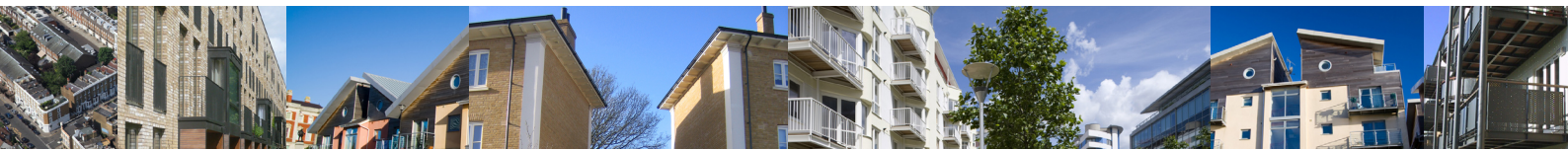




Nathaniel Lichfield
& Partners

Planning. Design. Economics.



Crawley Borough Council **Locally Generated Housing Needs Assessment**

November 2011



Nathaniel Lichfield
& Partners

Planning. Design. Economics.

**Crawley Locally Generated Housing Needs
Assessment**

Crawley Borough Council

November 2011

12704/MS/MT

Nathaniel Lichfield & Partners
14 Regent's Wharf
All Saints Street
London N1 9RL

nlplanning.com

© Nathaniel Lichfield & Partners Ltd 2010. Trading as Nathaniel Lichfield & Partners.
All Rights Reserved.
Registered Office:
14 Regent's Wharf
All Saints Street
London N1 9RL

All plans within this document produced by NLP are based upon Ordnance Survey mapping with the permission of Her Majesty's Stationery Office. © Crown Copyright reserved. Licence number AL50684A

Contents

1.0	Introduction	1
	Background and Scope of Study.....	1
	Context.....	1
	Approach and Structure of the Report.....	4
2.0	Context and Past Trends	7
	Demographic Trends	7
	Household and Housing Factors.....	16
	Economic Trends	21
3.0	Evidence for Housing Need	29
	Scenarios, Assumptions and Approach.....	29
	Demographic Scenarios.....	34
	Economic Scenarios.....	38
	Housing Scenario.....	41
	Summary of Scenarios	43
4.0	Housing Delivery Implications	47
	Size and Types of Dwellings.....	47
	Neighbourhood Housing Needs	51
5.0	Defining a Local Housing Requirement	55
	Recommendations	56

Figures

Figure 1.1	NLP HEaDROOM Framework	3
Figure 1.2	PopGroup Demographic Model Features	5
Figure 2.1	Crawley Borough Baseline Demographic Profile (2009)	8
Figure 2.2	Total Fertility Rate in Crawley Borough (1982-2009)	9
Figure 2.3	Age-standardised Mortality Rate	10
Figure 2.4	Standard Mortality Ratio (SMR) for Crawley 1998-2007	10
Figure 2.5	Net Internal and International Migration in Crawley 1998-2009	11
Figure 2.6	Male and Female Migration Rates by Age (National and Crawley In and Out-Migration)	13
Figure 2.7	Age Profile of Migrants	14
Figure 2.8	Internal Migration Patterns for Crawley Borough, 2009	15
Figure 2.9	Population and Household growth in Crawley 1981-2009	16
Figure 2.10	Average Household Size in Crawley Borough 1981-2008	17
Figure 2.11	Estimated Change in Headship Rates in Crawley 2001-2008	18
Figure 2.12	Waiting List and Affordable Housing Completions 1991-2010	20
Figure 2.13	Annual Employee Job Growth for Crawley Borough against the South East	23
Figure 2.14	Inter-district commuting flows, 2001	24
Figure 2.15	Labour Force Ratios	26
Figure 4.1	Scenario A. Baseline: Household Formation by Type 2010-2031	48
Figure 4.2	Crawley Neighbourhood Population Distribution (2001)	52
Figure 4.3	Population and Profile of Crawley Neighbourhoods (2001)	53
Figure 5.1	Summary of Scenarios	55

Tables

Table 2.1	Annual Employee Job Growth for Crawley Borough	22
Table 2.2	ONS 2001 Census, ONS Local Labour Force Survey 2001 and ONS Annual Population Survey 2008	25
Table 3.1	Long Term Past Trends in Migration	32
Table 3.2	Short Term Past Trends in Migration	33
Table 3.3	Estimate of Housing Need	42
Table 3.4	Summary of Affordable Housing Need and Delivery	43
Table 3.5	Summary of Demographic, Housing and Economic Change of Scenarios over period 2010-2031	44
Table 4.1	Household Composition and Dwelling Size and Type	49

Appendices

Appendix 1	Inputs and Assumptions
Appendix 2	Context and Past Trends
Appendix 3	PopGroup Modelling Outputs
Appendix 4	Population Pyramids

Glossary

PopGroup

Industry standard demographic modelling software which utilises Microsoft Excel. Along with the 'Derived Forecast' software module for projecting household and labour force changes, PopGroup is used to undertake all demographic modelling within this study. More information can be found here: <http://www.ccsr.ac.uk/popgroup/>

HEaDROOM

NLP's methodological framework for assessing future housing needs which takes account of Housing Economic and Demographic factors as well as policy and delivery matters to set out future housing requirements.

Fertility

Fertility is a measure of the rate of births in the population. For modelling purposes, this study uses the Total Fertility Rate (TFR) which is the average number of children that would be born to a woman over her lifetime if she were to survive from birth to the end of her productive life.

Mortality

Mortality is a measure of the rate of deaths in the population. For modelling purposes, this study uses the Standard Mortality Rate (SMR) which is 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.

Natural Change

The difference (in any given time period) between the number of births and the number of deaths.

Migration

The movement of people across defined borders, in this instance the Local Authority boundary. Internal Migration is to/from a local authority area in another part of UK, whilst international migration is that to/from another country overseas.

Age Specific Migration Rate

Age Specific Migration Rate (ASMigR) is the average number of migrants per 1,000 people by year of age (or by 5-year cohort of age).

Household Headship Rate

A headship rate is the proportion of a population who form a head of a household. For modelling purposes, this is expressed as % of each age split by different household types using CLG's household classifications.

Concealed Households

A household that neither owns nor rents the dwelling within which they reside AND which wants to move into their own accommodation and form a separate household.

Housing Need

Housing Need in the context of this study is intended to describe the underlying requirement for housing of all types including market, shared equity, private rented, social housing (i.e. entire housing need) to support a given number of households. This is distinct from the definition prescribed by PPS3 for households 'in need' of affordable housing.

Working Age Population

Working age population is the number or proportion of the total population who are older than compulsory education age but younger than statutory retirement age. This section of a population form the bulk of potential labour force.

Economic Activity

The proportion of population (both employed and unemployed) that constitutes the manpower supply of the labour market. The economic activity rate is the proportion of population (either wholly, or split by age/gender) that is employed or available to enter employment.

Labour Force

The labour force is the total number of people in any given area who are economically active. 'Indigenous labour force' is used to describe those workers (both employed and unemployed) who live within the Borough.

Labour Force Ratio

The LF Ratio is a factor for conversion of number of workers to number of jobs in any given area. The LF Ratio takes account of the balance of commuting (net-commuting rates) and is calculated by dividing the indigenous labour force in employment in an area by the total employment/jobs in an area.

1.0 Introduction

Background and Scope of Study

1.1 Nathaniel Lichfield & Partners (NLP) was appointed by Crawley Borough Council (CBC) to undertake a study into the local need for housing within the Borough.

1.2 The purpose of the study is to set out the potential scale of future housing need¹ in Crawley Borough based upon a range of housing, economic and demographic factors, trends and forecasts. This will provide evidence to CBC on the housing need in the Borough to help them plan for future growth and make informed policy choices through their LDF process, including the Core Strategy Review.

1.3 This report presents the outputs of the application of NLP's HEaDROOM framework to the Crawley Borough area. HEaDROOM is NLP's bespoke approach for identifying locally generated housing needs and requirements based upon an analysis of the Housing, Economic and Demographic factors within an area. The study does not provide a review of all factors that will be relevant to the Borough Council in determining a locally set housing target for Crawley, and there will be a need for consultation and further analysis in key areas.

Context

1.4 The coalition government is currently implementing reforms of the planning system to deliver on localism as part of the driver towards implementation of the Localism Bill (December 2010). 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.

1.5 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.

1.6 The implication of the eventual removal of centrally-imposed housing requirements, if passed by Parliament and if individual RS's are revoked

¹ 'Housing Need' in the context of this study is intended to describe the need for housing of all types including market, shared equity, private rented, social housing (i.e. entire housing need). It is not solely an analysis of the PPS3 defined 'housing need' which specifically relates to 'the quantity of housing required for households who are unable to access suitable housing without financial assistance' (i.e. affordable housing need)

following a Strategic Environmental Assessment (SEA), is that responsibility for establishing housing target figures for Local Development Frameworks will ultimately fall to local councils. It is therefore entirely appropriate for local planning authorities, such as CBC, to be reviewing their housing needs with a view to updating their housing target from that contained within the RS. 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 to pursue their respective Core Strategies and 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”

- 1.7 The Ministerial Statement of 23rd March on Planning for Growth put in place a policy emphasis strongly supportive of Local Planning Authorities in putting plans in place to deliver new development:
- “Local planning authorities should therefore press ahead without delay in preparing up-to-date development plans, and should use that opportunity to be proactive in driving and supporting the growth that this country needs. They should make every effort to identify and meet the housing, business and other development needs of their areas, and respond positively to wider opportunities for growth”*
- 1.8 In this context, the evidence for the Core Strategy Review 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 and again in 2011 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 The draft of the National Planning Policy Framework (NPPF) was published on 25 July 2011. The framework identifies that local authorities should prepare Local Plans on the basis that objectively assessed development needs should be met (para 14.) and that with regards to housing requirements local authorities should:

“Prepare a Strategic Housing Market Assessment to assess their full housing requirements... identify the scale and mix of housing and the range of tenures that the local population is likely to require over the plan period which;

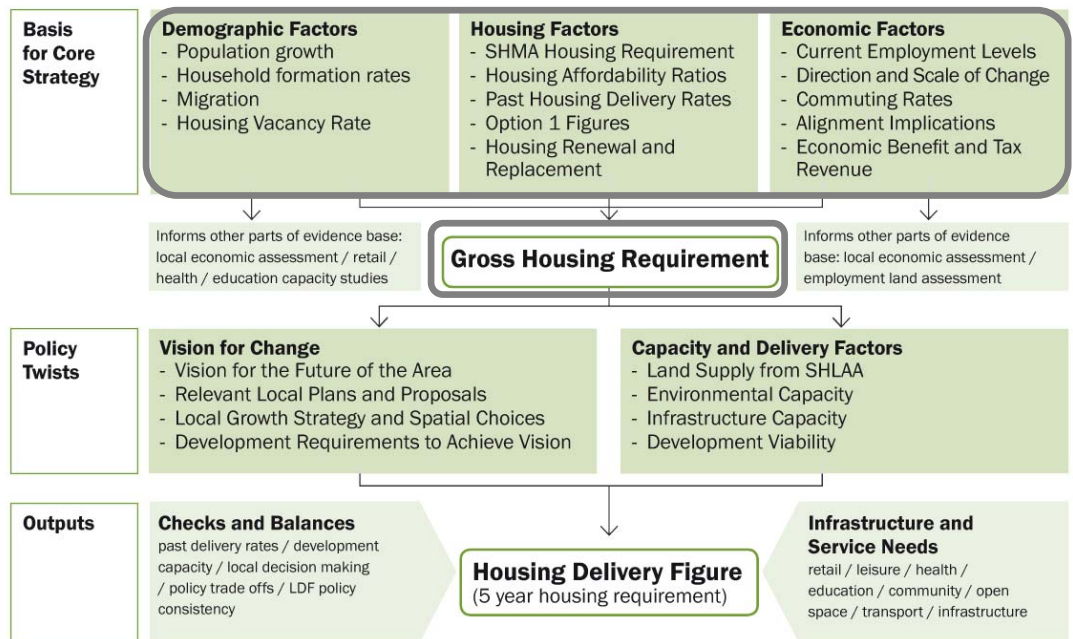
- *Meets household and population projections, taking account of migration and demographic change;*
- *Addresses the needs for all types of housing... ; and*
- *Caters for housing demand and the scale of housing supply necessary to meet this demand.”*

1.11 The draft NPPF reflects the broad thrust of existing policy in PPS3, and emphasises the importance of planning to meet the need for housing.

1.12 At the present time there is no agreed approach for local planning authorities to follow in setting local housing targets. 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.

1.13 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 in grey and Crawley BC should look to consider other relevant factors (including those set out in the framework) in arriving at a housing delivery figure for which it should plan.

Figure 1.1 NLP HEaDROOM Framework



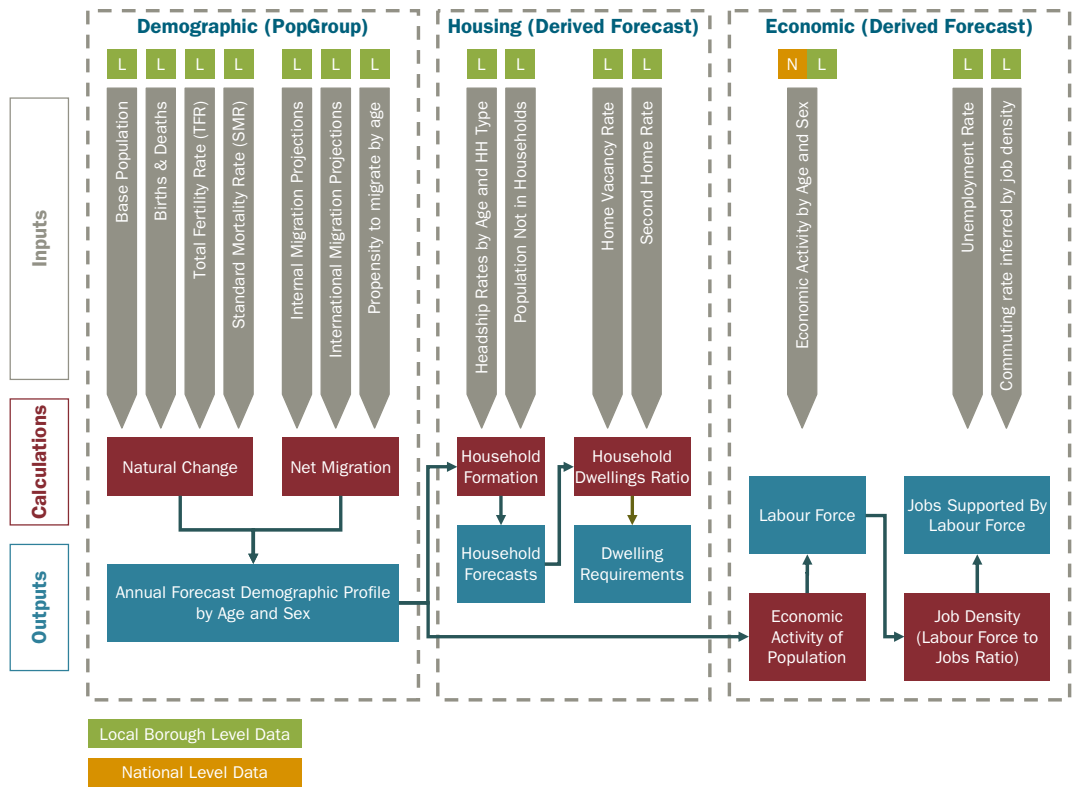
Source: NLP

- 1.14 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 by supporting its economy with sufficient labour force, taking account of commuting flows and migration.
- 1.15 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 needs in a transparent manner.

Approach and Structure of the Report

- 1.16 This report presents the findings of each stage of NLP's analysis of demographic, housing and employment factors to provide an analytical review of the level of housing Crawley needs to be planning for to fulfil its role in providing housing to support each of these factors. These take the form of a number of scenarios, the basis for which is set out in the relevant sections of the report.
- 1.17 The main outputs of the study are identified as annualised figures for the period 2010 to 2031, equivalent to a monitoring period of 1 April 2010 to 31 March 2031. The modelling uses a base year of 2009, which represents the most recent year for which comprehensive input data is available, although 2010 is used as the base year for assessment reflecting existing data available for demographic change between 2009 and 2010, and ONS projections for 2010, which have been incorporated into the model. All inputs and assumptions, along with their date and source, is contained within Appendix 1. Annualised figures allow ease of comparison across many data strands and scenarios.
- 1.18 For each of the demographically modelled scenarios, NLP has used 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 then newly published CLG 2008-based household estimates. The software is an industry recognised demographic modelling tool which is widely established and utilised by both Local Authorities and County Councils.
- 1.19 Figure 1.2 illustrates the components of the model and how the inputs for the modelling are factored in to arrive at an estimate of the scale of housing required to meet identified housing need in the Borough.

Figure 1.2 PopGroup Demographic Model Features



Source: NLP / PopGroup

- 1.20 All outputs of the demographic modelling are identified as annual changes and therefore the outputs (which are contained within the appendices for each scenario) can be assessed across varying time periods up to 2031, as necessary to tie in with the relevant plan period for Crawley BC. Sub-borough demographic modelling has not been undertaken, due to the limited availability and margins of error in small area statistics.
- 1.21 All data used in this study was up-to-date as of Summer 2011 when the analysis was carried out.
- 1.22 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.
- 1.23 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 Crawley and what the current position is, providing a baseline upon which to test potential future scenarios;

- **Evidence for Housing Need** (Section 3.0) – this outlines the scenarios for possible household needs based on a range of housing, economic and demographic factors;
- **Housing Delivery Implications** (Section 4.0) – this outlines the implications of the above scenarios for the need for different types and size of housing required aligning the need for housing with relevant other considerations;
- **Towards Defining a Local Housing Requirement** (Section 5.0) – this draws together the evidence to identify the likely range of housing need which will inform an appropriate local housing target. This draws together the identified scale of housing need and the policy and delivery factors. It also outlines further work which may be necessary to evidence a final local housing requirement.

1.24

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 It is important to ground an assessment of the future demographic and economic pressures that the Borough will face in the context of:
- a what has happened previously;
 - b what has been driving these trends; and,
 - c the extent to which they may continue in the future, taking into account current circumstances.
- 2.2 This understanding provides the context for what may reasonably occur in the future and informs the creation and testing of a number of scenarios. However, whilst past trends are useful, it is also important to acknowledge that they may 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. Notwithstanding the above, this section provides a purely statistical review of observed past trends.

Demographic Trends

- 2.3 Population in Crawley has risen steadily over the previous three decades, increasing by 28.3% from 82,100 to 105,300 between 1981 and 2009. This level of growth exceeds the 16.5% experienced within the wider South East region over the same period. Population change has been generally upwards throughout the whole period, although the quickest rate of increase was experienced in the 1990's (with an average rate of increase of 1.33% per annum, compared with 0.67% in the 1980's and 0.61% in the 2000's) a reflection of the growth Crawley experienced in this period with the completion of the 13th neighbourhood (Maidenbower).²
- 2.4 The population profile of Crawley Borough as illustrated in Figure 2.1 demonstrates a similar profile to that of the wider South East region. Crawley Borough, however, demonstrates a slightly larger proportion of younger working age population between the ages of 25 and 34 (1.2% higher than the South East as a whole), and a lower percentage of elderly people, with only 18.5% of the population aged 60+ compared with 20.1% across the South East.³

² ONS Mid-Year Population Estimates 1981-2009

³ ONS Mid-Year Population Estimates for 2009

Figure 2.1 Crawley Borough Baseline Demographic Profile (2009)



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

Fertility

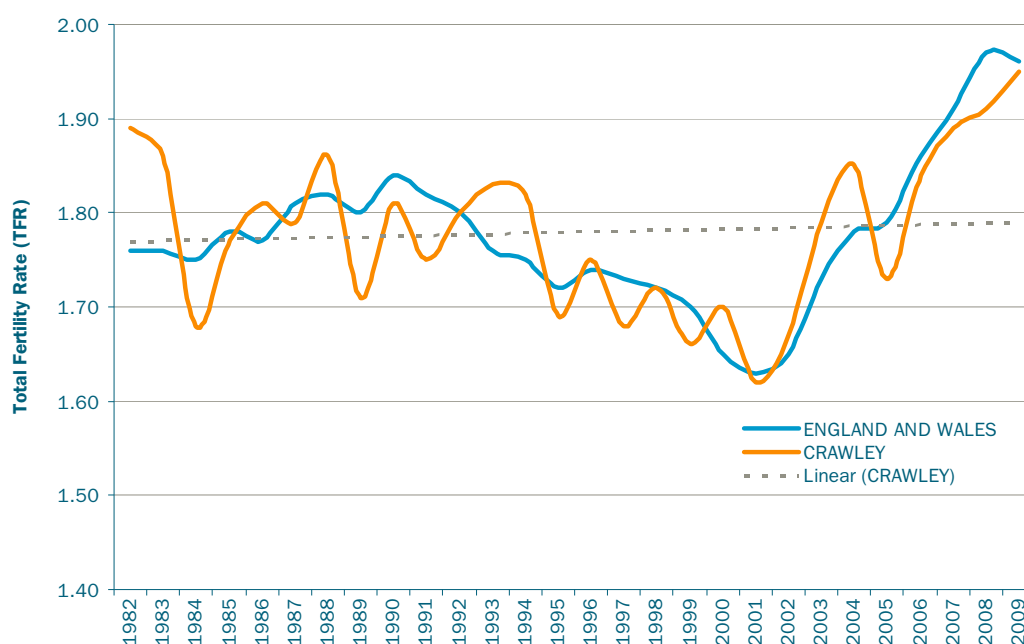
2.5

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 – for Crawley varied significantly over the period from 1982 to 2009. This highlights the variable nature of birth rates at a local level, which vary for several reasons including differences in the timing of childbearing and differing aspirations/expectations on family size (themselves influenced by the population characteristics of the area such as levels of educational attainment, ethnicity/country of birth, and deprivation levels), even though the rolling average for Crawley broadly reflects the national picture. Trends have been towards a gradually increasing TFR over the longer term.⁴ This is illustrated in Figure 2.2 below.

⁴ ONS 'Fertility and Mortality in England and Wales': Total Fertility Rate (TFR) in England and Wales by local authority of usual residence, 1982-2009

<http://www.ons.gov.uk/ons/rel/vsob1/birth-summary-tables-england-and-wales/2010/births-and-deaths-in-england-and-wales-2010-statistical-bulletin.pdf>

Figure 2.2 Total Fertility Rate in Crawley Borough (1982-2009)



Source: ONS Mortality and Fertility Statistics

Mortality

2.6

Crawley has consistently had lower mortality rates than the national average, particularly for males. The mortality rate⁵ in Crawley has also been steadily declining for both males and females for a number of years, in line with national trends (Figure 2.3 and Figure 2.4 which illustrates the two ways of expressing mortality rates). This means that people are increasingly living longer which in turn will have implications on the structure of households as well as the overall number and the type of dwellings that are required to meet this demographic (e.g. including a greater supply of housing solutions for elderly people such as retirement homes, sheltered accommodation, care homes as well as others). It will also have economic impacts in terms of the total working

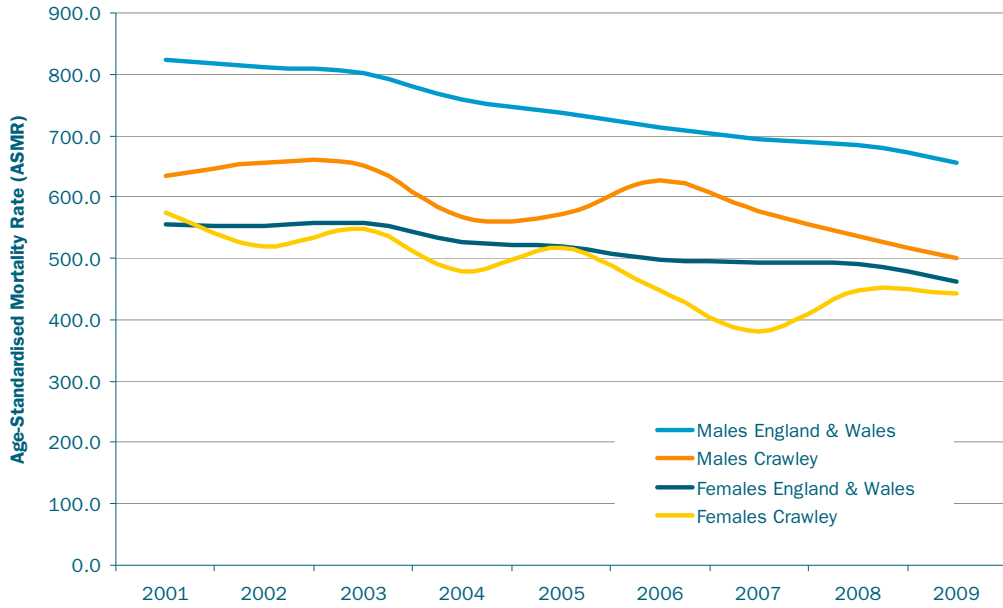
⁵ Mortality Statistics can be set out in two ways:

- 1: The Age-Standardised Mortality Rate (ASMR) – the number of deaths per 100,000 population 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
- 2: 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. It is expressed as a ratio of observed to expected deaths, multiplied by 100. If an area has an SMRs equal to 100 it implies that the mortality rate for the area is the same as the national mortality rate. A number higher than 100 implies an excess mortality rate whereas a number below 100 implies below average mortality.

Within Crawley both illustrate downwards trends (as shown in Figure 2.3 and Figure 2.4) representing increasing average lifetimes.

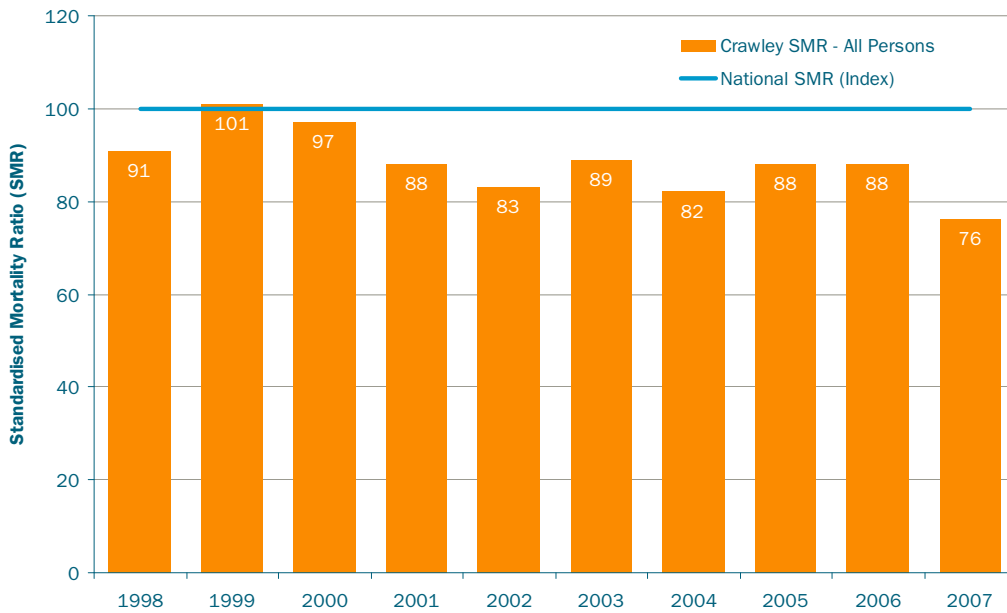
age population, albeit this will need to be set against the rising state pension age.

Figure 2.3 Age-standardised Mortality Rate



Source: ONS Mortality and Fertility Statistics

Figure 2.4 Standard Mortality Ratio (SMR) for Crawley 1998-2007



Source: ONS Mortality and Fertility Statistics

Migration Trends

2.7

Migration patterns have shifted significantly over the past ten years, although the picture is incomplete due to the lack of data on international migration flows prior to 2001/02. Since 1998, Crawley has been a net recipient of in-

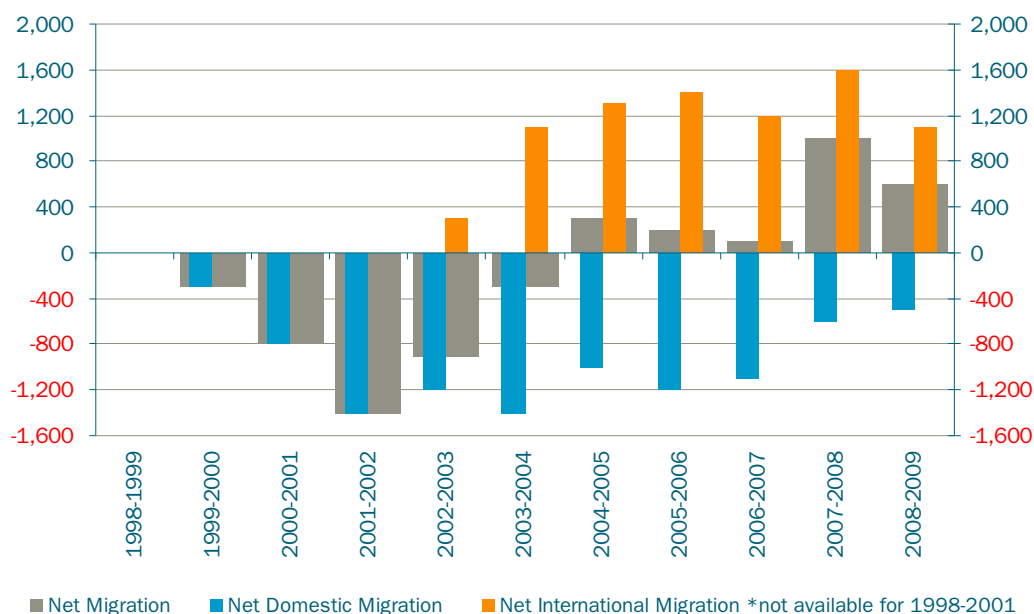
migrants (an average of 136 people per annum); this includes a period (1998/99–2003/04) of net out-migration of over 600 people per annum) and the subsequent period (2004/05–2008/09) which saw a net in-flow of 440 per annum. The latter period comprised significant international net-in-migration of between 1,100 and 1,600 people per annum (potentially due to an increase in the number of migrant from EU accession states that enter the country via Gatwick airport) which offset the general trend of domestic net out-migration which has exceeded 500 people per annum in all but two of the past eleven years.

2.8 Overall, past average migration trends for Crawley Borough (over the period 1998 to 2009) show:

- Domestic net out-migration of 864 people per annum; and,
- International net in-migration of 1,000 people per annum.

2.9 The past trend has therefore been that international net in-migration has continued to outstrip domestic net out-migration, which is contributing towards continued population growth in Crawley, as illustrated in Figure 2.5.

Figure 2.5 Net Internal and International Migration in Crawley 1998-2009



Source: ONS Migration Statistics – ONS Migration Indicators Tool

2.10 Not only does migration have an effect upon total population terms, it also affects the make-up of the population. People have different propensity to migrate at different ages and, combined with a Crawley-specific propensity to migrate, even a balanced net-position (e.g. where in and out-migration is broadly equal) can have a significant knock on effect on the structure of the population and subsequently fertility, mortality and household formation rates.

