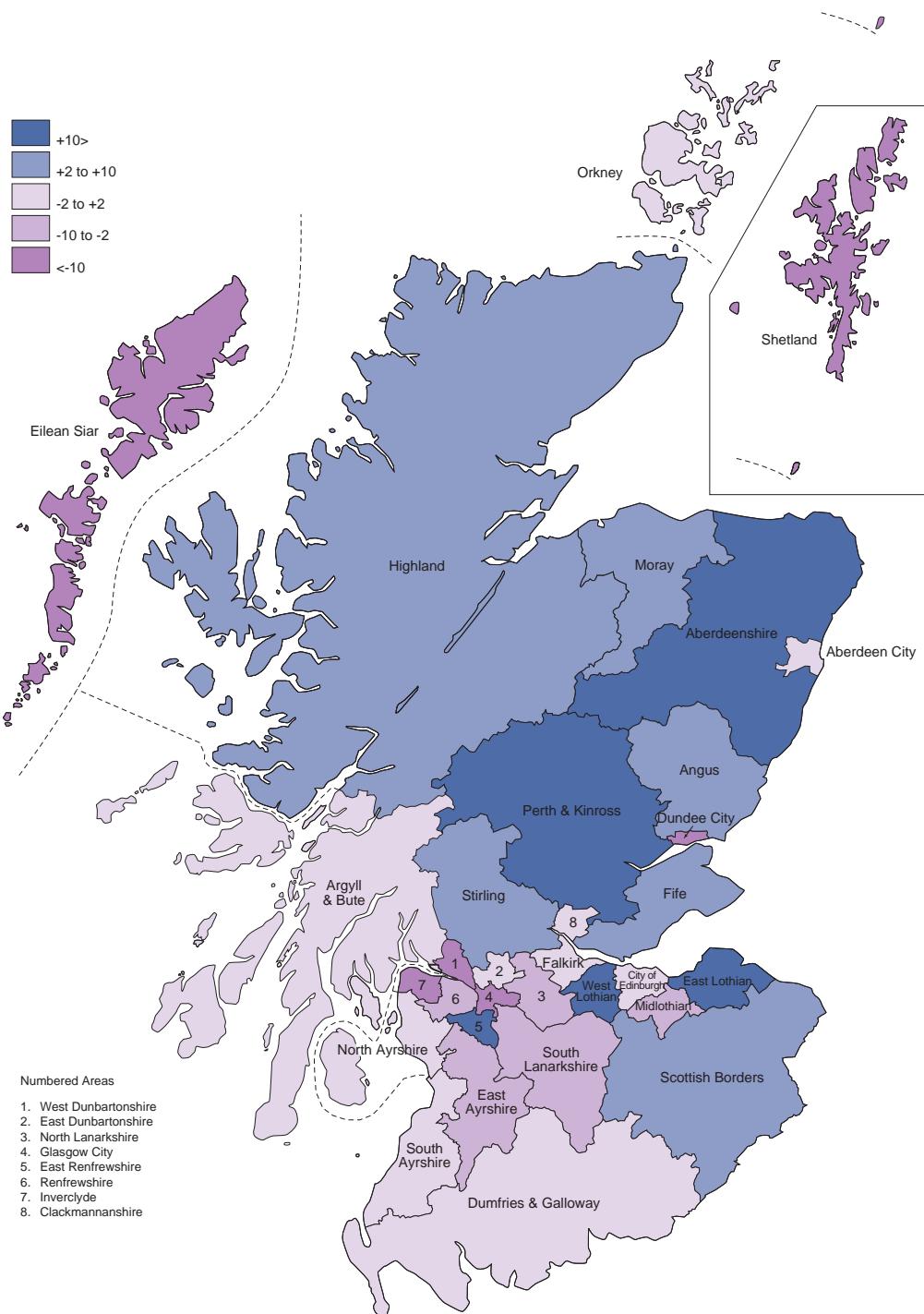


# CHAPTER 2 – POPULATION

## Changes within Scotland

The distribution of population within Scotland is also changing. The map at **Figure 2.5** shows the percentage change in population between 1981 and 2001 for each Council area. In general, the larger urban areas (apart from Edinburgh) are declining, while areas around the bigger cities and many rural areas are increasing. Generally, urban areas tend to have lower levels of fertility, higher mortality and more out-migration. The areas with a growing population tend to experience net in-migration and an excess of births over deaths.

Figure 2.5 Percentage population change by Council area, 1981–2001



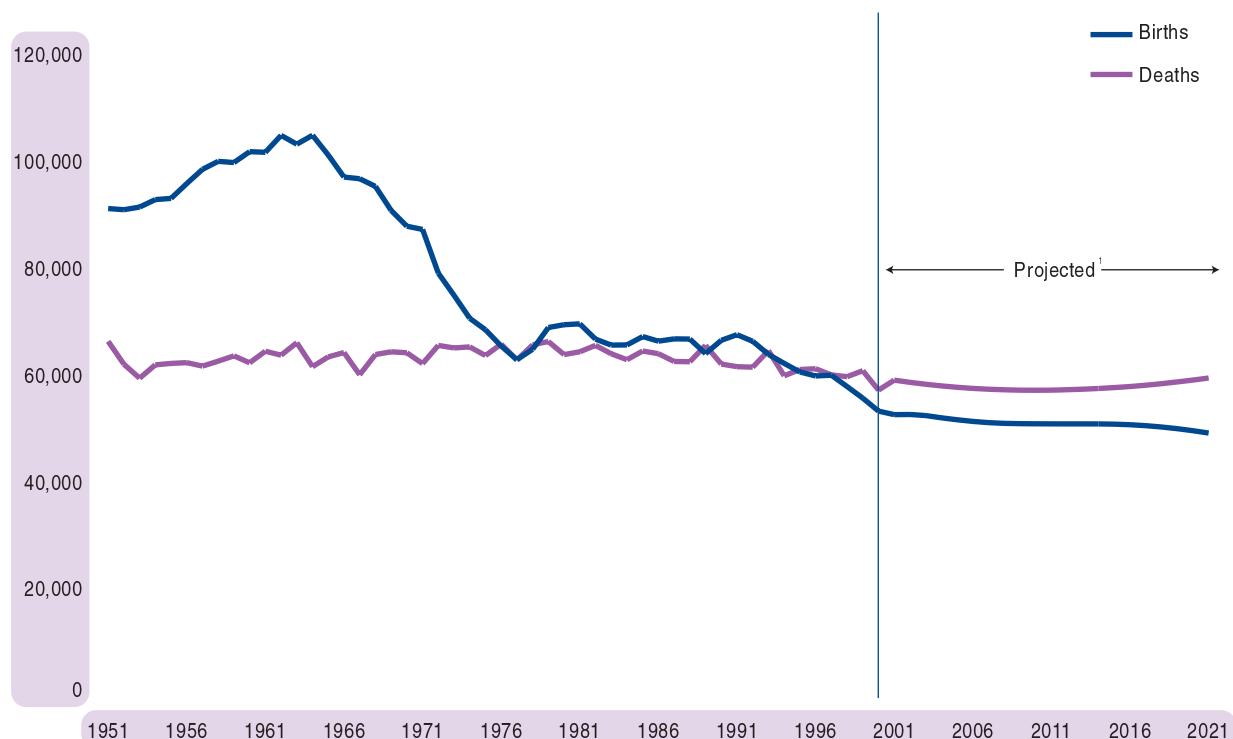
The Council areas which showed the largest relative decreases are Glasgow City (-19%), Inverclyde (-17%), Eilean Siar (-16%) and Dundee City (-14%). Shetland also experienced a large decrease of 17 per cent, but this fall was a return to more normal long term levels after a large increase in the 1981 population caused by construction workers building the Sullom Voe terminal. The largest relative increases in population between 1981 and 2001 occurred in Aberdeenshire (+20%), West Lothian (+14%) and East Lothian (+12%).

## Projected population

The latest 2000-based population projections reflect recent demographic trends based on 2000 mid-year estimates prepared prior to the results of the 2001 Census. Since these are some 50,000 higher than the revised mid-year estimates for 2000 taking account of the 2001 Census results, it would be misleading to use the actual numbers to represent change. The commentary therefore attempts to highlight the key changes using percentage changes to illustrate the size of the projected change. These will be subject to revision when a new set of projections are produced using the latest information from the 2001 Census.

The overall trend of a slowly declining population is projected to continue. In making these projections, assumptions have been made about future levels of fertility, mortality and migration based on past trends. **Figure 2.6** shows a widening gap between births and deaths since the projected decline in births is faster than the decline in deaths,

**Figure 2.6 Births and deaths, actual and projected, Scotland, 1951-2021**



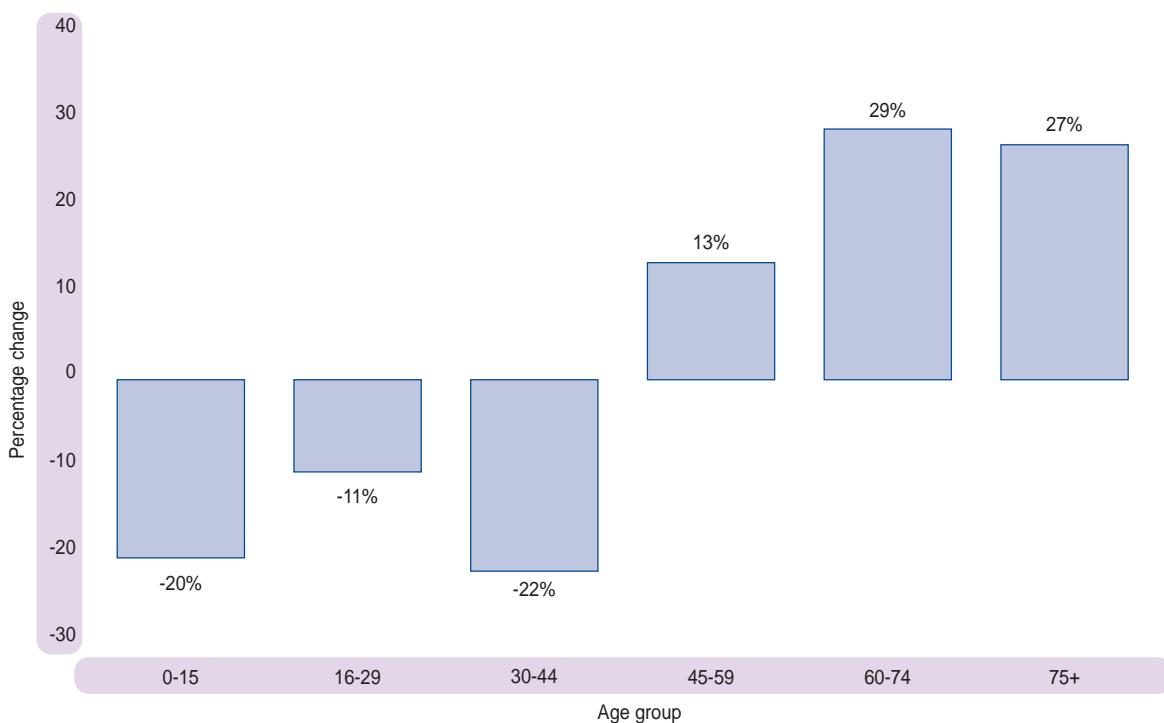
<sup>1</sup>2000-based projections

## CHAPTER 2 – POPULATION

producing a natural decrease of over 10,000 a year after 2020. This is projected to be the main reason for population decline in future, more significant than migration (which the 2000-based projections assume will be in balance from 2002)-even when revisions are made to take account of past underestimates of migration loss.

Within this overall decline, significant changes to the age structure are projected (**Figure 2.7**). The proportion of children under 16 is projected to fall by 20 per cent by 2021, while the proportion of people aged 60 and over is projected to increase by over 25 per cent.

Figure 2.7 The projected change in age structure of Scotland's population, 2000-2021



The implications of a changing age structure become clearer when considering the dependency ratio, that is the number of children under 16 plus the number of pensionable age per 100 people of working age. This provides an indicator of the economic burden that those of productive, or working ages, must support. However, it is worth noting that these ratios are based on age criteria and take no account of actual participation in the labour force. Therefore not all of the people of working age will be producers and not all of the people of pensionable age will be dependants.

**Table 2.1** gives the projected dependency ratios from the 2000-based population projections up until 2025. Although the numbers are likely to change in the light of the results of the 2001 Census, they still provide a useful indicator of the future trend of the dependency ratios. Overall, the dependency ratio is projected to fall slightly by 2021, reflecting the smaller proportion of children, before returning to its 2000 level in 2025. However, this fall is largely due to the change in state retirement age of women from 60 to 65 between 2010 and 2020. The ratio would have been much higher at 66 per 100 of working age population without the change. After 2021, with the increasing numbers of people reaching pensionable age, the dependency ratio is projected to rise steeply to 72 in 2040.

Table 2.1 Projected number of dependants per 100 population of working age; Scotland: 2000-2040

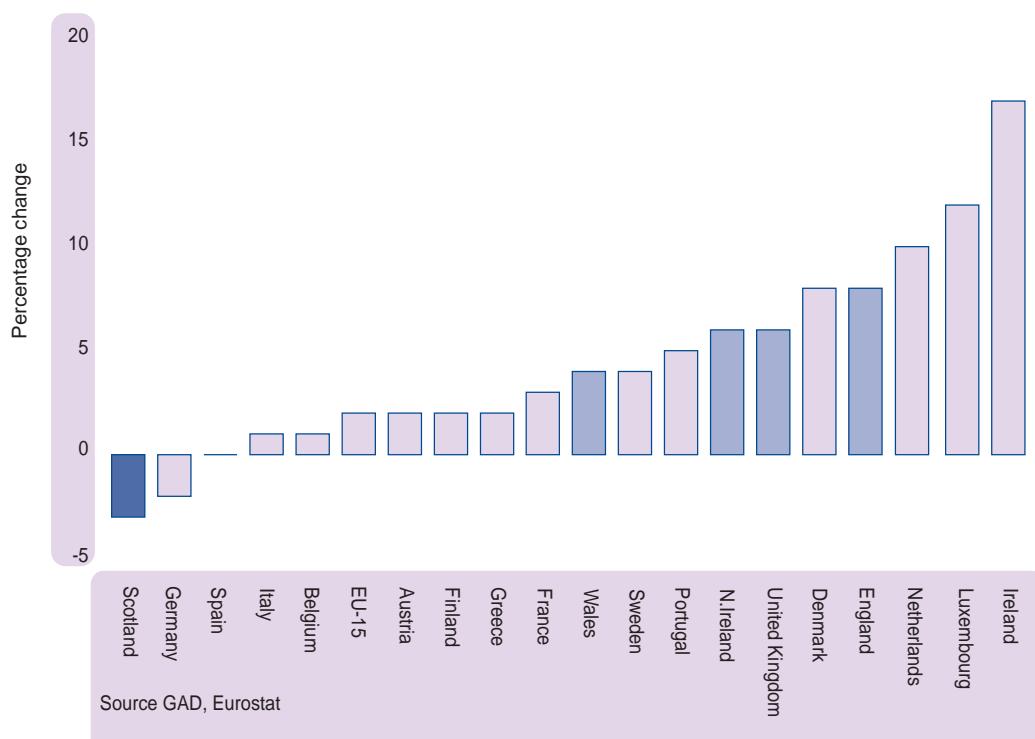
| Age group        | 2000<br>(base) | 2001 | 2006 | 2011 | 2016 | 2021 | 2040 |
|------------------|----------------|------|------|------|------|------|------|
| All dependants   | 60             | 60   | 58   | 57   | 56   | 56   | 72   |
| Children         |                |      |      |      |      |      |      |
| under 16         | 31             | 31   | 29   | 26   | 25   | 25   | 25   |
| Pensionable ages |                |      |      |      |      |      |      |
| 65/60 & over     | 29             | 29   | 30   | 31   | 31   | 31   | 46   |
| 65/60 – 74       | 18             | 18   | 18   | 19   | 18   | 17   | 22   |
| 75 & over        | 11             | 11   | 11   | 12   | 13   | 14   | 24   |

Pensionable age is 65 for men, 60 for women until 2010; between 2010 and 2020 pensionable age for women increases to 65.

## Comparisons with Europe

The projected population decline by 2020 for Scotland (illustrated in **Figure 2.8**) is higher than that currently projected for any other European country. Indeed, most countries (including other countries within the UK) are projected to increase in population over this period. The underlying difference is that in other countries assumptions about future levels of migration offset projected declines in natural change (births minus deaths).

Figure 2.8 Projected percentage population change, EU countries, 2000–2020



# CHAPTER 3 – BIRTHS

## Births

Scotland is experiencing its lowest levels of fertility on record. In 2001, there were 52,527 births registered, the lowest level since civil registration began in 1855. This is a fall of 22 per cent from ten years ago and nearly half of the level fifty years ago.

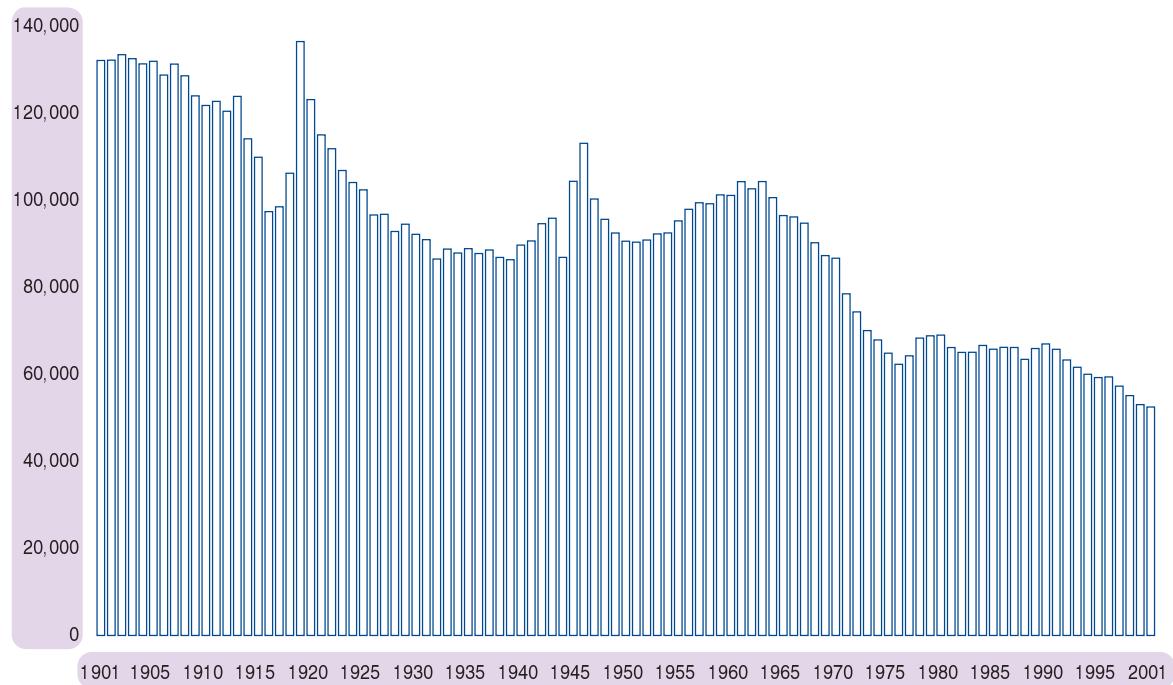
Births play a significant role in population change and if recent declines continue this will ultimately have a significant impact on the future level of the working age population.

## Trends since 1901

The number of births in the last 100 years is illustrated in **Figure 3.1**. Apart from peaks after each of the World Wars, births have generally been in decline since the start of the twentieth century. However, like a lot of other western countries, births in Scotland increased substantially during the second half of the 1950s, peaked in the mid-1960s at around 100,000 live births per year and then fell dramatically in the late 1960s and early 1970s.

The drop in the number of births appeared to level off in the 1980s at 60-70,000 births per annum. However, this was mainly as a result of the larger number of women, who were born in the baby boom of the 1950s and 1960s, passing through their child-bearing years. The decline in births resumed in the 1990s as the peak of women completed their families.

