

ABERDEEN
CITY AND
SHIRE

STRATEGIC
FORECASTS
2006-2031

The background of the cover features a series of overlapping, semi-transparent circles and curved lines in various shades of blue and green. The lines and circles create a sense of movement and depth, with some elements appearing as thin outlines and others as solid, soft-edged shapes. The overall aesthetic is modern and clean, typical of a corporate or municipal report cover.

Strategic Forecasts

for Aberdeen City and Aberdeenshire 2006-2031

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*Prepared jointly by the Information and Research teams of
Aberdeen City Council and Aberdeenshire Council*

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Executive Summary

These forecasts start from a new base year (mid 2006) for each of the components of population and housing. They take into account current assumptions on expected changes over the period 2006 to 2031 for the combined Aberdeen City and Shire area and, separately, for the two Council areas. There are no detailed formal economic forecasts this time, but intelligence from the 2007 Economic Review (available from North East Scotland Economic Research at www.neser.org.uk), and other on-going economic monitoring has been used as a key input for informing the population and household forecasts and, subsequently, the housing requirement.

Three scenarios were considered - probable, high and low. However, the basis for the forecasts is the probable-case scenario. The other two scenarios are included to show the effect on the population and household forecasts of using different sets of assumptions based on alternative economic trends in the Aberdeen City and Shire area.

The key findings of the forecasts are:

- The probable-case forecasts of total population indicate that the population of the Aberdeen City and Shire area will increase by 3.1% to 457,000 over the forecast period, which comprises increases of 1.5% to 210,000 for Aberdeen City and 4.5% to 247,000 for Aberdeenshire. The population of the Aberdeen City and Shire area is forecast to reach a peak of 464,000 in 2021.
- The general trends in population structure for the different age groups is expected to remain fairly consistent with that predicted in the past, namely the continuation of an increasingly ageing population and a decreasing number of school children. There is expected to be a significant decrease in the number of 30-44 year olds, whilst the number of 60+ year olds is expected to rise compared to the previous forecasts.
- Converting the population forecasts into households, it is expected that there will be an increase of 38,150 in the number of new households formed between 2006 and 2031 in Aberdeen City and Shire, which is about twice that predicted in 2004, with 57% of this growth in Aberdeenshire.
- This level of household growth is forecast to generate a housing requirement for an additional 47,110 new houses by 2031 within Aberdeen City and Shire. (Note - this includes an allowance for the replacement houses will be required in association with the Aberdeen City's regeneration proposals.) Over 36,000 of that total will be required in the Aberdeen Housing Market area, which extends to some 30km radius around Aberdeen.

The forecasts have implications for public agencies and private sector companies in meeting changing circumstances. The impact of policy/investment decisions will influence the actual levels of employment and population, which, with other aspirational factors, help to drive the housing requirement.

The table below summarises the key figures from the 2007 Strategic Forecasts for the Aberdeen City and Shire area, Aberdeen City and Aberdeenshire; and for the housing requirement for the two Housing Market Areas.

	2006	2011	2016	2021	2026	2031	Change 2006/31
Aberdeen City and Shire							
Population	443,140	456,000	462,000	464,000	462,000	457,000	+13,860
Households	199,510	211,510	222,040	229,250	234,160	237,660	+38,150
<i>Housing Requirement</i>	13,630	12,560	9,070	6,670	5,190		+47,110
Aberdeen City							
Population	206,880	212,000	215,000	214,000	212,000	210,000	+3,120
Households	100,740	106,800	112,470	114,730	115,850	117,210	+16,470
<i>Housing Requirement</i>	7,030	7,260	3,680	2,490	2,740		+23,190
Aberdeenshire							
Population	236,260	244,000	247,000	250,000	250,000	247,000	+10,740
Households	98,770	104,710	109,570	114,520	118,310	120,450	+21,680
<i>Housing Requirement</i>	6,600	5,310	5,390	4,180	2,450		+23,930
Aberdeen Housing Market Area							
<i>Housing Requirement</i>	10,320	9,670	7,050	5,250	4,140		+36,430
Rural Housing Market Area							
<i>Housing Requirement</i>	3,310	2,890	2,020	1,420	1,050		+10,680

Introduction

This report contains the **Strategic Forecasts for Aberdeen and Aberdeenshire** for the period from 2006 to 2031. Results are presented for the two Council areas and the combined area, referred to in the report as 'Aberdeen City and Shire'. For the housing forecasts, results are also presented for the Aberdeen and Rural Housing Market Areas. The forecasts start from a new 2006 base for the two components; population and housing, and take on board current assumptions on likely change over the longer period.

The Role of the Councils' Forecasts

The Councils make forecasts to provide a basis for the planning of their own services. These services include two distinct but related topics:

- The Councils' Statutory Development Plans: the Structure Plan and Local Plans.
- The provision of services such as education, economic development and housing and social work.

In addition, the forecasts are widely used by other agencies and the private sector for their own planning purposes.

The Strategic Forecasts have been reviewed and updated on a regular basis over the past 30 years. The scale and pace of change is still strongly influenced by the relative confidence in the energy industry. However, the dynamic nature of the existing population is also a determining factor in demographic change and subsequent requirement for housing. As with all forecasts there are uncertainties, especially in the longer term.

The Forecasting Process

The last set of official forecasts of the Aberdeen City and Aberdeenshire Council's Area were 2003 based and were adopted for use in forward planning in Autumn 2004.

Following the production of these forecasts, a full review was made of the process and, in particular, the methodology used to prepare the demographic forecast. This led to adopting a more flexible timetable, (i.e. not every 2 years) and, more critically, that there would not be formal employment forecasts. The model used for the demographic forecasts was replaced and, from now on, would use the POPGROUP model.

In terms of testing that model and preparing forecasts, relevant to the Development Plan cycle, it was further agreed to start the forecasting cycle following the publication of the 2006 Mid Year population Estimate, in April 2007.

As well as the use of a new demographic model, there were three other changes to the process methodology:

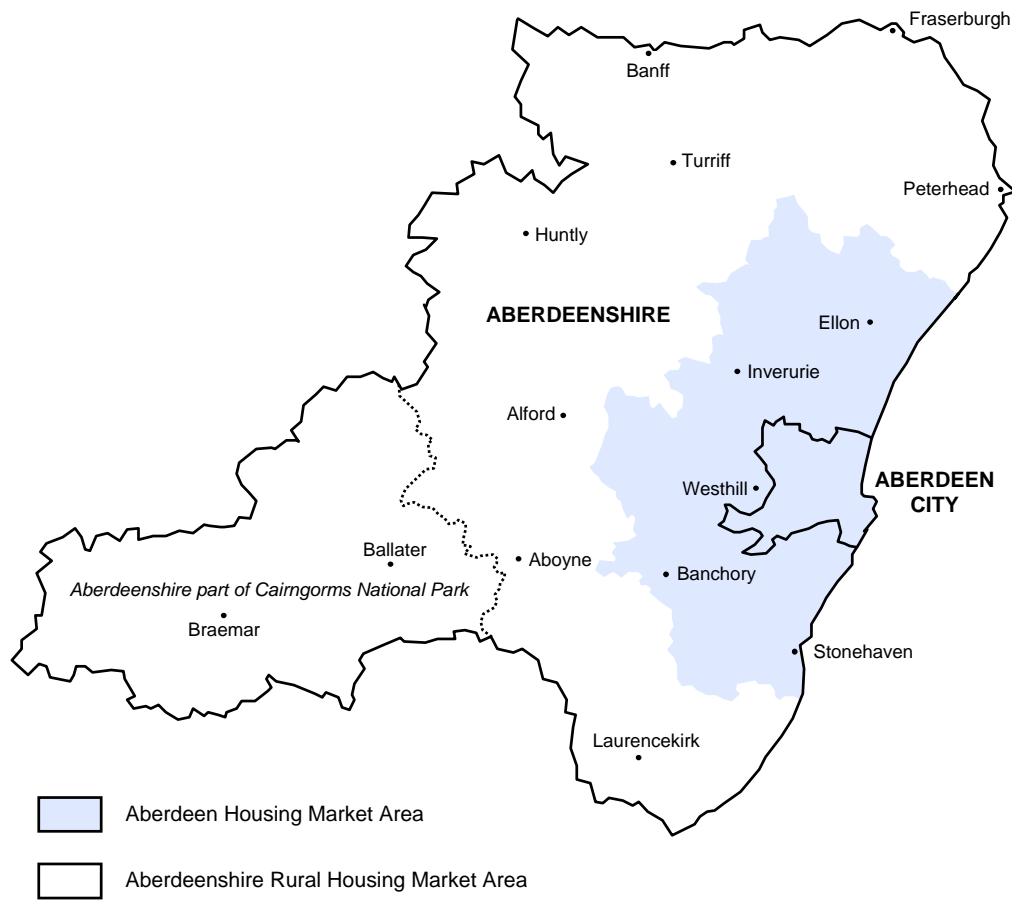
- New time frame, from 2006 to 2031 (i.e. covers the Structure Plan timescale).
- No detailed formal employment forecasts. Rather, the socio-economic intelligence from the 2007 Economic Review (approved by the ACSEF Board in June 2007) and on-going economic monitoring was used to assist taking a view on possible scenarios of the shape of future populations.
- For the first time in several years the forecasts are ranged i.e. not just going for one probable forecast but also including some range of what a low and high scenario could be around the probable forecast (based upon relative economic conditions). It must be stressed that these are an attempt to be realistic using the best local intelligence at the time i.e. they are not taking on board any dramatic policy assumptions or aspirational targets set by stakeholders or policy targets which may be set within a Development Plan context.

The forecasts are for the Aberdeen City and Shire Area i.e. the area covered by the two Council Areas (Aberdeen City and Aberdeenshire). When they are subsequently used to inform the emerging Development Plan, that Plan's geography excludes the area covered by the Cairngorms National Park (see map); the Park's Area corresponds to approximately 1.5% of the total population of Aberdeenshire (at the time of the 2001 Census).

Since the last set of forecasts in 2004, the GROS has produced several updates of information on population and households at Local Authority level, e.g. mid-year population estimated, household estimates and population and household projections. These have been used and assessed at relevant points in the forecasting process.

The finalisation of the forecasts this time around however was made more difficult by the decision in July by the Registrar General to issue a revised mid-year estimate of population (for the years 2003-2006) for six Council Areas in East Scotland (to reflect errors found in the way migrants were being recorded in the National Health Service central records). Two of these Council Areas were Aberdeen City and Aberdeenshire. In the case of the City, this indicated not only a change in the figure but a change in the direction in total population.

Areas Covered in the Strategic Forecasts:



Recent Trends and Scenarios

In the three years since the last set of forecasts were published, Aberdeen City Council and Aberdeenshire Council have continued to monitor and assess a range of socio-economic, demographic and housing data. Much of the socio-economic information has been published on the NESER website (www.neser.org.uk), while the demographic and housing information is on the respective Council websites (www.aberdeencity.gov.uk) and (www.aberdeenshire.gov.uk).

The trends and prospects identified as part of this on-going monitoring have provided an input to the assumptions used to forecast population and household numbers from 2006 to 2031. The main trends are set out below.

ECONOMY

The *Economic Review 2007* was published in June. It was prepared for the Aberdeen City and Shire Economic Forum (ACSEF). The Review presents a range of economic data and trends for the Aberdeen City and Shire area. Some of the key findings are as follows:

- The Aberdeen City and Shire economy grew by 3.3% between 2005 and 2006, significantly higher than the overall Scottish figure of 2.5%.
- Company formation rates (and survival rates) are higher than the Scottish average.
- Average earnings in the Aberdeen City and Shire area are higher than the Scottish average .
- The farming and fishing sectors have suffered in recent years, but 2006 saw a levelling off in both sectors.
- The food and drink industry remains robust with increased profits at several high profile firms.
- Unemployment rates in Aberdeen City and Shire are among the lowest in Scotland and have been for a number of years.
- Despite the overall strength of the local economy, there are pockets of deprivation, especially in Aberdeen.
- The number of passengers using Aberdeen Airport has been increasing, reaching a peak of over 250,000 in July 2006.

Although the *Economic Review 2007* contained a chapter on the energy sector, ACSEF also approved a sister publication, *Energy Sector 2007*, which looked at energy issues in more detail. The main trends are set out below.

- The average monthly oil price has been above \$50 since March 2005 leading to high levels of exploration, appraisal and development drilling.
- Confidence in the energy sector is high and investment in the UK Continental Shelf (UKCS) has increased in recent years, though there are concerns over the rate of cost inflation.
- In March 2007, approval was granted for the 350th offshore oil and gas development in the UKCS.
- There have been a number of major onshore oil developments.
- Production continues to decline and is currently below 3 million barrels of oil equivalent per day.
- Overseas activity has been strong – exports by Scottish companies and overseas sales by subsidiary companies are now worth almost £4 billion.
- There are skills shortages in some disciplines in the energy sector.

POPULATION

The main source of information on population change is the mid-year estimates (MYEs) of population produced annually by the General Register Office for Scotland (GROS). The figures for 2003-2006 have recently been revised following the discovery of errors in the estimation of net civilian migration. Additionally, population trends can be discerned from a number of other sources:

- **MYE:** between 2003 and 2006, the MYE for Aberdeen City decreased from 207,490 to 206,880, a fall of -610 (-0.3%). Over the same period, the MYE for Aberdeenshire rose by 7,480 (3.3%), from 228,780 to 236,260. Over this period, natural change (births minus deaths) declined by -133 in Aberdeen City but rose by 990 in Aberdeenshire, while net migration and other changes decreased by -477 in Aberdeen City but increased by 6,490 in Aberdeenshire.
- **Register of Electors:** the electorate in Aberdeen City declined between 2003 and 2006 from 159,242 to 154,745, a decrease of 4,497 (-2.8%), while in Aberdeenshire there was an increase from 176,818 to 181,886 of 5,068 (2.9%) over the same period.
- **School Rolls:** the number of children attending local authority schools in Aberdeen City fell from 24,350 in 2003 to 22,734 in 2006, a decrease of 1,616 (-6.6%). In Aberdeenshire, numbers declined from 35,805 in 2003 to 35,409 in 2006, a decrease of -396 (-1.1%).

As a result of the new forecast population changes discussed above and the revisions to the MYEs, the population in both council areas starts from a higher base than had previously been expected from our 2003 based forecasts. In Aberdeen City the population is 1,453 persons higher than expected and in Aberdeenshire 5,862 higher. That is 7,315 higher for the combined area.

HOUSING

The number of households in the Aberdeen City and Shire is influenced by two main factors: firstly, alterations to the rate of household formation (or headship rates), which are derived from Censuses of Population; and secondly, changes in the population, which in turn are influenced by employment prospects. Housing indicators that are regularly monitored are the number of house completions and house prices.

- **Completions:** in the three year period from January 2004 to December 2006, there was an annual average of 825 house completions in Aberdeen City. In Aberdeenshire, the average number of completions over the same period was 1,477 per year: 965 in the Aberdeenshire part of the Aberdeen Housing Market Area and 512 in the Rural Housing Market Area.
- **House Prices:** the average house price in the Aberdeen area rose from £118,790 in 2004 to £159,630 in 2006, an increase of 34%. Over the same period, the average house price in Scotland rose from £95,640 to £121,970, an increase of 28%.

The household forecasts are the final stage of the overall forecasting process. They are determined to a large extent by inputs and assumptions that were made in the employment and population forecasts. In particular, the household forecasts are affected by the age structure of the adult population. The other key factor is the rate at which the adult population forms independent households.

SCENARIOS

For the first time, the Strategic Forecasts look at different scenarios. These scenarios are broadly based on different assumptions about the future of the Aberdeen City and Shire economy and the effect that they would have on employment prospects in the area.

The '**probable case**' scenario, which is the basis of these forecasts, assumes that the current level of economic activity experienced in the Aberdeen City and Shire area will be sustained throughout much of the forecast period. The key factors that underpin this assumption are as follows:

- High oil prices will remain a feature of the global economy in the foreseeable future and will benefit the local economy in a number of ways.
- Leading energy companies will maintain their commitment to the Aberdeen City and Shire area, and new entrants will see the UK Continental Shelf (UKCS) as a good investment opportunity.
- Aberdeen will strengthen its position as a global centre of excellence in the energy sector with the potential to increase its exports of services, products and expertise.
- Aberdeen City and Shire has a developing renewables sector and it is expected that this part of the local economy will continue to grow at its present rate.
- The spin-offs from an active energy sector will continue, with expansion in the energy-related and non-energy sectors; construction, retailing and services should be the main beneficiaries.
- A number of major infrastructure projects, such as the Aberdeen Western Peripheral Route, are expected to have positive effects on the Aberdeen City and Shire economy.
- Following a period of decline in farming and fishing, output was more positive in 2006; no major decline is anticipated, and diversification into other areas is likely as a result of recent CAP reforms.
- The food and drink sector is expected to remain buoyant, with local firms specialising in high quality products.
- The number of self-employed workers has grown in recent years and that trend looks set to continue, especially with the increasing use of contractors in the energy sector.
- The rate of growth in the number of overseas migrants coming to Aberdeen City and Shire is expected to level off.

While the outlook for the Aberdeen City and Shire economy is good, oil and gas production has been declining in recent years. This has been offset by (a) the high oil price and corresponding increase in offshore and onshore activity, and (b) the development of Aberdeen's role as an energy centre of international importance. By the end of the forecast period, however, production will have declined significantly. Although the decline will be gradual and managed, there will inevitably be an impact on the local economy. Consequently, the employment profile for the latter part of the forecast period is likely to be less positive than in the short and medium-term.