2.11 Looking at domestic migration only, and the gross flows of people moving out of Crawley to elsewhere in the UK or moving into Crawley from elsewhere in the UK, we can look at the propensities of different age groups to migrate either

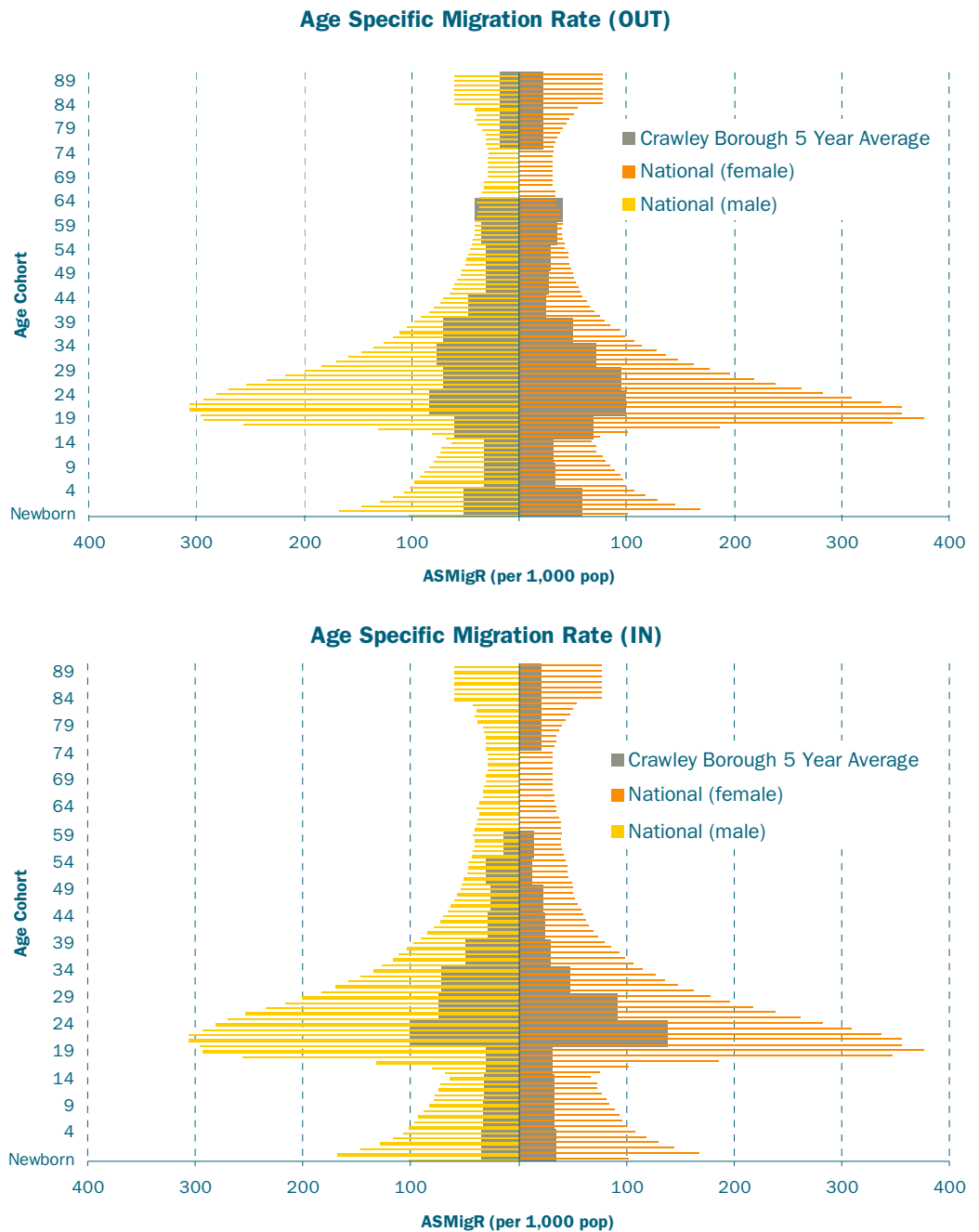
into or out of Crawley. This is expressed as the Age Specific Migration Rate (ASMiGR) – the number of people per 1,000 who will move each year, split by different age cohorts.

- 2.12 The propensity of people to migrate into or away from Crawley is considerably lower than the national average propensity to migrate (Figure 2.6). This suggests a lower level of turnover among the population, with greater propensity for people in Crawley to either not move, or move within the Borough, than seen at a national level. This illustrates that the population of Crawley is relatively less transient than other areas.
- 2.13 Figure 2.6 also shows that the age profile of domestic migration for Crawley 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 in and out-migration has come from these age groupings. Some age cohorts have a zero propensity to migrate in Crawley (Males aged 60+ and Females aged 60-74 for moves into Crawley and Males and Females aged 65-74 for moves out of Crawley), stemming from the fact that in the past 5 years, migration statistics have not recorded any movements from these age cohorts.⁶

⁶ ONS Migration Stats by Age are rounded to the nearest 100 for each 5-year cohort. So, for example, if fewer than 50 people aged 70-74 move each year, this is recorded as a zero and over the past 5 years a zero propensity to migrate would be observed.

In Crawley these age cohorts with a zero propensity to migrate are: Males aged 60+ and Females aged 60-74 for moves into Crawley and Males and Females aged 65-74 for moves out of Crawley.

Figure 2.6 Male and Female Migration Rates by Age (National and Crawley In and Out-Migration)

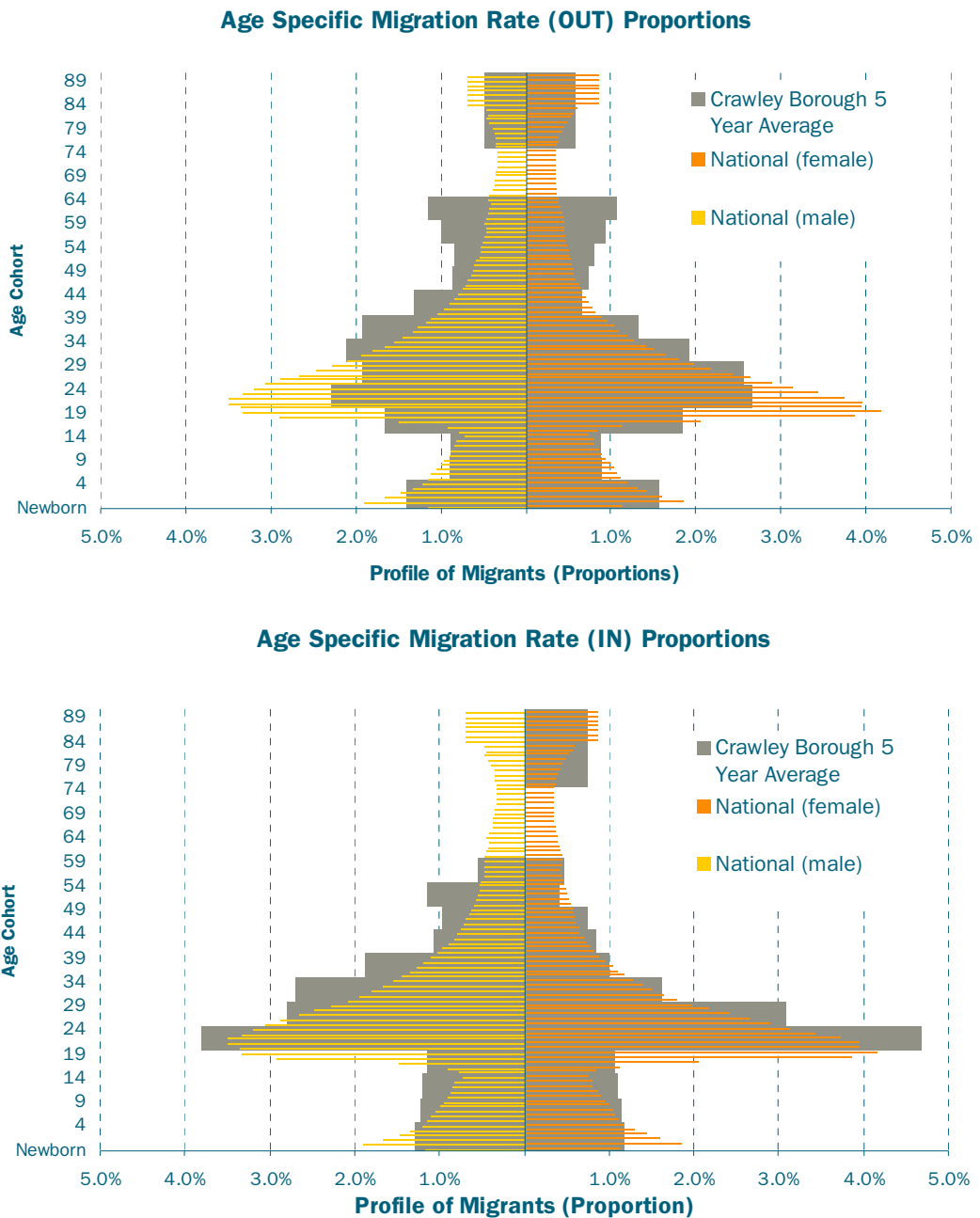


Source: NLP Analysis using ONS Migration Statistics Unit data 2004/05-2008/09

- 2.14 These population churn dynamics are illustrated in Figure 2.7 which shows the age profile of domestic migrants coming into the Borough and the age profile of those moving out (split by gender). This sets out the number of migrants as a percentage of the existing population within each age cohort. This demonstrates the extent to which recent migration patterns have helped to shape the structure of the local population.
- 2.15 One distinct difference in the age profile of those moving in to Crawley Borough as compared to those moving out is that a much higher proportion of in-migrants are young adults. Proportionally more young adults (20-35),

particularly females, move in than move out, which suggests either younger couples or family units are moving in to Crawley, which could have a knock-on effect upon the birth rate within the local area. Among the elderly population migration is much less, but slightly higher proportion of elderly females move in than out, whilst the opposite is true for men, although this may reflect the fact that females tend to live longer in any case.

Figure 2.7 Age Profile of Migrants



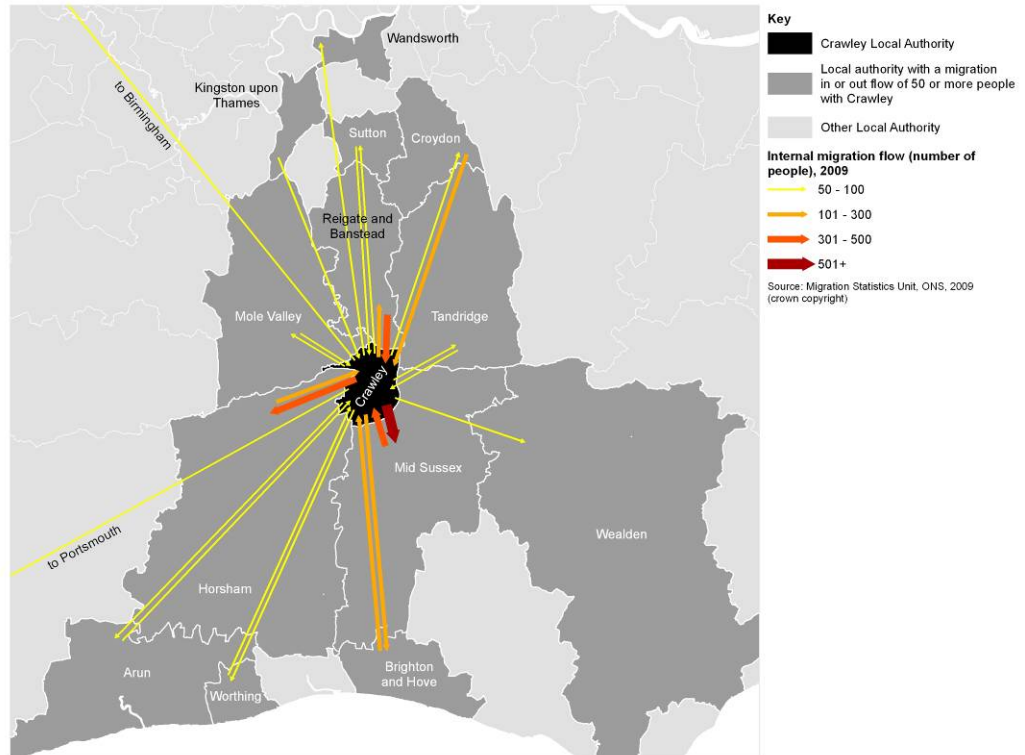
Source: NLP Analysis using ONS Migration Statistics Unit data 2004/05-2008/09

2.16

Migration patterns for Crawley Borough show a strong relationship with neighbouring areas of Mid Sussex, Horsham and Reigate & Banstead. Areas further south, such as Arun, Worthing, and Brighton and Hove also have a strong relationship with Crawley in terms of migration flows. Crawley's

economic status, the role of Crawley as the central point of the Gatwick Diamond sub-region, together with its location on the key London to Brighton railway route is important in providing a context for some of these migration flows.

Figure 2.8 Internal Migration Patterns for Crawley Borough, 2009



Source: ONS Migration Statistics Unit, 2009 / NLP analysis

- 2.17 Overall these patterns of migration are influenced by a wide range of factors, many of which relate to individual household or personal factors, such as family, employment or affordability. However, the planning policy approach can help to shape such patterns by developing strategies which seek to influence the choices and factors which drive migration and help to meet needs in a specific way.

Demographic Summary

- 2.18 These fertility, mortality and migration trends provide a backdrop for continued population growth within Crawley Borough, through both natural change, with a rising fertility rate and falling mortality rate, and net in-migration. In this context the level of population will be one driver of gross future housing needs within Crawley Borough, with the population change driven by future levels of births and deaths within the indigenous population as well as the migration flows to and from Crawley. This is characteristic of many towns across the South East, particularly those with a New Town heritage and legacy, albeit housing market trends can equally lead to population change dynamics which are different, particularly where choices around meeting housing aspirations can influence

migration patterns (e.g. people moving out of towns or certain areas to access affordable or better suited accommodation).

Key Demographic Trends

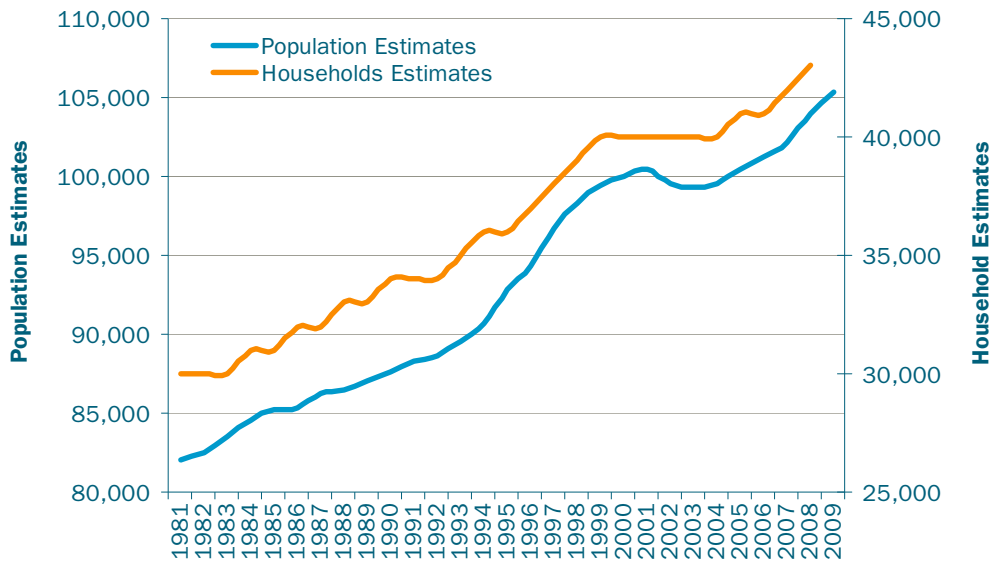
Rising fertility rates, falling mortality rates and net in-migration has led to continued population in growth in Crawley. With these factors set to continue future growth in population will be one driver of the need for housing in the future.⁷

Household and Housing Factors

2.19 The number of households in Crawley increased from 30,000 in 1981 to 43,000 in 2008. This equates to an overall increase of 43%: greater than growth in population over the same period. The result has been a decline in average household size from 2.74 in 1981 to 2.41 in 2008.⁸ This is consistent with national trends, which have seen shifts in household composition towards smaller household sizes.

2.20 The comparative rate of change in population and households is set out in Figure 2.9.

Figure 2.9 Population and Household growth in Crawley 1981-2009



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

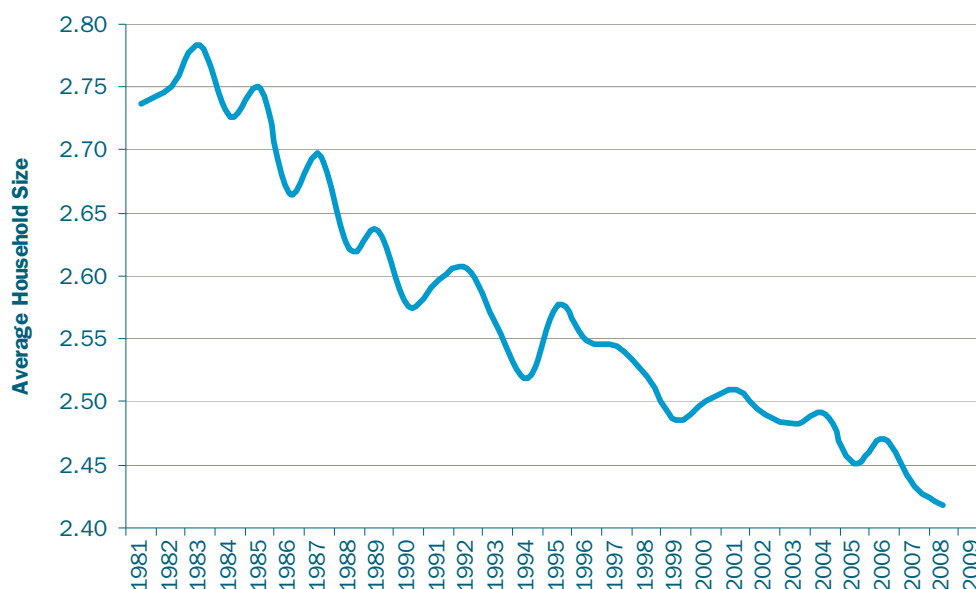
⁷ Continuation of these trends is suggested by the forecasts of these factors underpinning ONS' Sub-National Population Projections and the range of assumptions and testing which goes into these.

⁸ ONS mid-year population estimates and CLG household estimates (CLG Live Table 406)

2.21 The change in the number of households between 1981 and 2009 equated to an average of 482 per annum. This is below the figure of 520 per annum that has been projected for the period 2008 to 2033 by the CLG 2008-based Sub-National Population Projections. This reflects greater projected household growth in the future than what has gone previously, both at a local level to Crawley and more widely at the national level, which is being driven by population growth and changing household composition.

2.22 When considering past household formation rates, it is important to recognise that these might have been constrained by the availability of housing. Insufficient housing supply could have resulted in an increased level of concealed households which would not have been reflected in past household formation figures, but may be apparent in the future. Accordingly, an assessment of future housing needs should not be based solely upon a review of past trends, but also reflect the housing and household factors which may occur in the future, such as changes in composition of households, and the need to meet these.

Figure 2.10 Average Household Size in Crawley Borough 1981-2008



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

2.23 The CLG-2008 based Sub-National household projections include estimated headship rates – the proportion of the population who form a head of household – for the period from 2001 to 2008 for Crawley (as well as projected rates for the period to 2033) broken down by gender, age group and household category.

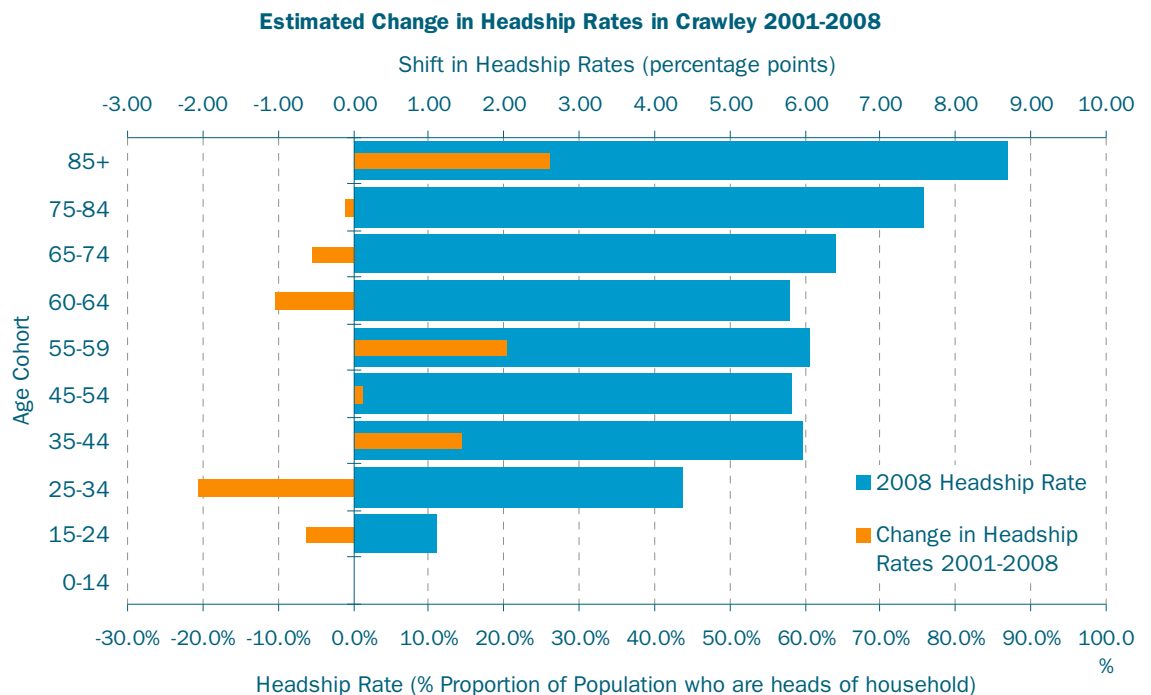
2.24 Figure 2.11 below shows the headship rate – the proportion of any population who form heads of household – broken down for each age cohort for Crawley. It illustrates that headship rates are generally higher as age increases:

- a 87% of the population aged 85+ are heads of household; but,
- b only 44% of the population aged 25-34 are heads of household.

2.25 This difference can be understood by reference to the fact that many people in the 85+ age group are widows or widowers and live alone⁹ whilst a much higher proportion of people in their 20s and 30s would live with others (i.e. partners, families or friends). This is more widely reflective of trends seen at the national level.

2.26 Figure 2.11 also shows the estimated shift in headship rates for Crawley Borough between 2001 and 2008. This illustrates that headship rates among the younger age (15 to 34 years old) have been falling in Crawley Borough, potentially due to falling housing affordability, where living alone or as a couple is beyond peoples means, leading to more people sharing accommodation or living in other domestic arrangements (e.g. living with parents) where they would not be heads of household. It may also reflect lifestyle choices, particularly given the context of the influence of the economic role of the Airport and the types of jobs, which may influence household formation in Crawley as workers younger choose to share. Conversely, headship rates have increased for age cohorts between 35 and 59 years old reflecting a rise in the number of single persons and single parent households, potentially due to increasing divorces and breakdowns of the traditional family unit. These are trends seen at the national level also, reflecting broad social trends as well as changing household composition, potentially driven at the national level by affordability, lifestyle factors and the different household choices arising from this.

Figure 2.11 Estimated Change in Headship Rates in Crawley 2001-2008



Source: CLG 2008-based Household Estimates / NLP analysis

⁹ Those living in nursing homes and other forms of residential care facility are not included in the CLG forecasts

- 2.27 Housing vacancy rates also have an impact on the ability of the housing stock to meet the need from households. CLG collects housing vacancy rates using data provided from local authority council tax registers. This data shows that in 2008 Crawley Borough had a vacancy rate of 3.2% of stock. This figure was lower than the South East as a whole which had a vacancy rate of 4.32%.¹⁰
- 2.28 A level of vacancy is essential to the effective operation of the housing market and it is therefore unlikely that the vacancy rate could reasonably be expected to fall substantially below this current figure.

Local Housing Need and Demand for Affordable Housing

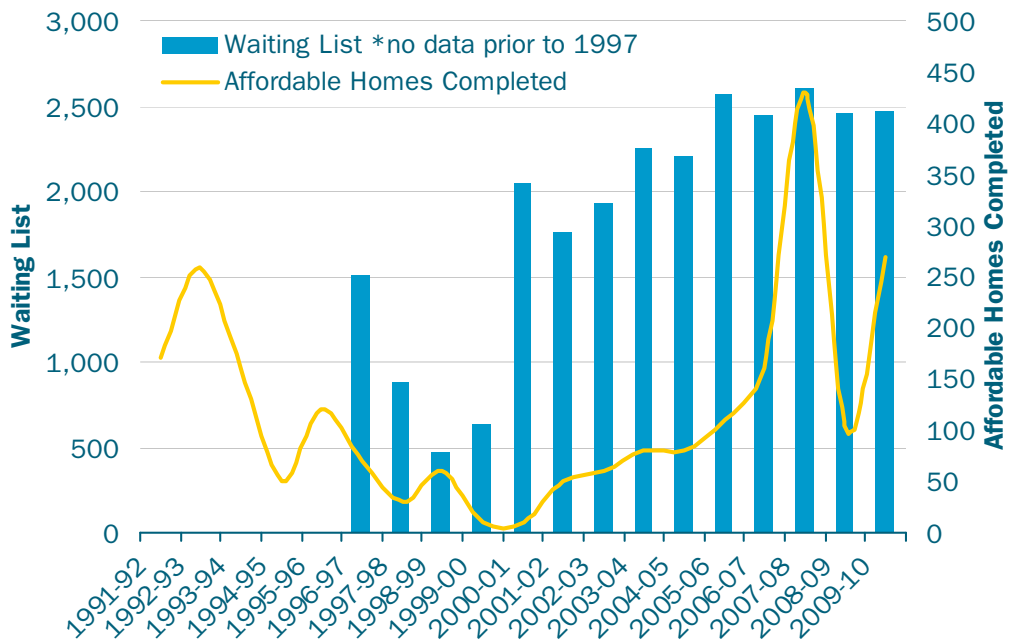
- 2.29 Affordable housing need is distinct from the wider need for housing, being that affordable housing need relates only to those tenures defined as affordable (i.e. social rented or intermediate tenures, including shared equity). Such affordable housing need is a relevant consideration to be taken into account in assessing local housing needs and establishing a local housing figure.
- 2.30 Housing Register and HSSA data shows that over time the Housing Waiting list has gradually increased, alongside some significant year-by-year fluctuations, most significantly in 2000-01, when the list increased from 630 to over 2,000.¹¹ This increase in 2000-01 coincided with a low point in the delivery of affordable housing, and Crawley has, arguably, been contending with this increased waiting list in the period since. Overall change in the housing waiting list has been accompanied by fluctuating levels of affordable housing supply (based on CLG data), which has averaged around 120 homes per annum although was as high as 430 in 2007/08.¹² This rate of provision has equated to approximately 40% of the annual level of household growth since 1981 (480 per annum). As illustrated in Figure 2.12, it appears unlikely that this affordable housing delivery has been sufficient to address the backlog of need represented by the waiting list, particularly given relatively high levels of affordable homes completed in recent years, with limited reduction in the waiting list.

¹⁰ ONS Vacant Dwellings, 2008 (Retrieved from neighbourhood.statistics.gov.uk)

¹¹ Based on HSSA data collated by CLG. This growth in the waiting lists also reflects changes to the Housing Act 1996 by the Homelessness Act in 2002 which reduced restrictions on people joining the housing register (and led to the housing register and transfer register being combined). Data for 1996-2002 is therefore for non-tenants. Crawley Borough Council estimate that circa 1,000 applicants currently on the waiting list do not fall into the reasonable preference groups as listed in the Housing Act 1996.

¹² CLG Live Table 1008

Figure 2.12 Waiting List and Affordable Housing Completions 1991-2010



Source: HSSA / CLG / NLP analysis

- 2.31 The Northern West Sussex Strategic Housing Market Assessment (2009) (the SHMA) contains the most recent full assessment of affordable housing need for Crawley. The SHMA identifies that 50% of households in the Borough are unable to access market housing. Taking into account the backlog of existing need and dwelling led household projections based on the South East Plan, a gross estimate of social housing need for the Borough is 442 dwellings per annum. The SHMA estimates that 188 dwellings of the per annum affordable housing need is arising solely from South East Plan based projected household growth (i.e. newly arising need) with the remaining 254 dwellings of the per annum affordable housing need the existing backlog of need (assumed to be addressed over the ten year SHMA period).
- 2.32 Taking into account the anticipated supply of affordable housing, the SHMA estimates a total annual housing need for Crawley of between 103 dwellings per annum, based on only those households falling into a reasonable preference category of the housing waiting list, and 250 dwellings per annum, based on the whole housing waiting list.
- 2.33 In the context of overall previous delivery of affordable housing, such levels as necessitated by the need have not been substantially achieved in the Borough, and as such a step-change in affordable housing delivery would be necessary to meet newly arising need and the backlog of need.

Key Household and Housing Trends

Trends in average household sizes in Crawley have shown a continued shift to smaller household sizes, driven in part by increased headship rates among age groups who typically form smaller households (e.g. the elderly) as well as emerging households from the existing population. Continuation of this trend will mean more households will form, even without population growth. The affordable housing waiting list has also been increasing, highlighting continued pressures on the need for new homes within Crawley.

Economic Trends

- 2.34 The number of jobs located within Crawley Borough was estimated by ONS at 82,100 in 2009.¹³ This was approximately 8,000 more jobs over the figure recorded a decade earlier in 1999. Over the period for which data is available (1998-2009) the annual average rate of increase is 778 additional jobs per annum, or a 1.03% annual increase. This figure is higher than that of the South East as a whole which recorded an average 0.77% job growth per annum over the same period. Crawley has also performed better than the South East in the past 5-years averaging 0.26% job growth.

¹³ Employee Jobs, Business Register and Employment Survey (BRES) 2009

Note: excludes self employed and farm agriculture jobs – BRES estimates that Crawley had 3,000 ‘working proprietors’ (sole traders, sole proprietors, partners and directors) in 2009, totalling 85,100 people in employment in the Borough.

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 2006 figure for total jobs within all sectors (including self employed) at 85,800 and the 2011 figure at between 84,300 and 84,600 (depending upon scenario) (see Northern West Sussex Economic Appraisal/Part I Employment Land Review) which is a slight 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, albeit largely similar to the Experian figure.

Table 2.1 Annual Employee Job Growth for Crawley Borough

Year	Jobs (ABI)	Jobs (BRES)		ABI/BRES Scaled ¹⁴	Annual Growth (%)	South East Annual Job Growth Scaled (%)
1998	72,500	~		73,600		2.70%
1999	74,100	~		75,200	2.18%	5.10%
2000	74,200	~		75,200	0.07%	1.80%
2001	78,800	~		80,000	6.29%	0.00%
2002	81,800	~		83,000	3.81%	0.40%
2003	81,600	~		82,800	-0.30%	-1.40%
2004	80,000	~		81,100	-1.97%	0.80%
2005	79,700	~		80,800	-0.42%	2.60%
2006	79,400	~		80,600	-0.31%	-2.10%
2007	78,800	~		79,900	-0.82%	1.60%
2008	78,200	79,300	0.99	79,300	-0.74%	0.70%
2009	~	82,100		82,100	3.58%	-3.00%
Average	1998-2009				1.03%	0.77%
Average	2004-2009				0.26%	-0.04%

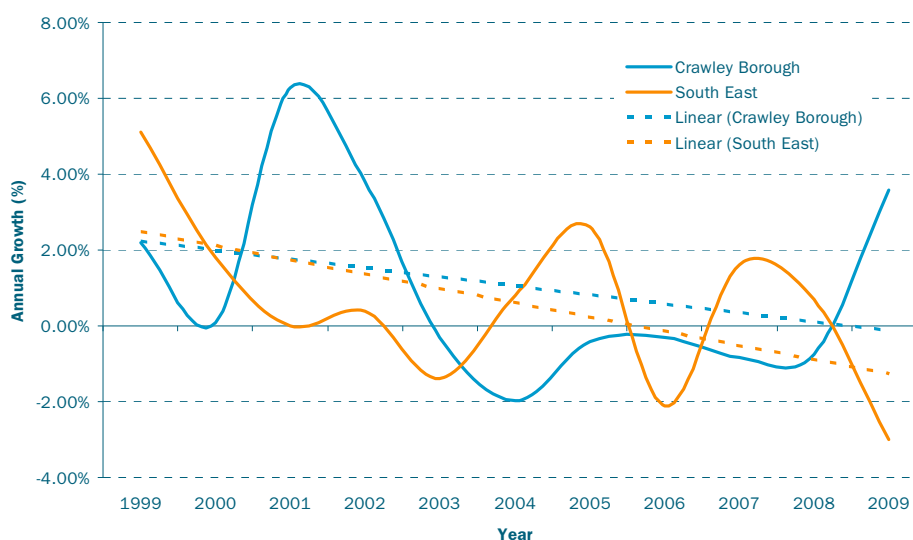
Source: ONS Annual Business Inquiry (ABI) and ONS Business Register and Employment Survey (BRES) / NLP analysis (Above Excludes Self Employment)

2.35

Figure 2.13 shows job growth in Crawley, compared to the average for the South East between 1999 and 2009. Factoring in the market downturn, this graph looks more positive for Crawley than that of the South East. This difference can be attributed to the economic make-up of Crawley compared to that of the South East as a whole.

¹⁴ 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 Crawley the scaling factor is 0.986 (i.e. $78,200 \div 79,300$). All numbers are rounded to nearest 100.

Figure 2.13 Annual Employee Job Growth for Crawley Borough against the South East



Source: ONS ABI/BRES 1999-2009 / NLP analysis

- 2.36 Claimant unemployment is currently estimated at 2,338 people claiming Job Seekers Allowance, or 3.3% of the working-age population¹⁵ (above the South East average of 2.6%). However, the ONS modal 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 7.7%.¹⁶ Past modal based unemployment trends show recent (January 2006 to December 2009) average unemployment, including pre-recession rates, of 4.9%. This is compared with an average rate of 4.6% for the wider South East and 5.9% for Great Britain over the same period.¹⁷ It is reasonable to assume that unemployment in Crawley will reduce to a comparable level again, in time, as the economy stabilises and grows in the future.
- 2.37 According to all the scenarios explored in the 'Northern West Sussex Employment Land Review (Sep 2009)', employment will decline in Crawley in the period to 2011. According to the Gatwick Low Growth Scenario levels will recover only very slightly after 2011. In contrast, each of the other scenarios predicts steady employment growth post 2011. The Hybrid Growth scenario results in the highest employment levels from 2006 (7.8% employment growth over the plan period).

¹⁵ ONS Job Seekers Allowance Claimant Count, March 2011

¹⁶ ONS Annual Population Survey (Oct 2009 – Sept 2010). This is used as the basis for modelling to ensure consistency with the other APS inputs used in the model.