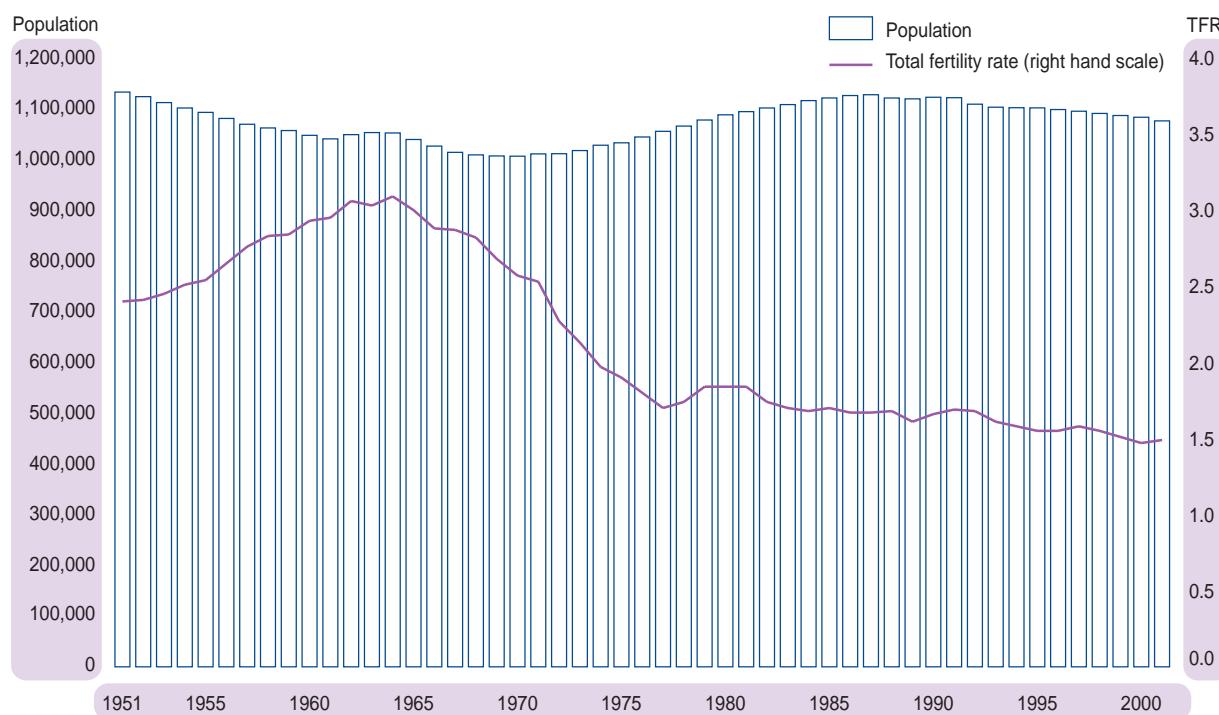
Figure 3.1 Live births, Scotland, 1901–2001



## Trends in the fertility rate since 1951

The total fertility rate (TFR) is one of the most common measures of fertility. The TFR for a particular year is the number of children that a woman would have over her lifetime if she experienced the age specific fertility rates (ASFR) for that year for each age between 15 to 44. In 2001, the TFR was 1.49. Changes in the TFR since 1951 are shown in **Figure 3.2** along with the number of women aged 15-44 in the population (which also has an impact on fertility levels). At the peak of the baby boom in 1964, the TFR reached 3.09 before falling sharply to 1.7 by 1977 (post baby boom nadir) and then more slowly to 1.49 in 2001. Significantly, the female population aged 15-44 was at its lowest during the baby boom period of the 1960s, indicating that the number of births would have been even greater had it not been for the age structure of the population.

**Figure 3.2** Estimated female population aged 15–44 and total fertility rate, 1951–2001



## Births by age of mother

As well as fewer women choosing to have babies, women are also choosing to have them later in life. An analysis of age specific fertility rates reveals how the TFR has changed over time and which age groups are responsible for its fall in recent years.

**Figure 3.3** plots a time series of birth rates for five-year age groups covering 1951–2001. Notice how this indicates that the rise in the TFR in the 1960s baby boom was mostly due to the increased fertility of women in their twenties. It has been this age group which has undergone a dramatic fall in fertility. The fertility rate amongst women aged 20–24 is about half what it was 20 years ago and a third of the 1960s peak; for women aged 25–

## CHAPTER 3 – BIRTHS

29 the decline is to about half the 1960s. Teenage fertility rates fell during the 1970s, but have changed little in the last two decades.

Women aged 30 and above have experienced gradually increasing fertility over the last two decades – though it can be seen that recent rates are still well below the rates experienced in the 1950s and 1960s. The proportion of the TFR contributed by these older women has risen from 25 per cent in 1981 to 42 per cent in 2001.

Figure 3.3 Live births per 1,000 women, by age of mother, Scotland, 1951–2001

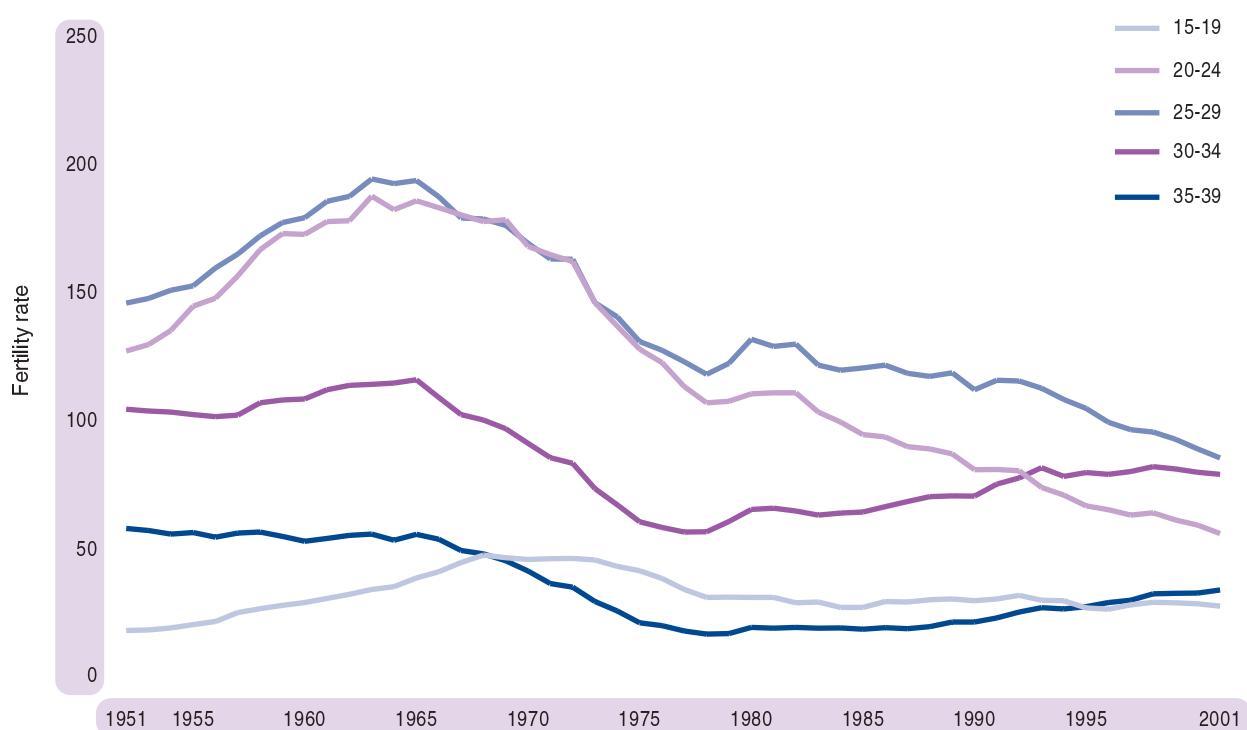
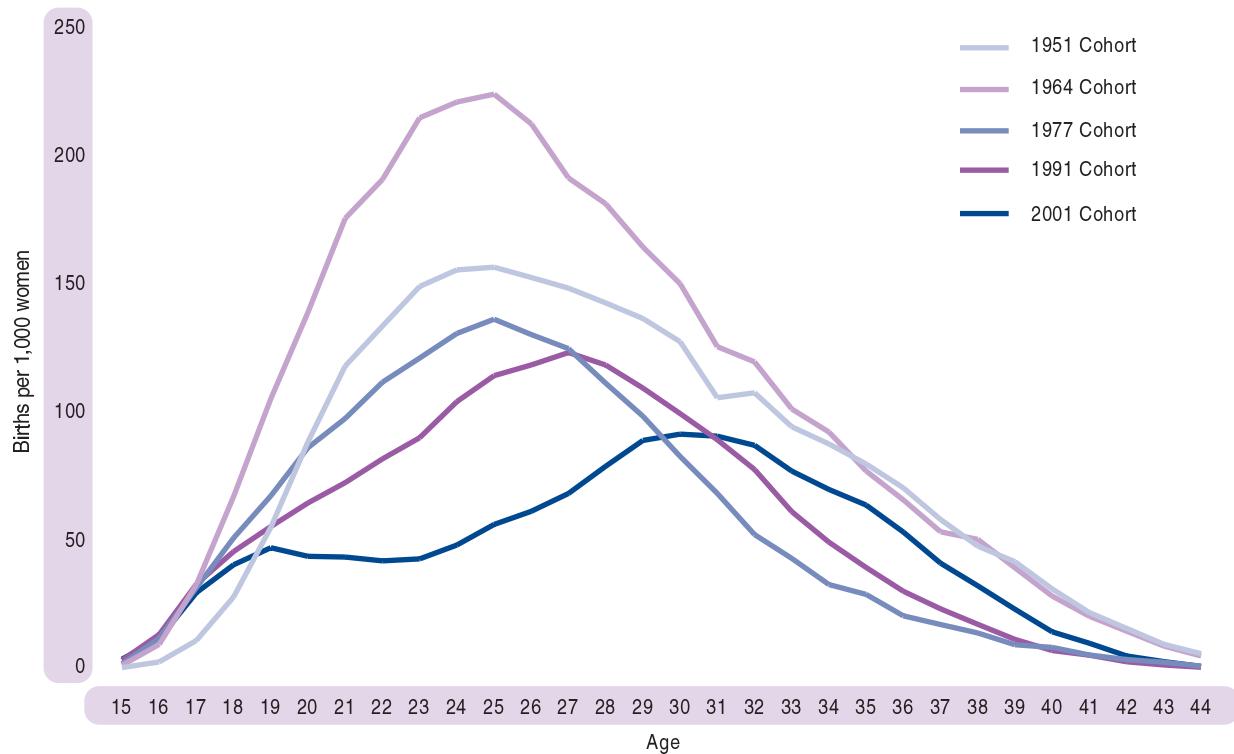


Figure 3.4 further illustrates the changing pattern of fertility over time by showing age specific fertility rates for selected years of the post-war period: 1951, 1964, 1977, 1991 and 2001. Note how for 1951, 1964 and 1977 the overall shape of the curve was roughly the same even though the levels differed considerably. However, the 1991 age pattern peaks some two years later at age 27, and the 2001 pattern reveals a significant break with the past – a collapse of fertility amongst women in their twenties and a peak age of 30. At ages above 30, fertility in 2001 is higher than in 1991 but still well below the rates in 1951 and 1964.

Figure 3.4 Births, per 1,000 women

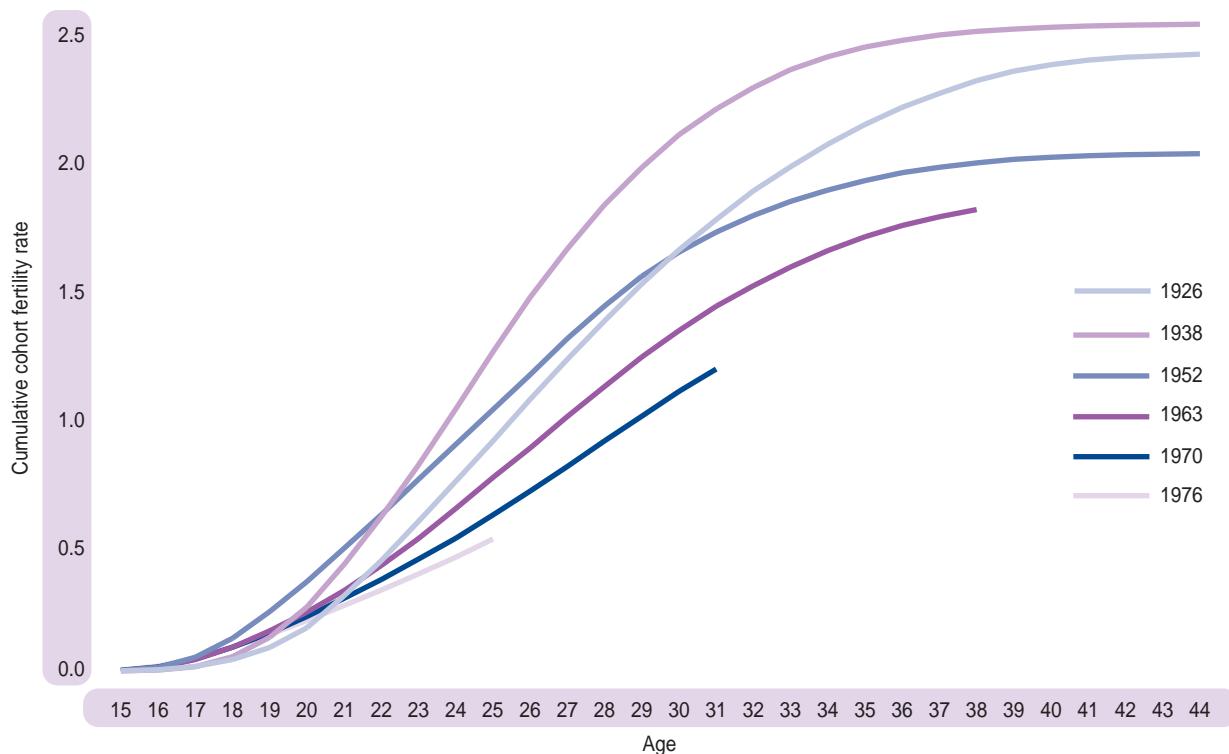


## Completed family size

**Figure 3.5** shows the completed family size (cumulative cohort fertility) at specific ages for women born in particular years (or cohorts). Family size at age 44 is taken to represent completed family size. This enables easy comparison between selected cohorts as women pass through the child-bearing ages. For example at age 25 the 1976 cohort had averaged 0.5 children compared with over 1 for the 1952 cohort. Average completed family size for the 1952 cohort was just over two children but below the level of reproduction that is required for a stable population. Later cohorts with completed families did not even average two children and the figure shows that subsequent cohorts have had successively fewer children at each age.

## CHAPTER 3 – BIRTHS

Figure 3.5 Cumulative cohort fertility rate for selected cohorts, Scotland



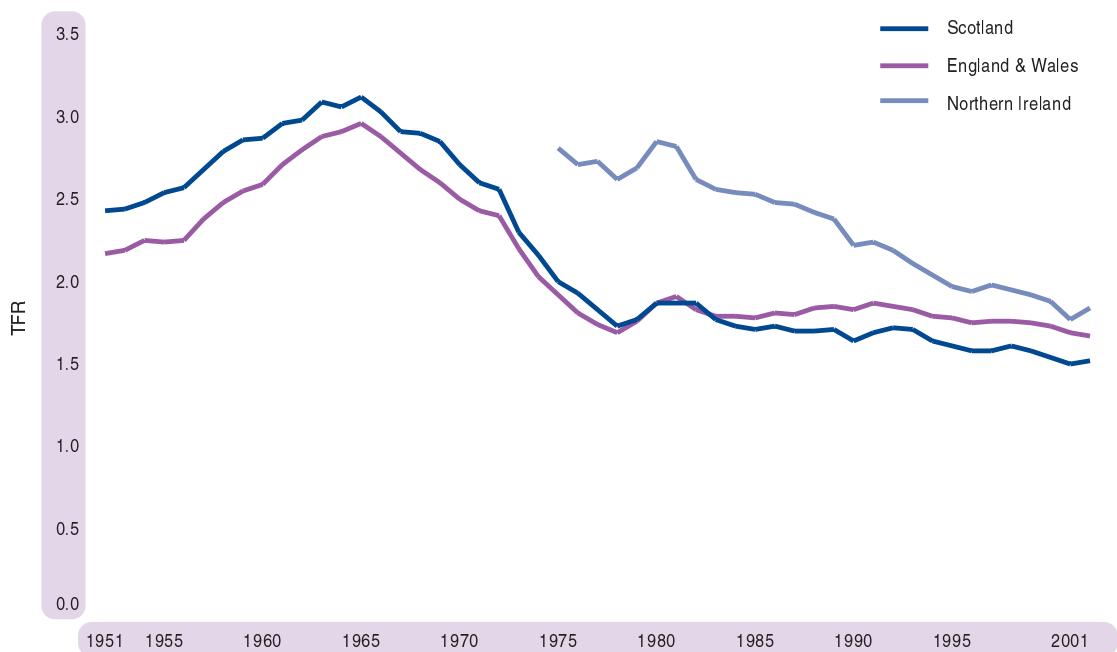
### Comparisons with the UK and other EU countries

Scotland's fertility has not only been falling in recent years relative to past levels but also relative to other parts of the United Kingdom. **Figure 3.6** plots the TFRs of England and Wales, and Northern Ireland, alongside the values for Scotland for the post-war period. Until the late 1970s Scotland's TFR was slightly higher than that for England and Wales. Although the pattern of declining fertility is very similar, Scotland's TFR has slowly dropped away from the England and Wales level, since the early 1980s. Northern Ireland's fertility has fallen from a high level towards the England and Wales figure.

Further research is needed to identify why Scottish fertility has fallen and why it is now lower than in other parts of the UK. Part of the difference may be attributable to the smaller ethnic minority population in Scotland, compared with England, a group which tends to have higher fertility. Another reason may be migration patterns, with people emigrating from Scotland in their peak child-bearing years only returning to Scotland later in life.

A comparison of the latest TFRs available for Scotland and other selected western countries is shown in **Figure 3.7**. This shows that a number of countries – Spain, Italy, Germany, Austria and Greece have lower fertility rates than Scotland. Currently Scotland's TFR is 1.49, just below the EU-15 average, while twenty years ago it was 4 per cent higher than the European Union.

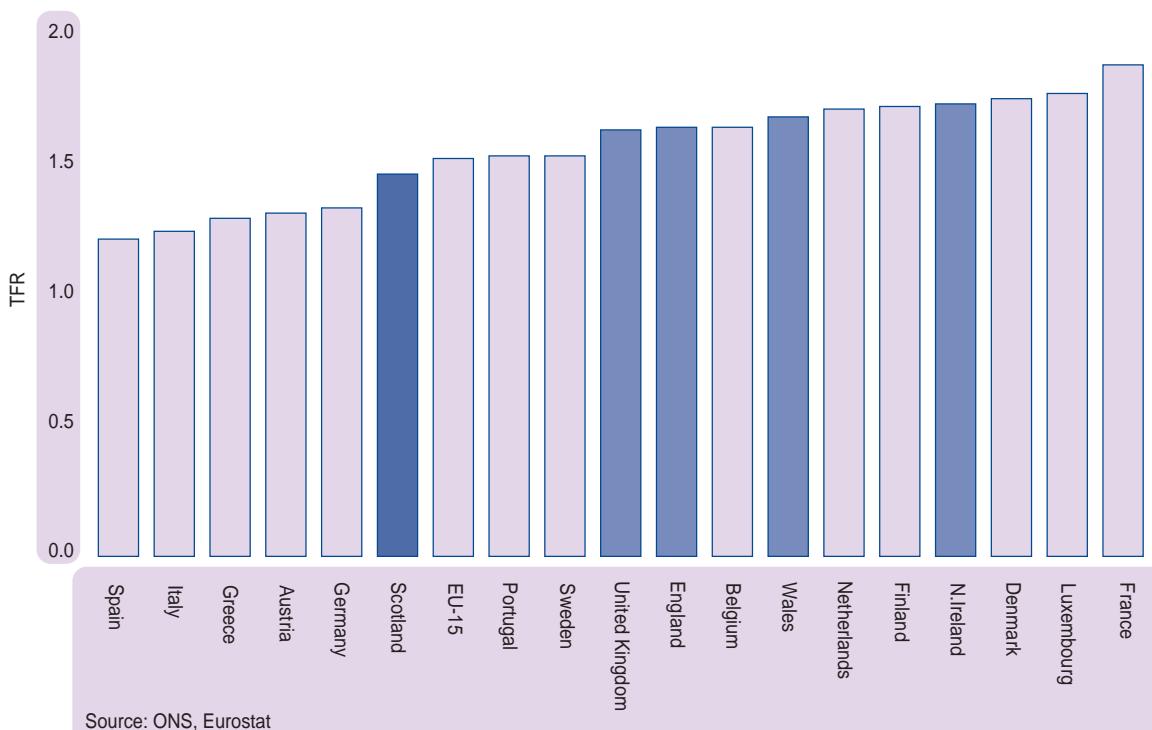
Figure 3.6 Total fertility rates, UK, 1951–2000



Note: Data for Northern Ireland are only available from 1970.

Source: ONS and NISRA

Figure 3.7 Total fertility rate, selected countries, 2000



The trend of declining fertility in Scotland, consistent with that of most European countries, is expected to continue. In contrast, the decline in fertility in the USA was reversed in the early 1990s.

