

#### City of Bradford MDC Local Plan

# **Objective Assessment of Housing Need**

Commercial Estates Group, Persimmon Homes, Redrow Homes

17 February 2015

50335/02/JG/SC

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#### Introduction

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Nathaniel Lichfield & Partners [NLP] has been instructed by CEG Land Promotions Ltd [CEG], Persimmon Homes and Redrow Homes to review the evidence underpinning the housing requirement set out in Policy HO1 of the Publication Draft Bradford Local Plan Core Strategy [BLPCS] and to undertake a set of independently-modelled demographic and employment-led projections, taking account of market signals in order to identify the FOAN for Bradford.

This report, which sets out the results of NLP's analysis, is intended to assist the Inspector in his consideration of the robustness of the BLPCS. It focuses particularly upon the identified Key Issue relating to Examination Matter 4a: Housing Requirement:

"Has the Council undertaken its objective assessment of housing need in line with the latest national guidance and good practice (NPPF/PPG)?"

## **Bradford Local Plan Core Strategy**

The Bradford Local Plan Core Strategy Publication Draft was submitted for Independent Examination on 12 December 2014 and the hearings are due to commence in March 2015. The Plan covers the period between 2004 and 2030 and Policy Ho1 states that the Council is currently planning for the delivery of 42,100 new homes between 2013 and 2030.

#### **Context for Assessment**

The Government's policy approach to planning has been focused on applying the principles of 'localism' to give Local Planning Authorities (LPAs) greater autonomy in planning for housing and, in particular, setting local housing requirements in their development plans.

The National Planning Policy Framework (NPPF) outlines the approach to plan-making whereby LPAs are responsible for establishing housing requirement figures in new Local Plans. Paragraph 47 states that:

"To boost significantly the supply of housing, local planning authorities should:

- use their evidence base to ensure that their Local Plan meets the full, objectively assessed needs for market and affordable housing in the housing market area..."

The NPPF provides the context against which housing requirements in Local Plans should be prepared. In his statement to Parliament on 6 September 2012, the Secretary of State confirmed that:

"The Localism Act has put the power to plan back in the hands of communities, but with this power comes responsibility: a responsibility to meet their needs

for development and growth, and to deal quickly and effectively with proposals that will deliver homes, jobs and facilities".

The NPPF is supplemented by the Planning Practice Guidance (PPG) which was published as an online tool in March 2014. The PPG provides an overarching framework for considering housing needs, but also acknowledges that:

"There is no one methodological approach or use of a particular dataset(s) that will provide a definitive assessment of development need" (ID 2a-005-20140306).

As such, whilst the NPPF and PPG provide a broad structure of the key considerations, there is no one commonly agreed or singularly prescribed approach for LPAs and other bodies to follow in objectively assessing the need for housing and setting their local housing requirements.

#### **HEaDROOM Framework**

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In response to the need to structure the approach to setting local housing requirements NLP developed an analytical framework for defining an objective assessment of need and the quantum of housing that should be planned for through Local and Neighbourhood Plans. The HEaDROOM framework (so-called due to the Housing, Economic and Demographic factors that feed into it) provides the basis for assembling and presenting evidence on local housing requirements in a transparent manner. A central component of the framework is an understanding of the role of housing in ensuring that the future population of a locality can be accommodated (taking account of the dynamics of housing markets and other material factors) and the extent to which housing plays a crucial role in securing the economic growth and housing needs of a local area, meeting the requirements of the NPPF. HEaDROOM therefore closely follows the advice contained within the PPG. This framework, as it relates to the work NLP has been commissioned to carry out in respect of Bradford, is set out in Figure 1.1.

Since its conception in July 2010, the HEaDROOM framework has been applied in over 190 areas across the country. It has been used to underpin evidence tested at appeal and Local Plan Examinations and has previously been endorsed by Inspectors, including in South Worcestershire, Ribble Valley and East Hampshire.

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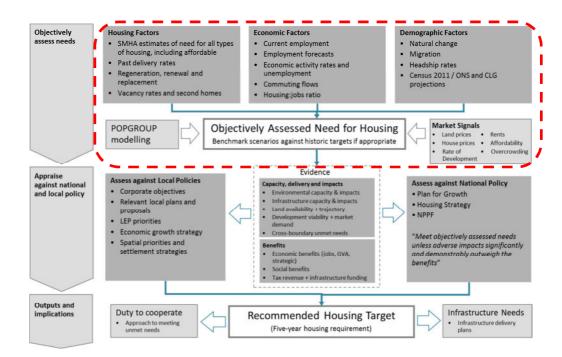


Figure 1.1 NLP HEaDROOM Analytical Framework for Assessing Housing Requirements

In addition to a review of the Council's current evidence, this report presents the findings of each stage of NLP's analysis of demographic, housing and employment factors to present an objective assessment of housing need (OAN) for Bradford. These take the form of a number of scenarios, the basis for which is set out in the relevant sections of the report. By modelling a number of trend and economic change-based scenarios, this report sets out the housing, economic and demographic impacts of different levels of housing growth.

In accordance with the requirements of the NPPF and the PPG, the HEaDROOM framework also gives consideration to market signals in the assessment of housing requirements for individual local authorities.

#### Structure

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1.14 This report is structured as follows:

- Section 2 provides a summary of the policy background relating to the identification of the Objectively Assessed Need for housing;
- Section 3 reviews the approach that has been taken by Bradford Metropolitan District Council and its advisors in establishing its housing requirement;

- Sections 4-7 provides an overview of the approach that has been taken
  to the assessment of housing needs, including an analysis of some of the
  key issues that have been raised by the most recent ONS and CLG data
  releases and sets out NLP's objective assessment of the need for
  housing in Bradford;
- Section 8 considers Market Signals;
- Section 9 brings the evidence together and identifies the FOAN for Bradford; and,
- Section 10 provides relevant conclusions.

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# Approach to Objectively Assessed Need in Bradford

2.1 NLP has adopted a number of scenarios to establish the need for housing in Bradford. This is based on different demographic, economic and housing factors which draw upon an analysis of context, past trends and robust forecasting. The assumptions underpinning the assessment are explained below before the outputs of the PopGroup demographic modelling are discussed and other relevant housing market signals are assessed. This Section therefore summarises a number of background policy issues that are relevant to the identification of an OAN figure for Bradford.

## **Approach to Assessment**

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The NPPF sets out the Government's planning policies for England and is centred around a presumption in favour of sustainable development "which should be seen as a golden thread running through both plan-making and decision-taking" (NPPF Paragraph 14). This requires local planning authorities to positively seek opportunities to meet the development needs of their area. To this end, Local Plans are required to meet objectively assessed needs, with sufficient flexibility to adapt to rapid change.

The NPPF contains a set of core land-use planning principles which underpin plan-making and decision-taking. These include driving and supporting sustainable economic development to deliver homes, business units and thriving local places. In order to achieve this objective, paragraph 17 requires "every effort" to be made to identify and then meet the housing, business and other development needs of the area, and to respond positively to wider opportunities for growth. In seeking to quantify such requirements, consideration is also to be given to market signals, such as land prices and housing affordability. The NPPF contains the overarching principle that Local Plans should be formed through an evidence-based decision making process (paragraph 47). This is further reiterated in the tests of soundness which the NPPF sets for the examination of Local Plans. Local Plans are required to be justified and to constitute the most appropriate strategy based on proportionate evidence. In addition, they should be:

"Positively prepared... based on a strategy which seeks to meet objectively assessed development and infrastructure requirements, including meeting unmet requirements from neighbouring authorities where it is reasonable to do so..." (paragraph 182).

The NPPF outlines the evidence required to underpin a local housing requirement, including the need to assess full housing needs. Paragraph 159 states that LPAs should:

"Prepare a Strategic Housing Market Assessment to assess their full housing needs... identify the scale and mix of housing and the range of tenures that the local population is likely to need 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, including affordable housing...; and,
- Caters for housing demand and the scale of housing supply necessary to meet this demand."

The PPG clarifies the position on how the NPPF should be interpreted and applied. It confirms that an assessment of need must be based upon:

"An identification of relevant market area;

- Facts and unbiased evidence. Plan makers should not apply constraints to the overall assessment of need;
- Up-to-date household projections published by the Department for Communities and Local Government which should provide the starting point estimate of overall housing need; and,
- Local demographic factors, employment trends as well as appropriate market signals including market indicators of the balance between the demand for and supply of dwellings".

Although the PPG notes that demographic trends should be applied as a starting point when assessing the OAN, it goes on to state that consideration should also be given to the likely change in job numbers. This supports the importance that the NPPF places on the economy and the requirement contained within Paragraph 158 to "ensure that their assessment of and strategies for housing, employment and other uses are integrated, and that they take full account of relevant market and economic signals". A failure to take account of economic considerations in the determination of the OAN would be inconsistent with this policy emphasis.

The Inspector at the Fairford Inquiry<sup>1</sup> recognised the role of economic factors in the assessment of the OAN for Cotswold District:

"The Council has not provided a figure for OAN which takes account of employment trends. The Council argues that the advice in the PPG does not require local planning authorities to increase their figure for OAN to reflect employment considerations, but only to consider how the location of new housing or infrastructure development could help address the problems arising from such considerations. I disagree. In my view, the PPG requires employment trends to be reflected in the OAN, as they are likely to affect the need for housing. They are not "policy on" considerations but part of the

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<sup>&</sup>lt;sup>1</sup> Land South of Cirencester Road, Fairford (PINS Ref No: APP/F1610/A/14/2213318) (22 September 2014).

elements that go towards reaching a "policy off" OAN, before the application of policy considerations. There is no evidence that the Council's figures reflect employment considerations" (I.R. Paragraph 19).

This view reflects the position expressed by the Inspector (and confirmed by the Secretary of State) in the Pulley Lane Inquiries in Droitwich Spa<sup>2</sup>. The Inspector's report (which was accepted by the SoS) states that:

"The Council's case that "unvarnished" means arriving at a figure which doesn't take into account migration or economic considerations is neither consistent with the (Gallagher) judgment, nor is it consistent with planning practice for deriving a figure for objectively assessed need to which constraint policies are then applied. Plainly the Council's approach is incorrect. Clearly, where the judgement refers to 'unvarnished' figures (paragraph 29) it means environmental or other policy constraints. There is nothing in the judgement which suggests that it is not perfectly proper to take into account migration, economic considerations, second homes and vacancies". (I.R. Paragraph 8.45)

It is also clear that the approach taken to setting housing requirements must be grounded in the background evidence of need and demand within an area in the first instance, and that any assessment of whether and how the housing need could be met should follow as part of the Plan making process. This was brought into sharp focus in the Gallagher High Court Judgement<sup>3</sup> which reiterates the sequence of actions whereby the full objectively assessed need for housing is identified prior to the establishment of a strategy to meet it, consistent with the NPPF. Importantly, the Judge emphasised that the second element of this process does not affect the objective assessment of need but rather the extent to which that can be met:

"In the context of the first bullet point in paragraph 47, policy matters and other constraining factors qualify, not the full objectively assessed housing needs, but rather the extent to which the authority should meet those needs on the basis of other NPPF policies that may, significantly and demonstrably, outweigh the benefits of such housing provision. It confirms that, in planmaking, full objectively assessed housing needs are not only a material consideration, but a consideration of particular standing with a particular role to play". [§91]

The judgement of Mr Justice Hickinbottom was recently upheld by the Court of Appeal<sup>4</sup>.

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<sup>&</sup>lt;sup>2</sup> Land at Pulley Lane, Newland Road and Primsland Way, Droitwich Spa (APP/H1840/A/13/2199085) and Land north of Pulley Lane, Newland Road and Primsland Way, Droitwich Spa (PINS Ref No: APP/H1840/A/13/2199426) (2 July 2014).

<sup>&</sup>lt;sup>3</sup> '(1) Gallagher Homes Limited and (2) Lioncourt Homes Limited v Solihull Metropolitan Borough Council [2014] EWHC 1283'

<sup>&</sup>lt;sup>4</sup> 'Solihull Metropolitan Borough Council v (1) Gallagher Homes Limited and (2) Lioncourt Homes Limited [2014] EWCA Civ 1610'

In practice, applying the NPPF requires the following key steps in order to arrive at a robustly evidenced housing target:

- a The starting point for Local Plans is to meet the full objectively assessed development needs of an area (NPPF paras 16, 47 and 156).
- b An objective assessment of housing need must be a level of housing delivery which meets the needs associated with population and household growth, addresses the need for all types of housing, including affordable, and caters for housing demand (NPPF para 159).
- c Furthermore, a planned level of housing to meet objectively assessed needs must respond positively to wider opportunities for growth and should take account of market signals, including affordability (NPPF para 17).
- d In choosing a housing requirement which would not meet objectively assessed development needs, it must be evidenced that the adverse impacts of meeting needs would significantly and demonstrably outweigh the benefits, when assessed against the policies within the NPPF (para 14).
- e Where an authority is unable to meet its objectively assessed development needs or it is not the most appropriate strategy to do so, it must be demonstrated under the statutory duty-to-cooperate that the unmet need is to be met in another local authority area in order to fully meet development requirements across the housing market area (NPPF paras 179 and 182 bullet point 1).
- It is against this policy context that the housing requirement for Bradford must be considered, with the key consideration being whether full objectively assessed development needs are to be met for the local authority area and across the wider Housing Market Area. The NPPF and PPG set out a logical process for undertaking a full objective assessment of needs. This approach is summarised in Figure 2.1.

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Sensitivity test for:

Latest data
Local demographic factors

Uplift or adjustment required for:

Market Signals?
Economic/Employment Alignment?
Meeting affordable housing needs?

Concluded Full Objectively
Assessed Needs

Figure 2.1 NPPF and PPG Approach to Objectively Assessing Housing Needs

Source: NLP based upon NPPF/PPG

# A Review and Critique of Bradford's Approach

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## **BMDC's Housing Requirement and Justification**

Table HO1 of the BLPCS identifies that Bradford District's Housing Requirement is 56,140 over the Plan period 2004 to 2030. As 11,053 net completions were achieved over the period 2004-2013, the Table suggests that the outstanding housing requirement over the remainder of the Plan period (2013 to 2030) would be 45,087, including meeting an existing significant backlog, at a rate of 2,652 dpa. The Council's calculations are set out in Table HO1 of the BLPCS, reproduced in Table 3.1.

However, the Council is only seeking to deliver 42,087 dwellings over the Plan period 2013 to 2030, at an average of 2,475 dpa (2,200 dpa excluding backlog). This figure is said to be based upon the housing requirement recommendation of 2,186 dpa set out in the August 2013 'Housing Requirements Study Addendum Report' undertaken by GVA and Edge Analytics, with adjustments made for what the Council consider is a substantial under-provision of dwellings between 2004 and 2013 (-7,687) and an assumption that 3,000 empty homes will be brought back into use.

Table 3.1 Bradford District BLPCS Housing Requirement

Bra	dford District Housing Requirement 2004 to 2030		
Α	Statutory Development Plan Housing Requirement 2004-08	1,560 x 4	6,240
В	Statutory Development Plan Housing Requirement 2008-11	2,700 x 3	8,100
С	Housing requirement Study Based Housing Requirement 2011-13	2,200 x 2	4,400
D	Total Housing Requirement 2004-13	A + B + C	18,740
E	Net Completions 2004-13	(From AMR)	11,053
F	Residual unmet Need 2004-13	D - E	7,687
G	Housing Requirement Study Based Housing Requirement 2013-30	2,200 x 17	37,400
Н	Total Housing Requirement 2004-30	D + G	56,140
Bra	dford District Housing Requirement 2004 to 2030		
1	Net Completions 2004-13	=	11,053
J	Allowance for Reduction in Vacant Homes	=	3,000
K	Remaining Requirement to be Met by Housing Site Allocations	H – I - J	42,087

Source: Bradford City Core Strategy Development Plan Document Publication Draft 2014

The figure of 2,200 dpa is said to be justified on the basis of the evidence contained within GVA and Edge Analytics' "Bradford District Housing Requirement Study - Addendum Report" (August 2013). This wought to model a range of projections incorporating both the demographic-led projections (incorporating the 2011-based interim Sub-National Population Projections

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[SNPP] and the earlier 2010-based SNPP) and an alternative set of employment-led projections, specifically the job growth projections of the April 2012 run of the Regional Econometric Model [REM]. This latter projection suggested a change in FTE employment equal to 27,041 between 2011 and 2028 (1,591 per annum).

The report essentially modelled three alternative approaches to headship rates over the Plan period:

- 1 Use of the higher headship rates from the CLG's 2008-based household projections from 2011-2028 (excluding all reference to the lower 2011-based headship rates to 2021);
- 2 Use of the interim 2011-based household projection headship rates to 2021, but thereafter assumed either:
  - a continuation of the trend projected in the 2011-based interim projections for the period 2011 to 2021, or
  - ii 'freezing' headship rates at projected 2021 levels.
- The Addendum itself conceded that "neither approach is ideal and would in both cases produce theoretical results" [§2.10].
  - Edge Analytics seem to concluded that an appropriate approach would be to split the difference between the lowest scenario (Employment-led REM 2011-based Trend, at 1,807 dpa) and the highest (Employment-led 2008-based REM, at 2,565 dpa). The justification for this is said to be as follows:

"Given the uncertainty over where the real future performance of the economy and housing market might fall in the spectrum between assumptions underlying the 2008 and 2011-based household projections, the LPA may consider that the most prudent approach would be to adopt a housing target which reflects this mid-point figure of 2,186 dpa" [paragraph 4.6].

BMDC's Background Paper: 2 Housing (Part 1) (February 2014) seeks to support the selection of this target as the basis for the District's future housing requirement and claims that it has had regard to the influence of the economy and potential economic growth and has sought to ensure that different parts of the Bradford Core Strategy are consistent. The Council also claims that such an approach assumes that economic and housing market performance over the Plan period improves despite current uncertainty.

# **Bradford Housing Requirement Study Updated Demographic Analysis & Forecasts (September 2014)**

Subsequent to the publication of the Core Strategy, BMDC commissioned Edge Analytics to update the core scenarios within the 2013 Bradford Housing Requirements Study Update.

The purpose of the September 2014 note was to implement the Bradford-specific recommendations of the report by Edge Analytics entitled 'Leeds City Region – Demographic evidence for the objective assessment of housing need within the Leeds City Region' (May 2014).

