



Lewes District Assessment of the Local Need for Housing

April 2011

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Local Need for
Housing**

Lewes District Council

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1.0 **Introduction**

Background and Scope of Study

- 1.1 Nathaniel Lichfield and Partners (NLP) was appointed by Lewes District Council (LDC) to undertake a study into the local need for housing within the District.
- 1.2 The purpose of the study is to explore the potential scale of future housing required in Lewes District to support the future population. The future need for housing is based upon a range of economic and demographic factors, trends and forecasts. This will provide evidence to LDC on the underlying housing need in the District to help them plan for future growth and make informed policy choices through their LDF process.
- 1.3 It is recognised that part of Lewes District is within the South Downs National Park. The National Park Authority became the planning authority for their area on the 1st April 2011. Lewes District Council are working jointly with the National Park Authority to prepare a Core Strategy for the whole of Lewes District and therefore this document will act as evidence for this joint Core Strategy. Where reference in the report is made to Lewes District, or the District, this includes the part of the District that is within the National Park (NP), unless otherwise stated.
- 1.4 The report presents the outputs of the application of NLP's HEaDROOM framework to the Lewes District area. HEaDROOM is NLP's bespoke framework for identifying locally generated housing requirements based upon an analysis of the Housing, Economic and Demographic factors within an area. This study does not provide a review of all factors that will be relevant to LDC in determining the local housing requirement for the District. Crucially it does not seek to reconcile the underlying need for housing against any potential constraints to housing growth (such as viability, deliverability, infrastructure or environmental constraints) nor against any vision for the District or policy opportunities open to LDC, and as such there will be a need for consideration, and potentially further analysis, in these and other key areas.

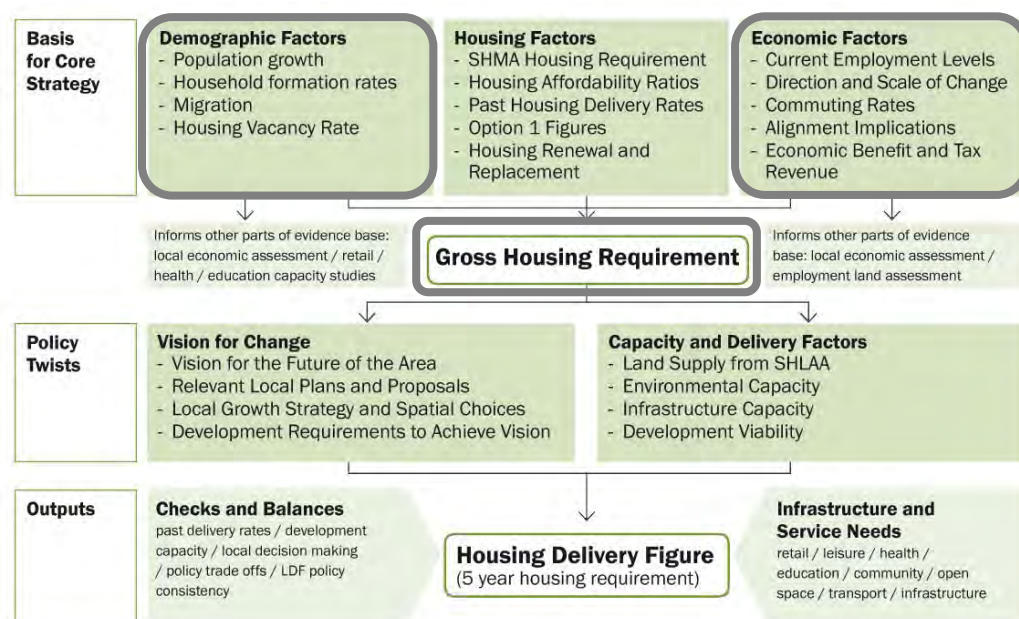
HEaDROOM

- 1.5 The new coalition government is currently implementing radical reform of the planning system to deliver on localism. This presents a major opportunity for local government to seize the agenda for its localities, but with it comes new responsibilities that run in tandem with an unprecedented tightening of public spending and a sluggish domestic economy.
- 1.6 On 6 July 2010, the Secretary of State (SoS) for Communities and Local Government revoked the Regional Strategies (RS) with the intention that they no longer form part of the statutory development plan. Following a successful legal challenge, the Chief Planning Officer wrote to all local planning authorities on 10 November 2010 confirming that RS are re-instated as part of the

development plan, but that the Government intends to abolish these through the Localism Bill.

- 1.7 The implication of the eventual removal of centrally-imposed housing requirements, if passed by Parliament, is that responsibility for establishing housing requirement figures for Local Development Frameworks will ultimately fall to local councils. It is therefore entirely appropriate for local planning authorities, such as LDC, to be reviewing their housing requirements. The government has stated that although further changes to the planning system are proposed in the Decentralisation and Localism Bill local planning authorities should continue with Core Strategies, continue to demonstrate a 5-year housing land supply and be prepared to evidence and defend these local housing requirements at examination. In addition, PPS3 was re-issued by Government in June 2010 and this re-states some core objectives (at para 10), including:
“A sufficient quantity of housing taking into account need and demand and seeking to improve choice”
- 1.8 Consequently, the evidence for the Core Strategy will need to be tested to establish a balanced view on localised benefits and impacts, better informing the local planning ‘conversation’.
- 1.9 As noted in the Planning Officers’ Society’s note ‘Planning post RS revocation’ (issued October 2010 and revised in March 2011), the Chief Planner’s letter addresses the possibility that authorities might seek to move to what it refers to as the ‘Option 1’ figures. However, the Note stresses that this is not a prescription, and that it is for authorities to decide for themselves what their target should be, subject of course to being confident they can provide persuasive evidential support for them. Importantly, local housing requirements must be tested against the provisions of PPS3 (re-issued in 2010 by the coalition government), including paragraph 33 which requires local planning authorities to take account of a number of factors when determining local (and sub-regional and regional) housing provision, including evidence of current and future need and affordability, the Strategic Housing Market Assessment (SHMA), government household projections and the needs of the economy, including economic forecasts
- 1.10 At the present time there is no agreed approach for local planning authorities to follow in setting local housing requirements. In response, NLP has prepared HEaDROOM, a conceptual framework which provides a robust basis for defining the quantum of housing that should be planned for through Local Development Frameworks.
- 1.11 The HEaDROOM framework is illustrated in Figure 1.1. The scope of the evidence presented within this report relates predominantly to the need for housing arising from demographic change, and housing required to support economic growth. As such the relevant parts of the framework which have been applied for the purpose of this study are highlighted and LDC should look to consider other relevant factors (including those set out in the framework) in arriving at a housing delivery figure to plan for.

Figure 1.1 NLP HEaDROOM Framework



Source: NLP

- 1.12 At the heart of HEaDROOM is an understanding of the role of housing in ensuring that the future population of a locality can be accommodated and the extent to which housing plays a crucial role in securing the economic well-being of a local area.
- 1.13 In the context of a substantial shift in the planning policy agenda which has exposed Local Planning Authorities to a new requirement to establish a housing delivery figure for their area over the LDF period, the framework provides the basis for assembling and presenting evidence on local housing requirements in a transparent manner.

Approach and Structure of the Report

- 1.14 This report presents the findings of NLP’s analysis of demographic and employment factors to provide an analytical review of the level of gross housing requirement within Lewes District.¹ These take the form of a number of scenarios, the basis for which is set out in the relevant sections of the report. These scenarios are presented in the context of their implied housing requirement as well as the potential outcomes for population change and employment.
- 1.15 The main outputs of the study are identified as annualised figures for the period to 2030, using a base year of 2009 for all modelling, which represents

¹ Gross housing requirement being the total amount of housing necessary without taking account of other delivery factors such as constraints to housing growth or policy decisions (including the demographic implications of these – such as influencing household formation or fertility rates), which are outside of the remit of this study.

the most recent year for which comprehensive input data is available, but an assessment period base of 2010, representing the existing data available for population change between 2009 and 2010 which has been incorporated into the model. Annualised figures allow ease of comparison across many data strands and scenarios.

- 1.16 For each of the scenarios NLP has used specialist demographic modelling and forecasting tool PopGroup to model future trends in demography. This is then converted to household and dwelling estimates and also labour force and employment estimates using the Derived Forecast add-on tool. The PopGroup software (including Derived Forecast) was updated in January 2011 to take account of the newly published CLG 2008-based household estimates. The software is widely established and utilised by Local Authorities and County Councils.
- 1.17 All outputs from the demographic modelling are identified as annual changes and therefore the outputs (contained within the appendices) can be assessed across varying time periods up to 2033, as necessary and to tie in with the relevant Core Strategy period taken forward. Although sub-district demographic modelling has not been undertaken, due to the limited availability and margins of error in small area statistics, a potential split of the gross requirement for the District between the parts of the District within the South Downs National Park and the parts of the District outside has been reviewed in the context of current demographic make-up, past trends and likely future housing pressures.
- 1.18 It is important to note that HEaDROOM is dependent upon the availability of a wide range of existing data sources. Many of the modelled assumptions take account of datasets (particularly those demographically-driven) that are updated annually. It also relies on a number of older datasets which due to reporting periods and data availability represent the most recently available and/or most appropriate and robust data to use. It will be important to keep the analysis under review and to take account of emerging information as it arises.
- 1.19 The analysis in the report is set out under the following headings:
- **Context and Past Trends** (Section 2.0) – this reviews what has occurred previously in Lewes District and what the current position is, providing a baseline upon which to test potential future scenarios;
 - **Evidence for a Gross Housing Requirement** (Section 3.0) – this outlines the scenarios for possible household growth and housing need based on a range of economic and demographic factors, including presenting the population impacts of such scenarios;
 - **Housing Delivery Implications** (Section 4.0) – this outlines the implications of the above scenarios for the need for different sizes and types of dwellings and also addresses the potential housing delivery split between the National Park and the rest of the District; and

- **Defining a Local Housing Requirement** (Section 5.0) – this draws together the evidence to identify the potential housing requirements and outlines the further work which may be necessary in building upon this technical work to arrive at a final local housing requirement based on robust evidence.

1.20

The appendices set out the relevant assumptions used for the demographic modelling, providing a guide as to the assumptions and approach adopted, and also present the outputs of the modelling.

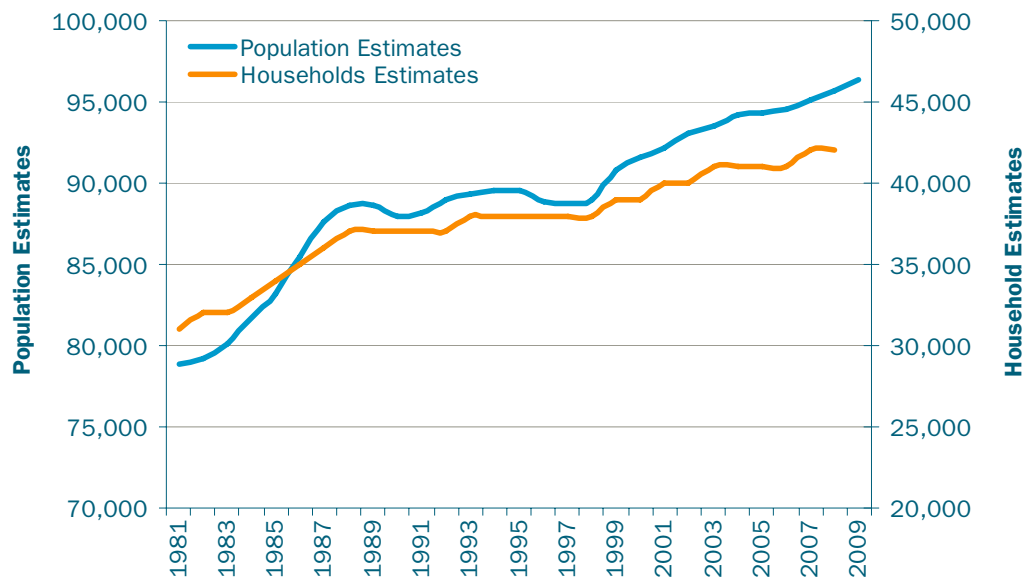
2.0 Context and Past Trends

2.1 In order to consider the future housing, economic and demographic pressures the District will face, it is important to ground this within the context of what has happened previously, alongside current circumstances. This provides the context for what may occur in the future and helps inform the creation and testing of a number of scenarios. Whilst past trends are useful, it is also important to acknowledge that those trends may themselves have been shaped by previous policy positions and therefore, whilst a reasonable starting point, they may not reflect the implications of changing policy at national or local level or the circumstances surrounding them.

Demographic Trends

2.2 Population in Lewes District has risen steadily over the previous three decades, increasing 22.2%, a level of growth greater than the 16.5% seen by the wider South East region over the same period. This has seen the population rise from 78,900 in 1981 to 96,400 in 2009. Population change has been generally upwards throughout the whole period, although the quickest rate of increases were experienced in the 1980's, with an average rate of increase of 1.43% per annum, compared with 0.33% in the 90's and 0.55% in the 2000's.

Figure 2.1 Population and Household growth in Lewes District 1981-2009

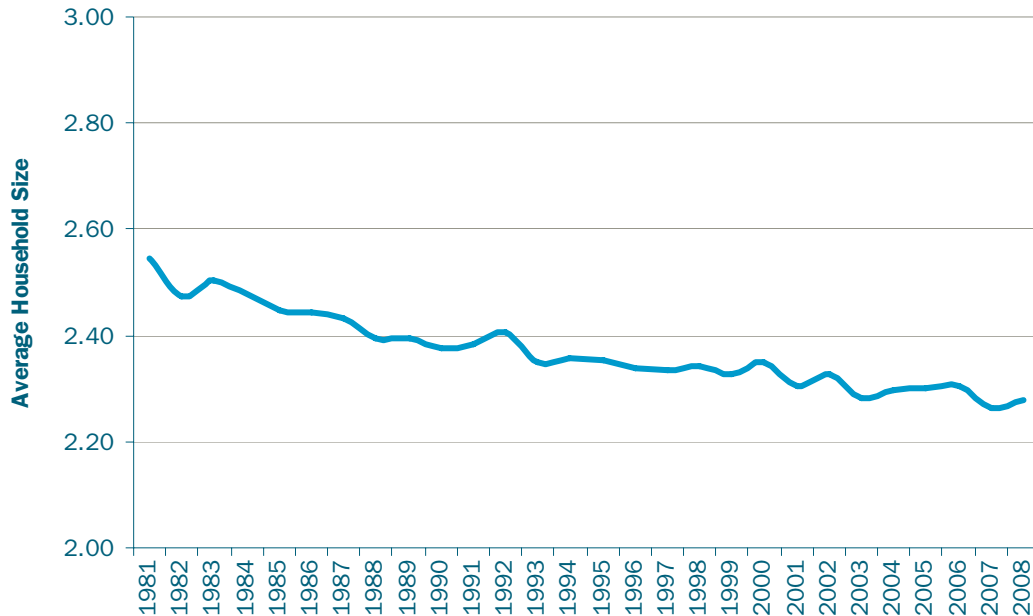


Source: ONS mid-year population estimates and CLG household estimates (CLG Live Table 406)

2.3 The number of households has also been increasing, and at a faster rate, with average household size declining from 2.55 in 1981 to 2.28 in 2008, reflecting national trends towards smaller household sizes, with the social composition of households shifting over time leading to more single person households and smaller family units (e.g. single parents) (although the household size in the District is markedly below that of the wider South East region for which the

equivalent figure in 2008 was 2.4). There were circa 31,000 households in 1981; by 2008 this had grown to 42,000; an average increase of some 410 households per annum.²

Figure 2.2 Average Household Size in Lewes District 1981-2008

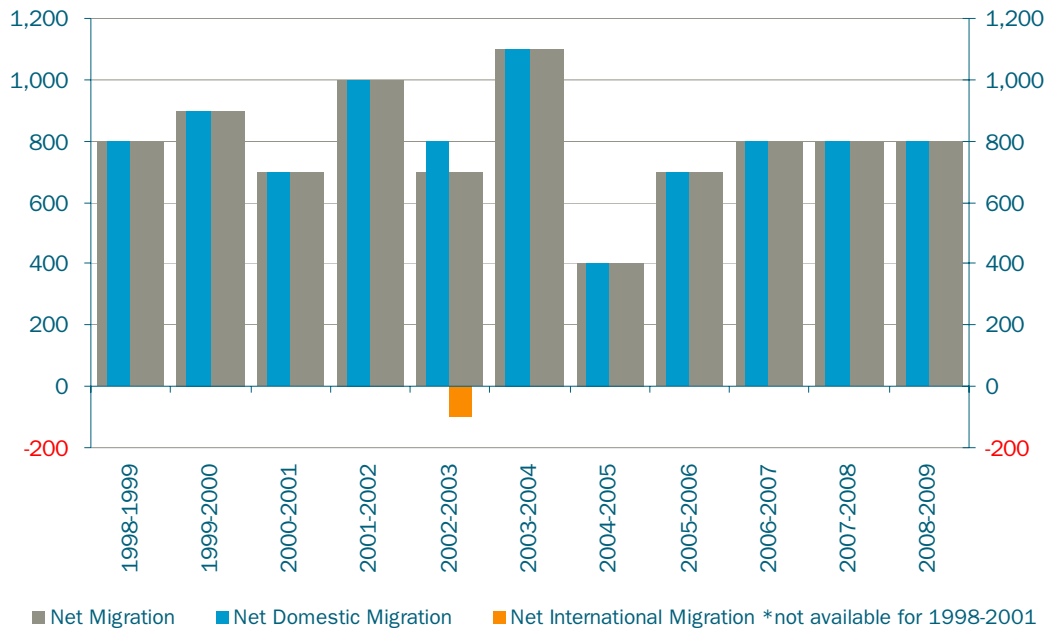


Source: ONS mid-year population estimates and CLG 2008-based household estimates (CLG Live Table 406)

- 2.4 Whilst some of this population change in Lewes District appears to be based upon natural demographic change (i.e. the rate of births exceeding that of deaths), the majority of change is attributable to migration (i.e. more people moving into the District than moving out). Over the previous decade, high levels of net in-migration have been experienced, averaging a net in-flow of 791 in-migrants per annum over the period from 1998 to 2009.
- 2.5 International migration has been largely balanced over the period for which data is available, with nil net international migration experienced since 2003, with a churn of 200 to 300 international migrants annually. Domestic migration has therefore been the main driver in population growth, and also accounts for much higher levels of population churn, with an average of circa 5,400 domestic migrants moving in each year and circa 4,600 moving out. Overall net in-migration over the period 1998-2009 totalled 8,700 people moving into Lewes District.

² Based upon ONS mid-year population estimates and CLG 2008-based household estimates (CLG Live Table 406). Note: both datasets presented are rounded (population to the nearest 100 and households to the nearest 1,000), and as such there may be small margins of error against actual observed household sizes.

Figure 2.3 Domestic and International Migration



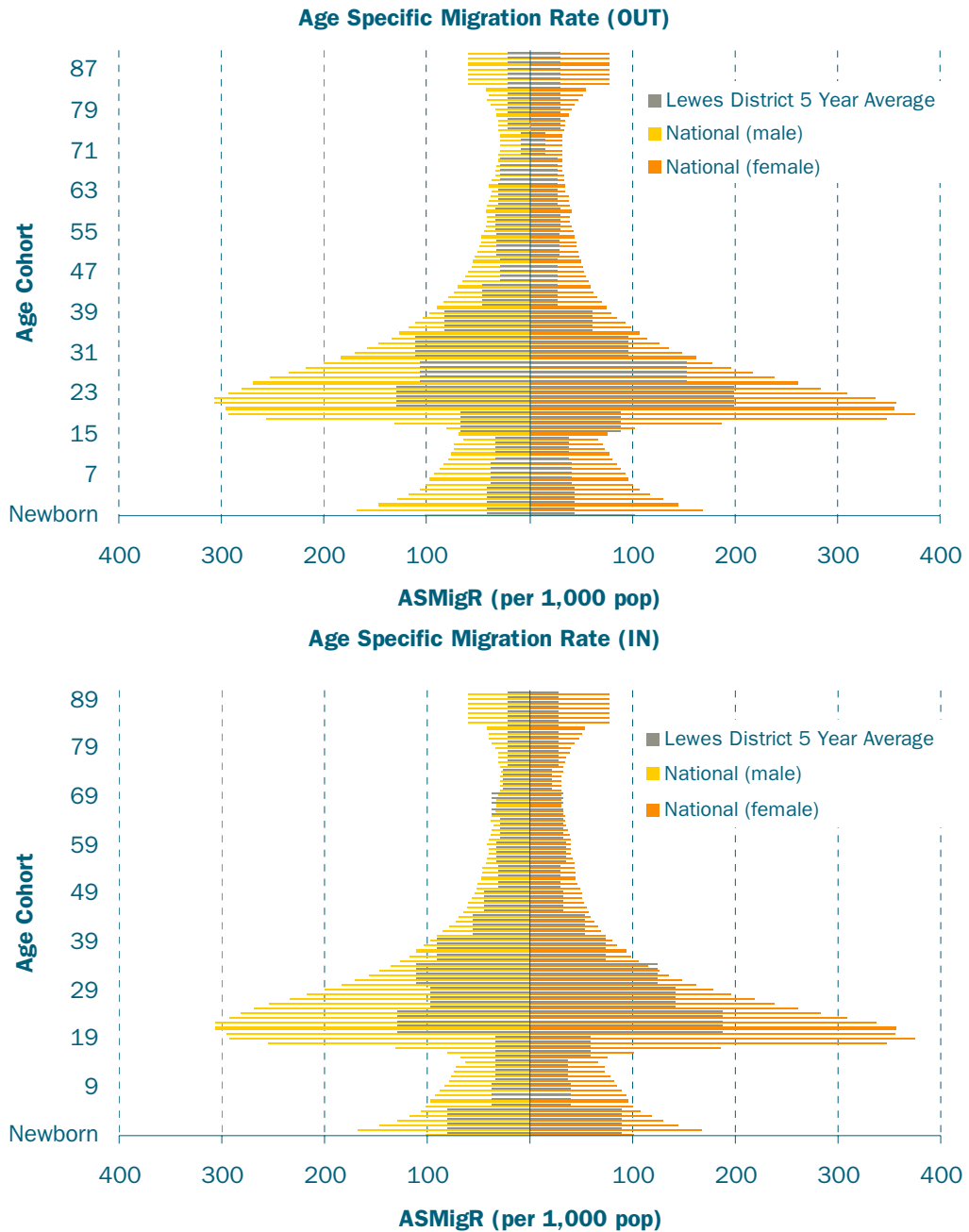
Source: ONS Migration Statistics

2.6 Overall, past average migration trends for Lewes District (over the period 1998 to 2009) show:

- Domestic net in-migration of 800 people per annum
- International net out-migration of 13 people per annum

2.7 Looking at domestic migration only and using ONS migration statistics for the previous five years, the propensity of people to migrate from Lewes is lower than the national average as illustrated in Figure 2.4. This suggests a lower level of turnover among the population, with greater propensity for people in Lewes to either not move, or move within the District, than seen at a national level.