# CHAPTER 3 – BIRTHS

## Possible reasons for falling fertility

The reasons for the fall in fertility are varied and complex, and it is difficult to quantify specific causes. The factors likely to have played a part in the fall in fertility in Scotland, as in many other countries, include:

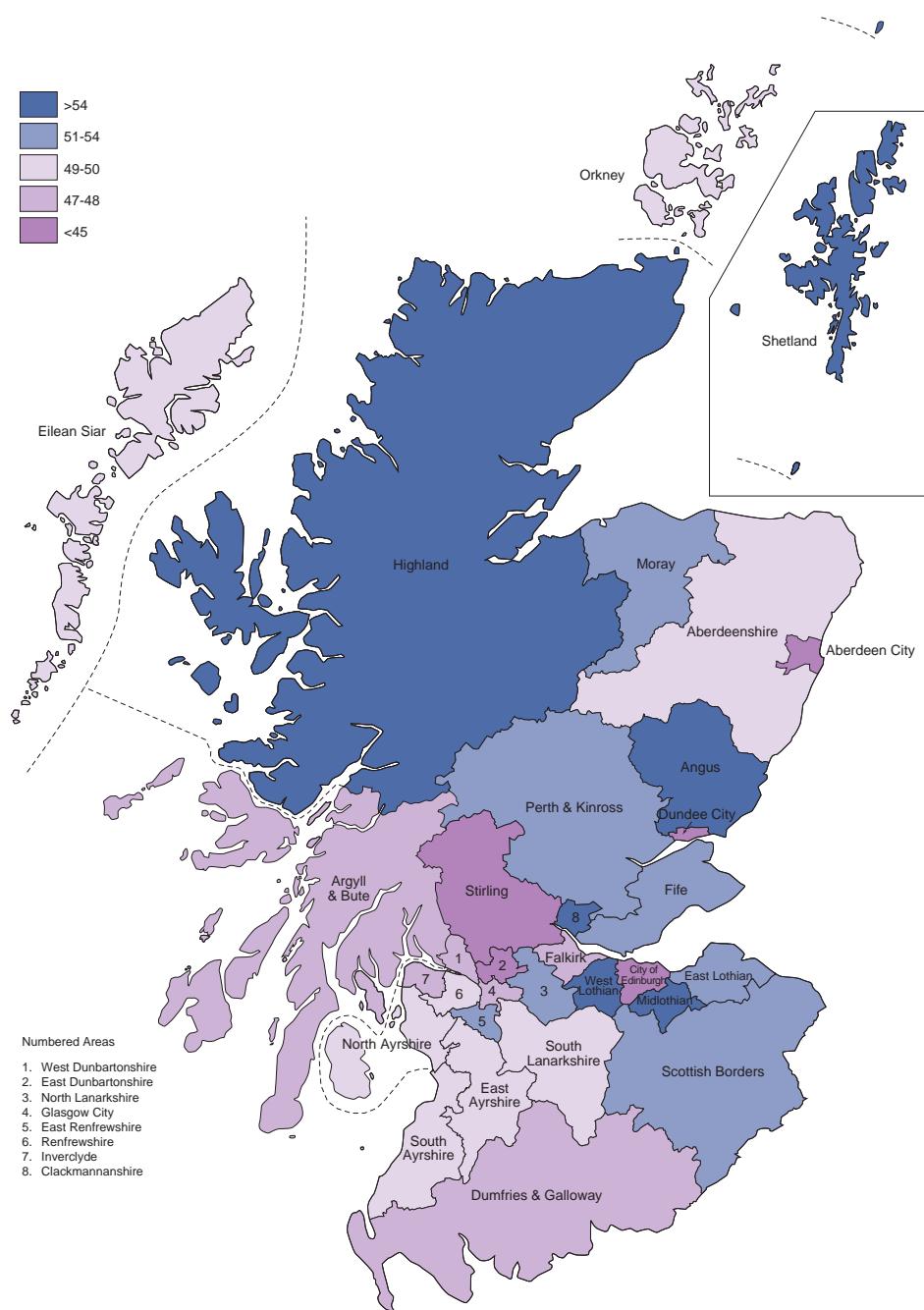
- increased female participation in the labour force
- the expansion of higher education over the last two decades
- the costs (both financial and other) of bringing up children
- individualist values and changing attitudes to child-bearing
- changing trends in marriage and divorce

It may be that one or more such factors has a particular bearing on why Scottish fertility has fallen faster than in England and Wales. Research is needed to identify the underlying causes.

## Regional variation

The trend of declining births experienced at the Scotland level is also evident for Council areas within Scotland, but to a differing pattern. **Figure 3.8** shows the 2001 birth rates per 1,000 women of child-bearing age. The rates in Edinburgh and Aberdeen are considerably lower – about 15 per cent lower than the Scottish average. In contrast, the birth rate in Shetland was 20 per cent higher than the Scottish rate and Angus and Midlothian were 13 per cent higher. The variation between areas may be the result of a larger number of students and higher labour force participation rates amongst females in the cities.

Figure 3.8 Live births per 1,000 women aged 15-44, by Council area, 2001



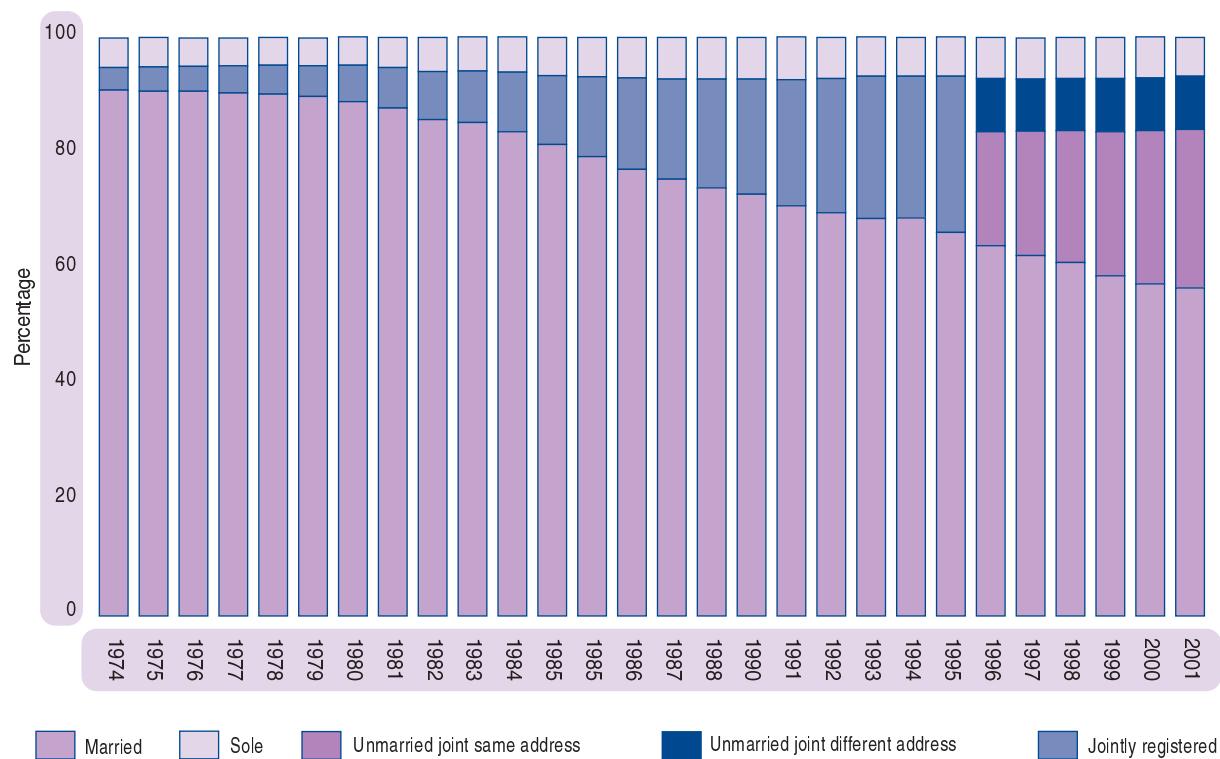
# CHAPTER 3 – BIRTHS

## Births by marital status

Information collected on the marital status of parents when registering a birth provides an insight into changing social attitudes. 57 per cent of births in 2001 were to married parents compared with 71 per cent in 1991 and 95 per cent in 1951. However, it should be noted that the proportion of births to unmarried parents, which were jointly registered by the mother and father, has increased significantly and now accounts for some two-thirds of births to unmarried parents. (**Figure 3.9**)

Information available only since 1996 shows that in the majority of cases where births to unmarried parents are jointly registered, both parents are living at the same address.

Figure 3.9 Proportion of births by marital status and type of registration, Scotland, 1974–2001





## CHAPTER 4 – DEATHS

The number of deaths registered in Scotland in 2001 represents the lowest total since civil registration began in 1855. 57,382 deaths were recorded – a fall of 6 per cent from ten years ago and nearly 13 per cent below the level in 1951.

As would be expected, the majority of deaths occur at older ages – about 57 per cent of deaths were to people aged 75 and over, and a further 27 per cent between the ages of 60 and 75.

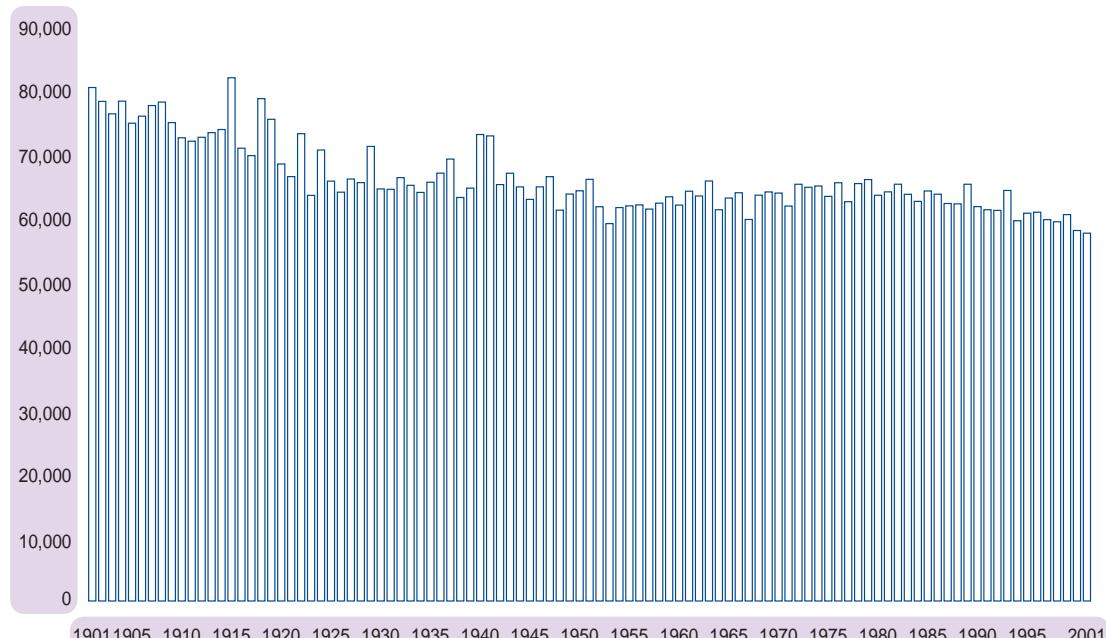
As mortality rates have fallen over time while the elderly population has grown, the net effect has been to maintain a relatively stable number of deaths at 60–65,000 a year. Although the number of deaths has fallen well below 60,000 in 2000 and 2001 the number of deaths will almost certainly increase over the next 40 years, even if mortality rates continue to improve slowly, as the large number of people born in the baby boom after the Second World War and the 1960s grow older. While improvements in mortality rates are likely to continue, it is unlikely that they will improve at such a rate as to offset the projected increase in deaths resulting from a sharp growth in the number of the elderly.

Improvements in mortality rates in Scotland have generally been slower than in the rest of the UK and elsewhere in Europe. But the improvements are still considerable and the impact is demonstrated in the steadily rising expectation of life for males and females over the last 50 years. The impact of mortality on the age structure of the population is given in more detail in **Chapter 2**.

### Deaths in 2001 and past trends

The number of deaths in the last 100 years is presented in **Figure 4.1**. It shows that since the early 1920s, the number of deaths has remained relatively stable at about 60-65,000 a year. Deaths first fell below 60,000 in 1953, then again in 1967, but not again until 1994. They have remained either below or just over the 60,000 mark since. While there has been a high degree of stability in the number of deaths over the last century, outbreaks of 'flu have caused periodic peaks in deaths such as in 1922 and 1989.

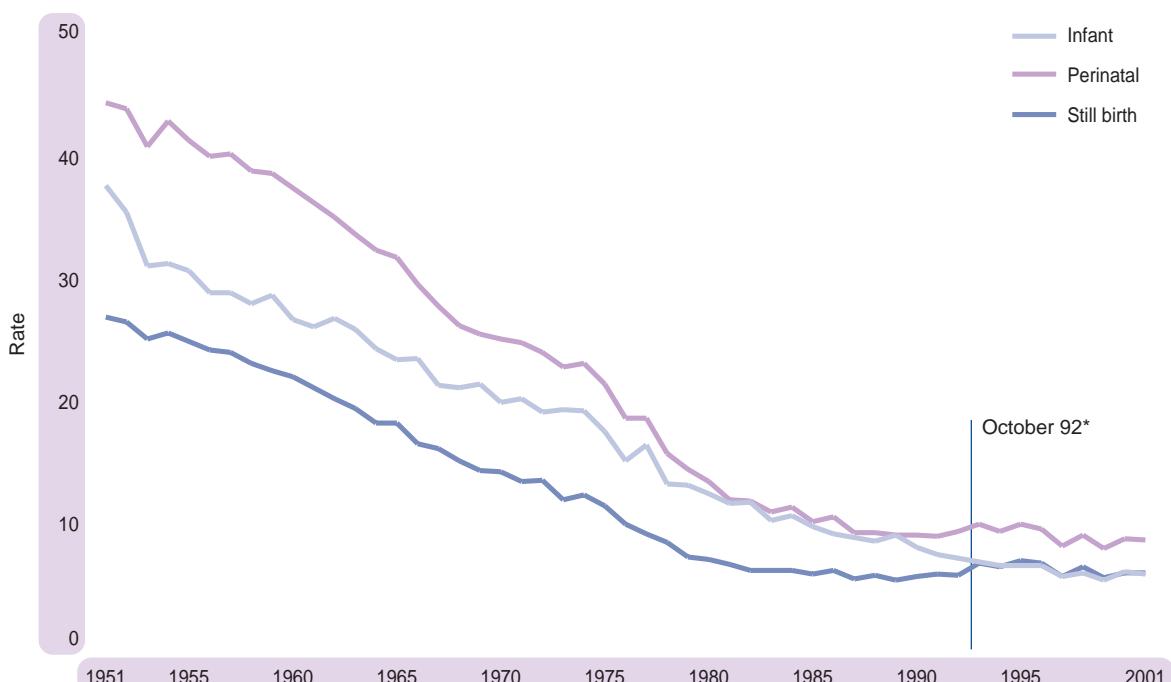
**Figure 4.1 Deaths, Scotland, 1901–2001**



## Stillbirths and infant deaths

The biggest improvements in mortality have been seen in stillbirth, perinatal and infant death rates. **Figure 4.2** shows rates of stillbirths, perinatal deaths and infant deaths over the last 50 years. The stillbirth rate has improved by 79 per cent from 26.6 per 1,000 total births in 1951 to 5.7 in 2001, 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 rate of perinatal deaths (deaths and stillbirths in the first week of life) fell from 44.2 per 1,000 total births in 1951 to 8.5 in 2001, an improvement of 80.8 per cent. Finally, the infant death rate (deaths of children under 1) has improved by 85 per cent from 37.4 per 1,000 live births in 1951 to 5.5 in 2001.

**Figure 4.2** Stillbirth, perinatal and infant death rates, Scotland 1951–2001



\* Change in definition of stillbirths from 28 to 24 weeks

These dramatic improvements have also occurred in other western countries and are the result of a number of factors. In the main these are due to improvements in the environment and living conditions into which babies are born, and in the care and treatment of babies, including better medical care and a wider use of midwives. The infant death rate of 5.5 per 1,000 births in Scotland is the same as the UK rate but is still above the EU rate of 4.9.

## Life expectancy

Life expectancy is a commonly used measure to show the effects of current levels of mortality on the length of time people at various ages can expect to live. It is very useful in comparing the 'health' of a nation through time and with other nations.

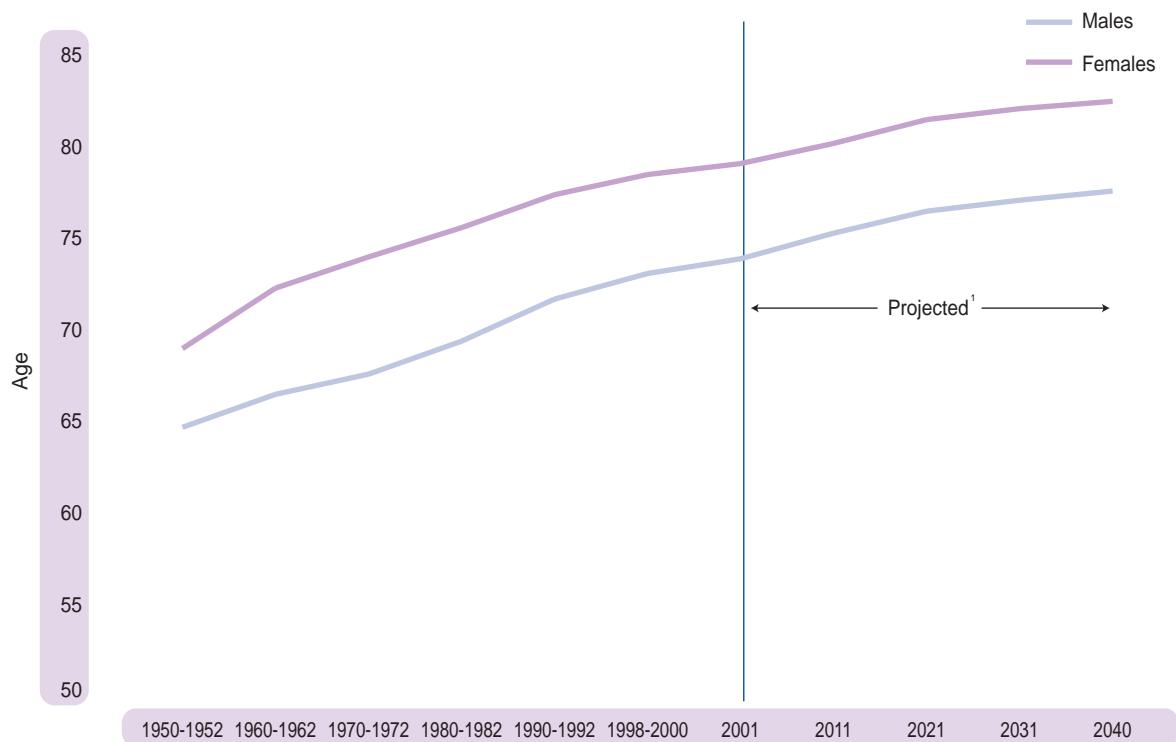
## CHAPTER 4 – DEATHS

During the last 50 years, there have been considerable improvements in life expectancy at birth as shown in **Figure 4.3**. Males born in 1951 could, at that time, expect to live to 64.4 years, compared with 73.4 years for those born in 2001. Similarly, females have experienced an improvement of ten years from 68.7 years in 1951 to 78.8 in 2001.

Males aged 65 in 2001 could expect to live a further 15.0 years compared with 11.4 years in 1951, while women aged 65 in 2001 could expect to live another 18.1 years compared to 13.2 years in 1951.

While mortality has fallen for both men and women, male life expectancy has remained 5.5 years lower than female life expectancy over the last 50 years. **Figure 4.3** also illustrates that improvements in life expectancy at birth are projected to continue, rising to 77.3 for males and 82.2 for females by 2040.

