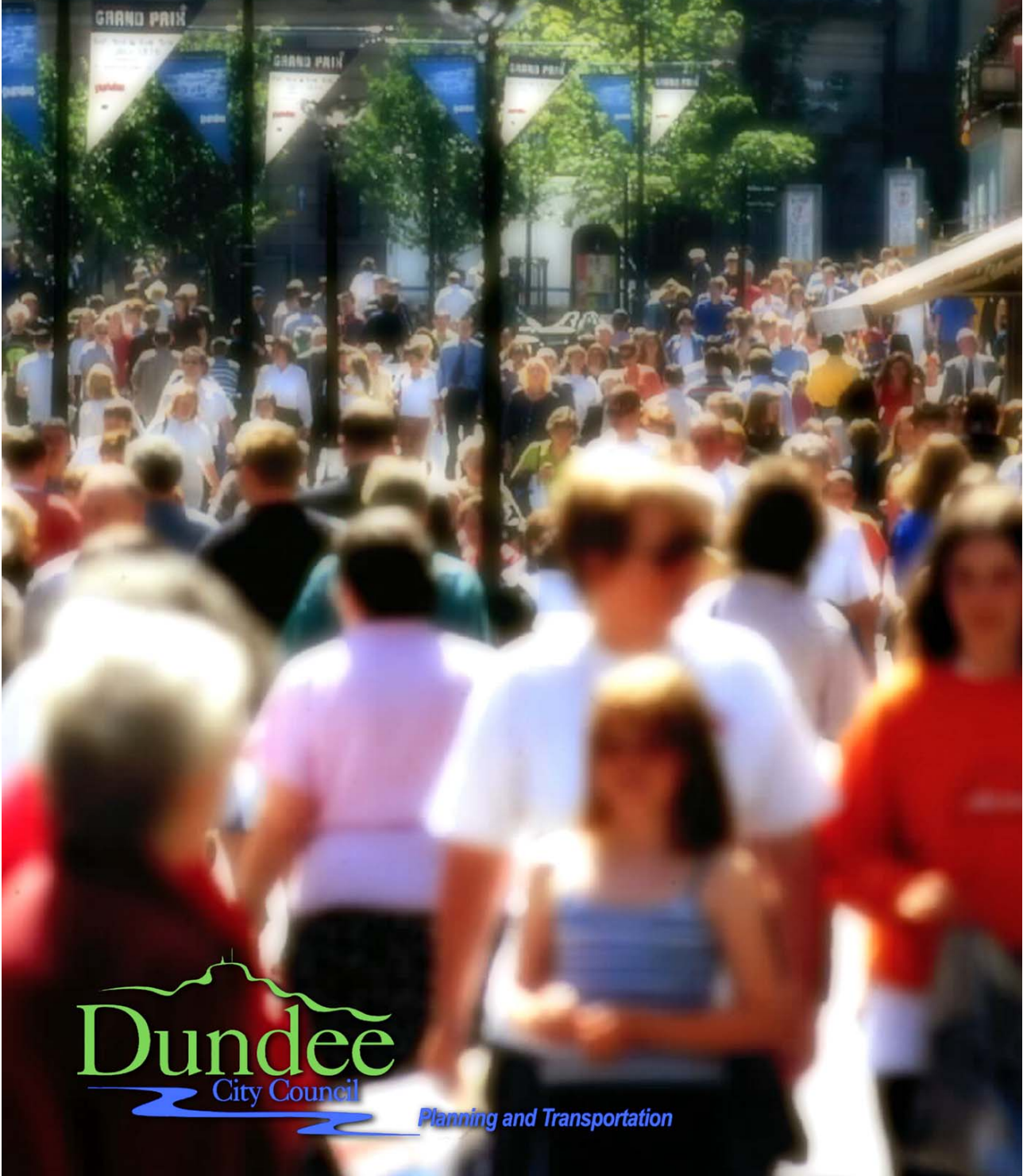


POPULATION MATTERS

December 2004



Dundee
City Council

Planning and Transportation

POPULATION MATTERS

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2 BACKGROUND

- 2.1 This report provides an analysis of the current and projected population situation in Dundee City. It is intended to highlight the main issues regarding recent and future population change throughout the City.
- 2.2 It supports a Committee Report to Dundee City Council's Planning and Transportation Committee. However, it is also intended to be used as a stand alone reference document on population data.
- 2.3 In 2000 the Planning and Transportation Department produced a vital document called "Population Trends", which examined population changes in Dundee, the reasons for them and options as to how they might be influenced. This document became a crucial element in developing a City Vision for Dundee and influenced the advancement of a number of key strategies by the Council and its Partner organisations in tackling population decline.

Many of these strategies have now been incorporated in statutory documents and some are at advanced stages of implementation. It is widely recognised that these have had a tangible influence in bringing about major change in critical parts of the City and helping to make it a more attractive place to live both helping to retain the existing population and possibly attracting incomers.

It was always recognised however, that only certain selected parts of the City could be concentrated on at any one time to focus scarce resources and make a significant change, rather than a 'scattergun' approach across the City as a whole. In addition it was envisaged that the most successful strategies would act as 'pilots' for other possible projects elsewhere.

It is now important to follow-up the success that has been achieved to date by looking to replicate this in other areas. Measures have already been put in place through the Dundee Partnership to start the process of updating, refocusing and augmenting current strategies, and this Report will be one of the main inputs to that process.

It is particularly important, with a view to the impending introduction of 'City Region' Strategic Planning, that this report will also help to advise strategies of a much wider nature, and influence the City's inter-action with its hinterland and role as major provider of facilities in the broader context.

- 2.4 Since the production of "Population Trends" new information has become available such as the 2001 Census, 2002 General Register Office for (Scotland) (GRO(S)) Population Projections, Scottish Neighbourhood Statistics and the Scottish Index of Multiple Deprivation. This new data allows us to take a fresh look at the current population situation in Dundee, and in particular gain some idea on how future changes might be structured.
- 2.5 The Scottish national population is projected to fall below 5 million by 2009, reaching 4.8 million by 2027. By the latter year, the proportion of children under 16 is projected to have fallen by 19 per cent and that of people aged 75 and over to have increased by 61 percent. The issues and implications arising from an ageing population are given particular focus within this report.
- 2.6 The report will increase awareness of the current and future population issues and their implications, which in turn should be reflected in policy and practice by service departments within the Council, and its partner organisations.

COMPONENTS OF POPULATION

It is worthwhile to give a brief background on the statistics which shall be discussed in later sections

2.1 2001 Census

The 10 yearly (decennial) censuses are the only population surveys with full UK-wide coverage, and a count of all people normally resident in the country. They form the basis of the annual mid-year population estimates, and the two-yearly population projections, which will be discussed in more detail later in this section and section 7. The last Census was carried out in April 2001 with most of the data being released by spring 2004.

2.2 General Register Office (Scotland) Mid Year Estimates

The General Register Office (Scotland) produce mid-year population estimates for Scotland, Local Authority and Health Board areas. The mid-year estimate is an estimate of the population at the mid-point of the year, i.e. the 30th of June. The estimates are usually released in the spring of the year following the year for which the estimate is given.

2.3 Births and Deaths

To be able to provide an accurate population estimate the number of births and deaths, prior to the time of the estimate, and since the last Census, are accounted for. These two elements of the estimate are reliable and are estimated from data in the civil registration system. They are easy to estimate as they are virtually complete.

2.4 Migration

Migration is the most difficult component of population change to estimate. There is no system which has complete coverage of migration between the UK and the rest of the world, or within the UK itself. Migration estimates have therefore been based on survey data, and the best proxy data available. These are the International Passenger Survey (IPS) which covers moves between Scotland and outside of the UK, and the National Health Service Central Register (NHSCR) for migration between health board areas in the UK. To obtain details of movement between local authority areas, data from the Community Health Index (CHI) is used, which has details of people registered with an NHS doctor in Scotland. The records contain postcodes of patient addresses, so it is possible to estimate migration between council areas (and potentially smaller areas as well). By comparing extracts from the Index taken one year apart it is possible to identify those people who have moved from one local authority to another.