¹⁷ ONS Annual Population Survey (January 2006 – December 2009).

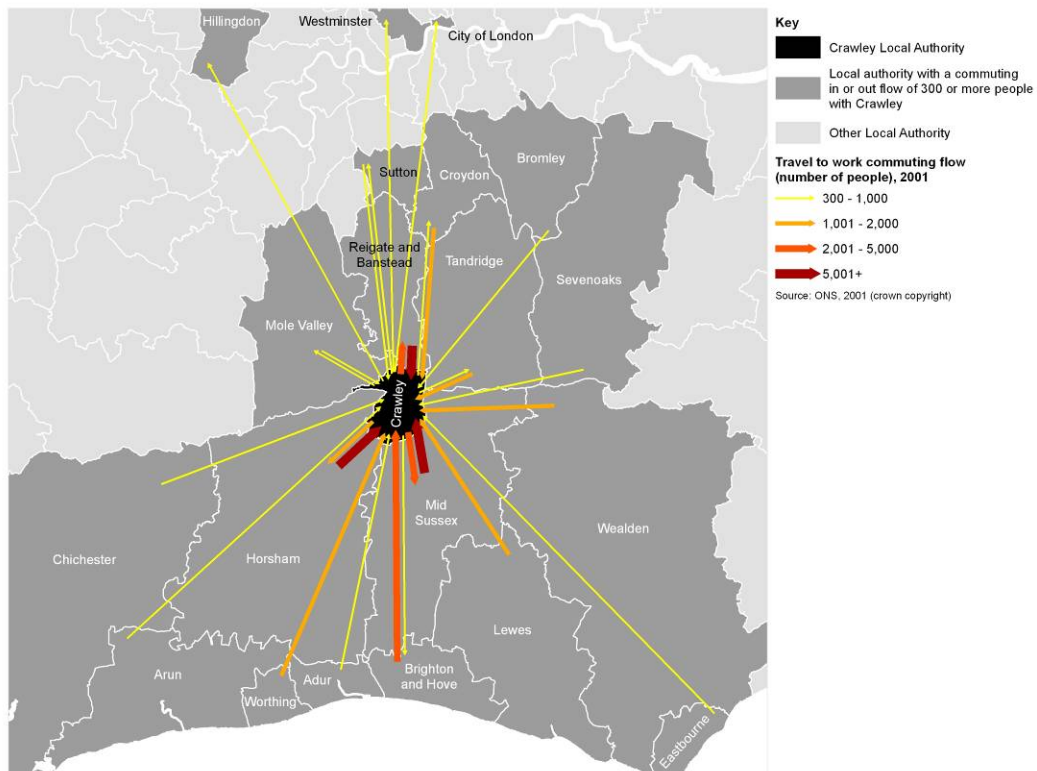
Commuting

Current Commuting Patterns

2.38 The most recent data sources available on rates of commuting are the 2001 Census and the Annual Population Survey (APS) 2008, which was previously undertaken in 2001 as the Local Labour Force Survey (LLFS). Whilst the APS represents a more up-to-date picture on commuting, it is sample based and is therefore subject to large margins of error, meaning the Census is regarded as the more statistically reliable and robust data source.

2.39 At the time of the 2001 census, 15,439 residents commuted out of the Borough (30% of employed residents) and there were 46,274 in-commuters (accounting for 56.2% of workplace jobs), giving a net total of 30,835 in-commuters.¹⁸ This reflects the profile and strength of Crawley as a provider of jobs – many of which are linked to Gatwick Airport and the aviation industry – which attract a considerable number of workers from outside of the Borough, but also highlights that most residents are able to find employment locally.

Figure 2.14 Inter-district commuting flows, 2001



Source: 2001 Census / NLP Analysis

2.40 More recent (2008) Annual Population Survey (APS) data, compared with 2001 Local Labour Force Survey (LLFS) data, indicates that the proportion of workplace jobs in Crawley taken by Crawley Borough residents has risen from

¹⁸ Census 2001

43.1% in 2001 to 47.1% in 2008, whilst the proportion of Crawley's resident labour force also working within the Borough has fallen slightly from 72.2% to 71.5%.¹⁹ Although the methodology for the APS/LLFS is different to that of the 2001 Census, and the changes identified are not statistically significant at the 5% level, these estimates do suggest that increases in the local labour force have resulted in slightly more jobs being taken by local residents.²⁰ These rates are summarised in Table 2.2.

Table 2.2 ONS 2001 Census, ONS Local Labour Force Survey 2001 and ONS Annual Population Survey 2008

Source:	Census	LLFS	APS
Year:	2001	2001	2008
Proportion of employed people that live in Crawley who also work in Crawley:	70.0%	72.2%	71.5%
Proportion of workplace jobs in Crawley taken by people who also live in Crawley:	47.4%	43.1%	47.1%

Source: Commuting Rates / NLP analysis

Modelling Commuting Rates

- 2.41 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 is effectively the ratio between:
- Indigenous labour force in employment in Crawley – i.e. the number of people who live in Crawley and have a job; and
 - Total employment in Crawley – i.e. the total number of employee jobs as well as working proprietors (e.g. self employed people) located within the Borough.
- 2.42 This 'Labour Force Ratio' represents the number of jobs supported at any given level of labour force, and vice versa.²¹ The LF Ratio itself, therefore, only seeks to identify how many jobs the resident labour force could support. A 1:1 ratio implies that if the labour force expanded by 1,000 people, the number of jobs would also expand by 1,000 people. In Crawley, this LF Ratio in 2009 was 0.595 indigenous workers for each job with the Borough.
- 2.43 This means that an LF Ratio conceals a range of individual commuting flows, which may have changed over time. For example it could be the case that all

¹⁹ Annual Population Survey (2008) and Local Labour Force Survey (2001)

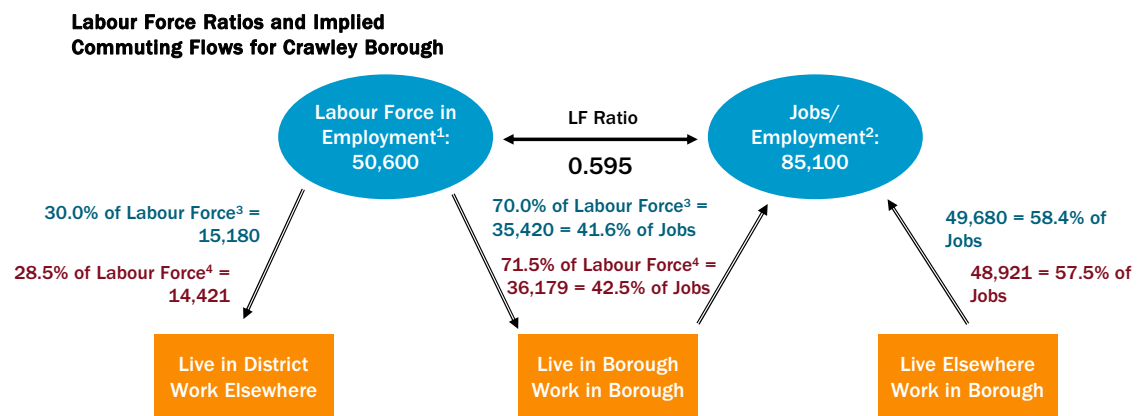
²⁰ The APS (2008) and LLFS (2001) are based on a sample survey of residents and are therefore subject to sampling errors, hence the need to consider statistical significance of changes between the 2001 and 2008 data. The 2001 Census data is a more comprehensive and robust, surveying all residents, but is now substantially out of date, so the 2008 APS data is a reasonable alternative for considering trends over time.

²¹ This does not include any proportion of the labour force which is unemployed – this is modelled separately to the LF ratio, but is taken into account when converting the whole labour force to the number of jobs.

employed resident workers are employed outside of Crawley and that all jobs in Crawley are taken by in-commuters – or conversely that all residents work within the Borough and just the remainder of jobs are filled by people commuting into the Borough (although given the rates identified in the Census and APS, this is obviously not the case).

2.44 The LF Ratio for 2009 in Crawley is 0.595 resident workers for each workplace job (including self employment), which after applying the out-commuting rates (proportions) of residents in Crawley from the Census data and the APS data, would manifest itself in the levels (actual numbers) of commuting illustrated in Figure 2.15, based on current labour force estimates (i.e. those in employment in the Borough in 2009) and current workplace jobs in the Borough (including self employment) in 2009. This shows that whilst the LF Ratio remains static, the actual rates and numbers of commuting flows implied may be variable.

Figure 2.15 Labour Force Ratios



¹ Annual Population Survey (APS) 2009-10

² Business Register and Employment Survey (BRES) 2009

³ Census 2001 Commuting Rate

⁴ Annual Population Survey 2008 Commuting Rate Estimates

Source: ONS Annual Population Survey, BRES and Census 2001

2.45 The LF Ratio may shift over time based on a range of factors which will influence the commuting patterns which underpin the ratio (such as where people chose to live and work). However, without any reliable and substantive data on commuting and the change experienced in the past, nor what may occur in the future, the LF Ratio for 2009 provides a good proxy for what commuting is currently experienced in the Borough. Applying this going forward is a good indicator of what the relationship between labour force, jobs and ultimately housing need and demand in Crawley Borough will be if it maintains the existing ratio as Crawley grows.

2.46 Making adjustments to commuting rates would result in consequential changes to the dynamics which underpin the Labour Force Ratio. For example if the labour force in the Borough increased to 85,100 and the number of jobs stayed at 85,100, this would increase the Labour Force Ratio to 1:1. This could be indicative of more local people taking local jobs, reversing in-commuting trends

(e.g. if current in-commuters moved into the Borough). However, due to the limited data on recent changes in commuting and how these have linked with population and employment change in Crawley, for the purposes of the modelling, it is assumed the status quo is maintained under the majority of scenarios (with labour force and jobs moving in tandem at the existing ratio) as a more robust basis for the analysis. Notwithstanding, there may be policy levers available which would influence this relationship and it is reasonable to test the implications of changing this labour force ratio.

Key Economic Trends

Crawley Borough has experienced strong growth in employee jobs in the past even posting growth in jobs during the period of recession. It is clear that a substantial proportion of Crawley's economy is linked with Gatwick Airport, and this is illustrated by the sub-regional role of Crawley within the Gatwick Diamond, with substantial levels of in-commuting helping to sustain the relative high number of jobs located within the Borough. Housing will continue to have a key role in supporting economic growth, and providing homes for workers to live, within Crawley in the future.

3.0 **Evidence for Housing Need**

3.1 This section of the report sets out the scenarios (A-H) for future housing needs 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;
- Economic Factors (Scenarios E-H) – what levels of housing are needed to sustain different estimates of employment change, appreciating the role housing has in supporting a labour base; and
- Housing Factors (Scenario I) – how housing need and past trends of delivery are reflected in future household growth.

All scenarios are independent of one another and should be considered as stand alone positions, each illustrative what might happen if a given set of factors prevail.

Scenarios, Assumptions and Approach

3.2 Based on past trends and the baseline housing, economic and demographic context of Crawley Borough, a number of scenarios have been identified and agreed between NLP and CBC. These scenarios reflect a reasonable range of potential future growth within the Borough to test and are based upon varying assumptions on economic and demographic trends and forecast change. 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 area. The scenarios are designed to give 'bookend' estimates to illustrate what may happen in demographic terms if given conditions prevail and are intended to give the basis for assessing what could be the implications. Each scenario can therefore be viewed independently of the others and provides stand alone outcomes.

3.3 Notwithstanding the above, there are a number of assumptions which forms the basis for all modelled scenarios, including:

- a Base population from ONS mid-year population estimates (2009);
- b Future change assumed in the Total Fertility Rate and Standard Mortality Rate using the births and deaths projections from the ONS 2008-based Sub National Population Projections (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;
- c Inputs on headship rates (CLG 2008-based headship forecasts for Crawley which underpin the 2008-based household forecasts and are based on past and projected trends in household formation);

- d Age-specific profiles of migration reflecting the propensities of age and gender groups migrating into and out of Crawley Borough within the previous 5-years (using ONS migration statistics);
- e Dwelling vacancy and second home rate of 3.2% reflecting existing levels projected across the plan period (ONS dwelling vacancy rates data). This rate unlikely to reduce given natural vacancy rates (e.g. transactional vacancies) and is already below South East average;
- f Reduction in unemployment from existing level of 7.7% to 4.9% over forecast period (assumed at -0.2% per annum from 2011 until 4.9% is reached, i.e. at 2025), reflecting growth out of recession and a stabilising economy;
- g Commuting rate, to estimate the labour force impacts of each scenario, remains static with no inferred increase or decrease in net commuting proportions (except for the nil commuting scenario). 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 as per Figure 2.15 (This is flexed within Scenario H);
- h 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 Borough 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.²²

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 (albeit migration, insofar as it changes population structure, has consequential impacts on natural change).

3.5 All of the demographic-led and economic-led scenarios have been modelled using PopGroup demographic modelling software.²³ This is an industry standard demographic model and the key inputs, calculations and outputs are illustrated in Figure 1.2. In broad terms the model takes a base population and adds in births, deaths, in-migration and out-migration for each year to arrive at a projected population. For each year's projected population, it then estimates how many households these would form using a 'headship rate' and then converts these to the number of dwellings necessary to accommodate these households, taking account of vacancy rates within the housing stock.

²² See Appendix 1

²³ A full methodology for the demographic modelling software utilised can be viewed within the PopGroup reference manual here:

<http://www.ccsr.ac.uk/popgroup/useful/pg3RefManual%20Feb07.pdf>

The methodology for the derived forecasts module of the software (for estimating households and labour force/jobs associated with the demographic projections) can similarly be viewed here:

<http://www.ccsr.ac.uk/popgroup/about/documents/DF-UserGuideandReferenceManual.pdf>

Similarly, for each year's population, it then makes an estimate of how many of these people will be economically active to give a total indigenous labour force for Crawley; and then estimates how many jobs these workers can support by deducting an unemployment rate and then applying a Labour Force Ratio (the ratio of employed workers resident in an area to the number workplace jobs within an area).

- 3.6 We outline the nine scenarios (eight demographically modelled and one not demographically modelled, but which does draw upon the modelling in its construction), and the rationale behind these, as follows.

A. Baseline Scenario (using 2008-based ONS forecasts)

- 3.7 A demographic led scenario based upon ONS assumptions and ONS projections for fertility, mortality and migration, this represents the baseline for the study. Using ONS projected rates means the sensitivity of forecast future shifts in natural change factors (i.e. birth and death rates) is assessed alongside the implications of ONS projected gross migration flows for Crawley. This scenario largely mirrors the ONS 2008-based projections, and allows the interrogation of the demographic, labour and housing implications of the level of demographic growth and change that ONS are projecting for Crawley Borough, similar in nature to that applied by ONS in their Sub-National Population Projections (SNPP) and CLG in their household estimates and projections. The migration rates within the ONS SNPP are trend based using shorter term 5-year – 2004 to 2008 – migration patterns with adjustments on international migration to reflect judgements on nil-net migration from accession states.

B. Zero Net-migration Scenario

- 3.8 A demographic scenario whereby both net internal and international migration is equal, meaning there is no direct population growth from net in-migration. This would not represent a scenario of providing only for the needs of indigenous residents (as per a zero migration scenario, where the population remains static and nobody moves in or out) as there will continue to be displacement effects through population churn. For examples, whilst the same number of people move in as move out, they would not necessarily be the same age or gender, as illustrated by the migration age profiles in Figure 2.7, hence there is churn leading to a changing structure in the population.
- 3.9 This scenario provides a useful benchmark against which to consider balancing housing needs for existing residents with those resulting from net in-migration.
- 3.10 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).

C. Long Term Past Migration Trends Scenario

- 3.11 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). An average rate of net migration has been derived from ONS data on both net internal migration (1999-2009 data) and net international migration (2001-2009 data). The resulting average past migration rate is then projected forward for the period modelled. This scenario therefore involves the input of the following annual migration data.

Table 3.1 Long Term Past Trends in Migration

Migration Type	Long Term Average
Domestic Migration In	+4,200
Domestic Migration Out	-5,064
Net Domestic Migration	-864
International Migration In	+1,588
International Migration Out	-588
Net International Migration	+1,000
Total Net Migration	+136

Source: ONS Migration Statistics

- 3.12 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 Sub-National Population Projections (SNPP) methodology.²⁴

D. Short Term (5 year) Past Migration Trends Scenario

- 3.13 This demographic led scenario is similar to Scenario C, but with a shorter period of trends, using the five years of trends since the period 2004/05 (inclusive) which coincided with a period of net in-migration. Although a shorter period of trends, including one year of the recession which may have had an impact on observed migration, this scenario would test what the implications for Crawley of continuing levels of in-migration, as seen most recently, providing a higher book end migration scenario.

²⁴ ONS SNPP uses trend data for 2004-2008 and is then constrained to a national model to ensure a zero sum model for internal migration within the SNPP (a factor we do not take account of in these past trend based scenarios) http://www.statistics.gov.uk/downloads/theme_population/snpp-2008/2008_based_SNPP_Methodology_Guide.pdf

Table 3.2 Short Term Past Trends in Migration

Migration Type	Short Term Average
Domestic Migration In	+4,100
Domestic Migration Out	-4,980
Net Domestic Migration	-880
International Migration In	+1,840
International Migration Out	-520
Net International Migration	+1,320
Total Net Migration	+440

Source: ONS Migration Statistics

E. Static Employment Scenario

- 3.14 This scenario assumes that the current number of jobs in Crawley Borough remains the same through to 2031. This scenario tests the impact of other variables, providing an illustration of the minimum housing needs for the Borough without providing, or indeed supporting, any new jobs at a local level. This theoretical scenario will provide evidence to compare the impact of providing no new jobs upon housing demand.

F. ELR 'Hybrid' Economic Growth Scenario

- 3.15 This scenario tests the housing need that would result from the 'Hybrid' scenario in the 'Northern West Sussex' Employment Land Review (ELR).
- 3.16 The Hybrid scenario is based upon the Base Scenario from the ELR with additional growth in consumer-related services arising from the Housing Growth Scenario, and stronger performance of key higher value-added sectors in accordance with the Successful Repositioning of the Gatwick Diamond. Whilst Crawley will experience a decline in employment between 2008 and 2010, employment will rise steadily from 2010, representing employment growth of 8.45% over the plan period 2006-2026.²⁵ This is equivalent to a growth in jobs of 0.4% per annum, which has been applied to the jobs total identified in the modelling.

G. 'Hybrid Economic Growth' + 'Strategic Employment Site' Scenario

- 3.17 This further develops Scenario F, taking in to account a major employment site to come forward between 2016-2031, reflecting lead in times for a

²⁵ Northern West Sussex ELR Part I (2009) – Fig 6.31. Economic Forecasts estimate employment growth under Hybrid Scenario of 7,240 from 85,840 in 2006 to 93,080 by 2026. Assuming linear growth this is equivalent to 362 jobs per annum, which averages 0.40% employment growth per annum over 2006-2010. This 0.4% per annum growth rate has been applied to in the modelling to the 2009 jobs estimate of 85,100 taken from BRES.

development of this size. The major employment site is assumed for the purposes of the modelling to deliver an additional 3,000 jobs for the 15 year period 2016 to 2031 (equivalent to 200 per year) over and above the level of growth identified within the ELR Hybrid Economic Growth Scenario (Scenario F).

H. Nil Additional In-Commuting Scenario

- 3.18 This scenario, similarly based on housing need that would result from the 'Hybrid' scenario in the 'Northern West Sussex' Employment Land Review (Scenario F), assumes that there is no additional in-commuting to Crawley. This assumes that the existing number of jobs are (as now) occupied by the current mix of in and out-commuters, but that all additional job growth would be wholly occupied by residents of Crawley. This scenario, therefore involves shifting the commuting balance in Crawley (modelled by adjusting the Labour Force Ratio).

I. Affordable Housing Scenario

- 3.19 This scenario, which is not explicitly modelled using the demographic model, is based on the SHMA's estimate of affordable housing need and draws upon data on current waiting lists from the HSSA to derive a scenario that would meet existing and future affordable housing need. This is drawn upon three guiding principles:
- a the backlog of existing affordable housing need using findings of the SHMA and HSSA data;
 - b the proportion of new households arising from the baseline scenario (Scenario A – as a reasonable estimate of future housing growth) likely to be in need of affordable accommodation;
 - c an appreciation and assessment of the likely ratio of market:affordable housing required to deliver affordable housing.

Demographic Scenarios

- 3.20 The demographic scenarios use components of population change to project how the future population, its formation into households and consequently their need for housing will change 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. The detailed demographic modelling outputs are contained within Appendix 3.

Scenario A. Baseline

- 3.21 Representing a projection of the demographic changes based on current and projected 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 2031 as set out in the ONS 2008-based Sub-National Population Projections (SNPP).

- 3.22 ONS projections for migration estimate that between 2010 and 2031, domestic net out-migration will total 32,400 people moving out of the Borough, with this population loss entirely off-set by international net in-migration which is projected to total 35,700 people moving into the Borough. The migration projections particularly show net domestic out-migration is set to rise in the future from circa 1,300 per annum at the start of the projected period (2011-13) to circa 1,800 towards the end of the projected period (2028-29). Meanwhile, net international in-migration is projected to remain relatively constant at 1,700 people per annum. This is equivalent to average annual net in-migration of 157 people per annum, with most in-migration over the period experienced in the short to medium term. This also reflects the dynamics of migration previously experienced in the Borough, as outlined in Section 2.0 of this report.
- 3.23 ONS projected trends in fertility show that the number of births each year is expected to rise slightly, with the underlying Total Fertility Rate (TFR) in Crawley also expected to rise, in line with previous trends (see Appendix 1). ONS projected trends in mortality show that the number of deaths is expected to remain relatively constant over the period, despite a greater number of elderly people in the Borough. This is due to the underlying Standard Mortality Ratio (SMR) which is projected by ONS to fall from the 2009 base, with the average lifespan over the projection period anticipated to rise (see Appendix 1). Overall, natural change is projected to be the main component of population growth, with births exceeding deaths throughout the projection period. This reflects both the structure of the population, which is not as elderly as the South East as a whole, as well as the underlying trends in the fertility and mortality rates. Over the period 2010 to 2031 natural change is projected to be positive with births exceeding deaths by an average of 948 per annum.
- 3.24 The above factors together lead to a population increase of 23,209 people between 2010 and 2031, the majority of which would be increases in working age population, although there would similarly be growth in the number of children and elderly people. Applying the CLG 2008-based forecast headship rates to this population equates to an additional 11,015 households. Taking account of the dwelling vacancy and second home rate for the Borough, this translates to a notional need under this scenario for an additional 11,379 dwellings between 2010 and 2031, equivalent to 542 per annum.
- 3.25 This can be compared to ONS and CLG projections²⁶ which identify population growth of 22,800 people between 2010 and 2031 and a rate of household growth of 520 per annum between 2008 and 2033, equivalent to 10,920 households over the period 2010 to 2031. This baseline scenario is in-line with these figures, reflecting the fact that the main assumptions underpinning the ONS and CLG estimates are the same as used in this modelling.

²⁶ Based upon ONS 2008-based SNPP and CLG 2008-based Household Estimates. These include a number of adjustments not modelled here and are also presented by CLG and ONS as rounded figures.

- 3.26 The implications of this scenario upon the labour force and employment within Crawley would be largely positive. Over 10,000 people would be gained within the indigenous labour force by 2031 reflecting the demographic shifts caused by migration and natural change, but also shifts in economic activity rates associated the changes to state pension ages (which are rising). In addition to this, the assumed reduction in unemployment amongst the labour force, will lead to even further jobs being supported. The implication of this for the number of jobs which this population would sustain, assuming commuting rates remain the same, is that over 18,500 jobs would be supported, equivalent to 884 per year. This is because whilst many jobs would be taken by this indigenous labour force, as seen currently many would also be taken by in-commuters.
- 3.27 This level of job growth (averaging 0.9% per annum) is similar to the rate of growth seen previously in Crawley, but below future estimates contained within the ELR scenarios.

542 dwellings per annum

Scenario B. Zero Net Migration

- 3.28 This demographic scenario utilises zero net internal and international migration to explore the contribution that natural change and population churn factors have in projected housing needs, as well as illustrating the extent to which changing household composition and headship rates are driving the need for housing within Crawley. This scenario also allows comparison with other scenarios to explore the contribution that net in-migration 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 maintaining a level of population churn (i.e. the same number of people moving in as moving out). The average annual population churn for the Borough is therefore 5,176 people moving in and out domestically and 1,450 people moving in and out internationally.
- 3.29 Taking into account this population churn, and applying the projected ONS fertility and mortality rates, natural change is projected to total 17,267 more births than deaths, leading to this level of population growth over the period 2010 to 2031.
- 3.30 This increase in population, alongside changes in the population structure and the projected headship rates leads to an increase in households of 8,696 between 2010 and 2031. This translates to a notional need for 8,984 new dwellings in the Borough to 2031, or 428 dwellings per annum.
- 3.31 The implications of this scenario for the indigenous labour force and the jobs they support remain positive. The resident labour force would increase by over 5,900 economically active people. With a reduction in the unemployment rate,

and many jobs continuing to be filled by in-commuters, this would lead to an indigenous labour force which would translate to over 12,000 jobs in Crawley.

428 dwellings per annum

Scenario C. Long Term Past Migration Trends

- 3.32 This scenario adopts the migration rates identified in Table 3.1, which reflects the past migration trends which have been observed over the longer term (i.e. since the late 1990's/early 2000's - in comparison with the Baseline Scenario's 2004-2008 trend based migration assumption from the ONS SNPP). This totals net in-migration of 2,856 people over the period 2010 to 2031, which combined with natural change of 18,363 people, equals population growth of 21,219 people over this period.
- 3.33 This increase in population, combined with shifts in the population structure and changes in the projected headship rate, leads to an increase in households of 10,383 between 2010 and 2031. Taking account of the dwelling vacancy rate, this would require 10,726 dwellings over the period, equivalent to 511 per annum.
- 3.34 The workforce implications of this scenario are similar to that in Scenario A, with a large increase in the number of economically active people in the Borough, totalling 8,320 additional people. Applying existing commuting rates and an assumption on reduced unemployment, this would lead to an additional 15,878 jobs being supported by the indigenous labour force by 2031.

511 dwellings per annum

Scenario D. Short Term Past Migration Trends

- 3.35 This scenario adopts the migration trends identified in Table 3.2, reflecting trends in migration which have occurred since 2004/05 which coincided with much higher levels of in-migration, particularly driven by international moves but potentially also in-part reflective of higher levels of dwelling completion during this period. This includes more recent data on migration than the baseline scenario, with migration trends up to 2008/09. This totals net in-migration of 9,240 people over the period to 2031. Natural change, similar to all demographic scenarios, will drive most of the population growth with births projected to exceed deaths by 19,817 under this scenario, leading to a total population growth of 29,057.
- 3.36 Applying the projected headship rates to this increase in population identifies a growth in the number of households in Crawley of over 13,500 which translates to a national dwelling need of 13,953 to 2031, or 664 per annum. This scenario would outstrip the growth in the labour force from scenarios A to C, with a growth of 12,683 people by 2031. Taking account of reductions in unemployment, and assuming existing commuting rates, this would support growth of 22,852 jobs in the Borough between 2010 and 2031, equivalent to

1,088 jobs per annum. This would be an average of 1.14% job growth per annum, a level of economic growth not previously maintained within the Borough.

664 dwellings per annum

Economic Scenarios

- 3.37 The economic scenarios are based upon an understanding of the relationship between housing and employment. The projected domestic 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 within the Borough without changing the current commuting dynamic inferred by the balance of workers and jobs in Crawley (the Labour Force Ratio).
- 3.38 Key to this is an appreciation and understanding of the role housing has in attracting and maintaining a labour force in a certain location which in turn underpins the labour market and ultimately jobs in any given area. Much research has been undertaken in this area which points to the dynamic between housing and employment, meaning it is important to integrate the strategic approach to housing and economic growth within the policy making process.²⁷
- 3.39 It should be noted that these scenarios are economic led and do not infer that they would necessarily meet the housing need and demand of any demographic changes projected in the Borough. Indeed, it may be that lower levels of housing provision gives rise to adverse consequences.

Scenario E. Static Employment

- 3.40 This economic scenario is based upon maintaining a static job base within the Borough, providing an estimate of the necessary minimum housing needed to maintain the current number of jobs within Crawley. The modelling illustrates that to maintain broadly the existing number of jobs within the Borough (circa 85,000) there could only be a small decline in the indigenous labour force of 1,632 people, reflecting lower unemployment rates off-setting this loss in

²⁷ Such research includes:

‘Housing and the Economy: Integrating Strategies’, Chartered Institute of Housing (CiH) and IDeA, August 2008

‘The Barker Review of Housing Supply - ‘Securing our future housing needs’ – Interim Report - Analysis (2003)

The Barker Review of Housing Supply - ‘Delivering stability: securing our future housing needs’ (2004)

‘Rapid Evidence Assessment of the economic and social consequences of worsening housing affordability’, University of York and NHPAU, May 2009 – Table 8.1 pg 88 (<http://www.york.ac.uk/inst/chp/publications/PDF/NHPAU.pdf>)

economically people to the local labour market. Population growth of only 1,600 people would be necessary to maintain this required indigenous labour force, reflecting the structure of the population, with those people retiring being replaced by new economically active people as population cohorts age.

- 3.41 With natural change factors projected to involve substantial population growth over the period (15,688 people), providing housing to support only this level (1,600 people) of growth in the population would mean circa 14,100 people would migrate out of the Borough, still providing the level of local labour force necessary to underpin a static employment base. This net population growth, combined with changing headship rates, would generate an additional 2,449 households in Borough over the period 2010 to 2031. This level of household growth is greater than the total population change due to the evolving structure of the existing population and the application of headship rates (which are themselves increasing to reflect overall smaller household sizes) to this population, which means much of the household growth driving housing need under this scenario comes from the existing population. Household change would equate to a notional need for 2,529 new dwellings over this period. This would be equivalent to 120 dwellings per annum.

120 dwellings per annum

Scenario F. ELR 'Hybrid' Economic Growth

- 3.42 For the ELR 'hybrid' economic growth scenario, employment growth is assumed at level totalling 0.4% growth in workplace jobs per annum, which is commensurate to the average rate of growth that underpins the forecast within the ELR 'hybrid' scenario.
- 3.43 The modelling identifies that to support employment growth of 0.4% per annum over the existing number of workplace jobs (totalling growth of 7,502 jobs over the period 2010 to 2031), there would need to be a growth in the indigenous labour force of 3,079 people, again allowing for a reduction in unemployment but maintaining existing rates of commuting with a proportion of those jobs taken by in-commuters to Crawley, as is the case observed currently. Similar to Scenario E, to achieve a growth in the indigenous labour force of this magnitude would rely on additional population totalling 10,197, all of which would be provided through natural change factors. Total natural change under this scenario is 17,178 people between 2010 and 2031, meaning 6,981 people would move out of the Borough.
- 3.44 This population growth and associated population and household change would result in an additional 5,825 households in the Borough by 2031, necessitating an additional 6,018 dwellings between 2010 and 2031. This is equivalent to 287 dwellings per annum.

287 dwellings per annum

Scenario G. ELR 'Hybrid' Economic Growth + Strategic Employment Site

- 3.45 This economic scenario is based similarly upon the ELR 'Hybrid' Economic Growth scenario of 0.4% employment growth per annum, although in addition it makes an allowance for a strategic employment site coming forward from 2016 onwards. This strategic employment site represents a scenario where such a site would be built out to meet the economic growth needs and demand within the Gatwick sub-region. Although it does not relate to any specific strategic option identified, it represents a scenario where such a site, generating 3,000 additional jobs over and above the growth from the ELR 'Hybrid' Scenario, comes forward. This has been modelled as an additional 200 jobs per annum upon the 0.4% growth per annum for the 15 year period from 2016 to 2031.
- 3.46 The modelling identifies that to support this level of job growth, totalling 10,505 jobs between 2010 and 2031, Crawley would need to expand its indigenous labour force by 4,958 people. Again, all of this could be achieved through the demographic natural change projected for the Borough, with population growth through natural change of 17,649 meaning 4,124 people would leave the Borough to achieve the required population growth of 13,525 people to match the necessary indigenous labour force under this scenario. This change in population would generate an additional 7,110 households over the period 2010-2031, equating to a notional need for 7,345 new dwellings over this period. This would be equivalent to 350 dwellings per annum.

350 dwellings per annum

- 3.47 Clearly, as with all the scenarios, the outputs above hinge on the application of the Labour Force ratio and assume that this remains the same, with a greater proportion of jobs in Crawley being occupied by in-commuters (58%) than by local residents (42%).²⁸ A policy decision to seek to reduce the level or rate of in-commuting would necessitate a greater level of housing provision than indicated by the scenarios above. It may also necessitate consideration of the quality and type of housing provision, in comparison with other areas within the housing market area, in order to meet the housing needs and aspirations of commuters.

Scenario H. Nil Additional In-Commuting Scenario

- 3.48 This final economic scenario is, like Scenario F, based upon the ELR 'Hybrid' Economic Growth scenario of 0.4% employment growth per annum, although instead of assuming new jobs are taken by the same mix of in and out commuters as current, this scenario assumes that all new jobs are occupied by residents of Crawley (i.e. an indigenous labour force). This scenario, therefore, reflects a position of no increase in the number of in-commuters to Crawley.