Figure 4.3 Expectation of life at birth, Scotland, 1952–2040



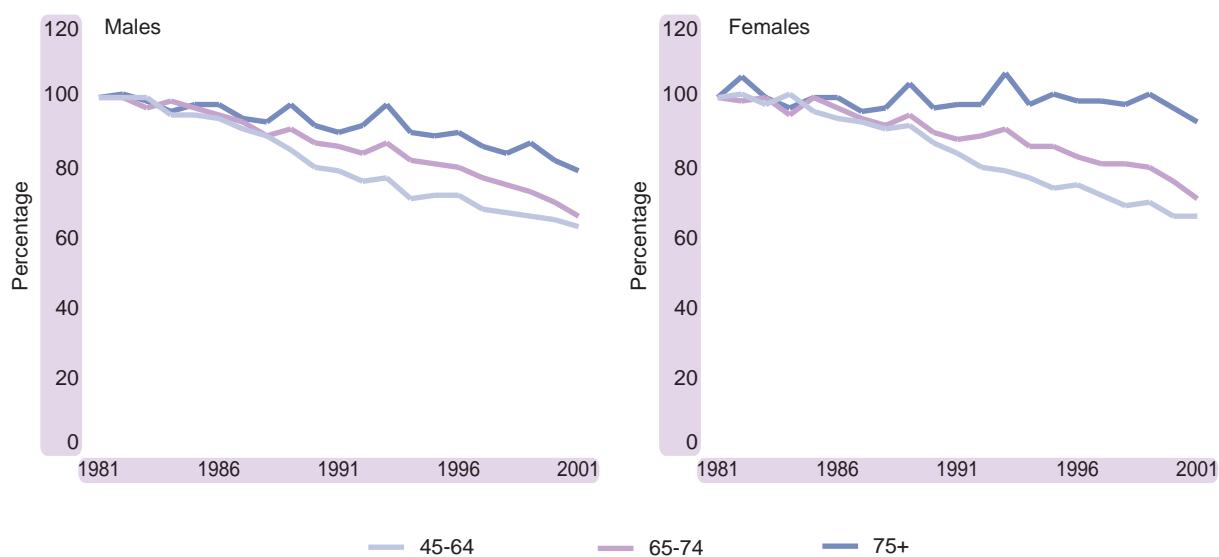
<sup>1</sup>2000-based projections

## Mortality by age

The relative stability in the number of deaths over the last 50 years masks large improvements in age-specific mortality. **Figure 4.4** shows the age specific mortality rates over the last twenty years relative to the 1981 rate for both men and women in the age groups 45-64, 65-74 and 75+ (which between them accounted for about 95 per cent of all deaths in 2001).

There have been greater improvements in male mortality for these ages than females. For the 45-64 and 65-74 age groups, both males and females experienced large and similar improvements of about 35 per cent for 45-64 year olds and about 30 per cent for 65-74 year olds. However, the striking difference is in the improvements in male mortality rates for the 75 plus age group of nearly 20 per cent, compared with only small improvements for females.

**Figure 4.4** Age specific mortality rates as a proportion of 1981 rate, 1981–2001



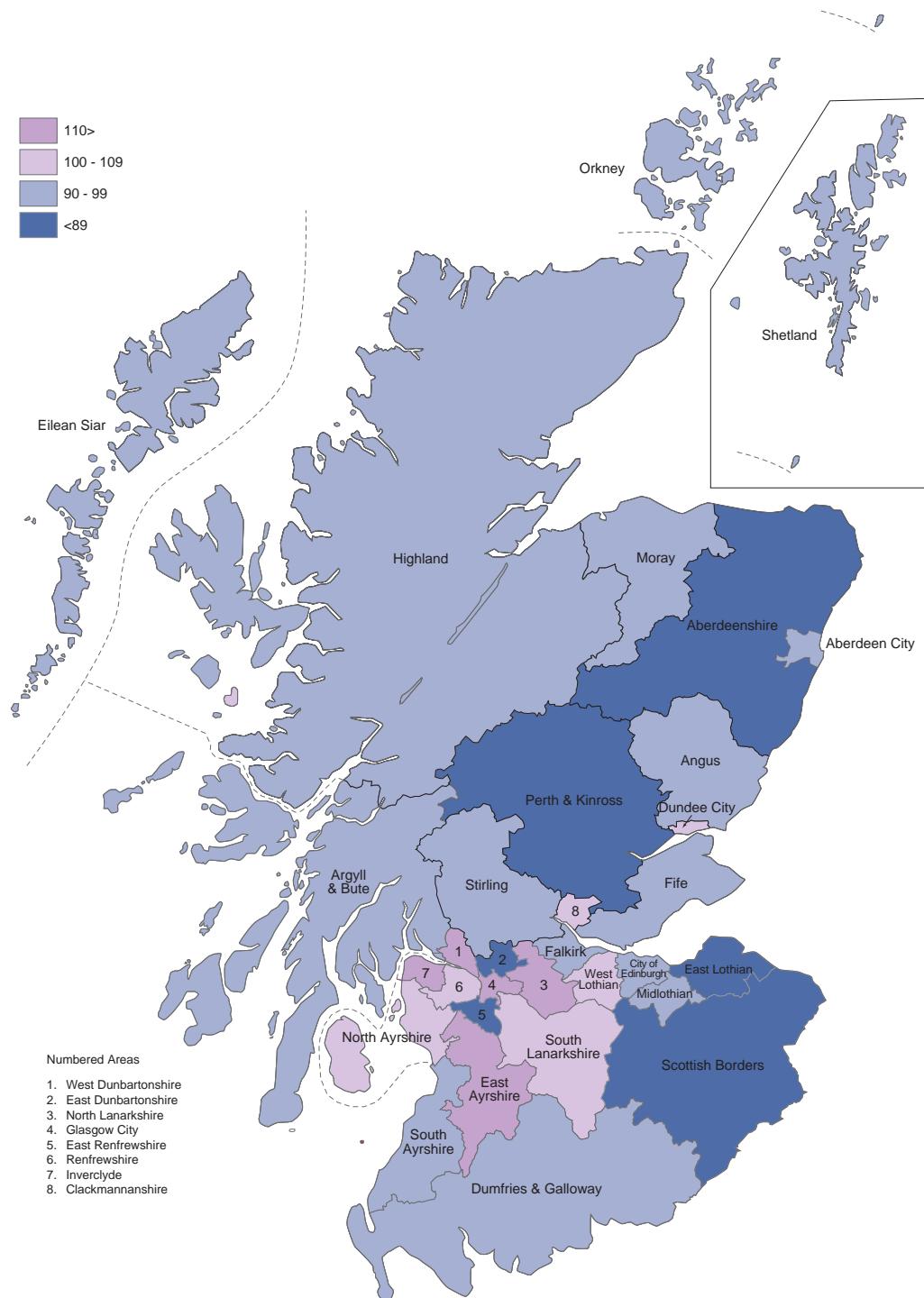
There were 246 deaths of centenarians registered in 2001. This was 106 more than in 1991, and reflects improving mortality at the very elderly ages as well as an ageing population.

# CHAPTER 4 – DEATHS

## Regional variations within Scotland

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 presented in **Figure 4.5**. In all, 11 out of 32 Council areas have a higher standard mortality ratio than the Scottish average of 100, and 8 of these are in west central Scotland. The worst, Glasgow City, is 22 per cent higher than the Scottish average which itself is about 15 per cent higher than the UK average.

Figure 4.5 Standardised mortality ratios, by Council area, 2001



At the other end of the scale, mortality rates in East Dunbartonshire and East Renfrewshire were 19 per cent below, or better than, the Scottish average. Aberdeenshire and Perth & Kinross were both 15 per cent below the Scottish average.

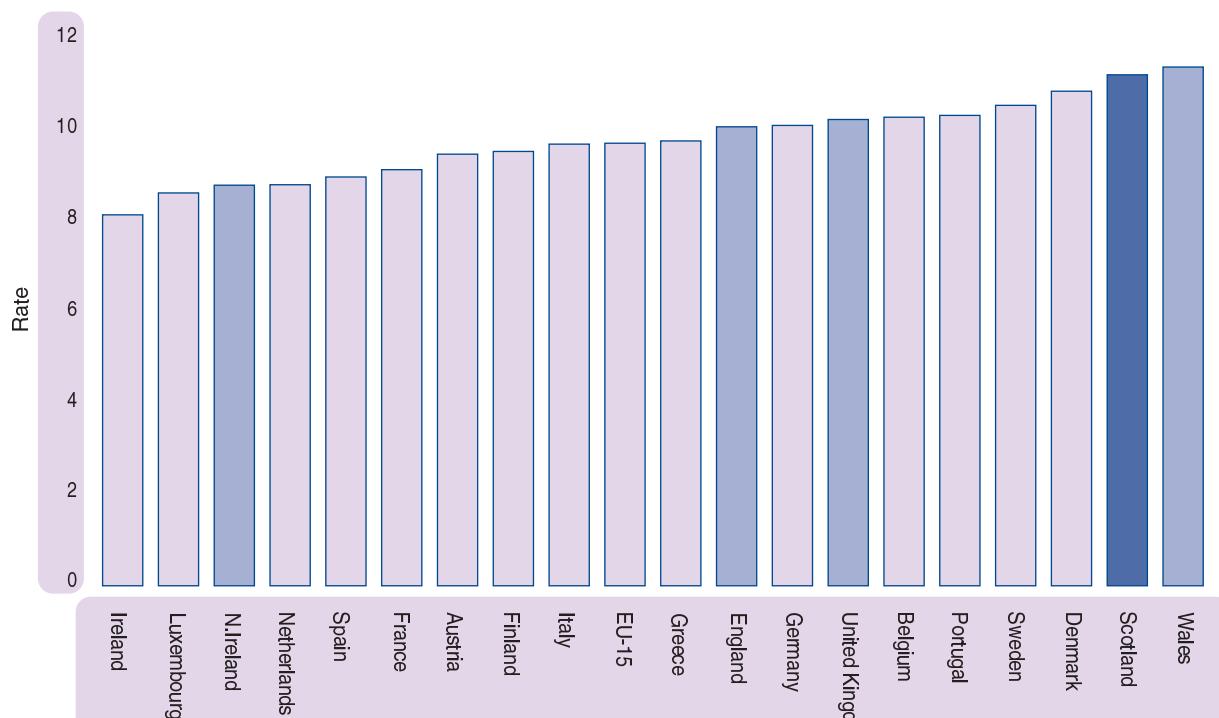
The number of deaths in each area reflects deaths in Scotland of residents of the area plus deaths in the area to non-Scottish residents as recorded by the civil registration system. In some areas, deaths of non-Scottish residents will have a noticeable impact on the death rate and this is particularly true of some rural areas, perhaps reflecting higher levels of tourism or a specific tourist activity. For instance, in Highland, 2.8 per cent of all deaths were to non-Scottish residents.

## Mortality within the UK and the EU

Although mortality rates have been improving in Scotland, the rate of improvement is slower than elsewhere in the rest of the UK. Over the last 25 years the mortality rates have improved by 40 per cent in Northern Ireland and 35 per cent in both England and Wales compared with 30 per cent in Scotland.

A comparison of the crude death rates (deaths per 1,000 population) for Scotland and selected other countries is presented in **Figure 4.6**. It shows that Scotland has a death rate (11 per 1,000 population) considerably higher than the EU average (10 per 1,000 population) and higher than any other country shown apart from Wales. However, when considering the SMR, which takes account of the population's age structure, the UK comparison is very different. The SMR in Scotland is about 15 per cent higher than the UK rate, while Wales is only 4 per cent higher.

**Figure 4.6 Deaths per 1,000 population, selected countries, 2000<sup>1</sup>**



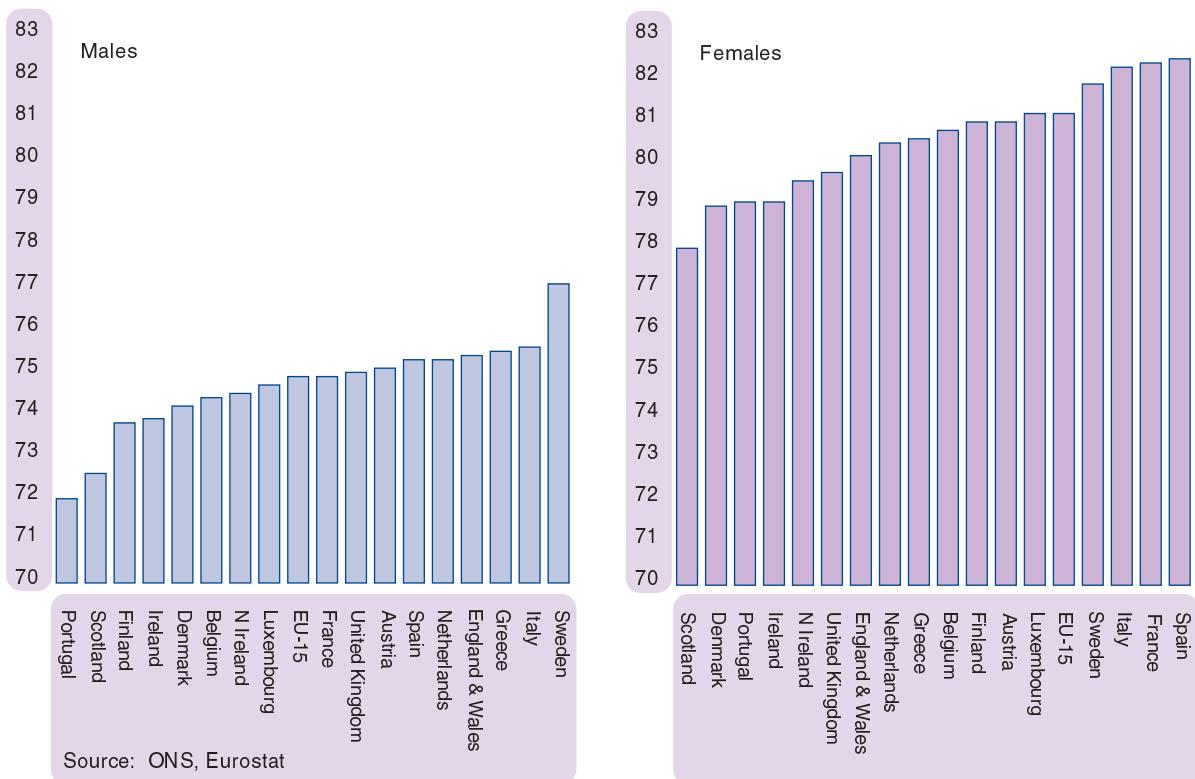
<sup>1</sup> Scotland data are for 2001. All 2000 data are provisional.  
Source: ONS, Eurostat

## CHAPTER 4 – DEATHS

A better indicator for comparing the “health” of Scotland with other countries is expectation of life, since this takes account of the age structure of the population which can differ significantly and affect the overall crude rate. This is particularly true where countries have a higher proportion of young or elderly within their populations.

**Figure 4.7** gives expectation of life at birth for selected countries in 1999. It shows that, despite the improvements in mortality, Scottish females have the lowest expectation of live at birth in the EU and males the second lowest after Portugal. For both sexes, the expectation of life is more than four years lower than the countries with the highest expectation of life and over 2 years below the EU average.

Figure 4.7 Expectation of life at birth, by sex, selected countries, 1999



### Cause of death

The two most common causes of death in Scotland in 2001 were cancer (26 per cent) and ischaemic heart disease (21 per cent). However, since 1981 the proportion of deaths caused by ischaemic heart disease has fallen from 29 to 21 per cent, whereas the proportion caused by cancer has risen from 22 to 26 per cent. Since 1995, there have

been more deaths from cancer than ischaemic heart disease. Of the 15,196 deaths from cancers in 2001, trachea, bronchus and lung was the most common site, accounting for over a quarter (26 per cent) of all cancer deaths.

Death rates, by sex, for the most common causes of death are shown in **Table 4.1**. Over the last 20 years or so, death rates for men from lung cancer have fallen by 20 per cent (119 per 100,000 population in 1980-82 to 94 in 2001). In contrast, rates for women have increased by over 50 per cent (41 per 100,000 females in 1980-82 to 62 in 2001), but are still considerably lower than the level experienced by men.

**Table 4.1 Death rates from selected causes, by sex, Scotland, 1950–2001**

**Males – rates per 100,000 population**

| Year    | Cancer    |                            |          | Ischaemic heart disease | Cerebrovascular disease |
|---------|-----------|----------------------------|----------|-------------------------|-------------------------|
|         | All sites | Trachea, bronchus and lung | Prostate |                         |                         |
| 1950–52 | 206       | 48                         | 13       | 276                     | 155                     |
| 1960–62 | 241       | 86                         | 16       | 360                     | 166                     |
| 1970–72 | 272       | 112                        | 14       | 407                     | 158                     |
| 1980–82 | 291       | 119                        | 19       | 408                     | 139                     |
| 1990–92 | 310       | 110                        | 27       | 363                     | 118                     |
| 2001    | 319       | 94                         | 32       | 257                     | 100                     |

**Females – rates per 100,000 population**

| Year    | Cancer    |                            |        | Ischaemic heart disease | Cerebrovascular disease |
|---------|-----------|----------------------------|--------|-------------------------|-------------------------|
|         | All sites | Trachea, bronchus and lung | Breast |                         |                         |
| 1950–52 | 185       | 10                         | 31     | 203                     | 213                     |
| 1960–62 | 195       | 13                         | 35     | 262                     | 230                     |
| 1970–72 | 218       | 24                         | 40     | 289                     | 226                     |
| 1980–82 | 247       | 41                         | 45     | 304                     | 210                     |
| 1990–92 | 278       | 57                         | 48     | 297                     | 191                     |
| 2001    | 282       | 62                         | 43     | 215                     | 159                     |

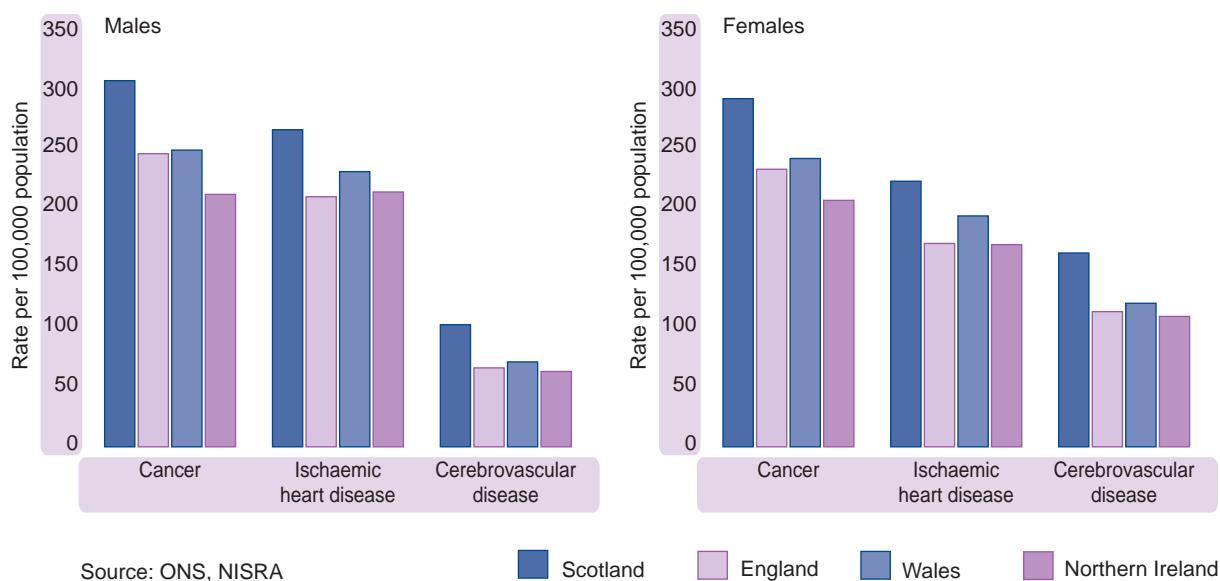
## CHAPTER 4 – DEATHS

The next most frequent site for cancer deaths was prostate for men (777 deaths of which 65 per cent occurred in men aged 75 and over) and breast for women (1,143 deaths). Death rates for the former continue to increase whereas those for the latter have shown a slight fall in recent years.

In contrast to the rise in death rates resulting from cancer, death rates for ischaemic heart disease and cerebrovascular disease (stroke) have shown significant declines. Over the last twenty years, males have experienced the larger improvements, 37 per cent for ischaemic heart disease and 28 per cent for stroke, compared with improvements of 29 and 24 per cent, respectively, for females.

Using the latest comparable data available, **Figure 4.8** compares the death rates for the constituent countries of the UK for selected causes after adjusting for differences in age structure. The Scottish rates for cancer and ischaemic heart disease remain well above the rates for the other countries of the United Kingdom for both men and women.

**Figure 4.8 Age adjusted mortality rates, by selected cause and sex, 2000**



There were 1,061 deaths from chronic liver disease in 2001 (more than double the number in 1991), of which over 80 per cent were known to be alcohol related.

In 2001, deaths from intentional self-harm (suicide) numbered 609 (441 males and 168 females), 39 fewer than in 2000. To allow for the under-recording of suicides, a more robust measure is to combine deaths classified as events of undetermined intent with those for intentional self-harm, as is done in international comparisons. The total number of deaths classified to these two groups was 887 in 2001, compared with 878 in 2000 and 728 in 1981. For men the most frequent cause of these deaths was hanging, strangulation and suffocation, whereas for women it was poisoning.