2.5 Population Projections

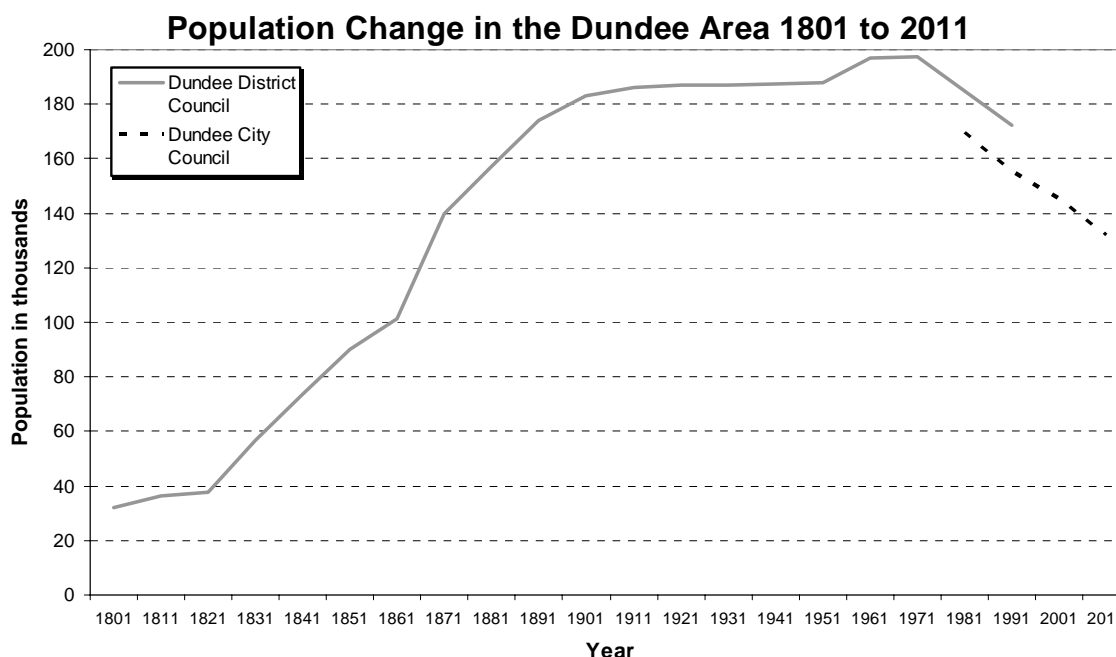
The General Register Office (Scotland) releases population projections every two years, and the latest set available are the 2002-based projections which are used in this report. Population projections for Scotland are normally prepared every two years by the Government Actuary's Department (GAD) in consultation with, and at the request of, GRO(S). The Demography Branch uses these projections as a basis for preparing consistent sub-national projections for the local authority and health board areas of Scotland. The base used for population projections is the population estimate for that year; therefore the projections, like the estimates, are mid-year (30 June) based. Each set of projections normally entails a full-scale review of the underlying assumptions about fertility, mortality and migration, the patterns of which are then projected forwards into the future.

3 DUNDEE'S POPULATION

3.1 Historical Population

It is well documented that Dundee has seen a steady decline in its population since the early 1970's. Figure 1 gives a clear illustration of the changes that have occurred in the City's population over the last 200 years and how it is expected to change in the future. The graph shows that the population of Dundee started to decline at the start of the 1970's then continued to decline through the next two decades until Local Government Reorganisation in 1996. The trend then continued and is predicted to continue (the population projections are discussed later in Section 4.3). In 1991 Dundee contained 3.38% of Scotland's population, it currently contains 2.83%.

FIGURE 1, DUNDEE'S POPULATION LAST 200 YEARS



Source: 1801 to 2001 Censuses (Crown Copyright) & GRO (Scotland) 2011 Population Projections

3.1.1 Mid Year Population Estimates

Prior to the 2001 Census results being available, mid-year estimates showed that Dundee's population had declined on average about 1000 per year. Comparison of population figures from the 1991 and 2001 Censuses confirmed that there was a decline of 7.3% meaning the GRO(S) had overestimated the decline of the total population by 3%. In contrast Glasgow's had declined more than was previously estimated, leading to an overestimate of the total population of 6%. This underestimation suggests that the net out-migration from Dundee was therefore likely to be less than previously thought, and indeed recent figures show a reduction in the net out migration figure used in the latest projections. This is discussed in paragraph 3.1.3.

TABLE 1, RECENT POPULATION CHANGE IN DUNDEE

Year	Population	Annual change	Annual % change
1991	155,550	-	-
1992	154,960	-590	-0.4%
1993	154,000	-960	-0.6%

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1994	152,200	-1,800	-1.2%
1995	152,460	260	0.2%
1996	152,200	-260	-0.2%
1997	151,350	-850	-0.6%
1998	149,680	-1,670	-1.1%
1999	147,970	-1,710	-1.1%
2000	146,610	-1,360	-0.9%
2001	145,460	-1,150	-0.8%
2002	144,180	-1,280	-0.9%
2003	143,090	-1,090	-0.8%

Net population change 1991 to 2003 = -8.0%.

Source: GRO (Scotland) Mid-year Population Estimates 1991 to 2003

3.1.2 Births and Deaths

Table 2 below shows that since 1993 we have consistently seen more deaths than births in Dundee, and this has also been a national trend since 1997. "Population Trends" identified that this was likely to continue. The number of births recorded in Scotland in 2002 was the lowest total since civil registration began in 1855. The number of births in Dundee has dropped by 19% since 1993. In turn the number of deaths also dropped, but at a far less dramatic rate, and they continue to remain higher than the number of births.

TABLE 2, RECENT COMPONENTS OF POPULATION CHANGE IN DUNDEE

	Estimated population first year	Births	Deaths	Natural change	Migration & Other Changes	Estimated population second year	Net Population change	Net % Population change
1993-94	154,000	1,863	1,988	-125	-1,675	152,200	-1,800	-1.2%
1994-95	152,200	1,755	1,964	-209	469	152,460	260	0.2%
1995-96	152,460	1,712	1,896	-184	-76	152,200	-260	-0.2%
1996-97	152,200	1,778	1,910	-132	-718	151,350	-850	-0.6%
1997-98	151,350	1,677	1,910	-233	-1,437	149,680	-1,670	-1.1%
1998-99	149,680	1,562	1,915	-353	-1,357	147,970	-1,710	-1.1%
1999-00	147,970	1,527	1,905	-378	-982	146,610	-1,360	-0.9%
2000-01	146,610	1,410	1,823	-413	-737	145,460	-1,150	-0.8%
2001-02	145,460	1,449	1,830	-381	-899	144,180	-1,280	-0.9%
2002-03	144,180	1,505	1,883	-378	-712	143,090	-1,090	-0.8%
TOTAL CHANGE								
1993/94 TO 2002/03		16,238	19,024	-2,786	-8,124		-10,910	-7.08%

Source: GRO (Scotland) Mid-year Population Estimates 1993 to 2003

The Scottish Executive has recognised this national trend in the falling birth rate and its implications. Recent policy interventions have been geared less towards encouraging the present population to have children, and more towards raising the attractiveness of Scotland as a place to live and work. In effect the Scottish Executive hope to counteract Scotland's ageing population by attracting more young economically active people from other parts of the world.

3.1.3 Migration

In addition to births and deaths, migration is a major determinant of changes in population levels. If more people leave an area than come into it, there will be net outward migration resulting in a reduction in population.

The Registrar General's latest migration assumptions, which were used for his 2002 based population projections, are the first since the 2001 Census figures were released. They give a net

outward migration from Dundee City of 1000 persons, which is a reduction from the previous 2000 based projections, when the assumption was a net out migration of 1250. This is the first reduction in the net out migration assumption by the Registrar General since 1994.

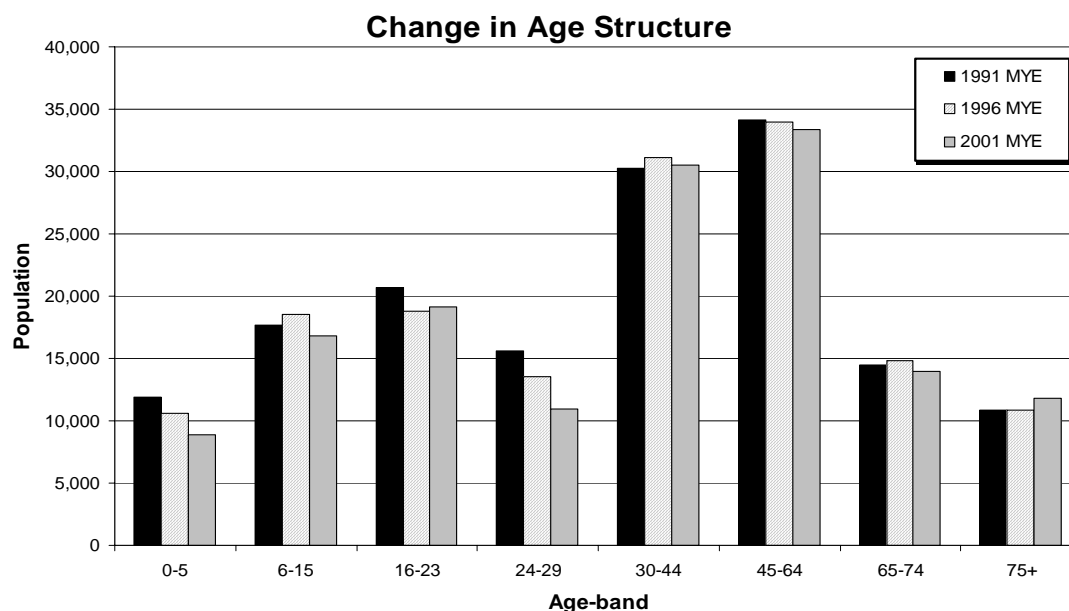
The assumptions are based on past trends of Mid-year estimates. Between 1998 and 2002 the net annual out migration has shown an average of 1000, and indeed the 2001 Census figure confirmed that the population of Dundee City had reduced by slightly over 10,000 since 1991. The Census did recognise that the overall figure for Dundee's population estimate had been underestimated, mainly as a result of errors in the 1991 Census. Though it is still in a state of decline the number is less annually than assumed in previous estimates. Previous figures have been revised to take this into account.