²⁸ Based upon Census 2001 and Annual Population Survey 2008 data (see Figure 2.15)

- 3.49 To support this job growth of 0.4% per annum (circa 7,500 jobs) solely from an indigenous labour force, would require an additional 6,288 workers in Crawley. Similarly, this could be wholly achieved through the projected demographic natural change, which under this scenario would total 18,204 people. This would be offset by net out migration of 2,157 people, equalling the necessary population growth of 16,047 people to generate the necessary indigenous labour force. This change in population would generate an additional 8,122 households over the period 2010-2031, equating to a notional need for 8,390 new dwellings over this period. This would be equivalent to 400 dwellings per annum.

400 dwellings per annum

- 3.50 The scale of housing need under each of the three economic scenarios is below that identified within each of the demographic scenarios. Therefore, none of these economic scenarios would meet the projected demographic changes for Crawley Borough and would imply that a significant share of Crawley's future housing needs would have to be met elsewhere.

Housing Scenario

- 3.51 The housing scenario is grounded in an appreciation of broader housing market issues, notably the 'need' for affordable housing and the strategy for delivering this housing need. These scenarios are not demographically modelled, but instead draw upon a range of published data sources on housing need and demand in Crawley Borough, notably the existing SHMA.

Scenario I. Housing Factors

Strategic Housing Market Assessment (2009)

- 3.52 As outlined in Section 2.0, The Northern West Sussex SHMA (2009) identifies that affordable housing need within Crawley Borough totals between 103 (low estimate) and 250 (high estimate) dwellings per annum based upon addressing backlog of need over a 10 year period and also accounting for the committed supply of affordable housing as at 2009. This is predicated upon 50% of new households Crawley being unable to access market housing and falling into need, which is applied to the dwelling-led (rather than demographic-led) projected household growth associated with the South East Plan.

Current and Projected Affordable Housing Need

- 3.53 Data from CLG's Housing Strategy Statistical Appendix (HSSA) identifies that the waiting list in 2009/10 totalled 2,470, albeit this is the total waiting list and not all of these will fall within the definition of housing need. Crawley Borough Council estimate that circa 1,000 of these do not fall into the reasonable preference categories. Notwithstanding, the HSSA data gives an illustration of the scale of the current demand for affordable housing within Crawley Borough.

- 3.54 The SHMA estimates that 50% of households in the Borough are unable to access market housing. Applying this proportion to the newly arising households in the baseline demographic scenario (A) would lead to a newly arising need of 262 households per annum over the period 2010 to 2031.
- 3.55 To estimate what the future level of affordable housing need arising out of the current backlog of need and estimated population growth will be, we have adopted the same principles applied in the SHMA. The number of social re-lets and intermediate re-sales/re-lets each year and the number of these taken by existing households falling into need as identified in the SHMA (equating to circa 382 per annum re-lets with 254 per annum of these taken by existing households, leading to net annual supply of 128²⁹) has been adopted. It is also assumed any backlog is met over the whole of the assessment period (i.e. broadly across the next 21 years). Applying these metrics leads to the estimates of housing need over the next 21 years as set out in Table 3.3.

Table 3.3 Estimate of Housing Need

	Minimum Estimate	High Estimate
Backlog Total (p.a. over 21 years)	1,470 (70 p.a.)	2,470 (118 p.a.)
	plus	
Newly Arising Need from Baseline Scenario A.	262 p.a.	262 p.a.
	minus	
Net Supply (from re-lets)	128 p.a.	128 p.a.
	equals	
Required Affordable Housing (p.a.)	204 p.a.	252 p.a.

Source: NLP Analysis using HSSA and SHMA data

- 3.56 The need for affordable housing, based on current factors, is estimated at between 204 and 252 affordable homes per annum.
- 3.57 It should be noted that this analysis is not intended to replace the analysis contained within the SHMA, nor does it represent a full assessment of housing need in line with the SHMA guidance. It does, however, for the purposes of estimating total housing need and demand for the Borough, provide an updated estimate as to the broad scale of current and future affordable housing need in Crawley.

Delivering Housing Need

- 3.58 Whilst the need for affordable housing provides an estimate of the number of households requiring such housing solutions, there is also a need to consider the deliverability of this, in the context that there is both wider demand for

²⁹ SHMA Figure 9.20 – Annual Supply of re-lets is step 3.8, existing households falling into need is step 2.3

market housing as well as the need for market housing to support delivery of affordable housing.

- 3.59 The current requirement for affordable housing delivery is set out the adopted Crawley Borough Core Strategy (2008), Policy H5, which identifies that for development of 15 dwellings or more 40% of housing will be required to be affordable. Using this as a proxy for the likely ratio of market:affordable housing required to deliver affordable housing, Table 3.4 below, summarises the total level of housing necessary to ensure delivery and meet housing needs.

Table 3.4 Summary of Affordable Housing Need and Delivery

Indicator	Affordable Housing Need (p.a.)	Delivery at 60:40 market:affordable
SHMA (2009) 10-year Minimum Estimate (Reasonable Preference Households)	103	258 p.a.
SHMA (2009) 10-year High Estimate (Total Housing Waiting List)	250	625 p.a.
Current & projected 2011 Minimum Estimate (Reasonable Preference Households)	204	510 p.a.
Current & projected 2011 High Estimate (Total Housing Waiting List)	252	630 p.a.

Source: Northern-West Sussex SHMA and NLP Analysis

- 3.60 Whilst the needs based upon the SHMA figures are slightly lower (due to inclusion of committed affordable supply at the time of assessment), if the estimates of need based on current waiting lists are adopted, with backlog addressed over the whole period to 2031, then total housing delivery to meet needs would have to be in the region of 510 to 630 dwellings per annum. This clearly varies based upon the level of affordable housing delivery achieved, but provides a broad estimate of the total housing need based on likely future housing factors.
- 3.61 This scale of delivery also broadly concords with the level of housing need arising from the demographic scenarios (A-D), illustrating that if affordable housing delivery can be achieved at 40% on Scenario A, C or D, it would largely meet the scale of affordable need as outlined in this scenario (between 204 and 252 dwellings per annum) as well as the market needs arising from these scenarios.

510 to 630 dwellings per annum

Summary of Scenarios

- 3.62 The scenarios which have been assessed are based upon a range of economic, demographic and housing factors, and the analysis shows a wide range of housing needs based upon different indicators of what the need and demand for housing in Crawley Borough could be.

3.63 As well as a range of different housing needs, each scenario implies a range of different demographic and economic implications for the Borough, flowing from the underlying population dynamics which are occurring in Crawley. Particularly high levels of natural change, with births projected to exceed deaths by some margin under each scenario, are set to drive growth in both households and the labour force.

3.64 The headline outputs for each of the modelled scenarios are included in Table 3.5.

Table 3.5 Summary of Demographic, Housing and Economic Change of Scenarios over period 2010-2031

Scenario:	Demographic Led				Economic Led			
	Scenario A: Baseline	Scenario B: Zero Net Migration	Scenario C: Long Term Past Migration Trends	Scenario D: Short Term Past Migration Trends	Scenario E: Static Employment (0.0% p.a.)	Scenario F: ELR 'Hybrid' Economic Growth (0.4% p.a.)	Scenario G: ELR 'Hybrid' Growth + Strategic Employment Site (0.4% p.a. + 200 per annum 2016 onwards)	Scenario H: ELR 'Hybrid' Economic Growth Nil Additional In-Commuting
Pop. Change	+23,209	+17,267	+21,219	+29,057	+1,601	+10,197	+13,525	+16,047
of which Natural Change	+19,909	+17,267	+18,363	+19,817	+15,688	+17,178	+17,649	+18,204
of which Net Migration	+3,300	+0	+2,856	+9,240	-14,087	-6,981	-4,124	-2,157
Household Change	+11,015	+8,696	+10,383	+13,507	+2,449	+5,825	+7,110	+8,122
Dwelling Change	+11,379	+8,984	+10,726	+13,953	+2,529	+6,018	+7,345	+8,390
Dwellings p.a.	+542	+428	+511	+664	+120	+287	+350	+400
Labour Force	+10,005	+5,931	+8,320	+12,683	-1,632	+3,079	+4,958	+6,288
Jobs	+18,571	+12,059	+15,878	+22,852	-29	+7,502	+10,505	+7,523
Jobs p.a.	+884	+574	+756	+1,088	-1	+357	+500	+358

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

3.65 The outputs from the modelling show the variations between scenarios, but also reflect a number of trends which are common across all scenarios, including the main driver of population growth being natural change (indigenous growth), which may be reflective of the structure of the population which is younger in comparison with the South East.

3.66 The dynamic of births and deaths may reflect social trends perceived in Crawley with many people potentially moving to Crawley for economic (e.g. to be close to work) or housing (e.g. because of comparative affordability) reasons at an

earlier stage of their life, but leaving at a later stage, meaning births are high and deaths are low due to the population structure. This is supported by the age profiles of migration illustrated in Figure 2.6, which shows more young people moving in than moving out, but the reverse generally being true for older age cohorts.

- 3.67 The dynamics of modelling migration and natural change patterns means that the outcomes of each scenario vary in terms of household/dwelling change and labour force/jobs change. The relationships between factors are not linear across all scenarios and in Crawley the modelling suggests that under higher migration scenarios, the outcome is more economically active people per household, due to the type of people moving in and the types of households they are forming.

Why do the economic scenarios produce lower estimates of housing need?

- 3.68 There is a clear discord between the need for dwellings arising out of purely demographic factors and the need for dwellings arising out of purely economic factors. Unlike many locations in the South East, where the ageing structure of the population means the number of economically active people is projected to fall, in Crawley the younger structure of the population means natural growth is set to drive increases in the indigenous labour force.
- 3.69 The need for housing based on demographic factors (Scenarios A-D) is much higher, meaning that accommodating projected population would require greater housing delivery than the economic scenarios. However, it would also mean more economically active people in the Borough who will wish to work. Conversely the need for housing based on economic factors (Scenarios E-G) is lower, meaning to generate an indigenous labour force to support projected economic growth in the Borough would require much less population growth than is actually projected to occur based on demographic factors, which would imply that future housing needs from demographic change would have to be met elsewhere.
- 3.70 This discord is indicative of the current pattern of where people live and where people work. Whilst 70% of residents in the Borough work in the Borough, only 42% of jobs in the Borough are taken by residents, representing a large level of net in-commuting.³⁰ Whilst the modelling has assumed indigenous labour force and workplace jobs in Crawley will move proportionally in tandem, there may be changes in this dynamic over the long term. A number of outcomes could alternatively occur:
- a Due to changes in population structure across the wider south east, where population is ageing, fewer people in-commute, meaning in the future more existing jobs are taken by the expanded labour force resident in Crawley;

³⁰ Census 2001

- b If this does not materialise and people continue to commute into Crawley at the same rates (i.e. 58% of jobs being taken by in-commuters) the indigenous labour force would exceed the number of available jobs in Crawley and as such, levels of gross out-commuting may increase (or local unemployment may increase). A higher level of economic growth, if achievable, would mitigate against this;
- c Alternatively, higher levels of out-migration from the Borough could occur (as modelled in Scenarios E-G), reducing the need for housing within Crawley. However, this could manifest itself through residents moving short distances cross-boundary (e.g. to strategic growth sites on the edge of or nearby to Crawley but within other Local Authority areas, such as the West of Bewbush site in Horsham District), who would then commute back into Crawley for work, forming part of the 58% of jobs taken by in-commuters.

3.71 In any case, it appears unlikely that future housing supply will provide a constraint on the economic growth of Crawley, with a future supply of labour which would sustain higher levels of economic growth than forecast or currently planned, albeit one which relies upon significant levels of in-commuting. An increase in local labour supply associated with demographic trend-based growth could theoretically create an over-supply of labour in the local area, although it seems more likely that the dynamic between housing and jobs in Crawley would shift, having an impact upon commuting patterns. To what extent this could occur is more difficult to predict as it will be grounded in household choices about where to live and to work. Notwithstanding, if housing is delivered at a level above Scenario E (120 dwellings per annum) it would facilitate growth in the indigenous labour force, meaning housing supply above this level is unlikely to act as a barrier to employment growth.

3.72 In this regard, the pro-active way to plan for aligned housing and economic growth, in the context of housing needs, is to provide sufficient housing within the Crawley housing market area (which may include areas of other local authorities adjacent to Crawley) to meet demographic needs whilst aiming to improve the quality of housing offer to support the local economy and incentivise those who work locally to also live locally (reducing the reliance on in-commuting in supporting the Crawley economy).

4.0 **Housing Delivery Implications**

4.1 The provision of any given level of housing needs to be placed within the context of the ability to deliver it as well as the implications of the need for housing upon the location and types of dwellings required to meet needs. This section considers the type of dwelling needs arising out of projected future demographic change and also looks at the housing needs of each neighbourhood considering the demographic drivers of need.

Size and Types of Dwellings

4.2 The size and types of dwelling required over the core strategy period within Crawley Borough will be intrinsically related to the population change and the types of households forming within the Borough over the period. As identified in the scenario analysis contained with Section 3.0, Crawley Borough is projected to experience a growing population, albeit relatively uniformly across all ages with increasing numbers of children, adults and elderly people. This is distinct from many other areas in the South East which are set to experience ageing population structures. Combined with social changes, with trends such as divorce rates leading to shifting patterns of household composition (e.g. increasing numbers of lone parents), these factors will shape the types of housing required in the future.

4.3 The implications of this for Crawley Borough are illustrated in Figure 4.1 using absolute change in the number of households, by different typology from the baseline scenario (Scenario A). This shows that the vast majority of the 11,735 net additional households in Crawley over the period between 2010 and 2031 is attributable to four main households types:

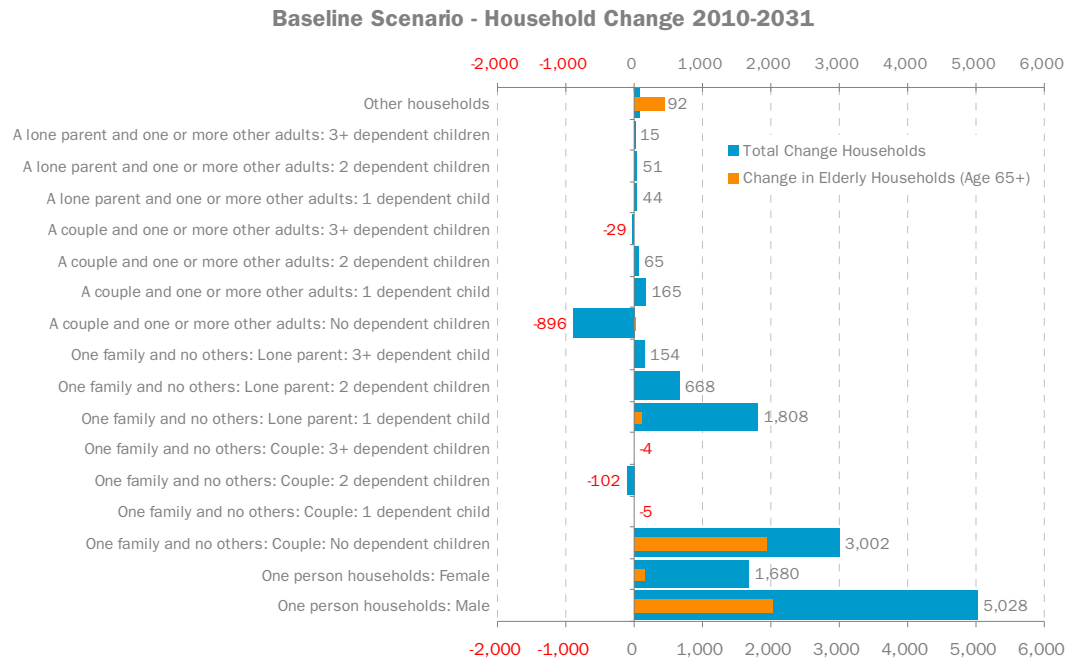
- 1 female single person households;
- 2 male single person households;
- 3 couples with no dependent children and no other occupants; and
- 4 lone parents with one child.

4.4 In total by 2031 under the Baseline Scenario, there would be over 11,500 additional households in these four household types. Growth in the number of lone parent households suggests some of the household growth is attributable to wider social trends around single parent households, which for Crawley is particularly pronounced given the structure of the population, with many younger adults likely to be in family units. The other main component of household growth is single person households among the adult population, particularly males.

4.5 Household growth in many areas of the wider south-east is driven by the ageing population, with numbers of single person elderly households expanding. This dynamic, whilst still occurring, is not so acute for Crawley, reflecting the

younger population structure, with circa 40% of household growth attributable to elderly households.

Figure 4.1 Scenario A. Baseline: Household Formation by Type 2010-2031



Source: NLP modelling using PopGroup

4.6 The Baseline Scenario (A) 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 Borough over the assessment period, Table 4.1 below 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 needs or the fact that, for example, many elderly households will continue to ‘under-occupy’ their existing family dwellings as they get older. This analysis looks at the types of households projected to form between 2010 and 2031 and what type of dwellings would satisfy (i.e. adequately meet but without exceeding) their need for housing.

Table 4.1 Household Composition and Dwelling Size and Type

Household Types	Example Likely Dwelling Types	Baseline Scenario A (Net Growth 2010- 2031)	Estimated Proportion of Growth
One Person Households and Couple Households	Small dwellings and apartments/flats (1-2 bed)	5,603	40-50%
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).	4,106	30-40%
Family unit (couple or lone parent) with 1 dependent child	Smaller family dwelling houses or in some cases larger apartments (2-3 bed).	1,803	12-16%
Family unit (couple or lone parent) with 2+ dependent children	Family dwelling houses (3+ bed)	716	5-6%
A couple with one or more other adults	Shared dwelling houses (3+ bed depending on number of other adults)	-896	0%
Lone Parent or couple with one or more other adults and 1 dependent child	Family/Shared dwelling houses (3+ bed depending on number of other adults)	209	1-2%
Lone Parent or couple with one or more other adults and 2+ dependent children	Larger family/shared dwelling houses (4+ bed depending on number of other adults)	102	0-1%
Other households (e.g. houses in multiple occupation)	Various depending on composition of household	92	0-1%

Source: NLP analysis using Scenario A. Baseline

4.7 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, some 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. Larger family households are also set to increase, with such households likely to require family homes.

4.8 The profile of households on the housing waiting list and in need of affordable housing will also provide an indication of the type and size of dwellings needed. Given affordable housing could form a significant percentage of total housing delivered, the housing waiting list could be a further source of what composition of dwellings may be appropriate for Crawley.

- 4.9 Whilst a useful benchmark for what kind of housing is likely to come under pressure from household growth, applying these metrics is too simplistic a way of estimating future dwelling size and type needs: the operation of the housing market will not be perfectly efficient to match household size to dwelling size. The Northern West Sussex SHMA identifies that “*Across the Housing Market, 79% of the housing stock was under-occupied in 2001*” although in Crawley Borough this was lower at 72.8% (correspondingly overcrowding in Crawley was relatively high at 7.6%).³¹ Growth in smaller households living within larger properties is a common phenomenon, particularly in areas facing affordability pressures. Certain groups can afford to purchase and retain larger housing than they necessarily require and this may place further housing need pressures upon other households who require such larger dwelling sizes, but cannot access them.
- 4.10 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 Region³² the findings for which 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*

³¹ Northern West Sussex SHMA, 2009 (figure 3.2)

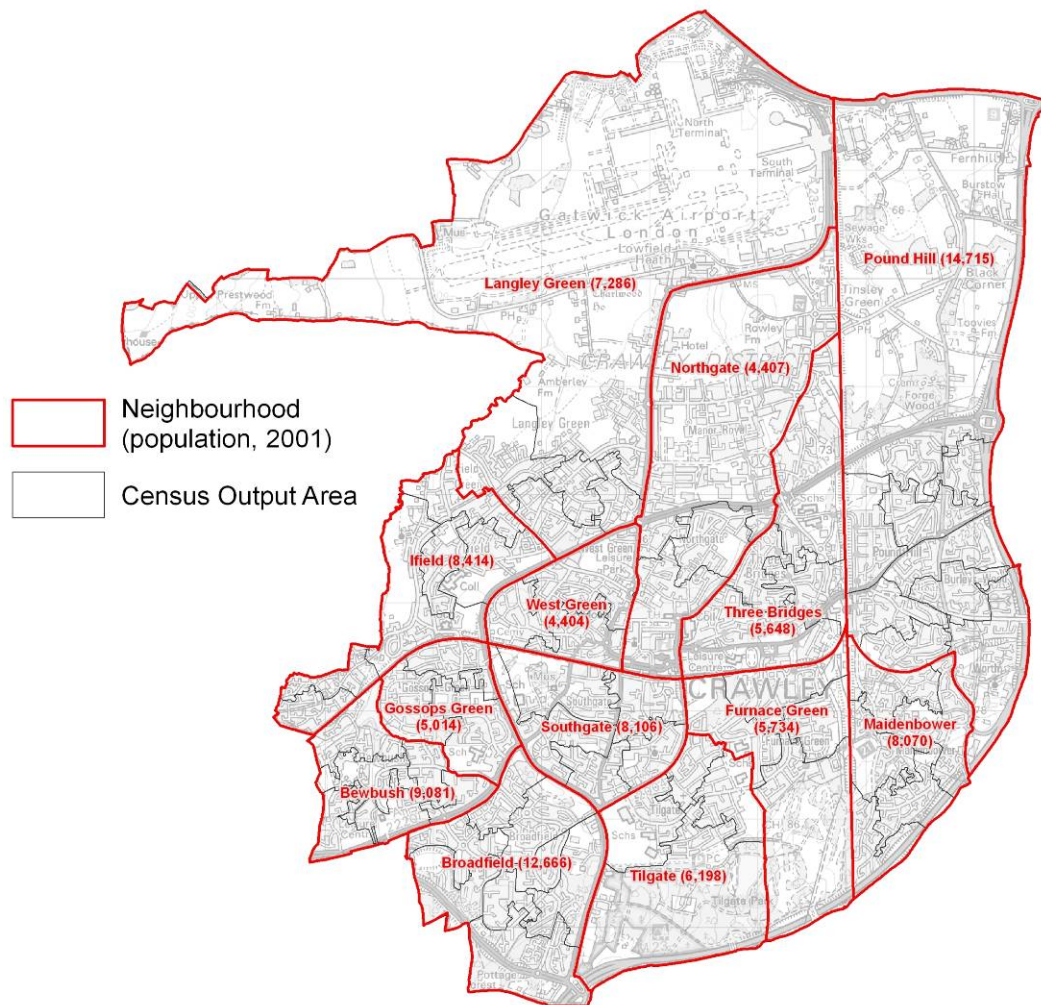
³² The Relationship between Household Size and Dwelling Size in New Housing Provision, NLP, 2010 http://www.gedling.gov.uk/dwelling_size_research_final_report.pdf

- 4.11 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.”
- 4.12 The inference of this is that in planning for future housing, Councils should not necessarily be prescriptive in terms of the mix, size and type of dwellings which they consider should be provided as part of any new development. Indeed PPS3 outlines (para 23) that it anticipates developers will bring forward their own proposals for market housing that reflect demand, as well as the profile of households requiring market housing. This is reiterated in the SHMA which states (para 12.55):
“We do not consider it appropriate to provide specific targets for the sizes of general market housing required through Local Development Frameworks. In the market sector, the market itself is quite effective at matching the size of dwellings to market demand at a local level.”
- 4.13 Taking the above into account, although it is clear that the majority of household need will be for smaller dwellings (and in particular needs for housing solutions for older people, lone parents and single person households), it is important to provide a range of dwellings, given the challenges in matching households to dwellings.

Neighbourhood Housing Needs

- 4.14 It is useful to consider some of the population characteristics which will influence need at a sub-borough level, and inform how the overall need for housing in the Borough may be apportioned between the thirteen neighbourhoods, as shown in Figure 4.2.

Figure 4.2 Crawley Neighbourhood Population Distribution (2001)

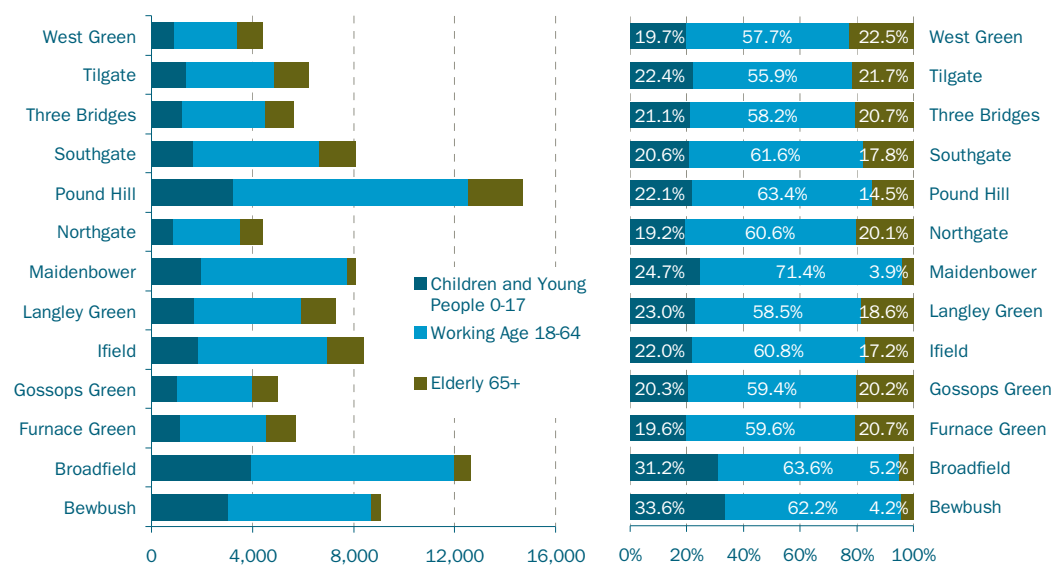


Source: Census 2001

4.15

As the majority of population change and household growth is likely to be driven by natural change in the resident population, it follows logically that the largest neighbourhoods in population terms will generate the greatest ‘need’ for housing through the course of the plan period due to population dynamics and life cycles. Figure 4.3 shows the total population based on the 2001 Census for each neighbourhood, split down by broad age grouping. This is the most recent sub-district population count/estimate available, and pre-dates, for example, the impact of development or changing population structure in different neighbourhoods. The largest neighbourhoods, in terms of population, are Pound Hill, Broadfield and Bewbush and on this basis most need and demand arising for housing will fall within these areas. In terms of population profile, Broadfield, Bewbush and Maidenbower all have higher proportions of working age population and children, with much lower proportions of elderly population. These neighbourhoods are likely to be predominantly occupied by family households, with a greater need for family type housing than other areas.

Figure 4.3 Population and Profile of Crawley Neighbourhoods (2001)



Source: Census 2001

4.16

Whilst this narrative provides a useful background for considering future delivery of housing at the neighbourhood level, it should be treated with a degree of caution, and it does not follow that neighbourhoods with the highest level of 'need' should automatically receive the largest share of development. There are a wide range of other factors which will also need to be considered including:

- a The extent to which neighbourhood boundaries play an active role in shaping local housing market geographies in Crawley Borough. How far is it practical to assume that neighbourhoods have needs that cannot be met elsewhere? and how far it is possible to ensure housing delivery actually goes towards meeting and supporting neighbourhood needs?;
- b Cooperation with contiguous authorities, particularly those within the Crawley housing market area, where levels and locations of planned development may have need and demand implications for Crawley Borough. This particularly includes Horsham District, where urban extensions to Crawley, such as the new Kilnwood Vale neighbourhood to the West of Bewbush, may help to meet Crawley Borough's (as well as Horsham District's) housing needs;
- c The vision and strategy for Crawley, including the role that housing delivery can have in supporting other policy aims within the neighbourhoods as well as the Borough and sub-region;
- d Development constraints and capacity, including land supply, environmental factors and infrastructure capacity ; and
- e Resident and other aspirations and expectations in terms of the future of their neighbourhoods.

4.17

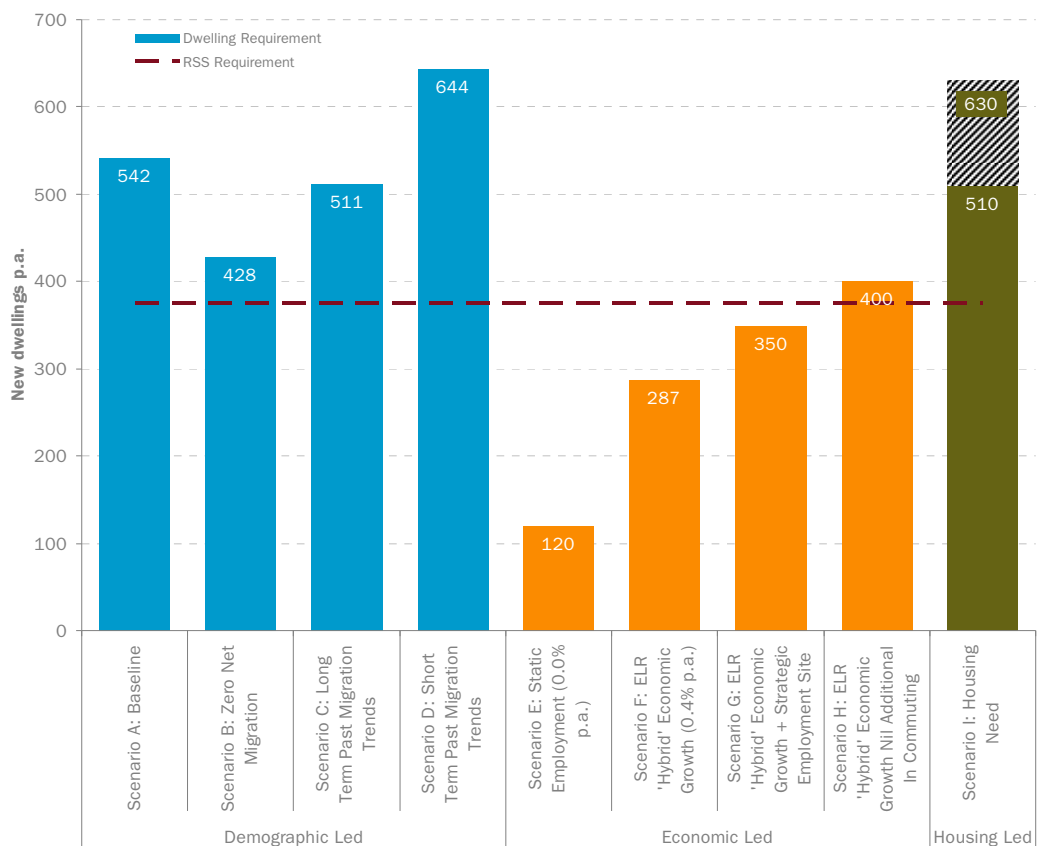
Overall, it is recommended that the factors above have significant weight in the decision making process for considering what level of housing delivery at the neighbourhood level would be appropriate.

5.0 Defining a Local Housing Requirement

Summary

5.1 The overall quantum of housing need, as assessed for the period 2010 to 2031, varies dependent on the demographic and economic scenarios adopted. As summarised in Figure 5.1, the need and demand varies from 120 dwellings per annum under a static employment scenario (although this would not meet the housing needs of the population and would lead to net-out-migration), up to 644 per annum under a scenario reflecting the most recent trends in migration.

Figure 5.1 Summary of Scenarios



Source: NLP analysis

5.2 As well as the total housing need varying by scenario, the implications for population and economic trends also vary. All scenarios involve some level of population growth, which under every scenario is driven by natural change factors in the population at any given year (i.e. births are exceeding deaths). However, levels of migration vary across the scenario, with some involving net in-migration and others involving net out-migration.

5.3 With this level of projected population growth from the demographic scenarios, it is unlikely there will be pressures on the local labour market arising from shortages in the indigenous labour force, provided that commuting flows provide a release valve for meeting future employment requirements of both

residents and businesses. This is highlighted by the economic-led scenarios which would require much lower levels of housing delivery to sustain growth within workplace employment in Crawley assuming current commuting rates, albeit higher housing delivery of the right type of homes might reduce this level of in-commuting by providing housing locally, enabling more jobs to be occupied by local Crawley residents. In this regard, it is possible that such 'aspirational' or executive housing may be a legitimate means of making Crawley more attractive for skilled jobs and workers. However, utilising this as a way to attract skilled workers to live in the Borough, or retain population that might otherwise leave, could potentially necessitate additional housing over and above that identified in the economic-led scenarios.

- 5.4 Whilst these scenarios are built upon a base date of 2010 and extend to 2031 tying into a monitoring period of 1 April 2010 to 31 March 2031 and representing an up-to-date assessment of future housing needs, it is worth noting that over the South East Plan period from 2006 to 2010 Crawley has delivered net completions of over 2,000 dwellings.³³ The annual figures of estimated housing needs identified in this report are over and above these past completions, although any completions from 1 April 2010 will count towards the overall housing requirement. Depending on the strategy CBC wish to adopt, they can be accounted for by either adding these completions to future need or starting afresh with a new base date.