Figure 2.4 Male and Female Migration Rates by Age (National and Lewes In and Out-Migration)



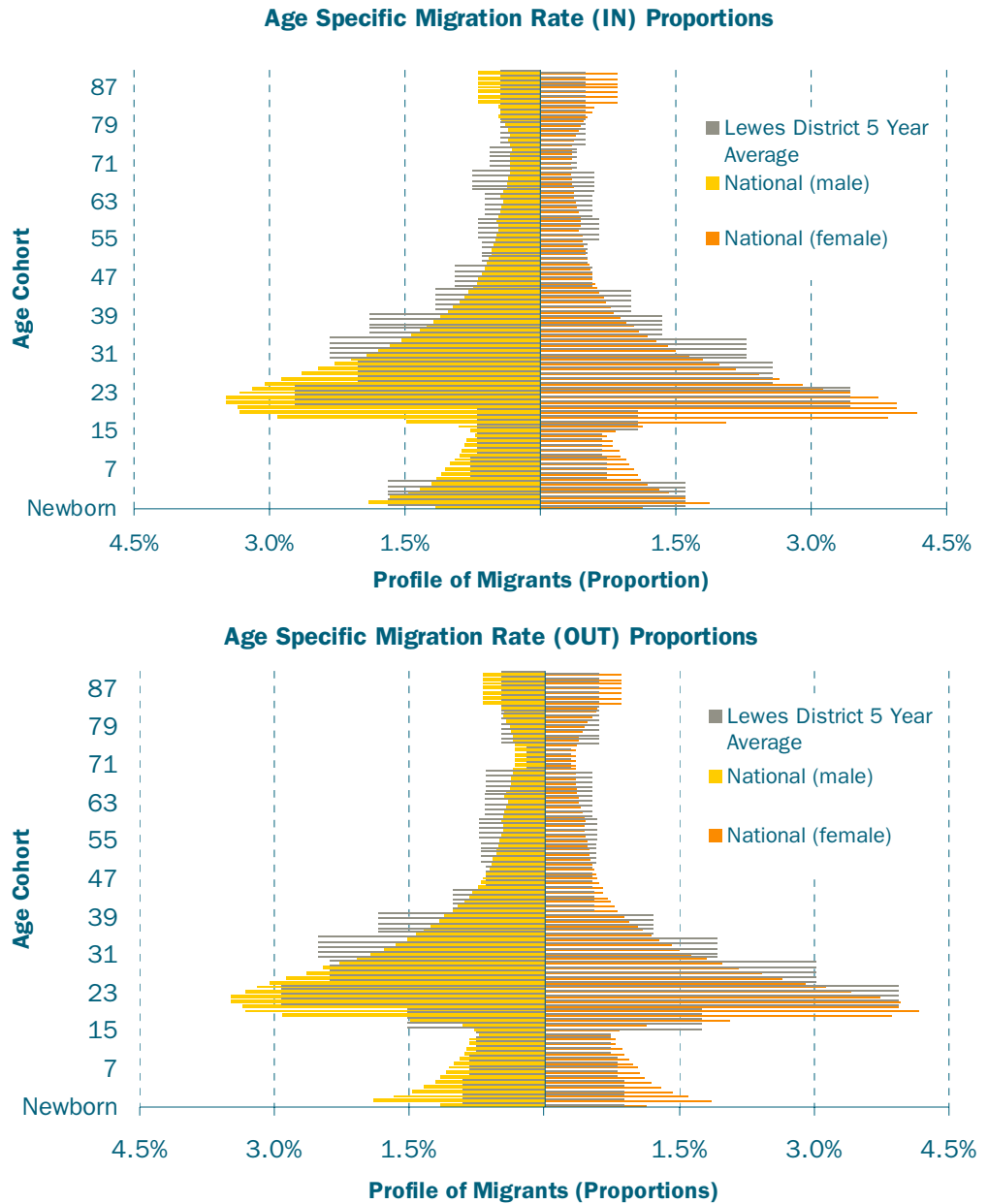
Source: NLP Analysis using ONS Migration Statistics Unit data 2004/05-2008/09

2.8

However, the age profile of out-migrants is more similar to the national picture with a higher propensity to migrate among age cohorts in their 20's and early 30's, meaning that the majority of out-migration has come from these age groupings. One distinct difference in the age profile of those moving into Lewes District as compared to those moving out is that a slightly higher proportion of in-migrants are elderly when compared to the profile of people moving out. In addition Lewes District appears to have proportionally more young adults (15-30 age cohorts) moving out than moving in, although recent in-migration of babies and toddlers suggests family units are moving into Lewes District. These are illustrated in Figure 2.5 below which shows the age profile of

domestic migrants coming into the District and the age profile of those moving out (split by gender).

Figure 2.5 Age Profile of Migrants

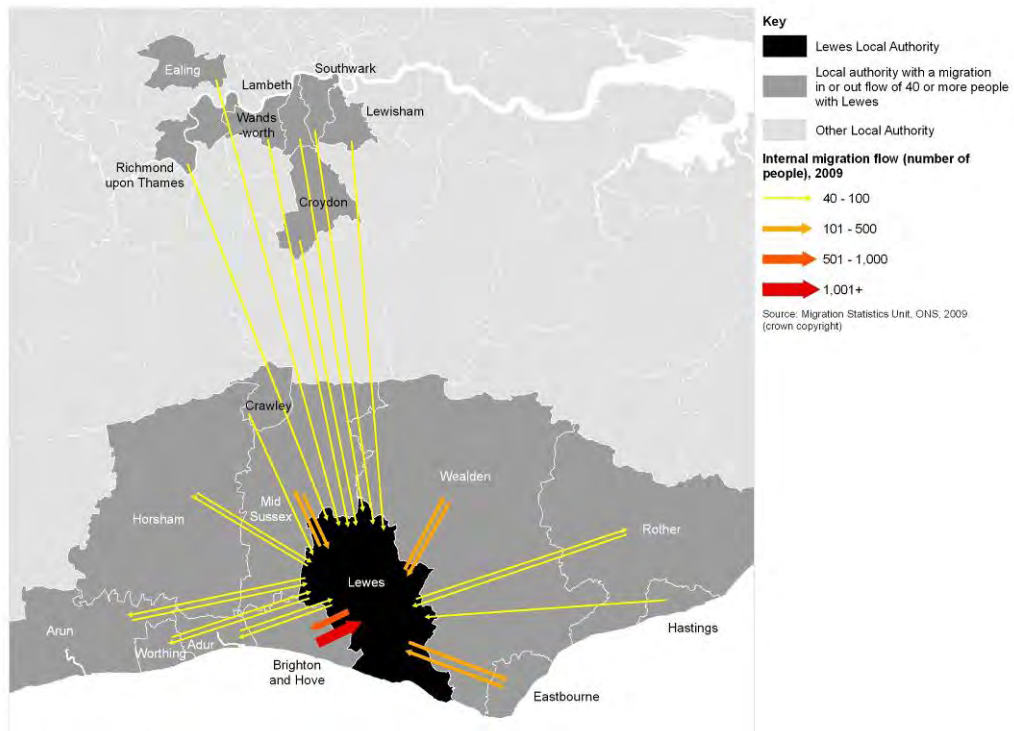


Source: NLP Analysis using ONS Migration Statistics Unit data 2004/05-2008/09

2.9

Migration patterns for Lewes District show that there is a high level of housing market inter-relationship with the rest of East Sussex, including Brighton and Hove, from where net in-migration to Lewes is relatively high. Lewes also experiences some migration pressures from London where many people have moved out from London Boroughs to Lewes District. Internal migration patterns for 2009 are illustrated in Figure 2.6.

Figure 2.6 Internal Migration Patterns for Lewes District 2009

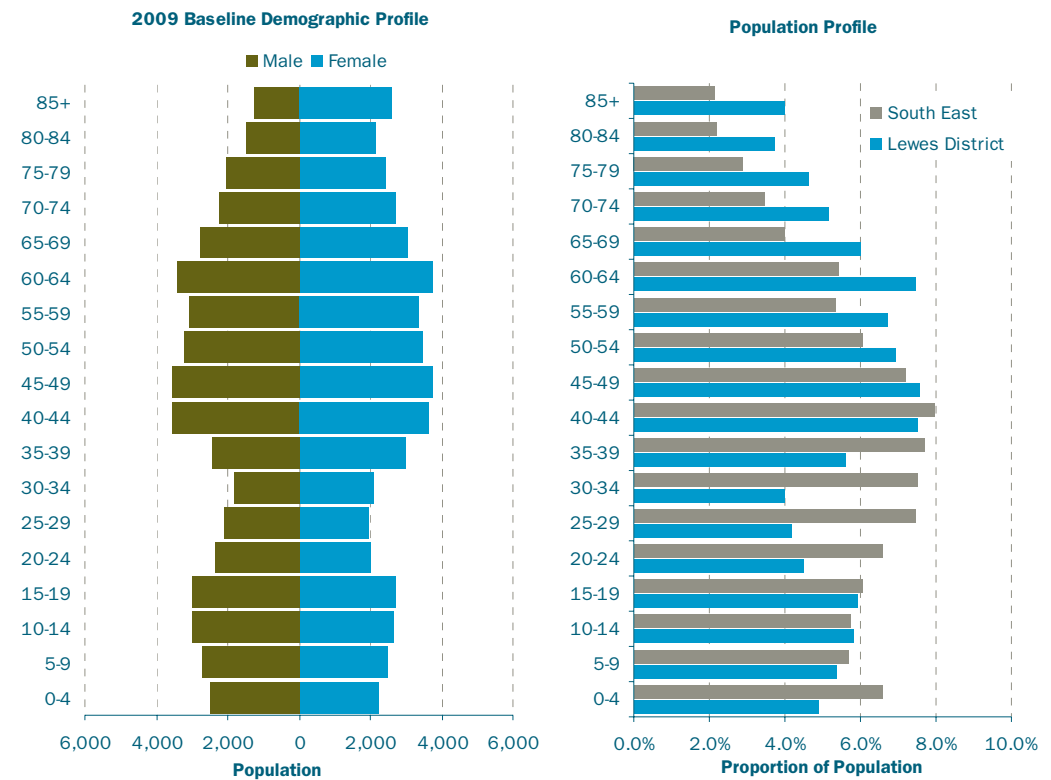


Source: ONS Migration Statistics Unit, 2009

2.10 The above migration patterns have contributed to a population profile in Lewes District as illustrated in Figure 2.7 which illustrates ONS mid-year population estimates for 2009.³ This shows that the profile of population in Lewes District is slightly different to the wider South East, with a much greater proportion of older working age (50 to 64) and elderly population (65+) but a much smaller proportion of younger working age population (20 to 39). Lewes District, in comparison with South East, does have a similar proportion of teenagers within its population profile as well as similar proportions of people within their 40s.

³ These figures are also used by East Sussex County Council as the most up to date population profile for the district. More up to date mid-2010 ward and parish estimates are available on the East Sussex in Figures website (www.eastsussexinfigures.org.uk) using CACI produced data, however, these are only split into 15 year broad age groups and so are not suitable for demographic modelling purposes.

Figure 2.7 Lewes District Baseline Demographic Profile (2009)

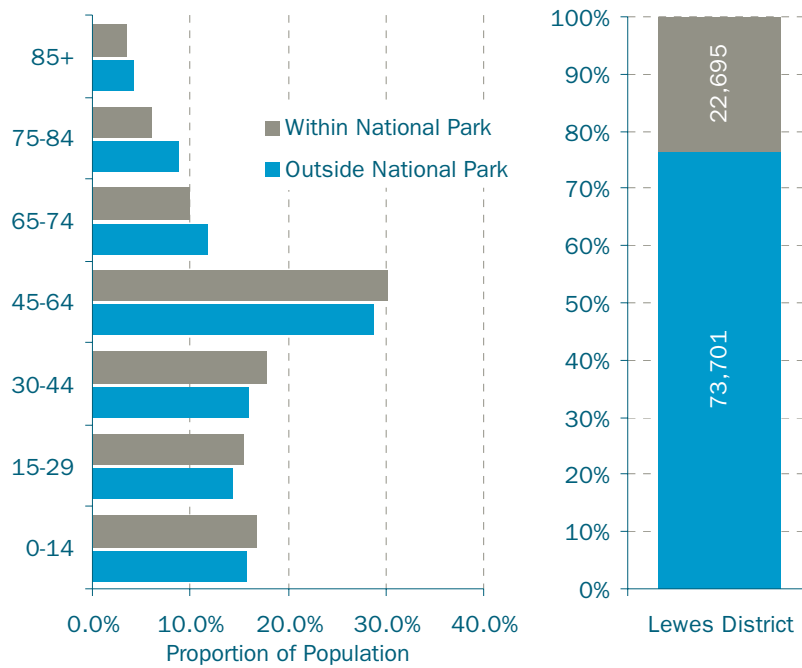


Source: ONS 2009 mid-year population estimates (published June 2010)

2.11 Breaking the Lewes District population into a sub-district split between the area within the South Downs National Park and the area outside, shows that the majority of population is resident in the non-National Park parts of the District. This is illustrated in Figure 2.8. Population estimates derived from ward-level population estimates for 2010 suggest that 76.5% of the District’s population live in the areas outside of the National Park.⁴ The population profile in the area outside of the National Park is slightly older than the area within the National Park, with higher proportions of people within the older age groupings (65 and above).

⁴ This is based on an attribution of wards to either within or outside of the National Park and does not follow the exact boundaries of the NP. Where wards straddle the boundary it is attributed to the sub-area where the main population centre within that ward is located. The wards included within the National Park for this exercise are Barcombe and Hamsey, Ditchling and Westmeston, Kingston, Lewes Bridge, Lewes Castle and Lewes Priory – all others are outside of the NP. It is recognised that the Barcombe and Hamsey ward has its main population centres outside of the National Park. However, this ward has been included within this exercise in order to bring the total population figure for the wards ‘within’ the National Park in line with the actual population of this part of the National Park area. The reason for including the Barcombe and Hamsey ward is that out of the wards that straddle the National Park boundary it is this ward that has the greatest proportion of its population within the National Park, whilst having its main centre of population outside of the Park.

Figure 2.8 Sub-District Population Split between National Park and Outside of the National Park

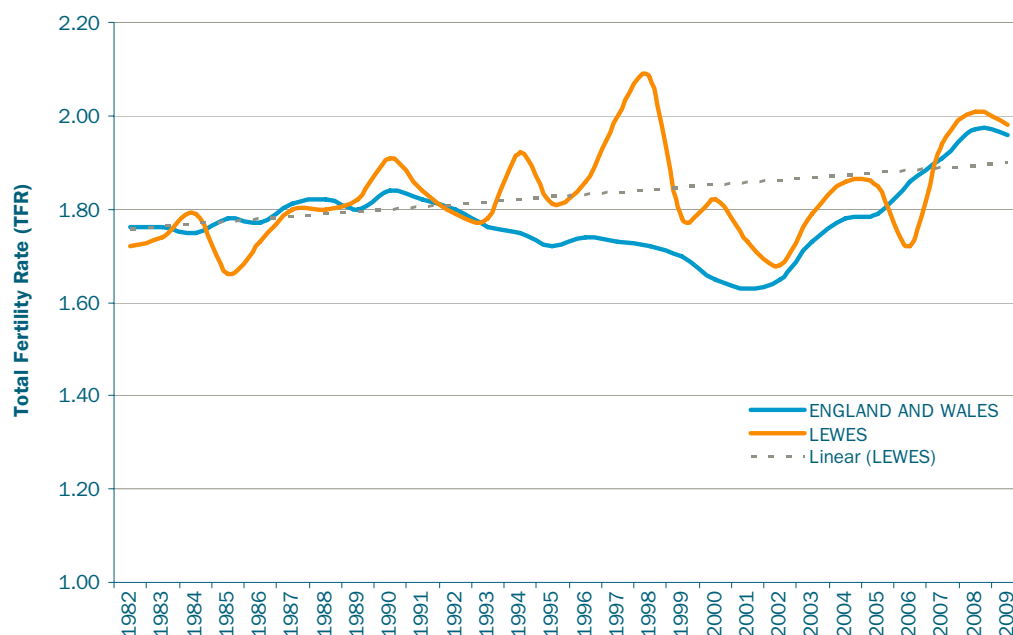


Source: East Sussex in Figures (ESiF) Population Estimates in 2010 Wards - from CACI estimates

2.12

The Total Fertility Rate (TFR) – the average number of children that a woman would have over her lifetime if she were to live to the end of her productive period – within Lewes District has varied over the previous three decades, but has broadly been following national trends in fertility, albeit with some large variations in individual years (e.g. 1998). Figure 2.9 illustrates the TFR for Lewes District and for England and Wales since 1982, showing trends have been generally upwards but with some short term volatility in the TFR, particularly at a local level which uses a smaller statistical base.

Figure 2.9 Total Fertility Rate (TFR) Lewes District 1982-2009



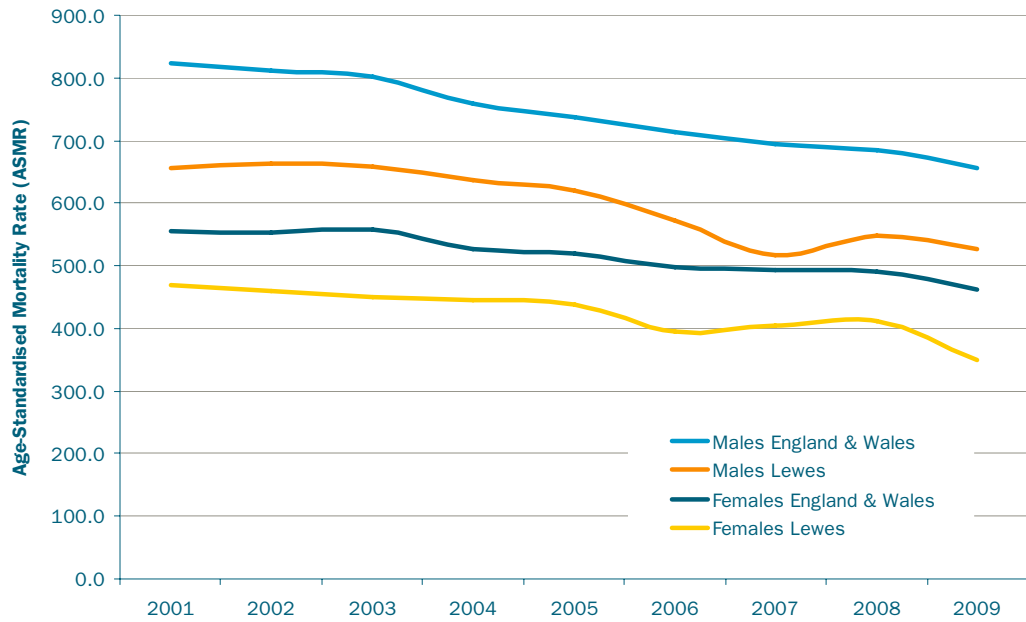
Source: ONS Fertility and Mortality Statistics⁵

- 2.13 Similarly, trends in the Age-Standardised Mortality Rate (ASMR) – the number of deaths per 100,000 pop that would occur in that area if it had the same age structure as the standard population and local age specific mortality rates are applied – and in the Standard Mortality Rate (SMR) – a comparison of the number of the observed deaths in a population with the number of expected deaths if the age-specific death rates were the same as a standard population, expressed at a rate/index with 100 being the standard – within Lewes District have also had a downwards trend, similar to the national direction of travel.
- 2.14 This trend towards lower rates of mortality is indicative of increasing life expectancy at both a national and local level. As shown in Figure 2.10 and Figure 2.11 Lewes District has lower mortality rates for both males and females than nationally, although broad trends have mirrored those nationally, again with more volatility at a local level due to the smaller statistical base.⁶

⁵ http://www.statistics.gov.uk/downloads/theme_population/fertility-mortality-ew.xls

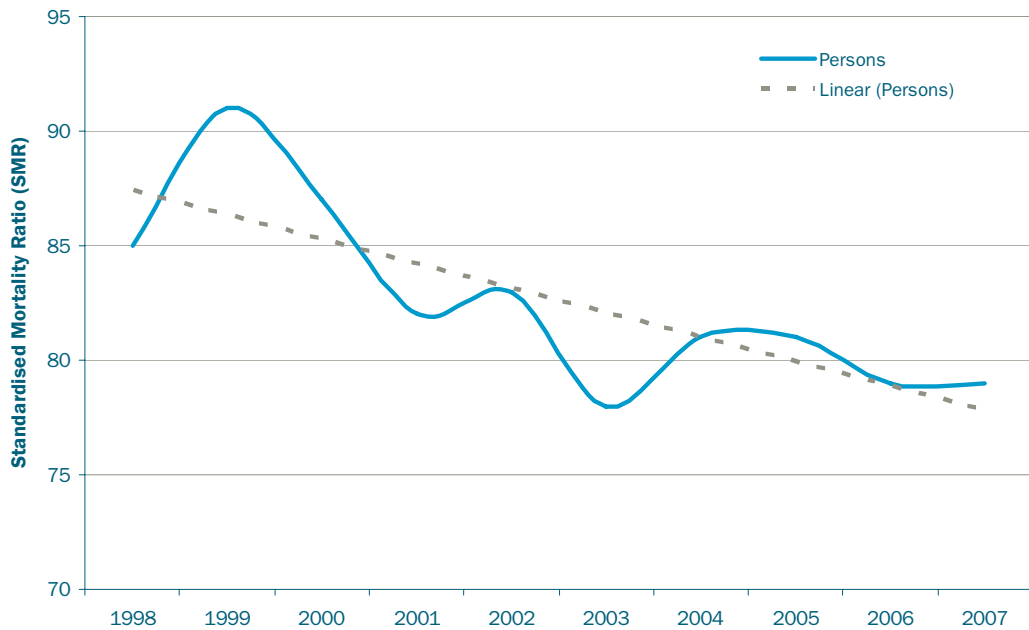
⁶ It should be noted that the PopGroup modelling uses Standard Mortality Rates (SMRs). This is not the same as the ASMR although more up-to-date ASMR data is available through ONS and as such is presented here to show the continuation of trends.