It is important to note that the projections should not be treated as forecasts, but as an indication of what might happen in the future if past trends were to continue. Among the reasons for producing long term projections is to allow policy responses to be developed to address undesirable demographic trends. A key objective of the Council, through many of its plans and strategies, is to address the issue of population decline in Dundee, and an integrated approach is being pursued to make the City a more attractive place to live and work. The effective implication of these policies may have a positive impact on future migration patterns.

3.1.4 Changing Age Structure

Overall population figures are important, but perhaps of greater policy significance are changes in the actual structure of the population. There has been a marked change in the age structure of the population in Dundee since 1991. Of particular note are the decrease of 8 per cent in the number of children under 15 and the increase of 11 per cent in the numbers aged 75 and over. The ageing of the population is evident in the large rise of the 45-59 age groups and the fall in the 15-29 age groups. Figure 2 below outlines the change in age structure since 1991.

FIGURE 2. CHANGE IN AGE STRUCTURE SINCE 1991



Source: GRO (Scotland) Mid-year Population Estimates 1991, 1996 & 2001

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The age composition is one of the most important aspects of the population, as changes in different age groups will have different social and economic impacts. For example, decreases in the number of children, and increases in the elderly population, will shift the demand from education to health and social services. The decrease in the younger age groups and increase in the older age groups of the population is discussed in Section 4.4.

3.1.5 Population Movement

When "Population Trends" was published in 1999, up to date information on the origins and destinations of those moving was not available. 2001 Census origin/destination data allows us to look at where people moved to and from in the year previous to the Census being taken. Although based on only 1 year's movement, and not on a trend, this gives us at least some indication of the movements of particular age groups.

TABLE 3, OUT-MIGRANT DESTINATIONS FROM DUNDEE BY AGE GROUP

Emigrant destination	0-17	18-24	25-29	30-39	40-59	60+	Total Emigrants
Aberdeen	13	44	24	27	11	5	124
Angus	281	117	143	247	192	144	1,124
Edinburgh	21	188	100	34	13	8	364
Fife	98	120	83	95	72	37	505
Glasgow	21	95	49	32	17	6	220
Perth & Kinross	100	85	75	122	79	44	505
Central Belt LAs	49	105	54	45	25	8	286
All other Scottish LAs	57	114	55	57	43	19	345
Rest of UK	194	527	261	240	118	36	1,376
TOTAL	834	1,395	844	899	570	307	4,849

Source: 2001 Census (Crown Copyright)

The migrant figures above are based on question 9 in the individual 2001 Census form "What was your usual address one year ago?" This means that the above data is based on those people who had moved address during the year immediately prior to 29th April 2001

The table above shows that the most popular Scottish destination of people who moved from Dundee was to the Angus area, spread relatively evenly across age groups. It is interesting to note the high amount of movement in the 60+ age group. The figures would also indicate that families with children are also moving across the boundary.

Perth and Kinross and Fife Councils both have the same amount of people moving to those areas. However the structure of the age groups is different in that those moving to Perth and Kinross are mainly in the under 40 age groups, whereas movement to Fife is still quite high in the older age groups.

The highest amount of movement took place in the 18-24 age groups, the most popular destination being Edinburgh. This is likely to be due to people leaving to attend college/university and also people who have attended higher education in Dundee moving to the Central belt seeking employment. In the 25-29 age groups movement was similar, but to a lesser degree.

In-migration

The figures for the same one-year period are provided for in-migration to Dundee from other Scottish local authorities and the rest of the UK in table 4 below. Overall this clearly shows that there is more in-migration to, than out-migration from, Dundee and other Scottish local authorities, and the rest of the UK. However, out-migration figures from Dundee to abroad are not available, and it is understood that this figure would be significantly larger than the number of immigrants to Dundee, which is 1,061. It is also worth noting that 1,430 people moving to Dundee did not state their place of origin, although most of this number will have been accounted for by moves taking place within Dundee itself. When these points are considered, along with the fact that the data only represents a snapshot of a one year period, then some caution must be exercised as to how much these patterns might be representative of other years.

TABLE 4. ORIGINS OF IN-MIGRANTS TO DUNDEE BY AGE GROUP

Immigrant origin	0-17	18-24	25 to 29	30-39	40-59	60+	Total immigrants
Aberdeen	20	59	24	29	8	1	141
Angus	172	271	114	154	124	58	893
Edinburgh	22	113	24	25	19	17	220
Fife	57	306	59	79	61	32	594
Glasgow	19	65	49	22	8	5	168
Perth & Kinross	78	192	51	86	77	19	503
Central Belt LAs	34	304	33	45	28	18	462
All other Scottish LAs	74	406	70	42	59	17	668
Rest of UK	172	761	166	174	143	58	1474
TOTAL	648	2,477	590	656	527	225	5123

Source: 2001 Census (Crown Copyright)

When the age bands of immigrants to Dundee are compared to those of out-migrants, what is most striking is that significantly more people in the 18-24 age group have moved into Dundee than have moved out, whilst there is a net out-migration in all the other age groups. In theory student movement to and from universities and colleges should balance out over the year. Nevertheless, even if these figures are only representative of one year, they do suggest that Dundee can attract people to settle in it, and not just within the student age population.

3.1.6 Boundary Issues

In 1996, the time of Local Government reorganisation, Dundee's population stood at approximately 167,000 persons. The boundary changes which occurred meant that the City 'lost' approximately 17,000 of its population to neighbouring authorities Perth and Kinross, and Angus. These were also some of the highest paying Council Tax areas.

A recommendation of "Population Trends" and other key council plans was that the Council bring forward a strategy for securing appropriate levels of new housing within the Dundee City Council area. Since 1999 there has been a drop of 2000 dwellings in band A properties through demolition, and in the higher bands (D and above) a rise of 1900. This is in line with the City Council's aim to improve housing quality and choice, and meets the Corporate Plan aim of "increasing the number of new houses built in the higher council tax bands and demolish the identified surplus housing to improve overall quality of the City's housing stock".

3.1.7 Summary

- The 2001 Census confirmed, as predicted in "Population Trends", that the population had declined by 8% since 1991, on average 1000 persons per year.
- Since 1993 we have continually seen more deaths than births in Dundee, and "Population Trends" identified that an excess of deaths over births would be likely to continue and this is indeed the case locally as well as nationally.
- There has been a marked change in the age structure of the population in Dundee, and of particular note is the decrease in the number of children aged under 15 and the increase in the middle aged/elderly age groups
- 2001 Census data shows that the most popular Scottish destination for emigrants from Dundee is to the Angus area, and this was spread relatively evenly across all age groups although slightly higher in the 30-39 age groups. Perth and Kinross and Fife Councils were unsurprisingly the next most two popular destinations for out-migration. In turn the highest amount of in-migration to Dundee was also from Angus, however in contrast to those moving from Dundee to the Angus area, those moving to Dundee were highest in the 18-24 age group.
- The highest amount of movement took place in the 18-24 age groups, the most popular destination being Edinburgh. This is likely to be due to be people leaving home to attend college/university plus students who have finished their studies in Dundee leaving to seek employment.
- A drop in the number of properties in the lowest Council Tax band (A) has been achieved since 1999. In turn there has been a marked increase in properties in the higher paying bands.

3.2 Current Population

The current population of the Dundee City Council area is 143,090. Over half (52.7%) of the population are female. The number of people aged 45 years or over account for 41.5% of Dundee’s population, compared to only 37.5% for Scotland as a whole.