Recommendations

- 5.5 Based upon the demographic and population factors set out, it is considered that a dwelling need of between 300 and 600 dwellings per annum is the most reasonable basis on which to plan. This wide range does, however, imply different outcomes, depending on which level is planned for. These are considered in turn.

Higher End (500-600 dwellings per annum)

- 5.6 At the higher end (500-600 dwellings per annum), housing delivery would be sufficient to support needs arising from the projected population and household change arising from both existing residents and the pressures placed on Crawley from in-migration. Growth in the population and indigenous labour force would exceed that required to support projected economic growth. This means higher levels of job growth could be supported, albeit if this job growth does not occur it could have several implications, including:
- a Decreased in-commuting, as economically active residents take up jobs within the Borough which may have previously been filled by in-commuters

³³ This is equivalent to a growth in dwelling stock of circa 1.2% per annum over this period (CLG Live Table 125), highlighting the relatively modest proportion of stock which is at any given time 'new build' and highlighting the extent to which new housing can effect a shift in the profile of overall housing stock.

- (which would also reflect the population trends in surrounding areas, with age demographic structures meaning some people who currently in-commute to Crawley retiring to be replaced by Crawley residents); or
- b Increased out-commuting, as economically active residents seek work in surrounding areas; or
 - c Increased unemployment, as economically active residents are unable to find local work; or
 - d A combination of the above.
- 5.7 The higher end of the range of housing delivery would also provide sufficient total housing to meet the majority of affordable housing needs arising in the Borough (assuming a 40% affordable housing delivery rate).

Lower End (300-400 dwellings per annum)

- 5.8 At the lower end (300-400 dwellings per annum), housing delivery would be sufficient to support the potential economic growth projected by the scenarios adopted, which draw upon the evidence within the Employment Land Review. Such a level of delivery would also be more in line with the land supply position in Crawley Borough. However, this level of housing delivery, whilst supporting economic aims, would not be sufficient to meet housing needs arising out of the demographic changes in the Borough.
- 5.9 Crawley is set to experience population growth through natural change (births exceeding deaths) and, to a lesser extent, in-migration. Whilst a lower level of housing delivery would continue to support an indigenous labour force which in turn will continue to support employment creation in the Borough, it would mean many new households projected to emerge in the Borough, would have to move elsewhere to meet their housing needs. This would lead to net out-migration of people, although it is possible that many will continue to work in Crawley, forming part of the 58% of jobs taken by in-commuters.
- 5.10 Due to the current dynamic of commuting, and the scale of underlying demographically driven housing need in Crawley, a lower level of delivery will similarly displace need and demand for housing outside Crawley Borough. These outcomes mean that CBC will need to consider the sub-regional nature of the housing market and how their housing target may have cross-boundary implications.

Cross-Boundary Considerations

- 5.11 With land supply in Crawley relatively constrained, and having considered the balance of commuting, it is apparent that under either scale of housing delivery set out above, one of the key outcomes could be that some housing need arising from Crawley will be displaced into the surrounding area. Therefore it is important for Crawley Borough Council to consider, along with the other local authorities in the sub-region, the extent to which housing delivery outside of the Borough could go some way to meeting housing needs originating from the

Borough. In arriving at an appropriate housing requirement, a balance will need to be struck on where housing needs are met.

- 5.12 Of particular note in this regard are the identified opportunities to the west of Crawley, which are contiguous to the existing Crawley urban area, but fall within the adjoining District of Horsham. These include the allocated West of Bewbush strategic site, which will go some way to meeting Crawley's housing needs. There may also be strategic development further afield in the sub-region which could go towards meeting Crawley's housing needs. In arriving at a level of housing for which it is appropriate for Crawley to plan, the Borough Council should account for the extent to which strategic housing development beyond the boundaries of Crawley Borough could reduce the level of housing which needs to be planned for within the boundaries of Crawley Borough. This will require cooperation with other adjacent local authorities, particularly in the context of the forthcoming 'duty to cooperate', which will necessitate a coordinated strategy for meeting the need for housing in the area.

Size, Type and Distribution

- 5.13 In terms of the size and type of dwellings required, the modelling undertaken illustrates the scale of demographic change, with a particular requirement for housing options to address the rise in smaller households, including single person and couple households, as well as lone parent households. This illustrates an increasing need for smaller and for flexible family housing. Despite this, so-called 'under-occupation' of housing may continue to create pressures for larger family dwellings, and due to the difficulties of accurately translating household composition into dwelling requirements it is recommended that caution is adopted in applying these metrics and that a broad mix of housing is planned for.
- 5.14 The potential distribution of any housing target in terms of a sub-borough split between the neighbourhoods will depend upon the sustainability of any spatial pattern of housing delivery, how this can achieve and support the aspirations for various neighbourhoods, and the capacity for development. At a neighbourhood level there are differences in demographic structure which will influence the local need arising from these neighbourhoods. Notwithstanding, due to the way localised housing markets operate, it is difficult to make a demand-side estimate of the level of housing it would be appropriate to plan for at a neighbourhood level. For example, other social factors, such as school catchment areas, quality of existing housing stock, and neighbourhood perceptions, are likely to have at least as much impact upon demand for housing at a neighbourhood level as the demographic factors driving underlying need, whilst supply-side factors such as land availability will determine to what extent this can met.

Towards Defining a Local Housing Requirement

- 5.15 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 need based solely upon housing, economic and demographic factors and therefore there are a wide range of other factors which CBC will need to consider in advance of adopting a housing target to progress through its Core Strategy Review.

5.16

The limitations of this study are therefore that it is only one piece of the local requirement for housing jigsaw and the following factors will also be relevant in 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 Crawley Borough, taking account of the areas identified in PPS3 (para 33), or any subsequent national policy framework, and also the vision and objectives that come forward through the Core Strategy Review and other evidence base documents. This will need to include appropriate consultation;
- b Considering the sub-regional strategy for development, and the extent to which housing need and demand arising in Crawley can be met within the wider Crawley and Gatwick sub-region. This includes contiguous authorities, where levels and locations of planned development may have need and demand implications for Crawley Borough, and CBC will need to consider their own housing needs in the context of the strategies and evidence in surrounding authority areas, particularly under the local authorities 'duty to cooperate';
- c Weighing the implications of constrained housing delivery (either locally or in the sub-region) 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 potential crowding out of the market leading to out migration of existing residents to meet their housing aspirations. Conversely the implications of higher housing delivery could have benefits for reducing high levels of in-commuting;
- d The need to set the gross housing need against any constraints which may reduce this. This is explored in terms of land capacity within this study (based on the existing SHLAA work) but could also include infrastructure capacity, environmental capacity and development viability, amongst others; and
- e The potential for further work to evidence housing need at a Borough and sub-borough level (e.g. through primary research on housing need and demand) to provide further context and understanding of the neighbourhood level demand and also size and type requirements. This may also help to inform how delivery of housing could better align with the aspirations of both residents and workers in the Borough.

Monitoring and Updating

5.17

Updating the demographic evidence contained within this report will be appropriate once a preferred strategy is being progressed, and will be appropriate if this coincides with a point in time where substantially up-to-date

demographic data is available (i.e. using a Census 2011 base). This will enable the demographic implications of any proposed strategy to be tested, providing fully up-to-date evidence at that point in time. CLG household projections are up-dated biennially and the assumptions on headship rates which underpin these are a key driver of projecting future housing needs, as a guide these may be used a trigger for updating evidence in advance of an adopted strategy. However, many other important data sets, including mid-year population estimates and migration statistics, are updated annually by ONS and should be kept under review to give indicators on directions of change.

Appendix 1 Inputs and Assumptions

Component	Scenario A – Baseline	Scenarios B, C and D – Migration	Scenarios E, F, G and H – Economic Growth
Population			
Baseline Population	A 2009 baseline population is taken from ONS mid-year population estimates (2009). This 2009 population is split to by single year of age and gender. All population projections under every scenario are constrained to the ONS 2008-based Sub-National Population Projections (SNPP) figure for 2010, to ensure a consistent reporting base for 2010 (i.e. all change for 2009-2010 is consistent, reflecting what has occurred).		
Births	A Total Fertility Rate (TFR) is applied to the population forecast using projected TFRs for Crawley Borough 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 Crawley Borough to 2033 from the SNPP (SNPP Table 5) and working back from this to identify what the TFR is for that year. See graph following table.		
Deaths	A Standard Mortality Rate (SMR) is applied to the population forecast using projected SMRs for Crawley Borough 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 Crawley Borough to 2033 from the SNPP (SNPP Table 5) and working back from this to identify what the SMR is for that year. See graph following table.		
Internal Migration	Gross domestic in and out migration flows are adopted based on forecast migration in Crawley Borough 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 (using ONS Migration Statistics) for Crawley Borough of the previous 11 years (Scenario C), 5 years (Scenario D) and splitting the difference between gross ONS projections for zero net-migration (Scenario B)	Internal in-migration and out-migration is flexed (inflated or deflated) to achieve the necessary number of economically active people to underpin the economy in Crawley Borough under the four employment growth scenarios.

Component	Scenario A – Baseline	Scenarios B, C and D – Migration	Scenarios E, F, G and H – Economic Growth
International Migration	Gross international in and out migration flows are adopted based on forecast migration in Crawley Borough 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 (using ONS Migration Statistics) for Crawley Borough of the previous 8 years (Scenario C), 5 years (Scenario D) and splitting the difference between gross ONS projections for zero net-migration (Scenario B)	International in-migration and out-migration is flexed (inflated or deflated) to achieve the necessary number of economically active people to underpin the economy in Crawley Borough under the four 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 Crawley Borough over the previous five years. This is based upon NHSCR data from ONS on Internal Migration by Local Authorities in England and Wales. 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 Crawley Borough (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 Borough (but not the total numbers of migrants).		
Housing			
Headship Rates	Headship rates that are specific to Crawley Borough 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 and by household typology.		
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 Crawley Borough totals 3.2% (estimated using ONS 2008 Vacant Dwellings Data). This is held constant over the forecast period as it is already below 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	Scenarios B, C and D – Migration	Scenarios E, F, G and H – 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 provide projected economic activity by 5-year age cohort for a period to 2010. These have been rebased from their 2010 estimate using a uniform adjustment to all age cohorts to match current total economic activity in the Borough 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. ³⁴		
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 Crawley Borough data from the 2009-10 Annual Population Survey (APS) and ONS Business Register and Employment Survey identifies an LF ratio of 0.595 (50,600 employed people ÷ 85,100 jobs). This has not been flexed over the forecasting period – with the exception of Scenario H, which increases the LF ratio to 0.627 by 2031 to reflect all new jobs being taken by residents (i.e. nil additional in-commuting).		
Unemployment	The unemployment rate is taken from the ONS Annual Population Survey estimate of economically active people not in employment (7.7%). A reduction in unemployment of 0.2% is assumed each year down to 4.9%, reflecting the past 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.		

Changes to Economic Activity Rates due to Pension Reform

There are likely to be some significant changes to rates of economic activity in coming years as a result of changes to the statutory pension age. The pension age is an important determinant in the rate of withdrawal from the workforce because it allows more people to retire with a reasonable income, but also because it plays an important role in setting social norms for retirement age. The women's pension age is currently expected to increase from 60 to 65 over the period 2010-18 so that it matches the male age. Both male and female rates will then rise from 65 to 66 over the period 2018-2020 (67 by 2036). Failing to adjust for these

³⁴ See below on Changes to Economic Activity rates

changes could potentially mean that the modelling underestimates the number of jobs an area's workforce could support by the end of the forecasting period.

The likely scale of the adjustment has been considered by examining the size of the fall in economic activity rates at the current statutory pension age (for a graphical illustration of this please see "*Estimating economic and social welfare impacts of pension reform*" (DWP, 2006, figure 1.2)) relative to the 'background' level of decline. For example, for men aged 65 the decline in economic activity is around 16% of the population against an average of around 6% for ages 64 and 66. It is therefore reasonable to assume that as a result of the pension age rising from 65 to 66, the economic activity of 65-year old men will rise by around 10%. Applied to the entire 65-69 age cohort, this would result in an increase of 2% in economic activity ($10\% \div 5$). Likewise, for women, the current 'peak' in withdrawal from the workforce aged 60 is 12% which is 8% higher than the 'background' level of 4% in each single-age cohort. We can therefore expect an 8% increase in economic activity rates amongst the female 60-64 cohort over the 2010-18 period.

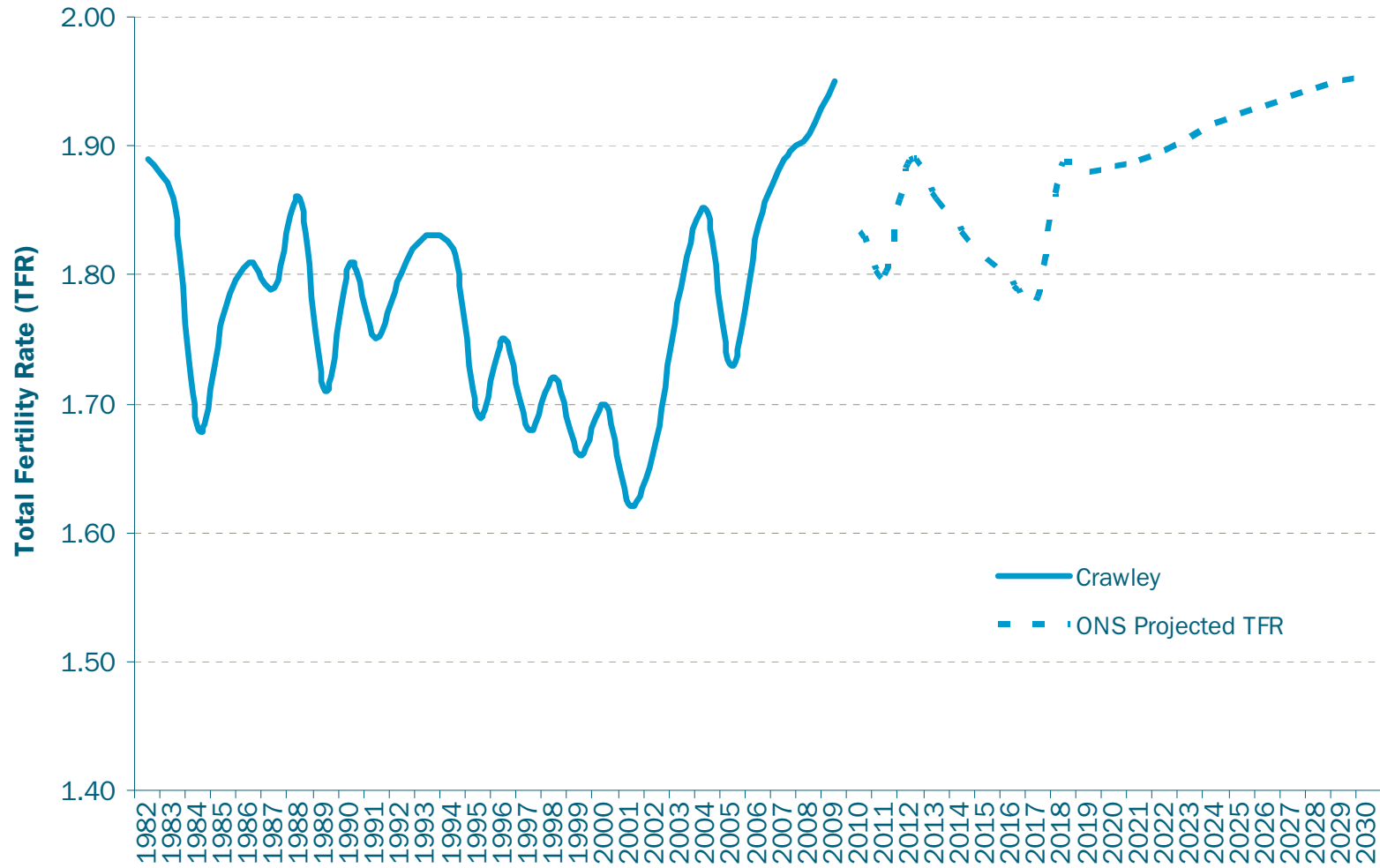
These changes to rates and how they are applied over the period of change is shown in the Table below. It should be noted that the change is assumed to be linear year-by-year and that a cautious assumption is made that there will be no increases in economic activity in younger (or older) age cohorts as a result of the change, whereas the reality is that such a change is likely. The 2020 rates are then applied to the remainder of the forecasting period.

Table Alterations to Economic Activity Rates made to reflect Pension Age Reform

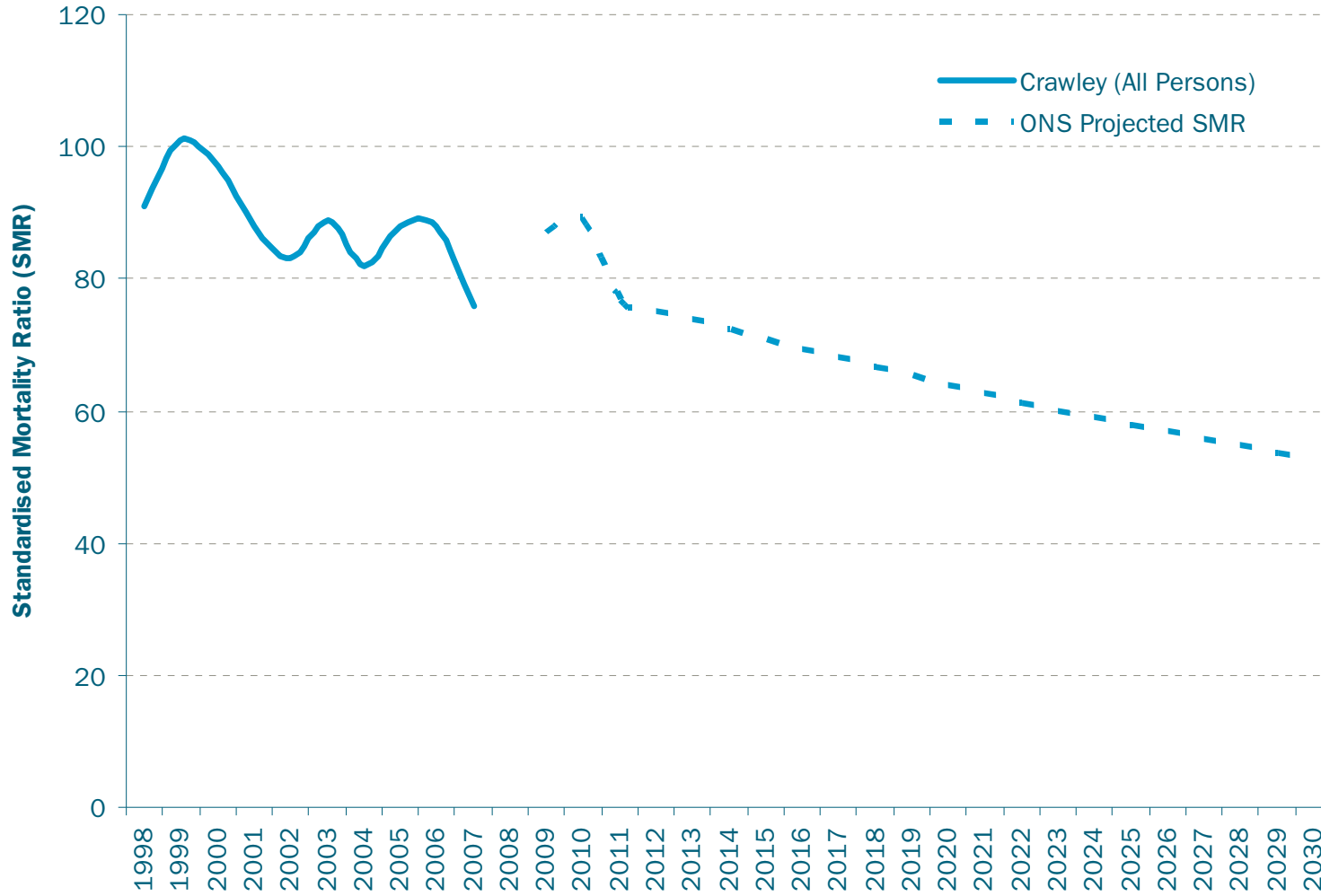
Age Cohort	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020+
Female 60-64	+1%	+2%	+3%	+4%	+5%	+6%	+7%	+8%	+8%	+8%
Female 65-69	-	-	-	-	-	-	-	-	+1%	+2%
Male 65-69	-	-	-	-	-	-	-	-	+1%	+2%

Source: NLP Analysis

ONS Projected Total Fertility Rate (TFR) for Crawley Borough



ONS Projected Standardised Mortality Ratio (SMR) for Crawley Borough



Appendix 2 Context and Past Trends

2009 Local Authority Level Migration Moves

Local Authority level migration moves with Crawley Borough for origin/destinations with more than 50 people migrating recorded.

FROM...	TO...	Internal Migration Flow (no. of people)
Reigate and Banstead	Crawley	340
Mid-Sussex	Crawley	340
Horsham	Crawley	270
Croydon	Crawley	170
Brighton and Hove UA	Crawley	150
Tandridge	Crawley	90
Mole Valley	Crawley	70
Sutton	Crawley	60
Worthing	Crawley	60
Kingston upon Thames	Crawley	50
Arun	Crawley	50

FROM...	TO...	Internal Migration Flow (no. of people)
Crawley	Mid Sussex	520
Crawley	Horsham	430
Crawley	Reigate and Banstead	260
Crawley	Brighton and Hove UA	160
Crawley	Tandridge	100
Crawley	Arun	100
Crawley	Worthing	80
Crawley	Mole Valley	70
Crawley	Croydon	60
Crawley	Birmingham	50
Crawley	Wandsworth	50
Crawley	Sutton	50
Crawley	Portsmouth UA	50
Crawley	Wealden	50

ONS Migration statistics – mid 2008 to mid 2009 -

<http://www.statistics.gov.uk/hub/cross-cutting-topics/migration/index.html>

Appendix 3 PopGroup Modelling Outputs

Scenario A. Baseline

Population Estimates and Forecasts

Crawley Local Housing Requirements

Scenario A: Baseline

Components of Population Change

	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		
Births																								
Male	766	772	772	824	824	824	824	824	824	875	875	875	875	875	875	874	874	874	874	874	874	874	874	
Female	723	729	729	777	777	777	777	777	777	826	825	825	825	825	825	825	825	825	825	825	825	825	825	
All Births	1,489	1,501	1,501	1,601	1,601	1,601	1,601	1,601	1,601	1,701	1,700	1,700	1,700	1,700	1,700	1,699	1,699	1,699	1,699	1,699	1,699	1,699	1,699	
TFR	1.85	1.83	1.80	1.89	1.86	1.83	1.81	1.79	1.78	1.88	1.88	1.88	1.89	1.90	1.91	1.92	1.92	1.93	1.94	1.94	1.95	1.95	1.95	
Births input																								
Deaths																								
Male	409	424	364	356	351	345	342	338	336	334	332	331	330	329	329	330	331	332	333	334	335	336	336	
Female	353	376	396	344	349	354	358	361	364	366	368	369	370	371	370	370	369	368	367	366	365	364	364	
All deaths	762	800	760	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	
SMR: males	87.0	89.0	76.5	74.7	73.2	71.6	70.2	68.7	67.4	66.1	64.8	63.5	62.3	61.0	60.0	59.0	58.1	57.1	56.2	55.2	54.2	53.1	53.1	
SMR: females	87.0	89.3	77.0	75.5	74.1	72.7	71.3	69.8	68.5	67.1	65.6	64.2	62.7	61.2	60.0	58.7	57.5	56.4	55.2	54.0	52.8	51.7	51.7	
SMR: male & female	87.0	89.1	76.7	75.1	73.6	72.2	70.7	69.3	68.0	66.6	65.2	63.9	62.5	61.1	60.0	58.9	57.8	56.7	55.7	54.6	53.5	52.3	52.3	
Expectation of life	81.9	81.7	82.8	82.9	83.1	83.2	83.4	83.5	83.6	83.7	83.8	83.9	84.0	84.1	84.2	84.3	84.4	84.5	84.6	84.7	84.8	84.8	84.9	
Deaths input																								
In-migration from the UK																								
Male	1,644	2,068	2,070	2,122	2,127	2,132	2,189	2,198	2,204	2,211	2,214	2,212	2,215	2,223	2,227	2,280	2,280	2,278	2,278	2,278	2,278	2,278	2,332	
Female	1,826	2,132	2,130	2,178	2,173	2,168	2,211	2,202	2,196	2,189	2,186	2,188	2,185	2,177	2,173	2,220	2,220	2,222	2,222	2,222	2,222	2,222	2,268	
All	3,470	4,200	4,200	4,300	4,300	4,300	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,500	4,500	4,500	4,500	4,500	4,500	4,600	4,600	
SMiGR: males	27.8	34.6	34.2	34.7	34.3	34.1	34.7	34.6	34.4	34.3	34.2	34.0	33.8	33.7	33.6	34.2	33.8	33.5	33.2	32.9	32.6	33.2	33.2	
SMiGR: females	30.6	35.2	34.8	35.2	34.9	34.5	35.0	34.7	34.5	34.2	34.1	34.1	34.0	33.7	33.5	34.1	33.8	33.6	33.3	33.1	33.0	33.5	33.5	
Migrants input																								
Out-migration to the UK																								
Male	2,358	2,664	2,714	2,764	2,765	2,817	2,870	2,875	2,932	2,939	2,997	2,997	3,003	3,010	3,069	3,075	3,079	3,083	3,136	3,140	3,194	3,193	3,191	
Female	2,572	2,736	2,786	2,836	2,835	2,883	2,930	2,925	2,988	2,961	3,003	2,997	2,990	3,031	3,025	3,021	3,017	3,064	3,060	3,106	3,107	3,107	3,109	
All	4,930	5,400	5,500	5,600	5,600	5,700	5,800	5,800	5,900	5,900	6,000	6,000	6,000	6,100	6,100	6,100	6,100	6,200	6,200	6,300	6,300	6,300	6,300	
SMiGR: males	39.9	44.6	44.9	45.1	44.7	45.0	45.5	45.3	45.8	45.6	46.0	46.0	46.0	46.1	46.0	46.1	45.8	46.1	45.7	46.1	45.8	45.8	45.8	
SMiGR: females	43.1	45.2	45.5	45.9	45.5	45.9	46.4	46.1	46.6	46.3	46.8	46.7	46.5	46.9	46.6	46.4	46.0	46.3	45.9	46.3	46.1	46.1	45.9	
Migrants input																								
In-migration from Overseas																								
Male	1,146	1,140	1,140	1,140	1,141	1,143	1,145	1,147	1,149	1,151	1,152	1,155	1,157	1,158	1,160	1,162	1,165	1,167	1,170	1,172	1,174	1,176	1,176	
Female	1,154	1,160	1,160	1,160	1,159	1,157	1,155	1,153	1,151	1,149	1,148	1,145	1,143	1,142	1,140	1,138	1,135	1,133	1,130	1,128	1,126	1,124	1,124	
All	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	
SMiGR: males	272.9	269.5	265.7	262.6	259.7	257.4	255.8	254.4	253.5	252.9	252.3	252.3	252.1	251.5	251.1	250.5	249.1	247.4	245.7	243.8	242.0	240.1	240.1	
SMiGR: females	272.9	269.5	265.7	262.6	259.7	257.4	255.8	254.4	253.5	252.9	252.3	252.3	252.1	251.5	251.1	250.5	249.1	247.4	245.7	243.8	242.0	240.1	240.1	
Migrants input																								
Out-migration to Overseas																								
Male	249	297	297	297	298	298	299	299	300	300	301	301	302	302	303	303	304	305	305	306	306	306	307	
Female	251	303	303	303	302	302	301	301	300	300	299	299	298	298	297	297	296	295	295	294	294	293	293	
All	500	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	
SMiGR: males	59.3	70.3	69.3	68.5	67.8	67.1	66.7	66.4	66.1	66.0	65.8	65.8	65.8	65.6	65.5	65.4	65.0	64.5	64.1	63.6	63.1	62.6	62.6	
SMiGR: females	59.3	70.3	69.3	68.5	67.8	67.1	66.7	66.4	66.1	66.0	65.8	65.8	65.8	65.6	65.5	65.4	65.0	64.5	64.1	63.6	63.1	62.6	62.6	
Migrants input																								
Migration - Net Flows																								
UK	-1,460	-1,200	-1,300	-1,300	-1,300	-1,400	-1,400	-1,400	-1,500	-1,500	-1,600	-1,600	-1,600	-1,700	-1,700	-1,600	-1,600	-1,700	-1,700	-1,800	-1,800	-1,700	-1,700	
Overseas	+1,800	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	
Summary of population change																								
Natural change	+727	+702	+802	+902	+902	+902	+901	+901	+901	+1,001	+1,001	+1,001	+1,001	+1,000	+1,000	+1,000	+999	+999	+999	+999	+999	+999	+999	p.a.
Net migration	+340	+500	+400	+400	+400	+300	+300	+300	+200	+200	+100	+100	+100	+100	0	0	+100	+100	0	-100	-100	+0	+0	p.a.
Net change	+1,067	+1,202	+1,202	+1,302	+1,302	+1,202	+1,201	+1,201	+1,101	+1,201	+1,101	+1,101	+1,101	+1,100	+1,000	+1,100	+1,099	+999	+999	+899	+899	+999	+999	p.a.