Figure 2.10 Age-Standardised Mortality Rate (ASMR) 2001-2009



Source: ONS Fertility and Mortality Statistics

Figure 2.11 Standard Mortality Ratio (SMR) 1998-2007



Source: ONS Key Population and Vital Statistics (Versions 1998 to 2007)

2.15

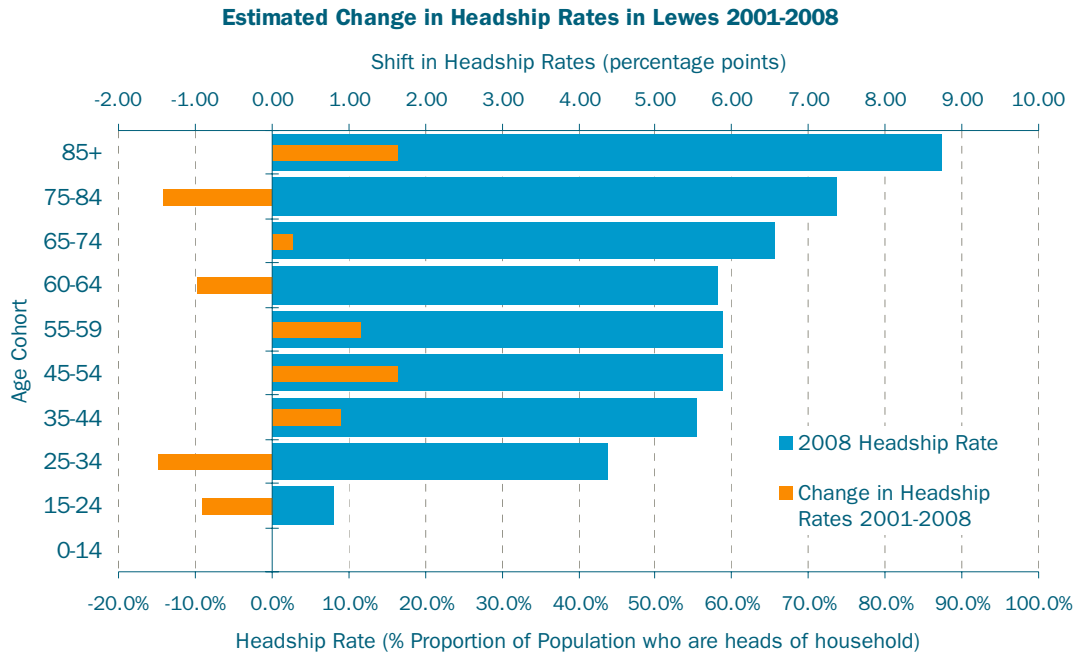
These trends provide a backdrop for continued population growth within Lewes District, through both natural change and net in-migration. In this context the level of population will be one driver of gross future housing requirements within Lewes District, with the population change dependent on the future levels of births and deaths within the indigenous population as well as the migration flows to and from the District.

Household and Housing Factors

2.16 As identified above, average household sizes within Lewes District have been decreasing and were estimated to be 2.28 persons per household in 2008 using ONS population and CLG household estimates. Rates of household formation drive the need for housing, but must be treated with caution as they themselves can be constrained by the availability of housing.

2.17 The CLG-2008 based household projections include estimated headship rates for the period 2001 to 2008 for Lewes (as well as using projected rates for the period to 2033) broken down by gender, age group and household category. Figure 2.12 shows the headship rate – the proportion of population who form heads of household – broken down for each age cohort. It illustrates that headship rates are generally higher as age increases, with circa 87% of the population aged 85+ being heads of household (e.g. elderly widows/widowers) whilst only circa 44% of the population aged 25-34 are heads of household.

Figure 2.12 Estimated 2008 Headship Rates and Headship Rate Change 2001-2008 for Lewes District



Source: CLG 2008-based Household Estimates

2.18 Figure 2.12 also shows the estimated shift in headship rates for Lewes District between 2001 and 2008. This illustrates that headship rates among young age cohorts between 15 and 34 years old have been falling in Lewes District, potentially due to problems in housing affordability which is shifting such age cohorts into shared households or into other living arrangements where they would not form a head of household. Conversely for Lewes District, headship rates increased for age cohorts between 35 and 59 years old reflecting a rise in cohabiting couples and more single person and single parent households potentially due to increasing divorces and breakdowns of the traditional family unit.

- 2.19 Housing vacancy rates also have an impact on the ability of the housing stock to meet the need from households. CLG collect housing vacancy and second home rates using data provided from local authority council tax registers. This data showed that in 2008 Lewes District had a vacant dwelling rate of 3.0% of stock and a second home rate of 1.0% of stock (4.0% combined rate), this was up from a 2.9% vacant dwelling rate in 2007 (with second home rates remaining static totalling a 3.9% combined rate). The 2008 rate for Lewes District was the same as the rate for the South East as a whole.

Economic Trends

- 2.20 The number of jobs located within Lewes District was estimated by ONS at 30,880 in 2009.⁷ This was approximately 1,000 fewer jobs over the figure recorded a decade earlier in 1999. Data for 1996 to 1997 does, however, show large increases, meaning over the period for which data is available (1995-2009) the annual average rate of increase is 368 additional jobs per annum, or a 1.39% annual increase.

⁷ Employee Jobs, Business Register and Employment Survey (BRES) 2009 Note: excludes self employed and farm agriculture jobs – BRES estimates that Lewes District in 2009 had 2,140 ‘working proprietors’ (sole traders, sole proprietors, partners and directors) totalling 33,290 people in employment in the District. Note: Experian use a different approach to estimating the existing employment base within areas to ONS (through ABI/BRES) based upon Experian’s own business database. Experian estimates put the 2008 figure for total jobs within all sectors (including self employed) at 41,574 (see Lewes District Employment and Economic Land Assessment) which is a large margin of difference from the BRES figure. As the modelling uses a range of other ONS datasets (e.g. Annual Population Survey), to ensure consistency, complementary ONS datasets have been used in the modelling where possible and as such the BRES figure is considered a robust basis for testing.

Table 2.1 Annual Employee Job Growth for Lewes District

Year	Jobs (ABI)	Jobs (BRES)	ABI/BRES Scaled ⁸	Year on Year	Annual Growth (%)	South East Annual Job Growth Scaled (%)
1995	25,996	~	25,735			
1996	28,048	~	27,766	2,031	7.89%	4.90%
1997	29,630	~	29,332	1,566	5.64%	3.80%
1998	29,491	~	29,195	-138	-0.47%	2.70%
1999	32,219	~	31,895	2,701	9.25%	5.10%
2000	32,154	~	31,831	-64	-0.20%	1.80%
2001	32,992	~	32,660	830	2.61%	0.00%
2002	32,674	~	32,346	-315	-0.96%	0.40%
2003	30,742	~	30,433	-1,913	-5.91%	-1.40%
2004	31,553	~	31,236	803	2.64%	0.80%
2005	32,164	~	31,841	605	1.94%	2.60%
2006	31,420	~	31,104	-737	-2.31%	-2.10%
2007	32,321	~	31,996	892	2.87%	1.60%
2008	32,139	31,816	31,816	-180	-0.56%	0.70%
2009	~	30,880	30,880	-936	-2.94%	-3.00%
Average	1995-2009			368	1.39%	1.28%
Average	1999-2009			-102	-0.28%	0.14%

Source: ONS Annual Business Inquiry (ABI) and ONS Business Register and Employment Survey (BRES)

- 2.21 Claimant unemployment is currently estimated at 1,341 people claiming Job Seekers Allowance, or 2.4% of the working-age population⁹ (below the South East average of 2.5%).
- 2.22 However, the ONS model based unemployment rate, which is a wider and arguably more realistic measure of unemployment based upon the International Labour Organization (ILO) definition which includes all those looking for work and not just those claiming benefit, indicates that unemployment is higher at around 6.1%, the same level as the regional rate for this measure. The 2010 Annual Population Survey suggested that 3,100 economically active people are not in work in Lewes District, a rate of 6.8%.¹⁰ Past model based unemployment trends show a pre-recession average (January 04 to December 07) of 4.2% and it is reasonable to assume this may reduce to a comparable level again as the economy stabilises and grows in the future.

⁸ ABI and BRES apply different methodologies and therefore not directly comparable. ONS recommend that the best way to deal with this is to examine the scale of ABI/BRES discontinuity in the area of examination, calculate a scaling factor for the 2008 data published for both data sets, and apply this to the pre-2008 ABI data. In Lewes District the scaling factor is 0.990 (i.e. 31,816 ÷ 32,139).

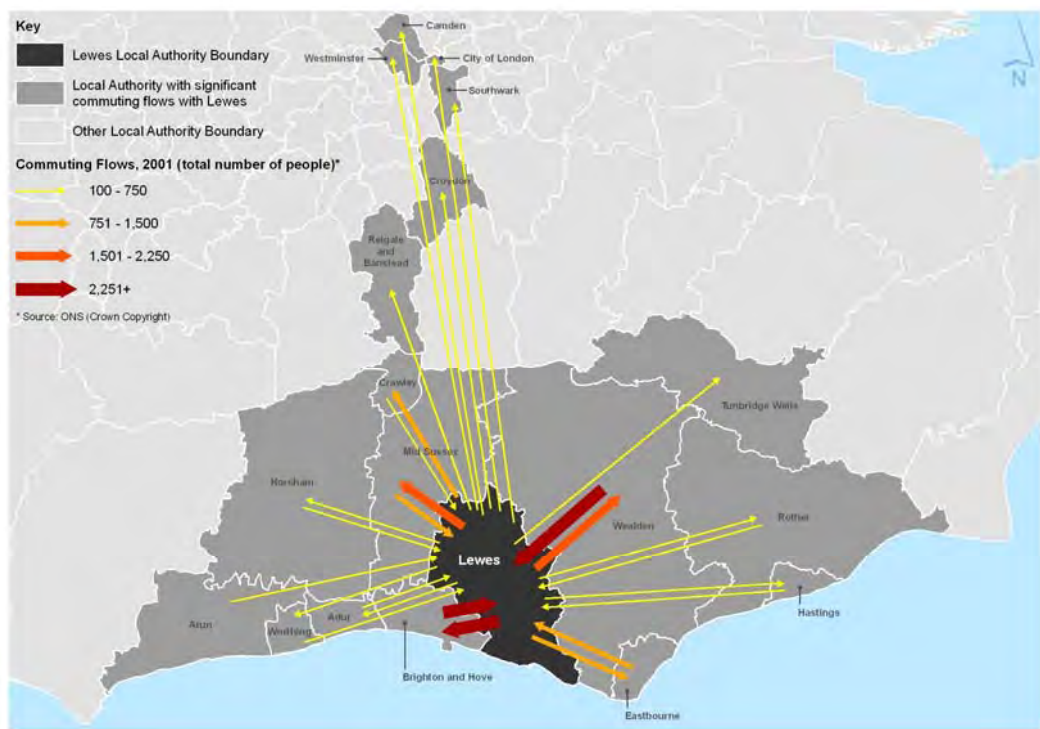
⁹ ONS Job Seekers Allowance Claimant Count, January 2011

¹⁰ ONS Annual Population Survey (Jul 2009 – Jun 2010). Due to the APS' small survey base and significant rounding errors implicit, this is used as the basis for modelling to ensure consistency with the other APS inputs used in the model.

2.23 The total population of Lewes District was estimated at 96,400 in 2009¹¹ of whom 45,300 were economically active. Looking solely at those aged 16-64, 77.1% of the population is economically active, a slightly higher proportion than in the South East as a whole (79.1%).¹²

2.24 At the time of the 2001 census, 17,874 residents commuted out of the District daily (43.1% of employed residents) and there were 12,123 in-commuters (accounting for 34.0% of jobs in Lewes District), giving a net total of 5,751 out-commuters.¹³ As shown in Figure 13 below, these high cross-boundary flows are a reflection of the economic inter-dependencies of the surrounding districts and the proximity of other major settlements, particularly Brighton.

Figure 2.13 Inter-district commuting flows, 2001



Source: 2001 Census and NLP Analysis

2.25 More recent (2008) Annual Population Survey (APS) data, compared with 2001 Local Labour Force Survey (LLFS) data, indicates that the proportion of the District's jobs taken by Lewes District residents has risen from 62.9% in 2001 to 69.1% in 2008 whilst the proportion of Lewes District's resident labour force also working within the District has increased from 55.6% to 62.5%. Although the methodology for the APS/LLFS is different to that of the 2001 Census, and

¹¹ ONS Mid-year population estimate

¹² ONS Annual Population Survey (Jul 2009 – Jun 2010)

¹³ East Sussex in Figures

the changes identified are not statistically significant at the 5% level¹⁴, these estimates do suggest that increases in the local labour force have resulted in slightly more jobs being taken by local residents.

- 2.26 As outlined previously, the number of jobs located within Lewes District has grown by 5,145 in the period 1995-2009. This rate of increase is equivalent to 368 additional jobs per annum, or a 1.39% annual increase, greater than the South East region as a whole (1.28% per annum).
- 2.27 The Experian economic forecasts for Lewes District over the period 2008 to 2026 (prepared in Spring 2010 and contained within the Lewes Employment and Economic Land Assessment 2010) forecasts total job growth of 3,699 net additional jobs, equivalent to 205 additional jobs per annum.¹⁵ This would be an average annual change of 0.47%, which is below the long term trend, but at a higher level than the previous South East England Development Agency (SEEDA) and South East England Planning Board (SEEPB) interim job target of 116 jobs per annum between 2006 and 2016 for Lewes District. In this context the Experian forecast job growth may be representative of higher growth scenario, particularly in the context of more recent trends which show minimal job growth in Lewes District.

¹⁴ The APS (2008) and LLFS (2001) are based on a sample survey of residents and are therefore subject to sampling errors, hence the need to consider statistical significance of changes between the 2001 and 2008 data. The Census 2001 data is a more comprehensive and robust, surveying all residents, but is now substantially out of date and the 2008 APS data is a reasonable alternative for considering shifting patterns in the context of Lewes.

¹⁵ Experian Economic Forecasts use recent trends in sectoral growth, combined with projections in GVA at a regional level and how economic sectors in Lewes District have fared relative to the region's growth in past, to forecast how many jobs each sector is estimated to grow/decline by and include self-employment. These forecasts undertaken in Spring 2010 reflect the recession. The forecasts are not constrained or explicitly driven in anyway by demographic factors. The full forecasts are contained within Appendix 6 of Lewes District Council's Employment and Economic Land Assessment undertaken by NLP in 2010.

3.0 Evidence for Housing Need

3.1 This section of the report sets out the scenarios (A-F) for future housing requirements based on, respectively:

- Demographic Factors (Scenarios A-D) – what projections of natural change, migration, and headship rates will mean for future levels of household growth; and
- Economic Factors (Scenarios E-F) – what levels of housing are needed to sustain different estimates of employment change.

Scenario Assumptions and Approach

3.2 Based on past trends and the baseline housing, economic and demographic context of Lewes District, NLP has identified and agreed with Lewes District Council a number of scenarios which reflect potential future growth within the District. These have been identified to reflect what has occurred previously, as well as what might occur in the future given the range of factors which affect population and household growth within the District. The scenarios are designed to give ‘bookend’ estimates to illustrate what may happen in demographic terms if a given set of conditions prevail.

3.3 Notwithstanding the above, there are a number of underpinning assumptions which will form the basis for all modelled scenarios which are outlined in more detail in Appendix 1, including:

- i Base population from ONS mid-year population estimates (2009), which are the same as utilised by East Sussex County Council on their East Sussex in Figures data repository;
- ii Future change assumed in the Total Fertility Rate (TFR) and Standard Mortality Rate (SMR) using the births and deaths projections from the ONS 2008-based SNPP, which are used to derive projected TFRs and SMRs through PopGroup. These are applied by ONS based upon their modelling of past trends and consideration of future trends;
- iii Age specific profiles of migration reflecting the propensities of age and gender groups migrating into and out of Lewes District within the previous 5-years;
- iv Inputs on headship rates and populations not in households (CLG 2008-based headship projections and projections of people that would not fall into a household for Lewes which underpin the 2008-based household projections and are based on past and projected trends in household formation);
- v Dwelling vacancy and second home rate of 4%;
- vi Reduction in unemployment from existing level of 6.8% to 4.2% over forecast period (assumed at -0.2% per annum until 4.2% is reached in 2020), reflecting growth out of recession;

- vii Commuting rate, to estimate the labour force impacts of each scenario, remains static with no inferred increase or decrease in net commuting proportions (PopGroup uses a labour force density assumption – the LF Ratio – based on the current relationship between indigenous jobs, using 2009 BRES data, and resident workers, using 2010 APS data, to model this - see sensitivities below); and
- viii Economic activity by age cohort taken from ONS Labour Force Projections (1998) which have been rebased from their 2010 estimate using a uniform adjustment to all age cohorts to meet current total economic activity in the District from the 2008 Annual Population Survey (APS). These are assumed to remain static going forward with the exception of an adjustment to take account of changing pension ages.

3.4 Whilst the above is able to be flexed, the main input which will be changed between each scenario is the level of migration, although one scenario also tests the implications of static TFR and SMR at current rates to reflect a scenario where projected social and health trends at a local level (e.g. reducing fertility and decreasing mortality) do not materialise. We outline the six modelled scenarios, and the rationale behind these, as follows:

A. Baseline (using 2008-based ONS forecasts)

3.5 A demographic led scenario based upon ONS assumptions and ONS projections for fertility, mortality and migration, meaning the sensitivity of forecast future shifts in natural change factors (i.e. birth and death rates) are assessed. This scenario largely mirrors the ONS 2008-based projections and allows the interrogation of the demographic implications of the level of growth and change ONS are projecting for Lewes District.

B. Static Natural Change

3.6 A demographic led scenario based upon existing fertility and mortality rates combined with projected migration rates from the ONS 2008-based sub national population projections (SNPP). This scenario represents a static natural change scenario, where existing rates in fertility and mortality are held constant over the projection period to illustrate the implications of the shifting natural change factors within Scenario A and provide a book-end scenario in the event that these do not continue in line with ONS projected trends.

C. Zero Net-migration

3.7 A demographic scenario whereby both net internal and international migration is equal, meaning there is only population churn in the district and not growth from net in-migration. This theoretical scenario examines the potential housing requirement if Lewes District was to provide only for the population pressures arising from in and out migration being in balance. It should be noted that this does not represent a scenario of providing only for the needs of indigenous

residents (as a nil migration scenario would) as this would involve churn of people moving in and out (having an impact on the profile of the population as in-migrants have different characteristics from out-migrants). Although this is an almost wholly theoretical scenario as there is no evidence of a location successfully planning for and achieving a nil net migration scenario where such a scenario has been substantially at odds with past trends, it is considered a useful comparator, illustrating the population impacts of such a scenario.

- 3.8 Zero net migration is achieved within the modelling by using the projected migration rates from the ONS 2008-based SNPP and equalising in and out migration for both internal and international migration by splitting the difference for each year (e.g. if in-migration is 200 persons and out-migration is 100 persons, it would be assumed for this scenario that both in and out migration would equal 150 persons, creating a zero net-migration scenario).

D. Past Migration Trends

- 3.9 In addition to the baseline scenario, a further demographic scenario based on past migration trends is adopted reflecting the level of in and out migration that has taken place in the local area in the longer term (it should be noted that the ONS projections are based upon shorter term 5-year – 2004 to 2008 – migration patterns with adjustments on international migration to reflect judgements on nil-net migration from accession states). We would derive an average rate of net migration from ONS data on both net internal migration (1999-2009 data) and net international migration (2001-2009 data). The resulting average past migration rate would then be projected forward for the period modelled. This scenario would involve the input of the following annual migration data.