The 2013 scenarios were updated to take into account economic activity rates and commuting ratios from the 2011 Census, unemployment rates which reflect 'economic recovery' and the most recent (June 2014) employment forecast from the Yorkshire and Humber REM. They also apply the 2012-based SNPP as the new 'official' benchmark scenario (the two 2013 studies had used the re-based 2010-based SNPP). Between 2013/14 and 2030/31, the number of jobs identified by the 2014 REM is forecast to increase by +28,867 (+1,604 annually), which is slightly higher than the +1,591 annual increase in the earlier April 2012 REM [§3.10].

The household growth implications of each scenario were assessed using headship rate assumptions from both the 2011-based (Option A) and 2008-based (Option B) CLG household projections.

Six scenarios were produced under three scenario types: official ONS projections; alternative trend-based scenarios and a jobs-led scenario. The results are reproduced in Table 3.2.

Table 3.2 Edge Analytics September 2014 Scenario Results

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Scenario	Average Annual 2011-2030	Annual Average Job Growth			
Scenario	Option A (2011- based)	Option B (2008- based)	Average	2011-30	
SNPP 2012-based	1,532	2,039	1,785	1,231	
SNPP 2010-based	1,713	2,210	1,962	1,674	
Natural Change	1,951	2,463	2,207	1,500	
PG 5-yr migration	1,942	2,450	2,196	1,682	
PG 10-yr migration	2,041	2,563	2,302	1,934	
Jobs-led REM	1,791	2,307	2,049	1,536	

Source: Tables 3, 4 and 5 of Edge Analytics' 'Bradford Housing Requirement Study Updated Demographic Analysis & Forecasts' (September 2014)

The population growth under the SNPP 2012 based scenario is 11% lower than under the previous 2010-based official projections, which has depressed the housing need accordingly. The two migration-led scenarios are higher than the 2012-based SNPP scenario, partly because they incorporate an uplift to account for unattributable population change [UPC] in their trend-based migration assumptions.

3.14 The inclusion of UPC is not supported by ONS. ONS' report '2012-based Subnational Population Projections for England - Report on Unattributable

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Population Change' (January 2014)<sup>5</sup> identifies that no adjustments have been made for unattributable population change in the 2012 SNPP (i.e. they are excluded from the calculation and projection forward of past migration trends).

Averaging out the various scenarios produces an overall range of between 1,785 dpa and 2,302 dpa.

3.16 Edge Analytics concluded by stating that:

"Whilst the 'SNPP-2012' scenario provides the suggested starting point for the objective assessment of housing need, the alternative 'trend-based' outcomes presented by the 'PG-5yr' and 'PG-10yr' scenarios should be given due consideration, given the likely impact of the recession upon recent migration flows and given the continuing uncertainty with regard to the future impacts of international migration." [§5.7]

"The dwelling growth outcome linked to CBMDC's jobs growth forecast has been presented. When interpreting this scenario's out comes, it should be noted that variant assumptions on economic activity, commuting and unemployment could influence the forecast dwelling requirements. For example, a reduced net out-commute and/or higher rates of economic participation in the older age groups could each contribute to lower housing need over the plan period." [§5.8]

In summary then, it is claimed that the employment-led scenario ranged from 1,791 dpa to 2,307 dpa, suggesting a mid-point of 2,049 dpa, compared to 2,186 dpa referred to in the previous August 2013 Addendum Report.

In terms of how this revised data has been interpreted by BMDC, it commented that:

"The housing requirement within the CSPD was still within the revised range - the only difference being that the Core Strategy proposal now lay towards the top of the range rather than in the middle of it. The Council therefore concludes that the updated work continues to show that the CSPD housing requirement is sound and will meet the objectively assessed needs of the district and significantly boost housing supply." [§2.33] BMDC "Background Paper: 1 Overview" (December 2014)

## Critique

BMDC is progressing its Local Plan and has produced an evidence base examining what their local housing target should be and the broad approach to meeting those requirements. Certain aspects of the Council's approach to defining the Full Objectively Assessed Need [FOAN] for housing are to be welcomed, most specifically:

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<sup>&</sup>lt;sup>5</sup> http://www.ons.gov.uk/ons/about-ons/get-involved/consultations/consultations/consultation-on-the-2012-based-subnational-population-projections-for-england/snpp-consult-upc.pdf

- The principle that the FOAN should be met in its entirety within the Bradford MDC administrative area (which has also been defined as an independent HMA);
- That the approach to identifying the FOAN should align with economic needs; and,
- The acceleration of headship rates above and beyond those within the suppressed 2011-based (interim) household projections post 2021.

3.20 However, having reviewed the Council's housing evidence base documents, NLP has identified a number of concerns about certain elements of the work and the approach undertaken. These are discussed below:

#### **Economic Aspirations**

- Demographic-based projections should not be taken as the end point in assessing the OAN for local authority areas. The NPPF and PPG both require consideration of employment-based projections. In preparing employment-based projections, the software that is used (such as PopGroup) would constrain/inflate migration to a level which, when set alongside the profile of migrants moving in and out and natural change within the population, will produce an indigenous labour force sufficient to support the given level of employment taking account of commuting and unemployment.
- The only economic evidence that has been used by BMDC in setting its housing OAN relates to the Regional Econometric Model. The Housing Requirement Addendum Report (August 2013) modelled a range of projections incorporating employment-led projections, specifically the job growth projections of the April 2012 run of the REM, which suggested a change in FTE employment equal to 27,041 between 2011-28, or 1,591 per annum. The subsequent September 2014 Edge Analytics update to the report sought to explore the housing implications of an updated version of the REM, which increased annual job growth slightly to 1,640 between 2013/14 and 2030/31.
- 3.23 However, Policy EC2 of the BLPCS states quite clearly that "the Council will support the delivery of at least 2,897 new jobs annually in the District in the period to 2030".
- 3.24 From the Council's evidence, we therefore draw the following conclusions:
  - The supporting text to Policy EC2 dismisses the earlier 2011 job projections produced by the REM on the grounds that they are "based largely on trend-based modelling of how the economy might perform in future years. In this respect they are not wholly complete assessments of jobs growth and related land requirement". [§5.1.14]
  - Although the Council has subsequently sought to cast doubt on the achievability of the 2,897 figure quoted in Policy EC2, it is nevertheless a stated target of the BLPCS, and one that has not featured in any of the FOAN housing modelling work.

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- On this basis, there is a clear disconnect between the job target set out in the BLPCS and the job targets underpinning the housing requirement figure; the former is almost more than 75% higher than the REM job figure in the Council's housing evidence base. This runs against the requirement of Paragraph 158 of the NPPF.
- Such an approach could lead to unsustainable outcomes, resulting in Bradford becoming a magnet for high levels of in-commuting, with the undesirable effects of congestion and escalating house prices likely to result. This clearly undermines the economic vision for the area.
- Furthermore, NLP has obtained Experian's latest December 2014 job projections from Experian. They suggest that annual job growth in the order of 2,168 could be achieved in Bradford City between 2013 and 2030. Such a figure is close to the mid-point between the 2014 REM figure of 1,604 and the Policy EC2 target of 2,897, which suggests it represents a reasonable compromise between the Council's range of job targets.
- The Framework requires the planning system to do 'everything it can to support sustainable economic growth' [§19]. It is not clear why Edge Analytics did not model a more realistic level of job growth for Bradford that aligned with the EC2 target.
- 7 The Council's approach does not properly give effect to their policy on job creation of 2,897 jobs p.a.

Table 3.3 Comparison of Net Job Growth Projections for Bradford City

REM April 2012 (used by Edge Analytics)		REM June 2014 (used by Edge Analytics)		Experian (December 2014)		BLPCS Policy EC2 Job growth
Total (2011- 2028)	Per Annum	Total (2013- 2030)	Per Annum	Total (2013- 2030)	Per Annum	Per Annum
27,041	1,591	+28,867	1,604	36,850	2,168	+2,897

Source: Edge Analytics Bradford Housing Requirement Study Updated Demographic Analysis and Forecasts (September 2014) / Experian December 2014 / BLPCS Policy EC2

In summary, the resultant housing requirement figure of 2,200 dpa for 2013-2030 therefore makes insufficient allowance for economic growth factors in contravention of the Practice Guidance and fails to reflect the Council's own approach towards job creation.

#### **Approach to Headship Rates**

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NLP has significant concerns about the robustness of the modelled scenarios in the August 2013 Housing Requirements Addendum. The report essentially assumed three alternative approaches to headship rates over the Plan period. One approach was to use the higher headship rates from the CLG's 2008-based household projections from 2011-2028 (essentially excluding all reference to the lower 2011-based headship rates to 2021).

The other approaches used the interim 2011-based household projection headship rates to 2021, but thereafter assumed either a continuation of the trend projected in the 2011-based interim projections for the period 2011 to 2021, or alternatively 'freezing' headship rates at projected 2021 levels. The Addendum states that "neither approach is ideal and would in both cases produce theoretical results" [§2.10].

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The 2013 Addendum Report recognises that the latest 2011-based household projections suggest a reduction in the rate of household growth projected for Bradford City when compared with the previous 2008-based household projections. This is because the former dataset projects trends derived from a period "characterised by an unprecedented, deep recession and slow economic growth, fiscal austerity and historically low rates of housing completions. The interim projections therefore reflect these limiting conditions on household formation and project the continuation of these trends for a further 10 years." [§2.8]

However, whilst recognising that using these approaches embeds the conditions prevalent in the 2011-based interim projections and could therefore lead to a continuation of past trends over the plan period, the modellers nevertheless conclude that "the most appropriate basis for projecting is the trend based assumption". [§4.3] This assumption is critical and flawed, because it artificially constrains the mid-point housing figure taken forward in the BLPCS.

The figure of 2,200 dpa taken forward by Bradford City Council in the BLPCS is clearly referenced as being the 'mid-point' (2,186 dpa) between the trend based employment-led scenario of 1,807 dpa and the previous February 2013 employment-led scenario (which applied 2008-based headship rates) of 2,565 dpa.

Whilst it is agreed that modelling is not an 'exact science', and that there needs to be an element of judgement as to where an appropriate figure might lie, by taking a random mid-point between the two upper and lower ranges suggests that the modellers have limited faith in the robustness of either scenario, and have ended up recommending a figure that is not substantiated by any of their model runs.

Picking a mid-point between the two book-end scenarios is entirely arbitrary and affords no weight to a reasoned analysis about the scenarios. This is despite the Council's evidence repeatedly stressing that the 2011-based household projections imply a continuation of the recession over the whole of the Plan period, which would not be supportive of the Council's aspirations to achieve economic growth and regeneration. Instead, reliance upon the 2011-based interim household projections serves to deflate the average figure, such that the headship rates that have been applied by Edge Analytics continue to be shaped by conditions experienced during the recession.

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NLP considers that the 'trend' and 'fixed' headship rate approaches modelled by Edge Analytics are invalid and as such should not be used to define the OAN for housing need as they do not represent the most appropriate strategies when considered against reasonable alternatives. BMDC has therefore failed to use the most appropriate and up-to-date statistical evidence to inform its housing strategy for the City as required by The Framework [§ 158].

#### **Economic Activity Rates**

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In constructing the employment constrained projections for the February 2013 Bradford Housing Requirements Study, Edge Analytics varied older person economic activity rates to reflect changes to pension ages in the long term. Edge Analytics assumed that for the 50-64 and 65-74 age groups, economic activity rates would incrementally increase by 10% between 2011 and 2030 to reflect the gradual impact of this employment factor. [§5.32]

Edge Analytics' September 2014 Update modifies this approach and makes the following uplifts to the economic activity rates to take into account the planned changes to the State Pension Age [SPA]:

- 1 Women aged 60-64: 40% increase from 2011 to 2020;
- 2 Women aged 65-69: 20% increase from 2011 to 2020;
- 3 Men aged 60-64: 5% increase from 2011 to 2020; and,
- 4 Men aged 65-69: 10% increase from 2011 to 2020.

Appendix B records that the increase in economic activity rates in the 60-69 age brackets for Women is higher than recorded in the ONS Labour Force Projection 2006 on the grounds that there will be an accelerated pace of change in the SPA.

The implication of this adjustment is that a lower level of in-migration is required to support existing or new jobs, and hence it can be associated with a much lower level of population and housing growth as a result.

Whilst it is agreed that changing statutory retirement ages are likely to have some impact upon economic activity rates, the Housing Requirements Study and subsequent Updates do not provide any evidence to demonstrate the extent to which the scale of increase that has been modelled is likely to occur in practice.

Whilst useful as a comparator, the LPS is now 9 years out of date, and failed to take into account the recession. This had significant impacts on economic activity in the youngest age groups, with economic activity rates declining significantly more than was anticipated in the projections.

The figures that result from this key set of employment-led scenarios can be viewed as illustrative at best. They should not be considered as providing a

reliable indicator of future demographic change and housing requirements. For example, if this degree of change werre to be even slightly lower, the planned level of housing provision would result in a shortfall in housing, to deliver against the forecast level of employment.

#### Affordable Housing Need

The Framework states that LPAs should "use their evidence base to ensure that their Local Plan meets the full, objectively assessed needs for market and affordable housing in the HMA". [§47, NLP emphasis] In this regard, BMDC's most recent 2013 SHMA update concludes that the total gross affordable housing requirement is 769 dwellings annually, based on eliminating the backlog over ten years (rather than the five years recommended in the former 2007 CLG guidance and the PPG). The net figure is for approximately 587 dwellings annually.

The Council considers that the relevant target to plan for is the lower 587 dpa affordable target. We disagree on two grounds. Firstly, Table 4.9 in the 2013 SHMA suggests that the 587 figure is derived by assuming that an annual over-supply of three bed properties (-129) can simply be 'netted off' a very high level of need for one bedroom general needs properties (586 dpa). This is simply not appropriate, given that the introduction of the over-occupation penalty means that the option of housing an individual in need of a 1-bed property in a much bigger house may simply not be a financially viable option.

Secondly, the SHMA approach seeks to address backlog over an inappropriate time period:

"The 2013 SHMA analysis indicates a net annual shortfall of 587 affordable dwellings. This is based on the assumption that the backlog need is reduced over a 10 year period. By comparison, if the backlog is assumed to be cleared over a 5 year period the net annual shortfall would be 1,302." [4.63]

The former SHMA Practice Guidance<sup>6</sup> stated that the affordable homes quota should "be based on meeting need over a period of five years" [page 52]. Whilst less detailed guidance on modelling affordable housing need is provided in the March 2014 Practice Guidance, it is nevertheless clear that housing need must be addressed as soon as possible:

"LPAs should aim to deal with any undersupply within the first 5 years of the plan period where possible" [3-035-20140306]

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It is clearly unacceptable for a household on the waiting list to have to wait up to ten years for their housing needs to be met. On this basis, it is considered that the gross figure of 769 dpa is the absolute minimum that should be provided, and that a sound approach would justify a figure in excess of 1,300 dpa as appropriate.

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<sup>&</sup>lt;sup>6</sup>CLG (2007): Strategic Housing Market Assessments Practice Guidance Version 2

Policy HO8 of the BLPCS has a target that between 20% and 25% of total gross housing completions should be affordable housing. On this basis, even if the Council was to attempt only to eliminate the 769 dpa affordable housing need, then a minimum of 3,076 dpa would need to be provided (or 5,200 if backlog is to be addressed over 5 years). The provision of 2,200 dpa would only provide around 550 affordable dpa assuming that the 25% target is achieved for all housing.

Even this level of delivery is likely to be a considerable over-estimate. As the Council themselves have commented in their response to our 2014 representations:

"Given viability levels, affordable housing quotas proposed for Bradford are low (15%) and thus the increase in the housing targets for Bradford needed to make much difference to the overall amount of affordable homes delivered would be considerable and mostly likely undeliverable".

In the event that a 15% affordable housing target was applied, a total of 5,127 dwellings would be required to support the delivery of 769 affordable homes, and 8,667 to support the delivery of 1,300 affordable homes per annum.

The Council also responds that not all affordable housing need will be met via s.106 contributions, and states that a significant contribution will be made from 100% social housing schemes provided by RSL's or the Council. This claim should, however, be viewed in the light of the fact that in the 12 months to Q4 2013, 93% of new homes in Bradford were completed by the private sector. Furthermore, the Council has not produced any evidence to demonstrate how it would meet the substantial affordable housing shortfall likely to arise from delivering just 2,200 dpa in this way, particularly considering the substantial funding cutbacks proposed by Government.

The Practice Guidance is quite clear that the affordable housing requirement should be met 'in full'. The Council appears to be suggesting that this is not possible for viability reasons, but this does not affect the need to identify correctly the FOAN in this regard and issues of viability should be properly analysed when formulating the housing strategy. The Guidance also states that "an increase in the total housing figures included in the local plan should be considered where it could help deliver the required number of affordable homes"<sup>7</sup>. It is clear that such an increase is necessary in this case.

#### **Market Signals**

From assessing BMDC's Housing Evidence, it is clear that this analysis of Market Signals has not taken place.

The Council has failed to properly assess the key market signals as set out in the Practice Guidance and to analyse whether Bradford District is performing

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<sup>&</sup>lt;sup>7</sup> 2a-029-20140306

better or worse than comparable areas nearby and how its performance has changed over time. Summarising contextual housing data in the 2010 and 2013 SHMAs is not the same as testing whether an uplift to the housing need figure is appropriate.

This is a key flaw in the Council's approach to identifying the housing OAN, and no structured approach has been taken to querying whether an uplift to the demographic starting point is appropriate.

#### Time period for Policy HO1

- Table HO1 draws upon data from 2004-2013 and provides an overall requirement for a 26-year period up to 2030. This Plan period is inconsistent with National Policy on two counts.
- Firstly, the Framework advises that Local Plans should "be drawn up over an appropriate time scale, preferably a 15 year horizon" [§157]. The proposed plan period concludes in 2030. Even if the plan is found sound and is not subject to considerable delays, it is unlikely to be adopted until 2016, which would result in a 14-year time period.
- Secondly, CEG Policy HO1's start date is 2004 and is 11 years old. It is unclear why the Council has chosen this year other than it reflects the time period of the now revoked Yorkshire and the Humber Regional Spatial Strategy [RSS]<sup>8</sup>. The Council has used this alignment of start dates to justify inclusion of the 1,500 dpa/2,700 dpa RSS targets for Bradford that were contained in the RS. This approach is entirely flawed.
- A number of recent High Court decisions have confirmed that the former RSS figures should not be used as a proxy for what the Local Plan process might eventually produce by way of a qualified assessment of housing needs. In particular, the Gallagher HCJ<sup>9</sup> concluded that:

"Where, as in this case, the plan maker uses a policy on figure from an earlier regional strategy, even as a starting point, he can only do so with extreme caution – because of the radical policy change in respect of housing provision effected by the NPPF". [§98]

It is clear that the housing requirement figures for Bradford that were contained within the RSS did not comprise an objective assessment of housing need, but were instead driven by a number of policy imperatives. Indeed, Paragraph 12.4 of the RSS notes that 'the figures for 2004-2008 are broadly in line with net build rates in recent years' 10, effectively meaning that they were supply rather than demand-led.