Change 2010-31

-27,700

+30,600

Change 2010-31

+948

+157

+1,105

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	
0-4	6,967	7,251	7,342	7,412	7,408	7,468	7,542	7,631	7,723	7,716	7,812	7,902	7,994	8,089	8,178	8,176	8,183	8,188	8,185	8,181	8,170	8,159	8,158	
5-10	7,313	7,370	7,491	7,655	8,118	8,348	8,512	8,647	8,726	8,882	8,864	8,907	8,973	9,058	9,142	9,224	9,317	9,413	9,505	9,596	9,683	9,672	9,666	
11-15	6,246	6,223	6,295	6,310	6,195	6,276	6,335	6,395	6,549	6,846	7,146	7,333	7,484	7,563	7,626	7,604	7,657	7,731	7,818	7,908	7,992	7,974	8,064	
16-17	2,700	2,566	2,448	2,407	2,421	2,396	2,428	2,500	2,478	2,312	2,356	2,561	2,615	2,684	2,744	2,928	3,031	2,945	2,904	2,883	2,971	3,057	3,051	
18-59Female, 64Male	65,061	65,846	66,776	67,489	68,208	68,908	69,609	70,201	70,895	71,496	72,019	72,339	72,770	73,260	73,665	74,057	74,555	75,181	75,577	75,919	76,153	76,404	76,881	
60/65 - 74	8,992	8,989	9,108	9,372	9,564	9,795	9,924	10,138	10,301	10,410	10,527	10,668	10,845	10,775	10,829	11,006	11,232	11,397	11,679	12,014	12,315	12,624	12,818	
75-84	5,750	5,765	5,681	5,614	5,555	5,474	5,400	5,295	5,176	5,170	5,218	5,271	5,354	5,688	5,895	6,052	6,121	6,288	6,424	6,481	6,577	6,662	6,797	
85+	2,904	2,391	2,461	2,544	2,63																			

Scenario C. Long Term Past Migration Trends

Population Estimates and Forecasts

Crawley Local Housing Requirements

Scenario C: Long Term Past Migration Trends

Components of Population Change

	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		
Births																								
Male	766	772	766	811	804	798	794	789	785	831	828	827	826	827	828	830	832	833	836	839	843	847		
Female	723	729	722	765	759	753	749	744	740	784	781	780	780	780	781	783	785	786	789	792	795	799		
All Births	1,489	1,501	1,488	1,575	1,563	1,551	1,542	1,533	1,525	1,614	1,609	1,607	1,606	1,606	1,610	1,614	1,619	1,625	1,631	1,638	1,646			
TFR	1.85	1.83	1.80	1.89	1.86	1.83	1.81	1.79	1.78	1.88	1.88	1.88	1.89	1.90	1.91	1.92	1.92	1.93	1.94	1.94	1.95			
Deaths																								
Male	409	424	364	356	351	346	343	340	337	335	334	333	332	333	333	334	336	338	339	341	342	344		
Female	353	376	336	344	350	355	360	363	366	369	372	373	375	376	377	377	376	376	375	375	375	375		
All deaths	762	800	700	700	701	701	702	703	704	705	707	708	709	710	710	711	712	713	715	716	717	719		
SMR: males	87.0	89.0	76.5	74.7	73.2	71.6	70.2	68.7	67.4	66.1	64.8	63.5	62.3	61.0	60.0	59.0	58.1	57.1	56.2	55.2	54.2	53.1		
SMR: females	87.0	89.3	77.0	75.5	74.1	72.7	71.3	69.8	68.5	67.1	65.6	64.2	62.7	61.3	60.0	58.7	57.5	56.4	55.2	54.0	52.8	51.7		
SMR: male & female	87.0	89.1	76.7	75.1	73.6	72.2	70.7	69.3	68.0	66.6	65.2	63.9	62.5	61.1	60.0	58.9	57.8	56.7	55.7	54.6	53.5	52.3		
Expectation of life	81.9	81.7	82.8	82.9	83.1	83.2	83.4	83.5	83.6	83.7	83.8	83.9	84.0	84.1	84.2	84.3	84.4	84.5	84.6	84.7	84.8	84.9		
In-migration from the UK																								
Male	1,644	2,068	2,070	2,074	2,079	2,084	2,090	2,098	2,101	2,106	2,108	2,104	2,105	2,110	2,112	2,114	2,112	2,110	2,109	2,109	2,108	2,111		
Female	1,826	2,132	2,130	2,126	2,121	2,116	2,110	2,102	2,099	2,094	2,092	2,096	2,095	2,090	2,088	2,086	2,088	2,090	2,091	2,091	2,092	2,089		
All	3,470	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200		
SMigr: males	27.8	34.6	34.4	34.3	34.1	34.0	34.0	34.0	33.9	33.9	33.7	33.5	33.3	33.2	33.0	32.8	32.5	32.1	31.8	31.5	31.2	30.9		
SMigr: females	30.6	35.2	35.0	34.8	34.6	34.4	34.2	34.0	33.8	33.6	33.6	33.6	33.5	33.3	33.1	32.8	32.6	32.3	32.1	31.8	31.6	31.3		
Out-migration to the UK																								
Male	2,358	2,498	2,500	2,501	2,502	2,505	2,508	2,512	2,518	2,523	2,529	2,532	2,537	2,543	2,546	2,548	2,549	2,550	2,552	2,553	2,552	2,549		
Female	2,572	2,566	2,564	2,563	2,562	2,559	2,556	2,552	2,546	2,541	2,535	2,532	2,527	2,521	2,518	2,516	2,515	2,514	2,512	2,511	2,512	2,515		
All	4,930	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064		
SMigr: males	39.9	41.8	41.6	41.3	41.1	40.9	40.8	40.7	40.6	40.5	40.5	40.3	40.2	40.0	39.8	39.5	39.2	38.8	38.5	38.1	37.7	37.3		
SMigr: females	43.1	42.4	42.1	41.9	41.8	41.6	41.4	41.3	41.1	40.8	40.7	40.6	40.4	40.1	39.9	39.6	39.3	38.9	38.5	38.2	38.0	37.7		
In-migration from Overseas																								
Male	1,146	787	787	787	787	789	790	791	792	793	794	795	796	797	798	799	801	802	804	805	806	807		
Female	1,154	801	801	801	801	799	798	797	796	795	794	793	792	791	790	789	787	786	784	783	782	781		
All	2,300	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588		
SMigr: males	272.9	186.1	185.0	184.0	183.1	182.5	182.1	181.8	181.6	181.4	181.4	181.4	181.4	181.1	180.6	180.1	179.4	178.3	177.1	175.5	174.0	173.5		
SMigr: females	272.9	186.1	185.0	184.0	183.1	182.5	182.1	181.8	181.6	181.4	181.4	181.4	181.4	181.1	180.6	180.1	179.4	178.3	177.1	175.5	174.0	173.5		
Out-migration to Overseas																								
Male	249	292	291	291	292	292	292	293	293	294	294	294	295	295	295	296	296	297	298	298	299	299		
Female	251	296	297	297	296	296	296	295	295	294	294	294	293	293	293	292	292	291	290	290	289	289		
All	500	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588	588		
SMigr: males	59.3	68.9	68.5	68.1	67.8	67.6	67.4	67.3	67.3	67.2	67.2	67.2	67.1	66.9	66.7	66.4	66.0	65.6	65.0	64.4	63.8	63.1		
SMigr: females	59.3	68.9	68.5	68.1	67.8	67.6	67.4	67.3	67.3	67.2	67.2	67.2	67.1	66.9	66.7	66.4	66.0	65.6	65.0	64.4	63.8	63.1		
Migration - Net Flows																								
UK	-1,460	-864	-864	-864	-864	-864	-864	-864	-864	-864	-864	-864	-864	-864	-864	-864	-864	-864	-864	-864	-864	-864	Change 2010-31 -15,552 +18,000	
Overseas	+1,800	+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		
Summary of population change																								
Natural change	-727	+702	+788	+875	+862	+850	+840	+830	+821	+910	+904	+900	+898	+897	+899	+902	+904	+906	+910	+915	+921	+927	p.a. +874	
Net migration	+340	+136	+136	+136	+136	+136	+136	+136	+136	+136	+136	+136	+136	+136	+136	+136	+136	+136	+136	+136	+136	+136	p.a. +136	
Net change	+1,067	+838	+924	+1,011	+998	+986	+976	+966	+957	+1,046	+1,040	+1,036	+1,034	+1,033	+1,035	+1,038	+1,040	+1,042	+1,046	+1,051	+1,057	+1,063	p.a. +1,010	
Summary of Population estimates/forecasts																								
<i>Population at mid-year</i>																								
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Change 2010-31	
0-4	6,967	7,251	7,326	7,378	7,348	7,373	7,410	7,452	7,498	7,454	7,510	7,571	7,639	7,714	7,796	7,797	7,806	7,819	7,834	7,853	7,874	7,897	7,925	+673
5-10	7,313	7,370	7,475	7,628	8,079	8,297	8,455	8,588	8,657	8,800	8,761	8,818	8,861	8,910	8,959	9,015	9,080	9,152	9,231	9,320	9,322	9,330	+1,960	
11-15	6,246	6,223	6,285	6,295	6,173	6,248	6,303	6,356	6,504	6,799	7,096	7,286	7,440	7,526	7,592	7,565	7,598	7,646	7,698	7,755	7,713	7,770	7,832	+1,609
16-17	2,700	2,566	2,450	2,410	2,424	2,397	2,430	2,503	2,481	2,315	2,359	2,566	2,621	2,890	2,756	2,944	3,049	2,962	2,928	2,906	2,984	3,060	3,040	+474
18-59F female, 64Male	65,061	65,846	66,447	66,903	67,361	67,798	68,310	68,708	69,207	69,686	70,086	70,355	70,734	71,172	71,594	72,003	72,444	73,013	73,421	73,773	74,091	74,417	74,888	+9,042
60+/65-74	8,992	9,989	9,107	9,375	9,573	9,811	9,951	10,181	10,361	10,491	10,633	10,802	11,010	10,971	11,058	11,270	11,530	11,729	12,049	12,423	12,765	13,115	13,346	+4,357
75-84	5,750	5,765	5,685	5,622	5,567	5,489	5,418	5,315	5,195	5,190	5,236	5,288	5,372	5,705	5,900	6,064	6,161	6,338	6,489	6,562	6,678	6,785	6,943	+1,178
85+	2,304	2,391	2,463	2,550	2,646	2,756	2,879	3,030	3,196	3,322	3,422	3,491	3,544	3,574	3,618	3,659	3,716	3,773	3,830	3,946	4,076	4,192	4,315	+1,925
Total	105,333	106,400	107,238	108,162	109,172	110,171	111,157	112,133	113,099	114,056	115,102	116,141	117,178	118,212	119,245	120,281	121,319	122,359	123,401	124,448	125,499	126,556	127,619	+21,219
Population impact of constraint																								
Number of persons	-660																							
Households																								
Number of Households	43,182	43,637	44,049	44,528	44,993	45,467	45,939	46,468	46,998	47,529	48,062	48,573	49,077	49,567	50,032	50,501	50,983	51,512	51,997	52,523	53,028	53,515	54,020	Change 2010-31 +10,383
Change over previous year	+455	+412	+479	+465	+474	+472	+529	+530	+530	+533	+511	+504	+479	+475	+469	+482	+528	+485	+526	+505	+487	+505	p.a. +494	
Number of supply units	44,610	45,079	45,505	46,000	46,480	46,970	47,457	48,004	48,552	49,100	49,651	50,178	50,700	51,195	51,686	52,171	52,669	53,214	53,716	54,259	54,781	55,284	55,805	+10,726
Change over previous year	+470	+426	+495	+480	+490	+488	+547	+548	+548	+551	+527													

Scenario D. Short Term Past Migration Trends

Population Estimates and Forecasts

Crawley Local Housing Requirements

Scenario D: Short Term Past Migration Trends

Components of Population Change

	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	
Births																							
Male	766	772	770	820	819	817	817	817	816	868	869	871	874	876	880	884	887	890	894	898	903	908	
Female	723	729	727	774	773	771	771	770	770	819	820	822	824	827	830	834	837	840	843	847	852	856	
All Births	1,489	1,501	1,497	1,594	1,591	1,589	1,588	1,587	1,586	1,687	1,689	1,693	1,698	1,703	1,711	1,719	1,724	1,730	1,738	1,745	1,755	1,764	
TFR	1.85	1.83	1.80	1.89	1.86	1.83	1.81	1.79	1.78	1.88	1.88	1.88	1.89	1.90	1.91	1.92	1.92	1.93	1.94	1.94	1.95	1.95	
Births input																							
Deaths																							
Male	409	424	364	357	352	347	344	342	340	338	337	337	337	337	338	340	342	344	346	349	351	353	
Female	353	376	336	345	350	356	360	364	367	370	373	375	377	378	379	379	379	378	378	378	378	379	
All deaths	762	800	700	702	702	703	704	706	707	708	710	712	713	715	717	719	721	723	725	727	729	731	
SMR: males	87.0	89.0	76.5	74.7	73.2	71.6	70.2	68.7	67.4	66.1	64.8	63.5	62.3	61.0	60.0	59.0	58.1	57.1	56.2	55.2	54.2	53.1	
SMR: females	87.0	89.3	77.0	75.5	74.1	72.7	71.3	69.8	68.5	67.1	65.6	64.2	62.7	61.2	59.9	58.7	57.5	56.4	55.4	54.0	52.8	51.6	
SMR: male & female	87.0	89.1	76.7	75.1	73.6	72.2	70.7	69.3	68.0	66.6	65.2	63.9	62.5	61.1	60.0	58.9	57.8	56.7	55.7	54.6	53.5	52.3	
Expectation of life	81.9	81.7	82.8	82.9	83.1	83.2	83.4	83.5	83.6	83.7	83.8	83.9	84.0	84.1	84.2	84.3	84.4	84.5	84.6	84.7	84.8	84.9	
Deaths input																							
In-migration from the UK																							
Male	1,644	2,019	2,021	2,024	2,028	2,033	2,040	2,047	2,052	2,057	2,059	2,056	2,057	2,058	2,064	2,066	2,068	2,067	2,065	2,065	2,065	2,067	
Female	1,826	2,081	2,079	2,076	2,072	2,067	2,060	2,053	2,048	2,043	2,041	2,044	2,043	2,036	2,034	2,032	2,033	2,035	2,035	2,035	2,035	2,033	
All	3,470	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	
SMiGR: males	27.8	33.8	33.5	33.2	32.9	32.7	32.5	32.4	32.2	32.0	31.8	31.5	31.3	31.1	30.8	30.6	30.2	29.8	29.4	29.1	28.7	28.4	
SMiGR: females	30.6	34.4	34.0	33.7	33.3	33.0	32.7	32.4	32.1	31.8	31.7	31.6	31.4	31.1	30.8	30.5	30.2	29.9	29.6	29.3	29.0	28.7	
Migrants input																							
Out-migration to the UK																							
Male	2,358	2,457	2,458	2,458	2,460	2,462	2,464	2,469	2,474	2,479	2,485	2,489	2,495	2,501	2,505	2,507	2,509	2,511	2,513	2,515	2,514	2,512	
Female	2,572	2,523	2,522	2,522	2,520	2,518	2,516	2,511	2,506	2,501	2,495	2,491	2,485	2,479	2,475	2,473	2,471	2,469	2,467	2,465	2,466	2,468	
All	4,930	4,980	4,980	4,980	4,980	4,980	4,980	4,980	4,980	4,980	4,980	4,980	4,980	4,980	4,980	4,980	4,980	4,980	4,980	4,980	4,980	4,980	
SMiGR: males	39.9	41.1	40.7	40.3	39.9	39.5	39.3	39.0	38.8	38.6	38.4	38.2	37.9	37.7	37.4	37.0	36.7	36.2	35.8	35.4	35.0	34.6	
SMiGR: females	43.1	41.7	41.3	40.9	40.6	40.3	39.9	39.6	39.3	39.0	38.7	38.5	38.2	37.9	37.5	37.1	36.7	36.3	35.9	35.5	35.2	34.9	
Migrants input																							
In-migration from Overseas																							
Male	1,146	912	912	912	912	914	915	916	918	919	920	921	923	923	925	926	928	930	931	933	934	936	
Female	1,154	928	928	928	928	926	925	924	922	921	920	919	917	917	915	914	912	910	909	907	906	904	
All	2,300	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	
SMiGR: males	272.9	215.6	213.2	211.0	209.0	207.3	206.0	204.9	204.0	203.1	202.3	201.6	200.8	199.7	198.6	197.4	195.8	194.0	192.0	189.9	187.7	185.4	
SMiGR: females	272.9	215.6	213.2	211.0	209.0	207.3	206.0	204.9	204.0	203.1	202.3	201.6	200.8	199.7	198.6	197.4	195.8	194.0	192.0	189.9	187.7	185.4	
Migrants input																							
Out-migration to Overseas																							
Male	249	258	258	258	258	258	259	259	259	260	260	260	261	261	261	262	262	263	263	264	264	264	
Female	251	262	262	262	262	262	261	261	261	260	260	260	259	259	259	258	258	257	257	256	256	256	
All	500	520	520	520	520	520	520	520	520	520	520	520	520	520	520	520	520	520	520	520	520	520	
SMiGR: males	59.3	60.9	60.2	59.6	59.1	58.6	58.2	57.9	57.7	57.4	57.2	57.0	56.7	56.4	56.1	55.8	55.3	54.8	54.3	53.7	53.0	52.4	
SMiGR: females	59.3	60.9	60.2	59.6	59.1	58.6	58.2	57.9	57.7	57.4	57.2	57.0	56.7	56.4	56.1	55.8	55.3	54.8	54.3	53.7	53.0	52.4	
Migrants input																							

Migration - Net Flows																							
UK	-1,460	-880	-880	-880	-880	-880	-880	-880	-880	-880	-880	-880	-880	-880	-880	-880	-880	-880	-880	-880	-880	-880	
Overseas	+1,800	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	+1,320	
Summary of population change																							
Natural change	+727	+702	+796	+893	+889	+885	+884	+881	+879	+979	+979	+982	+985	+988	+994	+1,000	+1,003	+1,007	+1,013	+1,019	+1,026	+1,033	
Net migration	+340	+440	+440	+440	+440	+440	+440	+440	+440	+440	+440	+440	+440	+440	+440	+440	+440	+440	+440	+440	+440	+440	
Net change	+1,067	+1,142	+1,236	+1,333	+1,329	+1,325	+1,324	+1,321	+1,319	+1,419	+1,419	+1,422	+1,425	+1,428	+1,434	+1,440	+1,443	+1,447	+1,453	+1,459	+1,466	+1,473	

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
0-4	6,967	7,251	7,346	7,423	7,423	7,482	7,558	7,646	7,736	7,733	7,833	7,937	8,045	8,158	8,277	8,306	8,340	8,374	8,408	8,442	8,476	8,511	8,549
5-10	7,313	7,370	7,489	7,658	8,128	8,367	8,547	8,703	8,800	8,978	9,047	9,124	9,220	9,322	9,425	9,532	9,647	9,766	9,889	10,019	10,053	10,089	+1,298
11-15	6,246	6,223	6,294	6,313	6,199	6,282	6,347	6,410	6,570	6,880	7,195	7,404	7,579	7,684	7,775	7,777	7,845	7,932	8,032	8,134	8,134	8,237	+2,719
16-17	2,700	2,566	2,455	2,419	2,437	2,413	2,450	2,527	2,508	2,343	2,391	2,605	2,665	2,740	2,814	3,013	3,129	3,047	3,020	3,008	3,106	3,203	+2,122
18-59Female, 64Male	65,061	65,846	66,694	67,400	68,108	68,795	69,558	70,205	70,954	71,683	72,331	72,845	73,469	74,152	74,819	75,472	76,157	76,975	77,629	78,226	78,787	79,360	+635
60/65-74	8,992	8,989	9,114	9,389	9,596	9,845	9,996	10,239	10,434	10,580	10,741	10,930	11,160	11,441	11,252	11,488	11,773	11,998	12,347	12,753	13,128	13,512	+14,245
75-84	5,750	5,765	5,686	5,625	5,572	5,496	5,426	5,325	5,207	5,203	5,251	5,306	5,393	5,731	5,951	6,122	6,206	6,393	6,554	6,637	6,765	6,886	+7,959
85+	2,304	2,391	2,464	2,562	2,648	2,759	2,882	3,035	3,202	3,329	3,430	3,501	3,555	3,587	3,632	3,674	3,733	3,792	3,851	3,970	4,103	4,222	+4,786
Total	105,333	106,400	107,542	108,778	110,111	111,440	112,7																

Scenario E. Static Employment (0.0% p.a.)

Population Estimates and Forecasts

Crawley Local Housing Requirements

Scenario E: Static Employment

0% Employment Growth per annum

Components of Population Change

	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	
Births																							
Male	766	772	753	786	769	753	738	725	714	748	738	731	725	721	717	715	714	714	716	716	717	717	
Female	723	729	711	741	726	710	696	684	674	706	697	689	684	680	676	674	674	674	675	675	676	677	
All Births	1489	1501	1464	1527	1495	1463	1434	1409	1388	1454	1426	1420	1409	1401	1393	1389	1388	1388	1391	1391	1392	1394	
TFR	1.85	1.83	1.80	1.89	1.86	1.83	1.81	1.79	1.78	1.88	1.88	1.88	1.89	1.90	1.91	1.92	1.92	1.93	1.94	1.94	1.95	1.95	
Births input																							
Deaths																							
Male	409	424	363	354	348	342	338	333	330	326	323	321	319	317	316	315	315	315	314	313	313	312	
Female	353	376	334	339	343	346	347	349	350	351	351	351	351	350	349	347	346	344	343	341	340	338	
All deaths	762	800	697	694	691	688	685	682	680	677	675	672	670	667	665	663	661	659	657	654	652	650	
SMR: males	87.0	89.0	76.5	74.7	73.2	71.6	70.2	68.7	67.4	66.0	64.7	63.5	62.2	61.0	59.9	58.9	58.0	57.1	56.1	55.1	54.1	53.0	
SMR: females	87.0	89.3	77.0	75.5	74.1	72.7	71.3	69.8	68.5	67.1	65.7	64.2	62.7	61.3	60.0	58.8	57.6	56.4	55.3	54.1	52.9	51.7	
SMR: male & female	87.0	89.1	76.7	75.1	73.6	72.2	70.7	69.3	68.0	66.6	65.2	63.9	62.5	61.1	60.0	58.9	57.8	56.7	55.7	54.6	53.5	52.3	
Expectation of life	81.9	81.7	82.8	82.9	83.1	83.2	83.3	83.5	83.6	83.7	83.8	83.9	84.0	84.1	84.2	84.3	84.4	84.5	84.6	84.7	84.8	84.9	
Deaths input																							
In-migration from the UK																							
Male	1,644	1,395	1,488	1,558	1,561	1,601	1,710	1,765	1,760	1,772	1,807	1,837	1,861	1,850	1,868	1,967	1,962	2,016	1,963	1,998	2,027	2,018	
Female	1,826	1,438	1,527	1,589	1,583	1,613	1,710	1,751	1,739	1,741	1,773	1,808	1,829	1,808	1,822	1,913	1,912	1,967	1,917	1,950	1,978	1,963	
All	3,470	2,833	3,015	3,147	3,144	3,214	3,420	3,516	3,499	3,512	3,580	3,645	3,690	3,658	3,690	3,880	3,874	3,983	3,879	3,947	4,005	3,981	
SMiGR: males	27.8	23.4	25.0	26.3	26.4	27.2	29.2	30.3	30.3	30.6	31.3	31.9	32.4	32.2	32.6	34.3	34.0	34.8	33.7	34.1	34.5	34.2	
SMiGR: females	30.6	23.8	25.4	26.7	26.8	27.5	29.4	30.3	30.2	30.4	31.2	32.1	32.6	32.3	32.7	34.4	34.3	35.1	34.1	34.6	35.1	34.8	
Migrants input																							
Out-migration to the UK																							
Male	2,358	2,664	2,717	2,769	2,772	2,827	2,881	2,887	2,945	2,954	2,999	3,014	3,020	3,078	3,083	3,086	3,088	3,141	3,144	3,197	3,196	3,194	
Female	2,572	2,736	2,783	2,831	2,828	2,873	2,919	2,913	2,955	2,949	2,991	2,986	2,980	3,022	3,017	3,014	3,012	3,059	3,056	3,103	3,104	3,106	
All	4,930	5,400	5,500	5,600	5,600	5,700	5,800	5,800	5,900	5,900	6,000	6,000	6,000	6,100	6,100	6,100	6,100	6,200	6,200	6,300	6,300	6,300	
SMiGR: males	39.9	44.6	45.7	46.7	47.0	48.1	49.2	49.5	50.6	51.0	52.1	52.4	52.6	53.6	53.7	53.8	53.6	54.2	53.9	54.6	54.4	54.1	
SMiGR: females	43.1	45.2	46.4	47.5	47.8	49.0	50.2	50.4	51.4	51.6	52.7	53.0	53.2	54.1	54.1	54.1	54.0	54.6	54.3	55.1	55.1	55.1	
Migrants input																							
In-migration from Overseas																							
Male	1,146	1,140	1,142	1,144	1,146	1,149	1,152	1,155	1,158	1,160	1,162	1,164	1,166	1,168	1,170	1,172	1,174	1,177	1,180	1,182	1,184	1,186	
Female	1,154	1,160	1,158	1,156	1,154	1,151	1,148	1,145	1,142	1,140	1,138	1,136	1,134	1,132	1,130	1,128	1,126	1,123	1,120	1,118	1,116	1,114	
All	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	
SMiGR: males	272.9	269.5	271.6	273.4	275.1	277.1	279.4	281.3	283.0	285.0	287.0	289.2	290.9	291.8	293.2	294.3	295.8	292.9	291.5	290.5	289.4	288.0	
SMiGR: females	272.9	269.5	271.6	273.4	275.1	277.1	279.4	281.3	283.0	285.0	287.0	289.2	290.9	291.8	293.2	294.3	295.8	292.9	291.5	290.5	289.4	288.0	
Migrants input																							
Out-migration to Overseas																							
Male	249	297	298	298	299	300	301	301	302	303	303	304	304	305	305	306	306	307	308	308	309	309	
Female	251	303	302	302	301	300	299	299	298	297	297	296	296	295	295	294	294	293	292	292	291	291	
All	500	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	
SMiGR: males	59.3	70.3	70.8	71.3	71.8	72.3	72.9	73.4	73.8	74.4	74.9	75.4	75.9	76.1	76.5	76.8	76.6	76.4	76.1	75.8	75.5	75.1	
SMiGR: females	59.3	70.3	70.8	71.3	71.8	72.3	72.9	73.4	73.8	74.4	74.9	75.4	75.9	76.1	76.5	76.8	76.6	76.4	76.1	75.8	75.5	75.1	
Migrants input																							
Migration - Net Flows																							
UK	-1,460	-2,567	-2,485	-2,453	-2,456	-2,486	-2,380	-2,284	-2,401	-2,388	-2,420	-2,355	-2,310	-2,442	-2,410	-2,220	-2,226	-2,217	-2,321	-2,353	-2,295	-2,319	
Overseas	+1,800	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	
Summary of population change																							
Natural change	+727	+702	+767	+833	+804	+775	+749	+727	+708	+777	+760	+748	+739	+733	+728	+726	+728	+730	+735	+737	+740	+744	
Net migration	+340	-867	-785	-753	-756	-786	-680	-584	-701	-688	-720	-655	-610	-742	-710	-526	-517	-621	-653	-595	-619	-619	
Net change	+1,067	-165	-18	+80	+48	-11	+68	+143	+7	+89	+40	+92	+129	-9	+19	+206	+202	+212	+114	+84	+145	+125	

Change 2010-31
-42,605
-30,600
Change 2010-31
+747
-671
+76

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
0-4	6,967	7,251	7,255	7,230	7,116	7,047	6,979	6,918	6,872	6,741	6,706	6,679	6,688	6,672	6,678	6,621	6,590	6,570	6,556	6,545	6,535	6,532	6,532
5-10	7,313	7,370	7,407	7,496	7,875	8,022	8,105	8,165	8,159	8,203	8,068	7,978	7,900	7,830	7,764	7,702	7,664	7,641	7,632	7,629	7,638	7,584	7,541
11-15	6,246	6,223	6,226	6,184	6,017	6,043	6,050	6,063	6,169	6,405	6,639	6,768	6,863	6,892	6,885	6,784	6,739	6,697	6,657	6,620	6,502	6,473	6,454
16-17	2,700	2,566	2,422	2,358	2,348	2,302	2,313	2,362	2,325	2,152	2,179	2,352	2,388	2,436	2,475	2,624	2,700	2,608	2,559	2,507	2,535	2,564	2,513
18-59Female, 64Male	65,061	65,846	65,711	65,491	65,295	65,071	64,898	64,699	64,671	64,536	64,339	64,005	63,627	63,744	63,560	63,391	63,398	63,514	63,501	63,364	63,176	63,032	62,985
60/65-74	8,992	8,989	9,105	9,363	9,544	9,759	9,989	10,056	10,188	10,259	10,331	10,419	10,532	10,390	10,364	10,447	10,576	10,642	10,814	11,035	11,218	11,410	11,497
75-84	5,750	5,765	5,658	5,573	5,500	5,407	5,324	5,215	5,096	5,091	5,139	5,194	5,279	5,611	5,817	5,968	6,032	6,186	6,306	6,340	6,408	6,460	6,550
85+	2,304	2,391	2,449	2,521	2,601	2,693	2,795	2,923	3,065	3,165	3,240	3,285	3,316	3,328	3,352	3,376	3,419	3,463	3,508	3,607	3,721	3,822	3,9

Scenario F. ELR 'Hybrid' Economic Growth (0.4% p.a.)

Population Estimates and Forecasts

Crawley Local Housing Requirements

Scenario F: ELR 'Hybrid' Economic Growth 0.4% Employment Growth per annum

Components of Population Change

	Year beginning July 1st																				Change 2010-31		
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028		2029	2030
Births																							
Male	766	772	758	796	784	772	762	754	747	787	781	777	774	773	772	772	774	776	780	782	784	787	
Female	723	729	715	751	740	729	719	711	705	742	737	733	730	729	728	729	730	733	736	738	740	743	
All Births	1,489	1,501	1,473	1,547	1,524	1,501	1,481	1,464	1,452	1,529	1,518	1,509	1,505	1,502	1,501	1,501	1,505	1,509	1,516	1,520	1,525	1,530	
TFR	1.85	1.83	1.80	1.89	1.86	1.83	1.81	1.79	1.78	1.88	1.88	1.88	1.89	1.90	1.91	1.92	1.92	1.93	1.94	1.94	1.95	1.95	
Deaths																							
Male	409	424	363	355	349	343	339	335	332	329	326	324	322	321	320	320	321	321	321	321	321	321	
Female	353	376	334	341	344	348	350	353	354	356	357	357	358	357	357	356	354	353	352	351	350	349	
All deaths	762	800	697	695	693	691	689	688	686	684	683	681	680	679	677	676	675	674	673	672	671	670	
SMR: males	87.0	89.0	76.5	74.7	73.2	71.6	70.2	68.7	67.4	66.0	64.7	63.5	62.2	61.0	59.9	59.0	58.0	57.1	56.2	55.2	54.1	53.1	
SMR: females	87.0	89.3	77.0	75.5	74.1	72.7	71.3	69.8	68.5	67.1	65.7	64.2	62.7	61.3	60.0	58.8	57.6	56.4	55.2	54.1	52.9	51.7	
SMR: male & female	87.0	89.1	76.7	75.1	73.6	72.2	70.7	69.3	68.0	66.6	65.2	63.9	62.5	61.1	60.0	58.9	57.8	56.7	55.7	54.6	53.5	52.3	
Expectation of life	81.9	81.7	82.8	82.9	83.1	83.2	83.3	83.5	83.6	83.7	83.8	83.9	84.0	84.1	84.2	84.3	84.4	84.5	84.6	84.7	84.8	84.9	
Deaths input																							
In-migration from the UK																							
Male	1,644	1,565	1,656	1,724	1,726	1,765	1,874	1,930	1,925	1,938	1,974	2,004	2,030	2,018	2,038	2,142	2,139	2,192	2,135	2,168	2,198	2,188	
Female	1,826	1,613	1,700	1,761	1,754	1,783	1,879	1,921	1,907	1,909	1,941	1,976	1,998	1,975	1,989	2,086	2,085	2,140	2,085	2,117	2,145	2,129	
All	3,470	3,178	3,356	3,485	3,480	3,547	3,753	3,851	3,833	3,847	3,915	3,980	4,028	3,993	4,027	4,228	4,223	4,332	4,220	4,285	4,343	4,316	
SMiGR: males	27.8	26.2	27.7	28.8	28.8	29.5	31.3	32.3	32.1	32.3	32.9	33.4	33.8	33.4	33.7	35.3	34.9	35.5	34.3	34.5	34.8	34.3	
SMiGR: females	30.6	26.6	28.2	29.3	29.2	29.8	31.5	32.3	32.1	32.2	32.8	33.6	34.0	33.5	33.8	35.3	35.1	35.8	34.6	34.9	35.3	34.8	
Migrants input																							
Out-migration to the UK																							
Male	2,358	2,664	2,717	2,767	2,770	2,824	2,878	2,884	2,941	2,947	3,005	3,010	3,017	3,075	3,080	3,083	3,086	3,139	3,142	3,194	3,194	3,192	
Female	2,572	2,736	2,783	2,833	2,830	2,876	2,922	2,916	2,959	2,953	2,995	2,990	2,983	3,025	3,020	3,017	3,014	3,061	3,058	3,106	3,106	3,108	
All	4,930	5,400	5,500	5,600	5,600	5,700	5,800	5,800	5,900	5,900	6,000	6,000	6,000	6,100	6,100	6,100	6,100	6,200	6,200	6,300	6,300	6,300	
SMiGR: males	39.9	44.6	45.5	46.3	46.3	47.2	48.1	48.2	49.1	49.2	50.1	50.2	50.2	50.9	50.9	50.7	50.4	50.8	50.4	50.9	50.5	50.1	
SMiGR: females	43.1	45.2	46.1	47.1	47.2	48.1	49.1	49.1	49.8	49.8	50.6	50.8	50.7	51.4	51.3	51.1	50.7	51.2	50.7	51.3	51.1	50.9	
Migrants input																							
In-migration from Overseas																							
Male	1,146	1,140	1,141	1,143	1,145	1,147	1,150	1,152	1,155	1,157	1,159	1,161	1,163	1,164	1,166	1,168	1,170	1,173	1,175	1,177	1,180	1,182	
Female	1,154	1,160	1,159	1,157	1,155	1,153	1,150	1,148	1,145	1,143	1,141	1,139	1,137	1,136	1,134	1,132	1,130	1,127	1,125	1,123	1,120	1,118	
All	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	
SMiGR: males	272.9	269.5	270.1	270.4	270.7	271.3	272.3	272.9	273.4	274.2	275.0	276.0	276.6	276.5	276.8	276.8	275.4	273.7	271.5	269.7	267.8	265.6	
SMiGR: females	272.9	269.5	270.1	270.4	270.7	271.3	272.3	272.9	273.4	274.2	275.0	276.0	276.6	276.5	276.8	276.8	275.4	273.7	271.5	269.7	267.8	265.6	
Migrants input																							
Out-migration to Overseas																							
Male	249	297	298	298	299	299	300	301	301	302	302	303	303	304	304	305	305	306	307	307	308	308	
Female	251	303	302	302	301	301	300	299	299	298	298	297	297	296	296	295	295	294	293	293	292	292	
All	500	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	
SMiGR: males	59.3	70.3	70.5	70.5	70.6	70.8	71.0	71.2	71.3	71.5	71.7	72.0	72.1	72.1	72.2	72.2	71.8	71.4	70.8	70.3	69.9	69.3	
SMiGR: females	59.3	70.3	70.5	70.5	70.6	70.8	71.0	71.2	71.3	71.5	71.7	72.0	72.1	72.1	72.2	72.2	71.8	71.4	70.8	70.3	69.9	69.3	
Migrants input																							
Migration - Net Flows																							
UK	-1,460	-2,222	-2,144	-2,115	-2,120	-2,153	-2,047	-1,949	-2,067	-2,053	-2,085	-2,020	-1,972	-2,107	-2,073	-1,872	-1,877	-1,868	-1,980	-2,015	-1,957	-1,984	Change 2010-31 -36,518
Overseas	+1,800	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+30,600
Summary of population change																							
Natural change	+727	+702	+776	+852	+831	+810	+792	+777	+766	+845	+835	+828	+825	+824	+823	+825	+830	+835	+843	+848	+854	+860	p.a. +818
Net migration	+340	+522	+444	+415	+420	+453	+347	+249	+367	+353	+385	+320	+272	+407	+373	+172	+177	+168	+280	+315	+257	+284	p.a. +332
Net change	+1,067	+180	+332	+437	+411	+357	+444	+528	+398	+491	+450	+508	+553	+417	+450	+653	+653	+667	+563	+533	+596	+576	p.a. +486