Table 3.1 Past Trends in Migration

Migration Type	Long Term Average
Domestic Migration In	+5,418
Domestic Migration Out	-4,618
Net Domestic Migration	+800
International Migration In	+238
International Migration Out	-250
Net International Migration	-12
Total Net Migration	+788

Source: ONS Migration Statistics

- 3.10 Being a trend-based estimate of future migration, this represents a reasonable basis for testing what may occur in the future. This differs from ONS migration projections in that it includes both more recent migration trends (2009) and

also does not apply any adjustments to overall migration levels implicit in the SNPP methodology.¹⁶

E. Higher Economic Growth

- 3.11 Based upon the economic context in Section 2, this represents an economic led scenario identifying the necessary demographic changes (i.e. migration) required to underpin growth in employment, appreciating the challenge the District faces in maintaining an adequate labour force to support economic growth against the backdrop of an ageing population. Using the technical data contained within the Lewes District Employment and Economic Land Study this scenario is based upon the Experian employment forecasts, which identify job growth in all sectors in Lewes District totalling an average of 205 jobs per annum.

F. Lower Economic Growth

- 3.12 A further economic led scenario identifying the demographic change required to provide a sufficient labour force to support a static employment base. This scenario is identified in the context of past trends (in the last 10 years) in employment growth for Lewes District, which show minimal, and even negative, job growth. This lower economic growth scenario is particularly useful in assessing potential demographic changes, all other factors being equal, necessary to continue to support the existing job and economic base in Lewes District.
- 3.13 The modelling for both economic scenarios assumes that rates of natural population change, household formation, rates of economic activity and net commuting remain the same as underpinning the baseline scenario. However, the rate of in-migration is altered (consequently changing the associated total population and housing numbers) to estimate the rate required to sustain growth in the number of jobs in Lewes District.

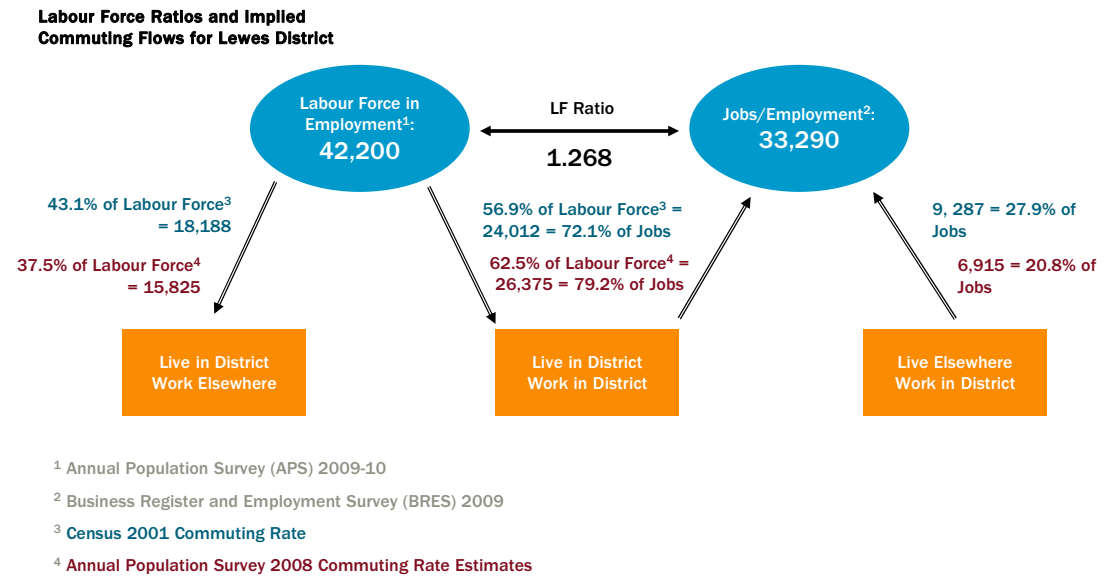
Commuting Sensitivities

- 3.14 Although the inferred commuting rate is maintained across all the above scenarios, one of the themes emerging from Lewes District Council's current aspirations for the LDF is to reduce current levels of out-commuting enabling a greater proportion of the jobs created to be taken by those currently living in the District, who may be currently commuting to locations outside of the District to work.
- 3.15 As outlined above, the commuting rate for the modelling is derived from a 'Labour Force Ratio' taking account of the current relationship between workers and jobs (i.e. as at 2009). This could infer varying shifts in commuting patterns from the 2001 Census data or the 2008 Annual Population Survey (APS)

¹⁶ http://www.statistics.gov.uk/downloads/theme_population/snpp-2008/2008_based_SNPP_Methodology_Guide.pdf

estimates and the LF Ratio itself only seeks to identify how many jobs the resident labour force could support, with in and out-commuting implicit within this. Notwithstanding this, applying the out-commuting rates from the Census and the APS would manifest itself in the rates of commuting illustrated in Figure 3.1, if applied to the current labour force estimates (those in employment in the district) and current jobs in the district (including self employment). This shows that whilst the LF Ratio remains static, the levels of commuting flows implied may be variable.

Figure 3.1 Labour Force Ratios



Source: ONS Annual Population Survey, BRES and Census 2001

- 3.16 To test the implications of Lewes District retaining more of its labour force in jobs within the District, it will be necessary to reduce the rate of out-commuting. Applying a reduction in the rate of out-commuting (whilst maintaining existing rates of in-commuting) will increase the number of resident workers available to work within the District and will have the knock on impact of increasing the number of jobs/employment that would be supported within the District.
- 3.17 Table 3.2 shows the implications for the Labour Force Ratio if a reduction in out-commuting from the Census 2001 level was applied to the existing residents in employment for Lewes District, whilst the rate of in-commuting for jobs remained constant. The way that this manifests itself in the scenarios below is that more people will live and work in the District, which means a higher level of employment/jobs supported and a reduced LF Ratio.

Table 3.2 Scenarios for Reducing Out-Commuting

LF Scenario:		i. Census 2001 levels of Out-Commuting	ii. Reduced Out-Commuting to 35%	iii. Reduced Out-Commuting to 30%
Resident Workers	Labour Force in Employment	42,200	42,200	42,200
Out-Commuting	% of Labour Force Out-Commuting	43.1%	35.0%	30.0%
	Live in District - Work Elsewhere	18,188	14,770	12,660
Self Containment	% of Labour Force Live in District & Work In District	56.9%	65.0%	70.0%
	Live in District - Work in District	24,012	27,430	29,540
	% of Jobs filled by Resident Labour Force	72.1%	72.1%	72.1%
Jobs	Jobs/Employment	33,290	38,029	40,954
In-Commuting	% of Jobs filled by In-Commuters	27.9%	27.9%	27.9%
	Live Elsewhere - Work in District	9,278	10,599	11,414
Workers - Jobs Relationship	Implied LF Ratio	1.268	1.110	1.030

Source: ONS Annual Population Survey, BRES and Census 2001

- 3.18 A sensitivity test to the economic-led Scenarios E and F based upon a reduction in out-commuting to only 30% of the labour force (from the 43.1% identified in the Census 2001) has been adopted. These are applied in the modelling through reducing the LF Ratio from the current 1.268 downwards to 1.030 by 2033 (the end of the forecasting period). This would model the impact that reducing out-commuting rates and increasing self containment could have upon the necessary demographic changes to support the economic scenarios set out.

Demographic Scenarios

- 3.19 The demographic scenarios use components of population change to project how the future population, their household composition, and consequently their requirements for housing, will shift in the future. These projected population changes comprise of natural change (i.e. births and deaths) and net migration, for which the headline results for each scenario is outlined below.

Scenario A: Baseline

- 3.20 Representing a projection of the demographic shift based on current demographic factors the modelling is based solely on ONS assumptions for natural change, using projected fertility and mortality rates, and ONS projections for migration, using projected net in-migration across the modelling period to 2033 as set out in the ONS 2008-based SNPP.
- 3.21 ONS estimate that net domestic in-migration is projected to total 18,900 people moving into the District between 2010 and 2030 whilst international net out-migration is projected to total 2,000 people leaving the District over the same period. This is equivalent to an average net-total of 845 in-migrants per annum.
- 3.22 ONS projected trends in fertility show that the number of births each year is expected to remain relatively constant over the period to 2030 with the underlying TFR in Lewes District expected to experience a steady decline overall, whilst remaining above levels seen in recent years (see Appendix 1). ONS projected trends in mortality show that the number of deaths are set to increase over the period, although this also reflects the ageing population. In terms of the underlying SMR this is projected by ONS to fall from the 2009 modelling base, with average lifespan set to rise over the projection period (see Appendix 1). Overall natural change is projected to be negative over the projection period, with deaths exceeding births by an average of 140 per annum between 2010 and 2030.
- 3.23 The above factors together lead to a population increase of 14,100 between 2010 and 2030, the majority of which would be increases in the elderly population. Applying the CLG 2008-based forecast headship rates to this population equates to an additional 8,684 households. Taking account of the dwelling vacancy and second home rate for the District, this translates to a requirement for an additional 9,045 dwellings between 2010 and 2030, or 452 per annum.
- 3.24 The implication for this scenario upon the indigenous labour force within Lewes District is that there would be minimal change in the number of economically active people resident in the District, with an ageing population structure offset by population expansion through in-migration and also shifts in economic activity through changes to pension ages. However, despite minimal growth in the size of the indigenous labour force (96 people between 2010 and 2030), due to projected reductions in unemployment, this could support growth in the number of jobs in the District of circa 1,000, assuming that commuting rates remain the same.

452 dwellings per annum

Scenario B: Static Natural Change

- 3.25 The static natural change scenario represents a demographic led scenario based upon maintaining existing fertility and mortality rates, holding these

constant over the projection period, combined with projected migration rates from the ONS 2008-based sub national population projections. The TFR is held constant at 2.02 from 2010 whilst the SMR similarly held constant at 74.2 from 2010 onwards. The implication of this upon population change in Lewes District is that projected natural change would total 5,388 more deaths than births over the period 2010 to 2030. With the same ONS projected net in-migration, this would lead to a population increase of 11,512 people between 2010 and 2030. This highlights the scale of natural change which is associated with a falling mortality rate (with rising life expectancy), the number of deaths being much lower under the baseline scenario, where the SMR is projected to decline, compared to this scenario, where the SMR is held constant.

3.26 This population change manifests itself with household growth of 5,624, necessitating a total of 5,858 dwellings between 2010 and 2030, equivalent to 293 per annum. Clearly, for this scenario to be realistic there would need to be a sound basis for assuming that Lewes would not experience changes in TFR and SMR projected by ONS.

3.27 The implication of this scenario upon the indigenous labour force is minimal in comparison with the baseline scenario, with a loss of 279 people to the labour force by 2030, compared with growth of 96 people in the labour force under the baseline scenario. This marginal difference of 348 people in the labour force between the two scenarios is reflective of the ageing population and that the factor reducing population growth under this scenario is a higher SMR, meaning the majority of population loss is amongst already retired people (i.e. through people not living as long). Under this scenario, reduction in unemployment rates would still support job growth despite falling indigenous labour supply, with an additional 718 jobs supported between 2010 and 2030.

293 dwellings per annum

Scenario C: Zero Net Migration

3.28 This demographic scenario utilises zero net internal and international migration to explore the contribution that net-migration within other scenarios makes to projected levels of population and household growth. Zero net migration has been achieved using the projected migration rates from the ONS 2008-based SNPP and equalising in and out migration for both internal and international migration by splitting the difference for each year, meaning zero net migration but a level of population churn. The average annual population churn for the District under this scenario is therefore 5,386 people domestically (i.e. 5,386 moving in from the rest of the county and 5,386 people moving out to the rest of the country) and 350 people internationally.

3.29 Taking into account this population churn, and applying the projected ONS fertility and mortality rates, natural change is projected to total a loss of 5,643 people, with deaths exceeding births over the period 2010 to 2030.

- 3.30 Whilst this scenario projects a population decline of 5,643 people, trends towards smaller household sizes, particularly driven by changes in headship rates and the ageing structure of the population, mean that by 2030 there will be an additional 404 households in the District. This will necessitate 421 additional dwellings between 2010 and 2030, equivalent to just 21 dwellings per annum.
- 3.31 The implications of this scenario for the indigenous labour force are significant. Almost 9,500 people would be lost to the resident labour force, reflecting the ageing population of the District with people retiring, but also the implications of population churn, with a greater proportion of elderly people moving in when compared to those moving out, meaning some economically active out-migrants would be replaced by economically inactive in-migrants. Even with a reduction in unemployment, and despite many of the resident workers taking up employment outside the District, this would still mean that by 2030 circa 6,230 jobs in the District would no longer have the indigenous labour force to support them (assuming existing commuting rates).

21 dwellings per annum

Scenario D: Past Migration Trends

- 3.32 Based upon past migration trends that have taken place within the District, this scenario applies the migration rates identified in Table 3.1 with net domestic migration of 800 in-migrants per annum and net international migration of 12 out-migrants per annum. This totals net in-migration of 15,760 people over the period 2010 to 2030, which combined with natural change of a 2,615 reduction in population, equals population growth of 12,145 people over this period.
- 3.33 This increase in population, alongside changes in population structure and the projected headship rates, leads to an increase in households of 8,168 between 2010 and 2030. Taking account of the dwelling vacancy rate, this would require 8,509 new dwellings over the period, equivalent to 425 additional dwellings per annum.
- 3.34 The implication of this scenario for the indigenous labour force is similar to that experienced in Scenarios A and B. Broadly the number of economically active workers would remain similar to existing, albeit assumed reductions in unemployment could lead to this population supporting up to 882 additional jobs within District over the period 2010 to 2030.

425 dwellings per annum

Scenario E: Higher Economic Growth

- 3.35 The economic scenarios are based upon an understanding of the relationship between housing and employment. The projected migration is constrained or inflated to a level which, alongside the profile of migrants moving in and out

and natural change within the population, produces a labour force which is sufficient to support a given level of employment growth in the District. For the higher economic growth scenario, employment growth is assumed at a level totalling 205 jobs per annum, reflecting the Experian employment forecasts contained within the Lewes District Employment and Economic Land Study.

- 3.36 The modelling identifies that to support employment growth of 205 jobs per annum, totalling 4,100 over the period 2010 to 2030, there would need to be growth in the indigenous labour force of 4,200 people, again allowing for a reduction in unemployment but with existing rates of commuting. To achieve a growth in the indigenous labour force of this magnitude would require a rate of in-migration above that observed in recent years. There would need to be population growth of circa 22,300 people over the period 2010 to 2030, requiring in-migration totalling over 24,000 people (with a decline in population over this period through natural change) equating to average annual net in-migration of 1,200 people, a level not observed in the previous decade.
- 3.37 This population growth and associated population and household change would result in an additional 12,074 households in the District by 2030, necessitating an additional 12,577 dwellings between 2010 and 2030. This is equivalent to 629 dwellings per annum.

629 dwellings per annum

Commuting Sensitivity – Reduction to 30% out-commuting

- 3.38 Part of the emerging vision for the Lewes District LDF is to reduce the number of residents who currently commute out of the District for work. Because of this, measures to achieve this aspect of the vision are likely to be considered in formulating the strategy for the LDF. It is therefore a useful and legitimate exercise to test the potential implications of a reduced level of out-commuting on supporting economic growth within the District, and the impacts of this for population and household change and the necessary housing delivery to underpin this. This scenario tests a reduction in the current rate of out-commuting from 43.1% of the indigenous labour force out-commuting to 30%, applying this to the higher economic growth scenario.
- 3.39 This notional reduction in out-commuting is adopted to represent a sensitivity test to the current rates of commuting within the model. When compared with the shift in out-commuting rates illustrated by the APS/LLFS between 2001 and 2008, down 6.9 percentage points from 44.4% to 37.5%, it does not represent a significant drop over the projected period, but does provide a good book-end for what could reasonably be achieved.
- 3.40 Based upon this reduction in out commuting the modelling outputs illustrate that to support growth in the number of jobs by 4,100 between 2010 and 2030 there could be a decline in the indigenous labour force of 3,872, with those people living and working in the district who become economically inactive being replaced by people who previously commuted out of the District taking

employment within the District. This decline in labour force would still be lower than would occur naturally through the ageing population and as such in-migration would still be necessary. In total this scenario would require population growth of 5,900 people, with changes in the population and household structure generating 5,265 additional households in the District between 2010 and 2030. This equates to 5,485 additional dwellings required over the two decade period, equivalent to 274 per annum.

- 3.41 This sensitivity test highlights the significant impact that achieving a shift in commuting patterns can have on the indigenous labour force, the employment base within the District and the associated economic led need for new housing. However, it is important to consider the applicability of this scenario, and the reduction in out-commuting whilst retaining existing rates of in-commuting, in the context of what can realistically be achieved through policy over the plan period, in terms of practical measures to change commuting patterns (at a time when the trend in society appears to be to increased commuting). Notwithstanding, it is clear that if the District can achieve greater self containment through lower rates of out-commuting that the number of jobs supported in the District can grow, despite an ageing population and without the need for much increased rates of net in-migration.

274 dwellings per annum

Scenario F: Lower Economic Growth

- 3.42 The lower economic growth scenario is based upon maintaining a static job base within the District, particularly in the context of past trends which has shown minimal employment growth.
- 3.43 The modelling illustrates that to maintain the existing number of jobs within the District (33,300 jobs) there could only be a small decline in the indigenous labour force of circa 1,200 people, reflecting lower unemployment rates compensating for this loss of economically people. Population growth of 11,273 would be necessary to maintain the required indigenous labour force. This shift in population would generate an additional 7,493 households over the period 2010 to 2030, equating to a requirement for 7,805 new dwellings over this period. This would be equivalent to 390 dwellings per annum.

390 dwellings per annum

Commuting Sensitivity – Reduction to 30% out-commuting

- 3.44 Undertaking a similar commuting sensitivity analysis as applied to Scenario E, again illustrates that a reduction in the level of out-commuting would reduce the necessary population growth to continue supporting local employment. In the context of maintaining a static employment base in the District, the current indigenous labour force could contract by 8,400 people, with the jobs these people would have occupied instead being occupied by those who would have previously out-commuted. This level of indigenous labour force in 2030 would

be supported by a fall in total population of circa 3,500 people, reflecting a fall through natural change off-set in part by limited in-migration totalling almost 2,000 people.

3.45 With changes in household structure, household formation would continue despite this population decline and would mean an additional 1,290 households in Lewes District between 2010 and 2030. This would necessitate 1,344 additional dwellings, equivalent to 67 per annum.

67 dwellings per annum

Summary

3.46 The scenarios reviewed are based upon a range of economic and demographic factors and the analysis shows a wide range of housing requirements based upon different indicators of what the need for housing within Lewes District could be. Table 3.3 summarises the demographic and economic implications of each scenario as well as the associated household and dwelling change.

Table 3.3 Summary of Demographic, Housing and Economic Change of Scenarios over period 2010-2030

Scenario:	Demographic Led				Economic Led			
	Scenario A: Baseline	Scenario B: Static Natural Change	Scenario C: Zero Net Migration	Scenario D: Past Migration Trends	Scenario E: Higher Economic Growth	Scenario E: Higher Economic Growth (Commuting Sensitivity)	Scenario F: Lower Economic Growth	Scenario F: Lower Economic Growth (Commuting Sensitivity)
Pop. Change	+14,100	+11,512	-5,643	+13,145	+22,346	+5,899	+11,273	-3,575
of which Natural Change	-2,800	-5,388	-5,643	-2,615	-1,728	-4,125	-3,407	-5,568
of which Net Migration	+16,900	+16,900	0	+15,760	+24,074	+10,025	+14,680	+1,992
Household Change	+8,684	+5,624	+404	+8,168	+12,074	+5,265	+7,493	+1,290
Dwelling Change	+9,045	+5,858	+421	+8,509	+12,577	+5,485	+7,805	+1,344
Dwellings p.a.	+452	+293	+21	+425	+629	+274	+390	+67
Labour Force	+96	-279	-9,479	-61	+4,202	-3,872	-1,232	-8,432
Jobs	+1,002	+718	-6,233	+882	+4,103	+4,108	-2	-9
Jobs p.a.	+50	+36	-312	+44	+205	+205	0	0

Source: NLP Demographic Modelling using PopGroup (Note: figures may contain rounding errors)

- 3.47 The outputs from the modelling show the variance between scenarios, but also highlight a number of common trends, particularly the ageing population profile and the natural change in population this brings, with deaths exceeding births. Notwithstanding, population is continued to set to rise under all scenarios through migration, with the exception of the zero net migration scenario.
- 3.48 The labour force and employment implications of each scenario also vary, dependent on the dynamics of population change which underpin each scenario. A zero net migration scenario, for instance, would have a significant impact upon the indigenous labour force, with no in-migration of new labour supply to support economic growth. Assuming current commuting rates, this may present itself as jobs lost to the District as firms potentially move elsewhere due to labour supply constraints or as firms close (e.g. self employed people retiring or small firms closing as directors retire). The economic led scenarios illustrate the need to attract new labour supply into the District to minimise the pressures created on labour through an ageing population, with the associated need to provide new dwellings to house this changing population structure. However, the sensitivities to these also illustrate that such labour supply factors can also be achieved without high in-migration or population growth through reducing levels of out-commuting.
- 3.49 Projected dwelling requirements from the scenarios range from 21 per annum (based on a zero net migration scenario) to as high as 629 (based upon the necessary housing to deliver high economic growth at current commuting rates).
- 3.50 Outputs for the modelling of each scenario are contained within Appendix 2.