As well as the 'probable case' scenario, these forecasts also look briefly at two alternative scenarios – the '**high case**' and the '**low case**'. In the 'high case', the following developments would be anticipated:

- A higher level of activity in the energy sector with increased investment in marginal areas, such as the deep-water prospects west of Shetland.
- An expansion in onshore developments; for example, an increase in the rate at which corporate and regional headquarters are relocated to the Aberdeen City and Shire area.
- Significant adjustments to the UK tax regime making the UKCS a more attractive investment opportunity for established operators and new entrants than it already is.
- A surge in the renewables sector, with major projects and high employment levels in Aberdeen City and Shire.
- Higher than anticipated activity levels in non-energy sectors, largely arising from spin-off opportunities created by increased investment in the UKCS.
- Expansion of Aberdeen Airport and greater than expected economic benefits from the Aberdeen Western Peripheral Route and other major infrastructure projects.
- An increasing demand for locally grown agricultural produce resulting in higher employment levels and an increase in agricultural land use; relaxed quota and TAC restrictions on the local fishing fleet.
- A significant increase in demand for local food produce, and ports such as Peterhead, Fraserburgh and Aberdeen becoming centres for fish processing and packing factories as a result of higher fish landings.
- The recent influx in overseas migrants, particularly from new EU Member States, continues at its present pace with positive consequences for employment levels in the Aberdeen City and Shire area.

In the 'low case' scenario, a more negative outlook is presented for the local economy, including the following potential developments:

- Turmoil on the financial markets and recession in the major world economies causing the oil price to fall sharply with a consequent reduction in investment in the UKCS.
- Other oil and gas provinces perceived as being more competitive than the UKCS resulting in companies relocating away from Aberdeen City and Shire.
- The ageing infrastructure in the North Sea is no longer capable of sustaining the oil and gas industry beyond the short-term.

- No major employment opportunities coming from the renewables sector.
- Reduced activity in the energy sector leading to lower disposable incomes and a knock-on effect in other sectors, such as construction and retailing.
- Further health/disease scares in the farming sectors and more quota and TAC restrictions in the North Sea affecting output in the primary sector.
- Cheap imports making local food production less competitive.
- An increase in unemployment for the first time in many years.

Population

INTRODUCTION

The forecasts discussed in this report were produced using POPGROUP software, which we have used since March 2006. (POPGROUP's only serious competitor was the CHELMER software produced by Anglia Ruskin University, but the latter project team is now being wound down.) POPGROUP is essentially a series of Excel spreadsheets, and was obtained from Manchester University. POPGROUP differs in many ways from the previous software that we used, which was a CAMPOP Fortran model obtained from Cambridgeshire County Council in 1989. We had used versions of CAMPOP since 1983. As well as obviously being more up to date, POPGROUP requires and uses more input data. This allows more precise forecasts and comparisons, for example between our forecasts and the GROS projections.

The inputs used include the estimated age/sex structure of the base population, and assumptions concerning future fertility, mortality and migration. Because of the greater quantity of input data, it is not practicable to show this material in a concise report in the way that was regularly achieved with CAMPOP. However, this detail is available in a series of POPGROUP spreadsheets. The outputs include forecasts of births, deaths, migration, age/sex structure and some analysis of the results. Again, these are produced as a series of spreadsheets, which easily allow further analysis. Using POPGROUP, it is relatively simple to constrain the forecasts to fixed totals of net migration, total population or population age/sex structure. In addition, it is possible to constrain the population forecasts to change in total households or total dwellings, when the household module (HOUSEGROUP) is also used, or change in total labour force or total employment, when the labour force module (LABGROUP) is also used. However, household, dwelling, labour force or employment constraints were not used in the present population forecasts.

It should be noted that the next structure plan will exclude that part of Aberdeenshire which is within the Cairngorms National Park, but the population of this area is relatively small (about 1.5% of the Aberdeenshire total at the 2001 Census). Thus the combined Aberdeen City and Aberdeenshire area will be referred to as Aberdeen City and Shire in this report.

DATA SOURCES

This section looks at some of the historic demographic trends in the two council areas and the combined area, and lists in detail the data sources used to produce the present set of forecasts.

Starting Population

1991 is the first year for which data was entered into the POPGROUP model.

Source: General Register Office for Scotland (GROS) mid-year estimate (MYE) of population 1991 by age and sex.

This population covers all persons usually resident in an area. Students are taken to be resident at their term-time address.

Fertility

Figure 1 - GROS Births 1981-2006

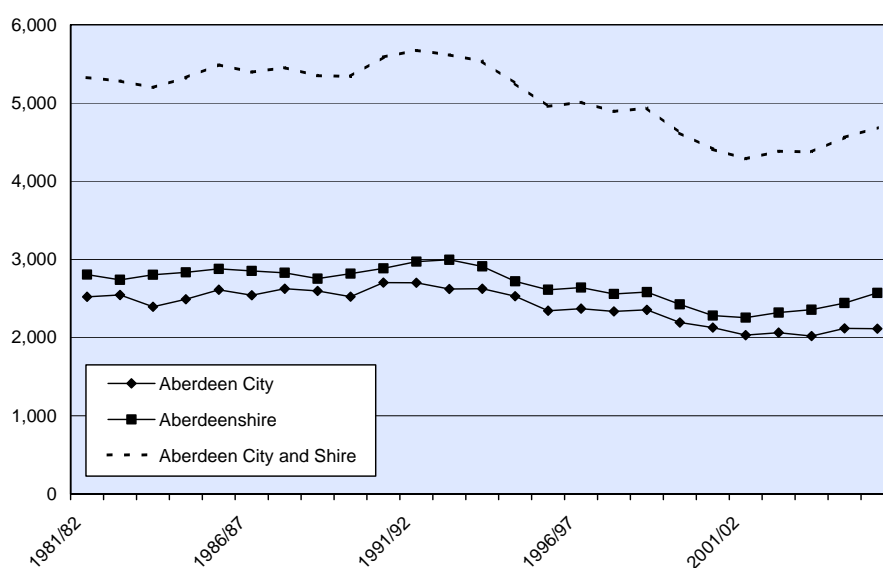


Figure 1 shows the trend for historic birth totals. These data were derived from the GROS. Later birth totals are lower than in the early 1990s, but there has been a recent increase particularly in Aberdeenshire. Births were higher in Aberdeenshire than in Aberdeen City during the period shown.

Birth totals depend on fertility rates and the number of females in the fertile age groups. A key demographic assumption for population forecasts is that made about future fertility rates. This is a particularly important assumption for the Councils' school roll forecasts (which are based in part on the population forecasts), because of its effect on future births. Fertility rates are more difficult to predict than mortality rates, since they can vary much more with changes in social and economic conditions. For example, birth totals may depend upon prevailing attitudes to birth control or the desirability of a second income, as well as upon the numbers of women of childbearing age. At a local level uncertainty about these factors is even greater.

Source of historic birth totals: GROS.

1991-2006 data are final counts, 2006-07 data are draft counts supplied 13 Aug 2007.

Source of standard schedule of rates:

Age specific fertility rate (ASFR) - the values are for 2005-2006 taken from the 2004 based Government Actuary's Department (GAD) projections for Scotland.

Source of fertility differentials 2004-2036:

Computed as births projected in year ($asfr(yr) * pop(yr)$ summed over age band) divided by births expected in year using 2005-06 rates ($asfr(05-06) * pop(yr)$ summed over age band). Data for 2004-2026 are from the Cairngorms NPA study (2005) by the CCSR at Manchester University, derived from GAD projections for Scotland. File *gadscotland04_000.xls* from the POPGROUP website was subsequently used to give corrected fertility differentials for the 40-49 age groups and additional fertility differentials for years commencing mid 2026, 2027, 2028, 2030 and 2035, which were not included in the Cairngorms study. Linear interpolation using POPGROUP was applied to intermediate dates.

Mortality

Figure 2 - GROS Deaths 1981-2006

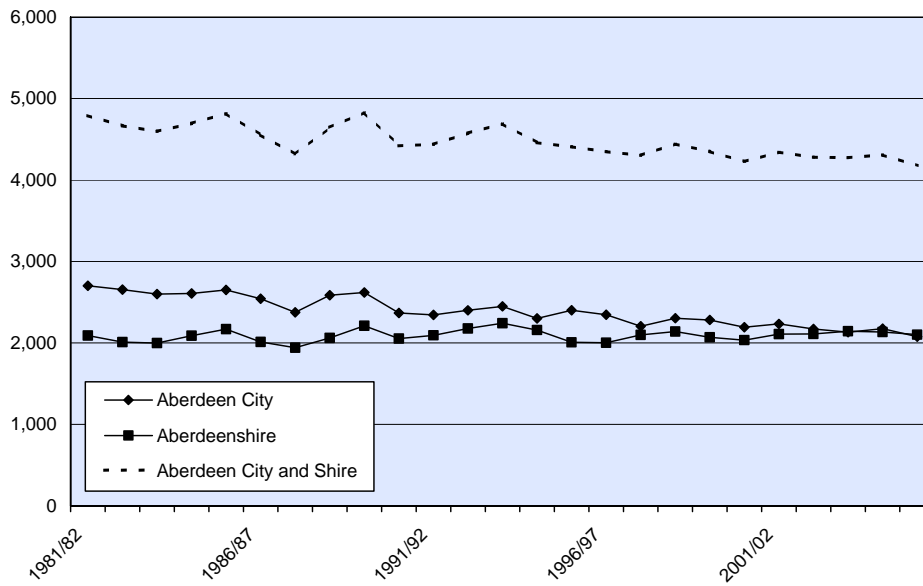
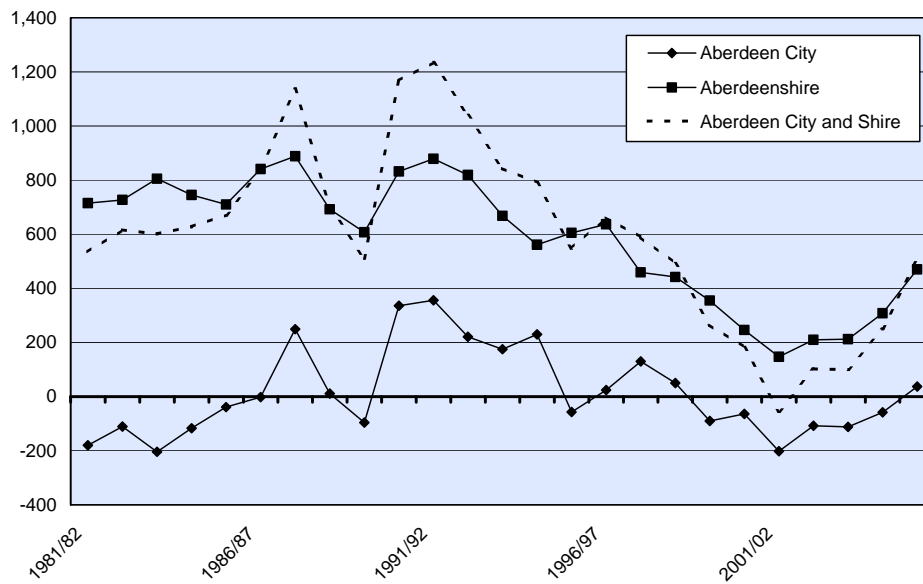


Figure 3 - GROS Natural Change 1981-2006



Figures 2 and 3 show the trends for historic death totals and natural change (births minus deaths.) These data were derived from the GROS. Deaths have been stable in Aberdeenshire, but have decreased in Aberdeen City to Aberdeenshire levels. Later natural change is lower than in the early 1990s, but there have been recent increases. Natural change was higher in Aberdeenshire than in Aberdeen City over the period shown.

For population forecasts mortality rate is a less critical variable than fertility rate, since it varies less and can be more confidently predicted.

Source of historic death totals: GROS.

1991-2006 data are final counts, 2006-07 data are draft counts supplied 13 Aug 2007.

Source of standard schedule of rates:

Age specific mortality rate (ASMR) - the values are for 2005-2006 taken from the 2004 based GAD projections for Scotland (age and sex specific).

Source of mortality differentials 2004-2036:

Computed as deaths projected in year ($asmr(yr) * pop(yr)$ summed over age band) divided by deaths expected in year using 2005-06 rates ($asmr(05-06) * pop(yr)$ summed over age band). Data for 2004-2026 are from the Cairngorms NPA study, derived from GAD projections for Scotland. File *gadscotland04_000.xls* from the POPGROUP website was subsequently used to give additional mortality differentials for years commencing mid 2026, 2027, 2028, 2030 and 2035, which were not included in the Cairngorms study. Linear interpolation using POPGROUP was applied to intermediate dates.

Fertility and Mortality Local Scaling Factors

The local scaling factors using total fertility rate (TFR) and standardized mortality rate (SMR) were not derived in quite the same way as at GROS. Here are the software originator's instructions derived from the Cairngorms study:

'COMPUTE A FORECAST USING GAD SCOTLAND RATES, AND LOCAL COUNTS IN THE GROUP SHEET. VIEW THE TFR IN THE OUTPUT (COMPONENTS FILE) AND DIVIDE BY SCOTLAND TFR. THIS IS THE SCALING FACTOR. SIMILARLY THE SMR IN THE OUTPUT IS THE SCALING FACTOR (AFTER DIVIDING BY 100).'

The mean of the three latest years was used. Fertility local scaling factors have been updated to use the TFR at 2006 for Scotland from the Registrar General's Annual Review for 2006. The 2006-07 draft counts were not used.

Net Migration

Figures 4 and 5 show an historic trend of annual estimated net civilian migration and the same data aggregated to five-year periods. These data were derived from the GROS. A cyclical trend is clear from the annual data. Aberdeenshire is generally more positive than Aberdeen City. There have been recent upturns in both areas. There is still some evidence of these cycles in the same data aggregated to five-year periods.

Migration assumptions are of great importance to population forecasting and are another area of major uncertainty. Unlike births and deaths, legally recorded historic migration is not available on an annual basis.

Figure 4 - GROS Annual Estimated Net Civilian Migration 1981-2006

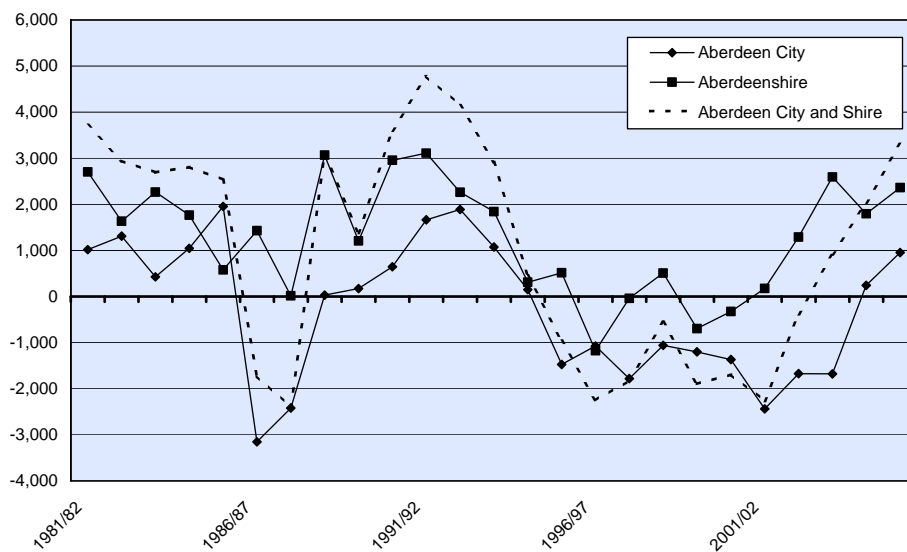
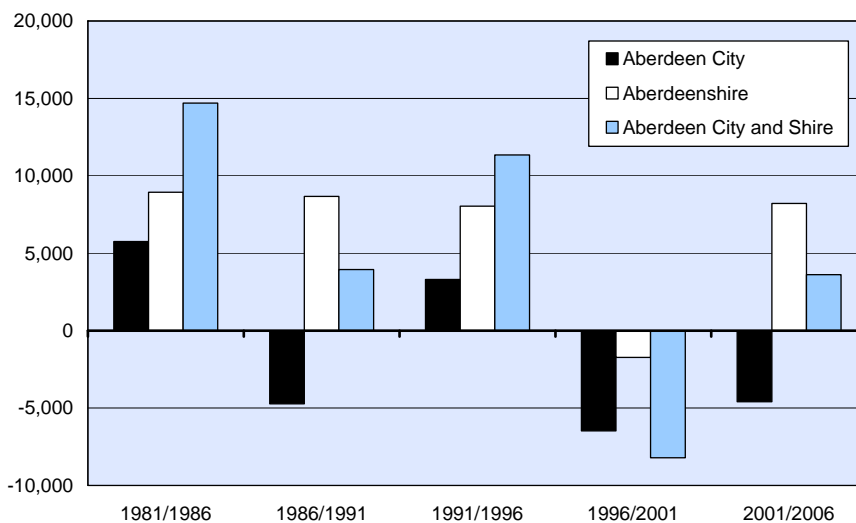


Figure 5 - GROS Estimated Net Civilian Migration 1981-2006



In-Migration

The initial in-migration data used in the forecasts were derived from the GROS.

Source of standard schedule of rates:

Age/sex specific migration rates are the mean of data for 2007-10 from the GROS 2004 based projections for council areas. This is the sum of migration over 3 years / sum of populations at start of each year. The newborn rate is assumed to be the same as the 0 rate. Note that these rates have not actually been used to produce the forecasts, but they do affect the historic in- and out-migration to mid-2004, but not net migration.

Source of age/sex specific migrants 2004-2031:

GROS 2004 based projections for council areas 2004-2024 extended (ie held constant) to 2031.

Out-Migration

The same procedures were used as for the initial in-migration data.

Historic Constraints

Source: GROS MYE 1992-2006 by age/sex.