Summary of Population estimates/forecasts

	Population at mid-year																				Change 2010-31			
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028		2029	2030	2031
0-4	6,967	7,251	7,277	7,279	7,196	7,164	7,137	7,121	7,120	7,030	7,040	7,056	7,087	7,131	7,176	7,151	7,150	7,156	7,168	7,179	7,190	7,208	7,227	-25
5-10	7,313	7,370	7,428	7,539	7,942	8,114	8,222	8,307	8,331	8,411	8,314	8,268	8,238	8,220	8,206	8,197	8,211	8,239	8,280	8,323	8,376	8,358	8,347	+977
11-15	6,246	6,223	6,244	6,218	6,067	6,109	6,132	6,161	6,286	6,544	6,802	6,953	7,072	7,123	7,142	7,069	7,059	7,065	7,072	6,972	6,972	7,009	7,033	+810
16-17	2,700	2,566	2,429	2,371	2,369	2,329	2,346	2,403	2,372	2,202	2,236	2,242	2,464	2,522	2,570	2,733	2,822	2,734	2,691	2,650	2,699	2,748	2,713	+147
18-59Female, 64Male	65,061	65,846	65,980	66,028	66,099	66,143	66,235	66,303	66,544	66,678	66,749	66,679	66,769	66,955	67,035	67,131	67,412	67,810	68,072	68,201	68,275	68,396	68,624	+2,778
60+/65-74	8,992	8,969	9,106	9,365	9,550	9,769	9,885	10,079	10,221	10,303	10,389	10,495	10,628	10,510	10,510	10,626	10,788	10,890	11,003	11,368	11,598	11,837	11,970	+2,981
75-84	5,750	5,765	5,864	5,894	5,515	5,426	5,346	5,240	5,121	5,118	5,166	5,222	5,308	5,841	5,850	6,004	6,071	6,230	6,357	6,399	6,476	6,539	6,645	+830
85+	2,304	2,391	2,452	2,527	2,611	2,702	2,813	2,947	3,095	3,202	3,283	3,334	3,371	3,388	3,417	3,446	3,494	3,544	3,593	3,699	3,819	3,926	4,039	+1,649
Total	105,333	106,400	106,580	106,912	107,349	107,760	108,117	108,561	109,089	109,487	109,978	110,428	110,936	111,489	111,906	112,356	113,009	113,662	114,329	114,892	115,425	116,021	116,597	+10,197

Population impact of constraint

Number of persons	-660	-1,022	-844	-815	-820	-753	-647	-549	-567	-553	-485	-420	-372	-407	-373	-272	-277	-168	-280	-215	-157	-284		
Number of Jobs																								
Indigenous Labour Force	54,328	54,832	54,934	55,035	55,138	55,241	55,344	55,448	55,553	55,658	55,763	55,869	55,976	56,083	56,191	56,299	56,526	56,755	56,984	57,215	57,446	57,678	57,911	Change 2010-31 +3,079
Change over previous year</																								

Scenario H. ELR 'Hybrid' Economic Growth (0.4% p.a.) Nil Additional In-Commuting

Population Estimates and Forecasts

Crawley Local Housing Requirements

Scenario H: Nil Additional In Commuting

0.4% Employment Growth per annum + All new jobs taken by residents

Components of Population Change

	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	
Births																							
Male	766	772	761	803	794	786	779	773	769	813	810	808	808	809	810	812	815	819	824	827	831	835	
Female	723	729	718	758	750	742	735	729	726	767	764	763	764	766	769	773	777	780	784	788	794	798	
All Births	1,489	1,501	1,480	1,561	1,544	1,527	1,513	1,502	1,495	1,581	1,575	1,571	1,571	1,573	1,574	1,578	1,585	1,592	1,601	1,607	1,615	1,622	
TFR	1.85	1.83	1.80	1.89	1.86	1.83	1.81	1.79	1.78	1.88	1.88	1.88	1.89	1.90	1.91	1.92	1.92	1.93	1.94	1.94	1.95	1.95	
Births input																							
Deaths																							
Male	409	424	363	355	349	344	340	336	333	330	328	326	325	324	323	324	324	325	325	326	326	326	
Female	353	376	335	341	346	350	353	355	357	359	360	361	362	362	362	362	361	360	359	358	358	357	
All deaths	762	800	698	696	695	694	692	691	690	689	688	687	686	686	685	685	684	684	684	684	683	683	
SMR: males	87.0	89.0	76.5	74.7	73.2	71.6	70.2	68.7	67.4	66.0	64.7	63.5	62.2	61.0	60.0	59.0	58.1	57.1	56.2	55.2	54.2	53.1	
SMR: females	87.0	89.3	77.0	75.5	74.1	72.7	71.3	69.8	68.5	67.1	65.6	64.2	62.7	61.3	60.0	58.8	57.6	56.4	55.2	54.0	52.9	51.7	
SMR: male & female	87.0	89.1	76.7	75.1	73.6	72.2	70.7	69.3	68.0	66.6	65.2	63.9	62.5	61.1	60.0	58.9	57.6	56.4	55.2	54.0	52.9	51.7	
Expectation of life	81.9	81.7	82.8	82.9	83.1	83.2	83.3	83.5	83.6	83.7	83.8	83.9	84.0	84.1	84.2	84.3	84.4	84.5	84.6	84.7	84.8	84.9	
Deaths input																							
In-migration from the UK																							
Male	1,644	1,681	1,770	1,837	1,838	1,876	1,985	2,042	2,037	2,050	2,087	2,117	2,144	2,132	2,153	2,261	2,259	2,312	2,252	2,284	2,313	2,302	
Female	1,826	1,733	1,819	1,879	1,871	1,898	1,994	2,036	2,022	2,023	2,055	2,090	2,113	2,088	2,102	2,202	2,202	2,257	2,200	2,230	2,258	2,241	
All	3,470	3,414	3,589	3,716	3,709	3,774	3,979	4,078	4,059	4,073	4,142	4,207	4,257	4,220	4,255	4,463	4,461	4,569	4,452	4,514	4,571	4,543	
SMigR: males	27.8	28.1	29.6	30.5	30.4	31.0	32.7	33.6	33.3	33.5	33.9	34.3	34.6	34.2	34.4	35.9	35.5	35.9	34.6	34.8	34.9	34.4	
SMigR: females	30.6	28.6	30.0	31.0	30.9	31.3	33.0	33.6	33.3	33.3	33.8	34.5	34.8	34.3	34.4	35.9	35.6	36.1	34.9	35.1	35.4	34.8	
Migrants input																							
Out-migration to the UK																							
Male	2,358	2,664	2,716	2,766	2,769	2,822	2,876	2,881	2,938	2,945	3,002	3,008	3,014	3,072	3,078	3,081	3,084	3,137	3,140	3,193	3,192	3,191	
Female	2,572	2,736	2,784	2,834	2,831	2,878	2,924	2,919	2,962	2,955	2,998	2,992	2,986	3,028	3,022	3,019	3,016	3,063	3,060	3,107	3,108	3,109	
All	4,930	5,400	5,500	5,600	5,600	5,700	5,800	5,800	5,900	5,900	6,000	6,000	6,000	6,100	6,100	6,100	6,200	6,200	6,300	6,300	6,300	6,300	
SMigR: males	39.9	44.6	45.3	46.0	45.9	46.6	47.4	47.3	48.1	48.0	48.8	48.8	48.6	49.3	49.1	48.9	48.5	48.7	48.3	48.6	48.2	47.7	
SMigR: females	43.1	45.2	46.0	46.8	46.7	47.5	48.3	48.2	48.8	48.7	49.4	49.4	49.2	49.7	49.5	49.2	48.8	49.0	48.5	49.0	48.7	48.4	
Migrants input																							
In-migration from Overseas																							
Male	1,146	1,140	1,141	1,142	1,144	1,146	1,149	1,151	1,153	1,155	1,157	1,159	1,161	1,162	1,164	1,166	1,168	1,170	1,173	1,175	1,177	1,179	
Female	1,154	1,160	1,159	1,158	1,156	1,154	1,151	1,149	1,147	1,145	1,143	1,141	1,139	1,138	1,136	1,134	1,132	1,130	1,127	1,125	1,123	1,121	
All	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	
SMigR: males	272.9	269.5	269.1	268.4	267.7	267.0	267.6	267.4	267.3	267.3	267.7	267.6	266.9	266.6	266.0	264.1	261.9	259.4	257.1	254.9	252.3	252.3	
SMigR: females	272.9	269.5	269.1	268.4	267.7	267.5	267.6	267.4	267.2	267.3	267.3	267.7	267.6	266.9	266.6	266.0	264.1	261.9	259.4	257.1	254.9	252.3	
Migrants input																							
Out-migration to Overseas																							
Male	249	297	298	298	298	299	300	300	301	301	302	302	303	303	304	304	305	305	306	306	307	307	
Female	251	303	302	302	302	301	300	300	299	299	298	298	297	297	296	296	295	295	294	294	293	293	
All	500	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	
SMigR: males	59.3	70.3	70.2	70.0	69.8	69.8	69.8	69.8	69.7	69.7	69.7	69.8	69.8	69.8	69.6	69.6	69.4	68.9	68.3	67.7	67.1	66.5	
SMigR: females	59.3	70.3	70.2	70.0	69.8	69.8	69.8	69.8	69.7	69.7	69.7	69.8	69.8	69.8	69.6	69.6	69.4	68.9	68.3	67.7	67.1	66.5	
Migrants input																							
Migration - Net Flows																							
UK	-1,460	-1,986	-1,911	-1,884	-1,891	-1,926	-1,821	-1,722	-1,841	-1,827	-1,858	-1,793	-1,743	-1,880	-1,845	-1,636	-1,639	-1,631	-1,748	-1,786	-1,729	-1,757	
Overseas	+1,800	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	+1,700	
Summary of population change																							
Natural change	+727	+702	+782	+864	+849	+834	+821	+811	+805	+802	+887	+884	+884	+887	+889	+893	+900	+908	+917	+924	+931	+939	
Net migration	+340	+286	+211	+184	+191	+126	+121	+122	+141	+127	+158	+93	+43	+180	+145	+64	+61	+69	+48	+86	+29	+57	
Net change	+1,067	+415	+570	+680	+658	+608	+700	+789	+664	+765	+728	+791	+842	+707	+744	+957	+961	+976	+869	+838	+902	+882	

Change 2010-31

-32,384

+30,600

Change 2010-31

+867

-103

+764

Summary of Population estimates/forecasts

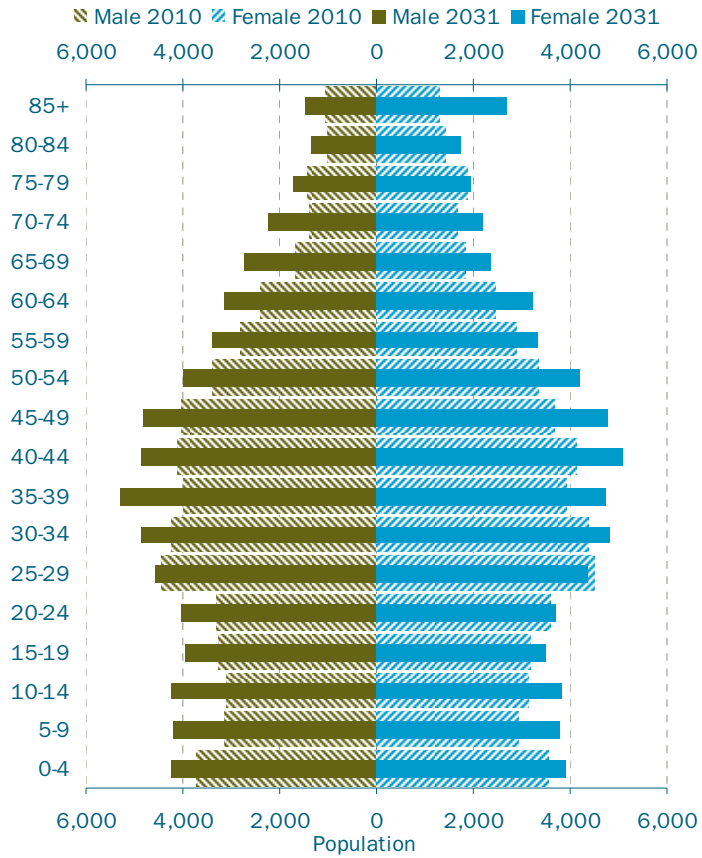
	Population at mid-year																						
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	6,967	7,261	7,292	7,312	7,251	7,243	7,244	7,260	7,290	7,228	7,269	7,316	7,376	7,448	7,520	7,517	7,536	7,561	7,590	7,616	7,640	7,670	7,701
5-10	7,313	7,370	7,442	7,568	7,988	8,176	8,301	8,403	8,447	8,552	8,481	8,464	8,468	8,487	8,509	8,537	8,588	8,651	8,727	8,803	8,887	8,893	8,905
11-15	6,246	6,223	6,295	6,241	6,100	6,153	6,188	6,228	6,364	6,637	6,911	7,077	7,211	7,277	7,314	7,261	7,277	7,304	7,341	7,380	7,329	7,376	7,431
16-17	2,700	2,566	2,433	2,380	2,346	2,369	2,431	2,404	2,236	2,274	2,467	2,516	2,579	2,633	2,806	2,903	2,818	2,780	2,746	2,809	2,873	2,849	
18-59Female, 64Male	65,061	65,846	66,164	66,394	66,648	66,873	67,148	67,396	67,821	68,138	68,392	68,502	68,773	69,142	69,403	69,680	70,147	70,737	71,186	71,497	71,748	72,050	72,465
60/65-74	8,992	8,989	9,106	9,267	9,553	9,776	9,895	10,095	10,242	10,333	10,429	10,545	10,692	10,589	10,608	10,744	10,929	11,054	11,204	11,588	11,848	12,119	12,282
75-84	5,750	5,765	5,668	5,592	5,526	5,439	5,361	5,296	5,138	5,135	5,184	5,241	5,327	5,661	5,870	6,026	6,096	6,258	6,389	6,436	6,520	6,590	

Appendix 4 Population Pyramids

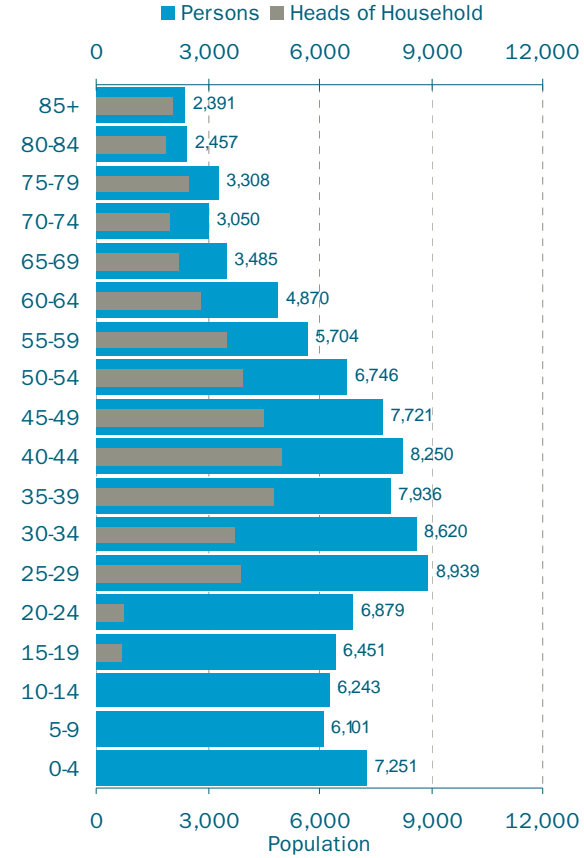
Scenario A. Baseline

Age	2010			2031		
	Male 2010	Female 2010	Persons	Male 2031	Female 2031	Persons
0-4	3,704	3,548	7,251	4,238	3,920	8,158
5-9	3,150	2,951	6,101	4,211	3,814	8,025
10-14	3,103	3,140	6,243	4,257	3,853	8,110
15-19	3,267	3,185	6,451	3,947	3,518	7,466
20-24	3,289	3,590	6,879	4,035	3,727	7,761
25-29	4,453	4,486	8,939	4,568	4,381	8,948
30-34	4,263	4,357	8,620	4,845	4,834	9,678
35-39	4,020	3,915	7,936	5,315	4,747	10,062
40-44	4,128	4,121	8,250	4,857	5,090	9,947
45-49	4,052	3,669	7,721	4,798	4,788	9,586
50-54	3,398	3,348	6,746	3,996	4,202	8,199
55-59	2,808	2,896	5,704	3,390	3,359	6,749
60-64	2,416	2,454	4,870	3,131	3,222	6,353
65-69	1,667	1,818	3,485	2,752	2,381	5,134
70-74	1,394	1,656	3,050	2,264	2,198	4,462
75-79	1,415	1,893	3,308	1,710	1,963	3,673
80-84	1,024	1,433	2,457	1,363	1,761	3,124
85+	1,081	1,309	2,391	1,481	2,694	4,175
Total	52,632	53,768	106,400	65,159	64,450	129,609

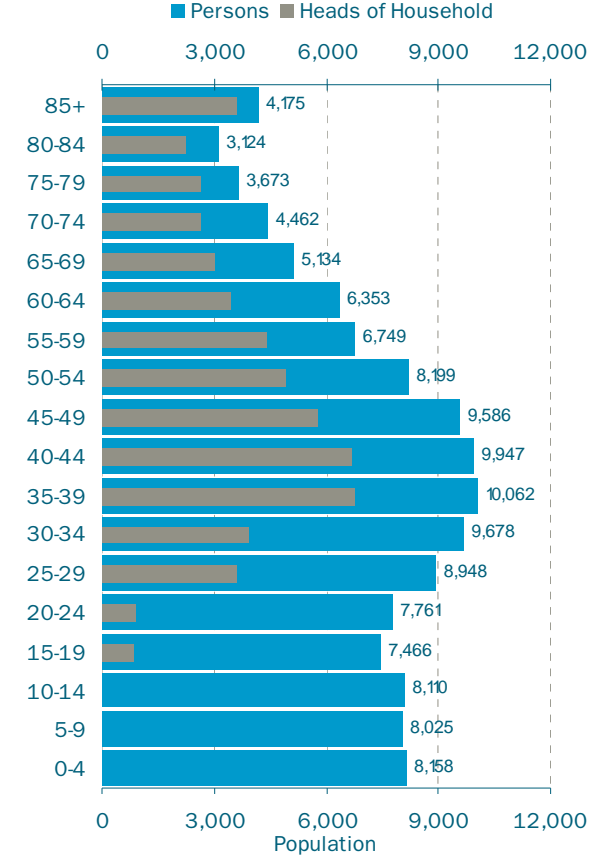
Demographic Profile



2010 Demographic and Household Profile



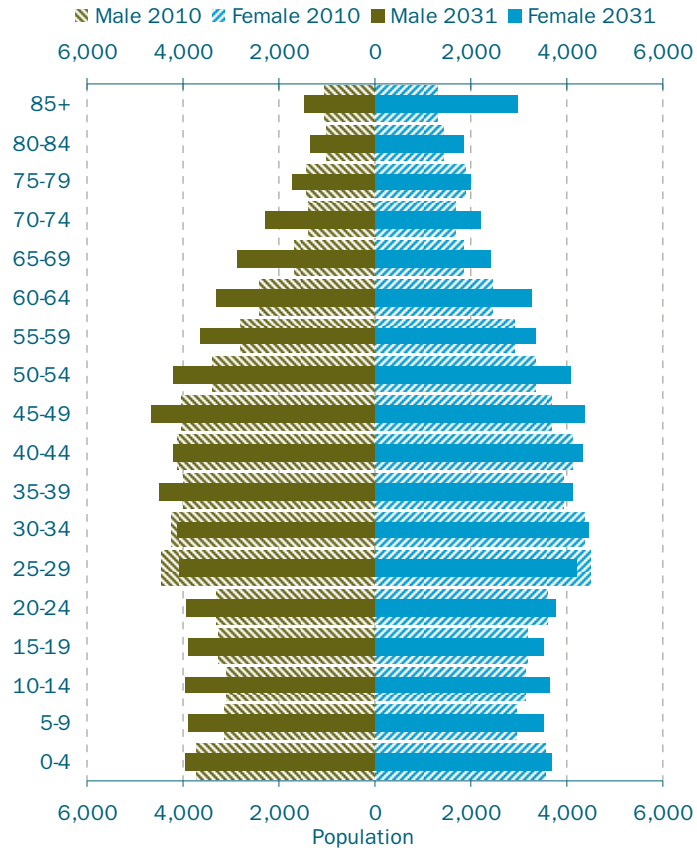
2031 Demographic and Household Profile



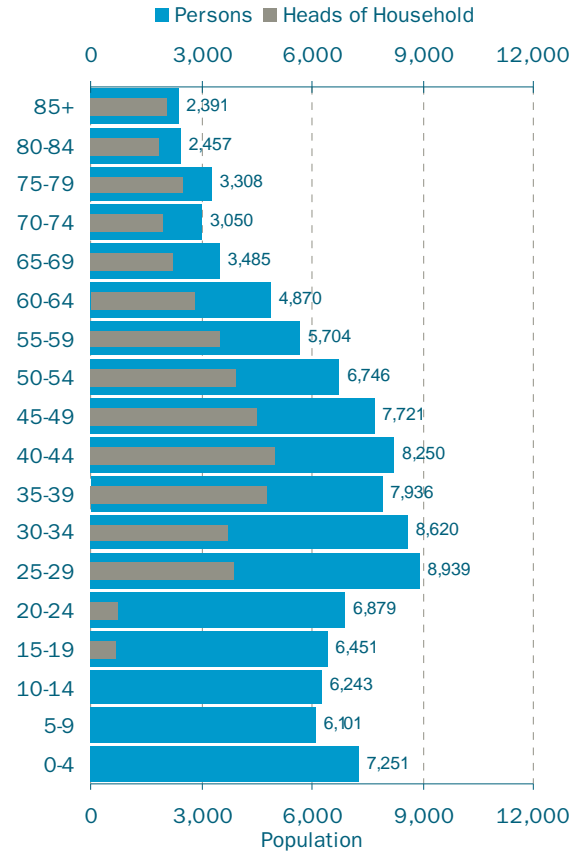
Scenario B. Zero Net Migration

Age	2010			2031		
	Male 2010	Female 2010	Persons	Male 2031	Female 2031	Persons
0-4	3,704	3,548	7,251	3,958	3,671	7,629
5-9	3,150	2,951	6,101	3,868	3,526	7,394
10-14	3,103	3,140	6,243	3,979	3,633	7,612
15-19	3,267	3,185	6,451	3,892	3,508	7,400
20-24	3,289	3,590	6,879	3,933	3,763	7,696
25-29	4,453	4,486	8,939	4,069	4,216	8,285
30-34	4,263	4,357	8,620	4,112	4,444	8,556
35-39	4,020	3,915	7,936	4,477	4,141	8,618
40-44	4,128	4,121	8,250	4,202	4,347	8,548
45-49	4,052	3,669	7,721	4,636	4,355	8,991
50-54	3,398	3,348	6,746	4,203	4,074	8,277
55-59	2,808	2,896	5,704	3,623	3,349	6,972
60-64	2,416	2,454	4,870	3,318	3,265	6,583
65-69	1,667	1,818	3,485	2,868	2,416	5,284
70-74	1,394	1,656	3,050	2,304	2,205	4,510
75-79	1,415	1,893	3,308	1,706	1,980	3,687
80-84	1,024	1,433	2,457	1,351	1,825	3,176
85+	1,081	1,309	2,391	1,477	2,971	4,448
Total	52,632	53,768	106,400	61,977	61,690	123,667

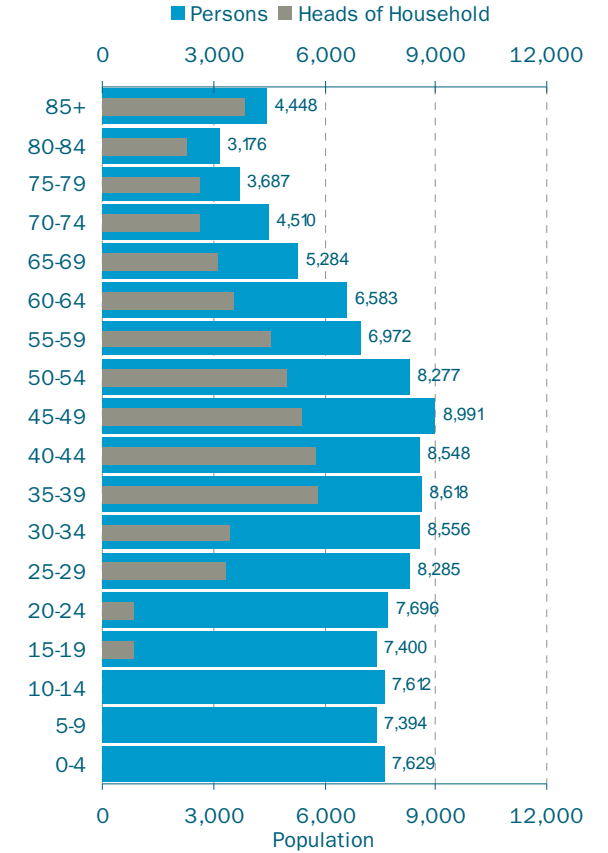
Demographic Profile



2010 Demographic and Household Profile



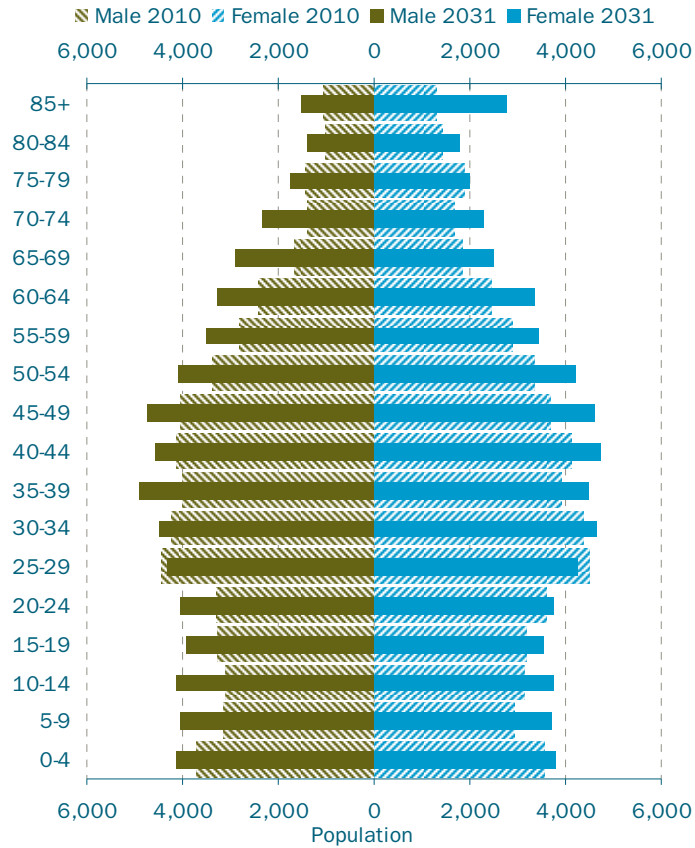
2031 Demographic and Household Profile



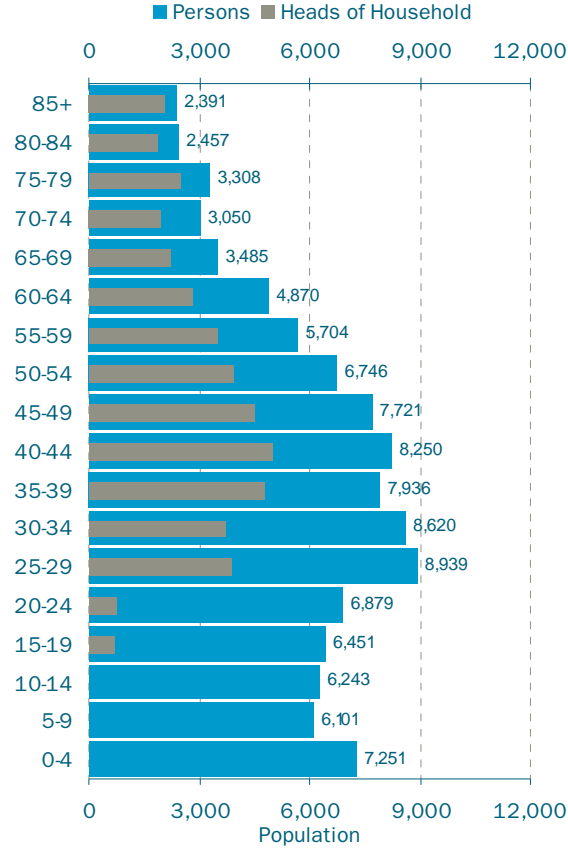
Scenario C. Long Term Past Migration Trends

Age	2010			2031		
	Male 2010	Female 2010	Persons	Male 2031	Female 2031	Persons
0-4	3,704	3,548	7,251	4,109	3,815	7,925
5-9	3,150	2,951	6,101	4,052	3,697	7,749
10-14	3,103	3,140	6,243	4,106	3,744	7,850
15-19	3,267	3,185	6,451	3,930	3,536	7,466
20-24	3,289	3,590	6,879	4,022	3,763	7,785
25-29	4,453	4,486	8,939	4,331	4,251	8,582
30-34	4,263	4,357	8,620	4,493	4,635	9,128
35-39	4,020	3,915	7,936	4,900	4,469	9,370
40-44	4,128	4,121	8,250	4,552	4,751	9,303
45-49	4,052	3,669	7,721	4,755	4,622	9,377
50-54	3,398	3,348	6,746	4,097	4,186	8,283
55-59	2,808	2,896	5,704	3,507	3,410	6,917
60-64	2,416	2,454	4,870	3,280	3,342	6,622
65-69	1,667	1,818	3,485	2,894	2,499	5,393
70-74	1,394	1,656	3,050	2,341	2,270	4,611
75-79	1,415	1,893	3,308	1,749	2,006	3,756
80-84	1,024	1,433	2,457	1,391	1,796	3,187
85+	1,081	1,309	2,391	1,527	2,788	4,315
Total	52,632	53,768	106,400	64,037	63,582	127,619

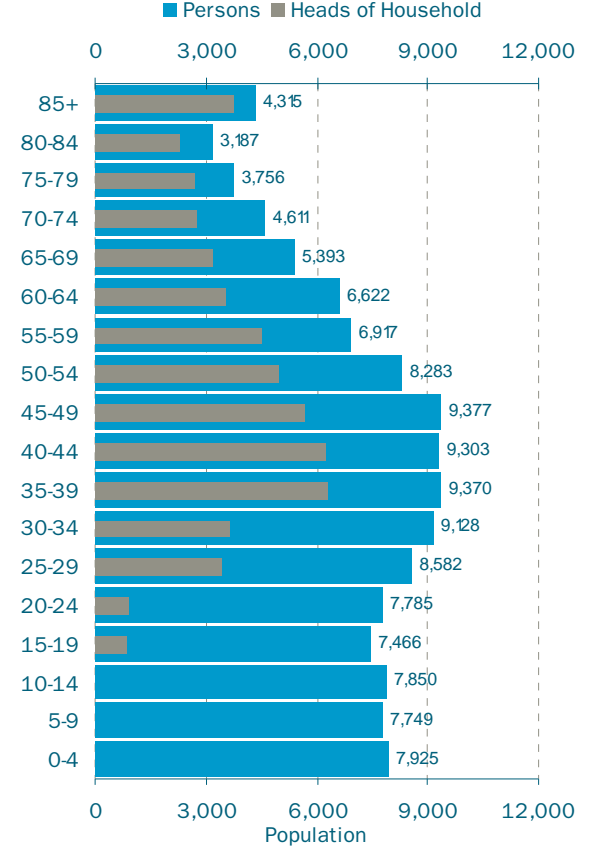
Demographic Profile



2010 Demographic and Household Profile



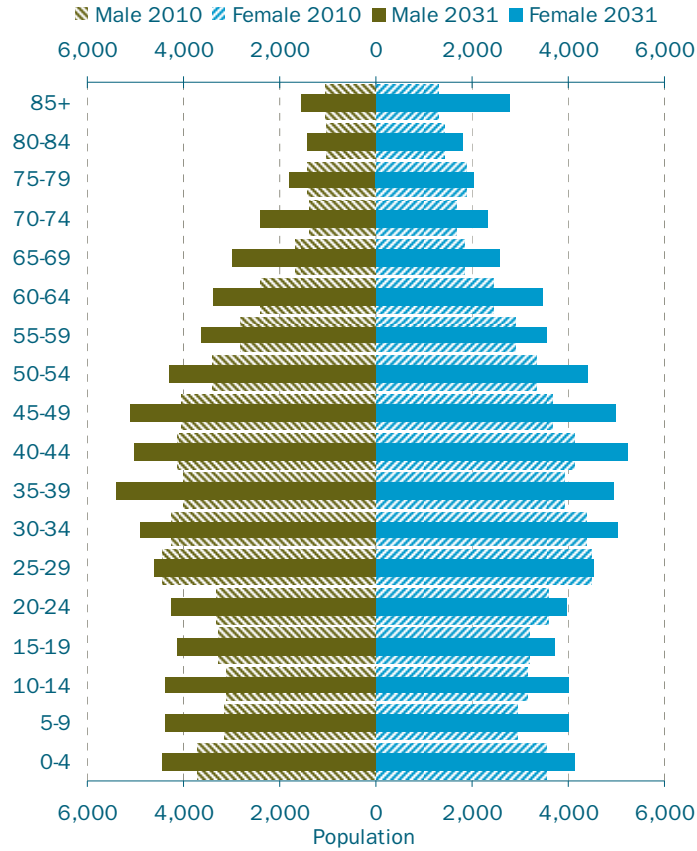
2031 Demographic and Household Profile



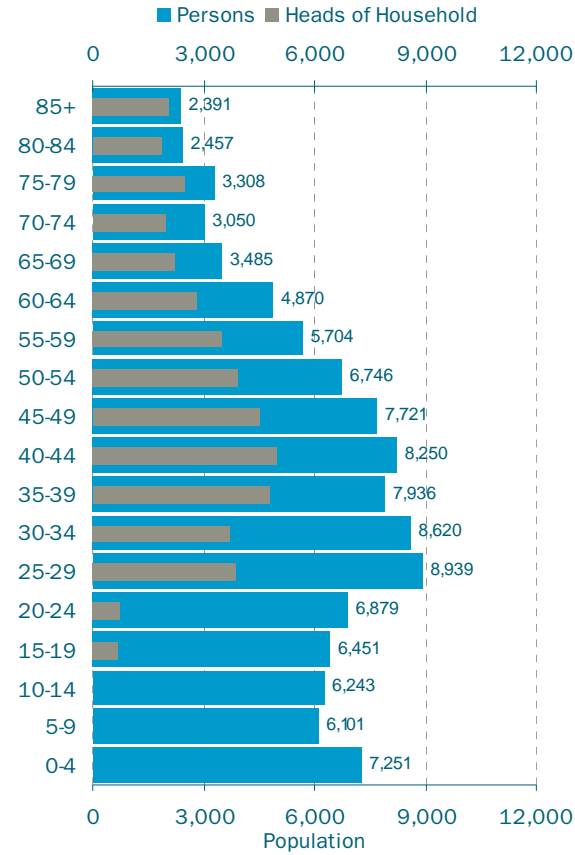
Scenario D. Short Term Past Migration Trends