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<sup>&</sup>lt;sup>8</sup>Government Office for Yorkshire and the Humber (May 2008): The Yorkshire and Humber Plan Regional Spatial Strategy to 2026, page 159, Table 12.1

<sup>&</sup>lt;sup>9</sup> Gallagher Homes Limited and Lioncourt Homes Limited v Solihull Metropolitan Borough Council [2014] EWHC 1283 (Admin) <sup>10</sup> Government Office for Yorkshire and the Humber (May 2008): The Yorkshire and Humber Plan Regional Spatial Strategy to 2026, para 12.4

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As for the 2008-26 requirements (which have been applied by BMDC over the period from 2008 to 2013), the RSS clearly states that "the figures are not derived directly from one mathematical model or set of projections. Rather they are the result of the range of evidence and debate that has been considered through the process of preparing the Plan and latest evidence about household growth in the region" [§12.5]

This comprises a policy-driven housing <u>requirement</u>; hence it is wrong for BMDC to have simply included the RSS figures in its own FOAN assessment for the period 2004-2011. Furthermore, these figures are below the level of household growth for Bradford suggested by both the 2004-based (+2,640 households per annum 2004-29) and 2006-based (+3,120 households per annum 2006-31) SNHPs, suggesting that the Council has not failed to take adequate account even of the demographic needs of the area.

In summary, it is clear that the RS figures cannot legitimately form any part of the FOAN for Bradford for any phase of the Plan period.

A further area of concern relates to the use of backlog in BMDC's FOAN calculations. Whilst past under-delivery of dwellings against need is a legitimate market signal to be taken into account in uplifting the requirement above the demographic starting point, it should not simply be added on to the housing requirement as this would distort the modelling.

As such, NLP concludes that both the Plan period and the approach taken to 'adding on' backlog to the housing FOAN were fundamentally unsound and the Plan is flawed as a result.

# **Towards an Objectively Assessed Housing Need**

On the basis of the above, it is concluded that the SHMA does not provide a full objective assessment of housing need for Bradford. It fails to properly consider the implications of market signals and the need for affordable housing and also draws upon a series of assumptions that are not properly supported. Foremost in this regard, it:

- 1 Fails to achieve a proper alignment between the housing and employment policies and growth aspirations within the Plan;
- Applies an arbitrary approach to household formation that affords no weight to a reasoned analysis about the scenarios;
- Applies supply-led housing requirement levels that were contained within the (now revoked) Regional Strategy to inform part of the OAN assessment for the Plan period; and,
- 4 Adopts an approach in relation to backlog that does not conform the principles established by the Courts and that is fundamentally unsound.

# 4.0 An Objective Assessment of Housing Need

- NLP has adopted a number of scenarios to establish the requirement for housing in line with its HEaDROOM framework. These are based on different demographic, economic and housing related factors which are explained below.
- NLP agrees with BMDC that the Council area constitutes a housing market area and so the analysis set out below focuses upon this area geographical alone. However, it is recognised that Bradford does have close relationships with a number of adjoining local authority areas and the implication of this will need to be considered in the context of the Duty to Cooperate in terms of the extent to which Bradford might be called upon to accommodate housing growth associated with its neighbours.

## **Context and Assumptions**

- The NPPF requires local planning authorities to apply up-to-date and relevant evidence in order to establish their housing requirement figures. For this reason, in seeking to identify the objectively assessed housing requirement, consideration must be given to the key recent data sets which relate to population and household formation, which have a direct bearing upon future housing needs:
  - a The ONS 2012-based Sub National Population Projections (SNPP) (released 29 May 2014) provide updated population projections at a district level and supersede the previous 2011-based Interim Sub National Population Projections (released in 2013); and,
  - b The CLG 2011-based Interim Household Projections (released 9 April 2013) provide updated Government projections of household formation both nationally and at a local authority level, including revised headship rates underpinning the projections (i.e. the proportion of any population that would act as the 'head' of a household). These supersede the previous 2008-based Household Projections (released in 2010).

## **ONS 2012-based Population Projections**

- The 2012-based SNPP project the population of all local authorities in England over the period from 2012 to 2037 and are based on the assumption that the demographic trends (births, deaths and in/out migration) that were experienced between 2007 and 2012 will continue in the future. As such, they draw upon trends that were experienced during a time of economic downturn.
- They do not take account of planned and emerging policies that are yet to take place and no allowance is made for potential future improvements in the national or local economy.

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- The 2012-based SNPP represent a "full" set of projections, which draw upon an updated set of underlying fertility, mortality and migration trends. The SNPP are consistent with the 2012-based national population projections and take account of information from the 2011 Census. They differ from the 2011-based interim SNPP which did not update fertility, mortality or migration rates from those used in the 2010-based projections and which, because of the lower quality of data used in them, only covered a 10 year period (2011-2021).
- It is important to note that the 2012-based SNPP relate only to population change. The 2012-based Sub-National Household Projections (SNHP) are expected to be released on 26 February 2015 but until then, the 2011-based Interim SNHP remain the most up to date, although they are subject to the concerns highlighted below.

# **CLG 2011-based Interim Household Projections and Household Formation**

- The CLG household projections are trend based and identify the change in the number of households that would be expected in the event that the levels of change that have been experienced between 2001 and 2011 were to continue in the future. Whilst technically drawing upon on longer term trends, the latest projections strongly reflect recently observed trends in the last five years during the period of suppressed household formation which are associated with the impacts of the economic downturn, constrained mortgage finance and past housing under-supply. They do not take any account of the impact of future government or local policies, changing economic conditions or other factors that might have an impact upon demographic behaviour or household consumption.
- The projections effectively roll forward the demographic and housing conditions that were experienced during a time of economic downturn, when financial pressures resulted in an increase in the number of concealed households and a stagnant housing market. In so doing, they fail to take any account of the implications of economic growth in terms of household formation and contradict evidence showing that those in concealed households will seek to realise their housing ambitions as the economy recovers and the housing supply situation improves. This is likely to result in an increase in household formation and the demand for housing something that is not reflected in the interim projections and which means that they almost certainly will underestimate the true level of household change to 2021 and do not provide the basis for assessing household formation post 2021.
- In considering the implications of the interim household projections, it is useful to consider two separate time periods: the period to 2021 that is covered by the projections and the period after 2021 that is beyond the scope of the projections.

#### Rates in the Period 2011 to 2021

- The CLG 2011-based Interim Household Projections provide estimates of future household growth in Bradford from 2011 to 2021, averaging 1,590 households per annum in the City.
- This level of projected growth results from the rolling forward of past trends which were skewed by economic context and the reality that the number of concealed households has increased as a result of:
  - 1 A significant undersupply of new homes;
  - 2 Asking prices remaining out of reach for first time buyers; and,
  - 3 Restricted mortgage finance putting severe limitations on the market.
- When considering housing requirements going forward, the issue is whether the trends that have been assumed by the projections to continue will be maintained or whether economic changes will encourage an increase in household composition before 2021. In essence, the fundamental question must be whether trend based projections are the most appropriate immediately after a severe recession. It is not considered that they are. The trend based projections, which are drawn from a period of economic downturn, effectively demonstrate what the level of household formation and demand would be if the economy was not to recover before 2021.
- 4.14 National policy and development plan aspirations seek to ensure the recovery of economic conditions and house building well before 2021. On this basis, the projections fail to identify the number of households that are likely to be established over the next 6 years because an improvement in economic conditions would result in an acceleration of household formation rates. Placing too much weight on this projection to inform the future dwelling requirement would serve to under-provide for housing (when considered against both demographic and economic scenarios), contrary to the NPPF.

#### Rates in the Period after 2021

- As the household projections only consider the period to 2021, page 9 of the accompanying Quality Report<sup>11</sup> states that those users interested in understanding household growth and housing requirements during the period after 2021 should "make an assessment of whether the household formation rates in that area are likely to continue". There is clear evidence in respect of economic forecasting and relating that to housing consumption in times of economic recovery that they will not. The PPG states that "plan makers would need to assess likely trends after 2021 to align with their development plan periods".
- In considering the housing requirement for Bradford to 2030 it would not be appropriate to extend suppressed household projections across the Local Plan

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<sup>&</sup>lt;sup>11</sup> DCLG 2011-based Interim Household Projections Quality Report (April 2013)

period. Instead, regard should be given to the likely acceleration of household formation to a rate that takes account of the backlog of pent-up demand from concealed households as well as new household formation. After an initial "catch up" period, the household formation rate would be expected to effectively reflect a resumption of longer term trends.

#### **Implications**

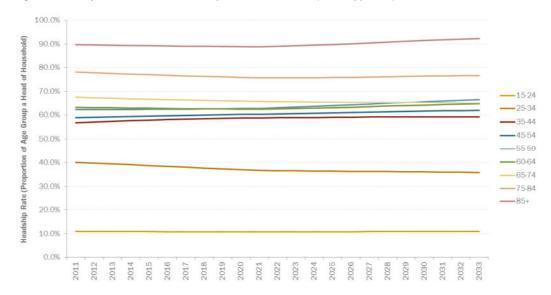
- The latest CLG projections are a useful starting point for understanding OAN. However, they do not offer a complete answer in themselves as the PPG makes clear. Indeed, taken at face value, they seem to run counter to these objectives and create a risk of perpetuating housing shortages at just the time when supply needs to be boosted and policy requires this to happen. Government Ministers are clearly alive to this issue and hence their concern about following the latest projections, which being largely short term trend based perpetuate the latest trends as experienced during the economic downturn.
- NLP has considered which rates of household formation are appropriate for testing beyond 2021. Taking into account the long term trends and the way the recession has affected household formation, it is anticipated that household formation rates will increase at a faster rate again in the future. It is likely that household formation will begin to pick up as the wider economy returns to growth, people's circumstances improve, household incomes increase and there is better access to mortgage finance. Such factors will improve confidence and ability to form new households. However, this increase in household formation will potentially not be to the same degree as previously assumed in the 2008-based projections.
- NLP's base baseline position regarding household formation beyond 2021 indexes formation against the 2008-based household projections (from a different starting point) on the assumption that household formation will increase in line with long term trends as the economy improves. This "index" approach is supported by the PAS "Technical Advice Note on Objectively Assessed Need and Housing Targets" (2014) [paragraph 5.25-§5.27] and has been explicitly endorsed by Inspectors at a number of Local Plan examinations<sup>12</sup>. The Inspector into the South Worcestershire Development Plan examination asked the Councils to apply it in undertaking further analysis in order to derive an objective assessment of housing need over the Plan period.
- The index approach is considered to represent an entirely appropriate basis for assessing future housing requirements, albeit that it could be viewed as conservative estimate for two reasons:
  - a This approach assumes that headship rates will increase in the future, it does not address the issue of suppressed households that were unable

<sup>&</sup>lt;sup>12</sup> Including South Worcestershire, Lichfield and West Lancashire.

to realise their housing aspirations during the recession. It is therefore a highly conservative approach which does not provide for any "catch up" in household formation. Instead, it focuses solely upon future housing requirements – effectively creating a "lost generation" of people that were unable to form their own households during the recession.

- b It adopts the interim 2011-based headship rates to 2021, and thereby assumes that household formation rates over the next 6 years will reflect the suppressed rates that were experienced during the recession. It therefore does not reflect evidence<sup>13</sup> that household formation rates might pick up as the economy improves over the next few years. The implication of these considerations is that the index approach may underestimate the dwelling need.
- The household formation rates within these projections are applied to the projected population in Bradford to arrive at estimates of likely growth in households at the local level.
- An illustration of the above assumed rates for individual age cohorts are displayed in Figures 4.1, which shows increasing headship rates (the proportion of a population that will form a head of household) among 35 to 64 year olds and but a decreasing headship rate amongst 15 to 34 year olds and those aged 65 and above (although older age cohorts continue to have significantly higher headship rates than younger groups). These age specific projections of household headship have been applied through each of the scenarios modelled through the PopGroup software.

Figure 4.1 Projected Household Headship Rates for Bradford (Index approach)



Source: CLG 2011-based Household Projections, NLP

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<sup>&</sup>lt;sup>13</sup> Such as that from the Cambridge Centre for Housing & Planning Research which has stated that formation rates will rise as a result of economic growth in the short term and will thereby result in pent-up demand being realised and new household formation occurring.

#### 2012 Sub National Household Projections

Consideration should be given to the 2012-based SNHP which are expected to be published on 26 February 2015. They will provide estimates of the number of households in each local authority in England between 2012 and 2037, broken down by size and type. They are based on past trends of population change and household composition and, as such, assume that the demographic and household formation trends that were experienced between 2007 and 2012 will continue. They do not take account of any economic or policy considerations which might result in different trends in the future. As a result, it is expected that it will show a much lower level of household growth than is likely in the future economic climate. Basing housing requirements solely on these projections would result in a shortage of homes for those who need them.

The PPG requires CLG household projections to provide the starting point for the assessment of housing need. However, they do not constitute the end point. Instead, it states that it might be necessary to make adjustments to take account of factors that were not captured in past trends. The same arguments will apply to the 2012 SNHP as to the 2011 SNHP and this highlights the importance of handling the new projections with care when they come out.

## **Summary of Assumptions**

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There are a number of assumptions which underpin the baseline PopGroup modelled scenario including:

- A **base year** of 2012 is applied to reflect the base date of the 2012 SNPP but the outputs are identified for the period between 2013 and 2013, to reflect the period over which the housing need has been identified by BMDC;
- Future change assumed in the Total **Fertility** Rates [TFR] and Standardised **Mortality** Rates [SMR] are based on the birth and death projections derived from the ONS 2012-based SNPP. This in turn is used to derive future projected TFRs and SMRs through PopGroup;
- The 2011 and 2012 population figures (by age cohort) are **constrained** to align with the latest 2011-based and 2012-based mid-year population estimates for the City of Bradford;
- Inputs on **headship (effectively household formation) rates** (using the CLG 2011-based household forecast headship rates up to 2021, and the 2008-based rates after this time. The baseline sensitivity tests assume a range of different headship rates post 2021, as follows:
  - i Index this assumes that the rate of change in household formation will move in line with the rate of change assumed for that period within the 2008-based household projections,
  - ii Partial Catch Up catch up to 50% of 2008 SNHP rates by 2033,

- iii Catch Up catch up to 2008 SNHP rates by 2033;
- In Bradford (as in any area), it is expected that housing **vacancies and second homes** will result in the number of dwellings exceeding the number of households. In establishing future projections, it is likewise expected that the dwelling requirement will exceed the household forecast. Hence an empty homes rate of 5.14% is factored into the model for all the scenarios;
- To calculate the **unemployment** rate, NLP took the September 2012 NOMIS unemployment figures for the authority area to equate to the 2012 rate; the September 2013 figures to equate to the 2013 rate; and the September 2014 figures to equate to 2014. NLP kept the former figure constant for 2015 to reflect initial stabilisation at the current high rate, and then gradually reduced the rate on a linear basis to the long term average over a five year time frame. This figure was then held constant to the end of the forecasting period on the grounds that this is a better reflection of the long term trend than the current high rate;
- 2011 Census **Economic Activity Rates** used for each age cohort to equate to the 2011 economic activity profile for the City of Bradford. From 2012 onwards, an adjustment has been made to reflect the changes to the State Pension Age; the propensity for people to live longer and retire later; and the growth of part time opportunities amongst other challenges. The NLP approach mirrors that put forward by Kent County Council in their Technical Paper: "Activity Rate projections to 2036, Research and Evaluation, Business Strategy and Support" (October 2011). The increase in rates, which is most pronounced for women over the age of 60 and males between the ages of 65-69, are gradually increased from 2012 onwards up to 2020, beyond which they are held constant across the remainder of the forecasting period;
- It has been assumed that the **commuting rates** remain static with no inferred increase or decrease in commuting levels. According to the 2011 Census, this equated to a rate of 1.105 for Bradford (i.e. more people commute out of Bradford than commute in on a daily basis); and,
- 9 There will also be an additional driver to growth in household formation due to the strong trend towards smaller average household sizes nationally.

# **Scenarios for Future Housing Needs**

4.26 Based upon the analysis of the context and past trends which will continue to drive the need and demand for housing within Bradford, NLP has adopted a number of scenarios to test the requirement for housing based on different factors. The scenarios are outlined as follows:

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### **Demographic Scenario**

- a **CLG 2011-based household projections** This scenario applies the 2011-based interim SNHP, adjusted for vacancy rates and trended post 2021.
- b **Baseline: 2012-based SNPP** This tests the housing and employment implications of the population change that is anticipated by the 2012-based Sub-National Population Projections (SNPP).
- c **Baseline Partial Catch-up** As (b) but change post 2021 is targeted to end at a point halfway between the CLG 2011-based end rates trend and the CLG 2008-based Household Projections Catch Up end rates by 2033.
- d **Baseline Catch-up** As (c) but a higher rate of household formation has been assigned post 2021 to 'catch up' to the earlier 2008-based rate post 2021.

#### **Economic Scenarios**

- e **Bradford Core Strategy jobs** A 'policy-on' economic-led scenario based upon the BLPCS Policy EC2 target of 2,897 new jobs annually.
- f **Bradford Core Strategy Jobs 3% Unemployment** A 'policy-on' economic-led scenario based upon the BLPCS Policy EC2 target of 2,897 new jobs annually, but with unemployment rates reducing to 3% by 2030.
- g **Experian jobs forecast** A 'policy-off' economic-led scenario based upon delivering the level of employment growth associated with the latest (December 2014) projections that have been obtained from Experian Business Strategies (2,168 new jobs p.a.).
- h **2014 REM forecast** A 'policy-off' economic-led scenario based upon delivering the level of employment growth associated with the 2014 REM projections (1,604 new jobs p.a.).
- Scenarios b, e, f, g and h apply the index approach to headship rates, as detailed above.