Thus the present set of forecasts begins from a 2006 base date. This is three years later than the base of the previous set of forecasts. In the intervening period the population of Aberdeen City changed by +280 (-610) persons, Aberdeenshire by +6,930 (+7,480) and the Aberdeen City and Shire area by +7,210 (+6,870).

The unbracketed figures are based on the 2003 estimates used in the previous forecasts, while the figures in brackets are based on recent revised estimates for 2003.

FORECAST RESULTS

Population Totals

Figures 6 to 8 display the current GROS mid-year estimates of population from 1991 to 2006 for the two council areas and the combined area, and also show our previous 2003 based forecasts and the current (unrevised) GROS 2004 based projections.

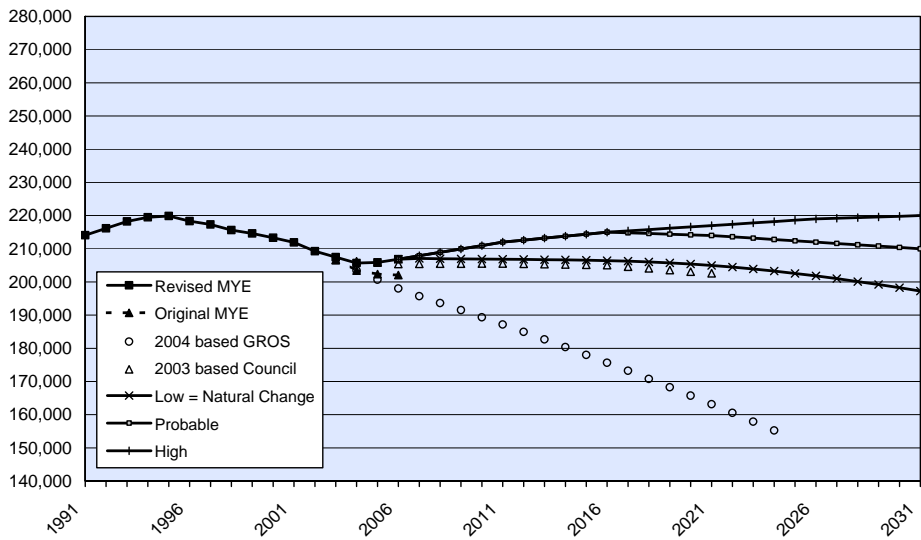
Finally shown are the proposed high, probable and low scenarios up to 2031 resulting from our new forecasts. We have not previously published a range of forecasts since 1982. This reintroduction of published ranges is intended to reflect uncertainty, and in particular to compensate for the fact that this is our first set of population forecasts that have not been preceded by formal employment forecasts. These ranges are not meant to imply that most realistic possibilities occur between high and low. Rather they are meant to show a possible forecast, which is higher or lower than the probable-case. The differences between the three scenarios are assumed to be largely due to net migration. A high scenario, for example, for the Aberdeen City and Shire area in the POPGROUP results is the outcome of a high scenario in both the City and the Shire, but a complication is that, because of the way that the two council areas are linked, a high scenario in the City could be compatible with a low scenario in the Shire.

The probable and high scenarios have been defined based on an assumed shape of the curve of total forecast population. This has been achieved by adjusting the number of in-migrants. Within five-year periods, annual total population change is held constant. This differs from our previous method where annual net migration was held constant over these periods. The forecast details show the results of using these population constraints. Clearly, we are not using a true employment-led forecasting model. We are not using a true housing-led model either. However, it is probably fair to say that the method used is more employment-led than housing-led. The assumed curves are heavily influenced by the expected outlook for the local economy, although housing issues are also considered, for example more emphasis is placed on development in Aberdeen City. A natural change projection, where in- and out-migration and thus net migration are set to zero, has been chosen as the low scenario.

All the new forecast scenarios are higher than our previous 2003 based forecasts.

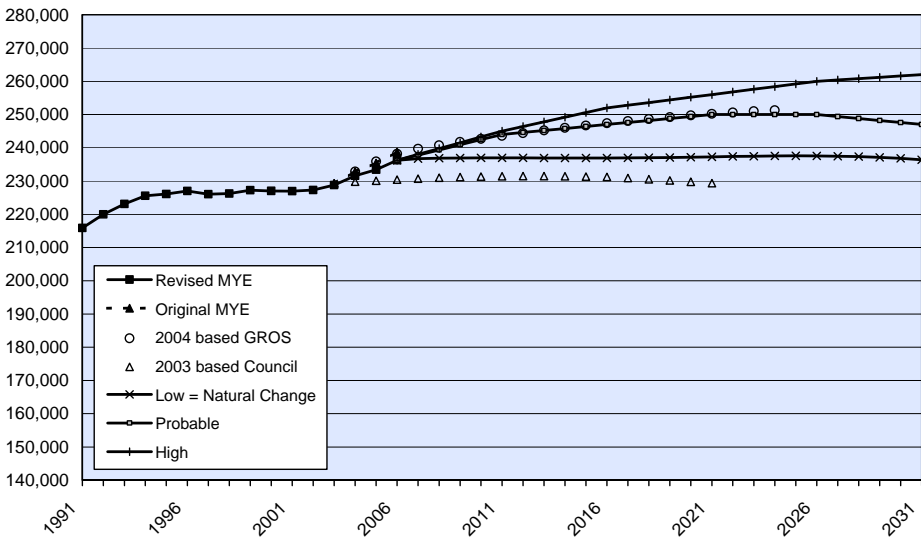
In Aberdeen City, the low scenario (natural change projection) is almost identical to our previous forecast. The probable-case forecast starts to gently decline from 2016. The high scenario does not stabilize or decline. All our new forecast scenarios are much higher than the current GROS projection, and also higher than what we expect that the 2006 based projection might be.

Figure 6 - Total Population: Aberdeen City



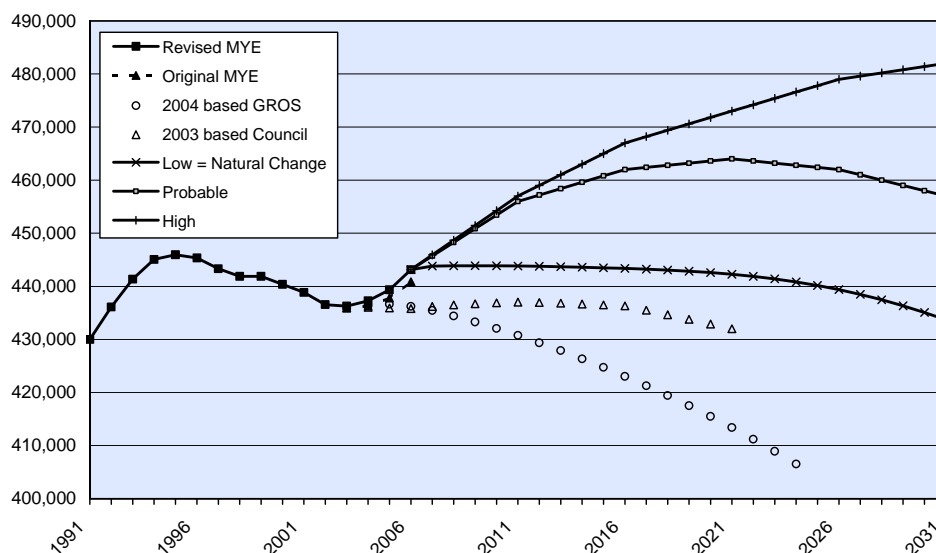
In Aberdeenshire, the probable-case forecast is very similar to the current GROS projection, but is stable from 2021 and does not begin to slowly decline until beyond 2026. The high scenario is lower than what we expect that the 2006 based projection might be, but does not stabilize or decline.

Figure 7 - Total Population: Aberdeenshire



For the Aberdeen City and Shire area, the probable-case forecast starts to gently decline beyond 2021. The high forecast does not stabilize or decline. Both of these forecasts are higher than what we expect that the 2006 based projection might be. All forecast scenarios are much higher than the current GROS projection.

Figure 8 - Total Population: Aberdeen City and Shire Area



The probable-case forecasts are summarised in Figure 9, which shows the total population at the end of each five-year period and the change 2006/31 for the Aberdeen City and Shire area and each unitary authority.

Figure 9 - Probable-Case Forecasts of Total Population

	2006	2011	2016	2021	2026	2031	% Change 2006/31
Aberdeen City and Shire	443,140	456,000	462,000	464,000	462,000	457,000	3.1
Aberdeen City	206,880	212,000	215,000	214,000	212,000	210,000	1.5
Aberdeenshire	236,260	244,000	247,000	250,000	250,000	247,000	4.5

For a more detailed table, the estimated and forecast total populations from 1991 up to 2031 for the Aberdeen City and Shire area and each unitary authority are shown in Figure 10. This figure shows all three forecast scenarios: low, probable and high.

Although the data in this population section are tabulated in units, this does not imply accuracy to that level. They are supplied in this way for the convenience of users wishing to analyse the data further without encountering rounding problems.

Figure 10 - Estimated and Forecast Total Population

	Aberdeen City			Aberdeenshire			Aberdeen City and Shire		
	Low	Probable	High	Low	Probable	High	Low	Probable	High
1991		214,120			215,870			429,990	
1992		216,140			219,970			436,110	
1993		218,250			223,100			441,350	
1994		219,500			225,560			445,060	
1995		219,880			226,070			445,950	
1996		218,350			226,990			445,340	
1997		217,300			226,020			443,320	
1998		215,650			226,220			441,870	
1999		214,630			227,240			441,870	
2000		213,340			227,020			440,360	
2001		211,910			226,940			438,850	
2002		209,270			227,280			436,550	
2003		207,490			228,780			436,270	
2004		205,710			231,570			437,280	
2005		205,910			233,430			439,340	
2006		206,880			236,260			443,140	
2007	207,074	207,904	207,904	236,731	237,808	238,008	443,805	445,712	445,912
2008	207,010	208,928	208,928	236,850	239,356	239,756	443,861	448,284	448,684
2009	206,956	209,952	209,952	236,924	240,904	241,504	443,880	450,856	451,456
2010	206,907	210,976	210,976	236,963	242,452	243,252	443,870	453,428	454,228
2011	206,858	212,000	212,000	236,972	244,000	245,000	443,830	456,000	457,000
2012	206,805	212,600	212,600	236,965	244,600	246,400	443,770	457,200	459,000
2013	206,745	213,200	213,200	236,947	245,200	247,800	443,693	458,400	461,000
2014	206,671	213,800	213,800	236,929	245,800	249,200	443,600	459,600	463,000
2015	206,574	214,400	214,400	236,917	246,400	250,600	443,491	460,800	465,000
2016	206,446	215,000	215,000	236,923	247,000	252,000	443,369	462,000	467,000
2017	206,276	214,800	215,400	236,952	247,600	252,800	443,228	462,400	468,200
2018	206,054	214,600	215,800	237,005	248,200	253,600	443,059	462,800	469,400
2019	205,769	214,400	216,200	237,081	248,800	254,400	442,850	463,200	470,600
2020	205,416	214,200	216,600	237,176	249,400	255,200	442,592	463,600	471,800
2021	204,991	214,000	217,000	237,281	250,000	256,000	442,272	464,000	473,000
2022	204,494	213,600	217,400	237,385	250,000	256,800	441,879	463,600	474,200
2023	203,924	213,200	217,800	237,477	250,000	257,600	441,401	463,200	475,400
2024	203,285	212,800	218,200	237,543	250,000	258,400	440,828	462,800	476,600
2025	202,583	212,400	218,600	237,572	250,000	259,200	440,155	462,400	477,800
2026	201,822	212,000	219,000	237,553	250,000	260,000	439,374	462,000	479,000
2027	201,006	211,600	219,200	237,473	249,400	260,400	438,480	461,000	479,600
2028	200,140	211,200	219,400	237,324	248,800	260,800	437,465	460,000	480,200
2029	199,227	210,800	219,600	237,100	248,200	261,200	436,327	459,000	480,800
2030	198,273	210,400	219,800	236,795	247,600	261,600	435,068	458,000	481,400
2031	197,284	210,000	220,000	236,409	247,000	262,000	433,693	457,000	482,000

Components of Population Change

The extent to which total population change can be attributed to each of its components of births, deaths and net migration is considered next. *Figure 11* looks at probable-case forecast natural change (births minus deaths), net migration and total change by five-year periods for each council area and the combined area.

Figure 11 - Probable-Case Forecast Components of Population Change

		2006/11	2011/16	2016/21	2021/26	2026/31
Aberdeen City	Natural Change	202	622	976	144	-1,276
	Net Migration	4,918	2,378	-1,976	-2,144	-724
	Total Change	5,120	3,000	-1,000	-2,000	-2,000
Aberdeenshire	Natural Change	633	-822	-1,797	-2,961	-4,797
	Net Migration	7,107	3,822	4,797	2,961	1,797
	Total Change	7,740	3,000	3,000	0	-3,000
Aberdeen City and Shire	Natural Change	835	-200	-821	-2,817	-6,073
	Net Migration	12,025	6,200	2,821	817	1,073
	Total Change	12,860	6,000	2,000	-2,000	-5,000

For the Aberdeen City and Shire area, *Figure 12* shows these changes in more detail and also related historical data. (Estimated net migration includes 'other changes'.) Forecast births are generally decreasing, while deaths are increasing. Thus natural change is forecast to decrease. Net migration and total change are both expected to decrease over the forecast period.

Corresponding forecast figures for each constituent unitary authority are given in *Appendix 1*.

Population Structure

So far, the main results of the forecasts have been given in terms of population totals and components of change. It is also important to consider the changing age/sex structure of future populations. Forecast age/sex structures will themselves influence future population totals and components of change by producing different numbers of births and deaths. They are also important for various local authority services (for example, education and social work) and finance. Furthermore, changes in the number of people in certain age/sex groups may run contrary to changes in both the population totals and other age/sex groups.

Figure 12 - Estimated and Probable-Case Forecast Components of Population Change: Aberdeen City and Shire Area

	Population	Births	Deaths	Natural Change	Net Migration	Total Change
1991	429,990					
1992	436,110	5,673	4,438	1,235	4,885	6,120
1993	441,350	5,616	4,576	1,040	4,200	5,240
1994	445,060	5,534	4,691	843	2,867	3,710
1995	445,950	5,249	4,458	791	99	890
1996	445,340	4,956	4,408	548	-1,158	-610
1997	443,320	5,009	4,348	661	-2,681	-2,020
1998	441,870	4,892	4,303	589	-2,039	-1,450
1999	441,870	4,935	4,443	492	-492	0
2000	440,360	4,616	4,351	265	-1,775	-1,510
2001	438,850	4,409	4,227	182	-1,692	-1,510
2002	436,550	4,286	4,341	-55	-2,245	-2,300
2003	436,270	4,382	4,280	102	-382	-280
2004	437,280	4,375	4,275	100	910	1,010
2005	439,340	4,559	4,309	250	1,810	2,060
2006	443,140	4,685	4,178	507	3,293	3,800
2007	445,712	4,971	4,306	665	1,907	2,572
2008	448,284	4,379	4,307	72	2,500	2,572
2009	450,856	4,362	4,313	50	2,522	2,572
2010	453,428	4,356	4,322	33	2,539	2,572
2011	456,000	4,359	4,345	14	2,558	2,572
2012	457,200	4,372	4,366	5	1,195	1,200
2013	458,400	4,364	4,387	-23	1,223	1,200
2014	459,600	4,366	4,411	-45	1,245	1,200
2015	460,800	4,375	4,439	-64	1,264	1,200
2016	462,000	4,391	4,464	-73	1,273	1,200
2017	462,400	4,410	4,493	-83	483	400
2018	462,800	4,414	4,528	-114	514	400
2019	463,200	4,414	4,568	-153	553	400
2020	463,600	4,407	4,611	-204	604	400
2021	464,000	4,390	4,657	-266	666	400
2022	463,600	4,365	4,706	-341	-59	-400
2023	463,200	4,314	4,758	-443	43	-400
2024	462,800	4,259	4,814	-556	156	-400
2025	462,400	4,197	4,872	-675	275	-400
2026	462,000	4,131	4,932	-801	401	-400
2027	461,000	4,064	4,996	-932	-68	-1,000
2028	460,000	3,984	5,061	-1,076	76	-1,000
2029	459,000	3,908	5,129	-1,220	220	-1,000
2030	458,000	3,840	5,198	-1,358	358	-1,000
2031	457,000	3,780	5,267	-1,486	486	-1,000

We have produced a range of forecasts of total population. However, for the probable-case forecast it is also possible to produce a variety of different age/sex population structures using POPGROUP.

For the natural change projections, both in- and out-migrants were set to zero, but for other runs only the GROS in-migrant assumptions have been changed (the original age/sex structure of in-migrants has been proportionally adjusted). The GROS out-migrant assumptions were held constant from 2007. This adjustment of in-migrants has been done for reasons of simplicity, and to obtain some consistency because it has similarities with to the way the forecasts were produced before we started to use CAMPOP in 1983. It is also the POPGROUP default method.

However, rather than say increase the number of in-migrants to reach a population target, we could perhaps reduce the number of out-migrants to achieve the same effect, if the target is not too high. Alternatively, there could be various combinations of in- and out-migrants. Each combination could lead to a different age/sex population structure, since the original age/sex structures of in- and out-migrants are not identical. The size of this difference will depend on the extent to which out-migration is used as opposed to in-migration, and on the difference from the original GROS migration assumptions. It is believed that the method used is probably the best, but, as with all forecasts, the results depend on the assumptions concerning the input data and procedures.

Figure 13 shows estimated and probable-case forecast populations by different client age groups for the Aberdeen City and Shire area. (There is no adjustment here for change in women's state pension age.) Particularly noticeable are the very large increases in the two oldest age groups. All the younger age groups are forecast to slightly decline: secondary school pupils below statutory leaving age more so than primary pupils.