TABLE 5, CURRENT POPULATION BREAKDOWN – 2003

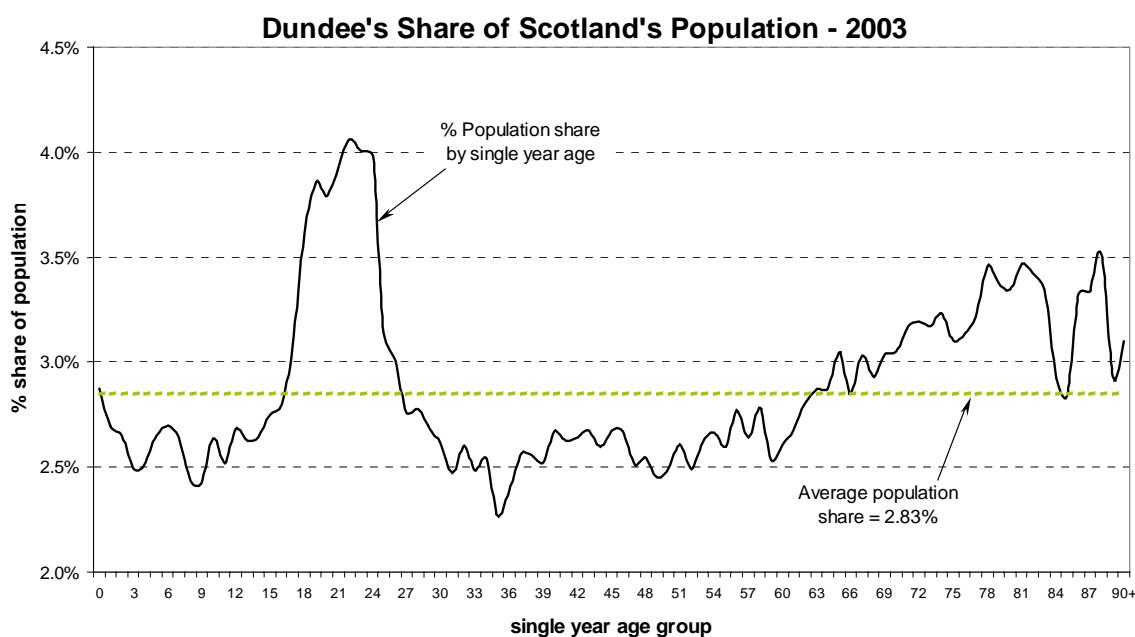
Age	DUNDEE						SCOTLAND	
	Male		Female		Total		Total	
	No.	%	No.	%	No.	%	No.	%
0-4	3,551	5.2%	3,419	4.54%	6,970	4.87%	263,828	5.22%
5-15	9,088	13.4%	8,645	11.47%	17,733	12.39%	679,412	13.43%
16-24	10,559	15.6%	10,852	14.40%	21,411	14.96%	582,190	11.51%
25-44	17,741	26.2%	19,866	26.36%	37,607	26.28%	1,440,233	28.48%
45-64	16,419	24.2%	17,152	22.76%	33,571	23.46%	1,272,674	25.16%
65+	10,366	15.3%	15,432	20.48%	25,798	18.03%	819,063	16.20%
TOTAL	67,724	100%	75,366	100%	143,090	100%	5,057,400	100%

Source: GRO (Scotland) Mid-year Population Estimates

3.2.1 Share of Population

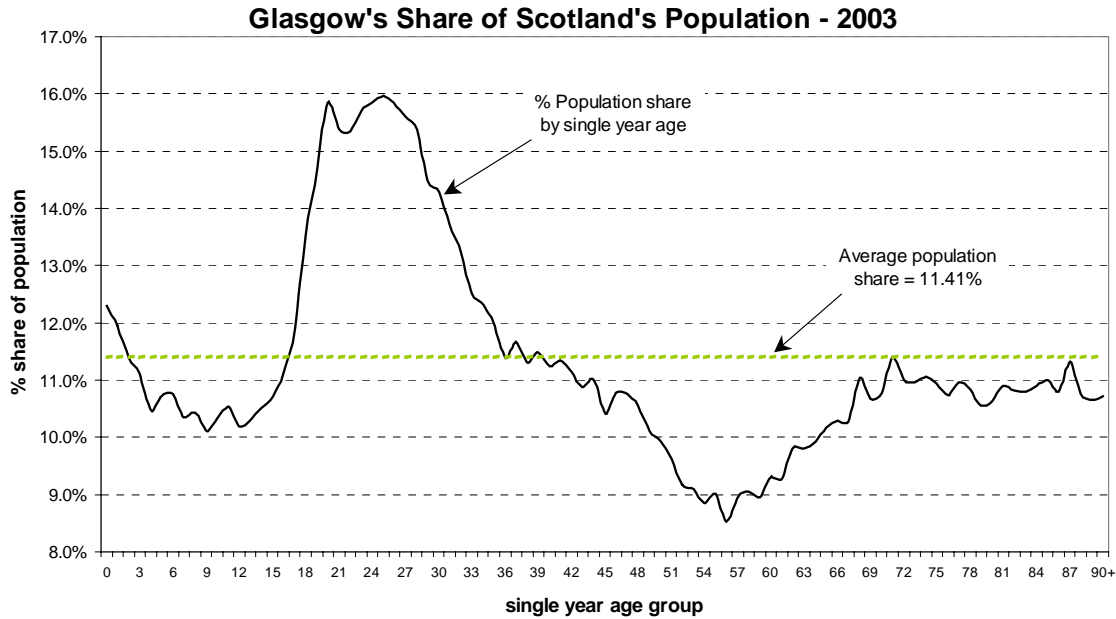
It was outlined within “Population Trends” that Dundee had a lower proportion of 24-35 years old than other Scottish Cities. The latest GRO(s) mid year estimates show that this is still the case. Figures 3 and 4 below/overleaf show the comparison between Dundee’s share of the Scottish population and Glasgow’s. It can be seen that there is a sharp rise in Dundee in the 18 to 20 age groups when students come into the City and then a subsequent almost equally sharp fall suggesting that relatively few of them remain in the City once finished their courses. In contrast there is a much more gradual fall in Glasgow’s case, and this is also the case in Aberdeen and Edinburgh.

FIGURE 3, DUNDEE’S SHARE OF SCOTLAND’S POPULATION



Source : GRO (Scotland) 2003 Mid-Year Population Estimates

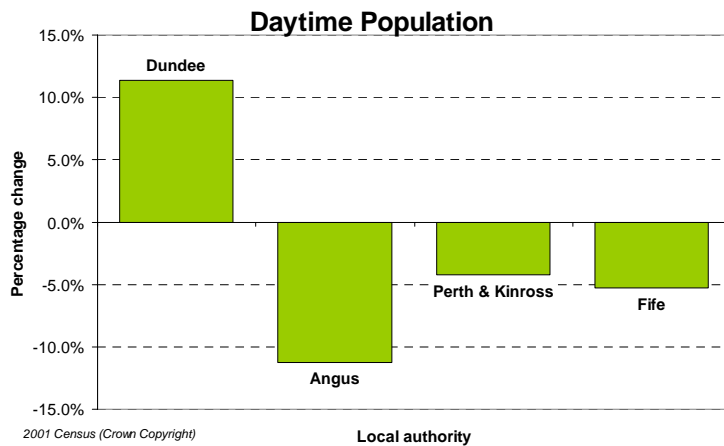
FIGURE 4, GLASGOW'S SHARE OF SCOTLAND'S POPULATION



3.2.2 Daytime Population

An issue highlighted within the "Population Trends" report was that people were leaving the City to live in owner occupied housing within commuting distance of the City. A new indicator within the 2001 Census which allows a daytime adult population figure to be calculated confirms that the City has a 'daytime population' of 162,227. This is a rise of around 18,000 more than the usual resident population, these people coming into the city to work or study. It should be noted that this "daytime" figure will not include people resident in Dundee but working outwith the City, or people who come into the City for leisure and retail purposes. In contrast the daytime population figure of the neighbouring authorities drops substantially in comparison to their normal resident figure. Angus has a drop of 12,000 people, Fife 18,000 and Perth and Kinross 6,000 (see figure 5 below). This highlights that whilst Dundee City's resident population has fallen year on year it remains a vital City Region hub, providing employment and educational opportunities, as well as retail and leisure services, to a daytime population that draws heavily on residents from neighbouring Angus, Perth and Kinross, and Fife.

FIGURE 5, LOCAL AUTHORITY DAYTIME POPULATIONS



3.2.3 Student Population

Dundee has a student population of around 17,000. Previous research shows that in comparison with the other University Cities a higher proportion of students leave Dundee after completing their studies rather than stay and find employment within the area. As discussed in Section 3.1.5, out-migration from the City is highest in the 20-24 age group with the majority of these people moving to the Central belt.

Graduates are a highly mobile section of population. Given Dundee's high proportion of students relative to other cities, a decline in these age groups is inevitable. However it is recognised that the quality and choice of employment opportunities available in Dundee will influence graduates decision, and therefore an improvement in Dundee's employment situation will benefit the population situation.

Table 6 below shows that, out of the four Scottish Cities, Dundee has the highest proportion of students at 14.2% of the total population.