Age	2010			2031		
	Male 2010	Female 2010	Persons	Male 2031	Female 2031	Persons
0-4	3,704	3,548	7,251	4,431	4,119	8,549
5-9	3,150	2,951	6,101	4,381	4,007	8,388
10-14	3,103	3,140	6,243	4,387	4,008	8,395
15-19	3,267	3,185	6,451	4,131	3,725	7,856
20-24	3,289	3,590	6,879	4,228	3,952	8,180
25-29	4,453	4,486	8,939	4,626	4,513	9,139
30-34	4,263	4,357	8,620	4,878	5,026	9,903
35-39	4,020	3,915	7,936	5,390	4,937	10,327
40-44	4,128	4,121	8,250	5,011	5,245	10,255
45-49	4,052	3,669	7,721	5,103	4,968	10,070
50-54	3,398	3,348	6,746	4,284	4,388	8,672
55-59	2,808	2,896	5,704	3,621	3,535	7,156
60-64	2,416	2,454	4,870	3,384	3,462	6,846
65-69	1,667	1,818	3,485	2,988	2,591	5,578
70-74	1,394	1,656	3,050	2,402	2,333	4,735
75-79	1,415	1,893	3,308	1,787	2,043	3,829
80-84	1,024	1,433	2,457	1,418	1,811	3,229
85+	1,081	1,309	2,391	1,558	2,791	4,349
Total	52,632	53,768	106,400	68,006	67,451	135,457

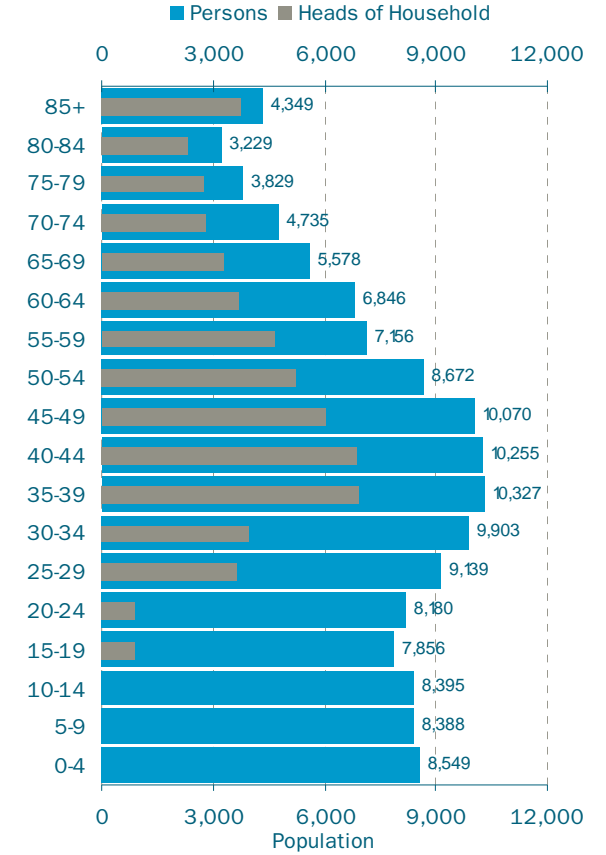
Demographic Profile



2010 Demographic and Household Profile



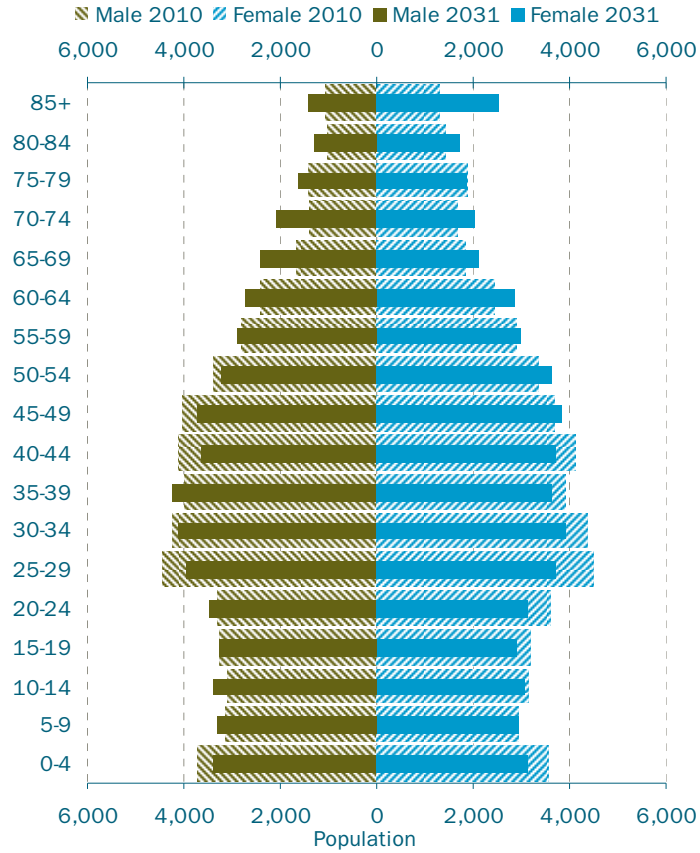
2031 Demographic and Household Profile



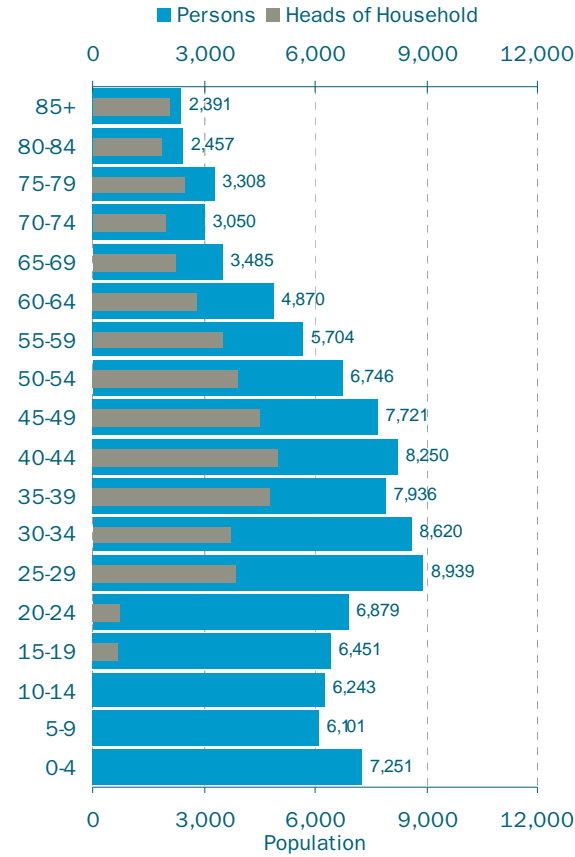
Scenario E. Static Employment

Age	2010			2031		
	Male 2010	Female 2010	Persons	Male 2031	Female 2031	Persons
0-4	3,704	3,548	7,251	3,401	3,131	6,532
5-9	3,150	2,951	6,101	3,298	2,959	6,257
10-14	3,103	3,140	6,243	3,393	3,044	6,436
15-19	3,267	3,185	6,451	3,281	2,893	6,174
20-24	3,289	3,590	6,879	3,477	3,160	6,637
25-29	4,453	4,486	8,939	3,976	3,707	7,683
30-34	4,263	4,357	8,620	4,122	3,919	8,040
35-39	4,020	3,915	7,936	4,260	3,614	7,874
40-44	4,128	4,121	8,250	3,652	3,734	7,386
45-49	4,052	3,669	7,721	3,710	3,847	7,557
50-54	3,398	3,348	6,746	3,231	3,632	6,863
55-59	2,808	2,896	5,704	2,888	2,980	5,867
60-64	2,416	2,454	4,870	2,719	2,849	5,568
65-69	1,667	1,818	3,485	2,410	2,126	4,536
70-74	1,394	1,656	3,050	2,064	2,047	4,112
75-79	1,415	1,893	3,308	1,633	1,882	3,515
80-84	1,024	1,433	2,457	1,325	1,711	3,036
85+	1,081	1,309	2,391	1,418	2,511	3,929
Total	52,632	53,768	106,400	54,256	53,745	108,001

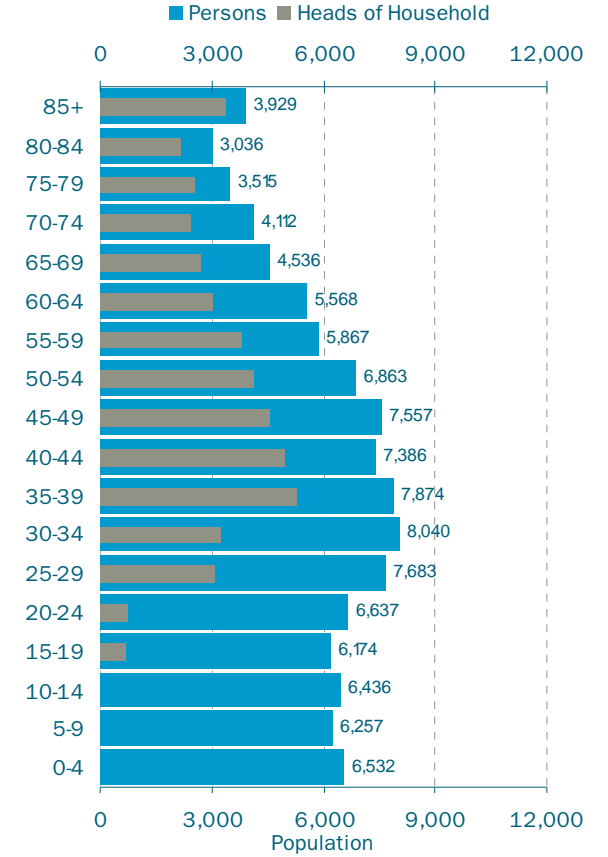
Demographic Profile



2010 Demographic and Household Profile



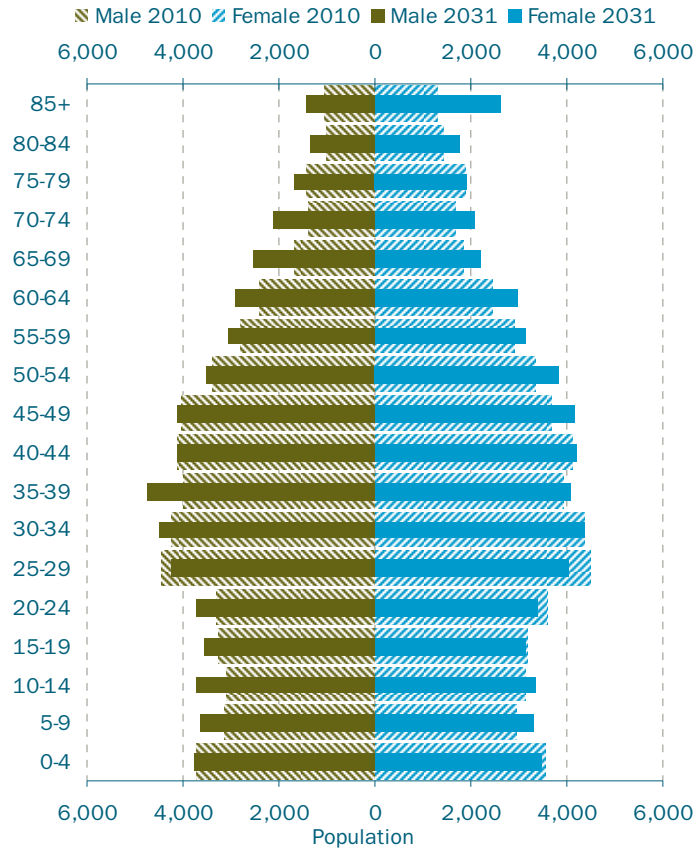
2031 Demographic and Household Profile



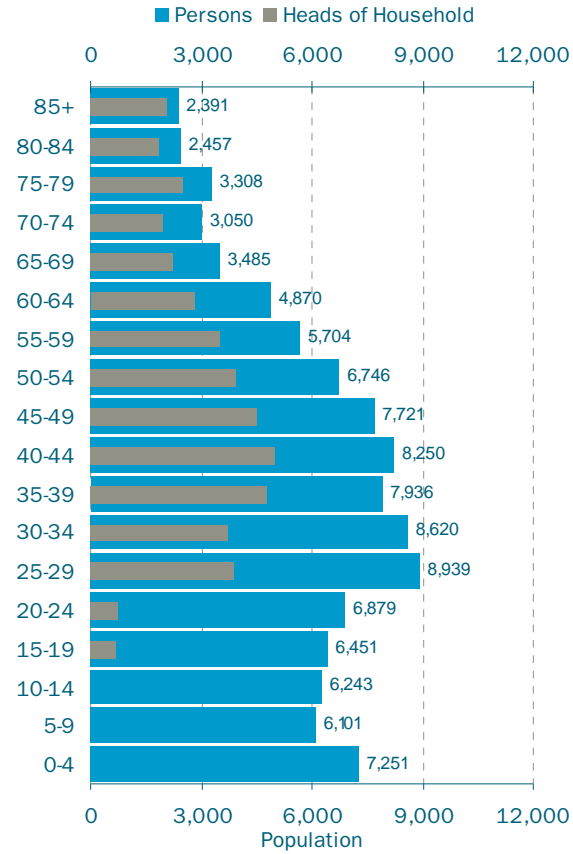
Scenario F. ELR 'Hybrid' Economic Growth

Age	2010			2031		
	Male 2010	Female 2010	Persons	Male 2031	Female 2031	Persons
0-4	3,704	3,548	7,251	3,759	3,468	7,227
5-9	3,150	2,951	6,101	3,647	3,286	6,933
10-14	3,103	3,140	6,243	3,704	3,335	7,039
15-19	3,267	3,185	6,451	3,531	3,127	6,658
20-24	3,289	3,590	6,879	3,717	3,407	7,124
25-29	4,453	4,486	8,939	4,262	4,042	8,304
30-34	4,263	4,357	8,620	4,473	4,355	8,828
35-39	4,020	3,915	7,936	4,727	4,076	8,803
40-44	4,128	4,121	8,250	4,112	4,200	8,312
45-49	4,052	3,669	7,721	4,108	4,173	8,281
50-54	3,398	3,348	6,746	3,506	3,844	7,350
55-59	2,808	2,896	5,704	3,078	3,127	6,204
60-64	2,416	2,454	4,870	2,879	2,993	5,871
65-69	1,667	1,818	3,485	2,533	2,219	4,752
70-74	1,394	1,656	3,050	2,128	2,097	4,226
75-79	1,415	1,893	3,308	1,657	1,910	3,566
80-84	1,024	1,433	2,457	1,340	1,738	3,078
85+	1,081	1,309	2,391	1,442	2,597	4,039
Total	52,632	53,768	106,400	58,605	57,993	116,597

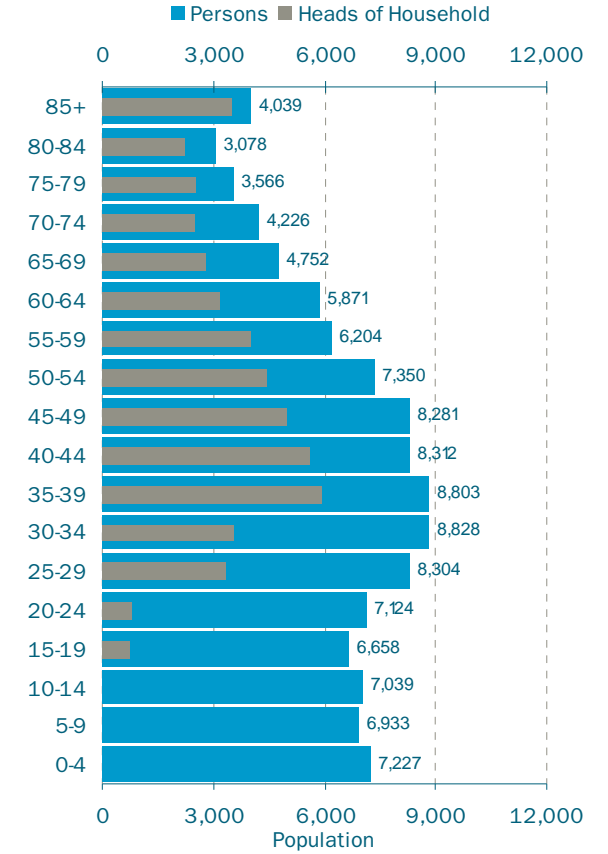
Demographic Profile



2010 Demographic and Household Profile



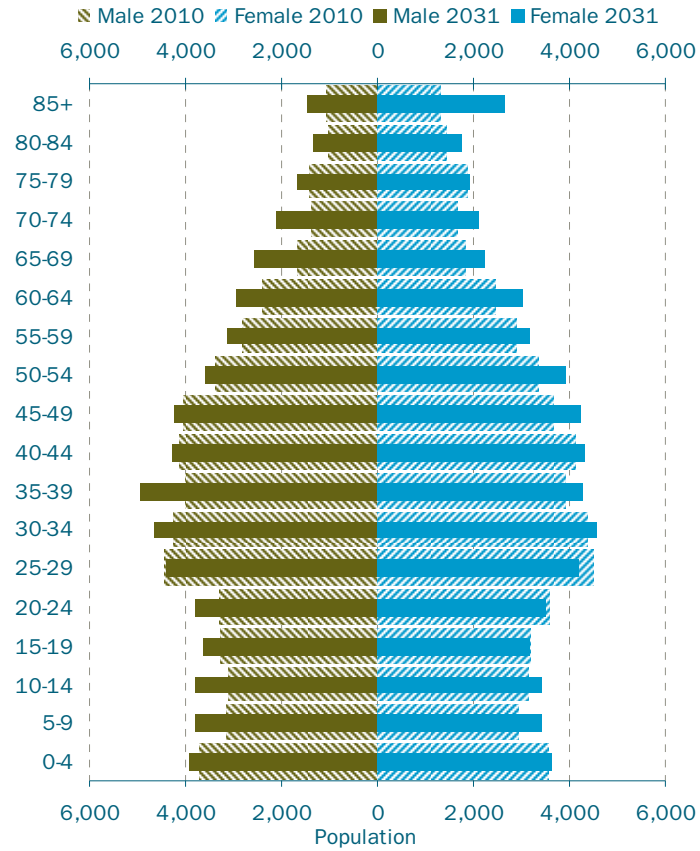
2031 Demographic and Household Profile



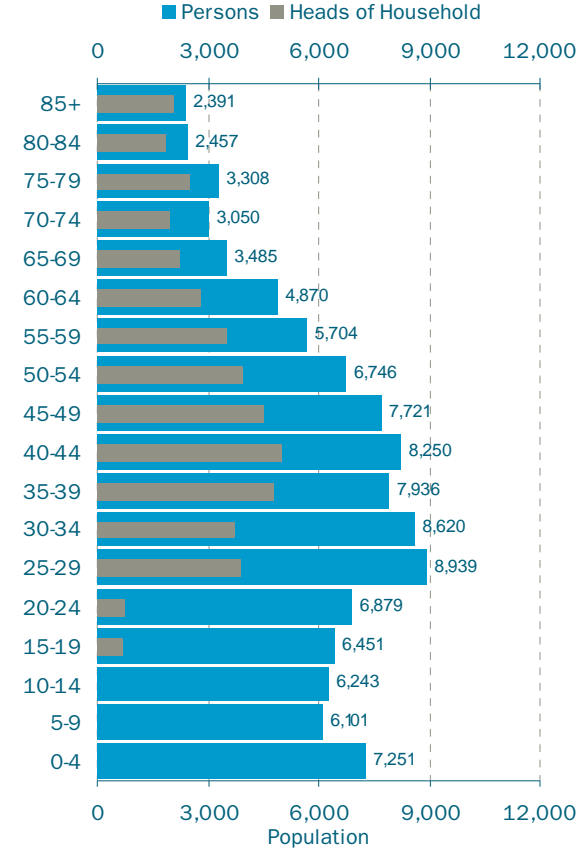
Scenario G. ELR 'Hybrid' Growth + Strategic Employment Site

Age	2010			2031		
	Male 2010	Female 2010	Persons	Male 2031	Female 2031	Persons
0-4	3,704	3,548	7,251	3,921	3,620	7,541
5-9	3,150	2,951	6,101	3,785	3,415	7,199
10-14	3,103	3,140	6,243	3,802	3,428	7,230
15-19	3,267	3,185	6,451	3,613	3,203	6,816
20-24	3,289	3,590	6,879	3,815	3,510	7,325
25-29	4,453	4,486	8,939	4,393	4,201	8,595
30-34	4,263	4,357	8,620	4,651	4,578	9,229
35-39	4,020	3,915	7,936	4,953	4,289	9,242
40-44	4,128	4,121	8,250	4,289	4,344	8,633
45-49	4,052	3,669	7,721	4,248	4,263	8,511
50-54	3,398	3,348	6,746	3,590	3,910	7,499
55-59	2,808	2,896	5,704	3,138	3,177	6,315
60-64	2,416	2,454	4,870	2,935	3,039	5,974
65-69	1,667	1,818	3,485	2,570	2,245	4,815
70-74	1,394	1,656	3,050	2,139	2,107	4,247
75-79	1,415	1,893	3,308	1,659	1,914	3,573
80-84	1,024	1,433	2,457	1,345	1,750	3,095
85+	1,081	1,309	2,391	1,450	2,636	4,085
Total	52,632	53,768	106,400	60,294	59,631	119,925

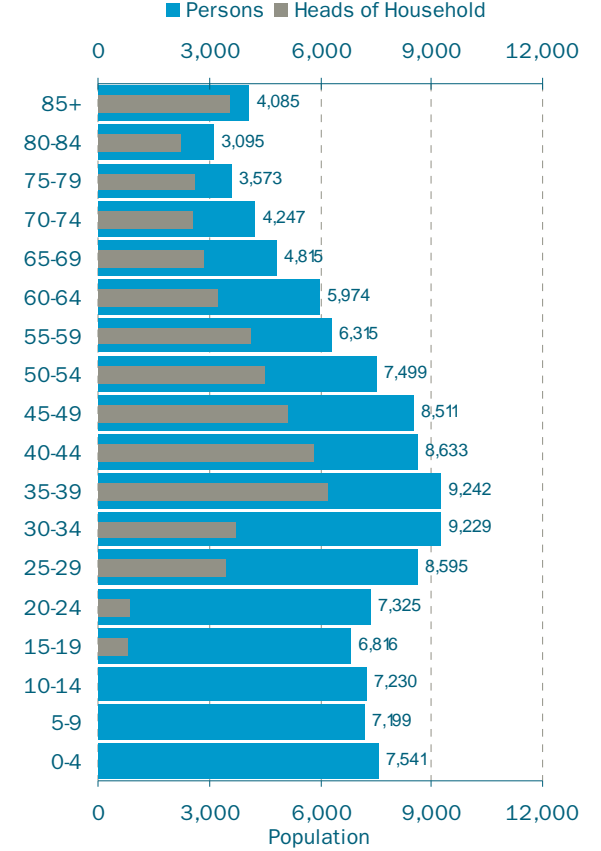
Demographic Profile



2010 Demographic and Household Profile



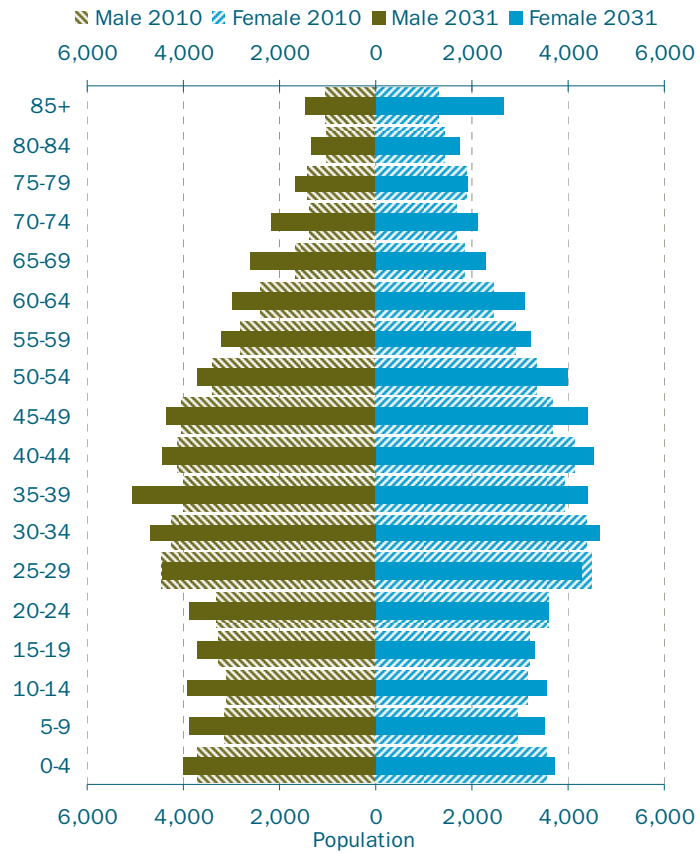
2031 Demographic and Household Profile



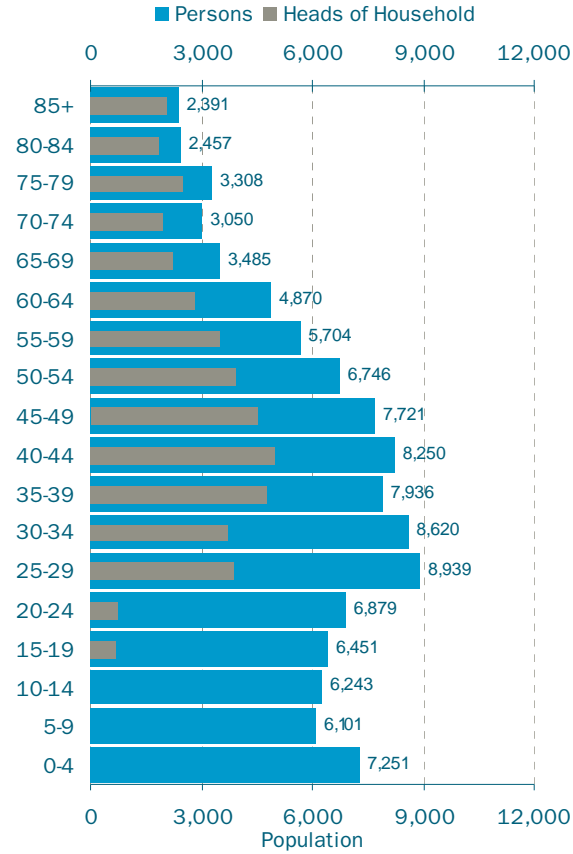
Scenario H. ELR 'Hybrid' Economic Growth (0.4% p.a.) Nil Additional In-Commuting

Age	2010			2031		
	Male 2010	Female 2010	Persons	Male 2031	Female 2031	Persons
0-4	3,704	3,548	7,251	4,003	3,698	7,701
5-9	3,150	2,951	6,101	3,889	3,512	7,401
10-14	3,103	3,140	6,243	3,919	3,537	7,456
15-19	3,267	3,185	6,451	3,700	3,286	6,986
20-24	3,289	3,590	6,879	3,876	3,572	7,448
25-29	4,453	4,486	8,939	4,452	4,267	8,719
30-34	4,263	4,357	8,620	4,709	4,651	9,360
35-39	4,020	3,915	7,936	5,046	4,397	9,443
40-44	4,128	4,121	8,250	4,433	4,529	8,962
45-49	4,052	3,669	7,721	4,384	4,398	8,781
50-54	3,398	3,348	6,746	3,694	3,986	7,680
55-59	2,808	2,896	5,704	3,205	3,224	6,429
60-64	2,416	2,454	4,870	2,985	3,086	6,071
65-69	1,667	1,818	3,485	2,615	2,279	4,894
70-74	1,394	1,656	3,050	2,171	2,130	4,301
75-79	1,415	1,893	3,308	1,673	1,928	3,600
80-84	1,024	1,433	2,457	1,349	1,755	3,104
85+	1,081	1,309	2,391	1,458	2,652	4,110
Total	52,632	53,768	106,400	61,562	60,886	122,447

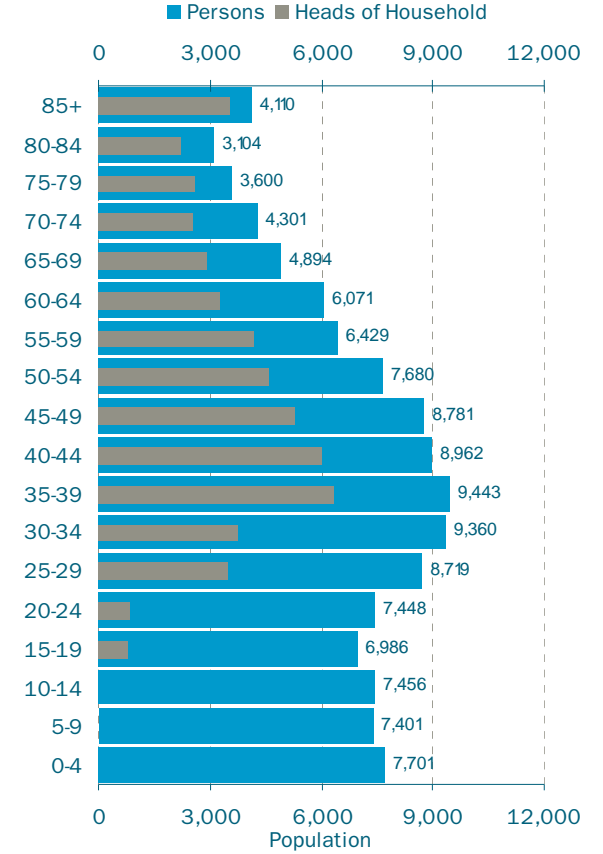
Demographic Profile

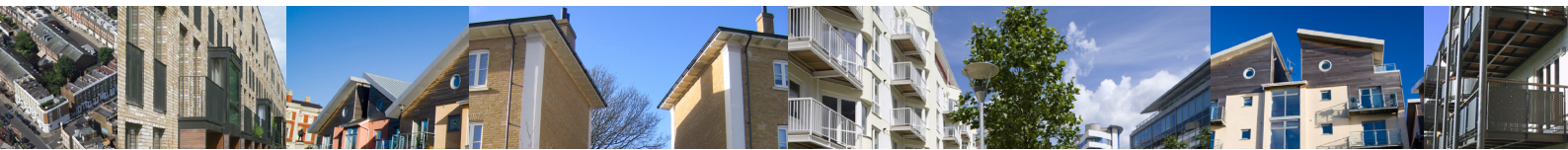


2010 Demographic and Household Profile



2031 Demographic and Household Profile





Nathaniel Lichfield
& Partners

Planning. Design. Economics.

Nathaniel Lichfield & Partners
14 Regent's Wharf
All Saints Street
London
N1 9RL

020 7837 4477 / london@nlppanning.com

nlppanning.com