Results for each forecast year for the Aberdeen City and Shire area and each constituent unitary authority are shown in *Appendix 2*. Similarly, forecast age/sex structures by 5-year age groups are given in *Appendix 3*.

The changes in *Figure 13* refer to the Aberdeen City and Shire area and there may be different trends for any age group in each particular unitary authority. These can be checked by examining the detailed figures given in *Appendix 2*. Note particularly the much greater increase in the two oldest age groups in Aberdeenshire.

Figure 13 - Estimated and Probable-Case Forecast Age Structure by Client Groups: Aberdeen City and Shire Area

Age Group	1991	1996	2001	2006	2011	2016	2021	2026	2031	% Change 2006/31
0-4	27,541	26,846	23,187	22,910	22,592	21,884	22,034	21,219	19,522	-14.8
5-11	38,298	39,323	36,972	34,090	33,230	32,964	31,293	31,239	30,335	-11.0
12-15	20,789	22,033	22,103	21,957	20,064	18,763	19,284	17,915	17,889	-18.5
16-29	95,735	91,937	81,079	78,667	84,769	85,150	77,511	72,540	70,472	-10.4
30-44	98,272	103,029	102,446	97,266	89,898	83,216	86,144	87,038	83,845	-13.8
45-Ret	78,934	89,773	97,534	107,724	114,823	117,038	112,540	104,442	97,026	-9.9
60/65-74	43,790	45,406	46,172	48,666	55,122	63,541	70,130	72,714	75,576	55.3
75+	26,631	26,993	29,357	31,860	35,501	39,444	45,063	54,893	62,336	95.7
Total	429,990	445,340	438,850	443,140	456,000	462,000	464,000	462,000	457,000	3.1

Comparison with Previous Projections and Forecasts

A comparison has been made of the current probable-case forecasts with the previous Council forecasts (2004), which only extend as far as 2021, and the most recent GROS projections (2005). Both the migration assumptions and the results of the forecasts are examined. The results are looked at in terms of change.

- Migration Assumptions:** Figure 14 shows the migration assumptions behind the three sets of forecasts. Total net migration gain in the Aberdeen City and Shire area over the period 2006-2021 was almost zero in our previous forecasts, but the current probable-case forecasts suggest a gain of about 21,000 persons. Such changes in net migration assumptions over a three-year period, although arguably undesirable for users of the forecasts, do illustrate the dynamic nature of the local economy, the uncertainty about the local future, and the need for continuing regular forecast updates. (Note also that the GROS 2003-2006 MYEs have recently been revised, and the 2004 based projections will also be revised, in order to correct an error in estimated net migration.) As well as providing guidance, forecasts also give an opportunity to attempt to intervene to affect the outcome. The GROS projections are not designed to be compatible with any forecasts of employment or housing, although the GROS does use the published population projections to produce household projections subsequently. Thus there is no possibility of feedback. The Council forecasts incorporate local knowledge, and are produced to a timescale, which aims to meet local needs, for example, the Development Plan process.

The long term GROS net migration assumptions were essentially based on the mean value of estimated net civilian migration over the five years prior to mid-2004. Over this period, values were increasing in Aberdeenshire but decreasing in Aberdeen City. The resulting mean figure was high in Aberdeenshire, but low in Aberdeen City, relative to other council areas in Scotland.

Figure 14 - Net Migration Assumptions per Annum (Mean)

	2006/11			2011/16			2016/21		
	Council 2003 Based	GROS 2004 Based	Council 2006 Based Probable	Council 2003 Based	GROS 2004 Based	Council 2006 Based Probable	Council 2003 Based	GROS 2004 Based	Council 2006 Based Probable
Aberdeen City and Shire	415	-1,020	2,405	115	-1,050	1,240	-490	-1,050	564
Aberdeen City	105	-1,950	984	-85	-1,900	476	-490	-1,900	-395
Aberdeenshire	310	930	1,421	200	850	764	0	850	959

- **Results:** The different migration assumptions behind the forecasts show through in the different results for the Aberdeen City and Shire area (Figure 15). Our current probable-case forecasts are much higher than our previous forecasts, which are in turn higher than the current GROS projections.

Figure 15 - Comparison of Projected and Forecast Changes: Aberdeen City and Shire Area

	Base Year	2006/11	2011/16	2016/21
Council 2007 Probable	2006	12,860	6,000	2,000
GROS 2005	2004	-5,477	-7,710	-9,648
Council 2004	2003	1,192	-707	-4,321

Figure 16 compares the previous Council forecasts with the current probable-case forecasts for each authority. This table also compares the GROS projections with our forecasts. Our current probable-case forecast for Aberdeen City is much higher than our previous forecast, which is in turn considerably higher than the current GROS projection. The current probable-case forecast for Aberdeenshire is much higher than our previous forecast, and is similar to the current GROS projection.

Figure 16 - Comparison of Projected and Forecast Change 2006/21

	Council 2004	GROS 2005	Council 2007 Probable
Base Year	2003	2004	2006
Aberdeen City and Shire	-3,836	-22,835	20,860
Aberdeen City	-2,791	-34,852	7,120
Aberdeenshire	-1,045	12,017	13,740

Implications of Population Change

The results of the population forecasts carry a number of implications for the general planning of local authority services. These implications are briefly outlined for other forecasts carried out by information and research staff in Aberdeen City and Aberdeenshire Councils: housing, school rolls, and small area populations.

- **Housing Forecasts:** The population forecasts form an input to the forecasts of households. The household forecasts take as their base the forecast number of the population in private households for ten age groups, namely 16-24, 25-29, 30-34, 35-44, 45-54, 55-59, 60-64, 65-74, 75-84, 85+. Forecasts of the numbers of people in these age groups are combined with headship rate projections to give household forecasts. These are then used to derive housing forecasts. More detail is given elsewhere.
- **School Roll Forecasts:** The main population forecasts provide future numbers of children of school age, both for primary schools (5-11) and secondary schools up to the statutory leaving age (12-15). Information and research staff forecast school rolls for the general administration of the education services of the authorities, and also as an input to land use planning. The forecasts are made by school by class year. They are controlled to the forecasts of the numbers of children in the two age groups referred to.
- **Small Area Population Forecasts:** The forecast population totals are used to provide control totals for the small area population forecasts made for the electoral wards in Aberdeenshire.

Obviously, future policy decisions taken in the context of the Structure Plan could determine, for example, the actual distribution of population within the Structure Plan Area.

Housing

INTRODUCTION

The Housing part of the 2007 Strategic Forecasts for Aberdeen City and Aberdeenshire comprises two elements:

- Household change
- Housing requirement

The first of these elements derives from changes in the population in private households (through births/deaths and migration), changes to the age structure of the population, and changes to the social and economic factors that have a bearing on household formation.

Note: A *household* is defined as being either: one person living alone, or a group of people (not necessarily related) living at the same address with common housekeeping - that is, sharing either a living room or at least one meal a day. This is the household definition used for Census purposes.

The second element - the housing requirement calculation - results from the household change over the forecast period and changes within the existing housing stock that affect the availability of the stock for occupation. The term 'housing requirement' is difficult to define accurately. While the basic needs of people should be the main priority, account is also taken of demand preferences.

Finally, comparisons are made between the current set of household forecasts and previous household forecasts and projections produced by Aberdeen City Council and Aberdeenshire Council, and the General Register Office for Scotland (GROS).

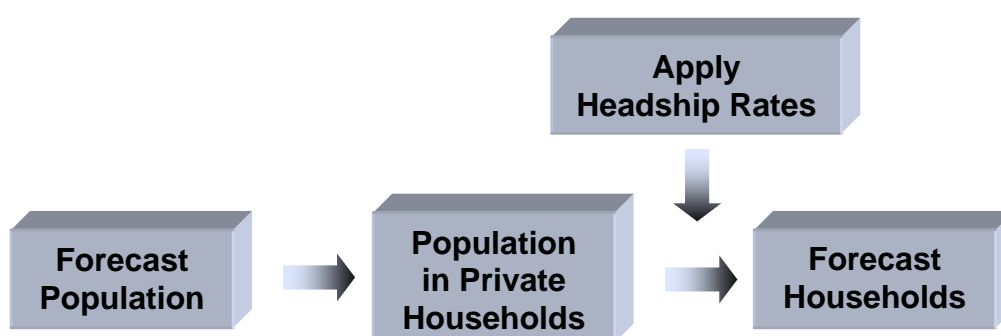
The figures presented in this Chapter relate to the 'probable case' scenario. However, at the end of both the household change and housing requirement sections, there is an explanation of the effect of using the 'low case' and 'high case' household population forecasts.

HOUSEHOLD FORECASTS

Methodology

Household forecasts are compiled by applying projected headship rates to the adult household population forecasts for the period 2006 to 2031 - the process is illustrated in *Figure 17*. This technique is substantially the same as the method used by the GROS to produce their *Household Projections for Scotland*. The headship rates, which are disaggregated by age and household type, are based on trends in household formation observed in the 1991 and 2001 Censuses of Population.

Figure 17 - Household Forecasts



Population

Figure 18 illustrates the forecast scale of change in the household population from 2006 to 2031. The household population is the total resident population *minus* the non-household population, i.e. the population living in communal establishments such as student halls of residence, hospitals and nursing homes. Information on the non-household population was derived from the 2001 Census. Adjustments were made to the relevant age groups in 2006 to produce a household population, and the same adjustments were consistently applied to the total population forecasts for the period to 2031.

Figure 18 - Household Population 2006-2031

	2006	2011	2016	2021	2026	2031	Change 2006/31
Aberdeen City and Shire	434,775	447,635	453,635	455,635	453,635	448,635	+13,860
16+ Population	355,948	371,878	380,153	383,154	383,392	381,020	+25,072
Aberdeen City	201,265	206,385	209,385	208,385	206,385	204,385	+3,120
16+ Population	168,710	175,366	178,370	176,770	175,046	174,289	+5,579
Aberdeenshire	233,510	241,250	244,250	247,250	247,250	244,250	+10,740
16+ Population	187,238	196,512	201,783	206,384	208,346	206,731	+19,493

Headship Rates

Headship rates are an expression of the rate at which the adult population forms independent households. They vary by age and location. Headship rates tend to rise as people get older, and are higher in urban than rural areas. They are a function of cultural factors - such as the age at which people marry, whether unmarried individuals seek to form independent households, and the extent of household dissolution due to divorce or separation - all of which evolve over time. Economic conditions can also have an impact on headship rates.

For the purposes of these forecasts, information on the number of households, disaggregated by household type and the age group of the head of household, was derived from the 1991 and 2001 Censuses of Population. The GROS supplied a set of headship rates based on a projection of the 1991/2001 data - see *Appendix 4*. (As these were not for the complete period, it was necessary to project the trends forward to 2031).

Household forecasts for 2006-2031 were calculated by multiplying the forecast adult population totals in a number of age groups by the headship rates for these groups. In the current set of forecasts this was done for ten age groups. Headship rates were also applied to a range of different household types.

Note: Although the trend in new household formation is closely linked to changes in population, it does not necessarily follow that a declining population will result in fewer households. Based on historical trends, it is quite possible that household numbers could continue to grow in a period of population decline. This can be explained by changes in household composition. For example, a fall in multiple adult households (3+ persons) and an increase in single person households will result in more households even though there is no increase in population.

Households at 2006

The total number of households at 2006 was calculated by adopting the GROS household estimates for 2006. The 2006 figures, which are the basis for the household forecasts, are shown in *Figure 19*.

Figure 19 - Total Households 2006

	No. of Households
Aberdeen City and Shire	199,510
Aberdeen City	100,740
Aberdeenshire	98,770

When the headship rates were applied to the 2006 household population totals the resulting figures differed from the household totals shown in *Figure 19*. Therefore, adjustments were made to rebase the raw figures in line with the 2006 household estimate. Because these adjustments were made equally across all forecast years, they had no effect on the overall household change between 2006 and 2031, or between 2006 and any of the intervening years. (See *Appendix 5* for details of adjustments that were made to the forecasts).

Household Forecasts

Forecasts of the total number of households were derived by multiplying the number of persons in a given age range and household type by the headship rates for these categories and then summing over all age groups and household types. *Figure 20* sets down the forecast change in the number of households over the 25 year period to 2031. (These figures have been adjusted to take account of tests that were applied to the household forecasts - see 'Population Tests' and *Appendix 5*).

Figure 20 - Household Forecasts 2006-2031

	2006	2011	2016	2021	2026	2031	Change 2006/31
Aberdeen City and Shire	199,510	211,510	222,040	229,250	234,160	237,660	+38,150
Aberdeen City	100,740	106,800	112,470	114,730	115,850	117,210	+16,470
Aberdeenshire	98,770	104,710	109,570	114,520	118,310	120,450	+21,680

It is forecast that there will be a growth of over 38,000 households in the Aberdeen City and Shire area by 2031, with 57% of this growth in Aberdeenshire.

Population Tests

a) Adult Population

The 'minimum adult population test' compares the minimum number of adults (16 years and over) in private households with the number and type of households being forecast. The minimum number of adults needed to form the forecast households is obtained as follows:

- 1 x number of **single** person households
- 1 x number of households with **one** adult and one child
- 1 x number of households with **one** adult and two or more children
- 2 x number of households with **two** or more adults and one or more children
- 2 x number of households with **two** adults, no children
- 3 x number of households with **three** or more adults, no children

The minimum number of adults produced by this calculation needs to be less than the total adult population, otherwise the household forecasts will be incompatible with the population forecasts. This condition was met for Aberdeenshire but adjustments were required to the Aberdeen City figures for 2021-2031 to bring the household forecasts into balance with the adult population forecasts. The effect of these adjustments was to reduce the number of multi-adult households (ie households two or more adults and no children) and increase by an equal amount the number of single person households. Although this altered the distribution of household types within forecast years, it did not affect the overall number of households in each year or the household change between 2006 and 2031. The detailed calculations are set out in *Appendix 5*.

b) 0-15 Population

The 'minimum children population test' assesses the number of children aged 0-15 in the household population and their distribution between different household types. Data from the 2001 Census was used to establish the numbers of children living in the following types of household: (a) 1 adult and 1 child, (b) 1 adult and 2+ children, and (c) 2+ adults and 1+ children.

A number of adjustments were required to ensure that the numbers and types of households with children that were being forecast were compatible with the 0-15 population. As with the adult population test, these adjustments did not affect the overall number of households in each forecast year or the household change between 2006 and 2031 - see *Appendix 5*.

Changes in Age Structure

The forecasts examine the age groups of the heads of household over the forecast period. These are set down in *Figures 21 to 23* for the Aberdeen City and Shire area, and the two separate Council areas.

Figure 21 - Age Structure of Heads of Household - Aberdeen City and Shire

	2006	2011	2016	2021	2026	2031	Change 2006/31
16 - 29	25,220	28,520	31,240	28,835	27,260	27,900	+2,680
30 - 44	54,270	51,770	49,890	53,835	55,800	54,890	+620
45 - 59	57,490	60,450	63,100	60,689	56,330	53,140	-4,350
60+	62,530	70,770	77,810	85,890	94,770	101,740	+39,210
Total Households	199,510	211,510	222,040	229,249	234,160	237,660	+38,150

Figure 22 - Age Structure of Heads of Household - Aberdeen City

	2006	2011	2016	2021	2026	2031	Change 2006/31
16 - 29	18,560	21,470	23,970	21,480	20,340	21,310	+2,750
30 - 44	27,600	27,500	28,120	31,970	33,010	32,030	+4,430
45 - 59	26,190	27,370	28,370	27,300	26,460	26,340	+150
60+	28,390	30,460	32,010	33,980	36,040	37,530	+9,140
Total Households	100,740	106,800	112,470	114,730	115,850	117,210	+16,470

It is anticipated that the largest change over the forecast period in Aberdeen City will be in households headed by people in the 60+ age group. By 2031, it is expected that these households will increase by over 9,000. In contrast, the number of households headed by people in the 45-59 age group will increase by only 150 during the forecast period.

Figure 23 - Age Structure of Heads of Household - Aberdeenshire

	2006	2011	2016	2021	2026	2031	Change 2006/31
16 - 29	6,660	7,060	7,270	7,350	6,930	6,590	-70
30 - 44	26,680	24,270	21,770	21,870	22,790	22,850	-3,830
45 - 59	31,300	33,080	34,730	33,390	29,870	26,800	-4,500
60+	34,130	40,310	45,800	51,910	58,730	64,210	+30,080
Total Households	98,770	104,720	109,580	114,520	118,310	120,450	+21,680

In Aberdeenshire, it is expected that the number of households headed by people aged 60+ will increase by over 30,000 in the period to 2031. There is forecast to be a fall in the number of households headed by people in the other three age groups.

Changes in Household Type

Households are classified in terms of their composition, i.e. the number of adults and children in a household. In these forecasts, the relationship between persons in the household has not been distinguished. *Figures 24 to 26* indicate the change in the broad household types identified for the Aberdeen City and Shire area, and separately for the two Council areas. These totals have been adjusted to satisfy the population tests (*see above*).