4.0 Housing Delivery Implications

Sub-District Split

- 4.1 In 2009 the South Downs was confirmed as a National Park (NP). On the 1st April 2011 the new South Downs National Park Authority (SDNPA), which includes a significant proportion of Lewes District, assumed the role of the local planning authority for the area within the National Park. Lewes District Council envisages that the Core Strategy for the whole of Lewes District, including the part within the National Park, will be prepared jointly with the SDNPA. Despite the production of a joint Core Strategy it will still be necessary to determine what parts of the strategy apply to the two individual authorities.

Figure 4.1 Map of South Downs National Park within Lewes District



Source: Lewes District AMR

- 4.2 A key element of the Lewes District Core Strategy will be the housing delivery target and this will need to be sub-divided between the part of the District within the National Park, and the part of the District outside.
- 4.3 Any future apportionment within a locally generated housing requirement will need to consider the availability of sites, the vision and aspirations for development in different parts of the District and also the twin National Park purposes¹⁷.

¹⁷ The two purposes as defined in the Environment Act 1995 are: (1) to conserve and enhance the natural beauty, wildlife and cultural heritage of the area; and (2) to promote opportunities for the understanding and enjoyment of the special qualities of the National Park by the public.

4.4 Notwithstanding this, it is useful to consider some of the metrics that will influence need at a sub-district level, albeit no sub-district modelling has been undertaken, both due to the limitations on data availability at a local level, meaning such modelling would be less statistically reliable, and also due to the other factors outlined in the previous paragraph, which will ultimately guide any apportionment.

4.5 As outlined in Figure 2.8 over three quarters of the District’s population lives outside of the NP, thus it follows that based on this pattern of population distribution, the majority of housing need will also fall outside of the NP, although factors such as personal preference and affordability may mean demand for new dwellings is higher in some parts of the District, which may not necessarily follow existing population distributions.

Table 4.1 Potential Sub-District Apportionment of Housing Need

Factor	Description	Implied Split
Existing Population Split	The distribution of population is indicative of where demand for new housing is most likely to arise. Based upon ward estimates, 73,701 of the District’s residents live outside of the NP whilst 22,695 live within the NP.	24% NP 76% Outside
National Park Need for housing	If the NP area were notionally to only provide for its local needs without accommodating projected in-migrants (i.e. a zero net migration scenario for the NP area) it would need to provide for its share (24%) of Scenario D, equivalent to 5 dwellings per annum. Comparing this to the Baseline Scenario A, where it could be assumed that all in-migrants would move into new dwellings outside of the NP (i.e. 5 of the 452 dwellings per annum would be built in the NP, the remainder outside), provides an estimate that only 1% of the total dwellings would need to be provided in NP to meet the largely indigenous need for housing of the NP.	1% NP 99% Outside

4.6 As the majority of projected population change is likely to be associated with in-migration, with only a small proportion of additional housing requirements associated with the natural change and population churn factors (as illustrated by the zero net migration scenario), there is the opportunity to utilise other factors to guide any apportionment. The above, does suggest that the proportion of housing requirement for the National Park arising out of population factors should be between 1% and 24% of any total housing requirement. However, with Lewes Town included within the NP it is clear that the lower end of this range is unlikely to be appropriate given the opportunities for growth, land available, and indeed the role of housing development within Lewes town in achieving economic and other policy objectives, including the delivery of affordable housing.¹⁸

¹⁸ It is also worth noting that Lewes town already has 415 households on the housing register who are in need of affordable housing. Even if the 5 dwellings per annum are built as affordable units this will not come close to satisfying the local need for affordable housing.

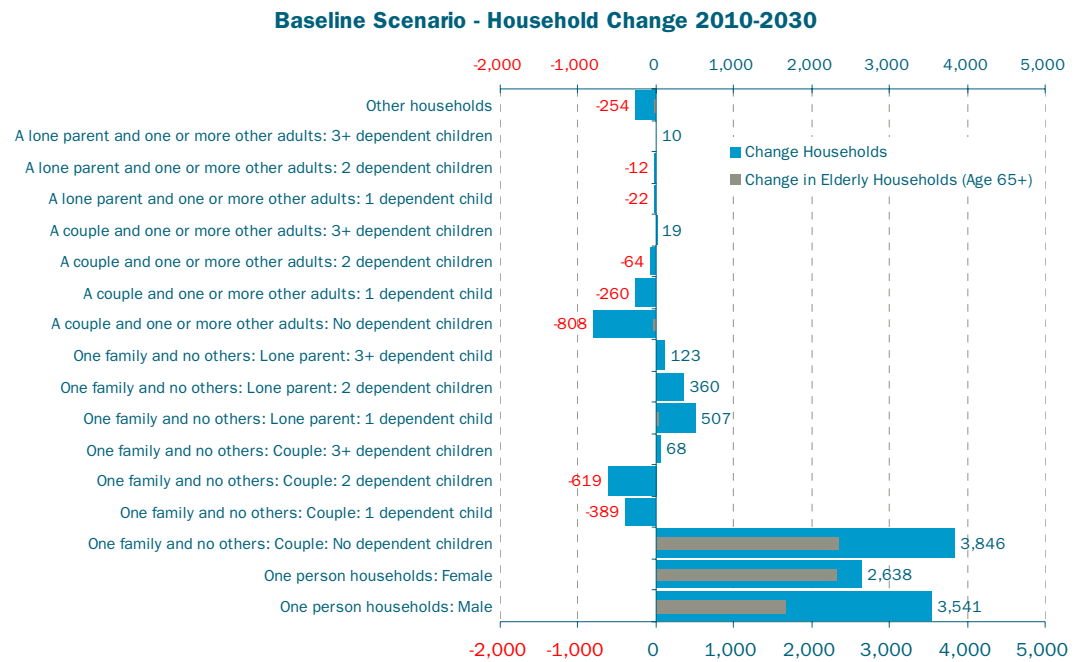
- 4.7 For this reason, any apportionment of housing requirement between the NP area and the area outside of the NP within the District will need to take account of a wide range of further factors, including:
- a How far it is possible to ensure housing delivery actually goes towards meeting local needs, rather than incentivising further in-migration and pricing-out local households causing displacement and unintended housing outcomes (as may happen in areas of high demand and constrained supply, such as National Parks);
 - b Cooperation with contiguous authorities, particularly those in inter-related housing market areas, where levels of planned for development elsewhere may have need and demand implications for Lewes District. This includes the SDNP Authority and the other parts of NP outside of the District;
 - c Past completions in the NP area and outside the NP area, illustrating the demand for house building activity within the areas and the past spatial distribution of development;
 - d The need for the National Park Authority to consider housing need across the whole Park area;
 - e The vision and strategy adopted for Lewes District, including the role that housing delivery can play in area regeneration, such as in Newhaven, and supporting local economies; and
 - f Development constraints and capacity such as land supply, environmental factors and infrastructure capacity.
- 4.8 Overall it is recommended that the factors above have more weight in the decision making process for any sub-district split of housing requirement, particularly given indigenous needs are minimal and housing delivery can support many of the aims and objectives for a future planning strategy in the District.

Size and Types of Dwelling

- 4.9 The size and types of dwelling required over the core strategy period within Lewes District will be intrinsically related to the population change and the types of households forming within the District over the period. As identified in the scenario analysis contained with Section 3, Lewes is projected to experience a shifting population structure, with increasing numbers of elderly people. Combined with social changes, with changes in social trends such as divorce rates leading to shifting patterns of household composition (e.g. increasing numbers of lone parents), these will shape future housing requirements.
- 4.10 The implications of this for Lewes District are illustrated in Figure 4.2 using absolute change in the number of households, by different typology from the Baseline Scenario. This shows that the vast majority of the 8,684 net additional households in Lewes District over the period between 2010 and 2030 is attributable to three main households types: female single person

households; male single person households; and couples with no dependent children and no other occupants. In total by 2030 under the Baseline Scenario, there would be over 10,000 additional households in these three household types. The main factor driving this is the ageing population, with circa 6,300 additional households forming within the 65+ age bracket, the majority being single person (e.g. widow/widowers) or couple households. This is due to the high level of household headship amongst this age group, which when applied to an expanding elderly population results in household growth of this kind.

Figure 4.2 Scenario A. Baseline: Household Formation by Type 2010-2030



Source: NLP modelling using PopGroup

4.11

The Baseline Scenario is broadly reflective of the population and household dynamic which underpins each of the scenarios. Thus, using the Baseline Scenario as a proxy for the likely types of households forming within the District over the core strategy period, Table 4.2 demonstrates the types of new housing that might be required to support household change. This applies a theoretical assumption that household types occupy dwellings suited to their composition and takes no account of the suitability of the existing dwelling stock in meeting current household requirements. This analysis looks at the types of households projected to form between 2010 and 2030 and what type of dwellings would satisfy (i.e. adequately meet but without exceeding) their need for housing.

Table 4.2 Household Composition and Dwelling Size and Type

Household Types	Example Likely Dwelling Types	Baseline Scenario (Net Growth 2010- 2030)	Estimated Proportion of Growth
One Person Households and Couple Households	Small dwellings and apartments/flats (1-2 bed)	3,700	30-40%
Elderly (65+) One Person Households and Couple Households	Accessible dwellings built to lifetime home standards (or other such standard), small bungalows, retirement villages, sheltered accommodation, care homes (1-2 bed).	6,325	55-65%
Family unit (couple or lone parent) with 1 dependent child	Smaller family dwelling houses or in some cases larger apartments (2-3 bed).	118	0-5%
Family unit (couple or lone parent) with 2+ dependent children	Family dwelling houses (3+ bed)	-67	0%
A couple with one or more other adults	Shared dwelling houses (3+ bed depending on number of other adults)	-808	0%
Lone Parent or couple with one or more other adults and 1 dependent child	Shared dwelling houses (3+ bed depending on number of other adults)	-282	0%
Lone Parent or couple with one or more other adults and 2+ dependent children	Larger shared dwelling houses (4+ bed depending on number of other adults)	-48	0%
Other households (e.g. houses in multiple occupation)	Various depending on composition of household	-254	0%

Source: NLP analysis using Scenario A. Baseline

- 4.12 The above analysis highlights that the vast majority of need arising from the population and household estimates would be for smaller dwelling types, with the majority of households being 1 or 2 person households. Furthermore, much of this need is arising from elderly households, whose housing requirements may range from standard dwellings, to housing options more typically associated with the elderly, such as bungalows, retirement villages, sheltered housing schemes or care homes.
- 4.13 However, applying these metrics is too simplistic a way of estimating future dwelling size and type requirements: the operation of the housing market will not be perfectly efficient to match household size to dwelling size. The Lewes SHMA identifies that “data shows that 52% of dwellings in Lewes [District] are under-occupied – that is, households are occupying more space than they are

*judged to need.*¹⁹ Particularly given that elderly people often have a tendency to continue to reside in family homes once children have grown up and moved away, so called 'empty nesting', this may have implications for the size and types of dwellings that need to be provided. Growth in these types of smaller households living within larger properties, particularly in areas facing affordability pressures where older people can afford to purchase and retain such houses, may place further housing need pressures upon other households who require such larger dwelling sizes.

4.14

This broadly reflects the analysis of the relationship between dwelling size and household size and is contained within a report by NLP for the Nottingham City Region²⁰ (although this report was undertaken for the Nottingham City Region the findings are considered relevant on a nationwide basis). It concluded that:

1. The relationship between household size and housing is a complex one, and in the context of the overall dynamics of the housing market, the impact of policy levers is inevitably marginal – although this does not mean that it is not legitimate;

2 Aspirations and changing lifestyles mean there is a demand for larger, more flexible housing;

3 Rising number of households, low/falling new build rates, limited access to housing finance means there is suppressed demand and concealed households;

4 Average household size may be falling, but overcrowding is still a factor for many households, and this coincides with a number of other important socio-economic factors, including lower incomes;

5 So-called 'under-occupation' of existing family stock is an important feature of the market, but one where there is limited scope to intervene, even where it is considered desirable to do so;

6 New build is important component of the market, but still relatively limited compared to the existing stock in meeting overall need. Conversion and adaptation of existing stock will also be an important policy tool

¹⁹ Housing Market Assessment of Lewes, DTZ, 2008 (para 6.23)

²⁰ The Relationship between Household Size and Dwelling Size in New Housing Provision, NLP, 2010 http://www.gedling.gov.uk/dwelling_size_research_final_report.pdf

4.15 The report went on to identify that:

“Evidence on housing need and mix produces empirical data on future needs which are expressed quantitatively. The temptation is often to attach a great deal of weight to these estimates of housing need (whether it relates to affordable housing or the type and mix). Ultimately, however, there needs to be caution in applying detailed modelled outputs of housing need at a local level and especially to individual developments, without factoring in other relevant considerations in a way that is structured and systematic. Recent appeal decisions have identified that factors such as dwelling mix, size and type have in a number of recent cases been identified as less important factors in cases where the overall supply will see an increase in additional housing that will be delivered to the market.”

4.16 Taking the above into account, although it is clear that the majority of household need will be for smaller dwellings (and in particular an acute need for housing solutions for older people), it is important to provide a range of dwellings, given the challenges in matching households to dwellings. The SHMA reiterates this (para 9.23);

“It would not be practical or appropriate to seek to put in place standard district wide policies regarding the appropriate mix of size and type of dwelling to be provided as part of new developments. PPS3 is also clear (para 23) that it expects developers to bring forward their own proposals for market housing that reflect demand, as well as the profile of households requiring market housing.”

5.0

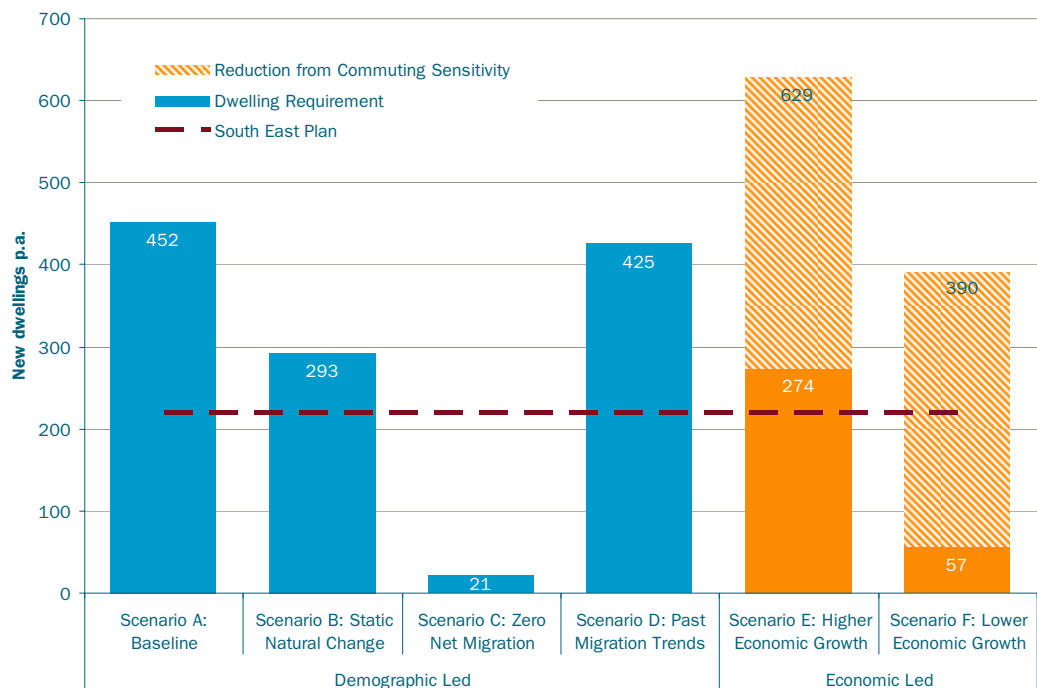
Defining a Local Housing Requirement

Summary

5.1

The overall quantum of housing requirement, as assessed for the period 2010 to 2030, varies dependent on the demographic and economic scenarios adopted. As summarised in Figure 5.1, the requirement varies from 21 dwellings per annum under a zero net migration scenario to 629 per annum under a higher economic growth scenario.

Figure 5.1 Summary of Scenarios



Source: NLP analysis

5.2

The implications for population trends and economic trends also vary by scenario. The direction of population change is uniform across all scenarios, with an ageing demographic structure and population decline from natural change, with deaths exceeding births, albeit to different quantum under different scenario. The core variable to population change is therefore migration, which will drive population growth, household growth and dwelling requirements. Population and household pyramids are included for the demographic scenarios in Appendix 3.

5.3

In addition to population change, the potential impact on Lewes District's employment base is significant. Whilst levels of population growth under the Baseline and Past Migration Trends scenarios would broadly maintain a static employment base (as also illustrated by the lower economic growth scenario), lower dwelling growth would constrain in-migration and lead to vastly reduced indigenous labour force, creating pressures on the local labour market which

would potentially lose employment. However, as illustrated by the commuting sensitivities on the two economic scenarios, reducing levels of out-commuting would significantly increase the indigenous labour force able to support jobs within the District and would allow for job growth without creating substantial demands on in-migration and new housing.

Recommendations

- 5.4 Based upon the demographic and population factors set out, it is considered that a dwelling requirement of between 300 and 450 dwellings per annum is the most reasonable to plan for. This would accommodate the majority of need for housing arising out of the projected population change based upon recent trends and ONS published projections for demographic change. It would also maintain an indigenous labour force sufficient to support the existing number of jobs in Lewes District (and some growth). If reductions in out-commuting were achieved, greater job growth towards the high economic growth scenario (205 jobs per annum) would be supported, albeit there would need to be clear route map for changing net commuting rates, taking account of employment and housing change in contiguous and related local authority areas.
- 5.5 It is not considered credible to plan for a zero net-migration scenario, as there is no evidence to suggest that this would be achievable without a substantial impact upon the population structure, with a major reduction in economic activity caused by an ageing population and also potential housing market outcomes such as overcrowding (as at least some in-migration by wealthier households would be likely to continue without the additional housing to support it), concealed households and declining affordability.
- 5.6 Despite the above, a housing requirement below this range (i.e. below 300 dwellings per annum) could be appropriate when considered against a range of other factors outwith the scope of this study which could be given weight, albeit the implication of this would be lower levels of net in-migration. This lower net in-migration may present itself as less people moving into the District, but may equally present itself as existing residents having to move out of the District to meet their own need for housing due to constrained supply and/or tightened affordability. A rate commensurate to the South East Plan requirement (220 dwellings per annum) would not have a substantial bearing on constraining economic growth if the target to reduce out-commuting were met. However, it would potentially generate some of the outcomes from reduced net in-migration such as displacing existing households.
- 5.7 The potential distribution of any housing requirement in terms of a sub-district split between the National Park and the part of Lewes District outside of the National Park will depend upon the sustainability of any spatial pattern of housing delivery and how this can achieve the objectives for Lewes District and the twin National Park purposes. This is also dependent upon further considerations beyond the remit of this study, such as the need for the National Park Authority to consider housing need on a Park-wide basis and consideration of land supply and potential constraints and how the total

housing requirement adopted dovetails with these factors. Notwithstanding, demographic factors suggest that up to 24% of the requirement could fall within the National Park, albeit a minimum level of only providing for local needs (i.e. a zero net migration for the NP) would suggest as little as 1% of requirement falling within the National Park (recognising that this would not take account of a whole series of sensible planning issues, including the role and potential benefits of new housing development in Lewes Town).

- 5.8 In terms of the size and type of dwellings required, the modelling undertaken illustrates the scale of ageing population, with a particular requirement for housing options to address this such as elderly friendly market housing or specific housing products for the elderly. Away from the needs of the elderly population, there is a need for new smaller dwellings to support growth in single person households and couples with no dependents. Despite this, under-occupation of housing may continue to create pressures for larger family dwellings.

Towards Defining a Local Housing Requirement

- 5.9 As outlined in Section 1.0, the HEaDROOM framework provides a comprehensive approach towards defining a local housing requirement. However, this report concentrates on defining a gross housing requirement based solely upon demographic and economic factors and therefore there is a wide range of further factors which Lewes District Council will need to consider in advance of adopting a housing requirement to progress through their Core Strategy.
- 5.10 The limitations of this study are therefore that it is only one piece of the local need for housing jigsaw and the following factors will also be relevant the next steps for defining a local housing requirement:
- a Integrating the evidence contained within this report into the wider debate over the scale of housing it is appropriate to plan for within Lewes District, taking account of the areas identified in PPS3 (para 33) and also the vision and objectives that come forward through the Core Strategy. This will need to include appropriate consultation;
 - b Weighing the implications of constrained housing delivery upon meeting local need for housing. Potential outcomes of lower housing delivery include rising affordability pressures which could exclude certain household types from the market and have knock-on implications for population churn, such as displacing existing households – meaning market housing provided does not meet local needs, but merely encourages in-migration of those who can afford it (although any affordable dwellings would go towards meeting local needs);
 - c The need to set the gross housing requirement against any constraints which may reduce this. This could include infrastructure capacity, land supply, environmental capacity and development viability, amongst others;

- d Potential for further work to:
 - i Evidence housing need at a sub-district level (e.g. through the housing register to better understand patterns of need) to provide further context (but not sole determinant for) requirements falling within the National Park;
 - ii Develop the evidence around infrastructure and environmental constraints which could prevent the deliverability of certain levels of growth.