There were 332 drug-related deaths in 2001, 40 (14 %) more than in 2000 and 88 per cent more than in 1996. Heroin/morphine was involved in 216 (65%) of the deaths; diazepam was involved in 156 (47%) and methadone was involved in 69 (21%). A wide

range of drug combinations was recorded. Of particular note was the fact that diazepam was also mentioned in over half (110) of the 216 deaths involving heroin/morphine. The presence of alcohol was mentioned for 140 of the 332 drug-related deaths in 2001. More detailed information on Drug Related Deaths can be found in the GROS Occasional Paper *Drug Related Deaths in Scotland in 2001* available on the GROS website at [www.gro-scotland.gov.uk](http://www.gro-scotland.gov.uk).

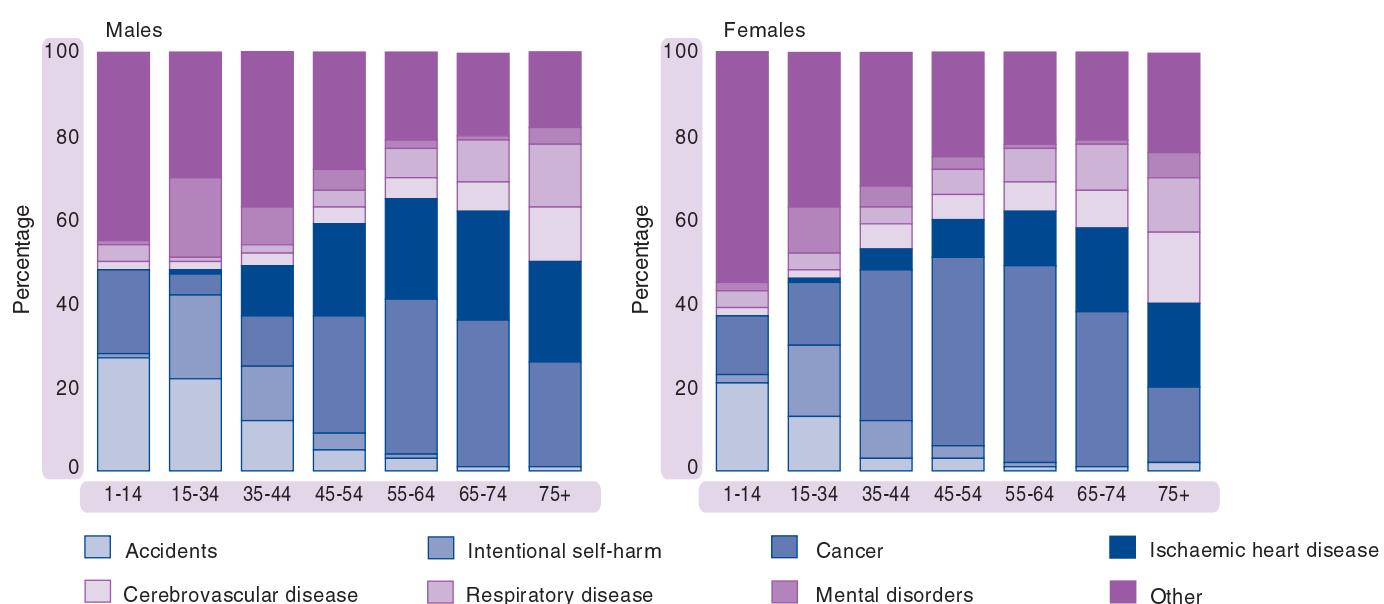
## Summary of main causes of death by age and sex

The main causes of death vary in importance by age and sex (**Figure 4.9**). Accidents were the most important category of death in the very young (aged 1-14), accounting for 27 per cent of deaths in boys and 21 per cent of deaths in girls in 2001. Cancer, at 20 per cent for boys and 14 per cent for girls, was the next largest cause.

For males aged 15-34, the main category was accidents followed by intentional self-harm (suicide) and mental disorders (entirely due to drug and alcohol abuse). For females in this age group suicide was the largest category followed by cancer.

For almost all age/sex groups above age 35, the main cause was cancer. For women, cancer was responsible for a higher proportion of deaths in almost every age group than for men. Conversely, ischaemic heart disease accounted for a higher proportion of deaths in all age groups for men than for women.

**Figure 4.9 Deaths, by cause and age group, Scotland, 2001**



# CHAPTER 5 – MIGRATION

In addition to births and deaths, migration is the other component of population change. However, unlike births and deaths, there is no comprehensive source for estimating migration and hence it is the most difficult component of change to measure. Migration and the reasons for migrating are also much more susceptible to short term changes in social and economic circumstances than births and deaths. These factors and the fluctuating nature of migration make it very difficult to estimate.

Patterns of migration tend to vary according to age. Generally, longer distance migration is more common amongst young people between the ages of 20 and 35, with particular implications for changes in the labour force and population of working age. Regular information on the other characteristics of migrants (for example, educational qualifications, country of birth and ethnic group) is limited, although more will become available when the detailed results from the 2001 Census are published next year.

There are many reasons for migrating and the factors tend to vary according to whether the movement is over a relatively short distance (e.g. from a city to its surrounding area) or over a longer distance (eg. away from Scotland altogether). Particularly in the case of longer distance migration, it is often sensible when trying to understand migration to consider both push and pull factors relating to the area of origin and the area of destination. Push factors in some overseas countries may include unemployment, famine, persecution or war, all of which may drive people to leave their home for a new country. Similarly, there may be pull factors which attract people to a country such as a prosperous economy, quality of life, or favourable immigration laws.

## Trends in migration since 1951

Estimates of net migration to and from Scotland since 1951 are shown in **Figure 5.1**. Historically, Scotland has tended to be a country of net out-migration rather than net in-migration, that is more people leave Scotland to live elsewhere than move to live in Scotland. However, since the 1960s the level of net out-migration, some 30,000–40,000 a year, has reduced significantly and in recent years has been less than half of the peak net migration losses in the 1960s. Indeed, in some years during the late 1980s and early 1990s, and again in the most recent period, Scotland has sometimes experienced net migration gain rather than loss. As can be seen from **Figure 5.1**, there has been an underlying, long-term, trend of decreasing net emigration from Scotland over the last 50 years.

It should be noted that estimates of net migration are the difference between much larger gross flows of migrants into and out of Scotland. In the last ten years these have typically been of the order of 70,000 both in 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.

Migration to and from Scotland comprises moves to/from the rest of the United Kingdom and moves to/from the rest of the world. In net terms, the contribution to the overall total of moves with the rest of the UK and with countries overseas is roughly similar. This broad relationship has been maintained over the last 50 years, and the net loss from Scotland has reduced since the 1960s and early 1970s both in relation to the rest of the UK and the rest of the world (**Figure 5.2**). The exception to this trend occurred in the late 1980s and early 1990s when there was a net surplus of moves into Scotland from the rest of the UK, but a net loss of migrants overseas.

Figure 5.1 Estimated net migration, Scotland, 1951–2001



Figure 5.2 Estimated net migration, moves to/from the rest of the UK and overseas, Scotland 1951–2001

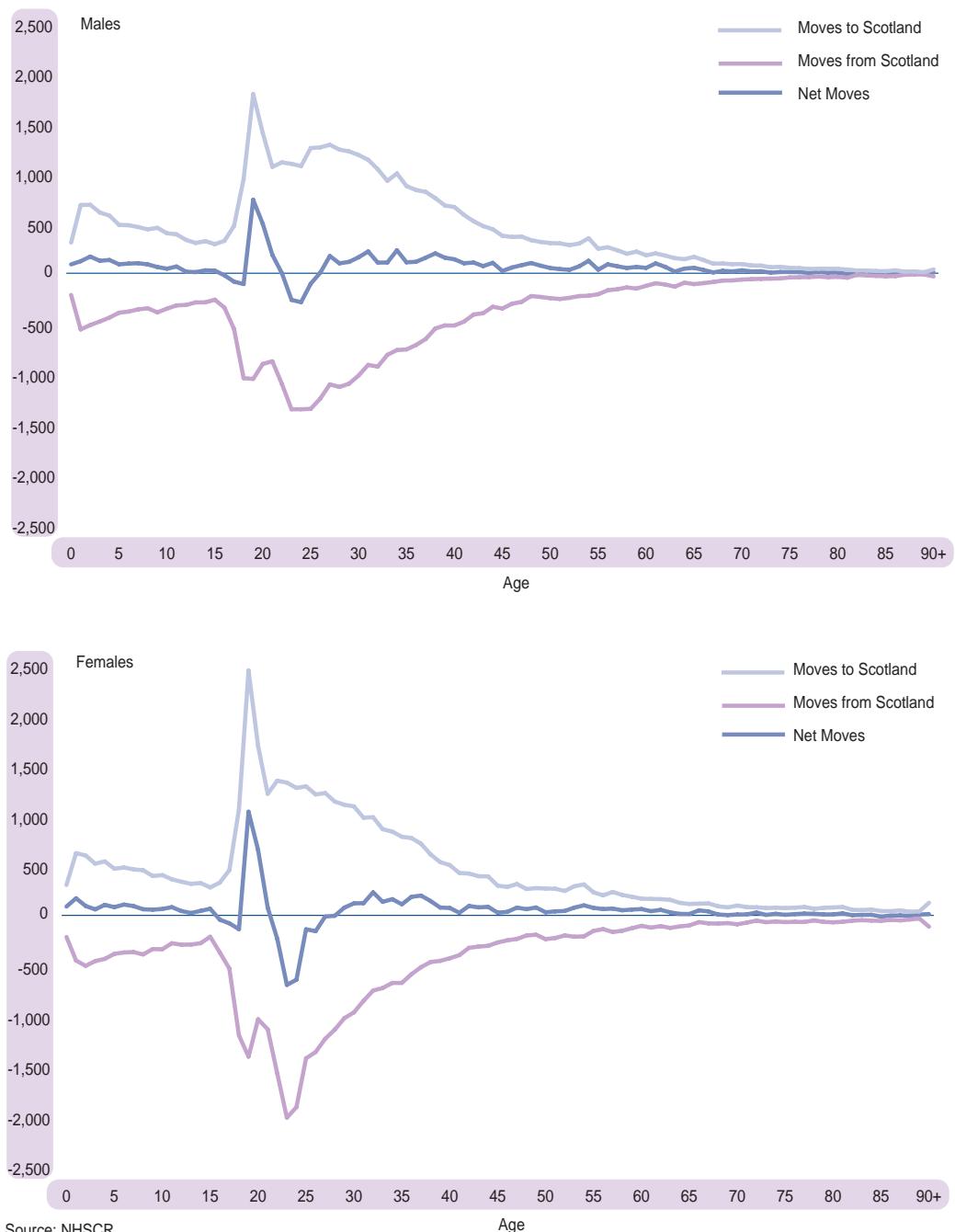


# CHAPTER 5 – MIGRATION

## Migration by age and sex

The age/sex pattern of migrants tends to remain relatively constant from year to year. **Figure 5.3** illustrates the age/sex distribution of migrants for males and females moving into and out of Scotland from the rest of the UK between 2000 and 2001. The peak ages for migrating are early to mid-twenties reflecting moves out of the parental home to attend higher education or take up employment. There also tend to be smaller peaks for moves of the very young, under the age of five. This reflects migration of parents who move home before their children have started school. The pattern of migration is very similar for men and women though women tend to have much larger peaks in their early twenties than men. This may reflect different patterns of re-registering with an NHS doctor after a move rather than different patterns of migration.

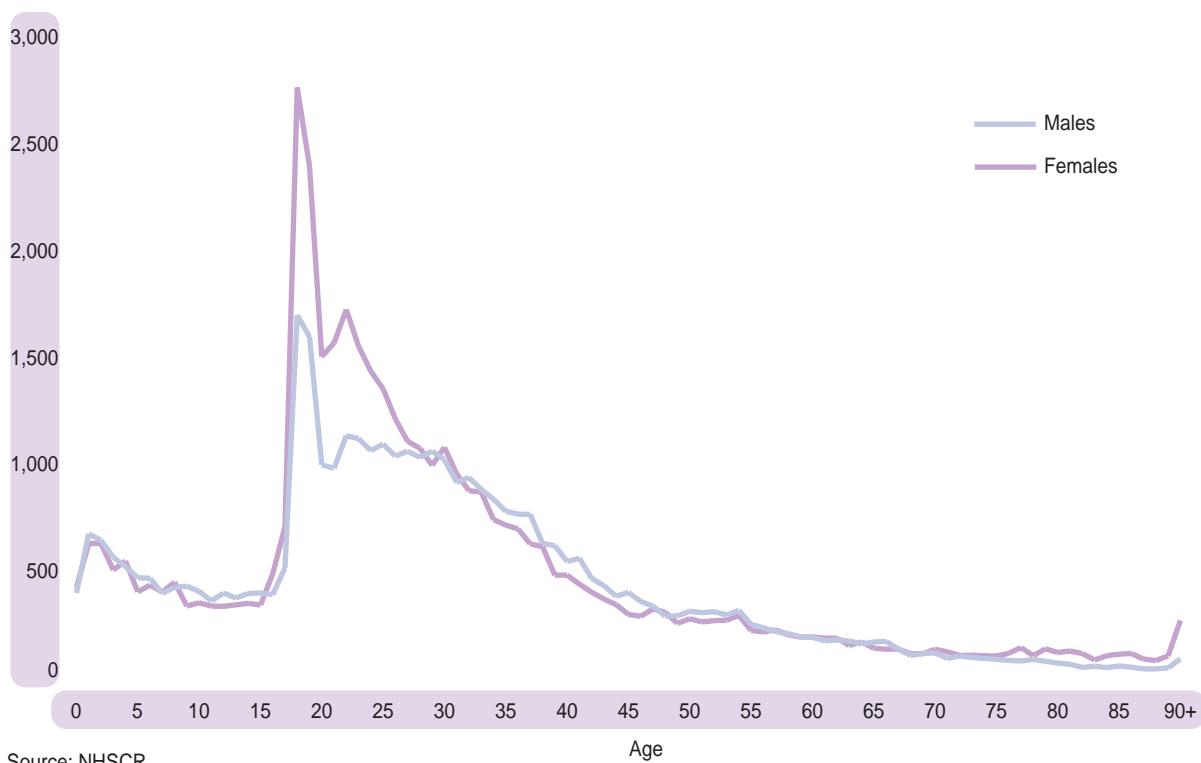
Figure 5.3 Movements between Scotland and the rest of the UK, by age, mid 2000 – mid 2001



The peaks in migration for males and females in their early twenties create marked net migration gains at ages 19 and 20, and net migration losses at ages 23 and 24. These patterns are consistent with an influx of students from the rest of the UK starting higher education followed by a return to elsewhere in the UK after completing their education.

A similar age/sex pattern of migration occurs within Scotland between Health Board areas (**Figure 5.4**), with peak ages occurring in the late teens and early twenties for both males and females. Apart from Census data there has been no reliable source of information on moves between smaller geographical areas.

**Figure 5.4 Moves between Health Board areas within Scotland, by age and sex, mid 2000 – mid 2001**



Source: NHSCR

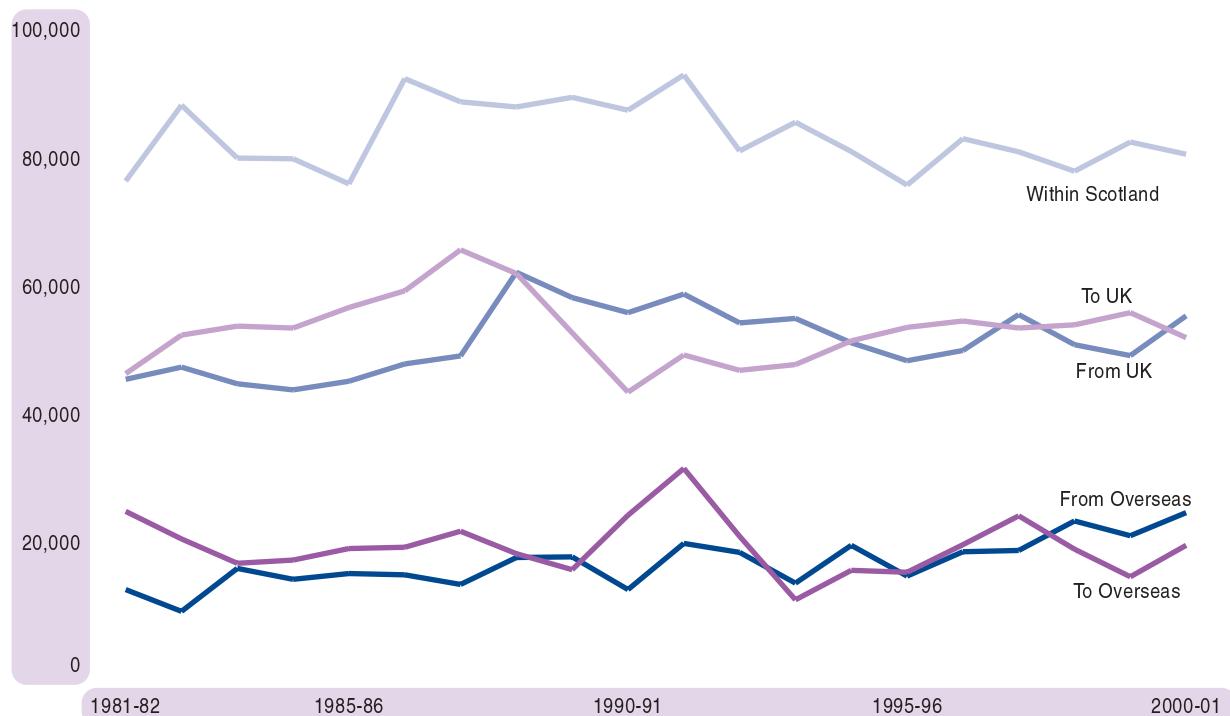
## Scale of migration

The estimated number of migration moves over the last twenty years is shown in **Figure 5.5** distinguishing moves between Health Boards within Scotland, cross-border moves to/from the rest of the UK, and moves to/from the rest of the world. These figures are subject to revision following the results of the 2001 Census but still provide a good indicator for comparing the relative size and trends of different flows.

The relative size of the flows within Scotland, between Scotland and the rest of the UK, and between Scotland and the rest of the world, has remained similar. The majority of moves are shorter distance moves within Scotland at about 80,000 a year. Regular information is only available for moves between Health Board areas, and if information were available for moves within Health Board areas we would expect an even larger number of moves within Scotland. The majority of people who move home or residence do so within a very short distance. Generally, the scale of movement decreases with the distance of the move.