TABLE 6. STUDENT POPULATIONS OF SCOTLAND'S FOR MAIN CITIES

Local Authority	Student population as % of total LA population
Aberdeen	13.1%
Dundee	14.2%
Edinburgh	13.6%
Glasgow	12.7%

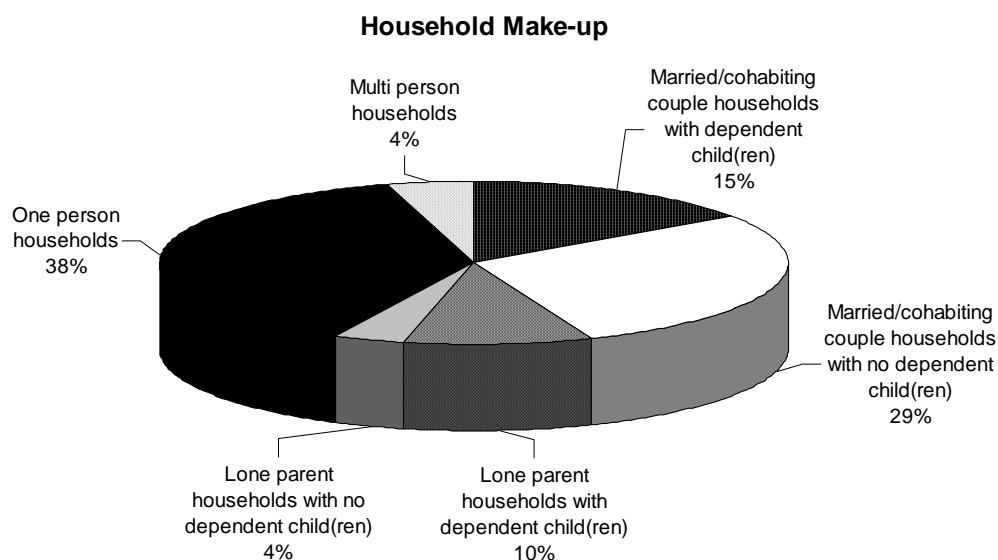
Source: Scottish Executive 2004

3.2.4 Household Composition

Figure 6 overleaf shows that almost 38% of households in Dundee are one person households and this compares with a Scottish figure of 32%. The second highest category is married/co-habiting couples with no children accounting for 29% of households. Dundee has a higher than average percentage of lone parent households (with children) at 10%, the overall Scottish figure being 7%.

As will be discussed further in the report the number of single person households is projected to increase. In turn there is a substantial reduction in the amount of children being born, and both these factors could have a significant effect on demand for particular types of housing.

FIGURE 6, HOUSEHOLD MAKE-UP



Source: 2001 Census (Crown Copyright)

3.2.5 Summary

- A new indicator within the 2001 Census confirms that the City's population rises by 18,000 persons during the day, accounted for by people coming into the City to work or study then leaving again at night. This is in comparison to neighbouring authorities whose "daytime population" figures drop substantially.
- Dundee has a lower proportion of 24-35 year olds than other Scottish Cities
- Dundee has an increasingly high student population of approximately 17,000, 14.2% of the total population, this is a higher proportion than the four other Cities.
- Recent figures on migration show a net annual out-migration of approximately 1000 people from Dundee.
- Dundee has a higher than average number of one person household and lone parent households.

3.3 Dundee's Projected Population

3.3.1 Background

The 2002-based Population Projections recently provided by the General Register Office for Scotland are the first population projections to be released since the 2001 Census, and are therefore not subject to the undercounts present in the 1991 Census, on which the previous projections were ultimately based.

The population projections presented here start from the base year of 2002, then forward to the year 2018. They are based on a number of assumptions about the population which include fertility, mortality, immigration and emigration. It is helpful to summarise briefly what these assumptions are for Scotland as a whole, as this provides a national context for discussion of the projections for Dundee.

3.3.2 The Scottish Context

In general, the assumptions are based on trends and patterns that occurred in previous years, which are then applied to the base population of Scotland from which the projections begin. For Scotland as a whole

- the fertility rate is expected to increase from 1.51 children per woman (of birth giving age) in 2002-03, to 1.55 children in 2011-2012, and then to 1.60 children in 2018-19;
- expectation of life at birth is projected to increase from 73.5 years in 2002-3 to 76.1 years by 2011-12 for men, and from 79.0 years in 2002-3 to 80.9 years in 2011-12 for women; and
- net annual migration is given as minus 3,000 people in 2002-03, and expected to fall to minus 1,500 people in 2005-06.

The net effect of the above projected changes would yield a net population loss for Scotland of 119,528 by 2018, a 2.4% reduction.

3.3.3 Dundee

For Dundee, table 7 below shows the projected population from 2002 to 2018 by age-bands. The percentages show, over time, the changing proportions that the different age groups will have of the total population.

TABLE 7, PROJECTED POPULATION FOR DUNDEE

AGE	DUNDEE								SCOT.
	2002		2006		2010		2018		2018
	No.	%	No.	%	No.	%	No.	%	%
0-4	7,082	4.9%	6,737	4.9%	6,415	4.8%	6,168	5.0%	4.9%
5-15	18,084	12.5%	16,086	11.6%	14,414	10.8%	12,720	10.3%	10.9%
16-24	21,000	14.6%	19,860	14.3%	18,979	14.2%	15,644	12.7%	10.5%
25-44	38,700	26.8%	36,098	26.1%	32,798	24.6%	29,105	23.6%	24.3%
45-64	33,535	23.3%	34,270	24.7%	35,490	26.6%	33,370	27.0%	28.7%
65+	25,779	17.9%	25,452	18.4%	25,229	18.9%	26,499	21.5%	20.7%
Total	144,180	100%	138,503	100%	133,325	100%	123,506	100%	100%

Source: GRO (Scotland) 2002-based Population Projections

Over the 16 year period of the projections Dundee’s population is set to decline by 20,674 people, a 14.3% reduction. However, within the overall population reduction there is a net increase of those persons aged 65+, with a slight reduction in the intervening years, and only a slight net decrease in the 45-64 age group by 2018.

It is the younger age groups which account for the projected population loss. Table 8 below illustrates well the extent of the expected decreases for all age groups under 45 years which, if correct, would leave almost half (48.5%) of the City’s population aged 45 years or over by 2018.

TABLE 8, PERCENTAGE CHANGE IN POPULATION 2002 TO 2018

Age	Percentage Change
0-4	-13%
5-15	-30%
16-24	-26%
25-44	-25%
45-64	-0.5%
65+	+3%
Total	-14%

Source: GRO (Scotland) 2002-based Population Projections

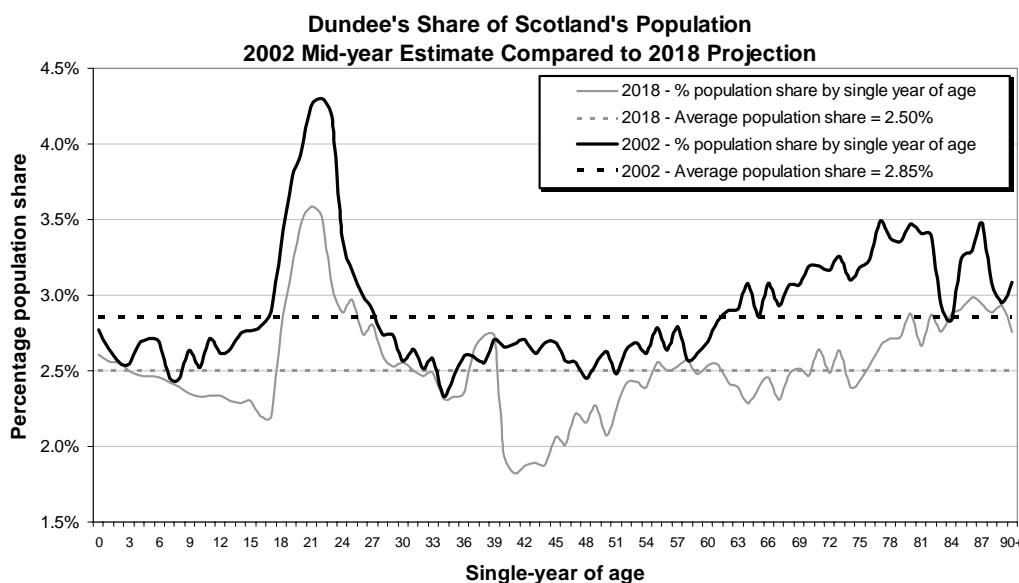
It can be seen that the populations of the 5-15, 16-24 and 25-44 age groups are set to decrease by a quarter or more, and numbers of children aged 0-4 are expected to fall by 13%.

It is important to realise that significant decreases are even expected to occur by as early as 2006, e.g. losses of 11.0% for 5-15 year olds, and 5.4% for 16 to 24 year olds.

3.3.4 Projected Population Share

It is important to note that the projected decline in the population of Dundee is also expected to occur within an overall shrinking of the Scottish population, though for Scotland to a far lesser degree than in Dundee. Below we briefly discuss the main changes in Dundee’s population relative to Scotland’s population as a whole. Figure 7 below shows a comparison between Dundee’s projected share of Scotland’s population in 2018, with the 2002 population.