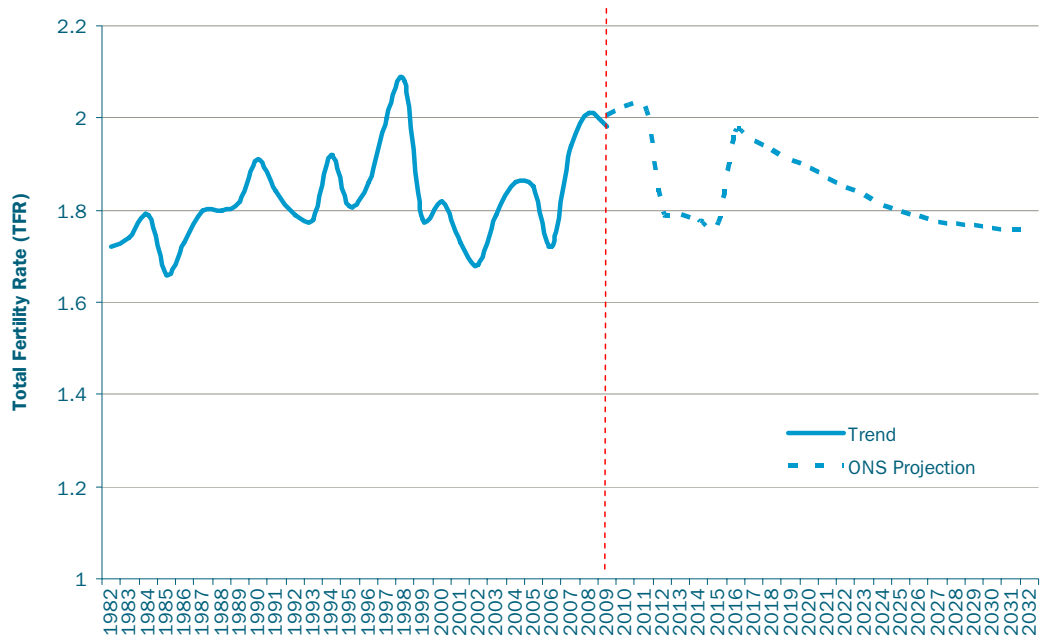
Appendix 1 Inputs and Assumptions

Component	Scenario A – Baseline	Scenario B – Static Natural Change	Scenarios C and D – Migration	Scenarios E and F – Economic Growth
Population				
Baseline Population	A 2009 baseline population is taken from ONS mid-year population estimates (2009), which are the same as utilised by East Sussex County Council on their East Sussex in Figures data repository. This 2009 population is split to by single year of age and gender.			
Births	See Scenarios C-F	The Total Fertility Rate (TFR) for 2010 is estimated the ONS 2008-based Sub-National Population Projections (SNPP) and then held constant over the period to 2033	A Total Fertility Rate (TFR) is applied to the population forecast using projected TFRs for Lewes District from the ONS 2008-based Sub-National Population Projections (SNPP). The TFR for each year is derived through PopGroup using the total births forecast for each year in Lewes District to 2033 from the SNPP (SNPP Table 5) and working back from this to identify what the TFR is for that year. The analysis shows the TFR is varying over time but trending slightly downwards within Lewes. See following graph.	
Deaths	See Scenarios C-F	The Standard Mortality Rate (SMR) for 2010 is estimated the ONS 2008-based Sub-National Population Projections (SNPP) and then held constant over the period to 2033	A Standard Mortality Rate (SMR) is applied to the population forecast using projected SMRs for Lewes District from the ONS 2008-based Sub-National Population Projections (SNPP). The SMR for each year is derived through PopGroup using the total births forecast for each year in Lewes to 2033 from the SNPP (SNPP Table 5) and working back from this to identify what the SMR is for that year. The analysis shows the SMR is reducing over time within Lewes (i.e. increasing life expectancy), which is consistent with the past trends explored in Section 2. See following graph.	
Internal Migration	Gross domestic in and out migration flows are adopted based on forecast migration in Lewes District from the ONS 2008-based SNPP for 2010 to 2033. This is the sum of internal migration (elsewhere in England) and cross-border migration (elsewhere in the UK) (SNPP Table 5)		Gross domestic in and out migration flows are adopted based upon the average gross flows for Lewes District of the previous 11 years (Scenario D) and splitting the difference between gross ONS projections for zero net-migration (Scenario C)	Internal in-migration and out-migration is flexed to achieve the necessary number of economically active people to underpin the economy in Lewes District under the two employment growth scenarios.

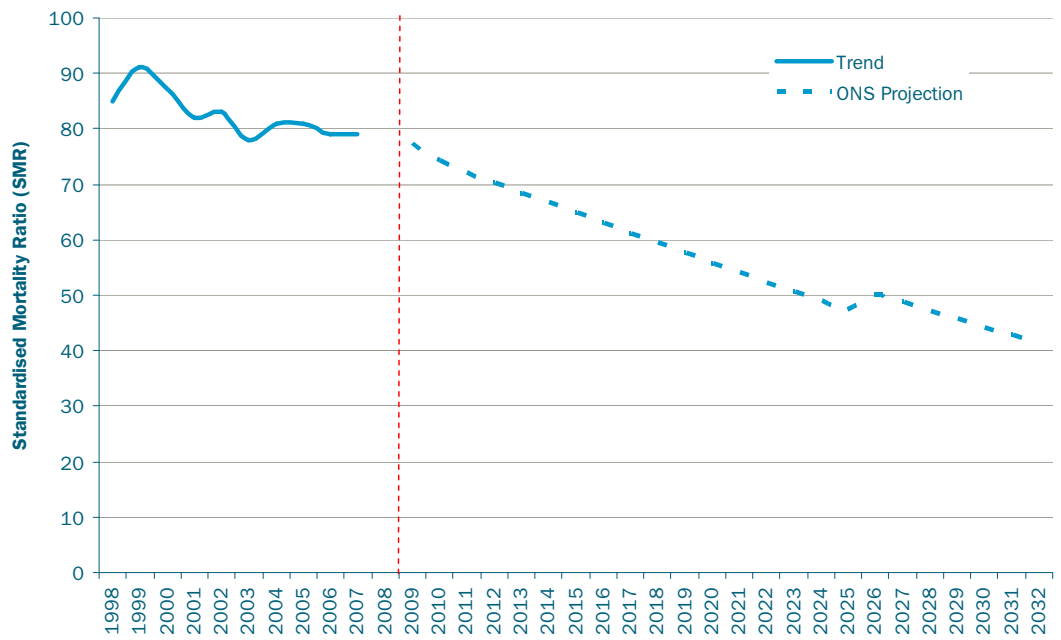
	Change	Migration	Scenarios E and F – Economic Growth
International Migration	Gross international in and out migration flows are adopted based on forecast migration in Lewes District from the ONS 2008-based SNPP for 2010 to 2033. (SNPP Table 5)	Gross international in and out migration flows are adopted based upon the average gross flows for Lewes District of the previous 8 years (Scenario D) and splitting the difference between gross ONS projections for zero net-migration (Scenario C)	International in-migration and out-migration is flexed to achieve the necessary number of economically active people to underpin the economy in Lewes District under the two employment growth scenarios.
Propensity to Migrate (Age Specific Migration Rates)	Age Specific Migration Rates (ASMigR) for both in and out domestic migration are based upon the age profile of migrants to and from Lewes District over the previous five years. This is based upon NHSCR data from ONS on Internal Migration by Local Authorities in England and Wales (http://www.statistics.gov.uk/statbase/Product.asp?vlnk=15148). An average total level of migration for each age cohort is taken from mid-2004 to mid-2009 and then used to identify a migration rate for each age cohort within Lewes District (for both in and out flows separately) which is applied to each individual age providing an Age Specific Migration Rate. This then drives the demographic profile of those people moving into and out of the District (but not the total numbers of migrants).		
Housing			
Headship Rates	Headship rates that are specific to Lewes District and forecast over the period to 2033 are taken from the government data which was used to underpin the 2008-based CLG household forecasts and applied to the demographic forecasts for each year as output by the PopGroup model. These headship rates are split by age cohort.		
Population Not in Households	The number of population not in households (e.g. those in institutional care) is similarly taken from the assumptions used to underpin the 2008-based CLG household forecasts. No change is assumed in the rate of this from the CLG identified rate.		
Vacancy / 2 nd Home Rate	A vacancy and second homes rate is applied to the number of households, representing the natural vacancies/not permanently occupied homes which occur within the housing market and mean that more dwellings than households are required to meet needs. The vacancy/second home rate in Lewes District totals 4% (estimated using ONS 2008 Vacant Dwellings Data). This is held constant over the forecast period as it is already in line with the South East average (4%) and is not considered likely to substantially improve given natural vacancy rates in the housing market.		

Component	Scenario A – Baseline	Scenario B – Static Natural Change	Migration	Scenarios E and F – Economic Growth
Economic				
Economic Activity Rate	Age and gender specific economic activity rates are used. The basis for this is ONS Labour Force Projections (1998) which have been rebased from their 2010 estimate using a uniform adjustment to all age cohorts to meet current total economic activity in the District from the 2008 Annual Population Survey (APS). These are assumed to remain static going forward with the exception of an adjustment to take account of changing pension ages.			
Commuting Rate	A standard net commuting rate is inferred through the modelling using a Labour Force ratio which is worked out using the formula: (A) Number of employed workers living in area ÷ (B) Number of workers who work in the area (number of jobs). In Lewes District data from the 2009-10 Annual Population Survey (APS) and 2009 Business Register and Employment Survey (BRES) identifies an LF ratio of 1.269 (42,200 employed people ÷ 33,290 jobs). This has been flexed over the forecasting period, except for the commuting sensitivities in Scenarios E and F which reduce the level out-commuting. See section 3 for more details.			
Unemployment	The unemployment rate is taken from the ONS Annual Population Survey estimate of economically active people not in employment (6.8%). A reduction in unemployment of 0.2% is assumed each year down to 4.2%, reflecting the per-recession average model based unemployment (APS) and that as the economy grows out of recession unemployment will fall back to rate similar rate as seen during this period.			

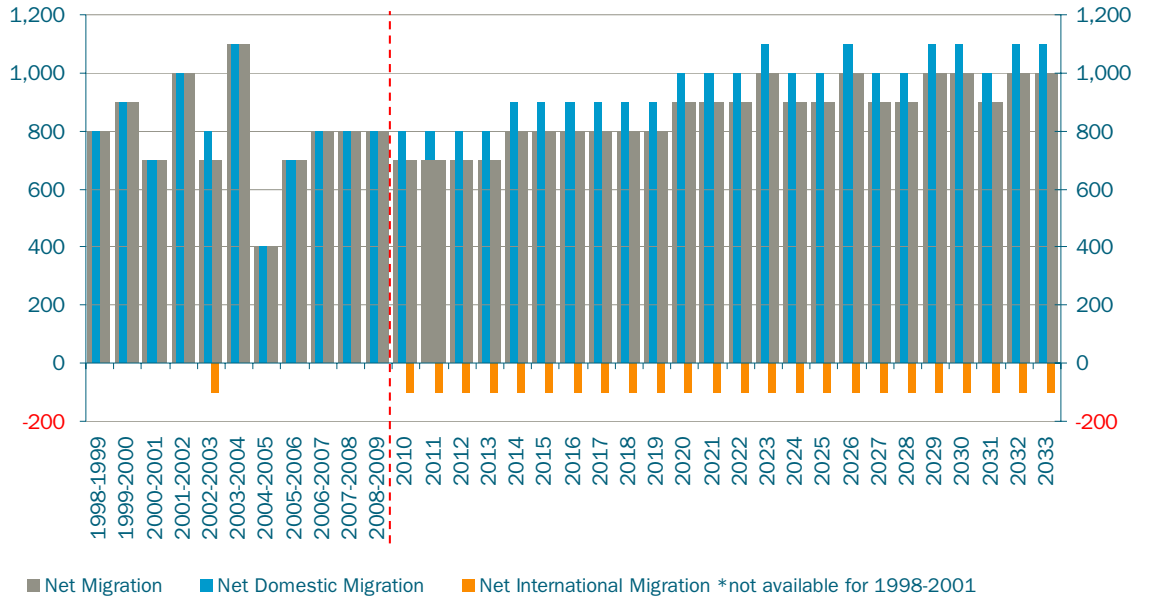
Past Trend and ONS Projected Fertility Rates



Past Trend and ONS Projected Mortality Rates



Past Trend and ONS Projected Migration Rates



Appendix 2 PopGroup Modelling Outputs

Scenario A. Baseline

Population Estimates and Forecasts

Nathaniel Lichfield and Partners

Scenario A. Baseline

Components of Population Change

Lewes District Council

	Year beginning July 1st.....																										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032			
Births																											
Male	458	463	463	412	412	412	412	463	463	463	463	463	463	463	463	463	463	463	463	463	463	463	463	463	463		
Female	433	437	437	388	388	388	388	388	437	437	437	437	437	437	437	437	437	437	437	437	437	437	437	437	437		
All Births	891	900	900	800	800	800	800	800	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900		
TFR	2.00	2.02	2.02	1.79	1.79	1.78	1.77	1.97	1.95	1.93	1.91	1.89	1.87	1.85	1.83	1.81	1.80	1.79	1.77	1.77	1.76	1.76	1.76	1.76			
Births input																											
Deaths																											
Male	462	457	458	460	462	465	468	471	474	477	480	483	486	490	493	496	498	549	551	553	554	555	556	556			
Female	553	542	542	540	538	535	532	529	526	523	520	517	514	510	507	504	502	551	549	547	546	545	544	544			
All deaths	1,015	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,100	1,100	1,100	1,100	1,100	1,100	1,100			
SMR: males	77.4	74.0	71.6	69.5	67.6	65.8	63.9	62.1	60.3	58.5	56.8	55.1	53.4	51.8	50.2	48.5	47.0	50.0	48.6	47.2	45.8	44.3	43.0	41.6			
SMR: females	77.4	74.4	72.3	70.6	68.9	67.3	65.5	63.7	61.9	60.1	58.2	56.4	54.5	52.7	50.9	49.1	47.4	50.2	48.6	47.0	45.4	43.9	42.5	41.1			
SMR: male & female	77.4	74.2	72.0	70.1	68.3	66.6	64.8	62.9	61.1	59.3	57.5	55.7	54.0	52.3	50.6	48.8	47.2	50.1	48.6	47.1	45.6	44.1	42.7	41.3			
Expectation of life	82.8	83.1	83.3	83.4	83.6	83.8	83.9	84.1	84.3	84.4	84.6	84.7	84.9	85.1	85.2	85.4	85.6	85.2	85.3	85.5	85.7	85.8	86.0	86.2			
Deaths input																											
In-migration from the UK																											
Male	2,245	2,542	2,540	2,581	2,576	2,619	2,618	2,619	2,667	2,664	2,664	2,710	2,712	2,706	2,747	2,745	2,741	2,782	2,782	2,783	2,830	2,826	2,824	2,866			
Female	2,653	2,958	2,960	3,019	3,024	3,081	3,082	3,081	3,133	3,136	3,136	3,190	3,188	3,194	3,253	3,255	3,259	3,318	3,318	3,317	3,370	3,374	3,376	3,434			
All	4,898	5,500	5,500	5,600	5,600	5,700	5,700	5,700	5,800	5,800	5,800	5,900	5,900	5,900	6,000	6,000	6,000	6,100	6,100	6,100	6,200	6,200	6,200	6,300			
SMiGR: males	52.0	58.4	57.9	58.5	58.2	58.9	58.6	58.3	59.1	58.7	58.5	59.4	59.2	58.8	59.5	59.2	58.8	59.3	58.8	58.5	59.1	58.7	58.4	59.0			
SMiGR: females	59.7	65.5	64.9	65.7	65.6	66.5	66.3	66.0	66.8	66.6	66.3	67.2	66.9	66.7	67.5	66.9	66.5	67.2	66.5	66.8	66.3	65.7	65.2	66.0			
Migrants input																											
Out-migration to the UK																											
Male	2,053	2,204	2,199	2,241	2,234	2,232	2,230	2,251	2,278	2,274	2,276	2,276	2,278	2,278	2,278	2,324	2,320	2,316	2,359	2,358	2,355	2,348	2,390	2,384			
Female	2,249	2,496	2,501	2,559	2,566	2,568	2,570	2,589	2,622	2,626	2,622	2,622	2,622	2,622	2,676	2,680	2,684	2,741	2,742	2,742	2,745	2,752	2,810	2,816			
All	4,302	4,700	4,700	4,800	4,800	4,800	4,800	4,800	4,900	4,900	4,900	4,900	4,900	4,900	5,000	5,000	5,000	5,100	5,100	5,100	5,100	5,200	5,200	5,200			
SMiGR: males	47.5	50.6	50.2	50.8	50.5	50.2	49.9	49.7	50.4	50.1	50.0	49.8	49.7	49.5	49.3	50.1	49.7	49.4	49.9	49.6	49.2	48.7	49.4	49.1			
SMiGR: females	50.6	55.3	54.8	55.7	55.6	55.5	55.3	55.0	55.9	55.8	55.5	55.3	55.0	54.7	54.4	55.0	54.7	54.4	55.0	54.4	54.0	53.6	54.3	54.1			
Migrants input																											
In-migration from Overseas																											
Male	152	151	151	151	151	151	151	151	151	151	151	151	151	151	151	150	150	150	150	150	149	149	149	149			
Female	148	149	149	149	149	149	149	149	149	149	149	149	149	149	149	150	150	150	150	150	151	151	151	151			
All	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300			
SMiGR: males	53.5	53.0	52.6	52.2	51.8	51.5	51.1	50.8	50.5	50.4	50.3	50.3	50.2	50.2	50.1	50.0	50.0	49.9	49.6	49.5	49.2	48.9	48.6	48.4			
SMiGR: females	53.5	53.0	52.6	52.2	51.8	51.5	51.1	50.8	50.5	50.4	50.3	50.3	50.2	50.2	50.1	50.0	50.0	49.9	49.6	49.5	49.2	48.9	48.6	48.4			
Migrants input																											
Out-migration to Overseas																											
Male	152	202	202	202	202	202	202	201	201	201	201	201	201	201	201	200	200	200	200	200	199	199	199	199			
Female	148	198	198	198	198	198	198	198	199	199	199	199	199	199	199	200	200	200	200	200	200	201	201	201			
All	300	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400			
SMiGR: males	53.5	70.7	70.1	69.6	69.0	68.6	68.1	67.7	67.4	67.2	67.1	67.0	66.9	66.9	66.8	66.7	66.6	66.5	66.2	65.9	65.6	65.2	64.8	64.5			
SMiGR: females	53.5	70.7	70.1	69.6	69.0	68.6	68.1	67.7	67.4	67.2	67.1	67.0	66.9	66.9	66.8	66.7	66.6	66.5	66.2	65.9	65.6	65.2	64.8	64.5			
Migrants input																											
Migration - Net Flows																											
UK	+595	+800	+800	+800	+800	+900	+900	+900	+900	+900	+900	+1,000	+1,000	+1,000	+1,100	+1,000	+1,000	+1,100	+1,000	+1,000	+1,100	+1,100	+1,000	+1,100			
Overseas	0	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100			
Summary of population change																											
Natural change	-124	-100	-100	-200	-200	-200	-200	-200	-100	-100	-100	-100	-100	-100	-100	-100	-100	-200	-200	-200	-200	-200	-200	-200	p.a. -140		
Net migration	+595	+700	+700	+700	+700	+800	+800	+800	+800	+800	+800	+900	+900	+900	+1,000	+900	+900	+1,000	+900	+900	+1,000	+1,000	+900	+1,000	p.a. +845		
Net change	+471	+600	+600	+500	+500	+600	+600	+600	+700	+700	+700	+800	+800	+800	+800	+800	+800	+700	+700	+700	+800	+800	+700	+800	p.a. +705		
Summary of Population estimates/forecasts																											
	Population at mid-year																										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033		
0-4	4,730	4,796	4,944	5,002	4,986	4,916	4,830	4,715	4,698	4,812	4,929	5,049	5,180	5,183	5,184	5,190	5,189	5,186	5,190	5,188	5,184	5,187	5,188	5,183	+391		
5-10	6,258	6,226	6,196	6,233	6,302	6,403	6,560	6,712	6,884	6,832	6,805	6,726	6,829	6,840	6,849	6,894	6,934	7,072	7,214	7,216	7,215	7,218	7,219	7,215	+992		
11-15	5,718	5,635	5,552	5,459	5,355	5,292	5,234	5,227	5,175	5,273	5,329	5,465	5,599	5,776	5,857	5,835	5,757	5,656	5,535	5,543	5,684	5,827	5,970	6,107	+192		
16-17	2,352	2,311	2,223	2,222	2,211	2,146	2,098	2,052	2,059	2,030	1,997	1,989	1,993	2,006	2,084	2,156	2,185	2,259	2,310	2,334	2,206	2,085	2,070	2,061	-226		
18-59:Female, 64:Male	50,921	50,951	51,056	50,997	50,896	50,917	51,001	51,03																			