## CHAPTER 5 – MIGRATION

Figure 5.5 Movements between Health Board areas within Scotland, to/from the rest of the UK and to/from the rest of the world, 1981–2001

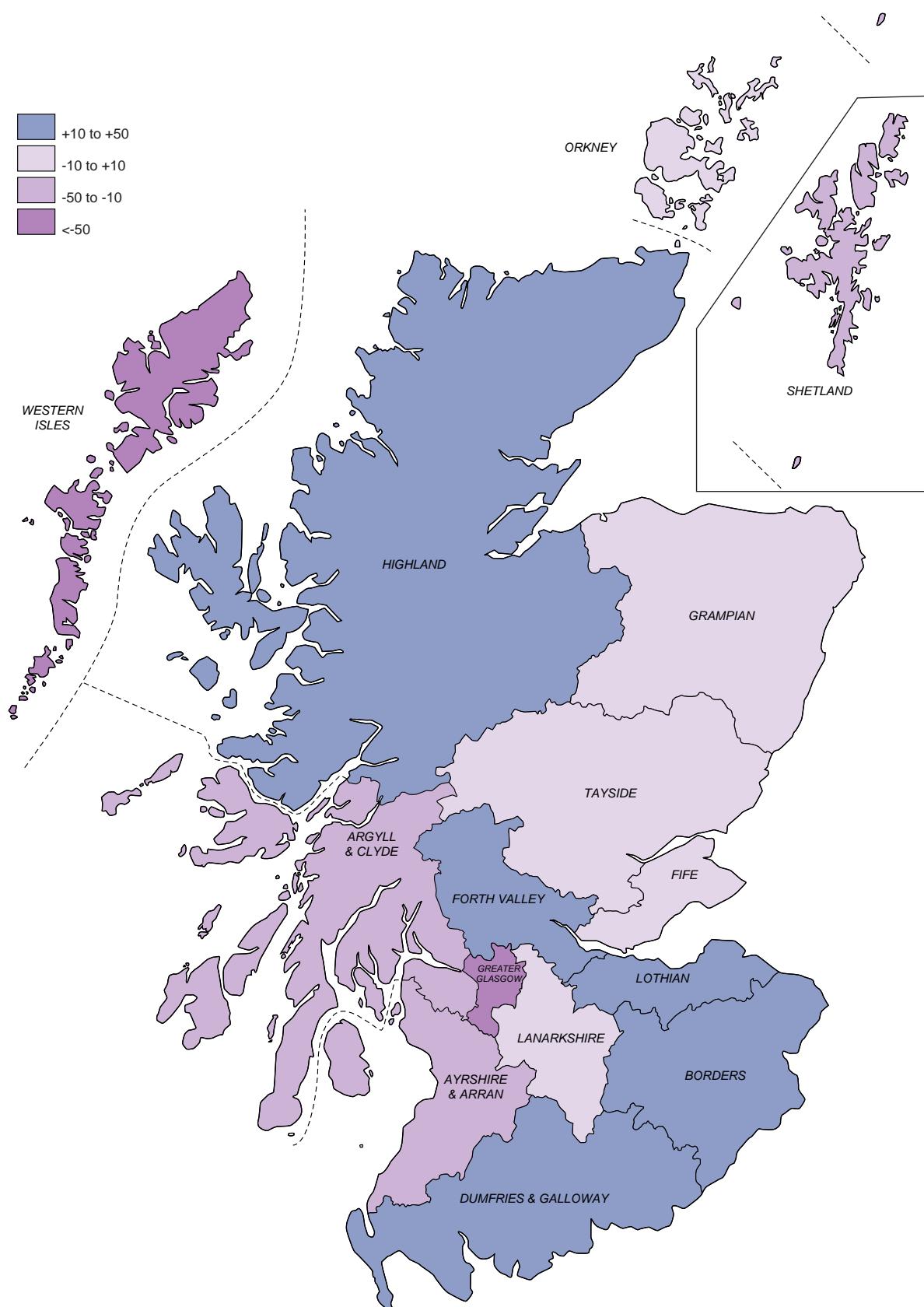


### Migration and the distribution of population within Scotland

Migration has a large impact on population distribution within Scotland and is often, at local level, the most important component of population change. Net migration rates, that is the amount of net migration between 1991 and 2001 as a proportion of the 1991 population, are a useful indicator when comparing migration between areas of different sizes. The available information on net migration rates for Health Board areas is shown in **Figure 5.6**. Although the figures use migration estimates based on the existing, or unrevised, population series for the 1990s, the relative pattern for different areas is unlikely to change once account has been taken of the 2001 Census results.

Generally, areas in the south, east and north of mainland Scotland have experienced migration gains over the last ten years (indicated by a positive rate in the chart), with the largest relative gain taking place in the Borders (50 migrants per 1,000 population). In contrast, nearly all of the migration loss was in the west of Scotland with the largest relative rate of migration loss (-71 migrants per 1,000 population) in Greater Glasgow. For comparison, the rate of migration loss for Scotland as a whole over the period was 7 migrants per 1,000 population.

Figure 5.6 Net migration rates per 1,000 population for Health Board areas, 1991–2001



# CHAPTER 5 – MIGRATION

## Estimating migration

Migration is the most difficult component of population change to estimate. The other components of population change (births and deaths) are estimated using data from the civil registration system, which is considered to be virtually complete and therefore easy to estimate. In contrast, there is no comprehensive system which registers migration in the UK, either moves to or from the rest of the world, or moves within the UK. Estimates of migration therefore have to be based on survey data and the best proxy data that exist.

## Sources of data for estimating migration

Migration is derived from two key sources of data: The International Passenger Survey (IPS) for moves into and out of Scotland from outside the UK, and the National Health Service Central Register (NHSCR) for moves between Health Board areas within the UK. There is no comprehensive source for estimating migration for areas below Health Board area and changes in data sources such as the electoral and school roll have been used to derive migration at Council area level.

The IPS is a continuous voluntary sample survey conducted by the Office for National Statistics at the principal air, sea and channel tunnel routes between the UK and countries outside the British Isles. The sample of migrants contacted within the survey is small, particularly for Scottish migrants, and therefore estimates derived from the IPS are subject to larger sampling and non-sampling errors, and are considered less reliable than UK level estimates. Information about the country of origin and destination, and age of migrants is particularly subject to error.

The NHSCR records the movements of patients between NHS General Practitioner areas in the UK. Each time a patient transfers to a new NHS doctor in a different Health Board the NHSCR is notified and this is considered a migration move. Counts of these re-registrations are used as proxy indicators for moves within the UK and account for about 70 per cent of all migration movements into and out of Scotland.

## Quality of migration estimates

As noted in the population chapter, the results of the 2001 Census for Scotland were some 50,000 lower than the previously published mid-2000 population estimate. This difference is considered to reflect cumulative errors in the previous estimates of young male migration during the 1980s and 1990s, in particular a likely underestimation of young male migration from Scotland to the rest of the world during this period. To the extent that moves from Scotland to the rest of the UK may have been under-recorded, the implied increase in overseas migration would be less.

More information on the cumulative migration error since 1981 can be found in the GROS Paper *Comparisons with Previous Estimates and Implications for Revisions* on the GROS website ([www.gro-scotland.gov.uk](http://www.gro-scotland.gov.uk)) or by contacting GROS Customer Services.

## Improving future migration estimates

A number of initiatives are under way or planned with a view to improving future estimates of migration. These include:

- a UK National Statistics Project to review the quality of international migration statistics;
- an analysis of migration data from the 2001 Census to assess the quality of intra-Scotland and inter-UK migration flows and characteristics; and
- a new method for estimating migration for areas below Health Board areas using information from the Community Health Index (CHI). This work is already well advanced and is expected to report by the end of 2002.

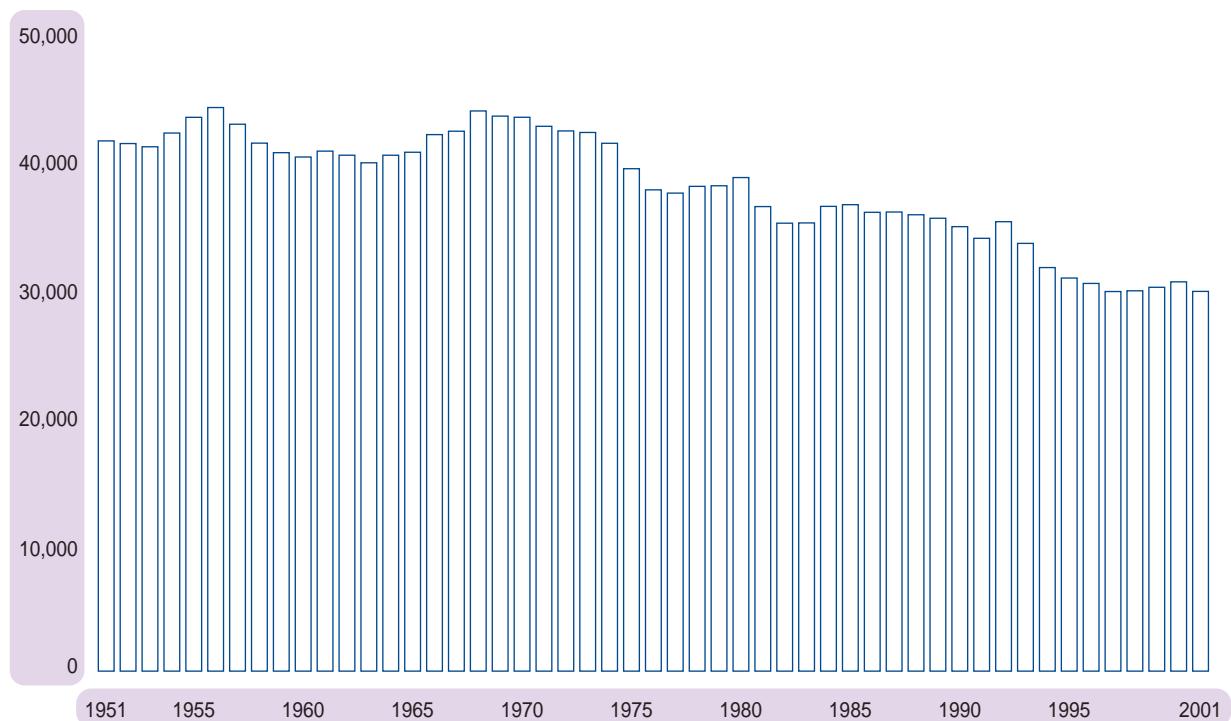
# CHAPTER 6 – MARRIAGES, DIVORCES AND ADOPTIONS

The General Register Office for Scotland also registers marriages, divorces, and adoptions in Scotland, and the trends shed light on changing attitudes in society.

## MARRIAGES

In 2001, there were 29,621 marriages in Scotland compared with over 41,000 in 1951. **Figure 6.1**, however, shows that the decline in the number of marriages may be levelling out at around 30,000 a year. Over 70 per cent of the marriages in 2001 were to couples where both or one partner was resident in Scotland.

Figure 6.1 Marriages, Scotland, 1951–2001



### Marriages of non-residents

The information on marriages in this chapter covers all marriages which were registered as having taken place in Scotland regardless of the usual residence of the parties involved. For almost 30 per cent of the marriages registered in 2001 neither the bride nor the groom was resident in Scotland and half of these took place at Gretna. For some demographic purposes users might wish to limit analyses to specific categories of residents. Further details of available information may be obtained from the GROS Customer Service address given in **Contact Points**. Conversely, a number of couples who are resident in Scotland now go abroad to be married. These marriages are not included in this chapter, and only some come to the attention of the Registrar General through notification to British Consular authorities.

The average age at marriage continues to increase for both males and females. For males the average age has risen from 27.6 in 1981 to 34.8 in 2001, while for women there has been a similar increase from 25.3 to 32.3. Possible explanations for this include extended education, difficulties with finding suitable housing, and a postponement of marriage as a result of periods of cohabitation prior to marriage. The increasing average age at first marriage, which is in line with the trend for all marriages, is consistent with these factors.

Another reason for the increase in average age at marriage is the increasing proportion of marriages where the bride or groom was divorced at the time of marriage. The average age for divorced men and women getting married is considerably higher (43 for males and 40 for females) than the average age for all people getting married. The number of marriages where at least one of the partners was previously divorced has risen from about 1 in 7 marriages in 1981 to about 1 in 4 in 2001.

The increasing age at marriage may also have wider implications, for example on births. Couples may be delaying starting a family until they are married, and the higher age at marriage may be a factor in the decline in the number of births noted in **Chapter 3**.

## Marital status at marriage

**Figure 6.2** gives the percentage of marriages by marital status at the time of marriage between 1951 and 2001. The percentage of people marrying who had been divorced rose from only 3 per cent in 1951 to just under 6 per cent during 1971, but by 2001 over a quarter (28 per cent for males and 26 per cent for females) of those marrying were divorcees. The majority of this shift reflects a reduction in the proportion of marriages where one of the partners was a bachelor/spinster. However, the proportion of those marrying who were widowed has also declined – in 2001 the proportion was about 2 per cent or about half of what it was 50 years ago.

Figure 6.2 Marriages by marital status of persons marrying, 1951–2001



# CHAPTER 6 – MARRIAGES, DIVORCES AND ADOPTIONS

When looking at the marital status of persons marrying it is also interesting to look at the remarriage rates, i.e. the number of marriages where one of the participants was widowed or divorced per 1,000 population of widowed or divorced people. It shows a pattern which is consistent with the declining rates of first marriages, although there are differences in the patterns for men and women.

**Table 6.1** shows that widowed or divorced men have a much higher propensity to remarry than widowed or divorced women (40.7 per 1,000 population of widowed or divorced men compared with 18.7 for widowed or divorced women). This is the reverse of the pattern for first marriage rates where single women have a higher propensity to marry (35.9 per 1,000 population) than single men (29.9 per 1,000 population). This suggests that women are more likely than men to marry someone who has already been married when first marrying, and that widowed or divorced males are more likely than widowed or divorced females to marry someone who is single when remarrying.

Table 6.1 Marriage rates by sex and marital status, Scotland, 1981–2001

|                   | Men                    |                                 | Women                  |                                 |
|-------------------|------------------------|---------------------------------|------------------------|---------------------------------|
|                   | Bachelors <sup>1</sup> | Widowed & Divorced <sup>2</sup> | Spinsters <sup>1</sup> | Widowed & Divorced <sup>2</sup> |
| 1981              | 56.1                   | 56.7                            | 63.1                   | 16.6                            |
| 1991              | 41.8                   | 46.9                            | 49.0                   | 18.3                            |
| 2001 <sup>3</sup> | 29.9                   | 40.7                            | 35.9                   | 18.7                            |

<sup>1</sup> First marriage rates per 1,000 population (single only)

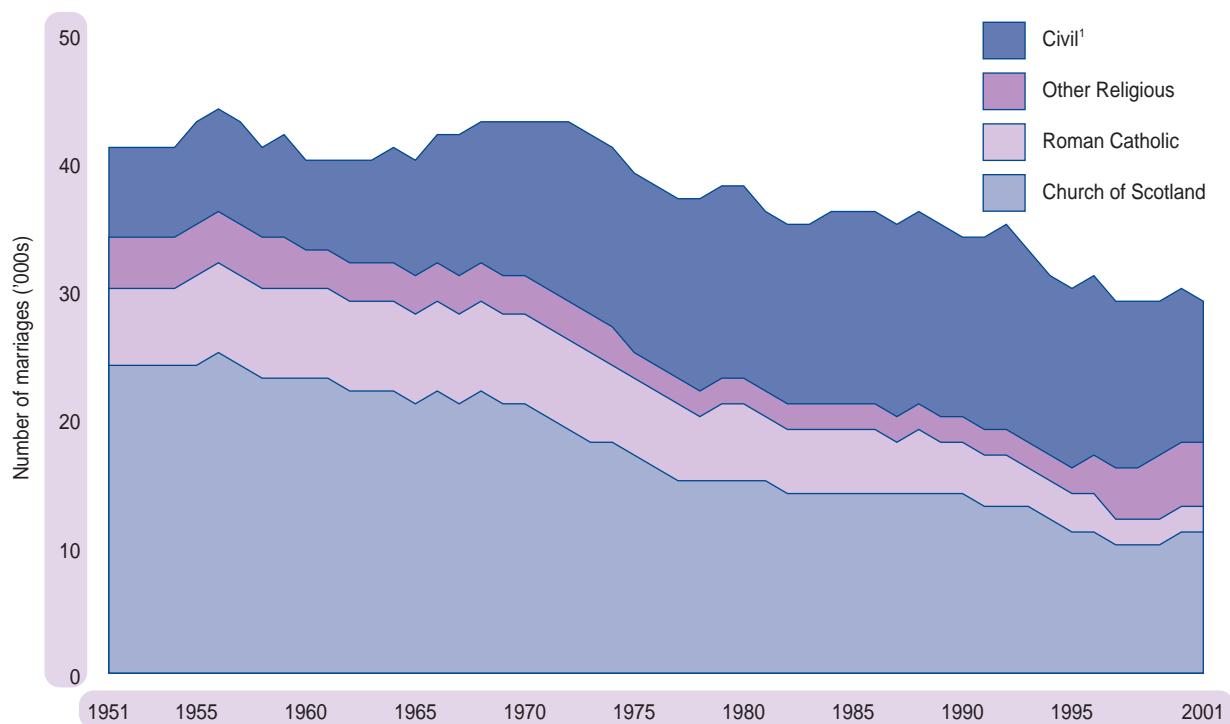
<sup>2</sup> Remarriage rates per 1,000 population (widowed and divorced only)

<sup>3</sup> 2001 rates are based on 2000 marital status estimates

## Marriages by type of ceremony

Civil marriages accounted for nearly 40 per cent of all marriages in 2001. As illustrated in **Figure 6.3**, this is more than twice the proportion fifty years ago. The trend reflects a move away from religious marriages to civil marriages, particularly during the 1970s and 1980s when the proportion of civil marriages reached current levels. There was a further increase in the early 1990s reaching a high of 46 per cent but this has since fallen back to just under 40 per cent, reflecting an increase in religious marriages, of which a significant proportion were carried out at Gretna.

Figure 6.3 Marriages by type of ceremony, Scotland, 1951–2001



<sup>1</sup>Includes irregular marriages

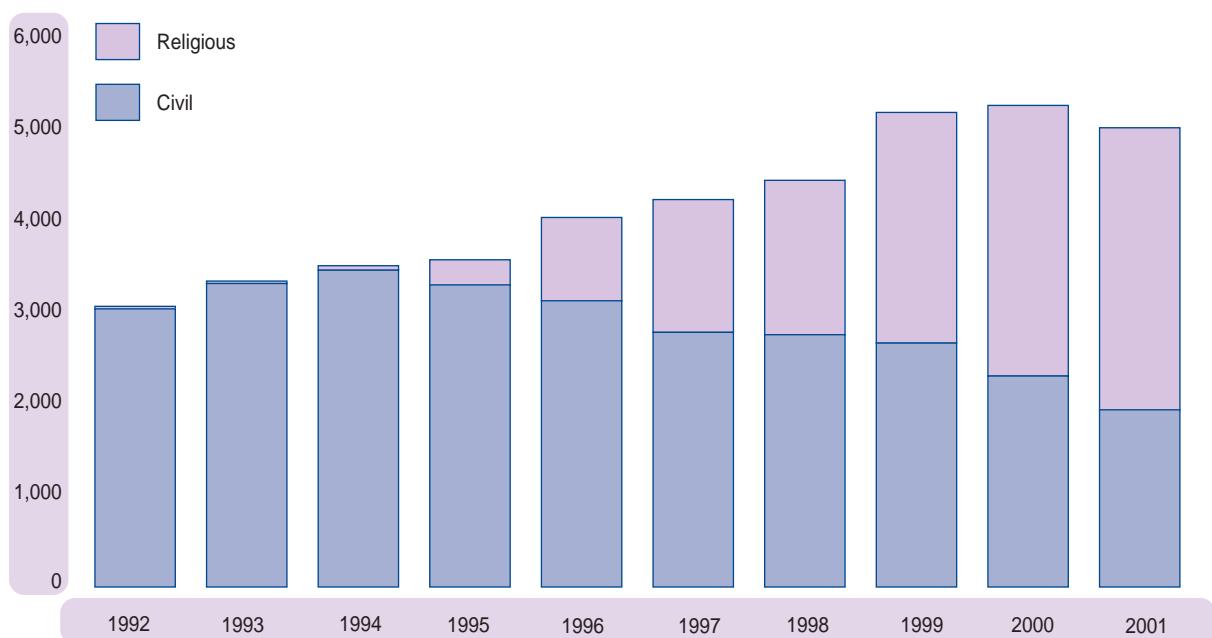
## Marriages at Gretna

A recent study of marriages at Gretna (GROS Occasional Paper No. 4 *Marriages at Gretna, 1975-2000*) over the last twenty-five years has revealed some interesting trends. During 2001, 17 per cent of all marriages in Scotland took place at Gretna compared with less than 1 per cent in 1951. As recently as 1977, only 80 marriages took place at Gretna compared with over 5,000 in 2001. The majority of this increase has occurred in the last ten years when the numbers have more than trebled. It should be noted that in recent years neither the bride nor the groom were resident in Scotland in some 85 per cent of marriages at Gretna.

## CHAPTER 6 – MARRIAGES, DIVORCES AND ADOPTIONS

**Figure 6.4** provides a breakdown of civil and religious marriages held at Gretna since the start of the big increase in Gretna marriages in 1992. It shows that the number of religious marriages held at Gretna increased from 28 in 1992 to 3,091 in 2001. This increase has made a significant contribution to the recent increase in the proportion of marriages which were religious marriages in the whole of Scotland. The increase in religious marriages during this period may reflect the wish of many couples to be married at venues other than registration offices. A change in the law during 2002 now makes it possible for civil marriages to be solemnised in a wider range of venues, and this may have an effect on the balance between religious and civil marriages in future.