FIGURE 7, DUNDEE’S SHARE OF SCOTLAND’S POPULATION

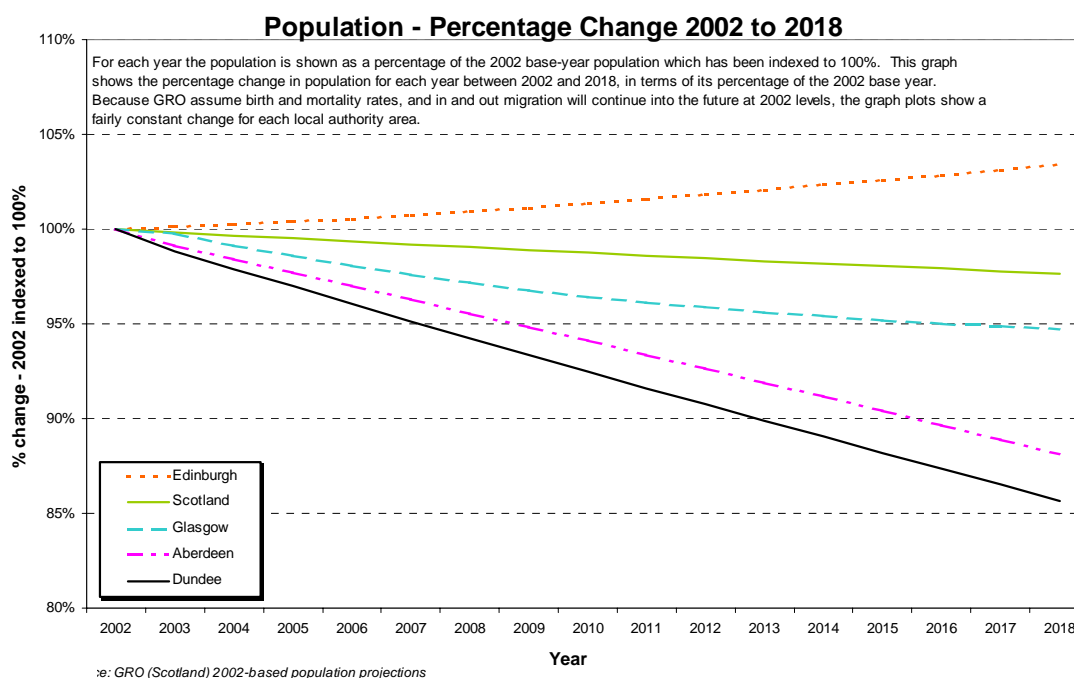


The graph clearly shows Dundee’s decreased share of those in the 0 to 45 year and the 5 to 16 year age brackets. Please also note the small scale of the graph which has a range of only 3%.

3.3.5 Population Decrease – Inter-authority Comparisons

The graph in Figure 8 below illustrates the relative degrees to which population change is expected to impact on Dundee compared to Scotland and other cities, between 2002 and 2018. The graph has the 2002 base year population indexed to 100% to allow us to see a comparison of percentage change for areas of different population size.

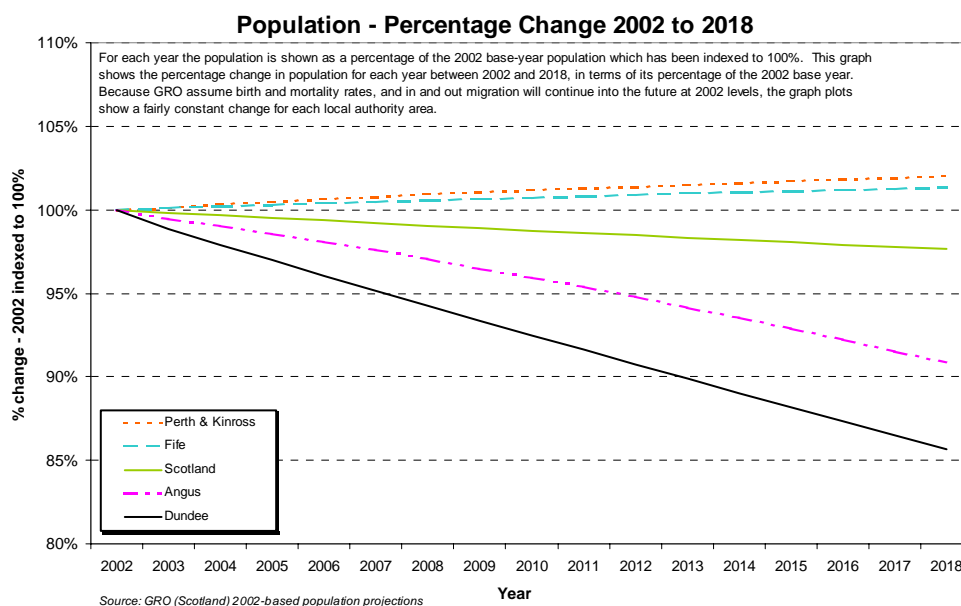
FIGURE 8. POPULATION DECREASE – CITY COMPARISON



Edinburgh is the only local authority (of the ones included in the graph) which can expect its population to increase. Glasgow (-5.3%) and Aberdeen (-11.9%) in particular, are set to have significant population decreases, with Dundee the worst off of Scotland’s four largest cities at -14.3%. The relatively smaller decrease in Scotland’s population is also shown.

Figure 9 overleaf is the same type of graph as figure 8 above, but compares Dundee to its three neighbouring authorities of Angus, Fife, and ‘Perth and Kinross’. Both Fife (1.3%), and Perth and Kinross (2.0%) are projected to have modest increases in their populations, while Angus and Dundee are both expected to experience a significant decrease at -9.2% and -14.3% respectively.

FIGURE 9, POPULATION DECREASE – TAYSIDE COMPARISON



3.4 Focus on the Projected Change in Age Structure

As discussed above, it is predicted that Scotland’s population will fall by half a million in the next 40 years. At the same time, the population will get markedly older whilst also experiencing a significant drop in the younger age groups. One in six Scots, some 764,000 people, will be over the age of 75. That compares with a mere 364,000 today. They will outnumber children under the age of 16, whose total is projected to drop from 955,000 today to just 665,000 in 2042.

Fewer children and young people and a greater proportion of older people mean a shift in balance from education provision to health and care provision.

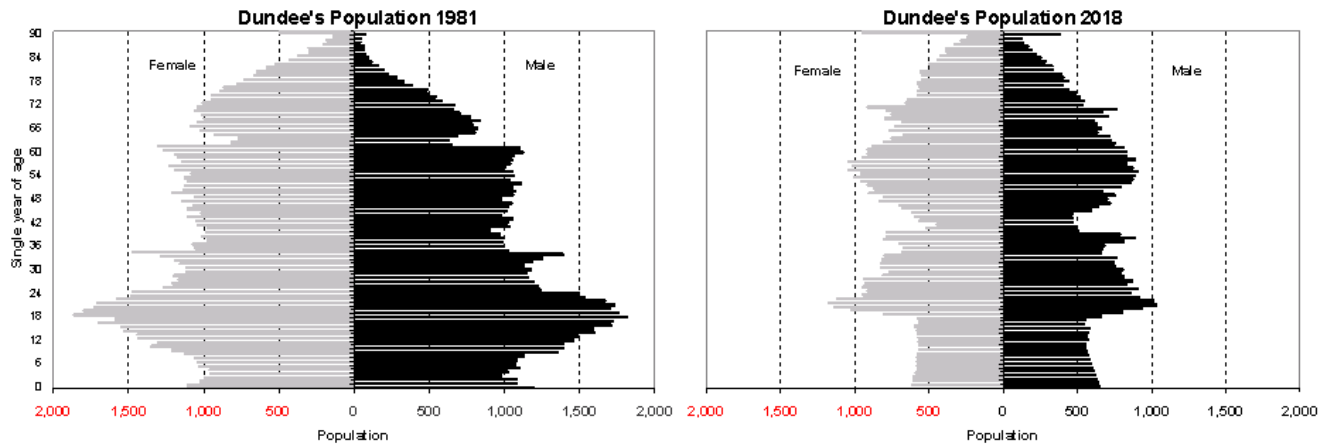
The Scottish Executive estimates that the cost of providing services for the elderly could soar by 81% in just 15 years and crippling council tax rises may be necessary to pay for the increased costs. They state that the ageing population would force a complete overhaul of the social care sector which would need to be entirely reshaped so that more people stay at home, where it is cheaper to care for them in the long term. In addition the accommodation, care and welfare needs of an older population are likely to have implications for the type and location of housing provision.

Overall population figures are important, but perhaps of more policy significance are changes in the actual structure of the population and the implications of these changes. Figure 10 below shows the change in the structure of Dundee’s population since 1981 to the projected year of 2018.

The 2018 graph is “slimmer” due to the decline in actual numbers. However, it is the proportion that each age group has which is more important. As can be seen the amount of people in the middle aged/elderly age brackets outnumber those under 18. The high number of people in the 20 to 24 age bracket is accounted for by high student numbers in Dundee. The reduction in the 15 and under age group, from 1981 to 2018, is almost 50%.

These figures may not look too dramatic in terms of actual numbers. However, if we look at it in terms of the proportion of the total population of the City then the implications are significant.