Scenario E. Higher Economic Growth

Population Estimates and Forecasts

Nathaniel Lichfield and Partners

Scenario E. Higher Economic Growth

Components of Population Change

Lewes District Council

	Year beginning July 1st																							
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Births																								
Male	458	463	464	416	419	422	424	479	482	485	488	491	495	498	501	504	508	513	515	519	523	525	526	527
Female	433	437	438	382	395	398	400	452	454	457	460	463	467	470	472	476	480	484	486	490	493	495	496	497
All Births	891	900	901	808	814	821	824	931	936	942	948	954	961	967	973	980	988	996	1,001	1,009	1,015	1,020	1,022	1,024
TFR	2.00	2.02	2.02	1.79	1.79	1.78	1.77	1.97	1.95	1.93	1.91	1.89	1.87	1.85	1.83	1.81	1.80	1.79	1.77	1.77	1.76	1.76	1.76	1.76
Births input																								
Deaths																								
Male	462	457	458	459	462	465	468	471	474	477	480	483	486	489	492	495	497	548	550	552	552	553	554	554
Female	553	543	542	541	538	535	532	529	526	523	520	517	514	511	508	505	503	552	550	548	548	547	546	546
All deaths	1,015	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,100	1,100	1,100	1,100	1,100	1,100	1,100
SMR: males	77.4	74.0	71.6	69.3	67.3	65.4	63.4	61.5	59.6	57.8	55.9	54.1	52.4	50.7	49.0	47.2	45.6	48.3	46.8	45.3	43.8	42.3	40.9	39.5
SMR: females	77.4	74.4	72.3	70.4	68.6	66.9	65.0	63.1	61.2	59.3	57.3	55.4	53.4	51.5	49.7	47.8	45.9	48.5	46.8	45.1	43.4	41.8	40.4	39.0
SMR: male & female	77.4	74.2	72.0	69.9	68.0	66.2	64.3	62.4	60.4	58.6	56.6	54.8	52.9	51.1	49.3	47.5	45.7	48.4	46.8	45.2	43.6	42.1	40.6	39.2
Expectation of life	82.8	83.1	83.3	83.5	83.6	83.8	84.0	84.2	84.3	84.5	84.7	84.9	85.0	85.2	85.4	85.5	85.7	85.4	85.6	85.7	85.9	86.1	86.3	86.4
Deaths input																								
In-migration from the UK																								
Male	2,245	2,569	2,694	2,739	2,721	2,707	2,689	2,726	2,808	2,790	2,813	2,874	2,863	2,867	2,943	2,963	2,970	2,965	3,030	3,001	3,010	2,963	2,947	2,891
Female	2,653	2,989	3,140	3,207	3,201	3,194	3,177	3,219	3,313	3,300	3,329	3,404	3,389	3,408	3,512	3,541	3,562	3,567	3,646	3,612	3,621	3,576	3,559	3,500
All	4,898	5,558	5,834	5,946	5,922	5,900	5,866	5,945	6,122	6,091	6,142	6,278	6,253	6,276	6,455	6,503	6,532	6,532	6,676	6,612	6,631	6,539	6,507	6,391
SMigR: males	52.0	59.0	61.4	61.8	60.9	60.0	59.2	59.6	60.9	60.0	60.0	60.9	60.2	59.8	60.9	60.7	60.2	59.4	60.0	58.7	58.2	56.7	56.0	54.6
SMigR: females	59.7	66.2	68.8	69.4	68.6	67.8	67.0	67.5	68.9	68.0	68.1	69.1	68.1	67.9	69.2	68.8	68.3	67.4	67.9	66.2	65.4	63.7	62.7	61.1
Migrants input																								
Out-migration to the UK																								
Male	2,053	2,204	2,199	2,239	2,231	2,228	2,225	2,226	2,272	2,268	2,269	2,268	2,270	2,270	2,289	2,315	2,310	2,306	2,349	2,346	2,343	2,336	2,379	2,374
Female	2,249	2,496	2,501	2,561	2,569	2,572	2,575	2,574	2,628	2,632	2,631	2,632	2,630	2,630	2,685	2,690	2,694	2,751	2,754	2,757	2,764	2,821	2,826	2,826
All	4,302	4,700	4,700	4,800	4,800	4,800	4,800	4,800	4,900	4,900	4,900	4,900	4,900	4,900	5,000	5,000	5,000	5,100	5,100	5,100	5,100	5,200	5,200	5,200
SMigR: males	47.5	50.6	50.0	50.5	49.9	49.0	48.0	48.0	48.6	48.2	48.4	48.1	47.7	47.3	46.9	47.4	46.8	46.2	46.5	45.9	45.3	44.7	45.2	44.8
SMigR: females	50.6	55.3	54.8	55.4	55.0	54.6	54.3	53.9	54.6	54.3	53.8	53.4	52.8	52.4	51.8	52.2	51.6	50.9	51.3	50.5	49.8	49.2	49.7	49.4
Migrants input																								
In-migration from Overseas																								
Male	152	151	151	151	151	151	151	151	151	150	150	150	150	150	149	149	149	149	148	148	148	148	148	148
Female	148	149	149	149	149	149	149	149	149	150	150	150	150	150	151	151	151	151	151	152	152	152	152	152
All	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
SMigR: males	53.5	53.0	52.5	51.8	51.1	50.5	50.0	49.6	49.2	48.8	48.5	48.3	48.0	47.7	47.5	47.1	46.7	46.3	45.9	45.4	45.0	44.5	44.1	43.8
SMigR: females	53.5	53.0	52.5	51.8	51.1	50.5	50.0	49.6	49.2	48.8	48.5	48.3	48.0	47.7	47.5	47.1	46.7	46.3	45.9	45.4	45.0	44.5	44.1	43.8
Migrants input																								
Out-migration to Overseas																								
Male	152	202	202	202	201	201	201	201	201	200	200	200	200	200	199	199	199	198	198	198	197	197	197	197
Female	148	198	198	198	199	199	199	199	199	199	199	199	199	199	200	201	201	201	202	202	202	203	203	203
All	300	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
SMigR: males	53.5	70.7	70.1	69.1	68.2	67.4	66.7	66.2	65.6	65.1	64.7	64.4	64.0	63.6	63.3	62.8	62.3	61.8	61.2	60.6	59.9	59.3	58.7	58.4
SMigR: females	53.5	70.7	70.1	69.1	68.2	67.4	66.7	66.2	65.6	65.1	64.7	64.4	64.0	63.6	63.3	62.8	62.3	61.8	61.2	60.6	59.9	59.3	58.7	58.4
Migrants input																								
Migration - Net Flows																								
UK	+595	+858	+1,134	+1,146	+1,122	+1,100	+1,066	+1,145	+1,222	+1,191	+1,242	+1,378	+1,353	+1,376	+1,555	+1,503	+1,532	+1,532	+1,576	+1,512	+1,531	+1,439	+1,307	+1,191
Overseas	0	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100
Summary of population change																								
Natural change	-124	-100	-99	-192	-186	-179	-176	-69	-64	-58	-52	-46	-39	-33	-27	-20	-12	-104	-99	-91	-85	-80	-78	-76
Net migration	+595	+758	+1,034	+1,046	+1,022	+1,000	+966	+1,045	+1,122	+1,091	+1,142	+1,278	+1,253	+1,276	+1,455	+1,403	+1,432	+1,432	+1,476	+1,412	+1,431	+1,339	+1,207	+1,091
Net change	+471	+658	+935	+853	+836	+821	+791	+976	+1,058	+1,033	+1,090	+1,233	+1,214	+1,243	+1,428	+1,383	+1,420	+1,328	+1,377	+1,322	+1,347	+1,259	+1,129	+1,014

Change 2010-2030
p.a. -86
p.a. +1,204
p.a. +1,117

Summary of Population estimates/forecasts

Population at mid-year

	Year beginning July 1st																								
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
0-4	4,730	4,796	4,948	5,033	5,045	5,002	4,935	4,838	4,847	4,997	5,148	5,305	5,478	5,515	5,551	5,597	5,639	5,679	5,717	5,758	5,791	5,824	5,845	5,854	5,854
5-10	6,258	6,226	6,199	6,255	6,347	6,472	6,650	6,827	7,021	6,996	6,949	6,886	6,939	6,993	7,194	7,392	7,592	7,792	7,851	7,906	7,957	7,999	8,030	8,048	8,048
11-15	5,718	5,635	5,554	5,474	5,382	5,331	5,280	5,279	5,236	5,350	5,424	5,564	5,744	5,948	6,055	6,059	6,009	5,940	5,849	5,802	6,093	6,285	6,473	6,658	6,691
16-17	2,352	2,311	2,224	2,230	2,225	2,165	2,119	2,074	2,085	2,081	2,032	2,029	2,057	2,146	2,232	2,275	2,364	2,424	2,462	2,541	2,226	2,246	2,260	2,414	
18-59Female, 64Male	50,921	50,951	51,094	51,253	51,378	51,611	51,828	51,975	52,148	52,313	52,455	52,592	52,744	52,917	53,025	53,264	53,507	53,760	53,950	54,218	54,392	54,524	54,536	54,434	54,505
60-65 -74	14,508	14,847	15																						

Scenario F. Lower Economic Growth

Population Estimates and Forecasts

Nathaniel Lichfield and Partners

Scenario F. Lower Economic Growth

Components of Population Change

Lewes District Council

	Year beginning July 1st																									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032		
Births																										
Male	458	463	458	406	405	403	400	447	445	444	442	441	441	440	440	441	442	444	445	447	449	450	449	449	449	
Female	433	437	432	383	382	380	378	422	420	418	417	416	416	415	415	416	417	419	420	422	423	424	424	423	423	
All Births	891	900	891	789	786	783	778	869	865	862	859	857	857	856	855	857	860	863	865	869	872	874	873	872	872	
TFR	2.00	2.02	2.02	1.79	1.79	1.78	1.77	1.97	1.95	1.93	1.91	1.89	1.87	1.85	1.83	1.81	1.80	1.79	1.77	1.77	1.76	1.76	1.76	1.76	1.76	
Births input																										
Deaths																										
Male	462	457	458	460	462	466	468	471	475	478	481	484	487	490	493	496	498	500	502	504	505	506	506	506		
Female	553	543	542	540	538	534	532	529	525	522	519	516	513	510	507	504	502	500	498	496	494	492	490	488		
All deaths	1,015	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000		
SMR: males	77.4	74.0	71.8	69.7	66.2	64.4	62.7	60.9	59.3	57.6	55.9	54.3	52.7	51.1	49.5	47.9	46.3	44.7	43.1	41.5	40.0	38.5	37.0	35.5		
SMR: females	77.4	74.4	72.5	70.8	69.2	67.7	66.0	64.3	62.6	60.8	59.0	57.2	55.4	53.6	51.9	50.1	48.3	46.5	44.7	42.9	41.1	39.3	37.5	35.7		
SMR: male & female	77.4	74.2	72.2	70.3	68.6	67.0	65.3	63.5	61.8	60.1	58.3	56.6	54.9	53.2	51.5	49.8	48.1	46.3	44.5	42.7	40.9	39.1	37.3	35.5		
Expectation of life	82.8	83.1	83.2	83.4	83.6	83.7	83.9	84.0	84.2	84.3	84.5	84.7	84.8	85.0	85.1	85.3	85.4	85.1	85.2	85.4	85.6	85.7	85.9	86.1		
Deaths input																										
In-migration from the UK																										
Male	2,245	2,344	2,471	2,520	2,506	2,496	2,482	2,520	2,604	2,588	2,611	2,674	2,666	2,672	2,745	2,767	2,775	2,773	2,838	2,814	2,827	2,784	2,777	2,725		
Female	2,653	2,727	2,876	2,942	2,936	2,929	2,912	2,953	3,046	3,032	3,059	3,133	3,121	3,140	3,238	3,268	3,289	3,298	3,377	3,348	3,361	3,319	3,314	3,260		
All	4,898	5,071	5,347	5,463	5,443	5,425	5,394	5,472	5,650	5,620	5,670	5,808	5,786	5,812	5,983	6,036	6,064	6,071	6,215	6,163	6,188	6,103	6,091	5,985		
SMiGR: males	52.0	53.9	56.7	57.6	57.2	56.8	56.4	57.2	59.0	58.4	58.9	60.2	59.9	59.8	61.3	61.5	61.3	60.8	61.8	60.8	60.6	59.3	59.0	57.8		
SMiGR: females	59.7	60.4	63.5	64.7	64.4	64.1	63.8	64.2	66.6	66.2	66.7	68.1	67.6	67.8	69.5	69.5	69.3	68.9	69.8	68.4	67.9	66.5	65.9	64.6		
Migrants input																										
Out-migration to the UK																										
Male	2,053	2,204	2,201	2,243	2,237	2,235	2,234	2,236	2,283	2,280	2,281	2,281	2,283	2,282	2,328	2,323	2,318	2,361	2,359	2,355	2,348	2,289	2,281	2,386		
Female	2,249	2,496	2,499	2,527	2,563	2,566	2,564	2,617	2,620	2,619	2,619	2,617	2,618	2,672	2,677	2,682	2,739	2,741	2,745	2,752	2,752	2,809	2,814	2,814		
All	4,302	4,700	4,700	4,800	4,800	4,800	4,800	4,900	4,900	4,900	4,900	4,900	4,900	4,900	5,000	5,000	5,000	5,100	5,100	5,100	5,100	5,200	5,200	5,200		
SMiGR: males	47.5	50.6	50.5	51.3	51.0	50.9	50.8	51.7	51.5	51.4	51.4	51.4	51.4	51.0	51.7	51.3	50.8	51.4	50.9	50.5	50.1	50.8	50.6	50.6		
SMiGR: females	50.6	55.3	55.2	56.2	56.2	56.2	56.2	57.2	57.2	57.1	57.0	56.7	56.5	56.2	56.8	56.4	56.0	56.6	56.0	55.5	55.1	55.9	55.8	55.8		
Migrants input																										
In-migration from Overseas																										
Male	152	151	152	152	152	151	151	151	151	151	151	151	151	151	151	151	151	150	150	150	150	149	149	149		
Female	148	149	148	148	148	149	149	149	149	149	149	149	149	149	149	149	149	150	150	150	150	150	151	151		
All	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300		
SMiGR: males	53.5	53.0	53.0	52.7	52.4	52.2	52.1	52.0	52.0	51.9	51.9	52.0	51.9	51.9	51.9	51.8	51.6	51.4	51.2	50.9	50.6	50.2	50.0	49.9		
SMiGR: females	53.5	53.0	53.0	52.7	52.4	52.2	52.1	52.0	52.0	51.9	51.9	52.0	51.9	51.9	51.9	51.8	51.6	51.4	51.2	50.9	50.6	50.2	50.0	49.9		
Migrants input																										
Out-migration to Overseas																										
Male	152	202	202	202	202	202	202	202	202	202	202	202	202	202	201	201	201	200	200	200	200	199	199	199		
Female	148	198	198	198	198	198	198	198	198	198	198	198	198	198	199	199	199	200	200	200	200	201	201	201		
All	300	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400		
SMiGR: males	53.5	70.7	70.7	70.3	69.9	69.6	69.5	69.4	69.3	69.2	69.2	69.3	69.3	69.3	69.0	68.9	68.9	68.6	68.3	67.9	67.4	67.0	66.7	66.6		
SMiGR: females	53.5	70.7	70.7	70.3	69.9	69.6	69.5	69.4	69.3	69.2	69.2	69.3	69.3	69.3	69.2	69.0	68.9	68.6	68.3	67.9	67.4	67.0	66.7	66.6		
Migrants input																										
Migration - Net Flows																										
UK	+595	+371	+647	+663	+643	+625	+594	+672	+750	+720	+770	+908	+886	+912	+1,083	+1,035	+1,064	+1,071	+1,115	+1,063	+1,088	+1,003	+891	+785		
Overseas	0	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100		
Summary of population change																										
Natural Change	-124	-100	-109	-211	-214	-217	-222	-131	-135	-138	-141	-143	-143	-144	-145	-143	-140	-237	-235	-231	-228	-226	-227	-228	p.a.	
Net migration	+565	+271	+547	+563	+543	+525	+494	+572	+650	+620	+670	+808	+786	+812	+983	+935	+964	+971	+1,015	+963	+988	+903	+791	+685	p.a.	
Net change	+441	+171	+438	+352	+329	+308	+273	+442	+514	+482	+529	+665	+643	+668	+839	+793	+824	+734	+780	+732	+760	+677	+565	+457	p.a.	

Summary of Population estimates/forecasts

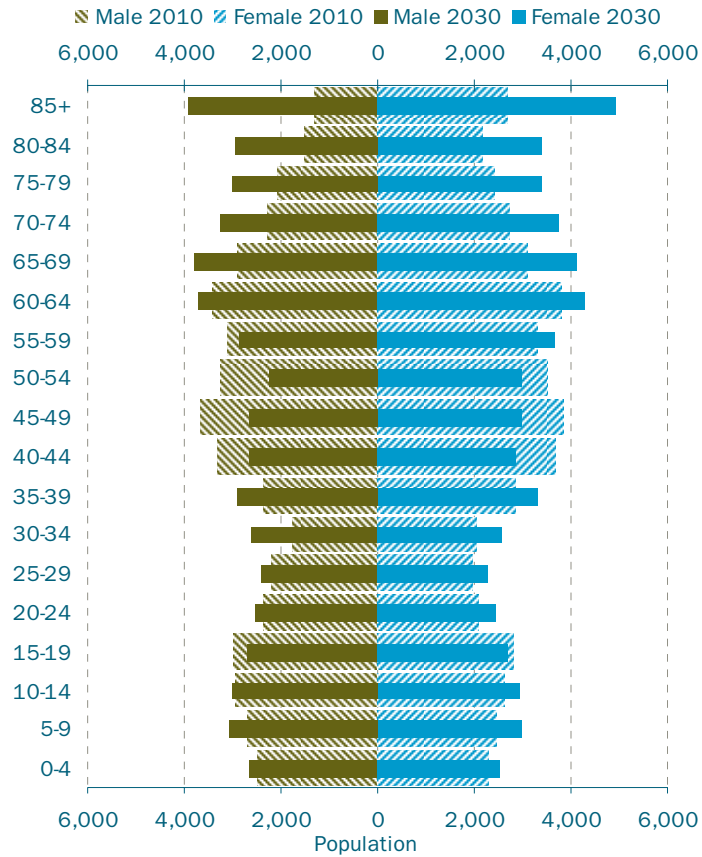
	Population at mid-year																									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
0-4	4,730	4,796	4,910	4,955	4,925	4,841	4,731	4,590	4,550	4,644	4,738	4,837	4,953	4,946	4,941	4,948	4,954	4,963	4,974	4,990	5,003	5,018	5,024	5,022	5,012	+222
5-10	6,258	6,226	6,172	6,198	6,254	6,341	6,475	6,600	6,746	6,876	6,928	6,932	6,920	6,908	6,901	6,929	6,956	6,985	6,916	6,924	6,930	6,939	6,944	6,943	6,936	+713
11-15	5,718	5,635	5,536	5,437	5,328	5,259	5,192	5,173	5,110	5,196	5,239	5,362	5,481	5,642	5,708	5,676	5,589	5,482	5,351	5,352	5,480	5,608	5,734	5,858	5,848	-27
16-17	2,352	2,311	2,215	2,211	2,199	2,132	2,079	2,028	2,032	2,001	1,966	1,956	1,959	1,967	2,038	2,106	2,134	2,205	2,250	2,269	2,139	2,018	2,014	2,133	-293	
18-59Female, 64Male	50,921	50,951	50,775	50,616	50,425	50,343	50,247	50,085	49,950	49,808	49,644	49,476														

Appendix 3 Population Pyramids

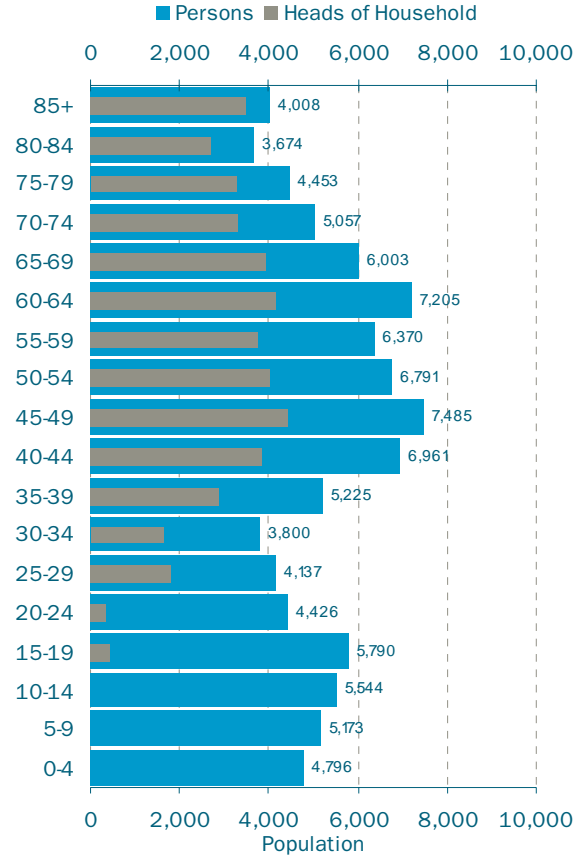
Scenario A. Baseline

Age	2010			2030		
	Male 2010	Female 2010	Persons	Male 2030	Female 2030	Persons
0-4	2,504	2,292	4,796	2,649	2,538	5,187
5-9	2,704	2,469	5,173	3,045	2,961	6,006
10-14	2,922	2,622	5,544	3,015	2,936	5,951
15-19	2,961	2,829	5,790	2,707	2,676	5,382
20-24	2,352	2,074	4,426	2,543	2,434	4,977
25-29	2,189	1,949	4,137	2,426	2,282	4,708
30-34	1,749	2,052	3,800	2,593	2,564	5,157
35-39	2,368	2,858	5,225	2,909	3,288	6,197
40-44	3,304	3,657	6,961	2,668	2,864	5,532
45-49	3,662	3,823	7,485	2,651	2,975	5,626
50-54	3,279	3,512	6,791	2,239	2,998	5,237
55-59	3,082	3,288	6,370	2,876	3,659	6,534
60-64	3,419	3,786	7,205	3,707	4,303	8,010
65-69	2,902	3,101	6,003	3,780	4,139	7,919
70-74	2,305	2,753	5,057	3,249	3,763	7,012
75-79	2,063	2,390	4,453	3,001	3,368	6,369
80-84	1,505	2,170	3,674	2,946	3,401	6,348
85+	1,324	2,684	4,008	3,907	4,942	8,849
Total	46,593	50,307	96,900	52,910	58,090	111,000