Figure 24 - Household Composition - Aberdeen City and Shire

	2006	2011	2016	2021	2026	2031	Change 2006/31
1 person no children	67,850	76,240	84,200	91,510	98,430	104,560	+36,710
2 or more adults no children	85,370	90,500	94,020	94,370	93,420	92,150	+6,780
1 adult with children	8,860	9,850	10,910	12,120	12,860	13,410	+4,550
2 or more adults with children	37,430	34,930	32,910	31,250	29,450	27,540	-9,890
Total Households	199,510	211,510	222,040	229,250	234,160	237,660	+38,150

Figure 25 - Household Composition - Aberdeen City

	2006	2011	2016	2021	2026	2031	Change 2006/31
1 person no children	40,850	45,680	50,170	53,740	56,640	59,540	+18,690
2 or more adults no children	40,030	42,050	43,040	41,360	39,620	38,740	-1,290
1 adult with children	4,910	5,330	5,970	6,660	7,040	7,290	+2,380
2 or more adults with children	14,950	13,740	13,290	12,970	12,550	11,640	-3,310
Total Households	100,740	106,800	112,470	114,730	115,850	117,210	+16,470

In Aberdeen City, the largest change in household composition is forecast to be in the '1 person no children' category. It is forecast that the number of single person households in Aberdeen will grow by 18,690 between 2006 and 2031. Households comprising two or more adults with children are expected to decline by 3,310 over the forecast period.

Households consisting of two or more adults with no children form the second largest category of household type, though numbers are predicted to fall slightly in the period to 2031. Single parents accounted for less than 5% of all Aberdeen households in 2006; numbers are expected to rise by 2,380 over the forecast period.

Figure 26 - Household Composition - Aberdeenshire

	2006	2011	2016	2021	2026	2031	Change 2006/31
1 person no children	27,000	30,560	34,030	37,770	41,790	45,020	+18,020
2 or more adults no children	45,340	48,450	50,980	53,010	53,800	53,420	+8,080
1 adult with children	3,950	4,520	4,940	5,460	5,820	6,120	+2,170
2 or more adults with children	22,480	21,190	19,620	18,290	16,900	15,900	-6,580
Total Households	98,770	104,720	109,580	114,520	118,310	120,450	+21,680

In Aberdeenshire, the largest change in household composition is expected to be in '1 person no children' households. By 2031, it is predicted that this category of household will have grown by over 18,000. The only decline is expected to be in households containing '2 or more adults with children', where there will be a reduction of 6,580.

Households consisting of two or more adults with no children form the largest single category of household type in Aberdeenshire, with 46% of all households in 2006. By 2031, there will be 53,420 households of this type. Single parents accounted for 4% of Aberdeenshire households in 2006; numbers are expected to rise by 2,170 in the period to 2031.

Household Size

The average household size in the Aberdeen City and Shire area is predicted to decrease over the forecast period, see *Figure 27*. By 2031, it is anticipated the average household size throughout the Area will be 1.89 persons per household. This is a result of household increase being higher than population growth. As would be expected from the information detailed above on household composition, Aberdeen City will have a lower household size than Aberdeenshire. Both areas will, however, experience a decrease in average household size over the forecast period.

Figure 27 - Average Household Size

	2006	2011	2016	2021	2026	2031
Aberdeen City and Shire	2.18	2.12	2.04	1.99	1.94	1.89
Aberdeen City	2.00	1.93	1.86	1.82	1.78	1.74
Aberdeenshire	2.36	2.30	2.23	2.16	2.09	2.03

Changes in Household Formation

To appreciate the scale of the forecast change in household formation, a further set of forecasts was prepared. This assumed that the 2006 headship rates remained constant. *Figure 28* indicates the results of applying these rates.

Figure 28 - Application of Fixed and Variable Headship Rates: Aberdeen City and Shire Area

	Fixed 2006 Headship Rates	Variable Headship Rates
Increase in Households 2006/31	+25,240	+38,150

If the headship rates at 2006 were held constant and applied to the forecast population for 2031, the increase in households would be significantly lower than the rate currently being forecast, 25,240 compared to 38,150. This shows that changes in the total number and age structure of the population account for around two-thirds of the household increase, while the remaining one-third is accounted for by anticipated changes in housing expectations and standards - see *Figure 29*.

Figure 29 - Components of Household Growth 2006-2031

	Age Structure and Migration Component	Expectational Component	Total
Aberdeen City and Shire	25,240	12,910	38,150

Scenarios

The preceding sections of this Chapter contained information on the number of households that would be formed up to 2031 under the 'probable case' scenario. For comparison purposes, household forecasts were also calculated for the 'high case' and 'low case' scenarios. These were based on the adult (16+) household populations. *Figure 30* shows these population totals for the three scenarios for 2006 and 2031. Note: the 2006 base year household populations are the same for all scenarios.

Figure 30 - Adult (16+) Household Populations 2006 and 2031

	2006	2031		
		Low	Probable	High
Aberdeen City and Shire	355,948	360,688	381,020	400,644
Aberdeen City	168,710	166,584	174,289	182,318
Aberdeenshire	187,238	194,104	206,731	218,326

When headship rates were applied to the adult household populations, three sets of household forecasts were produced. At the Aberdeen City and Shire level, the household change figures for the 2006-2031 period range from +24,740 households ('low case') to +49,570 ('high case') - see *Figure 31*.

Figure 31 - Household Change

	Household Change 2006-2031		
	Low	Probable	High
Aberdeen City and Shire	+24,740	+38,150	+49,570
Aberdeen City	+11,950	+16,470	+21,900
Aberdeenshire	+12,800	+21,680	+27,670

HOUSING REQUIREMENT

The second element in the forecasting process is the housing requirement calculation. In addition to using the household change forecasts, this involves an assessment of the factors that can influence the availability of the existing housing stock for occupation.

The starting point for 'converting' households to houses (or dwellings) is information provided by the General Register Office for Scotland, most of which is published in their report, *Household Estimates for Scotland, 2006*. The base year estimates for households and dwellings for the Aberdeen City and Shire area are shown in *Figure 32*.

Figure 32 - Household and Dwellings 2006

	Aberdeen City	Aberdeen-shire	Aberdeen City and Shire
Housing Stock	108,430	103,950	212,380
Vacant Stock and Second Homes	4,990	4,750	9,740
Occupied Dwellings	103,440	99,200	202,640
2001 Population-based household estimates	96,940	90,900	187,840
2001 Council Tax-based occupied dwellings	99,650	91,330	190,980
Adjustment	-2,710	-430	-3,140
Households	100,740	98,770	199,510

Housing Stock Related Factors

- Vacant Stock and Second Homes:** This category mainly includes dwellings that are exempt from Council Tax because they are unoccupied and dwellings that are entitled to a discount because they are long-term empty properties or second homes. In 2006, the proportion of the housing stock in both Aberdeen City and Aberdeenshire that was either vacant or a second home was 4.6%. It is assumed that this rate will stay constant throughout the forecast period. This will result in an absolute increase in this category of dwelling as the vacant/second home rate will apply to an increasing overall stock of dwellings. *Figure 33* shows the increase in the number of vacant dwellings and second homes in each five-year period of the forecasts.

Figure 33 - Vacant Stock and Second Homes

	2006/11	2011/16	2016/21	2021/26	2026/31
Aberdeen City and Shire	620	590	430	320	250
Aberdeen City	320	350	180	130	140
Aberdeenshire	300	240	250	190	110

- Demolitions:** An allowance is made for demolitions that are anticipated over the forecast period. In Aberdeen City, the 'normal' demolition rate is around 50 dwellings a year. In addition to this, an allowance was made for the programme of demolitions that is planned as part of the City's Community Regeneration Strategy. An annual total of 200 demolitions was added to the usual demolition figure for the period from 2009 to 2031 to cover this. In Aberdeenshire, the demolition rate has been set at 40 dwellings a year, with an additional 150 at the start of the forecast period for sites in Fraserburgh and Peterhead that are expected to be demolished within the next five years.

Figure 34 - Demolitions

	2006/11	2011/16	2016/21	2021/26	2026/31
Aberdeen City and Shire	1,000	1,450	1,450	1,450	1,450
Aberdeen City	650	1,250	1,250	1,250	1,250
Aberdeenshire	350	200	200	200	200

Total Housing Requirement

The addition of the household forecasts and the housing stock changes provides a forecast of the additional housing requirement for the forecast period. *Figure 35* summarises the breakdown of the total housing requirement in the Aberdeen City and Shire area for the relevant time periods.

Figure 35 - Total Housing Requirement 2006-2031

	2006/11	2011/16	2016/21	2021/26	2026/31	Total 2006/31
Aberdeen City and Shire	13,630	12,560	9,070	6,670	5,190	47,110
Aberdeen City	7,030	7,260	3,680	2,490	2,740	23,190
Aberdeenshire	6,600	5,310	5,390	4,180	2,450	23,930

In addition to providing forecasts for the Aberdeen City and Shire area, and the two Council areas, an estimate is made for the requirement for housing within the two Housing Market Areas (HMAs) - the Aberdeen HMA and the Aberdeenshire Rural HMA. The Aberdeen HMA comprises all of Aberdeen City and a sub-area of Aberdeenshire, which covers an area within an approximate 30 km radius of Aberdeen. The Aberdeenshire Rural HMA comprises the remaining part of Aberdeenshire that lies outwith the 30 km radius.

In the previous set of forecasts, 70% and 30% of the total housing requirement for the Aberdeen City and Shire area was allocated to the Aberdeen and Rural HMAs, respectively. That assumption was based on data from the 2001 Census. In these forecasts, the proportions have been changed to 75% for the Aberdeen HMA and 25% for the Rural HMA to reflect the actual distribution of house completions in the two areas over the past 10 years. A further adjustment was made to allow for the demolitions that are planned in Aberdeen as part of the city's Community Regeneration Strategy. To avoid a proportion of these demolitions being allocated to the Rural HMA, they were deducted from the total housing requirement before the 75%/25% split was applied and then added to the Aberdeen HMA. Figure 36 shows the resulting housing requirements for the two HMAs.

Figure 36 - Housing Requirement Forecasts for Housing Market Areas

	2006/11	2011/16	2016/21	2021/26	2026/31	Total 2006/31
Aberdeen City and Shire	13,630	12,560	9,070	6,670	5,190	47,110
Aberdeen HMA	10,320	9,670	7,050	5,250	4,140	36,430
Rural HMA	3,310	2,890	2,020	1,420	1,050	10,680

Note: the Strategic Forecasts housing requirement is not the same as the Structure Plan housing requirement in so far as the latter covers a slightly different geographical area, excluding the part of the Cairngorms National Park that lies within Aberdeenshire. Further, the Structure Plan needs to plan for more housing than the Strategic Forecasts to accommodate flexibility.

COMPARISONS

Scenarios

The preceding sections contained information on the housing requirement for the period to 2031 under the 'probable case' scenario. For comparison purposes, the housing requirement was also calculated for the 'high case' and 'low case' scenarios. These were based on the high and low household forecasts. *Figures 37 and 38* show the housing requirement totals for the three scenarios for 2006-2031 period.

Figure 37 - Housing Requirement 2006-2031 (Council Areas)

	Low	Probable	High
Aberdeen City and Shire	33,060	47,110	59,090
Aberdeen City	18,440	23,190	28,880
Aberdeenshire	14,620	23,930	30,210

Figure 38 - Housing Requirement 2006-2031 (Housing Market Areas)

	Low	Probable	High
Aberdeen City and Shire	33,060	47,110	59,090
Aberdeen HMA	25,890	36,430	45,420
Rural HMA	7,170	10,680	13,670

Comparison with Previous Forecasts

Because of the different time periods, it is not possible to make an exact comparison with earlier housing requirement forecasts. However, the current and previous forecasts both cover the 2006-2021 period. This shows that the 2006 housing requirement forecast of 35,260 is significantly higher than the equivalent requirement in the 2004 forecasts - see *Figure 39*.

Figure 39 - Total Housing Requirement 2006-2021

	2004 Forecasts	Current Forecasts
Aberdeen City and Shire	18,580	35,260
Aberdeen Housing Market Area	13,000	27,040
Rural Housing Market Area	5,580	8,220

The main reasons for the increase in the total housing requirement since 2004 is the higher population forecasts and the resulting increase in the number of households likely to be formed. The higher housing requirement in the Aberdeen HMA was also due to two further factors: firstly, the allowance for the demolition and rebuild programme in Aberdeen's deprived neighbourhoods, and, secondly, the increased proportion of the total housing requirement that was allocated to the Aberdeen HMA, up from 70% to 75%.

Over the total period of the forecasts, the current housing requirement for the Aberdeen City and Shire area is 1,884 pa (i.e. 47,110 over 25 years), compared with 1,273 pa in the previous forecasts (i.e. 22,920 over 18 years).

Comparison with GROS Projections

The GROS published their 2004 based household projections for Scotland in May 2006. *Figure 40* compares its projected household increase with the forecasts in this report. Comparisons have been made up to 2021 as the GROS household projections do not extend to 2031. (Note: the GROS will be revising their 2004-based projections following the revisions made to the population estimates for the 2003-2006 period.)

Figure 40 - Comparison of 2004 Based GROS Household Projections with 2006 Based Strategic Household Forecasts

GROS (2004-based)	2006	2021	Change 2006/21
Aberdeen City and Shire	197,700	204,620	+6,920
Aberdeen City	98,940	90,940	-8,000
Aberdeenshire	98,760	113,680	+14,920
Strategic Forecasts (2006-based)	2006	2021	Change 2006/21
Aberdeen City and Shire	199,510	229,250	+29,740
Aberdeen City	100,740	114,730	+13,990
Aberdeenshire	98,770	114,520	+15,750

The forecasts produced by Aberdeen City/Aberdeenshire Councils and the GROS both indicate increases in the number of households being formed in the Aberdeen City and Shire area. However, the Councils' forecasts predict that the rate of increase will be greater than that projected by the GROS. Between 2006 and 2021, an increase of 3.5% is projected by the GROS for the combined area, compared with the 14.9% increase forecast in this report. For Aberdeen City, the GROS project that the number of households will fall by 8,000 in the period to 2021, while they project an increase of just under 15,000 for Aberdeenshire. The Councils' forecasts for the same period indicate that the number of households will grow by 13,990 and 15,750 respectively.

Appendix 1

Probable-Case Components of Population Change
Aberdeen City, Aberdeenshire and the Aberdeen City and Shire area

Components of Population Change

Aberdeen City

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Population	206,880	207,904	208,928	209,952	210,976	212,000	212,600	213,200	213,800	214,400	215,000	214,800	214,600	214,400	214,200	214,000	213,600	213,200	212,800	212,400	212,000	211,600	211,200	210,800	210,400	210,000
Births		2,325	2,052	2,073	2,094	2,118	2,144	2,165	2,189	2,215	2,243	2,268	2,275	2,275	2,265	2,246	2,218	2,180	2,137	2,090	2,042	1,994	1,949	1,907	1,871	1,843
Deaths		2,131	2,096	2,085	2,076	2,073	2,071	2,068	2,066	2,066	2,064	2,064	2,066	2,070	2,074	2,079	2,086	2,094	2,104	2,114	2,125	2,137	2,151	2,167	2,183	2,200
Natural Change		194	-44	-12	19	45	73	97	123	150	179	204	209	205	191	167	132	86	33	-24	-83	-143	-203	-260	-312	-357
Net Migration		830	1,068	1,036	1,005	979	527	503	477	450	421	-404	-409	-405	-391	-367	-532	-486	-433	-376	-317	-257	-197	-140	-88	-43
Total Change		1,024	1,024	1,024	1,024	1,024	600	600	600	600	600	-200	-200	-200	-200	-200	-400	-400	-400	-400	-400	-400	-400	-400	-400	-400
Index	100.0	100.5	101.0	101.5	102.0	102.5	102.8	103.1	103.3	103.6	103.9	103.8	103.7	103.6	103.5	103.4	103.2	103.1	102.9	102.7	102.5	102.3	102.1	101.9	101.7	101.5

Aberdeenshire

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Population	236,260	237,808	239,356	240,904	242,452	244,000	244,600	245,200	245,800	246,400	247,000	247,600	248,200	248,800	249,400	250,000	250,000	250,000	250,000	250,000	250,000	249,400	248,800	248,200	247,600	247,000
Births		2,646	2,327	2,289	2,261	2,241	2,227	2,199	2,177	2,160	2,148	2,141	2,139	2,139	2,142	2,145	2,146	2,134	2,122	2,107	2,090	2,070	2,036	2,002	1,969	1,938
Deaths		2,175	2,211	2,228	2,247	2,271	2,295	2,319	2,345	2,373	2,400	2,429	2,461	2,498	2,537	2,577	2,620	2,663	2,711	2,758	2,808	2,858	2,909	2,962	3,015	3,067
Natural Change		471	116	62	15	-30	-68	-120	-168	-214	-252	-287	-323	-359	-395	-433	-474	-529	-589	-651	-718	-788	-873	-960	-1,046	-1,129
Net Migration		1,077	1,432	1,486	1,533	1,578	668	720	768	814	852	887	923	959	995	1,033	474	529	589	651	718	188	273	360	446	529
Total Change		1,548	1,548	1,548	1,548	1,548	600	600	600	600	600	600	600	600	600	600	0	0	0	0	0	-600	-600	-600	-600	-600
Index	100.0	100.7	101.3	102.0	102.6	103.3	103.5	103.8	104.0	104.3	104.5	104.8	105.1	105.3	105.6	105.8	105.8	105.8	105.8	105.8	105.8	105.6	105.3	105.1	104.8	104.5