FIGURE 10, CHANGING AGE STRUCTURE OF DUNDEE

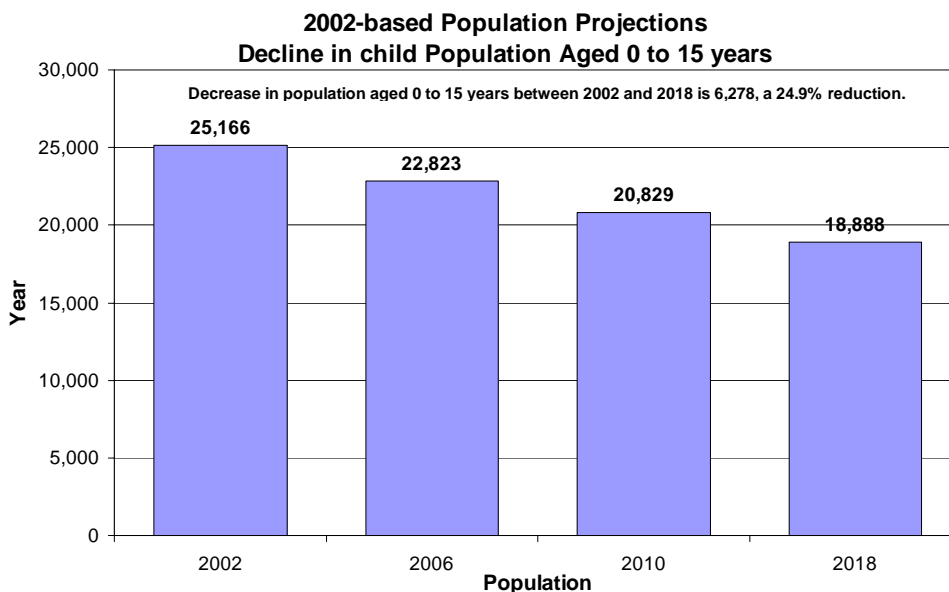


Source: GRO (Scotland) 1981 Mid-year Population Estimates & 2002-based Population Projections

3.4.1 Younger Age Groups

Dundee is expected to experience large decreases in its population aged under 45 years of age over the next 16 year period, with significant decreases in the population for school and pre-school children, as figure 11 below shows. This could have a major impact on school rolls and other educational services.

Figure 11



Source: GRO (Scotland) 2002-based Population Projections

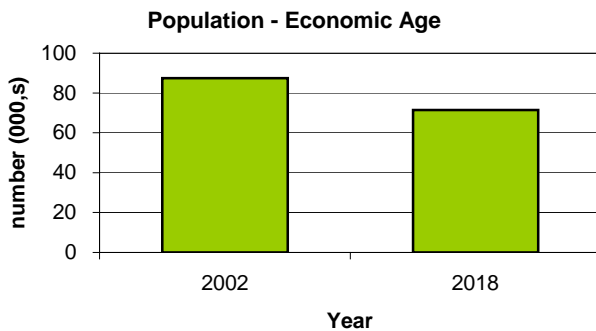
3.4.2 Working Age Population

The projected change in the structure of the population represents a large increase in the population whose residential location will no longer be constrained by employment location and whose outlook on life may be more influenced by cost of living and quality of life than by workplace issues.

The GRO(s) Annual Report recently highlighted that the distribution of population within Scotland continues to change, with larger urban areas (apart from Edinburgh) declining, and growth in rural areas (apart from the islands areas) and in the areas surrounding cities.

An ageing population is a cross-cutting issue. A drop in the age groups traditionally associated with economic activity, and with full time education means a changing structure of the economically active population. It is expected that increasing numbers of people are likely to work beyond the age of 65 and there will be a generally more mature workforce. Figure 12 below outlines the projected change in the economically active population in Dundee from 2002 to 2018, a projected drop of 10%

FIGURE 12, POPULATION OF ECONOMICALLY ACTIVE AGE

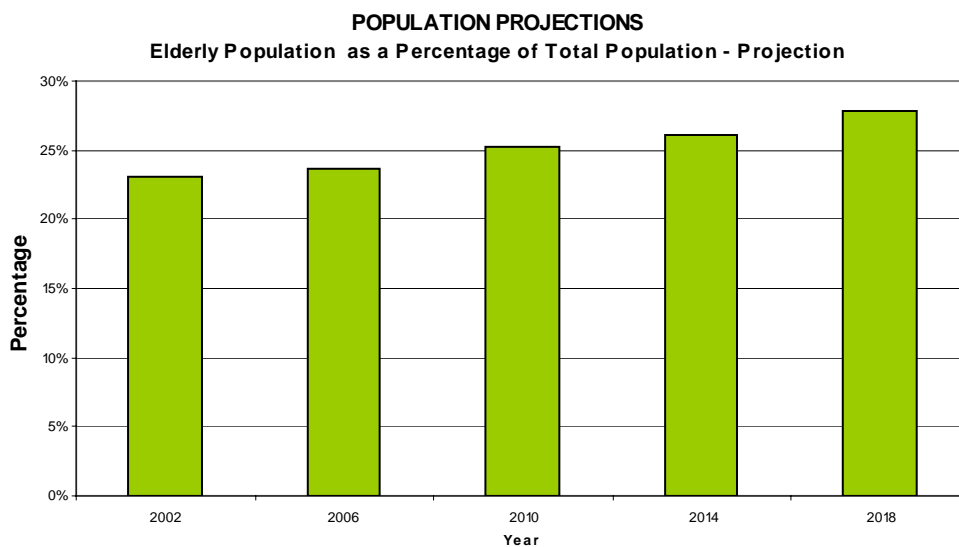


This will also have implications for the City’s economic development agencies. For instance, in place of active labour market measures to tackle youth unemployment (a primary focus in recent years), the focus may increasingly shift towards measures that assist older age cohorts to return, or remain attached, to the labour market. This may include specific training or guidance for older people and initiatives to encourage local employers to engage older workers and reduce age discrimination.

3.4.3 Dundee’s Elderly

The proportion of the population aged 65+ in Dundee is set to increase from 22% in 2002 to 27% by 2018, this is higher than the Scottish average.

FIGURE 13, ELDERLY POPULATION AS A PERCENTAGE OF TOTAL POPULATION



Source: GRO (Scotland) 2002-based Population

3.4.4 Diversity of the Ageing Population

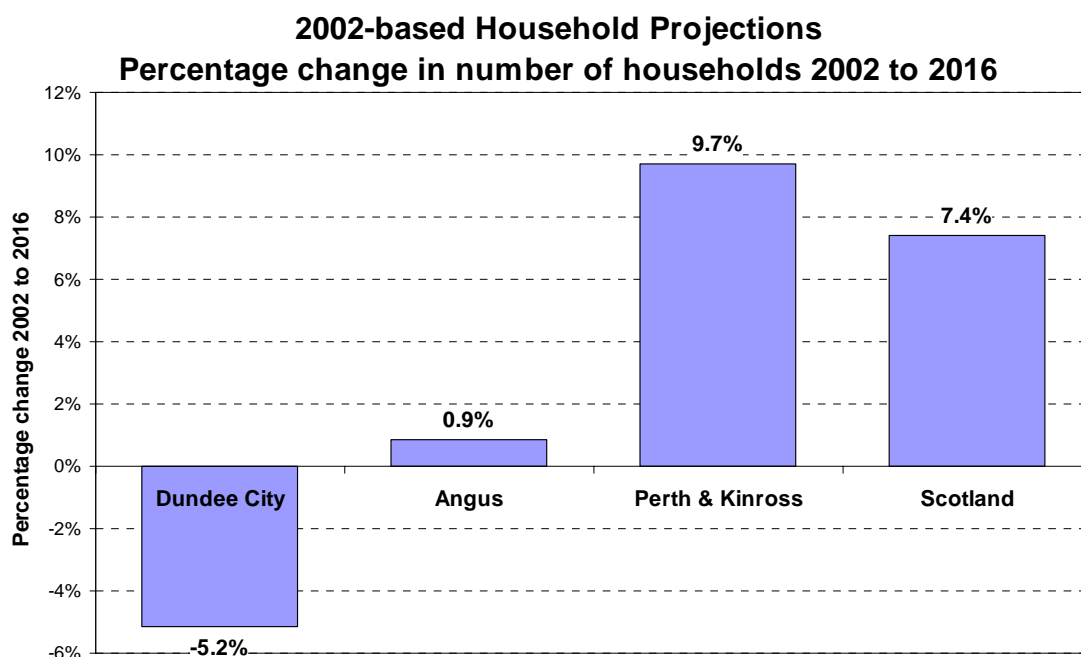
A generally more healthy and active lifestyle of people aged 60-80, combined with increasing numbers of frailer, mainly single elderly people, all present differing challenges for housing, social care, leisure and transport. In general people are living longer and healthier, nevertheless there is likely to be an increasing number of elderly people whose health and physical/mental infirmity will require specialised responses

4 HOUSEHOLD PROJECTIONS

In terms of projected population we need also to be aware of the relationship between population projections and their expression in terms of household demand. An ageing population has a crucial effect on housing provision.