# Demographic Scenarios

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An analysis of underlying demographic trends represents the first part of the HEaDROOM framework. This requires an understanding of projected population growth through natural change and migration, household formation rates, and also the level of vacant and second homes in the area. NLP has used specialist demographic modelling and forecasting tool PopGroup to model future trends in demography. This is then converted to household, dwelling and labour force estimates using the Derived Forecast add-on tool. PopGroup is an industry standard demographic modelling software package and is used by Government Agencies, County Councils and Local Authorities across the UK.

### Scenario A: 2011 SNHP

This scenario applies the household projections for Bradford that are contained within the 2011-based interim Sub National Household Projections to 2021. It then trends the projections forward to 2030. This reflects the approach that the PPG identifies as the "starting point" in assessing the FOAN.

The headline changes are shown below:

Table 5.1 Summary of 2011-based Interim SNHP Scenario

Category	2013		Change (2013-2030)	Annual
Households	201,768	228,790	27,022	1,590
Dwellings	212,701	241,187	28,486	1,676

Source: 2011-based interim SNHP / NLP Analysis

This scenario equates to an additional 27,022 households between 2013 and 2030. Taking account of existing housing vacancy rates, an additional 28,486 dwellings would be required to accommodate these additional households in Bradford (1,676 p.a.).

This scenario has not been modelled through PopGroup and so it is not possible to identify the population and economic implications of this level of housing growth.

# Scenario B: 2012 SNPP (Baseline)

This scenario represents the housing and economic implications of the projected demographic shift based on current factors and past trends in Bradford, using projected assumptions from the 2012-based SNPP. The assessment of the household and dwelling implications of the projections apply headship and household composition trends contained within 2011-based interim household projections to 2021, followed by an application of the index approach to headship rates described above.

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#### 5.7 The headline changes are shown below:

Table 5.2 Summary of 2012-based Interim SNPP Scenario

Category	2013	2030	Change (2013-2030)	Annual
Population	527,785	580,043	52,259	3,074
Households	201,768	231,882	30,114	1,771
Dwellings	212,701	244,446	31,746	1,867
Indigenous Labour Force	246,733	264,224	17,491	1,029
Jobs supported at existing jobs density ratio	198,123	219,511	21,388	1,258

Source: NLP Analysis of PopGroup Outputs

Under this scenario, the total population of Bradford is projected to rise by 52,259 people between 2013 and 2030. This is expected to comprise a natural change of 70,001 and net migration of -17,742.

Based upon the index approach, the population change anticipated by this scenario equates to an additional 30,114 households over the period from 2013 to 2030. Taking account of existing housing vacancy rates, an additional 31,746 dwellings would be required to accommodate these additional households in Bradford (1,867 p.a.).

Applying age specific economic activity rates to the projected population shows that this scenario would result in an additional 17,491 people in the indigenous labour force of Bradford by 2030. By applying the ratio of workers to jobs, it result would support 21,388 additional jobs in between 2013 and 2030 (1,258 p.a.).

#### **Sensitivities**

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Two sensitivity tests have been applied to the Baseline Scenario, as follows:

- a Scenario C 2012 SNPP Partial Catch-Up; and,
- b Scenario D: 2012 SNPP Full Catch-Up.

The results for the 2012 SNPP sensitivity scenario are as follows:

Table 5.3 Sensitivity Test for 2012-based Interim SNPP Scenario

	Scenario C: Partial Catch-u	ıp	Scenario D: Catch-up		
Category	Annual change (2013-30)			Change 2013-30)	
Population	52,259	3,074	52,259	3,074	
Dwellings	32,298	1,900	37,613	2,213	
Jobs supported	21,388	1,258	21,388	1,258	

Source: NLP Analysis of PopGroup Outputs

- Because these scenarios only related to the household formation rates, the population and employment outputs are the same as those identified in relation to Scenario B.
- 5.14 Compared with the results of Scenario B,
  - a Scenario C increases the housing need by 552 (1.7%); and,
  - b Scenario D increases the housing need by 5,867 (18.5%).

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## 6.0 Economic Scenarios

- The second component of the HEaDROOM framework is based upon an understanding of the relationship between housing and employment. Although there are a complex set of issues involved in matching labour markets and housing markets (with different occupational groups having a greater or lesser propensity to travel to work), there are some simple metrics that can explore the basic alignment of employment, demographic and housing change, notably the amount of housing needed to sustain a given labour force assuming certain characteristics of commuting and employment levels.
- Ensuring a sufficient number of homes within easy access of employment opportunities represents a central facet of an efficiently functioning economy and can help to minimise housing market pressures and unsustainable levels of commuting (and therefore congestion and carbon emissions). If the objective of employment growth is to be realised, then it will generally need to be supported by an adequate supply of suitable housing. The challenge of meeting employment needs is clearly given a heightened importance as a result of the need to secure economic growth out of recession, and the NPPF highlights this by stating that planning should "do everything it can" to support economic growth and requires local planning authorities to ensure alignment between their employment and housing (and other) policies and proposals.
  - This approach is consistent with the Planning Practice Guidance<sup>14</sup> which stipulates that plan makers, in assessing need for housing, should:
    - Make an assessment of likely growth in jobs based upon past trends and/or economic forecasts (as appropriate);
    - b Have regard to the growth of the working age population in the housing market area; and,
    - Where the supply of working age population (labour force supply) is less than projected job growth, then plan makers will need to consider increasing their housing numbers, in order to address the resultant unsustainable commuting patterns and the reduction in resilience of local businesses.

# Scenario E: Core Strategy Jobs

Policy EC2 of the Bradford Core Strategy states that "the Council will support the delivery of at least 2,897 new jobs annually in the District in the period to 2030". This equates to a total of 49,249 jobs over the 17-year period from 2013. Paragraph 5.1.14 of the Core Strategy justifies this figure, which is

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<sup>&</sup>lt;sup>14</sup> See 'Assessment of housing and economic development needs' chapter of Planning Practice Guidance published by National Government in March 2014.

higher than that identified by the Regional Economic Model (the evidence that informed the economic policies within the Plan) by stating that:

"Whilst the current economic trend indicates a growth of approximately 1,352 jobs per annum (excluding retail and Wholesale - REM March 2013), the actual need is much greater. ... In order to attain full levels of employment in the District (providing jobs for everyone), the target number of jobs that would need to be created by 2030 is 4,424 jobs per annum which is in reality, an unattainable aspiration. The strategy for a prosperous economy is to create the right conditions and opportunities for significant jobs growth across the District. It is not sustainable to accept the District's high level of unemployment and economic inactivity and it is through policy EC2 an attempt is made to mitigate these circumstances. Since the number of claimants obtaining Job Seekers Allowance is estimated to reach 21,464 by 2030 and in addition, the growth in the working age population in full employment will increase by 27,800, there is a requirement for an average of a further 2,897 new jobs annually to provide for this demand".

Although the evidential basis of this figure is difficult to understand, it does represent the employment target that the Council has sought to pursue and so, in line with Paragraph 158 of the NPPF, it is necessary to consider the housing implications of this level of employment growth.

The necessary population growth to underpin an expansion in the indigenous labour supply, which in turn would (accounting for net commuting rates) support this given level of employment growth is modelled in this scenario along with the level of housing required to ensure delivery of these jobs. The headline changes are shown below:

Table 6.1 Summary of Core Strategy Jobs Scenario

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Category	2013	2030	Change (2013- 2030)	Annual
Population	536,132	656,375	120,243	7,073
Households	204,305	257,484	53,179	3,128
Dwellings	215,375	271,436	56,061	3,298
Indigenous Labour Force	251,267	302,142	50,875	2,993
Jobs supported at existing jobs density ratio	201,764	251,013	49,249	2,897

Source: NLP Analysis of PopGroup Outputs

Under this scenario, the total population of Bradford is projected to rise by 120,243 people between 2013 and 2030. This is expected to comprise a natural change of 82,694 and net migration of 37,549.

Based upon the index approach, the population change anticipated by this scenario equates to an additional 53,179 households over the period from 2013 to 2030. Taking account of existing housing vacancy rates, an additional 56,061 dwellings would be required to accommodate these additional households in Bradford (3,298 p.a.).

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### Sensitivity

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A sensitivity tests have been applied to Scenario E. This (Scenario F) considers the implications of a more ambitious reduction in unemployment levels in Bradford to 3% by 2030.

The results for this sensitivity scenario are as follows:

Table 6.2 Sensitivity Test for Core Strategy Jobs Scenario

Scenario F: Partial Catch-up							
Category	Annual change (2013-30)	Change (2013-30)					
Population	87,681	5,158					
Dwellings	44,558	2,621					
Jobs supported	42,249	2,897					

Source: NLP Analysis of PopGroup Outputs

6.11 Compared with the results of Scenario E, this scenario would

- a Reduce the population change between 2013 and 2030 by 32,562 (-27.1%; and,
- b Reduce the housing need between 2013 and 2030 by 11,503 (-20.5%).

# Scenario G: Experian Jobs

This scenario is based upon data from the Experian Economics Forecast (December 2014). This forecasts that Bradford will experience an increase in employment of 36,856 between 2013 and 2030. This figure does not make any allowance for policy objectives or local aspirations (i.e. a policy-off forecast) and is 25% lower than the target contained within Policy EC2 of the Bradford Core Strategy.

This scenario considers the implications of delivering this level of employment growth. The headline changes are shown below:

Table 6.3 Summary of Experian Jobs Scenario

Category	2013	2030	Change (2013-2030)	Annual
Population	531,730	621,924	90,194	5,306
Households	202,945	245,994	43,049	2,532
Dwellings	213,941	259,324	45,383	2,670
Indigenous Labour Force	248,855	284,886	36,031	2,119
Jobs supported at existing jobs density ratio	199,827	236,677	36,850	2,168

Source: NLP Analysis of PopGroup Outputs

Under this scenario, the total population of Bradford is projected to rise by 90,194 people between 2013 and 2030. This is expected to comprise a natural change of 77,537 and net migration of 12,657.

Based upon the index approach, the population change anticipated by this scenario equates to an additional 43,049 households over the period from 2013 to 2030. Taking account of existing housing vacancy rates, an additional 45,383 dwellings would be required to accommodate these additional households in Bradford (2,670 p.a.).

#### Scenario H: REM Jobs

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As set out in Section 3, the evidence base underpinning the housing requirement figure within the Bradford Plan drew substantially upon the Regional Economic Model. As with the Experian forecast, this represents a policy-off figure. It equates to a total of 27,268 jobs between 2013 and 2030 (1,604 new jobs p.a.). Although this figure was used to underpin the Council's housing evidence, it was not considered as part of its policies which instead draw upon a figure that is 80% higher. As set out above, the supporting text to Policy EC2 actually dismisses 2011 REM projections on the grounds that they are "based largely on trend-based modelling of how the economy might perform in future years. In this respect they are not wholly complete assessments of jobs growth and related land requirement". [§5.1.14]

The headline changes are shown below:

Table 6.4 Summary of REM Jobs Scenario

Category	2013	2030	Change (2013-2030)	Annual
Population	533,194	599,408	66,214	3,895
Households	203,397	238,162	34,765	2,045
Dwellings	214,418	251,066	36,648	2,156
Indigenous Labour Force	249,657	274,128	24,471	1,439
Jobs supported at existing jobs density ratio	200,471	227,739	27,268	1,604

Source: NLP Analysis of PopGroup Outputs

Under this scenario, the total population of Bradford is projected to rise by 66,214 people between 2013 and 2030. This is expected to comprise a natural change of 72,362 and net migration of -6,147.

Based upon the index approach, the population change anticipated by this scenario equates to an additional 34,765 households over the period from 2013 to 2030. Taking account of existing housing vacancy rates, an additional 36,648 dwellings would be required to accommodate these additional households in Bradford (2,156 p.a.).

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# Summary of Scenarios

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- 7.1 The Framework clearly stipulates that LPAs should use their evidence base to ensure that "their Local Plan meets the full, objectively assessed needs for market and affordable housing in the housing market area, as far as is consistent with the policies set out in this Framework" [§ 47] and "prepare a Strategic Housing Market Assessment to assess their full housing needs, working with neighbouring authorities where housing market areas cross administrative boundaries" [§ 159].
- To provide a robust picture, NLP has modelled seven demographic / employment-led scenarios to provide an in-depth assessment of the level of housing required to meet need and demand arising from household and population projections as required by The Framework [§159]. This analysis also provides an assessment of the level of housing required to meet need and demand arising from household and population projections. The results for the City of Bradford are displayed in Sections 5 and 6, and also in Figure 7.1 and Table 7.1 below.
- It is clear from the analysis that the GVA/Edge Analytics August 2013 figure of 2,186 dpa (rounded to 2,200 dpa by BMDC) sits above the 2011-based household projection (1,676 dpa), which is the 'starting point' for undertaking an FOAN housing analysis according to the Practice Guidance. However, it is entirely legitimate and necessary to adjust this initial starting point upwards to take into account an acceleration in household formation over the Plan period and also to address worsening market signals, economic needs and affordable housing requirements.
- NLP's Scenario D Catch Up headship rate scenario, at 2,213 dpa, is closest to the Housing Requirement study's figure of 2,186 dpa. However, such a figure purely addresses need emerging from demographic changes over time, and would result in an economic output that is lower that associated with any of the employment-led scenarios (i.e. 1,258 jobs p.a. compared to between 1,604 and 2,897 p.a. associated with the REM and Local Plan Policy EC2).
- 7.5 Whilst NLP recognises that there is not a straightforward direct causal relationship between job growth and housing need, it is generally considered that the two are nevertheless fundamentally related. A level of housing provision that bears no relation to Bradford's economic aspirations would result in internal inconsistencies in the Local Plan and have unsustainable consequences. It would, furthermore, fail to accord with the requirements contained within the NPPF.
- The economic based scenarios identify how much housing would be required to provide a sufficient labour supply, which would meet different estimates of job growth, recognising that the Framework requires that planning should "do everything it can" to support economic growth. NLP has run four separate

economic based scenarios which demonstrate that housing need in the City of Bradford would be:

- a 2,156 dpa under the 2014 REM (based on a job target of 1,604 annually);
- b 2,670 dpa based on the latest Experian Job Growth projections (+2,168 jobs annually); and,
- c 3,298 dpa if the Council's policy of providing for 2,897 jobs per annum (set out in Policy EC2) is to be achieved.

By reducing the unemployment rate from 11.3% currently, to a highly ambitious figure of 3%<sup>15</sup> by 2030, but keeping the 2,897 job target constant (i.e. more local residents are accessing the job market lessening the need for economically active in-migrants), the 3,298 dpa housing need figure would reduce to 2,621 dpa.

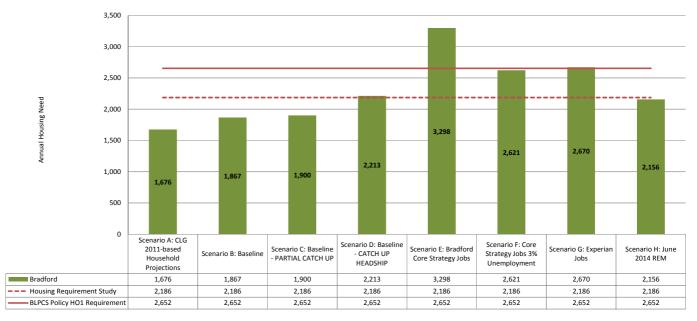


Figure 7.1 NLP Scenario Modelling - Bradford City (2013-2030)

Source: NLP Analysis / PopGroup Modelling

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<sup>&</sup>lt;sup>15</sup> The Council has assumed that unemployment will fall to 0%. This is completely unrealistic and so 3% has been assumed as the lowest rate to which unemployment might theoretically be expected to fall

Table 7.1 NLP Scenario Modelling – Bradford City (2013-2030)

	Demographic Led I				Economic Led			
	Α	В	С	D	E	F	G	Н
Population Change	-		52,259		120,244	87,681	90,193	66,215
of which Natural Change	-		70,001		82,694	77,691	77,537	72,362
of which Net Migration	-		-17,742		37,549	9,990	12,657	-6,147
Household Change	27,022	30,114	30,638	35,680	53,180	42,268	43,050	34,765
Dwelling Change	28,486	31,746	32,298	37,613	56,061	44,558	45,383	36,649
Dwellings p.a.	1,676	1,867	1,900	2,213	3,298	2,621	2,670	2,156
Economic Activity	-		17,491		50,875	34,584	36,031	24,470
Jobs	-		21,388		49,249	49,249	36,850	27,268
Jobs p.a.	-		1,258		2,897	2,897	2,168	1,604

Source: NLP Analysis / PopGroup Modelling

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It is considered that on balance, the demographic scenarios, headship rate sensitivities and the Experian projections suggest that it would be appropriate to adjust the CLG's 2011-based household projection figure of 1,676 upwards. On this basis, we consider that our Scenario B, the 2012-based SNPP of 1,867 dpa, represents an appropriate demographic starting point for defining housing FOAN in the City of Bradford.

However, this is the <u>very least</u> that could be considered appropriate for the City's basic demographic growth requirements to be achieved. As is very clearly set out in the Practice Guidance, this would only represent the starting point for identifying the FOAN before considerations of market signals, economic growth and affordable housing issues are analysed to test whether an uplift would be required. The implication of this is that the FOAN for Bradford should be considerably higher.

# Market Signals

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The Practice Guidance<sup>16</sup> indicates that once an assessment of need based upon household projections is established, this should be adjusted to reflect appropriate market signals and indicators of the balance between the demand for and supply of housing. The Guidance sets out six market signals:

- 1 Land prices;
- 2 House prices;
- 3 Rents;
- 4 Affordability;
- 5 Rate of development; and,
- 6 Overcrowding.

It goes on to indicate that appropriate comparison of these should be undertaken and an upward adjustment made where such market signals indicate an imbalance in supply and demand, and the need to increase housing supply to meet demand and tackle affordability issues:

"This includes comparison with longer term trends (both in absolute levels and rates of change) in the: housing market area; similar demographic and economic areas; and nationally. A worsening trend in any of these indicators will require upward adjustment to planned housing numbers compared to ones based solely on household projections. Volatility in some indicators requires care to be taken: in these cases rolling average comparisons may be helpful to identify persistent changes and trends."