Aberdeen City and Shire

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Population	443,140	445,712	448,284	450,856	453,428	456,000	457,200	458,400	459,600	460,800	462,000	462,400	462,800	463,200	463,600	464,000	463,600	463,200	462,800	462,400	462,000	461,000	460,000	459,000	458,000	457,000
Births		4,971	4,379	4,362	4,356	4,359	4,372	4,364	4,366	4,375	4,391	4,410	4,414	4,414	4,407	4,390	4,365	4,314	4,259	4,197	4,131	4,064	3,984	3,908	3,840	3,780
Deaths		4,306	4,307	4,313	4,322	4,345	4,366	4,387	4,411	4,439	4,464	4,493	4,528	4,568	4,611	4,657	4,706	4,758	4,814	4,872	4,932	4,996	5,061	5,129	5,198	5,267
Natural Change		665	72	50	33	14	5	-23	-45	-64	-73	-83	-114	-153	-204	-266	-341	-443	-556	-675	-801	-932	-1,076	-1,220	-1,358	-1,486
Net Migration		1,907	2,500	2,522	2,539	2,558	1,195	1,223	1,245	1,264	1,273	483	514	553	604	666	-59	43	156	275	401	-68	76	220	358	486
Total Change		2,572	2,572	2,572	2,572	2,572	1,200	1,200	1,200	1,200	1,200	400	400	400	400	400	-400	-400	-400	-400	-400	-1,000	-1,000	-1,000	-1,000	-1,000
Index	100.0	100.6	101.2	101.7	102.3	102.9	103.2	103.4	103.7	104.0	104.3	104.3	104.4	104.5	104.6	104.7	104.6	104.5	104.4	104.3	104.3	104.0	103.8	103.6	103.4	103.1

Appendix 2

Probable-Case Total Population by Client Group
Aberdeen City, Aberdeenshire and the Aberdeen City and Shire area

Total Population by Client Group

Aberdeen City

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	% Change 2006/31
0-4	9,956	10,248	10,221	10,316	10,276	10,261	10,085	10,183	10,288	10,401	10,521	10,621	10,714	10,789	10,832	10,834	10,783	10,689	10,554	10,384	10,186	9,968	9,743	9,520	9,307	9,113	-8.5
5-11	13,816	13,515	13,417	13,203	13,196	13,142	13,378	13,365	13,407	13,401	13,511	13,468	13,446	13,286	13,393	13,514	13,639	13,758	13,862	13,944	13,991	13,993	13,938	13,822	13,655	13,442	-2.7
12-15	8,883	8,595	8,317	8,062	7,831	7,716	7,576	7,421	7,281	7,163	7,082	7,134	7,224	7,410	7,451	7,367	7,299	7,092	7,142	7,197	7,262	7,336	7,417	7,505	7,583	7,641	-14.0
16-29	45,397	46,538	47,579	48,400	48,690	49,066	49,152	49,231	49,484	49,573	49,187	47,867	45,904	44,621	43,471	42,356	41,403	40,720	39,979	39,401	39,072	38,862	38,885	38,902	39,138	39,405	-13.2
30-44	45,201	44,571	44,018	43,621	43,672	43,686	43,413	43,334	42,866	42,721	42,859	43,304	44,443	45,137	45,753	46,522	46,950	47,296	47,350	46,943	46,506	46,126	45,588	45,313	44,726	43,889	-2.9
45-Ret	46,387	46,686	47,162	47,682	48,399	48,789	48,898	48,955	49,142	49,150	49,216	49,173	48,953	48,386	47,678	47,035	46,377	45,734	45,212	44,975	44,792	44,534	44,249	43,760	43,484	43,553	-6.1
60/65-74	21,892	22,100	22,334	22,531	22,572	22,800	23,377	23,786	24,243	24,680	25,212	25,633	26,081	26,768	27,550	28,007	27,954	28,081	28,257	28,640	28,852	29,029	29,262	29,379	29,388	29,319	33.9
75+	15,348	15,652	15,879	16,137	16,340	16,540	16,721	16,926	17,089	17,310	17,412	17,599	17,834	18,005	18,071	18,364	19,195	19,832	20,444	20,915	21,339	21,751	22,118	22,599	23,120	23,637	54.0
Total	206,880	207,904	208,928	209,952	210,976	212,000	212,600	213,200	213,800	214,400	215,000	214,800	214,600	214,400	214,200	214,000	213,600	213,200	212,800	212,400	212,000	211,600	211,200	210,800	210,400	210,000	1.5

Aberdeenshire

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	% Change 2006/31
0-4	12,954	13,208	13,167	12,992	12,716	12,332	11,843	11,684	11,555	11,452	11,363	11,286	11,234	11,205	11,195	11,200	11,173	11,146	11,117	11,082	11,033	10,928	10,812	10,685	10,551	10,409	-19.6
5-11	20,274	20,060	19,951	19,876	19,973	20,089	20,160	20,055	19,923	19,745	19,452	19,077	18,593	18,068	17,904	17,778	17,623	17,491	17,377	17,296	17,248	17,163	17,091	17,025	16,958	16,892	-16.7
12-15	13,074	12,867	12,640	12,531	12,313	12,348	12,348	12,116	11,965	11,758	11,681	11,848	12,119	12,403	12,218	11,917	11,468	10,977	10,850	10,744	10,653	10,542	10,437	10,354	10,292	10,248	-21.6
16-29	33,270	33,877	34,426	34,945	35,431	35,703	35,819	36,052	35,981	35,966	35,963	35,789	35,733	35,514	35,346	35,155	34,922	34,760	34,239	33,845	33,468	32,897	32,417	31,899	31,409	31,066	-6.6
30-44	52,065	50,875	49,708	48,443	47,265	46,211	44,740	43,445	42,266	41,407	40,357	39,813	39,252	39,056	39,246	39,622	39,962	40,194	40,457	40,521	40,532	40,573	40,604	40,426	40,224	39,956	-23.3
45-Ret	61,337	61,958	62,924	63,965	65,102	66,034	66,555	66,830	67,213	67,445	67,822	67,808	67,662	67,180	66,419	65,505	64,422	63,168	61,893	60,764	59,650	58,240	56,876	55,679	54,654	53,473	-12.8
60/65-74	26,774	28,030	29,164	30,293	31,287	32,322	33,652	34,921	36,138	37,122	38,329	39,152	39,875	40,688	41,492	42,123	41,992	42,343	42,809	43,327	43,862	44,558	45,060	45,479	45,834	46,257	72.8
75+	16,512	16,932	17,375	17,858	18,366	18,961	19,484	20,097	20,759	21,504	22,033	22,827	23,731	24,687	25,580	26,698	28,438	29,921	31,258	32,421	33,554	34,499	35,503	36,654	37,677	38,699	134.4
Total	236,260	237,808	239,356	240,904	242,452	244,000	244,600	245,200	245,800	246,400	247,000	247,600	248,200	248,800	249,400	250,000	250,000	250,000	250,000	250,000	250,000	249,400	248,800	248,200	247,600	247,000	4.5

Aberdeen City and Shire

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	% Change 2006/31
0-4	22,910	23,455	23,388	23,308	22,991	22,592	21,928	21,867	21,843	21,853	21,884	21,908	21,948	21,993	22,027	22,034	21,955	21,835	21,671	21,466	21,219	20,896	20,555	20,204	19,858	19,522	-14.8
5-11	34,090	33,575	33,368	33,079	33,170	33,230	33,538	33,419	33,331	33,146	32,964	32,545	32,039	31,354	31,297	31,293	31,262	31,249	31,239	31,240	31,239	31,156	31,028	30,847	30,613	30,335	-11.0
12-15	21,957	21,462	20,958	20,593	20,143	20,064	19,925	19,537	19,246	18,921	18,763	18,982	19,343	19,813	19,668	19,284	18,767	18,069	17,992	17,941	17,915	17,878	17,854	17,859	17,876	17,889	-18.5
16-29	78,667	80,415	82,005	83,345	84,122	84,769	84,971	85,284	85,464	85,540	85,150	83,656	81,637	80,134	78,818	77,511	76,324	75,479	74,218	73,247	72,540	71,759	71,302	70,802	70,547	70,472	-10.4
30-44	97,266	95,447	93,727	92,064	90,938	89,898	88,153	86,778	85,132	84,128	83,216	83,117	83,696	84,193	84,999	86,144	86,913	87,490	87,807	87,464	87,038	86,699	86,193	85,739	84,950	83,845	-13.8
45-Ret	107,724	108,643	110,086	111,647	113,501	114,823	115,452	115,785	116,354	116,596	117,038	116,981	116,616	115,566	114,097	112,540	110,799	108,902	107,105	105,739	104,442	102,774	101,126	99,439	98,138	97,026	-9.9
60/65-74	48,666	50,130	51,498	52,824	53,858	55,122	57,029	58,707	60,382	61,802	63,541	64,786	65,956	67,455	69,042	70,130	69,947	70,423	71,066	71,967	72,714	73,587	74,322	74,858	75,222	75,576	55.3
75+	31,860	32,584	33,255	33,995	34,705	35,501	36,204	37,023	37,848	38,814	39,444	40,425	41,566	42,692	43,651	45,063	47,633	49,753	51,702	53,336	54,893	56,250	57,620	59,253	60,797	62,336	95.7
Total	443,140	445,712	448,284	450,856	453,428	456,000	457,200	458,400	459,600	460,800	462,000	462,400	462,800	463,200	463,600	464,000	463,600	463,200	462,800	462,400	462,000	461,000	460,000	459,000	458,000	457,000	3.1

Note

There is no adjustment here for change in women's state pension age.

Appendix 3

Probable-Case Total Population by Sex and 5-Year Age Group
Aberdeen City, Aberdeenshire and the Aberdeen City and Shire area

Total Population by Sex and 5-Year Age Group

Aberdeen City

Males	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	5,045	5,224	5,205	5,241	5,256	5,258	5,168	5,218	5,271	5,329	5,391	5,441	5,488	5,526	5,548	5,549	5,522	5,474	5,405	5,317	5,216	5,104	4,989	4,874	4,765	4,665
5-9	5,137	4,966	4,914	4,810	4,766	4,787	4,960	4,936	4,963	4,970	4,963	4,862	4,895	4,934	4,977	5,026	5,073	5,118	5,154	5,175	5,176	5,153	5,110	5,045	4,963	4,866
10-14	5,538	5,409	5,276	5,204	5,118	5,041	4,873	4,812	4,702	4,649	4,662	4,817	4,781	4,795	4,790	4,771	4,671	4,702	4,740	4,782	4,832	4,883	4,932	4,972	4,997	5,002
15-19	6,201	6,286	6,135	6,028	6,051	5,928	5,770	5,619	5,542	5,442	5,367	5,135	5,061	4,935	4,867	4,869	5,029	4,980	5,009	5,008	5,001	4,877	4,933	4,980	5,031	5,088
20-24	8,495	8,627	9,085	9,476	9,727	9,903	9,933	9,666	9,459	9,421	9,220	8,938	8,631	8,427	8,218	8,059	7,793	7,721	7,577	7,513	7,522	7,763	7,738	7,814	7,854	7,883
25-29	9,376	9,477	9,582	9,535	9,138	9,037	9,167	9,604	9,945	10,122	10,238	10,201	9,869	9,581	9,450	9,163	8,877	8,565	8,359	8,151	7,990	7,743	7,696	7,574	7,539	7,574
30-34	7,697	7,647	7,613	7,784	8,334	8,748	8,860	8,937	8,867	8,469	8,344	8,431	8,811	9,098	9,224	9,286	9,243	8,926	8,645	8,505	8,222	7,956	7,664	7,472	7,280	7,133
35-39	7,724	7,585	7,626	7,466	7,401	7,284	7,242	7,196	7,349	7,857	8,238	8,320	8,365	8,270	7,861	7,712	7,794	8,149	8,424	8,554	8,617	8,581	8,283	8,019	7,888	7,621
40-44	7,594	7,707	7,597	7,602	7,524	7,549	7,424	7,451	7,280	7,202	7,073	7,013	6,950	7,080	7,552	7,900	7,978	8,022	7,931	7,538	7,396	7,484	7,835	8,110	8,246	8,314
45-49	7,434	7,433	7,481	7,510	7,422	7,424	7,539	7,421	7,416	7,329	7,342	7,203	7,210	7,028	6,936	6,794	6,736	6,676	6,805	7,264	7,603	7,687	7,737	7,655	7,282	7,151
50-54	6,902	7,056	7,222	7,282	7,391	7,345	7,351	7,388	7,407	7,312	7,306	7,403	7,273	7,252	7,153	7,153	7,016	7,022	6,845	6,757	6,623	6,573	6,522	6,656	7,109	7,445
55-59	6,718	6,462	6,337	6,390	6,477	6,610	6,760	6,915	6,968	7,069	7,017	7,016	7,045	7,055	6,956	6,938	7,032	6,909	6,892	6,796	6,796	6,671	6,682	6,517	6,435	6,309
60-64	4,675	5,130	5,440	5,743	6,097	6,220	5,998	5,885	5,936	6,019	6,145	6,284	6,426	6,473	6,565	6,514	6,515	6,545	6,557	6,468	6,453	6,545	6,435	6,424	6,337	6,340
65-69	4,074	4,072	4,074	4,097	4,015	4,174	4,596	4,889	5,173	5,499	5,614	5,418	5,318	5,368	5,446	5,563	5,694	5,827	5,876	5,964	5,922	5,927	5,960	5,976	5,901	5,891
70-74	3,645	3,605	3,657	3,582	3,575	3,556	3,568	3,580	3,607	3,542	3,690	4,074	4,343	4,601	4,894	4,998	4,830	4,749	4,800	4,877	4,988	5,111	5,236	5,286	5,372	5,339
75-79	2,763	2,788	2,877	2,947	2,972	2,966	2,958	3,021	2,975	2,983	2,977	2,996	3,016	3,044	2,992	3,124	3,465	3,705	3,929	4,178	4,269	4,135	4,075	4,129	4,204	4,307
80-84	1,664	1,774	1,806	1,881	1,934	1,988	2,032	2,112	2,184	2,221	2,232	2,242	2,303	2,279	2,296	2,298	2,322	2,349	2,377	2,342	2,455	2,740	2,939	3,122	3,318	3,391
85-89	859	895	925	968	962	989	1,073	1,097	1,153	1,199	1,246	1,291	1,349	1,408	1,441	1,456	1,474	1,525	1,519	1,538	1,542	1,566	1,595	1,619	1,597	1,682
90+	300	312	312	321	407	454	478	493	522	564	604	661	681	728	776	824	881	925	985	1,030	1,064	1,107	1,161	1,190	1,227	1,250
Total	101,841	102,457	103,163	103,866	104,566	105,263	105,752	106,238	106,720	107,197	107,667	107,745	107,817	107,883	107,943	107,997	107,947	107,891	107,828	107,760	107,685	107,606	107,522	107,434	107,343	107,249

Females	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	4,911	5,024	5,016	5,075	5,020	5,003	4,917	4,965	5,017	5,072	5,130	5,181	5,226	5,263	5,284	5,285	5,260	5,215	5,149	5,066	4,970	4,864	4,754	4,646	4,542	4,447
5-9	4,633	4,612	4,607	4,503	4,631	4,692	4,801	4,788	4,837	4,777	4,755	4,660	4,694	4,731	4,774	4,821	4,869	4,912	4,948	4,969	4,970	4,949	4,908	4,846	4,768	4,676
10-14	5,067	4,920	4,744	4,632	4,469	4,413	4,384	4,371	4,265	4,382	4,433	4,527	4,504	4,540	4,473	4,440	4,349	4,380	4,415	4,457	4,504	4,554	4,601	4,640	4,664	4,669
15-19	6,907	6,762	6,179	6,080	5,927	5,589	5,435	5,239	5,101	4,926	4,877	4,767	4,745	4,598	4,741	4,782	4,846	4,817	4,903	4,811	4,803	4,674	4,744	4,791	4,840	4,895
20-24	9,202	9,814	10,765	11,436	11,865	12,210	11,884	11,157	10,933	10,667	10,219	9,887	9,468	9,172	8,791	8,606	8,484	8,449	8,259	8,432	8,474	8,648	8,653	8,791	8,764	8,808
25-29	7,540	7,774	8,027	7,961	8,026	8,324	8,898	9,825	10,424	10,782	11,047	10,674	9,924	9,604	9,235	8,700	8,349	7,925	7,619	7,244	7,053	6,947	6,925	6,776	6,956	7,028
30-34	6,933	6,583	6,358	6,281	6,396	6,489	6,687	6,906	6,849	6,911	7,186	7,708	8,547	9,083	9,393	9,594	9,246	8,544	8,215	7,842	7,322	6,980	6,580	6,285	5,941	5,762
35-39	7,461	7,383	7,272	7,051	6,730	6,401	6,059	5,826	5,734	5,822	5,897	6,062	6,245	6,189	6,242	6,497	6,999	7,787	8,311	8,618	8,807	8,485	7,815	7,493	7,128	6,627
40-44	7,792	7,666	7,552	7,436	7,287	7,216	7,142	7,019	6,788	6,458	6,121	5,770	5,525	5,417	5,480	5,532	5,690	5,868	5,825	5,886	6,142	6,640	7,412	7,933	8,243	8,433
45-49	7,566	7,658	7,657	7,610	7,606	7,621	7,496	7,377	7,255	7,099	7,019	6,933	6,798	6,557	6,220	5,875	5,530	5,290	5,183	5,243	5,295	5,453	5,632	5,600	5,670	5,928
50-54	6,524	6,621	6,851	7,102	7,280	7,341	7,426	7,422	7,373	7,365	7,373	7,243	7,117	6,990	6,831	6,743	6,656	6,521	6,282	5,953	5,616	5,283	5,051	4,949	5,009	5,062
55-59	6,568	6,326	6,173	6,047	6,127	6,228	6,327	6,442	6,787	6,957	7,014	7,093	7,084	7,031	7,018	7,019	6,893	6,771	6,648	6,494	6,407	6,322	6,191	5,960	5,642	5,318
60-64	4,956	5,343	5,570	5,862	6,063	6,166	5,947	5,803	5,686	5,763	5,859	5,953	6,162	6,391	6,552	6,605	6,681	6,675	6,627	6,616	6,617	6,498	6,383	6,268	6,123	6,041
65-69	4,644	4,630	4,658	4,639	4,536	4,611	4,977	5,193	5,470	5,662	5,761	5,555	5,422	5,313	5,386	5,478	5,571	5,771	5,990	6,145	6,199	6,275	6,272	6,230	6,223	6,226
70-74	4,573	4,450	4,376	4,351	4,383	4,291	4,288	4,320	4,307	4,215	4,288	4,633	4,837	5,095	5,272	5,364	5,179	5,059	4,964	5,037	5,127	5,218	5,409	5,619	5,769	5,823
75-79	4,024	4,082	4,067	4,023	3,962	3,941	3,857	3,809	3,802	3,843	3,773	3,779	3,813	3,808	3,731	3,800	4,120	4,310	4,548	4,706	4,788	4,631	4,529	4,453	4,526	4,613
80-84	3,076	3,052	3,068	3,080	3,118	3,147	3,215	3,222	3,207	3,179	3,184	3,136	3,112	3,122	3,170	3,122	3,138	3,175	3,179	3,123	3,188	3,473	3,643	3,852	3,986	4,054
85-89	1,688	1,824	1,922	2,032	2,003	1,981	1,982	2,008	2,032	2,074	2,111	2,175	2,195	2,200	2,197	2,219	2,204	2,203	2,226	2,275	2,251	2,274	2,310	2,322	2,288	2,343
90+	974	924	903	885	982	1,073	1,125	1,165	1,213	1,248	1,287	1,321	1,365	1,415	1,468	1,521	1,590	1,637	1,682	1,724	1,781	1,825	1,864	1,913	1,975	1,997
Total	105,039	105,447	105,765	106,086	106,410	106,737	106,848	106,962	107,080	107,203	107,333	107,055	106,783	106,517	106,257	106,003	105,653	105,309	104,972	104,640	104,315	103,994	103,678	103,366	103,057	102,751