Figure 6.4 Civil and religious marriages at Gretna, 1992–2001



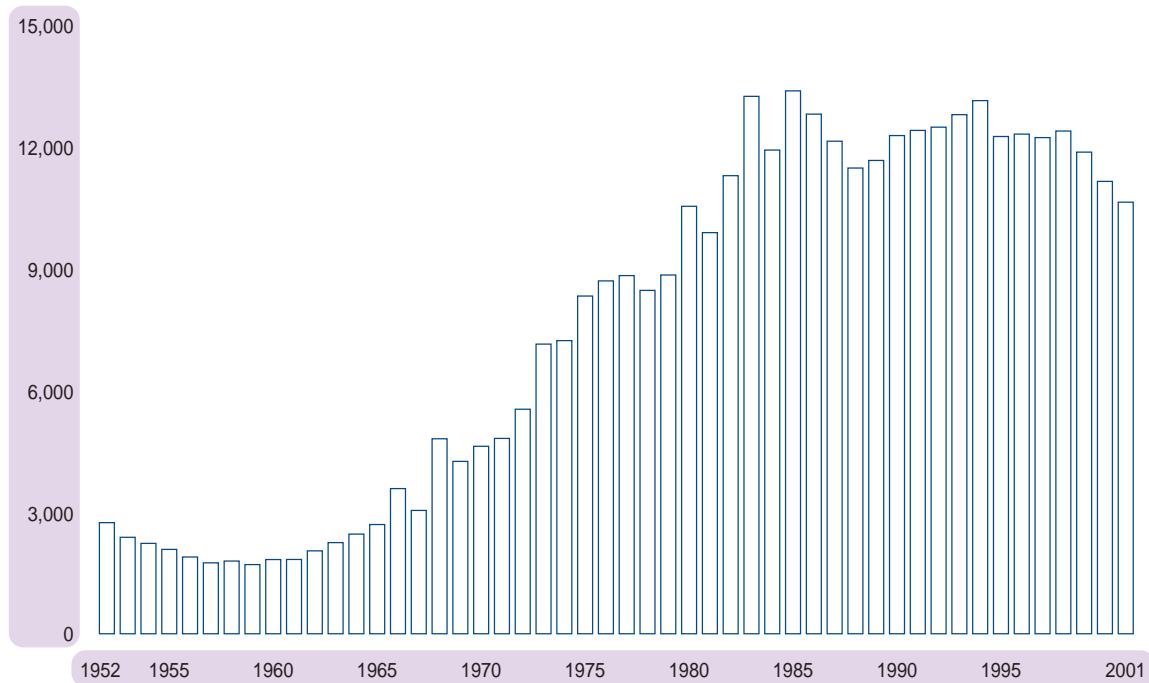
## DIVORCES

The number of divorces in 2001 was 10,631, around 500 fewer than in 2000 and the lowest level since 1982.

Information on divorces, which relates to divorces granted under the Divorce (Scotland) Act 1976, are for all divorces granted in Scotland regardless of where the marriage took place. **Figure 6.5** shows the number of divorces between 1952 and 2001. There was a very marked increase in the number of divorces up to the early 1980s, since when the level has fluctuated. Since 1994, when there were over 13,000 divorces, there has been a steady fall and the number in 2001 was the lowest since 1982 and the first time in twenty years that the number has fallen below 11,000.

Increasing levels of co-habitation may be relevant to the recent decline in divorces since the breakdown of cohabiting relationships is not subject to divorce proceedings.

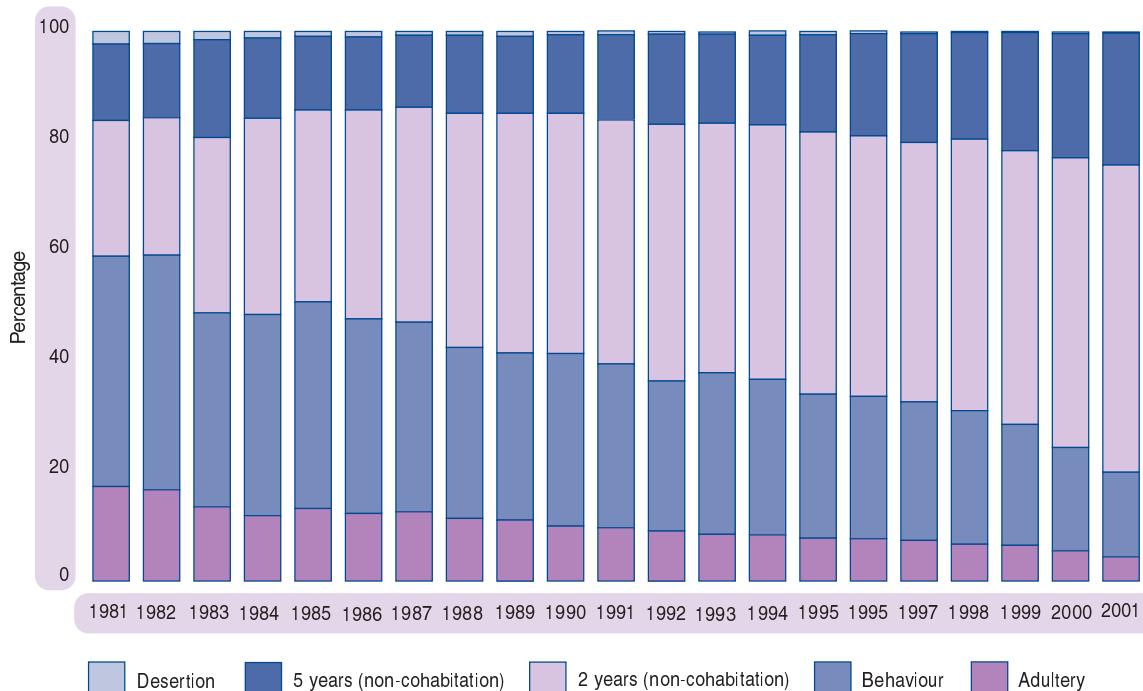
Figure 6.5 Divorces, Scotland, 1952-2001



## Grounds for divorce

Figure 6.6 shows the trend in grounds for divorce between 1981 and 2001. The Divorce (Scotland) Act 1976 introduced new grounds for divorce, principally non-cohabitation, meaning that couples separated for two or five years could file for divorce on grounds of non-cohabitation.

Figure 6.6 Number of divorces, by grounds for divorce, Scotland, 1981-2001



# CHAPTER 6 – MARRIAGES, DIVORCES AND ADOPTIONS

In 2001, non-cohabitation was the most frequent reason for divorce, accounting for 80 per cent of all divorces. Non-cohabitation (2 years and consent) increased from 25 per cent of all divorces in 1981 to over half of all divorces in 2001; non-cohabitation (5 years) increased from 14 per cent to 24 per cent; and adultery as the stated reason for divorce fell from 17 per cent to 4 per cent.

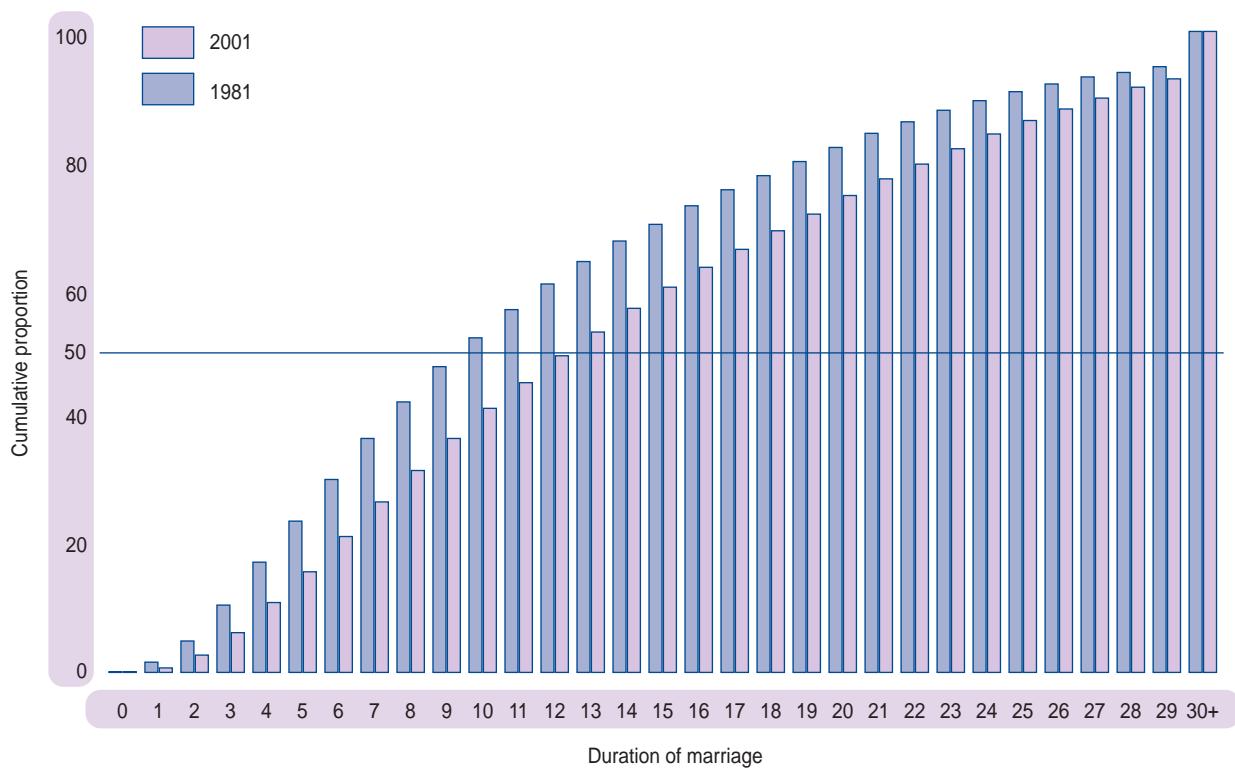
## Divorces by marital status

Of those divorcing in 2001, 15 per cent of men and 14 per cent of women had divorced previously. This compares with 8 per cent for males and 7 per cent for females in 1981. This is consistent with the increase in the proportion of all marriages where one of the participants was divorced previously (now 1 in 4 marriages compared with 1 in 7 twenty years ago).

## Duration of marriages that ended in divorce

**Figure 6.7** compares the cumulative duration of marriages which ended in divorce in 1981 with 2001. The median duration of marriages ending in divorce is shown by the horizontal line at 50 per cent, indicating that half of marriages ending in divorce lasted for more than this duration and half less. In 2001, the median duration of marriage was 13 years, whereas the comparable duration for 1981 was 9 years. This increase may be affected by the changing balance between cohabiting relationships, and marriage.

Figure 6.7 Duration of marriages ending in divorce, 1981 and 2001



## Divorce by age at marriage

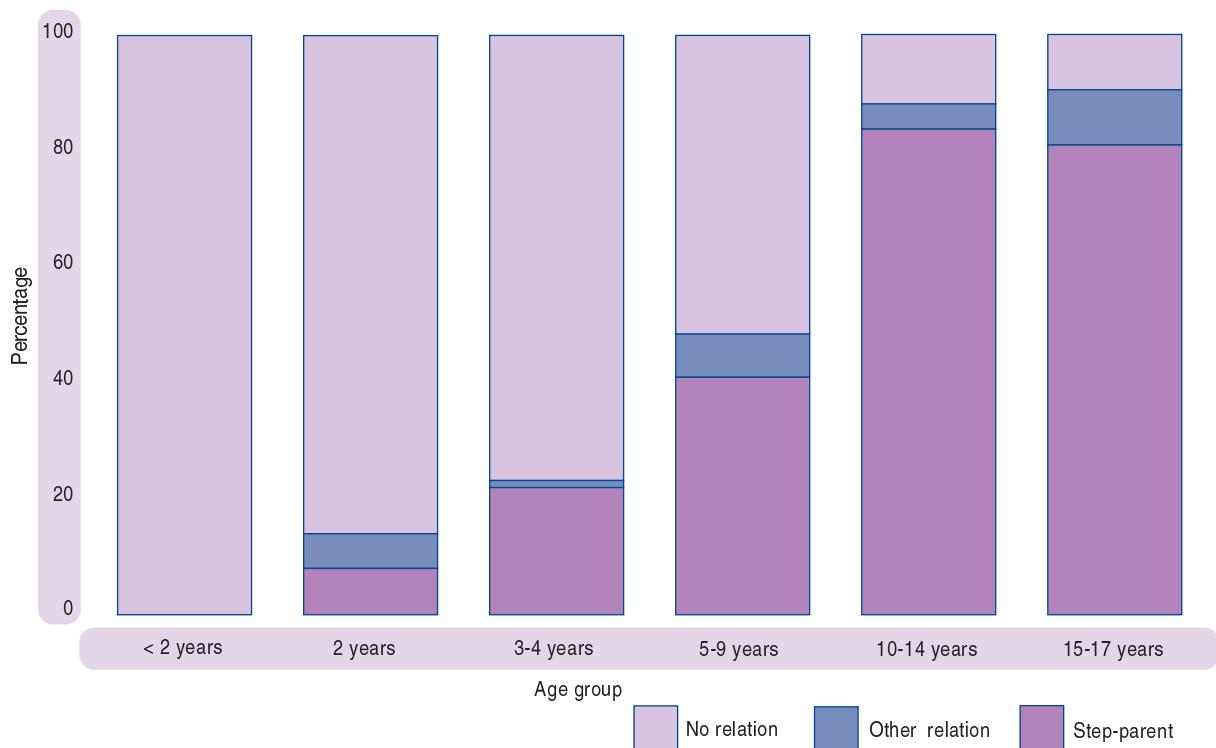
In 2001, 30 per cent of all divorces were to couples where at least one of the partners was aged 20 or under when they married. This is a significant fall from 60 per cent in 1981, but not unexpected given that the proportion of marriages where at least one of the partners was under 20 has fallen from 36 per cent in 1981 to 4 per cent in 2001.

## ADOPTIONS

The number of adoptions recorded by the Registrar General during 2001 was 468, the second lowest number since the first full year of recording in 1931. This is nearly 60 per cent of the level in 1991 and 30 per cent of the number adopted in 1951.

Nearly 40 per cent of the children adopted in 2001 were adopted by a step-parent, while 50 per cent were adopted by non-relatives of the child. A breakdown of the age of the child adopted, by the relationship of the adopter, for 2001 is given in **Figure 6.8**. 13 per cent of children adopted in 2001 were aged under two, all of whom were adopted by non-relatives. In contrast, of the 24 per cent of adoptions of children aged over ten, only 7 per cent were adopted by non-relatives.

**Figure 6.8** Adoptions, by age of child and relationship of the adopter(s), 2001



# APPENDIX 1 – SUMMARY TABLES

Table 1 Population and vital events, Scotland, 1855–2001

| Year                 | Estimated population (000s) | Live births |                   | Stillbirths <sup>1</sup> |                   | Infant deaths |                   | Deaths |                   | Marriages |                   | Divorces |
|----------------------|-----------------------------|-------------|-------------------|--------------------------|-------------------|---------------|-------------------|--------|-------------------|-----------|-------------------|----------|
|                      |                             | Number      | Rate <sup>2</sup> | Number                   | Rate <sup>3</sup> | Number        | Rate <sup>4</sup> | Number | Rate <sup>2</sup> | Number    | Rate <sup>2</sup> |          |
| 1855-60              | 3,018.4                     | 102,462     | 34.1              | ...                      | ...               | 12,250        | 119.6             | 62,644 | 20.8              | 20,645    | 6.8               | 19       |
| 1861-65              | 3,127.1                     | 109,764     | 35.1              | ...                      | ...               | 13,166        | 119.9             | 69,265 | 22.1              | 22,013    | 7.0               | 14       |
| 1866-70              | 3,275.6                     | 114,394     | 34.9              | ...                      | ...               | 13,971        | 122.1             | 71,974 | 22.0              | 22,832    | 7.0               | 9        |
| 1871-75              | 3,441.4                     | 120,376     | 35.0              | ...                      | ...               | 15,314        | 127.2             | 77,988 | 22.7              | 25,754    | 7.5               | 24       |
| 1876-80              | 3,628.7                     | 126,086     | 34.8              | ...                      | ...               | 14,921        | 118.3             | 74,801 | 20.6              | 24,956    | 6.9               | 54       |
| 1881-85              | 3,799.2                     | 126,409     | 33.3              | ...                      | ...               | 14,864        | 117.6             | 74,396 | 19.6              | 26,176    | 6.9               | 74       |
| 1886-90              | 3,943.9                     | 123,977     | 31.4              | ...                      | ...               | 14,943        | 120.5             | 74,320 | 18.8              | 25,702    | 6.5               | 94       |
| 1891-95              | 4,122.5                     | 125,800     | 30.5              | ...                      | ...               | 15,895        | 126.4             | 78,350 | 19.0              | 27,962    | 6.8               | 115      |
| 1896-                |                             |             |                   |                          |                   |               |                   |        |                   |           |                   |          |
| 1900                 | 4,345.1                     | 130,209     | 30.0              | ...                      | ...               | 16,857        | 129.5             | 78,021 | 17.9              | 31,771    | 7.3               | 146      |
| 1901-05              | 4,535.7                     | 132,399     | 29.2              | ...                      | ...               | 15,881        | 119.9             | 77,313 | 17.1              | 31,838    | 7.0               | 181      |
| 1906-10              | 4,679.9                     | 128,987     | 27.6              | ...                      | ...               | 14,501        | 112.4             | 75,534 | 16.1              | 31,811    | 6.8               | 195      |
| 1911-15              | 4,748.3                     | 120,654     | 25.4              | ...                      | ...               | 13,604        | 112.8             | 74,466 | 15.7              | 33,857    | 7.1               | 264      |
| 1916-20              | 4,823.8                     | 109,750     | 22.8              | ...                      | ...               | 10,869        | 99.0              | 72,365 | 15.0              | 37,437    | 7.8               | 531      |
| 1921-25              | 4,879.6                     | 112,245     | 23.0              | ...                      | ...               | 10,299        | 91.8              | 67,652 | 13.9              | 34,720    | 7.1               | 427      |
| 1926-30              | 4,845.1                     | 96,674      | 20.0              | ...                      | ...               | 8,260         | 85.4              | 66,017 | 13.6              | 32,605    | 6.7               | 478      |
| 1931-35              | 4,905.1                     | 89,306      | 18.2              | ...                      | ...               | 7,212         | 80.8              | 64,839 | 13.2              | 34,986    | 7.1               | 507      |
| 1936-40              | 4,956.8                     | 87,734      | 17.6              | ...                      | ...               | 6,650         | 75.8              | 67,166 | 13.5              | 42,941    | 8.6               | 750      |
| 1941-45              | 4,711.9                     | 91,593      | 19.4              | 3,393                    | 35.7              | 6,202         | 67.7              | 66,302 | 13.8              | 43,772    | 8.5               | 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    | 8.5               | 2,435    |
| 1951-55              | 5,103.6                     | 91,366      | 17.9              | 2,390                    | 25.5              | 3,009         | 32.9              | 61,838 | 12.1              | 41,718    | 8.2               | 2,274    |
| 1956-60              | 5,145.2                     | 98,663      | 19.2              | 2,307                    | 22.9              | 2,755         | 27.9              | 61,965 | 12.0              | 41,671    | 8.1               | 1,792    |
| 1961-65              | 5,201.0                     | 102,642     | 19.7              | 2,000                    | 19.1              | 2,568         | 25.0              | 63,309 | 12.2              | 40,235    | 7.7               | 2,253    |
| 1966-70              | 5,204.3                     | 93,033      | 17.9              | 1,415                    | 15.0              | 1,970         | 21.2              | 62,797 | 12.1              | 42,832    | 8.2               | 4,056    |
| 1971-75              | 5,234.7                     | 75,541      | 14.4              | 939                      | 12.3              | 1,421         | 18.8              | 63,808 | 12.2              | 41,404    | 7.9               | 6,604    |
| 1976-80              | 5,213.9                     | 65,758      | 12.6              | 529                      | 8.0               | 900           | 13.7              | 64,343 | 12.3              | 37,801    | 7.3               | 9,068    |
| 1981-85 <sup>5</sup> | 5,156.4                     | 66,422      | 12.9              | 389                      | 5.8               | 695           | 10.5              | 63,723 | 12.4              | 35,756    | 6.9               | 11,942   |
| 1986-90 <sup>5</sup> | 5,105.6                     | 65,544      | 12.8              | 350                      | 5.3               | 550           | 8.4               | 62,796 | 12.3              | 35,440    | 6.9               | 12,067   |
| 1991-95 <sup>5</sup> | 5,121.5                     | 63,571      | 12.4              | 382                      | 6.0               | 418           | 6.6               | 61,171 | 11.9              | 32,866    | 6.4               | 12,609   |
| 1996-                |                             |             |                   |                          |                   |               |                   |        |                   |           |                   |          |
| 2000 <sup>5</sup>    | 5,120.9                     | 56,856      | 11.1              | 327                      | 5.7               | 316           | 5.6               | 59,478 | 11.6              | 29,966    | 5.9               | 11,984   |
| 2001                 | 5,064.2                     | 52,527      | 10.4              | 301                      | 5.7               | 290           | 5.5               | 57,382 | 11.3              | 29,621    | 5.8               | 10,631   |

1 See 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 The population for years 1982-2000 and corresponding rates are to be revised.