"In areas where an upward adjustment is required, plan makers should set this adjustment at a level that is reasonable. The more significant the affordability constraints (as reflected in rising prices and rents, and worsening affordability ratio) and the stronger other indicators of high demand (e.g. the differential between land prices), the larger the improvement in affordability needed and, therefore, the larger the additional supply response should be." [§2a-020-20140306]

- The Practice Guidance sets out a clear and logical 'test' for the circumstances in which objectively assessed needs (including meeting housing demand) will be in excess of demographic-led projections.
- To rectify the failure of BMDC to undertake a proper review of market signals, NLP has undertaken a brief overview for Bradford below.

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<sup>&</sup>lt;sup>16</sup>The Practice Guidance, 2a-019-20140306

### **Land Prices**

VOA data is available for Bradford, which shows land values of £950,000 per hectare in 2010. The data shows that average bulk residential land values in Bradford had increased by 78% since 2001. In contrast, the national average bulk residential building land prices were £1.77m per hectare in 2010. This demonstrates that land values in Bradford itself are relatively low when compared to the national average. Nevertheless, the rate of growth nationally is far lower than Bradford's growth, at just 42% between 2001 and 2010.

The above values are illustrative rather than definitive and represent typical levels of value for sites without abnormal site constraints and a residential planning permission of a type generally found within the area<sup>17</sup>.

### **House Prices**

- The Practice Guidance identifies that longer term changes in house prices may suggest an imbalance between the demand for and supply of housing.

  Although it suggests using mix-adjusted prices and/or House Price Indices, these are not available at local authority level on a consistent basis, and therefore for considering market signals in the Bradford HMA, price paid data is the most reasonable indicator.
  - Whilst the 2013 Bradford SHMA considered sales and house prices (paragraphs 3.4-3.5), no discussion is provided as to whether the rate of change suggests that an increase in the demographic starting point is necessary.
- Land Registry price paid data suggests September 2013 prices in Bradford were a third lower than the national average and 4% lower than in West Yorkshire. However, house price rises in Bradford have outstripped surrounding districts in West Yorkshire, with a growth of 163% between 1998 and 2013 compared to 150% across the sub-region as a whole.

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<sup>&</sup>lt;sup>17</sup> This data is sourced from VOA and comes with the caveat that the land values provided are not the results of statistical analyses of actual land transactions. They are hypothetical prices attached to a 'typical' site for the area in question, with planning consent for residential development and serviced to the site boundary. The figures take account of affordable housing provision in line with local trends, as well as situations where supply is mostly brownfield.

As these are hypothetical prices, they are not required to be in line with RICS Valuation Standards. They should be treated as illustrative of local land market conditions. They are not definitive figures and should not be applied to specific sites, which will have individual characteristics that will affect value, such as location, servicing or planning status.

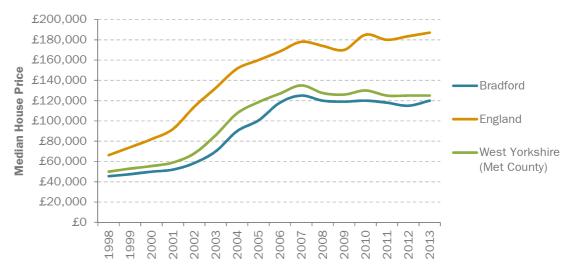
Table 8.1 Median Dwelling Prices, Bradford (September 2013)

	Dwelling Price	Change in House Price 1998-2013
Bradford	£120,000	+163%
West Yorkshire	£125,000	+150%
England	£187,000	+182%

Source: Land Registry Price Paid Data (September 2013)

CLG publish series data on median house prices based on the same Land Registry price paid data series. This currently runs from 1998 to 2013. This longitudinal analysis is illustrated in Figure 8.1, which indicates that the median house price for Bradford has been increasing at a consistent rate to the West Yorkshire Median since 1998.

Figure 8.1 Median House Prices



Source: CLG Live Table 586

### **Rents**

On a similar basis, high and increasing rents in an area are a further signal of stress in the housing market. Median rents in Bradford are £450 per month, with rents ranging from £390 per month for a 1 bed flat, to £650 per month for a 4+ bed house<sup>18</sup>. The median rent paid in West Yorkshire is slightly higher on average, at £495 per month, whilst the equivalent median rent nationally is higher still, at £595. Overall, rental values in Bradford are around 25% lower than the national average.

Series data for rents from VOA statistics is only available for Q2 2011 to Q3 2013. Nevertheless, the VOA data demonstrates that median rents in Bradford

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<sup>&</sup>lt;sup>18</sup> VOA Private Rental Market Statistics Q3 2013

have remained constant since 2011, compared with growth of 4.4% nationally and 4.2% for West Yorkshire as a whole. This suggests that affordability within the private market rental sector has not worsened in Bradford.

# **Affordability**

The former CLG SHMA Guidance defines affordability as a 'measure of whether housing may be afforded by certain groups of households'. The Guidance concludes that assessing affordability involves comparing costs against the ability to pay, with the relevant indicator being the ratio between lower quartile house prices and lower quartile earnings.

Figure 8.2 illustrates that lower quartile house prices peaked in 2007 at 6.09 times lower quartile incomes in Bradford<sup>19</sup>, which was broadly equal to the West Yorkshire average (6.24) at that time. This subsequently dropped considerably, to 4.85 in 2009, before gradually declining to 4.53 by 2013. Bradford has been consistently more affordable than the national average ratio (6.45 in 2013), but remains broadly in line with the West Yorkshire average (4.29 in 2013).



Figure 8.2 Lower Quartile Affordability Ratios, Bradford

Source: CLG Live Table 576

8.15 However, there is a very high level of affordable housing need in Bradford District, equal to 769 affordable dwellings annually (gross), based on the 2013 SHMA.

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<sup>&</sup>lt;sup>19</sup> CLG, Live Table 576

## Rate of Development

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The rate of development is intended to be a supply-side indicator of previous under-delivery. The Practice Guidance states that:

"if the historic rate of development shows that actual supply falls below planned supply, future supply should be increased to reflect the likelihood of under-delivery of a plan". [§2a-020-20140306]

The rate of development is therefore a market signal relating to the quantity of past under-supply which will need to be made up. Against this the Council recognises that there has been a high and persistent under-delivery of dwellings from 2004 to the present. Table HO1 of the BLPCS identifies that, when set against the statutory development plans covering the 9-year period between 2004 and 2013, a total of 18,740 dwellings should have been delivered. However, just 11,053 were actually completed, an under-delivery of 7,687, or 41%, against the RS target which does not represent a reasonable basis for the assessment of OAN.

The implication is that the rate of delivery in Bradford City has fallen well short of planned supply. This will have contributed in a significant way towards the other housing market signals which indicate that there has been increasing stress in the housing market as a product of demand not being met. The scale of previous under-delivery should be factored into an uplift of the future supply in order to reverse trends in the housing market, a point accepted in Policy HO1 of the BLPCS and the supporting text:

"When completions over 2011-13 are factored in there has been an overall under-supply of 7,687 dwellings over the period. This is corroborated by the fact that household growth over this period has far exceeded the number of dwellings provided and this has been one of the factors in the growing demand for social housing and significant problems of over-crowding in parts of the district. This under-supply has therefore been added to the requirement". [§5.3.16]

Given that the BLPCS is based upon a Plan period of 2004 to 2030, it will be necessary to remedy this shortfall over the next 5 years. This would have significant implications for Bradford's ability to maintain a 5 year supply of deliverable sites. However, given that the housing requirement in the RS was constrained, making up any backlog against that requirement figure would not fully address issues to do with suppressed household formation and market imbalance.

# Overcrowding

Indicators on overcrowding, sharing households and homelessness demonstrate unmet need for housing within an area. The Practice Guidance suggests that long-term increases in the number of such households may be a signal that planned housing requirements need to be increased.

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The 2011 Census includes data on household occupancy. The occupancy rating provides a measure of whether a household's accommodation is overcrowded or under-occupied based upon the number of rooms in a household's accommodation. The ages of the household members and their relationships to each other are used to derive the number of rooms they require, based on a standard formula. The number of rooms required is subtracted from the number of rooms in the household's accommodation to obtain the occupancy rating. An occupancy rating of -1 implies that a household has one fewer room / bedroom than required, whereas +1 implies that they have one more room / bedroom than the standard requirement.

Table 8.2 illustrates that overcrowding against the occupancy rating in Bradford (2011 data) is considered to be severe, with 9.75% of households living in a dwelling that is too small for their household size and composition. This compares to 8.74% nationally. Overcrowding has also increased since 2001 in Bradford, in line with the national trend.

Table 8.2 Overcrowding: Household Room Occupancy Rating

		2001		2011			
	Total Households	-1 room occupancy or less	-1 room occupancy or less (%)	Total Households	-1 room occupancy or less	-1 room occupancy or less (%)	
Bradford	180,245	14,905	8.27%	199,296	19,429	9.75%	
England	20,451,427	1,457,512	7.13%	22,063,368	1,928,596	8.74%	

Source: Census 2001 / Census 2011

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The levels of overcrowding are likely to be a symptom associated with affordability in Bradford as well as the high fertility rate and young population. This means that Bradford has a significant proportion of larger families occupying housing stock which is not of adequate size. This is reflected in the supporting text to BLPCS Policy HO1, which suggests that the significant problems of overcrowding are likely to have been caused by the past underprovision of housing.

Even though median house prices are low when compared nationally, resident incomes are also low, which makes affording larger properties unmanageable to many Bradford households.

Due to affordability as well as the shortfall in supply and relative demand, people are either willing to accept sub-optimal living conditions (e.g. living in smaller houses to manage costs) or are forced into accepting such housing outcomes (e.g. are priced out and have to share with friends / family). In such circumstances overcrowding is indicative of insufficient supply to meet demand.

# **Synthesis of Market Signals**

Drawing together the individual market signals above begins to build a picture of the current housing market in and around Bradford, the extent to which demand for housing is not being met and the outcomes that are occurring because of this.

In order to draw meaningful conclusions regarding the extent to which such market signals indicate housing market stress in Bradford and a level of supply that is not meeting demand, the Practice Guidance suggests that comparison of both absolute levels and rates of change in such indicators should be made with similar areas and nationally. In this respect, Bradford has been compared and ranked against other nearby Local Authorities and the overall indicators for England.

These comparator centres have been chosen as they constitute areas which border the district and/or have some connection through migration and commuting:

- 4 Harrogate;
- 5 Craven;

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- 6 Leeds;
- 7 Kirklees:
- 8 Bradford;
- 9 Wakefield:
- 10 Calderdale;
- 11 Hyndburn; and,
- 12 Burnley.

The intention of using these comparator centres (and England) is to provide a range of benchmark centres which will either compete economically with the City of Bradford for businesses or are similar in certain geographic, economic or demographic factors. The national average also compares how Bradford's housing market fares in comparison to overall trends across the country.

The comparative assessment of market signals highlights the scale of housing market stress within Bradford. Across the nine comparator areas, Bradford is performing better than the national average on all of them with the exception of the percentage of housing that is over-occupied, which is higher than the national rate and indeed all of the remaining eight comparator areas. The district also appears to have high a high rate of change in house prices (the highest of any of the comparator areas with the exception of Harrogate and England as a whole), a very high rate of change in overcrowding rates and aa significant increase in the number of homeless households when compared to

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neighbouring authorities. Hence on many of the indicators it is experiencing worsening market conditions compared to comparator areas nearby.

As noted earlier, Bradford has massively under-delivered housing when set against the previous adopted Development Plan targets, by 7,687 dwellings over the period 2004-2013 (854 dwellings annually). As one of the key market signals, the Practice Guidance has the following to say regarding how past under-delivery should be factored into the establishment of FOAN:

"Formation rates may have been suppressed historically by under-supply and worsening affordability of housing. The assessment will therefore need to reflect the consequences of past under-delivery of housing. As household projections do not reflect unmet housing need, LPAs should take a view based on available evidence of the extent to which household formation rates are or have been constrained by supply." [§2a-016-20140306]

8.32 This is clarified further:

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"If the historic rate of development shows that actual supply falls below planned supply, future supply should be increased to reflect the likelihood of under-delivery of a plan." [§2a-020-20140306]

The market signals therefore provide an indication of tightening demand and suggest that there needs to be a significant improvement in affordability within Bradford and a requirement to stabilise the increasing house prices and worsening affordability of housing and renting privately.

The extent to which the demographic 'starting point' for identifying FOAN for housing needs to be boosted to address market signals is necessarily an area of some judgement, but the judgements must be realistic and reasonable. The Practice Guidance is clear that the more significant the affordability constraints and the stronger other indicators of high demand, the larger the improvement in affordability needed and, therefore the larger the additional supply response should be. Hence it is clear in Bradford's case that some significant upward adjustment is necessary relative to adjoining areas, and that the scale of adjustment to housing supply over and above demographic-led projections at this time would need to be moderately high in line with the Practice Guidance.

It is NLP's judgement that in this instance, market signals suggest that an uplift of around 20% would be reasonable in order to:

- 1 Plan positively for growth;
- 2 Address worsening market signals;
- 3 Improve affordable housing issues; and above all,
- 4 Address the consequences of the very high levels of past under-delivery.

This is necessary to meet needs that have been supressed within the existing demographic characteristics of the City, and therefore would assist in meeting

change within the existing population such as allowing concealed households to 'emerge'.

BMDC has sought to add on its past under-delivery of housing to the 2,200 dpa 'Housing Requirement Study Based Housing Requirement 2013-30' (see Table HO1) but without responding to other market signals. Whilst it is essential that this huge past under delivery is recognised, this approach does not represent a measured and considered analysis of the housing market indicators and a staged approach to judging the full extent of the uplift necessary in accordance with the Practice Guidance.

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Table 8.3 Comparison of Bradford City's Housing Market Signals

	House	House Prices		Rents		Affordability Ratio		Overcrowding		Homelessness	
Rank	Median (2013)	Change % (1996-2013)	Median Monthly Rent 2013	Change % (Q2 2011 – Q1 2013)	Ratio 2013	Change (1998-2013)	% of Housing Over-Occupied	Change 2001 –11 (% Points)	Incidence of homeless h'holds (2012/13)	Change (2004/05- 2012/13)	
1	Harrogate	Harrogate	Harrogate	Leeds	Harrogate	Hyndburn	Bradford	Harrogate	England	Wakefield	
2	England	England	Leeds	Calderdale	Craven	Harrogate	Leeds	England	Kirklees	Craven	
3	Craven	Bradford	England	England	England	England	England	Bradford	Leeds	England	
4	Leeds	Craven	Craven	Harrogate	Kirklees	Kirklees	Kirklees	Leeds	Burnley	Bradford	
5	Kirklees	Hyndburn	Calderdale	Burnley	Leeds	Calderdale	Calderdale	Kirklees	Bradford	Burnley	
6	Bradford	Leeds	Wakefield	Craven	Calderdale	Craven	Burnley	Wakefield	Wakefield	Kirklees	
7	Wakefield	Calderdale	Kirklees	Kirklees	Wakefield	Bradford	Wakefield	Craven	Harrogate	Leeds	
8	Calderdale	Kirklees	Bradford	Bradford	Bradford	Wakefield	Hyndburn	Burnley	Calderdale	Calderdale	
9	Hyndburn	Wakefield	Hyndburn	Hyndburn	Hyndburn	Leeds	Harrogate	Calderdale	Craven	Harrogate	
10	Burnley	Burnley	Burnley	Wakefield	Burnley	Burnley	Craven	Hyndburn	Hyndburn	Hyndburn	
Source:	CLG Live Table 586	CLG Live Table 586	VOA Private Market Rental Statistics	VOA Private Market Rental Statistics	CLG Live Table 576	CLG Live Table 576	Census 2011 Room Occupancy	Census 2001/2011	CLG Live Table 784 (P1e Returns)	CLG Live Table 784 (P1e Returns)	

Source: NLP analysis of VOA, CLG and ONS Statistics

# Deriving a Housing Requirement Figure for Bradford

- 9.1 Whilst certain aspects of the Council's approach to defining the FOAN are to be welcomed, there are clear shortcomings with the approach that has been taken and elements of the approach are unsound as a result.
- The Council's primary evidence base considers an insufficiently varied number of scenarios, and in particular fails to use alternative economic evidence to the REM and particularly the economic growth target set out in Policy EC2 of the BLPCS.
- 9.3 Whilst BMDC appears to be confused as to what its FOAN is, it seems to suggest that the 2,186 dpa recommended in Edge Analytics'/GVA's August 2013 Housing Requirement Study Addendum Report, rounded to 2,200 dpa, should comprise the housing need for the period 2013-2030. This is then uplifted to 2,652 dpa to take into account the substantial residual unmet need between 2004-2013 of 7,687 dwellings. We are working on the basis that the Council considers this figure of 2,652 dpa to be its housing requirement.
- 9.4 Whilst the Council subsequently nets off 3,000 vacant dwellings which it assumes will be brought back into use over the course of the plan period, thus reducing its remaining requirement to 42,087 dwellings (or 2,476 dpa), this figure does not appear to be properly supported and is, in any event, supply (or policy) led and does not comprise part of its objectively assessed housing need. Importantly, no evidence has been provided by the Council to demonstrate how likely it is that this level of reduction in the number of vacant homes could be achieved over the Plan period, or whether the location or type of the houses that are currently vacant are capable of meeting local needs.
- There is limited narrative and inadequate explanation behind the rationale for selecting the REM-based housing requirement over the higher Core Strategy jobs target and why no analysis of housing market signals has been undertaken. As such, the Council's justification is insufficiently transparent and inadequately reasoned and fails to accord with the requirements of the NPPF and the PPG. It has not been based on a proactive, objective and robust assessment, as required by the Framework in order to deliver growth. It is unsound.
- NLP recognises that the definition of FOAN is 'not an exact science' and an element of judgement is necessary, provided such judgements are based upon reasonable and realistic assumptions. The scenarios also need to be balanced alongside what is realistic and is likely to happen in the future, and align with other elements of the Council's evidence base.
- In defining the FOAN, it is considered that the following guiding principles should be applied, based on national guidance and Bradford's own aspirations and other background evidence:

- Household projections published by CLG provide the initial 'starting point' estimate of overall housing need (Practice Guidance). This would equate to 1,676 dpa across the City. However, whilst important to inform the baseline, such a scenario in isolation makes no allowance for the Council's economic growth aspirations or national policy requirements to 'boost significantly' the supply of housing. Nor does it reflect the latest 2012-based SNPP.
- 2 Justification for adjusting the demographic projections: It is considered that there is some justification for adjusting the household projections for two key reasons:
  - to reflect higher rates of household formation than assumed within the 2011-based household projections; and,
  - ii to reflect updated migration and population change from the 2012based SNPP.