Persons	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Total	206,880	207,904	208,928	<																						

Total Population by Sex and 5-Year Age Group

Aberdeenshire

Males	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	6,671	6,852	6,852	6,760	6,620	6,396	6,143	6,061	5,995	5,942	5,896	5,857	5,831	5,816	5,811	5,814	5,799	5,785	5,770	5,752	5,727	5,672	5,612	5,546	5,477	5,404
5-9	7,445	7,239	7,153	7,160	7,167	7,378	7,577	7,545	7,416	7,240	6,979	6,729	6,659	6,603	6,558	6,520	6,463	6,420	6,390	6,370	6,361	6,336	6,312	6,287	6,261	6,229
10-14	8,016	8,044	7,979	7,894	7,961	7,898	7,694	7,581	7,564	7,543	7,733	7,948	7,922	7,797	7,624	7,366	7,102	7,020	6,952	6,894	6,844	6,780	6,729	6,691	6,662	6,644
15-19	7,874	7,902	8,078	8,162	8,121	8,011	8,031	7,952	7,854	7,897	7,805	7,610	7,502	7,489	7,484	7,676	7,876	7,835	7,701	7,518	7,258	6,998	6,902	6,824	6,759	6,700
20-24	6,084	6,275	6,402	6,529	6,621	6,786	6,803	6,947	7,005	6,951	6,835	6,855	6,786	6,698	6,735	6,653	6,451	6,335	6,312	6,302	6,475	6,644	6,597	6,461	6,280	6,027
25-29	5,208	5,332	5,403	5,559	5,715	5,847	6,005	6,106	6,200	6,264	6,395	6,423	6,575	6,638	6,596	6,490	6,490	6,302	6,298	6,319	6,229	6,021	5,898	5,866	5,846	6,003
30-34	6,186	5,870	5,643	5,563	5,639	5,773	5,877	5,907	6,024	6,140	6,234	6,407	6,522	6,626	6,695	6,836	6,837	6,971	7,013	6,953	6,830	6,817	6,711	6,590	6,606	6,513
35-39	9,095	8,636	8,295	7,810	7,360	6,839	6,512	6,251	6,137	6,180	6,280	6,397	6,432	6,560	6,687	6,789	6,946	7,041	7,123	7,172	7,298	7,283	7,411	7,443	7,367	7,229
40-44	9,859	9,916	9,888	9,859	9,693	9,574	9,102	8,736	8,220	7,738	7,178	6,863	6,611	6,507	6,565	6,679	6,784	6,800	6,914	7,025	7,110	7,260	7,344	7,417	7,454	7,573
45-49	9,456	9,635	9,709	9,877	10,111	10,239	10,305	10,255	10,206	10,015	9,876	9,413	9,063	8,558	8,084	7,531	7,203	6,941	6,828	6,877	6,980	7,077	7,081	7,188	7,292	7,367
50-54	8,782	8,943	9,230	9,297	9,365	9,489	9,661	9,718	9,867	10,080	10,185	10,259	10,216	10,177	9,995	9,869	9,404	9,054	8,550	8,075	7,523	7,194	6,934	6,820	6,864	6,960
55-59	9,174	8,853	8,617	8,607	8,647	8,726	8,884	9,148	9,195	9,244	9,350	9,526	9,587	9,739	9,953	10,062	10,127	10,077	10,031	9,849	9,723	9,264	8,919	8,424	7,959	7,419
60-64	6,943	7,584	8,103	8,455	8,756	8,927	8,624	8,392	8,379	8,408	8,472	8,630	8,892	8,941	8,992	9,099	9,266	9,323	9,467	9,669	9,769	9,832	9,784	9,741	9,564	9,444
65-69	5,416	5,611	5,824	6,100	6,256	6,692	7,306	7,791	8,119	8,397	8,555	8,277	8,068	8,068	8,103	8,172	8,319	8,566	8,611	8,656	8,757	8,916	8,970	9,109	9,303	9,400
70-74	4,316	4,429	4,590	4,779	4,976	4,983	5,172	5,373	5,630	5,771	6,163	6,739	7,195	7,505	7,764	7,914	7,666	7,480	7,488	7,524	7,590	7,729	7,962	8,008	8,051	8,147
75-79	3,136	3,195	3,313	3,374	3,483	3,643	3,758	3,913	4,089	4,272	4,287	4,462	4,649	4,884	5,017	5,364	5,878	6,285	6,562	6,788	6,921	6,710	6,557	6,575	6,614	6,681
80-84	2,028	2,076	2,150	2,218	2,264	2,353	2,417	2,524	2,590	2,695	2,839	2,947	3,087	3,242	3,403	3,425	3,574	3,735	3,936	4,051	4,337	4,768	5,109	5,342	5,525	5,633
85-89	888	1,001	1,060	1,158	1,227	1,264	1,309	1,365	1,424	1,470	1,539	1,596	1,681	1,741	1,827	1,941	2,024	2,133	2,249	2,372	2,390	2,502	2,628	2,783	2,874	3,081
90+	411	415	420	444	518	571	634	668	733	811	858	919	970	1,043	1,115	1,184	1,253	1,332	1,409	1,502	1,607	1,694	1,802	1,912	2,035	2,102
Total	116,988	117,809	118,709	119,606	120,498	121,388	121,813	122,233	122,648	123,058	123,460	123,857	124,247	124,631	125,010	125,384	125,462	125,535	125,603	125,667	125,728	125,496	125,262	125,026	124,791	124,556

Females	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	6,283	6,356	6,314	6,232	6,096	5,936	5,700	5,623	5,560	5,510	5,466	5,429	5,403	5,389	5,384	5,386	5,373	5,361	5,347	5,330	5,306	5,256	5,200	5,139	5,074	5,005
5-9	6,802	6,762	6,757	6,689	6,726	6,811	6,873	6,805	6,694	6,527	6,339	6,104	6,038	5,984	5,941	5,904	5,850	5,810	5,783	5,765	5,757	5,734	5,713	5,691	5,666	5,637
10-14	7,780	7,576	7,440	7,380	7,322	7,268	7,220	7,191	7,095	7,107	7,169	7,245	7,181	7,076	6,913	6,730	6,481	6,402	6,336	6,281	6,231	6,171	6,122	6,086	6,060	6,044
15-19	7,260	7,515	7,694	7,785	7,764	7,666	7,464	7,302	7,232	7,152	7,073	7,032	6,997	6,917	6,934	6,996	7,068	6,988	6,870	6,700	6,509	6,274	6,177	6,101	6,037	5,981
20-24	5,083	5,146	5,170	5,182	5,253	5,393	5,570	5,709	5,765	5,724	5,615	5,435	5,294	5,223	5,151	5,081	5,008	4,955	4,872	4,875	4,924	4,953	4,866	4,743	4,576	4,394
25-29	5,066	5,013	4,942	5,014	5,067	5,083	5,092	5,086	5,044	5,063	5,154	5,334	5,493	5,560	5,532	5,435	5,223	5,059	4,954	4,862	4,780	4,691	4,628	4,528	4,514	4,546
30-34	7,173	6,725	6,408	6,108	6,019	5,987	5,895	5,771	5,804	5,814	5,781	5,808	5,817	5,778	5,805	5,910	6,071	6,216	6,261	6,209	6,089	5,847	5,664	5,545	5,441	5,348
35-39	9,643	9,443	9,247	8,921	8,536	7,996	7,524	7,169	6,822	6,694	6,621	6,541	6,420	6,474	6,500	6,475	6,485	6,466	6,401	6,404	6,489	6,650	6,787	6,820	6,751	6,615
40-44	10,109	10,286	10,228	10,182	10,019	10,042	9,830	9,611	9,260	8,841	8,263	7,797	7,451	7,112	6,994	6,933	6,839	6,699	6,744	6,757	6,715	6,717	6,687	6,611	6,604	6,679
45-49	9,380	9,460	9,682	9,958	10,192	10,318	10,482	10,404	10,339	10,155	10,157	9,954	9,744	9,403	8,992	8,421	7,948	7,594	7,247	7,121	7,050	6,950	6,803	6,843	6,851	6,802
50-54	8,819	9,017	9,142	9,211	9,329	9,477	9,548	9,754	10,012	10,228	10,336	10,506	10,432	10,373	10,194	10,203	9,994	9,780	9,434	9,019	8,445	7,972	7,618	7,269	7,143	7,070
55-59	8,783	8,465	8,442	8,559	8,702	8,858	9,050	9,160	9,213	9,315	9,445	9,520	9,729	9,989	10,209	10,320	10,481	10,400	10,337	10,154	10,160	9,952	9,737	9,394	8,981	8,412
60-64	6,814	7,490	7,912	8,281	8,587	8,742	8,423	8,392	8,499	8,630	8,773	8,966	9,078	9,134	9,237	9,369	9,437	9,638	9,889	10,100	10,204	10,360	10,279	10,215	10,035	10,041
65-69	5,501	5,696	5,919	6,106	6,265	6,663	7,323	7,724	8,074	8,360	8,501	8,199	8,178	8,289	8,422	8,565	8,751	8,856	8,909	9,006	9,132	9,196	9,391	9,635	9,840	9,940
70-74	4,727	4,804	4,919	5,026	5,202	5,242	5,429	5,641	5,816	5,964	6,337	6,971	7,356	7,691	7,965	8,102	7,819	7,803	7,913	8,042	8,180	8,357	8,459	8,511	8,606	8,728
75-79	3,935	4,026	4,062	4,132	4,163	4,264	4,347	4,463	4,572	4,741	4,782	4,964	5,167	5,335	5,476	5,822	6,413	6,769	7,078	7,328	7,455	7,202	7,194	7,303	7,426	7,556
80-84	3,115	3,098	3,157	3,168	3,240	3,291	3,378	3,421	3,496	3,539	3,641	3,732	3,851	3,963	4,124	4,170	4,335	4,519	4,669	4,796	5,102	5,630	5,947	6,217	6,433	6,542
85-89	1,853	1,968	2,056	2,199	2,159	2,206	2,201	2,253	2,278	2,343	2,392	2,470	2,519	2,596	2,648	2,745	2,829	2,932	3,032	3,166	3,205	3,344	3,496	3,620	3,726	3,967
90+	1,146	1,153	1,158	1,167	1,311	1,370	1,439	1,490	1,576	1,633	1,694	1,736	1,807	1,884	1,970	2,049	2,133	2,217	2,323	2,418	2,537	2,649	2,771	2,902	3,045	3,137
Total	119,272	119,999	120,647	121,298	121,954	122,612	122,787	122,967	123,152	123,342	123,540	123,743	123,953	124,169	124,390	124,616	124,538	124,465	124,397	124,333	124,272	123,904	123,538	123,174	122,809	122,444

Persons	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
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Total Population by Sex and 5-Year Age Group

Aberdeen City and Shire

Males	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	11,716	12,076	12,058	12,001	11,876	11,653	11,311	11,279	11,266	11,271	11,287	11,298	11,319	11,342	11,359	11,363	11,322	11,259	11,175	11,069	10,943	10,776	10,600	10,420	10,242	10,069
5-9	12,582	12,205	12,066	11,970	11,933	12,165	12,537	12,480	12,379	12,209	11,942	11,591	11,554	11,536	11,535	11,545	11,536	11,538	11,544	11,545	11,537	11,489	11,421	11,333	11,223	11,095
10-14	13,554	13,453	13,255	13,098	13,080	12,940	12,567	12,393	12,266	12,193	12,395	12,765	12,702	12,592	12,414	12,137	11,773	11,723	11,692	11,677	11,675	11,663	11,661	11,662	11,659	11,646
15-19	14,075	14,188	14,213	14,190	14,171	13,940	13,801	13,571	13,396	13,338	13,172	12,745	12,563	12,424	12,351	12,545	12,905	12,815	12,710	12,526	12,259	11,875	11,835	11,804	11,789	11,788
20-24	14,579	14,902	15,488	16,005	16,348	16,688	16,736	16,612	16,464	16,372	16,055	15,793	15,417	15,125	14,954	14,712	14,244	14,056	13,889	13,815	13,998	14,406	14,336	14,276	14,134	13,910
25-29	14,584	14,809	14,985	15,094	14,854	14,884	15,172	15,710	16,146	16,386	16,633	16,624	16,444	16,219	16,046	15,653	15,368	14,967	14,656	14,470	14,220	13,764	13,594	13,440	13,385	13,577
30-34	13,883	13,517	13,256	13,348	13,973	14,522	14,736	14,843	14,890	14,609	14,577	14,837	15,333	15,723	15,920	16,123	16,080	15,898	15,658	15,458	15,052	14,772	14,375	14,062	13,885	13,646
35-39	16,819	16,221	15,921	15,276	14,761	14,122	13,754	13,447	13,486	14,037	14,519	14,717	14,797	14,830	14,548	14,501	14,741	15,189	15,548	15,726	15,915	15,864	15,694	15,461	15,256	14,851
40-44	17,453	17,623	17,485	17,462	17,217	17,123	16,526	16,187	15,500	14,940	14,251	13,876	13,561	13,587	14,117	14,579	14,762	14,822	14,845	14,564	14,506	14,744	15,179	15,528	15,700	15,887
45-49	16,890	17,068	17,190	17,387	17,533	17,663	17,844	17,676	17,623	17,345	17,218	16,616	16,273	15,586	15,020	14,325	13,939	13,618	13,633	14,141	14,583	14,763	14,818	14,843	14,574	14,517
50-54	15,684	15,999	16,452	16,579	16,755	16,834	17,012	17,106	17,274	17,392	17,491	17,662	17,489	17,429	17,148	17,022	16,420	16,076	15,395	14,832	14,145	13,767	13,457	13,475	13,973	14,406
55-59	15,892	15,316	14,954	14,997	15,124	15,336	15,644	16,063	16,163	16,313	16,367	16,541	16,632	16,794	16,910	17,000	17,159	16,986	16,923	16,645	16,518	15,935	15,600	14,941	14,394	13,728
60-64	11,618	12,714	13,543	14,198	14,853	15,147	14,622	14,277	14,315	14,427	14,616	14,914	15,317	15,415	15,557	15,613	15,781	15,868	16,024	16,137	16,222	16,377	16,219	16,164	15,901	15,783
65-69	9,490	9,683	9,898	10,197	10,271	10,866	11,902	12,680	13,292	13,896	14,169	13,695	13,387	13,436	13,549	13,734	14,013	14,393	14,486	14,620	14,679	14,843	14,930	15,085	15,204	15,291
70-74	7,961	8,034	8,246	8,361	8,551	8,540	8,740	8,953	9,237	9,312	9,853	10,813	11,538	12,107	12,658	12,913	12,496	12,229	12,288	12,401	12,577	12,840	13,198	13,294	13,422	13,486
75-79	5,899	5,983	6,190	6,320	6,454	6,609	6,716	6,934	7,064	7,256	7,264	7,458	7,665	7,928	8,009	8,489	9,343	9,990	10,492	10,966	11,190	10,846	10,631	10,704	10,818	10,988
80-84	3,692	3,850	3,956	4,099	4,198	4,341	4,449	4,636	4,775	4,916	5,070	5,188	5,390	5,521	5,700	5,722	5,896	6,084	6,313	6,393	6,792	7,508	8,049	8,464	8,843	9,024
85-89	1,747	1,896	1,985	2,127	2,189	2,253	2,382	2,461	2,577	2,669	2,785	2,887	3,031	3,149	3,269	3,397	3,498	3,658	3,768	3,909	3,932	4,068	4,223	4,402	4,470	4,762
90+	711	728	732	764	924	1,025	1,112	1,161	1,255	1,374	1,462	1,580	1,651	1,771	1,892	2,008	2,134	2,258	2,394	2,532	2,672	2,801	2,963	3,102	3,262	3,351
Total	218,829	220,266	221,872	223,472	225,065	226,651	227,565	228,471	229,368	230,254	231,128	231,602	232,064	232,515	232,954	233,381	233,409	233,426	233,432	233,427	233,414	233,102	232,784	232,460	232,134	231,806