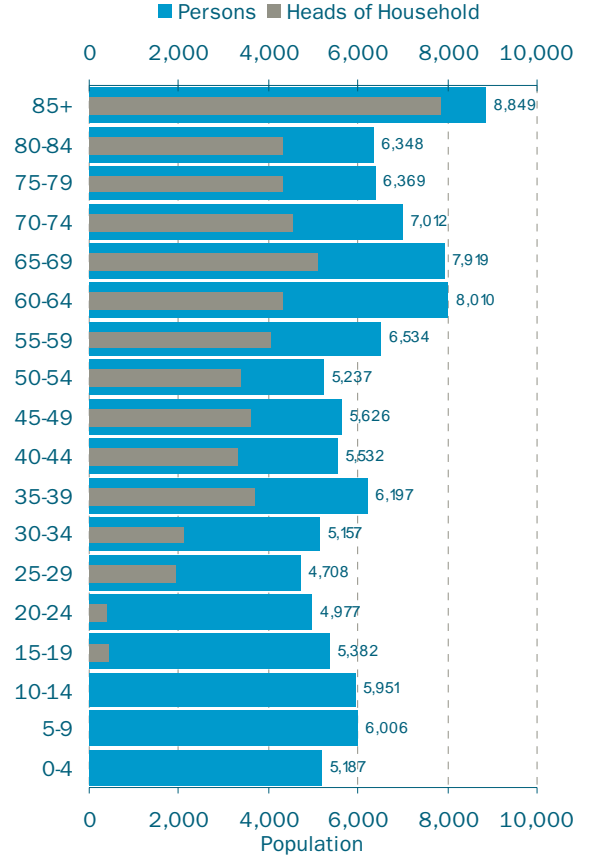
Demographic Profile - Baseline Scenario



2010 Demographic and Household Profile



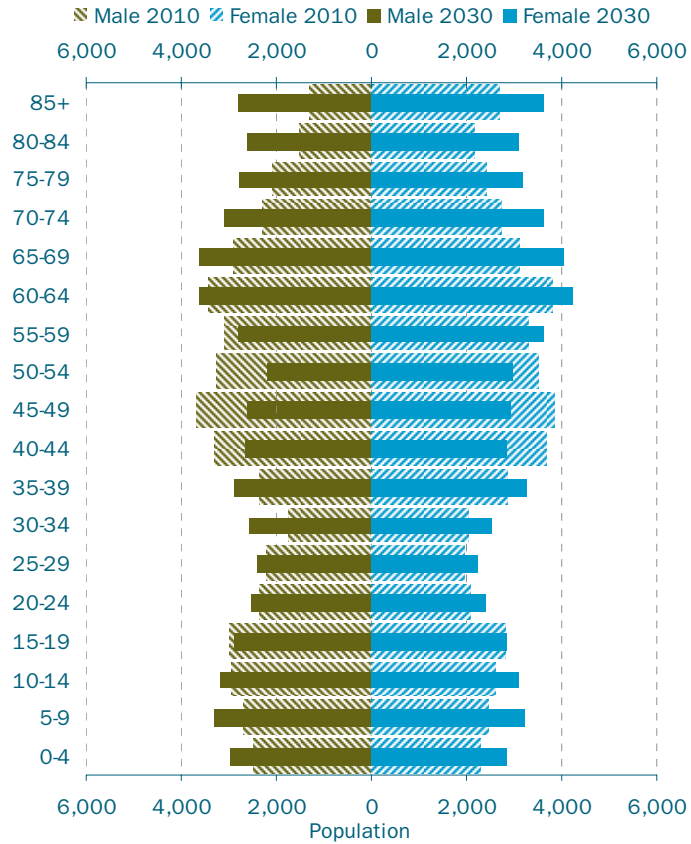
2030 Demographic and Household Profile



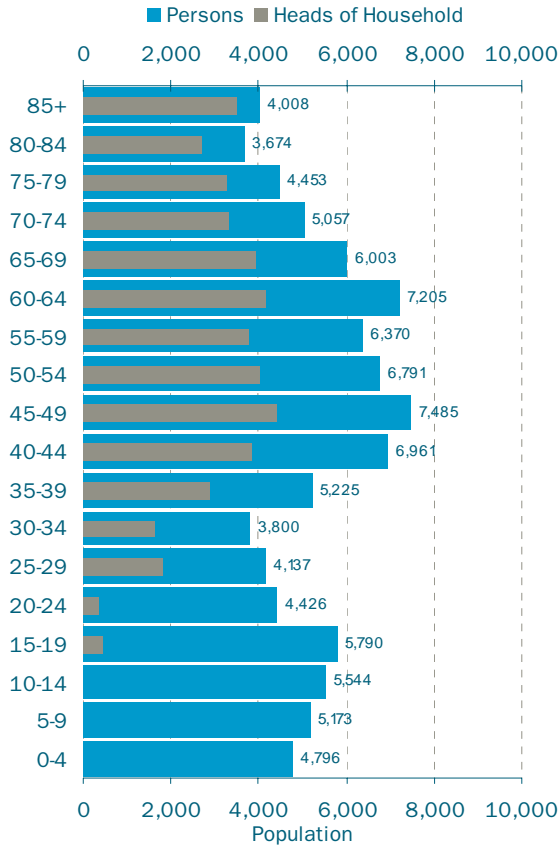
Scenario B. Static Natural Change

Age	2010			2030		
	Male 2010	Female 2010	Persons	Male 2030	Female 2030	Persons
0-4	2,504	2,292	4,796	2,989	2,865	5,854
5-9	2,704	2,469	5,173	3,309	3,218	6,527
10-14	2,922	2,622	5,544	3,186	3,103	6,289
15-19	2,961	2,829	5,790	2,904	2,869	5,773
20-24	2,352	2,074	4,426	2,531	2,421	4,951
25-29	2,189	1,949	4,137	2,412	2,265	4,677
30-34	1,749	2,052	3,800	2,574	2,543	5,116
35-39	2,368	2,858	5,225	2,882	3,260	6,141
40-44	3,304	3,657	6,961	2,642	2,842	5,484
45-49	3,662	3,823	7,485	2,624	2,953	5,576
50-54	3,279	3,512	6,791	2,212	2,972	5,184
55-59	3,082	3,288	6,370	2,828	3,617	6,445
60-64	3,419	3,786	7,205	3,619	4,236	7,855
65-69	2,902	3,101	6,003	3,649	4,044	7,693
70-74	2,305	2,753	5,057	3,085	3,637	6,722
75-79	2,063	2,390	4,453	2,777	3,194	5,971
80-84	1,505	2,170	3,674	2,596	3,108	5,704
85+	1,324	2,684	4,008	2,797	3,652	6,449
Total	46,593	50,307	96,900	51,614	56,798	108,412

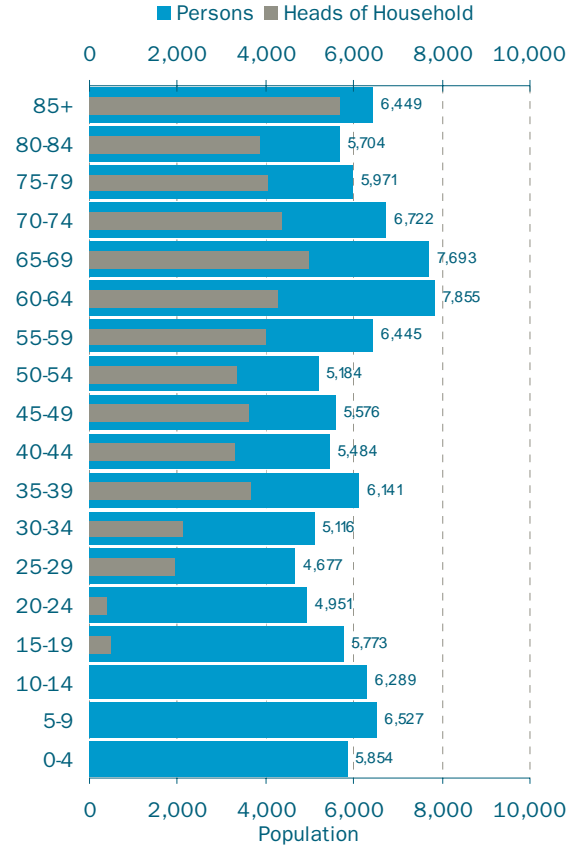
Demographic Profile - Static Natural Change Scenario



2010 Demographic and Household Profile



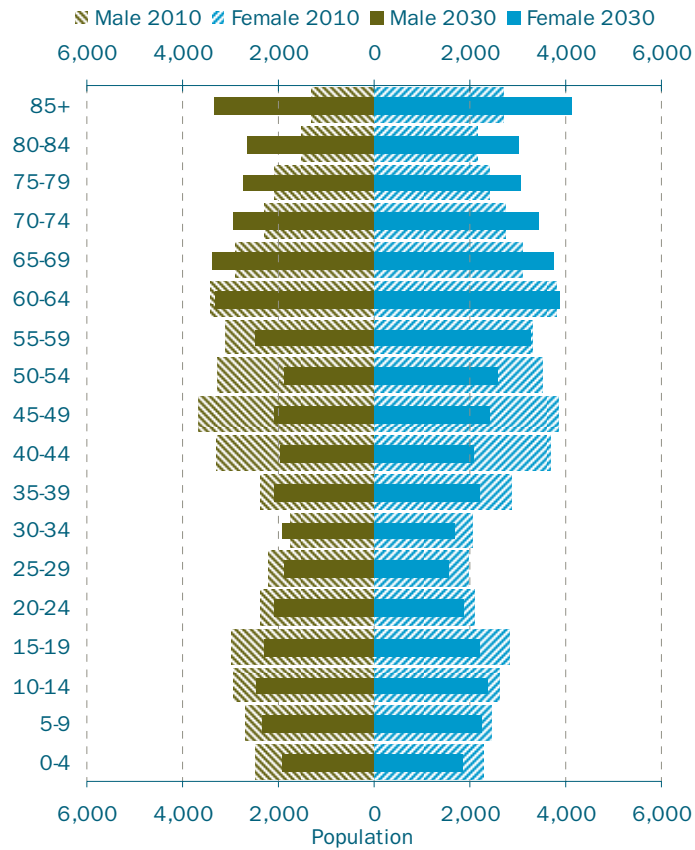
2030 Demographic and Household Profile



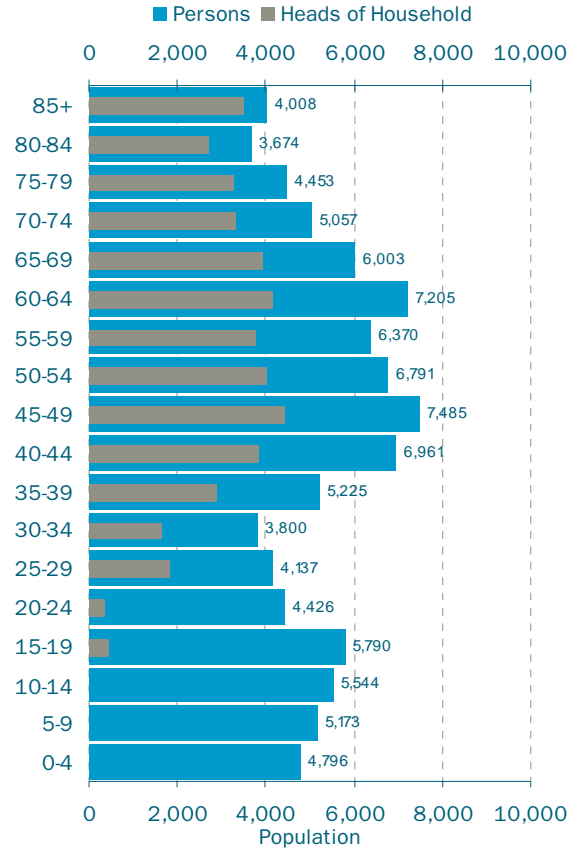
Scenario C. Zero Net Migration

Age	2010			2030		
	Male 2010	Female 2010	Persons	Male 2030	Female 2030	Persons
0-4	2,504	2,292	4,796	1,924	1,842	3,766
5-9	2,704	2,469	5,173	2,339	2,265	4,604
10-14	2,922	2,622	5,544	2,442	2,357	4,799
15-19	2,961	2,829	5,790	2,270	2,200	4,470
20-24	2,352	2,074	4,426	2,068	1,864	3,932
25-29	2,189	1,949	4,137	1,877	1,563	3,441
30-34	1,749	2,052	3,800	1,910	1,670	3,579
35-39	2,368	2,858	5,225	2,082	2,185	4,268
40-44	3,304	3,657	6,961	1,958	2,075	4,032
45-49	3,662	3,823	7,485	2,079	2,417	4,496
50-54	3,279	3,512	6,791	1,861	2,591	4,452
55-59	3,082	3,288	6,370	2,500	3,273	5,772
60-64	3,419	3,786	7,205	3,286	3,894	7,180
65-69	2,902	3,101	6,003	3,368	3,753	7,121
70-74	2,305	2,753	5,057	2,934	3,422	6,356
75-79	2,063	2,390	4,453	2,743	3,059	5,802
80-84	1,505	2,170	3,674	2,662	3,033	5,695
85+	1,324	2,684	4,008	3,360	4,132	7,492
Total	46,593	50,307	96,900	43,663	47,594	91,257

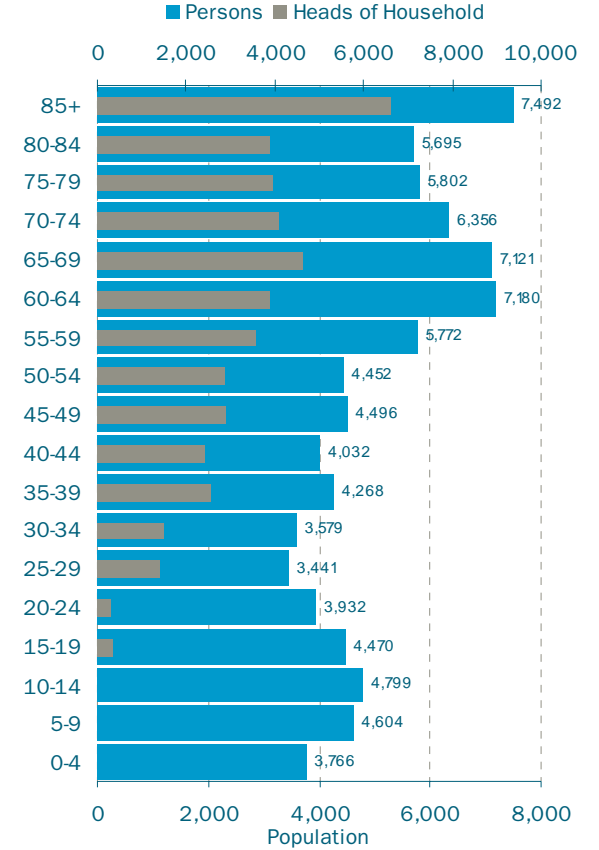
Demographic Profile - Zero Net Migration Scenario



2010 Demographic and Household Profile



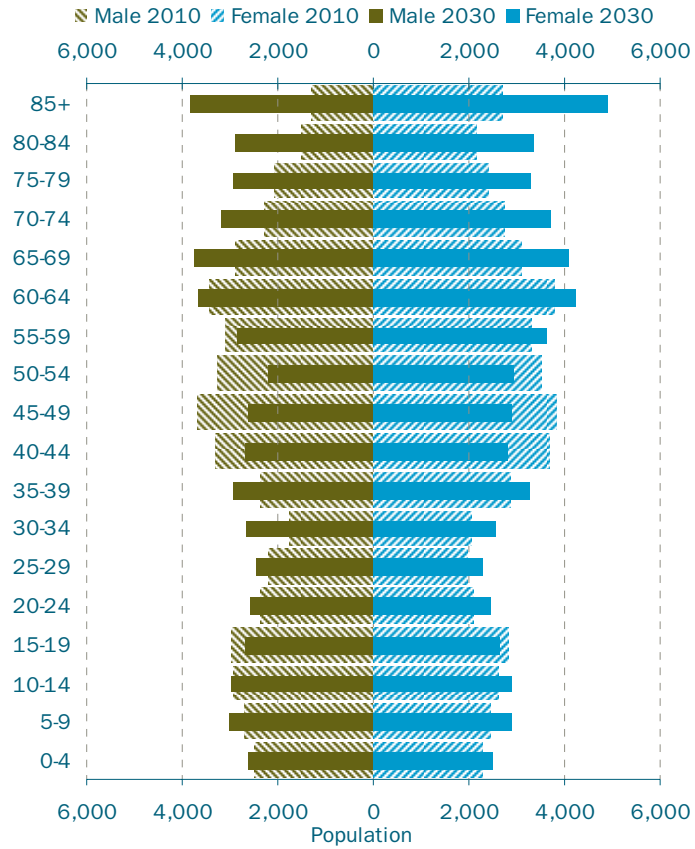
2030 Demographic and Household Profile



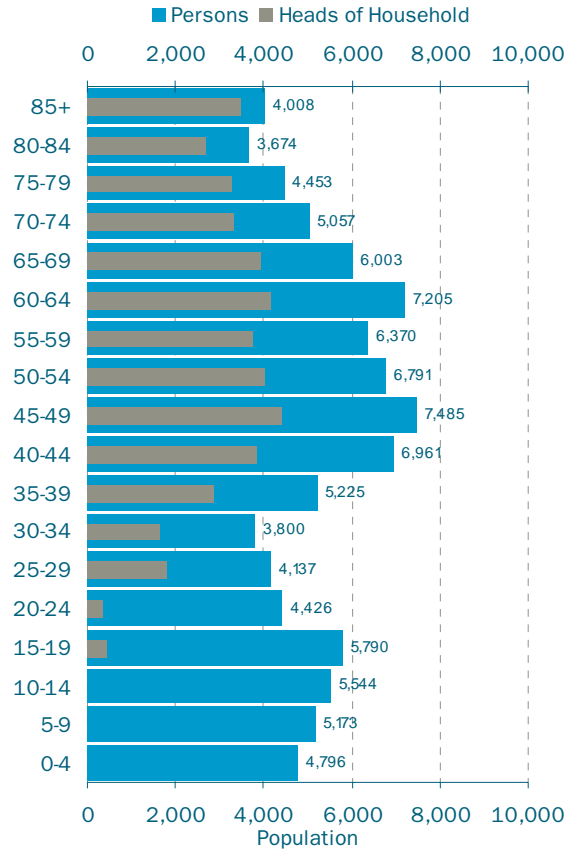
Scenario D. Past Migration Trends

Age	2010			2030		
	Male 2010	Female 2010	Persons	Male 2030	Female 2030	Persons
0-4	2,504	2,292	4,796	2,620	2,506	5,126
5-9	2,704	2,469	5,173	3,005	2,911	5,915
10-14	2,922	2,622	5,544	2,990	2,902	5,892
15-19	2,961	2,829	5,790	2,705	2,659	5,364
20-24	2,352	2,074	4,426	2,576	2,442	5,019
25-29	2,189	1,949	4,137	2,467	2,286	4,753
30-34	1,749	2,052	3,800	2,639	2,557	5,196
35-39	2,368	2,858	5,225	2,946	3,266	6,212
40-44	3,304	3,657	6,961	2,680	2,837	5,517
45-49	3,662	3,823	7,485	2,624	2,916	5,541
50-54	3,279	3,512	6,791	2,204	2,947	5,151
55-59	3,082	3,288	6,370	2,839	3,613	6,452
60-64	3,419	3,786	7,205	3,670	4,253	7,923
65-69	2,902	3,101	6,003	3,743	4,085	7,828
70-74	2,305	2,753	5,057	3,200	3,705	6,905
75-79	2,063	2,390	4,453	2,946	3,318	6,264
80-84	1,505	2,170	3,674	2,897	3,359	6,256
85+	1,324	2,684	4,008	3,850	4,882	8,732
Total	46,593	50,307	96,900	52,601	57,444	110,045

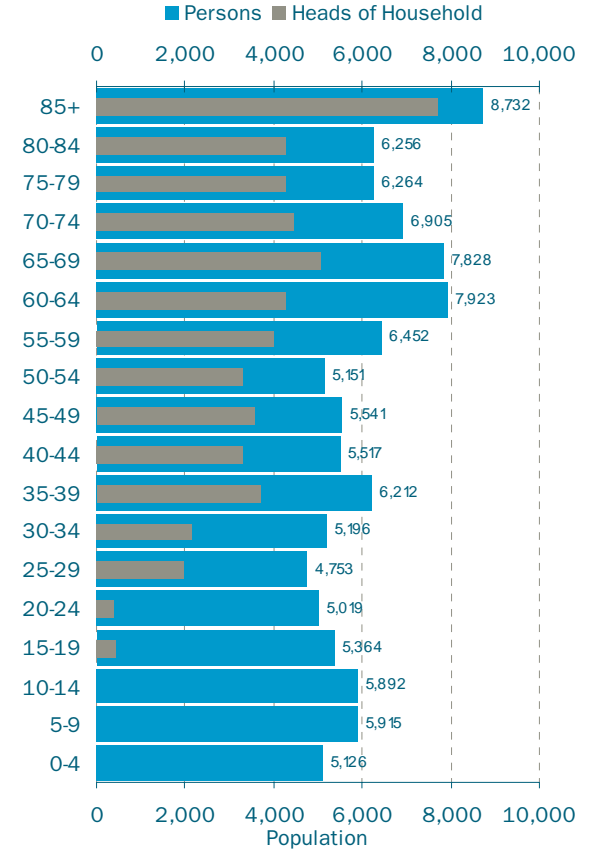
Demographic Profile - Baseline Scenario



2010 Demographic and Household Profile



2030 Demographic and Household Profile





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