In the first instance, it is recognised that the 2012-based SNPP indicates lower population growth than the previous iterations. However, this is more than compensated for by the second point which relates to headship rates. NLP's modelling suggests that by applying longer term headship rate formation trends post 2021, the baseline demographic requirement could justifiably be increased from the 2011-based household projections, to between 1,867 dpa and 2,213 dpa, depending upon how rapidly headship rates return to the long term trend as illustrated in the 2008-based household projections. However, these figures merely represent an appropriate 'starting point' upon which to apply other market considerations needed to 'boost significantly' the supply of housing in the FOA.

Upwards adjustment in response to market signals: As many of the market signals for the City of Bradford are worsening, this provides an indication of tightening demand and suggests that there needs to be some improvement in affordability to stabilise the increasing house prices, worsening overcrowding, levels of homelessness and increasing house prices. This would justify a significant uplift to the figures over and above the level suggested by the demographic projections. The PPG states (paragraph 2a-020) that this should be set at a level which could be reasonably expected to improve affordability.

The Practice Guidance states that a worsening trend in <u>any</u> of the key indicators will require upward adjustment to planned housing numbers. Most strikingly, the City has under-delivered 7,687 dwellings at an annual rate of 854 dpa since 2004. It is likely that this past under-delivery has resulted in fewer residents being able to have their own home in the City than would have been desirable. The Council has factored in an allowance for replacing the backlog in its entirety in deriving their housing requirements.

4 **Alignment with affordable housing needs:** Paragraph 47 of the NPPF states that Local Plans should identify and meet the FOAN for market and affordable housing needs. This implication of this is an expectation

that all affordable housing needs will be addressed for the duration of the Plan period. The 2013 SHMA identified the FOAN for affordable housing as being as high as 769 dwellings annually gross, or 1,302 dpa net (if the backlog is removed over five years instead of ten). On the basis of the Council's 20-25% affordable housing requirement, this level of need would require a total supply of at least 3,076 to 5,200 dwellings per annum. The BLPCS recognises that the growing demand for social housing is a significant issue to be addressed [§5.3.16]. The importance of affordable housing has been recognised by Inspectors at other EiPs, for example in Eastleigh where the Council's failure to address affordable housing needs through the FOAN was identified as a key reason for the suspension of the examination by the Inspector.

Extent of the Uplift Required: As stated in the Practice Guidance plan makers should not attempt to estimate the precise impact of an increase in housing supply. Rather they should increase planned supply by an amount that, on reasonable assumptions and consistent with principles of sustainable development, could be expected to improve affordability. Even in areas demonstrating signs of 'modest' market stress (see the recent Eastleigh and Uttlesford Local Plan Inspector's reports), uplifts of 10% have been applied. It is NLP's judgement that, balancing the various key market indicators and given the extremely high level of past underdelivery, an uplift in the region of around 20% would be appropriate on top of the demographic starting point figure of 1,867 dpa. This would equate to 2,240 dpa, or 38,087 dwellings in total over 17 years.

This 20% uplift, equal to an additional 6,348 dwellings across the City, is justified on the basis that it would begin to address the past underdelivery of homes and reverse the other worsening market signals identified in the assessment. It would also reflect the REM job growth and begin to reduce the very high level of affordable housing need identified in the Councils' 2013 SHMA.

Alignment with Economic Growth Needs: The Council has set out clear aspirations to target an annual job growth figure of 2,897 per annum. Modelling this aspiration in PopGroup suggests that around 3,300 dpa would be required to avoid a disconnection between the Council's economic and housing aspirations. This would fall to 2,621 dpa if unemployment reduced to 3% by 2030 (from a high of 11.3% currently).

The Experian projections, which comprise realistic, policy-off baseline job growth projections, suggest that a level of housing need in the order of 2,670 dpa would align with likely job growth forecasts, but without dealing with the Council's stated policy aspirations. This level of need sits almost midway between the 2014 REM (2,156 dpa) and the Bradford Core Strategy jobs target (3,298 dpa) and would align with the Core Strategy target only if unemployment were to be reduced. This therefore represents a minimum level of set given the Experian projections and the Council's strong economic growth aspirations (in contrast to the somewhat pessimistic REM outputs). The housing level should therefore

be set as a minimum of 2,670 and a figure above this would be more consistent with the Council's own policy for jobs in Policy EC2.

On this basis, we suggest that the housing FOAN for Bradford City would equate to around 2,670 dpa (Scenario G Experian job growth) over the period 2013-2030. This would equate to 45,390 dwellings over 17 years, before any deduction is made for empty properties being brought back into use.

This minimum figure is only just above the 2,652 dpa target set out in Table HO1 of the BLPCS (before vacant homes are netted off). But it should be a minimum because if the Council's CS is to reflect its won strategy to pursue the higher jobs target of 2,897 annually, then a higher figure anywhere up to 3,300 dpa is required.

# 10.0 Conclusion

The calculation of the housing requirement figure for Bradford by the Council is not justified or based on robust evidence. Whilst a considerable volume of housing evidence has been submitted, it does not adequately address the staged process required by the Practice Guidance or provide a logical narrative as to how the initial demographic starting point modelled by Edge Analytics/GVA has progressed to a housing requirement figure.

#### 10.2 Of particular concern:

- The evidence base for the BLPCS does not satisfy the Practice Guidance requirements to apply a staged process to the definition of housing FOAN, and confuses the 'FOAN' with the 'requirement';
- BMDC has failed to discharge the requirement set out in the Framework and the Practice Guidance to adequately address market signals in arriving at its housing requirement figure. The severity of market pressures and the very significant level of past under-delivery of housing would mean that a significant upward adjustment would be necessary in the order of 20%. Based on NLP's modelling work, this would result in a demographic-led housing need figure of 2,240 dpa being required;
- The scenarios modelled by the Council are very limited and overly influenced by REM economic data. The latest Experian projections and the Council's own economic aspirations project a level of job growth significantly higher than the REM projections; and,
- The very high level of affordable housing need across the City will not be addressed by the current housing requirement set out in the BLPCS and there is very limited evidence that this has influenced the derivation of the housing FOAN.
- Based on NLP's analysis, it is recommended that a suitable FOAN for Bradford City as a whole would be a minimum 2,670 dpa. This equates to the Experian projections only, but it does not cater for the Council's own economic growth aspirations. This would equate to 45,390 dwellings over 17 years, before any deduction is made for empty properties being brought back into use. This is slightly above the 2,652 dpa identified by the Council as its housing requirement before vacant homes are netted off. If the Council is to reflect its own economic strategy, the minimum figure of 2,670 dpa needs to be increased.
- Prior to the EIP, we reserve the right to review any new housing evidence produced by the Council and also any relevant new statistics, such as the updated CLG 2012-based household projections (if available). Depending upon this evidence, we will review the FOAN position set out in this paper accordingly.

# Appendix 1 Data Assumptions

Component	Scenario B-D: Demographic-led (2012-based SNPP) and headship rate sensitivities	Scenarios E: Bradford Core Strategy Job Growth and F: Bradford Core Strategy Job Growth 3% Unemployment	Scenario G: Experian Job Growth	Scenario H: June 2014 REM Job Growth					
Population									
Baseline Population	Bradford, split by age cohort	s taken from the 2012 Mid-year p and gender and aged on a year. constrained to the 2012-based S	For Scenario A and	the sensitivities, the					
Births	Future change assumed in the Total Fertility Rate [TFR] uses the birth projections from the ONS 20 based Interim SNPP. This in turn is used to derive future projected TFRs through PopGroup.								
Deaths		e SMR uses the death projection derive future projected SMRs the		12-based Interim					
Internal Migration	Gross domestic in and out migration flows are adopted based on forecast migration in Bradford from the ONS 2012-based SNPP for 2012 to 2035.	Internal in-migration and outmigration is flexed to achieve the necessary number of economically active people to underpin the economy in Bradford for this employment scenario. This was based on taking forward forecast job growth based on 2,897 jobs for Bradford in Policy EC2.	As Scenario E, but with potential unconstrained employment growth based on Experian projections (+2,168 jobs annually for Bradford).	As Scenario E, but with potential unconstrained employment growth based on REM projections (+1,604 jobs annually for Bradford).					
International Migration	As above but for international flows	As above but for international flows	As above but for international flows	As above but for international flows					
Propensity to Migrate (Age Specific Migration Rates)	profile of migrants to and from each age cohort within the dis individual age providing an A	(ASMigR) for both in and out don Bradford in the 2012-based SN stricts (for both in and out flows age Specific Migration Rate. This I out of the district (but not the to	NPP. These identify separately) which is then drives the dem	a migration rate for applied to each nographic profile of					
Housing									

Component	Scenario B-D: Demographic-led (2012-based SNPP) and headship rate sensitivities	Scenarios E: Bradford Core Strategy Job Growth and F: Bradford Core Strategy Job Growth 3% Unemployment	Scenario G: Experian Job Growth	Scenario H: June 2014 REM Job Growth
Headship Rates	from the government data whapplied to the demographic for headship rates were split by a headship rates available at the trends identified within the 20 projections applied to the 202 For the Baseline sensitivity to	ific to the City of Bradford and for nich was used to underpin the 20 precasts for each year as output age cohort and by household type to time of writing. Beyond 2021 108-based household projections 21 end point of the 2011-based has ests (Ba, Bb, Bc and Bd), a varied Id representation rates post 202	on 11-based CLG house by the PopGroup monology. These are the this is assumed to reservity with index trends from the projections of the projectio	ehold forecasts and odel. These e most up-to-date esume the long term om the 2008-based s.
		ange post 2021 is targeted to pa		2008-based
		ost 2021 is targeted to achieve Cerally the High Rate).	CLG 2008-based Hou	sehold Projections
Population Not in Households	The number of population no	t in households (e.g. those in ins n the 2011-based CLG househo	•	-
Vacancy / 2 <sup>nd</sup> Home Rate	vacancies/not permanently of more dwellings than househo	s rate is applied to the number of occupied homes which occur with olds are required to meet needs. Council Tax Base for Formula G riod.	nin the housing marke The vacancy rate a	et and mean that nd second homes in
Economic				
Economic Activity Rate	economic activity profile for the to reflect the changes to the sand the growth of part time of put forward by Kent County Conservation, But which is most pronounced for	rity Rates used for each age come City of Bradford. From 2012 State Pension Age; the propensi poportunities amongst other chall Council in their Technical Paper: usiness Strategy and Support" (Common over the age of 60 and 2 onwards up to 2020, whereby period.	onwards, an adjustmity for people to live longes. The NLP appearance "Activity Rate project October 2011). The imales between the a	nent has been made onger and retire later; broach mirrors that tions to 2036, ncrease in rates, ages of 65-69, are
Commuting Rate	worked out using the formula	te is inferred through the modell : (A) Number of employed worker r of jobs). This has not been fle I.	ers living in area ÷ (B	) Number of workers
Unemployment	Survey estimate of economic rate, NLP took the October-S equate to the 2012 rate; the e 2014 figure to equate to 2014 stabilisation at the current high term average (8.23%) over a forecasting period on the growhigh rate.	an ILO base definition using data ally active people not in employ eptember 2012 NOMIS unemployequivalent September 2013 figure.  I. NLP kept the former figure country in the pradually reductive year time frame. This figure unds that this is a better reflection employment rate of 11.3% is graden.	ment. To calculate the pyment figures for the cert to equate to 2013 constant for 2015 to reced the rate on a line e was then held constant for the long term tree.	ne unemployment e City of Bradford to and the September flect initial ar basis to the long stant to the end of the end than the current