Females	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	11,194	11,379	11,331	11,307	11,115	10,939	10,618	10,588	10,577	10,582	10,597	10,609	10,629	10,651	10,668	10,671	10,634	10,576	10,496	10,396	10,276	10,120	9,955	9,784	9,616	9,452
5-9	11,435	11,374	11,364	11,192	11,357	11,503	11,674	11,593	11,531	11,305	11,094	10,764	10,731	10,715	10,714	10,725	10,719	10,722	10,730	10,733	10,727	10,683	10,620	10,537	10,434	10,313
10-14	12,847	12,496	12,184	12,012	11,791	11,680	11,604	11,563	11,360	11,489	11,602	11,772	11,686	11,616	11,386	11,170	10,830	10,782	10,751	10,738	10,736	10,725	10,723	10,725	10,724	10,713
15-19	14,167	14,277	13,874	13,865	13,691	13,255	12,899	12,541	12,333	12,078	11,950	11,799	11,742	11,515	11,675	11,778	11,914	11,805	11,773	11,511	11,312	10,949	10,922	10,892	10,878	10,876
20-24	14,285	14,960	15,934	16,617	17,118	17,603	17,454	16,866	16,698	16,391	15,834	15,322	14,762	14,394	13,942	13,687	13,493	13,404	13,131	13,307	13,398	13,600	13,519	13,534	13,340	13,202
25-29	12,606	12,787	12,968	12,975	13,093	13,407	13,990	14,911	15,468	15,846	16,201	16,007	15,417	15,164	14,767	14,135	13,572	12,984	12,573	12,105	11,832	11,638	11,554	11,304	11,471	11,574
30-34	14,106	13,308	12,766	12,389	12,415	12,476	12,582	12,676	12,653	12,726	12,967	13,517	14,364	14,862	15,198	15,504	15,318	14,760	14,476	14,051	13,412	12,827	12,244	11,830	11,382	11,109
35-39	17,104	16,826	16,519	15,972	15,266	14,397	13,582	12,995	12,556	12,516	12,518	12,603	12,665	12,663	12,742	12,972	13,484	14,253	14,712	15,022	15,297	15,135	14,602	14,313	13,880	13,241
40-44	17,901	17,953	17,780	17,618	17,306	17,257	16,971	16,630	16,047	15,300	14,384	13,567	12,977	12,528	12,474	12,466	12,529	12,567	12,569	12,643	12,857	13,357	14,098	14,544	14,847	15,111
45-49	16,946	17,118	17,340	17,567	17,798	17,939	17,978	17,780	17,594	17,255	17,176	16,888	16,543	15,959	15,211	14,295	13,478	12,884	12,429	12,364	12,345	12,403	12,435	12,444	12,521	12,730
50-54	15,343	15,638	15,993	16,313	16,609	16,818	16,975	17,176	17,384	17,594	17,710	17,748	17,549	17,364	17,025	16,946	16,650	16,300	15,716	14,972	14,062	13,254	12,669	12,218	12,152	12,132
55-59	15,351	14,791	14,614	14,606	14,829	15,086	15,376	15,706	16,000	16,272	16,460	16,613	16,812	17,020	17,227	17,339	17,374	17,171	16,985	16,648	16,567	16,274	15,928	15,354	14,623	13,730
60-64	11,770	12,833	13,482	14,143	14,651	14,909	14,369	14,196	14,186	14,393	14,631	14,919	15,240	15,525	15,789	15,974	16,118	16,312	16,515	16,716	16,821	16,858	16,662	16,483	16,158	16,082
65-69	10,145	10,326	10,577	10,745	10,801	11,275	12,300	12,918	13,544	14,022	14,262	13,754	13,599	13,602	13,808	14,043	14,321	14,627	14,899	15,152	15,330	15,471	15,664	15,865	16,063	16,166
70-74	9,300	9,254	9,295	9,378	9,585	9,533	9,717	9,960	10,123	10,179	10,625	11,604	12,193	12,787	13,237	13,466	12,998	12,861	12,877	13,079	13,306	13,575	13,868	14,130	14,375	14,551
75-79	7,959	8,108	8,128	8,155	8,125	8,205	8,204	8,272	8,375	8,585	8,555	8,742	8,980	9,142	9,207	9,622	10,533	11,080	11,625	12,034	12,243	11,833	11,723	11,755	11,951	12,170
80-84	6,191	6,150	6,225	6,248	6,358	6,438	6,593	6,643	6,703	6,718	6,825	6,868	6,963	7,085	7,293	7,292	7,473	7,694	7,848	7,920	8,291	9,104	9,590	10,069	10,418	10,597
85-89	3,541	3,793	3,978	4,231	4,163	4,186	4,183	4,261	4,310	4,417	4,503	4,645	4,714	4,796	4,844	4,964	5,033	5,136	5,258	5,441	5,456	5,617	5,807	5,942	6,014	6,310
90+	2,120	2,076	2,061	2,052	2,293	2,443	2,563	2,655	2,789	2,881	2,981	3,057	3,171	3,298	3,438	3,570	3,722	3,854	4,005	4,142	4,319	4,474	4,634	4,815	5,020	5,135
Total																										

Appendix 4

Headship Rates used in Household Forecasts

ABERDEEN CITY - HEADSHIP RATES

Household Type	Age Group	2006	2011	2016	2021	2026	2031
1 person male	16-24	0.056889	0.062514	0.067933	0.073142	0.078147	0.082956
	25-29	0.168842	0.190405	0.209937	0.227563	0.243462	0.257804
	30-34	0.161395	0.183334	0.203466	0.221840	0.238601	0.253890
	35-44	0.129287	0.147572	0.164748	0.180837	0.195906	0.210018
	45-54	0.121934	0.141983	0.160899	0.178676	0.195375	0.211062
	55-59	0.098510	0.111843	0.124737	0.137188	0.149208	0.160813
	60-64	0.092763	0.102412	0.111778	0.120857	0.129654	0.138180
	65-74	0.088899	0.093311	0.097547	0.101612	0.105512	0.109254
	75-84	0.097887	0.096470	0.095038	0.093592	0.092135	0.090664
85+	0.134671	0.149263	0.163523	0.177452	0.191054	0.204339	
1 person female	16-24	0.061742	0.071465	0.080848	0.089876	0.098562	0.106919
	25-29	0.115466	0.129624	0.142607	0.154477	0.165328	0.175246
	30-34	0.099350	0.113001	0.125709	0.137484	0.148388	0.158487
	35-44	0.070313	0.081131	0.091422	0.101188	0.110453	0.119244
	45-54	0.076292	0.084152	0.091626	0.098710	0.105423	0.111783
	55-59	0.102629	0.107709	0.112598	0.117300	0.121822	0.126170
	60-64	0.110196	0.103042	0.096255	0.089831	0.083751	0.077998
	64-74	0.193292	0.178935	0.165449	0.152813	0.140979	0.129894
	75-84	0.361869	0.345934	0.330573	0.315779	0.301531	0.287811
85+	0.513533	0.504286	0.495043	0.485817	0.476609	0.467419	
2 person all adult	16-24	0.104955	0.114169	0.122982	0.131390	0.139409	0.147058
	25-29	0.186811	0.194832	0.201790	0.207832	0.213078	0.217633
	30-34	0.141747	0.151417	0.160216	0.168193	0.175423	0.181975
	35-44	0.078411	0.078734	0.078879	0.078915	0.078923	0.078925
	45-54	0.149690	0.144945	0.140051	0.135062	0.129979	0.124803
	55-59	0.263701	0.261278	0.258598	0.255693	0.252550	0.249149
	60-64	0.315300	0.316941	0.318239	0.319240	0.320010	0.320602
	64-74	0.325362	0.327650	0.329508	0.330996	0.332185	0.333134
	75-84	0.258791	0.260709	0.262514	0.264214	0.265814	0.267320
85+	0.158434	0.150179	0.142308	0.134806	0.127658	0.120845	
1 adult, 1 child	16-24	0.018804	0.019402	0.019961	0.020483	0.020971	0.021426
	25-29	0.024587	0.024144	0.023634	0.023074	0.022463	0.021797
	30-34	0.030325	0.033197	0.035881	0.038381	0.040710	0.042878
	35-44	0.034125	0.039513	0.044677	0.049615	0.054337	0.058851
	45-54	0.017566	0.021357	0.025024	0.028560	0.031967	0.035250
	55-59	0.004533	0.005181	0.005818	0.006443	0.007056	0.007657
	60-64	0.001662	0.001864	0.002063	0.002258	0.002450	0.002638
	64-74	0.000852	0.000959	0.001063	0.001166	0.001266	0.001364
	75-84	0.000571	0.000559	0.000547	0.000536	0.000524	0.000512
85+	0.001925	0.002414	0.002902	0.003386	0.003869	0.004349	

ABERDEEN CITY - HEADSHIP RATES (continued)

Household Type	Age Group	2006	2011	2016	2021	2026	2031
3+ person all adult	16-24	0.061522	0.075164	0.088310	0.100942	0.113075	0.124730
	25-29	0.018846	0.020834	0.022682	0.024399	0.025993	0.027474
	30-34	0.006280	0.006035	0.005782	0.005525	0.005265	0.005000
	35-44	0.018273	0.013169	0.009470	0.006798	0.004867	0.003472
	45-54	0.104194	0.089806	0.077240	0.066301	0.056782	0.048498
	55-59	0.096391	0.084998	0.074871	0.065885	0.057912	0.050839
	60-64	0.070722	0.064604	0.058957	0.053752	0.048957	0.044538
	65-74	0.042197	0.038212	0.034563	0.031228	0.028182	0.025398
	75-84	0.030124	0.029736	0.029342	0.028943	0.028538	0.028128
85+	0.025450	0.028645	0.031813	0.034952	0.038063	0.041146	
1 adult 2+ children	16-24	0.004691	0.004317	0.003966	0.003638	0.003332	0.003046
	25-29	0.018192	0.016834	0.015527	0.014285	0.013106	0.011987
	30-34	0.032709	0.031941	0.031096	0.030192	0.029229	0.028202
	35-44	0.036879	0.042652	0.048182	0.053467	0.058517	0.063342
	45-54	0.007063	0.008604	0.010099	0.011545	0.012942	0.014291
	55-59	0.000589	0.000693	0.000795	0.000895	0.000994	0.001090
	60-64	0.000178	0.000152	0.000130	0.000111	0.000094	0.000080
	64-74	0.000142	0.000170	0.000197	0.000223	0.000249	0.000275
	75-84	0.000146	0.000194	0.000242	0.000290	0.000337	0.000385
85+	0.000537	0.000716	0.000894	0.001071	0.001247	0.001422	
2+ adult 1+ children	16-24	0.012571	0.009985	0.007918	0.006270	0.004955	0.003907
	25-29	0.054405	0.040702	0.030353	0.022573	0.016729	0.012338
	30-34	0.148773	0.124997	0.104700	0.087460	0.072825	0.060400
	35-44	0.247493	0.230208	0.213679	0.197983	0.183090	0.168957
	45-54	0.149512	0.157275	0.164479	0.171145	0.177312	0.183018
	55-59	0.035795	0.036570	0.037297	0.037981	0.038624	0.039228
	60-64	0.011198	0.009477	0.008011	0.006766	0.005708	0.004809
	64-74	0.003650	0.002735	0.002047	0.001530	0.001142	0.000850
	75-84	0.001800	0.001450	0.001167	0.000939	0.000756	0.000608
85+	0.004073	0.005274	0.006468	0.007656	0.008838	0.010013	

ABERDEENSHIRE - HEADSHIP RATES

Household Type	Age Group	2006	2011	2016	2021	2026	2031
1 person male	16-24	0.018961	0.018510	0.018059	0.017608	0.017158	0.016709
	25-29	0.072616	0.079202	0.085410	0.091248	0.096736	0.101896
	30-34	0.076708	0.088752	0.100278	0.111269	0.121747	0.131735
	35-44	0.058427	0.066598	0.074515	0.082178	0.089593	0.096770
	45-54	0.056236	0.061512	0.066583	0.071447	0.076113	0.080587
	55-59	0.061547	0.067582	0.073419	0.079055	0.084496	0.089749
	60-64	0.068863	0.072931	0.076788	0.080441	0.083899	0.087175
	65-74	0.072754	0.071346	0.069862	0.068318	0.066713	0.065046
	75-84	0.117249	0.121846	0.126371	0.130828	0.135218	0.139541
85+	0.143870	0.151700	0.159055	0.165978	0.172495	0.178632	
1 person female	16-24	0.015417	0.016437	0.017439	0.018424	0.019391	0.020342
	25-29	0.042810	0.050446	0.057744	0.064695	0.071312	0.077612
	30-34	0.026709	0.030850	0.034851	0.038705	0.042416	0.045990
	35-44	0.024236	0.027863	0.031398	0.034840	0.038193	0.041457
	45-54	0.041768	0.046097	0.050270	0.054285	0.058148	0.061864
	55-59	0.060530	0.060555	0.060496	0.060339	0.059953	0.059006
	60-64	0.080360	0.071989	0.064375	0.057474	0.051221	0.045556
	64-74	0.158648	0.144584	0.131572	0.119572	0.108507	0.098306
	75-84	0.346922	0.346064	0.345109	0.344071	0.342943	0.341718
85+	0.523040	0.547005	0.568021	0.586420	0.602526	0.616625	
2 person all adult	16-24	0.028711	0.024654	0.021156	0.018144	0.015550	0.013316
	25-29	0.135978	0.135985	0.135658	0.134979	0.133646	0.131031
	30-34	0.114318	0.123504	0.132202	0.140412	0.148161	0.155473
	35-44	0.072991	0.076446	0.079748	0.082909	0.085935	0.088831
	45-54	0.175108	0.181069	0.186588	0.191692	0.196412	0.200776
	55-59	0.304961	0.313393	0.321167	0.328328	0.334923	0.340998
	60-64	0.356737	0.367372	0.376936	0.385515	0.393209	0.400109
	64-74	0.367852	0.379916	0.390968	0.401073	0.410311	0.418757
	75-84	0.282709	0.285347	0.287885	0.290334	0.292697	0.294977
85+	0.145433	0.130599	0.117090	0.104842	0.093743	0.083685	
1 adult, 1 child	16-24	0.014730	0.016934	0.019109	0.021255	0.023371	0.025458
	25-29	0.027094	0.031705	0.036125	0.040348	0.044381	0.048234
	30-34	0.024808	0.029699	0.034435	0.039005	0.043415	0.047668
	35-44	0.018446	0.021045	0.023581	0.026052	0.028460	0.030806
	45-54	0.011692	0.013954	0.016158	0.018300	0.020382	0.022404
	55-59	0.002295	0.002269	0.002241	0.002210	0.002177	0.002141
	60-64	0.001826	0.002110	0.002386	0.002654	0.002914	0.003165
	64-74	0.000692	0.000701	0.000708	0.000715	0.000720	0.000725
	75-84	0.001766	0.002240	0.002712	0.003182	0.003649	0.004115
85+	0.001644	0.002174	0.002693	0.003198	0.003690	0.004169	

ABERDEENSHIRE - HEADSHIP RATES (continued)

Household Type	Age Group	2006	2011	2016	2021	2026	2031
3+ person all adult	16-24	0.003982	0.004341	0.004695	0.005043	0.005387	0.005726
	25-29	0.003867	0.003587	0.003319	0.003064	0.002823	0.002595
	30-34	0.003967	0.003993	0.004010	0.004021	0.004027	0.004031
	35-44	0.016565	0.012368	0.009224	0.006871	0.005111	0.003794
	45-54	0.102990	0.089063	0.076891	0.066280	0.057033	0.048973
	55-59	0.097687	0.085017	0.073890	0.064139	0.055595	0.048110
	60-64	0.064472	0.054797	0.046491	0.039380	0.033294	0.028084
	65-74	0.041665	0.035883	0.030858	0.026501	0.022724	0.019449
	75-84	0.030584	0.029071	0.027624	0.026243	0.024925	0.023666
	85+	0.012553	0.008738	0.006072	0.004214	0.002919	0.002016
1 adult 2+ children	16-24	0.004084	0.004545	0.005000	0.005449	0.005892	0.006329
	25-29	0.018114	0.020025	0.021845	0.023574	0.025218	0.026779
	30-34	0.029312	0.032439	0.035445	0.038327	0.041089	0.043736
	35-44	0.028907	0.033338	0.037654	0.041853	0.045940	0.049915
	45-54	0.005622	0.006703	0.007758	0.008784	0.009783	0.010754
	55-59	0.001132	0.001438	0.001738	0.002033	0.002321	0.002605
	60-64	0.000251	0.000232	0.000214	0.000198	0.000182	0.000167
	64-74	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	75-84	0.000298	0.000396	0.000495	0.000593	0.000690	0.000788
	85+	0.001096	0.001450	0.001796	0.002133	0.002461	0.002781
2+ adult 1+ children	16-24	0.017510	0.014818	0.012531	0.010591	0.008945	0.007549
	25-29	0.114393	0.096129	0.080588	0.067416	0.056255	0.046798
	30-34	0.237851	0.213161	0.190660	0.170223	0.151667	0.134819
	35-44	0.323062	0.310574	0.298197	0.286014	0.274030	0.262243
	45-54	0.176171	0.181160	0.185733	0.189922	0.193758	0.197272
	55-59	0.038397	0.037079	0.035758	0.034441	0.033131	0.031826
	60-64	0.015821	0.014709	0.013651	0.012648	0.011699	0.010801
	64-74	0.004640	0.003778	0.003072	0.002494	0.002022	0.001635
	75-84	0.001931	0.001391	0.001002	0.000721	0.000519	0.000373
	85+	0.002878	0.003174	0.003461	0.003737	0.004004	0.004262

Appendix 5

Adjustments

ABERDEEN CITY AND SHIRE

STRATEGIC FORECASTS 2006-2031

are also available from

www.aberdeencity.gov.uk

www.aberdeenshire.gov.uk