Table 2 Estimated population, births, stillbirths, deaths and marriages, numbers and rates, by Council area, Scotland, 2001

| Area                 | Estimated population at 30 June | Live births   |                   |                   | Stillbirths <sup>2</sup> |                   | Infant deaths |                   | Deaths        |                   |                   | Marriages     |
|----------------------|---------------------------------|---------------|-------------------|-------------------|--------------------------|-------------------|---------------|-------------------|---------------|-------------------|-------------------|---------------|
|                      |                                 | Number        | Rate <sup>1</sup> | Standardised rate | Number                   | Rate <sup>2</sup> | Number        | Rate <sup>3</sup> | Number        | Rate <sup>1</sup> | Standardised rate |               |
| <b>SCOTLAND</b>      | <b>5,064,200</b>                | <b>52,527</b> | <b>10.4</b>       | <b>10.4</b>       | <b>301</b>               | <b>5.7</b>        | <b>290</b>    | <b>5.5</b>        | <b>57,382</b> | <b>11.3</b>       | <b>11.3</b>       | <b>29,621</b> |
| <b>Council areas</b> |                                 |               |                   |                   |                          |                   |               |                   |               |                   |                   |               |
| Aberdeen City        | 211,910                         | 2,097         | 9.9               | 8.7               | 15                       | 7.1               | 7             | 3.3               | 2,190         | 10.3              | 10.7              | 972           |
| Aberdeenshire        | 226,940                         | 2,247         | 9.9               | 11.1              | 16                       | 7.1               | 16            | 7.1               | 2,064         | 9.1               | 9.6               | 987           |
| Angus                | 108,370                         | 1,103         | 10.2              | 11.9              | 3                        | 2.7               | 3             | 2.7               | 1,334         | 12.3              | 10.7              | 371           |
| Argyll & Bute        | 91,300                          | 780           | 8.5               | 10.6              | 3                        | 3.8               | 3             | 3.8               | 1,134         | 12.4              | 10.5              | 638           |
| Clackmannanshire     | 48,070                          | 529           | 11.0              | 11.7              | 2                        | 3.8               | 4             | 7.6               | 520           | 10.8              | 11.7              | 180           |
| Dumfries & Galloway  | 147,780                         | 1,283         | 8.7               | 10.5              | 8                        | 6.2               | 9             | 7.0               | 1,777         | 12.0              | 10.2              | 6,063         |
| Dundee City          | 145,460                         | 1,468         | 10.1              | 9.6               | 7                        | 4.7               | 17            | 11.6              | 1,879         | 12.9              | 11.9              | 576           |
| East Ayrshire        | 120,310                         | 1,198         | 10.0              | 10.5              | 6                        | 5.0               | 10            | 8.3               | 1,507         | 12.5              | 12.5              | 331           |
| East Dunbartonshire  | 108,250                         | 983           | 9.1               | 10.5              | 8                        | 8.1               | 4             | 4.1               | 941           | 8.7               | 9.1               | 385           |
| East Lothian         | 90,180                          | 940           | 10.4              | 11.6              | 2                        | 2.1               | 2             | 2.1               | 983           | 10.9              | 10.0              | 406           |
| East Renfrewshire    | 89,410                          | 954           | 10.7              | 12.3              | 1                        | 1.0               | 5             | 5.2               | 815           | 9.1               | 9.2               | 457           |
| Edinburgh, City of   | 449,020                         | 4,489         | 10.0              | 8.2               | 26                       | 5.8               | 23            | 5.1               | 4,717         | 10.5              | 10.6              | 2,645         |
| Eilean Siar          | 26,450                          | 226           | 8.5               | 10.9              | 2                        | 8.8               | 2             | 8.8               | 356           | 13.5              | 10.5              | 88            |
| Falkirk              | 145,270                         | 1,448         | 10.0              | 10.0              | 8                        | 5.5               | 11            | 7.6               | 1,574         | 10.8              | 11.2              | 564           |
| Fife                 | 349,770                         | 3,642         | 10.4              | 10.9              | 19                       | 5.2               | 15            | 4.1               | 3,918         | 11.2              | 10.9              | 1,748         |
| Glasgow City         | 578,710                         | 6,645         | 11.5              | 9.7               | 50                       | 7.5               | 37            | 5.6               | 7,680         | 13.3              | 13.8              | 2,685         |
| Highland             | 208,920                         | 2,131         | 10.2              | 11.8              | 12                       | 5.6               | 11            | 5.2               | 2,413         | 11.5              | 11.0              | 1,504         |
| Inverclyde           | 84,150                          | 850           | 10.1              | 10.6              | 4                        | 4.7               | 8             | 9.4               | 1,109         | 13.2              | 12.8              | 291           |
| Midlothian           | 80,950                          | 922           | 11.4              | 12.0              | 1                        | 1.1               | 5             | 5.4               | 839           | 10.4              | 11.1              | 640           |
| Moray                | 87,000                          | 869           | 10.0              | 11.1              | 2                        | 2.3               | 8             | 9.2               | 936           | 10.8              | 10.6              | 355           |
| North Ayrshire       | 135,820                         | 1,421         | 10.5              | 11.0              | 8                        | 5.6               | 15            | 10.6              | 1,638         | 12.1              | 11.9              | 617           |
| Orkney Islands       | 321,180                         | 3,676         | 11.4              | 10.9              | 25                       | 6.8               | 21            | 5.7               | 3,440         | 10.7              | 12.7              | 1,062         |
| Perth & Kinross      | 19,220                          | 174           | 9.1               | 10.9              | 3                        | 16.9              | 1             | 5.7               | 229           | 11.9              | 10.8              | 99            |
| Renfrewshire         | 134,950                         | 1,334         | 9.9               | 11.7              | 6                        | 4.5               | 6             | 4.5               | 1,540         | 11.4              | 9.7               | 926           |
| Scottish Borders     | 172,850                         | 1,796         | 10.4              | 10.4              | 6                        | 3.3               | 10            | 5.6               | 2,018         | 11.7              | 12.2              | 535           |
| Shetland Islands     | 106,950                         | 1,066         | 10.0              | 11.9              | 3                        | 2.8               | 3             | 2.8               | 1,282         | 12.0              | 10.0              | 680           |
| South Ayrshire       | 21,960                          | 247           | 11.2              | 12.6              | 1                        | 4.0               | -             | -                 | 224           | 10.2              | 10.7              | 102           |
| South Lanarkshire    | 112,160                         | 1,056         | 9.4               | 11.0              | 11                       | 10.3              | 7             | 6.6               | 1,465         | 13.1              | 10.9              | 738           |
| Stirling             | 302,340                         | 3,161         | 10.5              | 10.7              | 20                       | 6.3               | 9             | 2.8               | 3,300         | 10.9              | 11.7              | 1,126         |
| West Dunbartonshire  | 86,200                          | 840           | 9.7               | 9.8               | 3                        | 3.6               | 6             | 7.1               | 939           | 10.9              | 10.9              | 796           |
| West Lothian         | 93,320                          | 972           | 10.4              | 10.4              | 10                       | 10.2              | 7             | 7.2               | 1,165         | 12.5              | 12.9              | 472           |

1 Rate per 1,000 population. 2 Rate per 1,000 live and still births. 3 Rate per 1,000 live births.

# APPENDIX 1 – SUMMARY TABLES

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

| Country                     | Estimated population ('000s) |              | Live births per 1,000 population |             | Stillbirths <sup>3</sup> per 1,000 total births (live & still) |            | Infant mortality per 1,000 live births |            | Deaths per 1,000 population |             | Marriages per 1,000 population |            |
|-----------------------------|------------------------------|--------------|----------------------------------|-------------|--|------------|--|------------|-----------------------------|-------------|--------------------------------|------------|
|                             | Year                         | Population   | Year                             | Rate        | Year   | Rate       | Year                                   | Rate       | Year                        | Rate        | Year                           | Rate       |
| <b>Scotland</b>             | 2001                         | <b>5,064</b> | 2001                             | <b>10.4</b> | 2001   | <b>5.7</b> | 2001                                   | <b>5.5</b> | 2001                        | <b>11.3</b> | 2001                           | <b>5.8</b> |
| <b>European Union</b>       |                              |              |                                  |             |  |            |  |            |                             |             |                                |            |
| Austria                     | 2001                         | 8,121        | 2000                             | 9.6         | 1998   | 4.1        | 2000                                   | 4.8        | 2000                        | 9.5         | 2000                           | 4.8        |
| Belgium                     | 2001 <sup>1</sup>            | 10,262       | 2000 <sup>1</sup>                | 11.3        | 1995   | 4.8        | 2000 <sup>1</sup>                      | 5.2        | 2000 <sup>1</sup>           | 10.3        | 2000 <sup>1</sup>              | 4.4        |
| Denmark                     | 2001                         | 5,349        | 2000 <sup>1</sup>                | 12.6        | 1996   | 4.8        | 2000*                                  | 4.2        | 2000 <sup>1</sup>           | 10.9        | 1999                           | 6.7        |
| Finland                     | 2001                         | 5,181        | 2000                             | 11.0        | 1998   | 2.6        | 2000                                   | 3.8        | 2000                        | 9.5         | 2000                           | 5.1        |
| France                      | 2001                         | 59,521       | 2000 <sup>1</sup>                | 13.1        | 1997   | 4.9        | 2000*                                  | 4.6        | 2000 <sup>1</sup>           | 9.1         | 2000 <sup>1</sup>              | 5.1        |
| Germany                     | 2001 <sup>1</sup>            | 82,193       | 2000 <sup>1</sup>                | 9.2         | 1997   | 4.3        | 2000 <sup>1</sup>                      | 4.4        | 2000 <sup>1</sup>           | 10.1        | 2000 <sup>1</sup>              | 5.1        |
| Greece                      | 2001                         | 10,565       | 2000                             | 9.6         | 1998   | 5.9        | 2000*                                  | 6.1        | 2000*                       | 9.8         | 2000*                          | 5.9        |
| Irish Republic              | 2001*                        | 3,820        | 2000*                            | 14.3        | 1995   | 5.3        | 2000                                   | 5.9        | 2000*                       | 8.2         | 2000*                          | 5.0        |
| Italy                       | 2001                         | 57,844       | 2000                             | 9.4         | 1997   | 3.6        | 2000*                                  | 5.1        | 2000                        | 9.7         | 1999                           | 4.8        |
| Luxembourg                  | 2001                         | 441          | 2000                             | 13.1        | 1998   | 5.9        | 2000                                   | 5.1        | 2000                        | 8.6         | 2000                           | 4.9        |
| Netherlands                 | 2001 <sup>1</sup>            | 15,983       | 2000 <sup>1</sup>                | 13.0        | 1998   | 4.9        | 2000 <sup>1</sup>                      | 4.8        | 2000 <sup>1</sup>           | 8.8         | 2000 <sup>1</sup>              | 5.5        |
| Portugal                    | 2001*                        | 10,023       | 2000*                            | 12.0        | 1997   | 4.5        | 2000 <sup>1</sup>                      | 5.5        | 2000*                       | 10.6        | 2000 <sup>1</sup>              | 6.4        |
| Spain                       | 2001                         | 39,490       | 2000*                            | 9.8         | 1996   | 3.9        | 2000*                                  | 4.6        | 2000*                       | 9.1         | 1999 <sup>1</sup>              | 5.2        |
| Sweden                      | 2001                         | 8,883        | 2000                             | 10.2        | 1998   | 3.5        | 2000                                   | 3.0        | 2000                        | 10.5        | 2000                           | 4.5        |
| United Kingdom <sup>4</sup> | 2000                         | 59,756       | 2000                             | 11.4        | 2000   | 5.3        | 2000                                   | 5.6        | 2000                        | 10.2        | 2000 <sup>1</sup>              | 5.1        |
| <b>Other Europe</b>         |                              |              |                                  |             |  |            |  |            |                             |             |                                |            |
| Bulgaria                    | 2001                         | 8,150        | 2000 <sup>1</sup>                | 9.0         | 1997   | 7.6        | 2000 <sup>1</sup>                      | 13.3       | 2000 <sup>1</sup>           | 14.1        | 2000 <sup>1</sup>              | 4.2        |
| Czech Republic              | 2001                         | 10,267       | 2000                             | 8.8         | 1998   | 3.2        | 2000                                   | 4.1        | 2000                        | 10.6        | 2000                           | 5.4        |
| Hungary                     | 2001*                        | 10,005       | 2000*                            | 9.7         | 1998   | 5.7        | 2000                                   | 9.2        | 2000*                       | 13.5        | 2000                           | 4.8        |
| Norway                      | 2001                         | 4,503        | 2000                             | 13.2        | 1998   | 4.2        | 2000                                   | 3.8        | 2000                        | 9.8         | 1999                           | 5.3        |
| Poland                      | 2001                         | 38,644       | 2000                             | 9.8         | 1998   | 5.0        | 2000                                   | 8.1        | 2000                        | 9.5         | 2000                           | 5.5        |
| Romania                     | 2001                         | 22,431       | 2000                             | 10.4        | 1998   | 6.4        | 2000                                   | 18.6       | 2000                        | 11.4        | 2000                           | 6.1        |
| Switzerland                 | 2001 <sup>1</sup>            | 7,206        | 2000 <sup>1</sup>                | 10.9        | 1998   | 3.9        | 2000 <sup>1</sup>                      | 4.9        | 2000 <sup>1</sup>           | 8.7         | 2000 <sup>1</sup>              | 5.5        |

Sources: Eurostat and the Office for National Statistics.

\* Eurostat estimate

<sup>1</sup> Provisional.

<sup>2</sup> Excludes Isle of Man and Channel Islands.

<sup>3</sup> 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.

<sup>4</sup> The population for 2000 and corresponding rates for the UK do not take into account revised 2000 population estimates.



## APPENDIX 2 – NOTES AND DEFINITIONS

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

### GENERAL

Throughout this report the Registrar General's annual mid-year estimates of population are used for comparing population trends and for use as denominators in calculating rates per head. Rates presented for 2001 use the latest 2001 mid-year estimates based on the 2001 Census. These population estimates are considerably less than the previously published 2000 estimate and will be revised in February 2003 along with earlier series back to 1982. This difference will affect the comparison of rates over time, particularly 2000 and 2001, but is unlikely to significantly alter the trend.

More information on the 2001 mid-year estimates, the reasons for the difference and the revised series is provided within the population section of this Appendix.

#### - tabular conventions

Where a range of years is listed in a time series table, e.g. 1951-55, the data presented will be an average for this period.

Throughout the tables 'year' means 'calendar year' except where otherwise defined. By convention, many of the time series presented start at census years e.g. 1991.

#### - date of registration and place of occurrence

All the data presented on births, stillbirths, marriages and deaths relate to the date of registration of the event and not to the date of occurrence; for example, a birth on 31 December 2000 which was registered on 5 January 2001 would be included in the 2001 figures. Births and stillbirths are usually registered within the statutory period of 21 days. Similarly, marriages are usually registered within 3 days and deaths within 8 days.

Births, stillbirths, and deaths have been allocated to the area of usual residence if it is in Scotland, otherwise to the area of occurrence. Marriage figures relate to the area of occurrence.

### POPULATION

All population figures refer to estimates as at 30 June of the year in question.

#### - population covered

The resident population of an area includes all those usually resident there whatever their nationality. Students are treated as being resident at their term-time address. Members of HM and non-UK armed forces stationed in Scotland are included; HM forces stationed outside Scotland are excluded.

#### - age

Population figures relate to 30 June of the year shown and ages relate to age last birthday.

### **- commentary on the 2001 Mid-Year Estimates**

The estimated population of Scotland on 30 June 2001 was some 50,400 less than the 2000 mid-year estimates published in April 2001. The fall from the 2000 figure does not represent change in a single year since the previous 2000 estimate was derived by 'rolling forward' the 1991 population taking account of births, deaths and migration. Given the new baseline established by the 2001 Census, it will be necessary to revise previous population estimates. In order to provide an indicator of recent change in the population, which may be particularly useful if calculating rates per head, a set of provisionally revised 2000 mid-year estimates has been produced and these are available from GROS Customer Services.

### **- reasons for the difference**

It is expected that the difference of some 50,000 is largely attributable to errors in previous estimates of migration in the 1980s and 1990s. It has been well documented that migration is the most difficult component of population change to estimate because of the lack of a wholly reliable source of data on migration.

The errors in estimating migration in the 1980s will also have affected the adjustments made to the 1991 Census counts to take account of underenumeration. The adjustments to 1991 Census counts were excessive and added some people, particularly young men, to the population whom we now believe had actually migrated out of Scotland rather than having been missed by the 1991 Census.

A key implication of this difference is the need to revise the mid-1991 figures since there is now evidence that these were too high. Consequently, there will be a need to revise the population figures for each area since 1982. A revised set of population estimates for 1982-2000 will be available by end February 2003.

### **- population projections**

Population projections for Scotland are prepared by the Government Actuary, at the request of and in consultation with, the Registrar General. The latest projection was 2000-based. Earlier this year GROS published sub-national projections for the administrative areas of Scotland that are consistent with the Scotland projection.

The 2000-based population projections for Scotland and its administrative areas used the previously published 2000 mid-year estimates as a base, which are some 56,000 higher than the provisionally revised 2000 mid-year estimates (consistent with the 2001 Census results). While the 2000-based projections are in need of updating, the general picture of a slowly declining population is unlikely to change.

The Government Actuary's Department plan to publish a set of 'interim' 2001-based projections for the UK and its constituent countries. These will not take full account of the results of the 2001 Census but will use the latest population estimates as the new base and will reconsider the migration assumptions in light of the recent results and previous overestimates of migration.

A set of 2002-based projections for Scotland, which take full account of the 2001 Census, is planned for November 2003.

## BIRTHS

### - total fertility rate (TFR)

The average number of children that would be born to a cohort of women who experienced, throughout their child-bearing years, the fertility rates of the calendar year in question.

### - age specific fertility rate (ASFR)

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

### - cohort

A well-defined group of people who have had a common experience or exposure who are observed through time. For example, the birth cohort of 1900 refers to people born in that year.

### - marital status of parents

Married parents: refers to parents who are married to each other.

Unmarried parents: refers to parents who are unmarried or married but not to each other.

## DEATHS

### - cause-of-death coding

From 1 January 2000, deaths in Scotland have been coded in accordance with the International Statistical Classification of Diseases and Related Health Problems (Tenth Revision) (ICD10). Classification of underlying cause of death is based on information collected on the medical certificate of cause of death together with any additional information provided subsequently by the certifying doctor. Changes notified to GROS by Procurators Fiscal are also taken into account. In cases of homicide, intentional self-harm (suicide) and other deaths from violence, advice may be sought from the Crown Office.

### - expectation of life

The average number of additional years a person could expect to live if current mortality trends were to continue for the rest of that person's life. Most commonly cited is life expectancy at birth.

### - age standardisation

A straight comparison of crude rates between areas may present a misleading picture because of differences in the sex and age structure of the respective populations. The technique of standardisation has been used in certain tables and charts to remedy this. In general, standardisation involves a comparison of the actual number of events occurring in an area with the aggregate number expected if the age/sex specific rates in the standard population were applied to the age/sex groups of the observed population.

### - stillbirth

Section 56(1) of the Registration of Births, Deaths and Marriages (Scotland) Act 1965 defined a stillbirth as a child which had issued forth from its mother after the 28th week of

pregnancy and which did not breathe or show any other sign of life. The Still-Birth (Definition) Act 1992, which came into effect on 1 October 1992, amended Section 56(1) of the 1965 Act (and other relevant UK legislation), replacing the reference to the 28th week with a reference to the 24th week.

**- perinatal**

Refer to stillbirths and deaths in the first week of life.

**- infant**

Refer to all deaths in the first year of life.

## MARRIAGES

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

## DIVORCES

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

In legal terms the 1976 Act introduced a single ground for divorce - irretrievable breakdown of marriage - with the detailed reasons as 'proofs'. However, the information presented in this report on reasons for divorce retains the terminology 'grounds for divorce'.

## ADOPTIONS

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

## **CONTACT POINTS**

Enquiries about the statistics in this report or about any other statistics or geography products produced by the General Register Office for Scotland (GROS) should be addressed to:

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Detailed statistical tables supplementing this report and other related statistics produced by GROS are available from the GROS website in the on-line data library.

Comments on the format or content of this report are welcome and should be sent to the address above by **31 December 2002**.

Enquiries about the wider work of GROS are welcome and letters should be addressed to the Registrar General or sent by fax to 0131 314 4650.

### **Government Actuary's Department**

For further information about the UK and Scottish population projections prepared for the Registrar General by the Government Actuary's Department (GAD) please contact:

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### **UK National Statistics**

Enquiries for equivalent UK information to that presented in this report, or for more general enquiries about UK National Statistics, contact the National Statistics Public Enquiry Service on **020 7533 5888**.

Minicom: 01633 812 399  
E-mail: [info@statistics.gov.uk](mailto:info@statistics.gov.uk)  
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[www.scotland.gov.uk/stats](http://www.scotland.gov.uk/stats)

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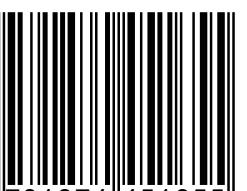
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