# Appendix 2 PopGroup Output Sheets

#### **Bradford Baseline**

Componente o	

Components of FC	Year begin																									
Births	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19 2	019-20 20	20-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31 2	031-32	2032-33	2033-34	2034-35	2035-36	2036-37	
Male	4,301	4,321	4,297	4,268	4,276	4,282	4,270	4,255	4,243	4,236	4,228	4,220	4,215	4,213	4,214	4,217	4,223	4,231	4,242	4,256	4,272	4,290	4,311	4,334	4,357	
Female	4,096	4,115	4,092	4,065	4,072	4,078	4,066	4,053	4,041	4,034	4,027	4,019	4,015	4,012	4,013	4,016	4,022	4,029	4,040	4,053	4,068	4,086	4,106	4,127	4,149	
All Births TFR	8,397 2.29	8,435 2.30	8,389 2.28	8,334 2.27	8,348 2.27	8,360 2.27	8,336 2.26	8,308 2.26	8,283 2.26	8,269 2.26	8,255 2.26	8,240 2.26	8,230 2.26	8,225 2.26	8,227 2.26	8,233 2.25	8,244 2.25	8,260 2.25	8,282 2.25	8,309 2.25	8,340 2.25	8,376 2.25	8,417 2.25		8,506 2.25	
Births input		- 1	1																							
Deaths Male	2.120	2.016	2.023	2.014	2.007	2.005	2.006	2.015	2.024	2.033	2.044	2.061	2.082	2.102	2.125	2.150	2.176	2.204	2.232	2.260	2.291	2.323	2.350	2.382	2.417	
Female All deaths	2,339	2,151	2,127	2,114 4,128	2,112	2,095 4,100	2,081 4.087	2,077	2,078	2,077	2,081 4,125	2,090	2,099	2,110 4,213	2,125	2,142	2,154	2,176	2,197 4,429	2,218		2,269 4,592	2,295		2,362 4,779	
SMR: males	121.4	113.2	111.0	108.0	105.1	102.4	99.9	97.7	95.5	93.3	91.3	89.6	87.9	86.3	84.8	83.4	82.1	80.9	79.8	78.7	77.6	76.6	75.4	74.5	73.7	
SMR: females SMR: persons	123.5 122.5	112.7 112.9	109.7 110.4	107.4 107.7	105.6 105.3	103.2 102.8	100.7 100.3	98.6 98.2	96.7 96.1	94.7 94.0	92.9 92.1	91.3 90.4	89.7 88.8	88.1 87.2	86.7 85.7	85.3 84.3	83.7 82.9	82.6 81.7	81.4 80.6	80.4 79.5	78.5	78.3 77.4	77.1 76.2	75.3	75.5 74.6	
Expectation of life: males Expectation of life: females	77.1 81.0	78.0 82.0	78.2 82.3	78.5 82.5	78.9 82.7	79.2 82.9	79.5 83.2	79.7 83.4	80.0 83.6	80.3 83.8	80.6 84.0	80.8 84.2	81.1 84.4	81.3 84.6	81.6 84.8	81.7 85.0	81.9 85.2	82.1 85.3	82.3 85.5	82.3 85.6	82.5 85.7	82.7 85.9	82.9 86.1		83.2 86.3	
Expectation of life: persons Deaths input	79.1	80.1	80.3	80.6	80.9	81.2	81.4	81.6	81.9	82.1	82.4	82.6	82.8	83.0	83.2	83.4	83.6	83.8	83.9	84.0	84.2	84.4	84.5	84.7	84.8	
In-migration from the UK																										
Male Female	6,914 7,156	6,944 7,171	6,978 7,195	7,012 7,215	7,039 7,224	7,061 7,232	7,080 7,232	7,086 7,224	7,092 7,217	7,098 7,209	7,110 7,207	7,123 7,212	7,146 7,232	7,175 7,260	7,209 7,293	7,241 7,328	7,276 7,366	7,310 7,404	7,342 7,440	7,370 7,472		7,432 7,541	7,459 7,570		7,518 7,635	
All	14,071	14,115	14,173	14,227	14,263	14,293	14,313	14,310	14,309	14,307	14,317	14,335	14,378	14,436	14,502	14,569	14,642	14,715	14,783	14,841	14,909		15,029		15,153	
SMigR: males SMigR: females	0.2	0.2	0.2	0.2	0.2	0.2 0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.2	0.2	0.2		0.2	0.2		0.2	
Migrants input			•																							
Out-migration to the UK																										
Male Female	8,457 8,508	8,510 8,525	8,568 8,571	8,603 8,589	8,658 8,601	8,712 8,635	8,731 8,658	8,749 8,654	8,785 8,653	8,822 8,675	8,846 8,697	8,880 8,735	8,924 8,782	8,957 8,804	9,014 8,828	9,051 8,863	9,092 8,891	9,114 8,918	9,167 8,960	9,201 8,984	9,236 9,014		9,301 9,073		9,368 9,135	
All SMigR: males	16,966 29.1	17,035 29.0	17,139 29.0	17,191 29.0	17,259 29.0	17,348 29.0	17,389 28.9	17,403 28.9	17,438 28.9	17,496 28.9	17,543 28.9	17,615 29.0	17,706 29.0	17,761 29.0	17,842 29.0	17,914 29.0	29.0	18,033 29.0	29.0	18,184 29.0	28.9	28.9	18,374 28.9	28.9	18,504 28.9	
SMigR: females Migrants input	28.8	28.8	28.9	28.9	28.8	28.9	28.9	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.7	28.7	28.7	28.7	28.7	
In-migration from Overse	188																									
Male	2,567	2,573	2,571	2,674	2,602	2,611	2,562	2,560	2,562	2,575	2,566	2,564	2,569	2,565	2,571	2,570	2,571	2,569	2,571	2,593	2,585	2,580	2,581	2,580	2,579	
Female	1,860	1,854	1,849	1,908	1,872	1,871	1,835	1,836	1,833	1,828	1,828	1,827	1,826	1,829	1,835	1,837	1,838	1,838	1,836	1,844	1,844	1,841	1,841	1,841	1,840	
All SMigR: males SMigR: females	4,427 0.0 0.0	4,426	4,420	4,582 0.0 0.0	4,474 0.0 0.0	4,483 0.0 0.0	4,397	4,396	4,395 0.0 0.0	4,403 0.0 0.0	4,394 0.0 0.0	4,391 0.0 0.0	4,396 0.0 0.0	4,394 0.0 0.0	4,406	4,407 0.0 0.0	4,409	4,408 0.0 0.0	4,407	4,437	4,429 0.0 0.0	4,421	4,422		4,419 0.0 0.0	
SMigR: females Migrants input	. 0.0	0.0	0.0	. 0.0	0.0	. 0.0	0.0	0.0	0.0	. 0.0	0.0	. 0.0	. 0.0	0.0	0.0	. 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	. 0.0	. 0.0	
Out-migration to Oversea	is																									
Male Female	1,278	1,280	1,287	1,291	1,288	1,284	1,284	1,284	1,284	1,298	1,288	1,284	1,289	1,282	1,288	1,286	1,288	1,285	1,287	1,308	1,299	1,295	1,296	1,295	1,294	
All SMigR: males	2,304	2,299 78.3	2,308 78.3	2,308 78.0	2,311 77.4	2,298 76.7	2,294 76.3	2,293 75.9	2,292	2,301 76.3	2,289 75.6	2,285 75.2	2,289 75.3	2,284	2,296 74.9	2,295	2,297 74.3	2,294 73.8	2,294 73.5	2,323 74.4			2,307		2,305 72.0	
SMigR: females	78.5	78.3	78.3	77.7	78.0	77.2	76.6	76.6	76.5	76.1	76.1	76.1	75.9	76.0	76.3	76.3		73.8 75.9	75.3	75.6			74.4		73.8	
Migrants input								•																		
Migration - Net Flows UK	-2,895	-2,920	-2,966	-2,964	-2,996	-3,054	-3,076	-3,093	-3,130	-3,189	-3,226	-3,280	-3,328	-3,325	-3,341	-3,345	-3,341	-3,318	-3,344	-3,343	-3,341	-3,342	-3,345	-3,349	-3,351	
Overseas	+2,123	+2,127	+2,112	+2,275	+2,163	+2,185	+2,103	+2,103	+2,103	+2,103	+2,105	+2,106	+2,107	+2,110	+2,110	+2,112	+2,112	+2,114	+2,113	+2,114	+2,114	+2,114	+2,114	+2,114	+2,114	
Summary of population of Natural change	+3.938	+4.269	+4.238	+4.205	+4.229	+4.260	+4.249	+4.216	+4.181	+4.159	+4.129	+4.089	+4.049	+4.013	+3.977	+3.942	+3.915	+3.881	+3.853	+3.831	+3.806	+3.784	+3.772	+3.751	+3.727	
Net migration	-773	-793	-854	-690	-834	-870	-973	-990	-1,027	-1,086	-1,121	-1,174	-1,221	-1,215	-1,230	-1,233	-1,228	-1,204	-1,231	-1,229	-1,227	-1,227	-1,231	-1,235	-1,236	
Net change Crude Birth Rate /000	+3,166 15.96	+3,476 15.93	+3,385 15.74	+3,516 15.54	+3,395 15.46	+3,390 15.39	+3,276 15.25	+3,226 15.11	+3,154 14.98	+3,073 14.87	+3,008 14.76	+2,915 14.66	+2,828 14.57	+2,798 14.49	+2,747 14.42	+2,708 14.36	+2,686 14.31	+2,677 14.27	+2,622 14.25	+2,601 14.23		+2,557 14.22	+2,542 14.23	14.24	+2,491 14.26	
Crude Death Rate /000 Crude Net Migration Rate /000	8.47 -1.47	7.87 -1.50	7.79 -1.60	7.70 -1.29	7.63	7.55 -1.60	7.48 -1.78	7.44 -1.80	7.42	7.39 -1.95	7.38	7.38	7.40 -2.16	7.42	7.45 -2.16	7.49		7.57	7.62 -2.12	7.67	7.73	7.79	7.85		8.01 -2.07	
Summary of Popu	lation es	stimate	es/fore	ecasts																						
ounnary or ropu	Population			Jouoto																						
0-4	2012 41,369	2013 41,319	2014 41,334	2015 41,263	2016 41,429	2017 41,236	2018 41,234	2019 41,155	2020 41,087	2021 41,041	2022 40,969	2023 40,875	2024 40,787	2025 40,714	2026 40,658	2027 40,616	2028 40,595	2029 40,597	2030 40,622	2031 40,673	2032 40,749	2033 40,849	2034 40,974	2035 41,124	2036 41,297	2037 41,490
5-10	45,421	46,311	46,977	47,767	48,027	48,288	48,480	48,505	48,512	48,426	48,590	48,420	48,408	48,321	48,243	48,190	48,108	48,004	47,908	47,828	47,769	47,727	47,706	47,712	47,747	47,810
11-15 16-17	36,262 14,362	36,070 14,516	36,084 14,322	35,805 14,532	35,998 14,558	36,782 14,144	37,467 13,918	38,164 14,113	38,901 14,256	39,428 14,473	39,369 15,088	39,743 15,360	39,731 15,495	39,791 15,694	39,766 15,737	39,914 15,591	39,749 15,720	39,767 15,868	39,715 15,751	39,667 15,783	39,630 15,728	39,566 15,712	39,481 15,734	39,396 15,727	39,323 15,691	39,263 15,650
18-59Female, 64Male 60/65 -74	302,303 50,299	303,323 51,260	304,760 52,393	306,079 53,300	307,285 54,732	308,575 56,113	309,337 57,552	309,837 58,700	310,298 60,013	310,723 61,362	311,009 61,404	311,431 61,877	312,143 62,672	312,714 63,475	313,506 64,415	314,141 65,427	314,946 66,203	315,416 67,044	316,183 68,071	316,722 68,864	317,340 69,564	318,193 69,826	319,117 70,053	320,136 70,052	321,073 70,052	322,074 69,854
75-84 85+	24,773 9.830	25,101 9.885	25,259 10,130	25,475 10,425	25,392 10,739	25,381 11.038	25,659 11,298	26,062 11.685	26,286 12,095	26,634 12.515	28,230 13.017	29,473 13,504	30,489 13.873	31,425 14,294	32,372 14.528	33,283 14,810	34,121 15,240	34,852 15.819	35,505 16,288	36,299 16,829	36,238 18,249	36,597 19.376	37,108 20,230	37,759 21.038	38,588 21,690	39,496 22,315
Total	524,619	527,785	531,261	534,645	538,161	541,557	544,947	548,222	551,449	554,602	557,676	560,684	563,599	566,427	569,225	571,972	574,680	577,367	580,043	582,665	585,266	587,845	590,402	592,944	595,460	597,951
Dependency ratios, mean 0-15 / 16-65	age and s	ex ratio 0.37	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
65+ / 16-65 0-15 and 65+ / 16-65	0.22	0.22	0.23	0.23	0.23	0.24	0.24	0.24	0.25	0.25 0.63	0.26	0.26	0.27	0.27	0.28	0.28		0.29	0.30	0.30	0.31	0.32	0.32	0.32	0.33	0.33
Median age males	33.3	33.4	33.5	33.6	33.7	33.8	33.9	34.0	34.1	34.2	34.2	34.3	34.4	34.6	34.7	34.9	35.1	35.2	35.4	35.5	35.6	35.8	35.9	36.0	36.0	36.1
Median age females Sex ratio males /100 females	35.0 97.0	35.0 97.3	35.0 97.5	35.1 97.8	35.2 98.0	35.3 98.2	35.5 98.4	35.7 98.6	35.8 98.8	36.0 98.9	36.1 99.1	36.2 99.3	36.4 99.4	36.5 99.6	36.7 99.7	36.8 99.9	36.9 100.0	37.0 100.1	37.2 100.2	37.3 100.3	37.4 100.4	37.5 100.5	37.6 100.6	37.6 100.7	37.7 100.8	37.8 100.9
Population impact of con Number of persons	straint +11	-4	-6	-10	-12	-13	-15	-15	-15	-15	-15	-13	-12	-11	-8	-7	-6	-5	-4	-4	-4	-3	-3	-3	4	-4
Households																										
Number of Households Change in Households over pro-		201,768 +1,247	203,293 +1,525	204,865 +1,572	206,378 +1,513	207,877 +1,499	209,482 +1,604	211,079 +1,598	212,589 +1,509	214,153 +1,564	216,125 +1,972	218,112 +1,987	220,098 +1,987	222,066 +1,968	224,068 +2,002	226,096 +2,029	228,056 +1,959	+1,945	+1,881	233,738 +1,856	+1,763	+1,748	238,820 +1,572	+1,529	241,783 +1,434	243,209 +1,426
Number of supply units Change in over previous year	211,386 +1,046	212,701	214,308 +1.608	215,965 +1,657	217,560	219,141	220,832 +1,691	222,517 +1.684	224,108 +1,591	225,757 +1,649	227,835 +2,078	229,930 +2.095	232,024 +2,094	234,099 +2,075	236,209 +2,110	238,347	240,413	242,464 +2.050	244,446	246,403 +1,957	248,261 +1.858	250,103 +1,842	251,760 +1,657	253,372 +1,612	254,884 +1,512	256,387 +1,503
	,		,230	,	,383	,	,	,/	,	,549				,	.=,0	,/30		.=,=50	,	,	,350	,	,300	,312		,
Labour Force	245.172	246.733	248 418	250.096	251.743	252 782	253 931	255 324	258 531	257.383	258.055	258 842	259.492	260 291	261 031	261,801	262 590	263.438	264 224	264.871	265 680	266 586	267 468	268 310	269.279	270 281
Change in Labour Force over o	+742	+1,561	+1,685	+1,678	+1,647	+1,039	+1,149	+1,393	+1,207	+852	+672	+787	+650	+799	+739	+771	+789	+847	+786	+648	+809	+906	+882	+842	+968	+1,003
Number of supply units Change in over previous year	198,867 +3,257	198,123 -744	203,525 +5,401	204,899 +1,375	206,827 +1,928	208,262 +1,435	209,793 +1,531	211,530 +1,738	213,120 +1,590	213,828 +708	214,386 +558	215,040 +654	215,580 +540	216,244 +664	216,858 +614	217,499 +640	218,154 +655	218,858 +704	219,511 +653	220,049 +538	220,721 +672	221,474 +752	222,207 +733	222,906 +699	223,711 +805	224,544 +833

	Year begin			 015-16 2	016-17 2	1017-18 2	018-19 20	019-20 2	020-21 2	021-22	022-23 2	023-24 2	024-25 2	025-26 2	226-27 2	027-28 2	028-29	2029-30 2	2030-31 20	031-32 20	32-33 2	033-34 2	034-35 2	035-36 2	2036-37	
rths ie	4,301	4,321	4,297	4,268	4,276	4,282	4,270	4,255	4,243	4,236	4,228	4,220	4,215	4,213	4,214	4,217	4,223	4,231	4,242	4,256	4,272	4,290	4,311	4,334	4,357	
emale	4.096	4.115	4.092	4.065	4.072	4.078	4.066	4,053	4.041	4.034	4.027	4.019	4.015	4.012	4.013	4.016	4.022	4.029	4 040	4.053	4.068	4.086	4.106	4.127	4,149	
	.,		4,092			.,	1,000	.,	.,	.,	.,	1,010	1,010		1,010	.,	.,	4,029	.,	1,000	.,	.,		4,127		
W Births FR	8,397	8,435	8,389	8,334 2.27	8,348 2.27	8,360 2.27	8,336	8,308	8,283 2.26	8,269	8,255	8,240	8,230	8,225	8,227	8,233	8,244	8,260 2.25	8,282	8,309 2.25	8,340 2.25	8,376 2.25	8,417 2.25	8,461 2.25	8,506	
TFR Births input	2.29	2.30	2.28	2.27	2.27	2.27	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
Deaths Male	2,120	2,016	2,023	2,014	2,007	2,005	2,006	2,015	2,024	2,033	2.044	2,061	2,082	2,102	2,125	2,150	2,176	2,204	2,232	2,260	2,291	2,323	2,350	2,382	2,417	
Female	2,339	2,151	2,127	2,114	2,112	2,095	2,081	2,077	2,078	2,077	2,081	2,090	2,099	2,110	2,125	2,142	2,154	2,176	2,197	2,218	2,243	2,269	2,295	2,327	2,362	
All deaths	4,458	4,167	4,151	4,128	4,119	4,100	4,087	4,091	4,102	4,110	4,125	4,151	4,181	4,213	4,250	4,292	4,329	4,379	4,429	4,478	4,534	4,592	4,645	4,710	4,779	
SMR: males SMR: females	121.4 123.5	113.2 112.7	111.0	108.0	105.1 105.6	102.4	99.9 100.7	97.7 98.6	95.5 96.7	93.3	91.3 92.9	89.6 91.3	87.9 89.7	86.3 88.1	84.8 86.7	83.4 85.3	82.1 83.7	80.9 82.6	79.8 81.4	78.7 80.4	77.6	76.6 78.3	75.4 77.1	74.5 76.3	73.7 75.5	
SMR: persons	122.5	112.9	110.4	107.7	105.3	102.8	100.3	98.2	96.1	94.0	92.1	90.4	88.8	87.2	85.7	84.3	82.9	81.7	80.6	79.5	78.5	77.4	76.2	75.3	74.6	
Expectation of life: males Expectation of life: females	77.1 81.0	78.0 82.0	78.2 82.3	78.5 82.5	78.9 82.7	79.2 82.9	79.5 83.2	79.7 83.4	80.0 83.6	80.3 83.8	80.6 84.0	80.8 84.2	81.1 84.4	81.3 84.6	81.6 84.8	81.7 85.0	81.9 85.2	82.1 85.3	82.3 85.5	82.3 85.6	82.5 85.7	82.7 85.9	82.9 86.1	83.1 86.2	83.2 86.3	
Expectation of life: remailes  Expectation of life: persons	79.1	82.0	82.3	82.5	82.7	82.9	83.2	83.4 81.6	81.9	83.8	84.0 82.4	84.2	84.4	84.6	84.8	85.0	85.2 83.6	85.3	83.9	85.6 84.0	84.2	84.4	84.5	84.7	86.3 84.8	
Deaths input																										
In-migration from the UK																										
Male	6,914	6,944	6,978	7,012	7,039	7,061	7,080	7,086	7,092	7,098	7,110	7,123	7,146	7,175	7,209	7,241	7,276	7,310	7,342	7,370	7,401	7,432	7,459	7,488	7,518	
Female	7,156	7,171	7,195	7,215	7,224	7,232	7,232	7,224	7,217	7,209	7,207	7,212	7,232	7,260	7,293	7,328	7,366	7,404	7,440	7,472	7,508	7,541	7,570	7,602	7,635	
All	14,071	14,115	14,173	14,227	14,263	14,293	14,313	14,310	14,309	14,307	14,317	14,335	14,378	14,436	14,502	14,569	14,642		14,783	14,841	14,909	14,973	15,029	15,090	15,153	
SMigR: males SMigR: females	0.2	0.2	0.2	0.2	0.2	0.2 0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Migrants input																										
Out-migration to the UK																										
Out-migration to the UK Male	8.457	8.510	8.568	8.603	8.658	8.712	8.731	8.749	8.785	8.822	8.846	8.880	8.924	8.957	9.014	9.051	9.092	9.114	9.167	9.201	9.236	9.269	9.301	9.333	9.368	
Female	8,508	8,525	8,571	8,589	8,601	8,635	8,658	8,654	8,653	8,675	8,697	8,735	8,782	8,804	8,828	8,863	8,891	8,918	8,960	8,984	9,014	9,045	9,073	9,106	9,135	
All SMigR: males	16,966	17,035	17,139	17,191	17,259	17,348	17,389	17,403	17,438	17,496	17,543	17,615	17,706	17,761	17,842	17,914	17,982 29.0	18,033	18,127	18,184	18,250	18,314	18,374	18,439	18,504	
SMigR: males SMigR: females	29.1 28.8	29.0 28.8	29.0 28.9	29.0 28.9	29.0 28.8	29.0 28.9	28.9 28.9	28.9 28.8	28.9 28.8	28.9 28.8	28.9 28.9	29.0 28.9	29.0 28.9	29.0 28.9	29.0 28.9	29.0 28.9	29.0 28.9	29.0 28.8	29.0 28.8	29.0 28.8	28.9 28.7	28.9 28.7	28.9 28.7	28.9 28.7	28.9 28.7	
Migrants input																			+ 1							
In-migration from Oversea																										
Male	2,567	2,573	2,571	2,674	2,602	2,611	2,562	2,560	2,562	2,575	2,566	2,564	2,569	2,565	2,571	2,570	2,571	2,569	2,571	2,593	2,585	2,580	2,581	2,580	2,579	
Female	1,860	1,854	1,849	1,908	1,872	1,871	1,835	1,836	1,833	1,828	1,828	1,827	1,826	1,829	1,835	1,837	1,838	1,838	1,836	1,844	1,844	1,841	1,841	1,841	1,840	
All	4,427	4,426	4,420	4,582	4,474	4,483	4,397	4,396	4,395	4,403	4,394	4,391	4,396	4,394	4,406	4,407	4,409	4,408	4,407	4,437	4,429	4,421	4,422	4,420	4,419	
SMigR: males SMigR: females	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Migrants input																										
Out-migration to Overseas																										
Male	1,278	1,280	1,287	1,291	1,288	1,284	1,284	1,284	1,284	1,298	1,288	1,284	1,289	1,282	1,288	1,286	1,288	1,285	1,287	1,308	1,299	1,295	1,296	1,295	1,294	
Female	1,026	1,019	1,021	1,017	1,023	1,014	1,009	1,010	1,007	1,003	1,001	1,001	1,000	1,001	1,007	1,009	1,009	1,009	1,007	1,015	1,016	1,012	1,012	1,012	1,011	
All SMigR: males	2,304 78.6	2,299 78.3	2,308 78.3	2,308 78.0	2,311 77.4	2,298 76.7	2,294 76.3	2,293 75.9	2,292 75.7	2,301 76.3	2,289 75.6	2,285 75.2	2,289 75.3	2,284 74.7	2,296 74.9	2,295 74.5	2,297 74.3	2,294 73.8	2,294 73.5	2,323 74.4	2,315 73.5	2,307 72.9	2,307 72.7	2,306 72.3	2,305 72.0	
SMigR: maies SMigR: females	78.5	78.3	78.3	78.0	77.4	76.7	76.3 76.6	76.6	76.5	76.3 76.1	76.1	76.1	75.9 75.9	76.0	74.9	74.5 76.3	76.1	75.9	75.3	74.4	73.5 75.3	74.6	74.4	74.1	72.0	
Migrants input																										
Migration - Net Flows																										
UK	-2,895	-2,920	-2,966	-2,964	-2,996	-3,054	-3,076	-3,093	-3,130	-3,189	-3,226	-3,280	-3,328	-3,325	-3,341	-3,345	-3,341	-3,318	-3,344	-3,343	-3,341	-3,342	-3,345	-3,349	-3,351	
Overseas	+2,123	+2,127	+2,112	+2,275	+2,163	+2,185	+2,103	+2,103	+2,103	+2,103	+2,105	+2,106	+2,107	+2,110	+2,110	+2,112	+2,112	+2,114	+2,113	+2,114	+2,114	+2,114	+2,114	+2,114	+2,114	
Summary of population ch	ange																									
Natural change	+3,938	+4,269	+4,238	+4,205	+4,229	+4,260	+4,249	+4,216	+4,181	+4,159	+4,129	+4,089	+4,049	+4,013	+3,977	+3,942	+3,915	+3,881	+3,853	+3,831	+3,806	+3,784	+3,772	+3,751	+3,727	
Net migration	-773	-793	-854	-690	-834	-870	-973	-990	-1,027	-1,086	-1,121	-1,174	-1,221	-1,215	-1,230	-1,233	-1,228	-1,204	-1,231	-1,229	-1,227	-1,227	-1,231	-1,235	-1,236	
Net change	+3,166	+3,476	+3,385	+3,516	+3,395	+3,390	+3,276	+3,226	+3,154	+3,073	+3,008	+2,915	+2,828	+2,798	+2,747	+2,708	+2,686	+2,677	+2,622	+2,601	+2,579	+2,557	+2,542	+2,516	+2,491	
Crude Birth Rate /000 Crude Death Rate /000	15.96 8.47	15.93 7.87	15.74 7.79	15.54 7.70	15.46 7.63	15.39 7.55	15.25 7.48	15.11 7.44	14.98 7.42	14.87 7.39	14.76 7.38	14.66 7.38	14.57 7.40	14.49 7.42	14.42 7.45	14.36 7.49	14.31 7.52	14.27 7.57	14.25 7.62	14.23 7.67	14.22 7.73	14.22 7.79	14.23 7.85	14.24 7.93	14.26 8.01	
Crude Net Migration Rate /000	-1.47	-1.50	-1.60	-1.29	-1.54	-1.60	-1.78	-1.80	-1.86	-1.95	-2.01	-2.09	-2.16	-2.14	-2.16	-2.15	-2.13	-2.08	-2.12	-2.11	-2.09	-2.08	-2.08	-2.08	-2.07	
Summary of Popula				asts																						
	Population																									
	2012	2013		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
0-4 5-10	41,369 45,421	41,319 46,311	41,334 46,977	41,263 47,767	41,429 48,027	41,236 48,288	41,234 48,480	41,155 48,505	41,087 48,512	41,041 48,426	40,969 48,590	40,875 48,420	40,787 48,408	40,714 48,321	40,658 48,243	40,616 48,190	40,595 48,108	40,597 48,004	40,622 47,908	40,673 47,828	40,749 47,769	40,849 47,727	40,974 47,706	41,124 47,712	41,297 47,747	41,490 47,810
11-15	36,262	36,070	36,084	35,805	35,998	36,782	37,467	38,164	38,901	39,428	39,369	39,743	39,731	39,791	39,766	39,914	39,749	39,767	39,715	39,667	39,630	39,566	39,481	39,396	39,323	39,263
16-17	14,362	14,516	14,322	14,532	14,558	14,144	13,918	14,113	14,256	14,473	15,088	15,360	15,495	15,694	15,737	15,591	15,720	15,868	15,751	15,783	15,728	15,712	15,734	15,727	15,691	15,650
18-59Female, 64Male 60/65 -74	302,303 50,299	303,323 51,260	304,760 52,393	306,079 53.300	307,285 54.732	308,575 56,113	309,337 57.552	309,837 58,700	310,298 60.013	310,723 61,362	311,009 61,404	311,431 61,877	312,143 62,672	312,714 63,475	313,506 64.415	314,141 65.427	314,946 66.203	315,416 : 67.044	316,183 68,071	316,722 68.864	317,340 69,564	318,193 69,826	319,117 70.053	320,136 70.052	321,073 70.052	322,074 69,854
75-84	24,773	25,101	25,259	25,475	25,392	25,381	25,659	26,062	26,286	26,634	28,230	29,473	30,489	31,425	32,372	33,283	34,121		35,505	36,299	36,238	36,597	37,108	37,759	38,588	39,496
85+	9,830	9,885	10,130	10,425	10,739	11,038	11,298	11,685	12,095	12,515	13,017	13,504	13,873	14,294	14,528	14,810	15,240	15,819	16,288	16,829	18,249	19,376	20,230	21,038	21,690	22,315
Jotal	524,619	527,785	531,261	534,645	538,161	541,557	544,947	548,222	551,449	554,602	557,676	560,684	563,599	566,427	569,225	571,972	574,680	577,367	580,043	582,665	585,266	587,845	590,402	592,944	595,460	597,951
Dependency ratios, mean																										
0-15 / 16-65 65+ / 16-65	0.37	0.37	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
0-15 and 65+ / 16-65	0.59	0.60	0.23	0.23	0.23	0.24	0.62	0.24	0.25	0.63	0.26	0.64	0.27	0.27	0.28	0.28	0.66	0.29	0.30	0.90	0.31	0.32	0.32	0.32	0.33	0.33
Median age males	33.3	33.4	33.5	33.6	33.7	33.8	33.9	34.0	34.1	34.2	34.2	34.3	34.4	34.6	34.7	34.9	35.1	35.2	35.4	35.5	35.6	35.8	35.9	36.0	36.0	36.1
Median age females Sex ratio males /100 females	35.0 97.0	35.0 97.3	35.0 97.5	35.1 97.8	35.2 98.0	35.3 98.2	35.5 98.4	35.7 98.6	35.8 98.8	36.0 98.9	36.1 99.1	36.2 99.3	36.4 99.4	36.5 99.6	36.7 99.7	36.8 99.9	36.9 100.0	37.0 100.1	37.2 100.2	37.3 100.3	37.4 100.4	37.5 100.5	37.6 100.6	37.6 100.7	37.7 100.8	37.8 100.9
and the second control of the second control	27.0	#1.3	an.u	ar.0	au.J	au.2	20.7	au.0	au.3	20.9		22.3	44.4	20.0		20.3	100.0	100.7	100.2	100.3	100.4	100.3	100.0	100.7	100.0	100.9
Population impact of cons	traint	-4	-6	-10	-12	-13	-15	-15	-15	-15	-15	-13	-12	-11	-8	.7		-5	-4	-4	-4	-3	-3	-3		
or person B	***		*0	-10	-12	-13	-15	-15	-15	-15	-15	-13	-12	-11	-0		-0	*0		-		-3	-3	-3	-	-4
Households																										
Number of Households Change in Households over pre	200,521	201,768	203,293	204,865	206,378	207,877	209,482	211,079	212,589	214,153	216,283	218,420	220,536 ±2.116	222,605	224,611	226,608	228,554	230,502	232,405	234,382	236,311	238,255	239,815	241,333	242,757	244,180
Change in Households over pre Number of supply units	+993 211,386		+1,525 214,308	+1,572 215,965	+1,513 217,560	+1,499	+1,604 220,832	+1,598 222,517	+1,509 224,108	+1,564 225,757	+2,130 228,002	+2,137 230,255	+2,116 232,486	+2,068 234,666	+2,006 236,781	+1,997	+1,946 240,938		+1,903 244,998	+1,977	+1,928 249,115	+1,944 251,165	+1,560 252,810	+1,518 254,410	+1,424 255,911	+1,423 257,411
Change in over previous year	+1,046	+1,314	+1,608	+1,657	+1,595	+1,581	+1,691	+1,684	+1,591	+1,649	+2,245	+2,253	+2,231	+2,181	+2,115	+2,106	+2,051	+2,054	+2,007	+2,084	+2,033	+2,050	+1,645	+1,600	+1,501	+1,500
Labour Force																										
Number of Labour Force	245,172	246,733	248,418	250,096	251,743	252,782	253,931	255,324	256,531	257,383	258,055	258,842	259,492	260,291	261,031	261,801	262,590	263,438	264,224	264,871	265,680	266,586	267,468	268,310	269,279	270,281
Change in Labour Force over p	+742 198 867	+1,561	+1,685	+1,678	+1,647	+1,039	+1,149	+1,393	+1,207	+852	+672	+787	+650	+799	+739	+771	+789	+847	+786	+648	+809	+906	+882	+842	+968	+1,003
		198 123	203,525	204,899	206,827	208,262	209,793	211,530	213,120	213,828 +708	214,386	215,040	215,580 +540	216,244 +664	216,858	217,499	218,154 +655	218,858	219,511 +653	220,049	220,721 +672	221,474	222,207	222,906	223,711	224,544 +833
Number of supply units Change in over previous year	+3.257	-744	+5.401	+1.375	+1.928	+1.435	+1.531	+1.738	+1.590		+558	+654			+614			+704		+538		+752	+733	+699	+805	