Household decline is a major issue in Dundee, an issue which is not widespread across the country. In Figure 14 below, Dundee is projected to have a substantial decrease of 5.4%, whilst neighbouring authorities, and Scotland as a whole, are predicted to have an increase in the number of households.

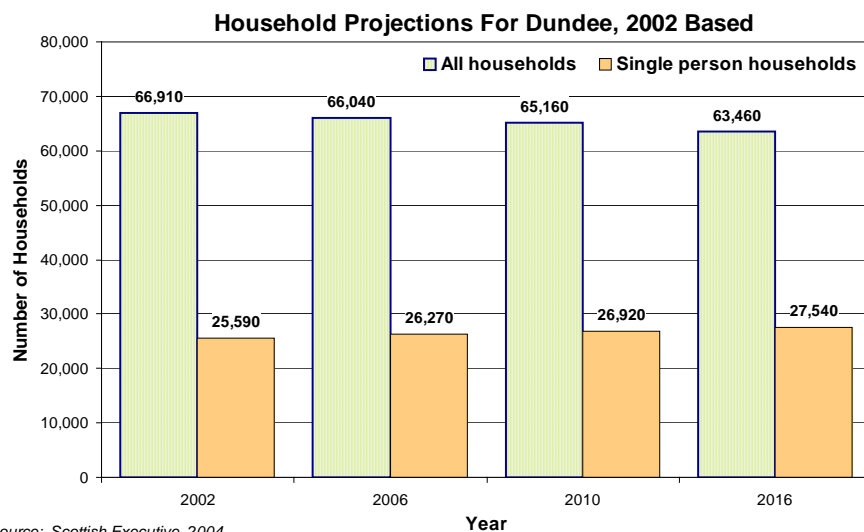
Figure 14



Source: Scottish Executive, 2002-based Household Projections

Figure 15, overleaf, also shows the number of single person households, which, within the overall decrease in the number of households, is set to increase. The household projections are therefore consistent with the 2002 based population projections in the previous section, with a declining total number of households, but a higher proportion of single person households within the overall declining number. This change in structure affects not only housing demand but has a particular affect on the type of housing which people require.

FIGURE 15, HOUSEHOLD PROJECTIONS - DUNDEE



Source: Scottish Executive, 2004

TABLE 9, PROJECTED HOUSHOLD MAKE-UP

Household make-up	2002	2006	2011	2016
Households with 2 or more adults - no children	36.5%	36.3%	36.2%	36.0%
Households with 2 or more adults with child(ren)	17.0%	15.5%	13.7%	12.2%
Households with 1 adult with child(ren)	8.3%	8.4%	8.4%	8.4%
Households with 1 adult - no children	38.2%	39.8%	41.7%	43.4%

4.1 SUMMARY

- The 2002 Based Population Projections predict that a population decline will continue, a decline of 14.3% is predicted by 2018. This would give a total population of 123,506.
- The 2002 Based Population Projections assume an out migration figure which is lower than any since 1994, it could be argued that if this trend continues then we should begin to see a reduction in the decline.
- The number of residents of birth-giving age is projected to significantly decrease, and this is a National trend as well as a local one. This could have further impact on Dundee's already falling child population.
- There is a significant change in the projected age structure of the population. The elderly population will show a gradual increase in numbers but will more importantly comprise a significantly larger proportion of the overall population due to a contrasting significant drop in the younger age groups.
- By 2018, the number of people in the middle aged/elderly age brackets will outnumber those under 18, and the proportion of 65+ population is expected to increase from 17% to 22%.
- The reduction in the 15 and under age group between 1981 and the predicted 2018 figure is almost 50%.

POPULATION MATTERS

- There is a projected decline of 10% in the economically active age groups and with the expectation that increasing numbers of people will work beyond 65 there will be a generally more mature workforce.
- Total household numbers are projected to decrease in Dundee. However the number of single person household is projected to increase, becoming a significant proportion of the overall total.

5 CONCLUSIONS

The Scottish Executive has recognised a national trend in the falling birth rate and its implications for the overall decline in Scotland's population.

- Recent policy interventions have been geared less towards encouraging the present population to have children, and more towards raising the attractiveness of Scotland as a place to live and work. In effect the Scottish Executive hope to counteract Scotland's ageing population by attracting more young economically active people from other parts of the world.

An overall decline in the population of Dundee is predicted to continue. This will impact on the demand for both public and private services, and could also affect grant aided expenditure and finance from the Scottish Executive. However the latest figures have shown a slight reduction in net out migration from the City, the first reduction since 1994 which is encouraging.

- It should still be a key objective of the Council through many of its plans and strategies to address the issue of population decline. An integrated approach should continue to be pursued to make the City a more attractive place to live and work.

Overall population figures are important but perhaps of more policy significance are changes in the actual structure of the population. There has been a marked change in the age structure of the population in Dundee since 1993, with a decrease in the younger age groups and a rise in the middle age/elderly sector of the population.

- Age composition is one of the most important aspects of the population, as changes in different age groups will have different social and economic impacts. For example decreases in the number of children and increases in the elderly population will shift the demand from education to health and social services.

The most popular Local Authority destination for people leaving Dundee is to the Angus area, particularly in families with children. This could indicate people moving for housing and educational choices.

- In line with City Councils aim to improve housing quality and choice and to increase the number of new houses in the higher council tax bands there has been a drop of 3000 properties in band A since 1999 and a rise of 1900 in bands D and above.

The City's population rises during the day, with 18,000 people coming into the City to work or study. In contrast the neighbouring authority's populations drop substantially in comparison to their normal resident figure.

- This highlights that whilst the City's resident population is falling it remains a vital City Region hub in providing employment and educational opportunities.

Dundee has a higher proportion of students than any other Scottish City. However research continues to show that, in comparison with the other University Cities a higher number of these students leave Dundee after completing their studies rather than staying to find employment.

POPULATION MATTERS

- Graduates are a highly mobile section of population, and given Dundee's high proportion relative to other cities, a decline is inevitable. However, it is recognised that quality and choice of employment opportunities available in Dundee will influence graduates decisions, therefore an improvement in Dundee's employment situation would benefit the population situation.

Dundee is expected to experience large decreases in its population aged under 45 years over the next 16 year period. This ageing population has major implications for all Council services.

- Significant decreases in the population for school and pre-school children will have major impact on school rolls, other educational services and social services for children.
- A decreasing population of working age people and a generally more mature workforce, including more people working beyond 65, will have implications for economic development policies.
- The number of total households is expected to decrease in Dundee, but the number of single person households as a proportion of the total is expected to increase. This, coupled with the substantial decrease in the amount of children being born, are both factors which could have significant effect on demand for housing, and in particular the type of housing required.
- An overall ageing population also has differing needs in terms of care, housing, transport and leisure requirements.
- Council Departments and Partner organisations need to ensure that the consequences of this projected change in population structure is considered and incorporated fully into future plans, programmes and strategies.

6 OTHER SOURCES OF POPULATION INFORMATION

6.1 Voluntary Population Survey

This is an annual survey carried out by Dundee City Council in partnership with Scottish Enterprise Tayside, Communities Scotland and Tayside Health Board. The survey was initiated in 2001 as a result of a recommendation in "Population Trends". It is a means of gathering small area population data at a smaller area and has proved successful in providing vital information in between Census years which was otherwise unavailable.

The survey gathers information on the number of people living in a residence and their age and sex. This offers a wide and detailed range of information on population sub-divided by age and sex, on residences in terms of residence type and the numbers and ages of adults and children resident within them.

6.2 Scottish Neighbourhood Statistics (SNS)

Scottish Neighbourhood Statistics is the Scottish Executive's on-going programme to improve the availability, consistency and accessibility of small area statistics in Scotland. They have developed on-line systems to enable statistics across most policy areas including information about benefits, education, health and the labour market to be brought together on a common small area geography on a regular basis.

A major development in Scottish Neighbourhood Statistics has been the development of small area data to allow the more effective monitoring of deprivation.

The Scottish Index of Multiple Deprivation (SIMD) 2004 was released by the Scottish Executive in June 2004. It is a well constructed deprivation index with a range of indicators making up each of its six constituent domains which are

- current income
- employment
- health
- education, skills and training
- geographic access and telecommunication; and
- housing.

The 'Data Zone' is the small geographic unit that the SIMD has been available at. There are a total of 6,505 Data Zones which have a complete coverage of Scotland, and each one has a population of around 750 people. Of the 179 Data Zones situated in Dundee, 51 are ranked within the most deprived 15% in Scotland, and over a quarter (28.3%) of Dundee's population are resident in these areas. By this SIMD measure Dundee is one of the most deprived local authority areas in Scotland.

6.3 Scottish Household Survey.

The Scottish Household Survey is an important social research survey of the people of Scotland. The survey is designed to provide accurate, up-to-date information about the characteristics, attitudes and behaviour of Scottish households and individuals on a range of issues.

The principal purpose of the survey is to collect information in the areas of Social Justice and Transport. A wide range of other topics is covered in the survey questionnaire in addition to these main policy areas.