Population Estimates and Forecasts	Bradford Baseline + Catch Up

	Year begin	n Chang																						
	2012-13	2013-14 2	014-15 20	115-16 20	016-17 2	017-18 2	018-19 20	019-20 2	020-21 2	021-22 2	022-23 20	023-24 20	24-25 20	25-26 20	26-27 20	27-28 20	28-29 20	29-30 2030-31	2031-32 2	032-33 2	033-34 20	34-35 20	35-36 20	36-37
Births Male	4,301	4,321	4,297	4,268	4,276	4,282	4,270	4,255	4,243	4,236	4,228	4,220	4,215	4,213	4,214	4,217	4,223	4,231 4,242	4,256	4,272	4,290	4,311	4,334	4,357
Female	4,096	4,115	4,092	4,065	4,072	4,078	4,066	4,053	4,041	4,034	4,027	4,019	4,015	4,012	4,013	4,016	4,022	4,029 4,040	4,053	4,068	4,086	4,106	4,127	4,149
All Births	8,397	8,435	8,389	8,334	8,348	8,360	8,336	8,308	8,283	8,269	8,255	8,240	8,230	8,225	8,227	8,233	8,244	8,260 8,282	8,309	8,340	8,376	8,417	8,461	8,506
TFR Births input	2.29	2.30	2.28	2.27	2.27	2.27	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.25	2.25	2.25 2.25	2.25	2.25	2.25	2.25	2.25	2.25
Deaths																								
Male Female	2,120 2,339	2,016 2,151	2,023	2,014 2,114	2,007 2,112	2,005 2,095	2,006 2,081	2,015 2,077	2,024 2,078	2,033	2,044	2,061 2,090	2,082 2,099	2,102 2,110	2,125 2,125	2,150 2,142	2,176 2,154	2,204 2,232 2,176 2,197	2,260 2,218	2,291 2,243	2,323 2,269	2,350 2,295	2,382	2,417 2,362
All deaths	4,458	4,167	4,151	4,128	4,119	4,100	4,087	4,091	4,102	4,110	4,125	4,151	4,181	4,213	4,250	4,292	4,329	4,379 4,429	4,478	4,534	4,592	4,645	4,710	4,779
SMR: males SMR: females	121.4 123.5	113.2 112.7	111.0 109.7	108.0 107.4	105.1 105.6	102.4 103.2	99.9 100.7	97.7 98.6	95.5 96.7	93.3 94.7	91.3 92.9	89.6 91.3	87.9 89.7	86.3 88.1	84.8 86.7	83.4 85.3	82.1 83.7	80.9 79.8 82.6 81.4	78.7 80.4	77.6 79.3	76.6 78.3	75.4 77.1	74.5 76.3	73.7 75.5
SMR: persons Expectation of life: males	122.5 77.1	112.9 78.0	110.4 78.2	107.7 78.5	105.3 78.9	102.8 79.2	100.3 79.5	98.2 79.7	96.1 80.0	94.0 80.3	92.1 80.6	90.4 80.8	88.8 81.1	87.2 81.3	85.7 81.6	84.3 81.7	82.9 81.9	81.7 80.6 82.1 82.3	79.5 82.3	78.5 82.5	77.4 82.7	76.2 82.9	75.3 83.1	74.6 83.2
Expectation of life: females Expectation of life: persons	81.0 79.1	82.0 80.1	82.3 80.3	82.5 80.6	82.7 80.9	82.9 81.2	83.2 81.4	83.4 81.6	83.6 81.9	83.8 82.1	84.0 82.4	84.2 82.6	84.4 82.8	84.6 83.0	84.8 83.2	85.0 83.4	85.2 83.6	85.3 85.5 83.8 83.9	85.6 84.0	85.7 84.2	85.9 84.4	86.1 84.5	86.2 84.7	86.3 84.8
Deaths input																								
In-migration from the UK	6,914	6,944	0.000	700							74		74.7	7.4	7.0	200	7.000	7.040			7.000	7,459	7.00	7.5
Male Female	6,914 7,156	6,944 7,171	6,978 7,195	7,012 7,215	7,039 7,224	7,061 7,232	7,080 7,232	7,086 7,224	7,092 7,217	7,098 7,209	7,110 7,207	7,123 7,212	7,146 7,232	7,175 7,260	7,209 7,293	7,241 7,328	7,276 7,366	7,310 7,342 7,404 7,440	7,370 7,472	7,401 7,508	7,432 7,541	7,459 7,570	7,488 7,602	7,518 7,635
All SMigR: males	14,071	14,115 0.2	14,173 0.2	14,227	14,263	14,293 0.2	14,313	14,310	14,309	14,307 0.2	14,317	14,335 0.2	14,378	14,436	14,502 0.2	14,569	14,642	14,715 14,783 0.2 0.2	14,841	14,909	14,973 0.2	15,029 0.2	15,090 0.2	15,153 0.2
SMigR: females	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2 0.2	0.2	0.2	0.2	0.2	0.2	0.2
Migrants input																	•							•
Out-migration to the UK Male	8,457	8,510	8,568	8,603	8,658	8,712	8,731	8,749	8,785	8,822	8,846	8,880	8,924	8,957	9,014	9,051	9,092	9,114 9,167	9,201	9,236	9,269	9,301	9,333	9,368
Female All	8,508 16,966	8,525 17,035	8,571 17,139	8,589 17,191	8,601 17,259	8,635 17,348	8,658 17,389	8,654 17,403	8,653 17,438	8,675 17,496	8,697 17,543	8,735 17,615	8,782 17,706	8,804 17,761	8,828 17,842	8,863 17,914	8,891 17,982	8,918 8,960 18,033 18,127	8,984 18,184	9,014 18,250	9,045 18,314	9,073 18,374	9,106 18,439	9,135 18,504
SMigR: males	29.1	29.0	29.0	29.0	29.0	29.0	28.9 28.9	28.9 28.8	28.9	28.9	28.9 28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.0 29.0 28.8 28.8	29.0	28.9	28.9	28.9	28.9	28.9
SMigR: females Migrants input	28.8	28.8	28.9	28.9	28.8	28.9	28.9	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.9	28.9	26.8 28.8	28.8	28./	28.7	28.7	28.7	28.7
In-migration from Overses	38																							
Male	2,567	2,573	2,571	2,674	2,602	2,611	2,562	2,560	2,562	2,575	2,566	2,564	2,569	2,565	2,571	2,570	2,571	2,569 2,571	2,593	2,585	2,580	2,581	2,580	2,579
Female	1,860	1,854	1,849	1,908	1,872	1,871	1,835	1,836	1,833	1,828	1,828	1,827	1,826	1,829	1,835	1,837	1,838	1,838 1,836	1,844	1,844	1,841	1,841	1,841	1,840
All	4,427	4,426	4,420	4,582	4,474	4,483	4,397	4,396	4,395	4,403	4,394	4,391	4,396	4,394	4,406	4,407	4,409	4,408 4,407	4,437	4,429	4,421	4,422	4,420	4,419
SMigR: males SMigR: females Migrants input	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0
Out-migration to Overseas																								
Male	1,278	1,280	1,287	1,291	1,288	1,284	1,284	1,284	1,284	1,298	1,288	1,284	1,289	1,282	1,288	1,286	1,288	1,285 1,287	1,308	1,299	1,295	1,296	1,295	1,294
Female All	1,026 2,304	1,019 2,299	1,021 2,308	1,017 2,308	1,023 2,311	1,014 2,298	1,009 2,294	1,010 2,293	1,007	1,003 2,301	1,001 2,289	1,001 2,285	1,000 2,289	1,001 2,284	1,007 2,296	1,009 2,295	1,009 2,297	1,009 1,007 2,294 2,294	1,015 2,323	1,016 2,315	1,012 2,307	1,012 2,307	1,012 2,306	1,011 2,305
SMigR: males SMigR: females	78.6 78.5	78.3 77.9	78.3 78.1	78.0 77.7	77.4 78.0	76.7 77.2	76.3 76.6	75.9 76.6	75.7 76.5	76.3 76.1	75.6 76.1	75.2 76.1	75.3 75.9	74.7 76.0	74.9 76.3	74.5 76.3	74.3 76.1	73.8 73.5 75.9 75.3	74.4 75.6	73.5 75.3	72.9 74.6	72.7 74.4	72.3 74.1	72.0 73.8
Migrants input																								
Migration - Net Flows	.9 ***	-2,920	2 000	2001	.9 000	.9.054	.9.070	.9 000	.9 400	.9 400	.9	.9 ***	.9 900	.9 900	.9 9**	.0.045	.9 044	9 919 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	.0.040	.9.044	.9.040	904	.9.940	.9 004
Overseas	-2,895 +2,123		-2,966 +2,112	-2,964 +2,275	-2,996 +2,163	-3,054 +2,185	-3,076 +2,103	-3,093 +2,103	-3,130 +2,103	-3,189 +2,103	-3,226 +2,105	-3,280 +2,106	-3,328 +2,107	-3,325 +2,110	-3,341 +2,110	-3,345 +2,112	-3,341 +2,112	-3,318 -3,344 +2,114 +2,113	-3,343 +2,114	-3,341 +2,114	-3,342 +2,114	-3,345 +2,114	-3,349 +2,114	-3,351 +2,114
Summary of population cl	hange																							
Natural change Net migration	+3,938 -773	+4,269	+4,238 -854	+4,205	+4,229 -834	+4,260 -870	+4,249	+4,216	+4,181 -1.027	+4,159	+4,129	+4,089	+4,049	+4,013	+3,977	+3,942	+3,915	+3,881 +3,853 -1,204 -1,231	+3,831	+3,806 -1,227	+3,784	+3,772	+3,751 -1.235	+3,727
Net change	+3,166	+3,476	+3,385	+3,516	+3,395	+3,390	+3,276	+3,226	+3,154	+3,073	+3,008	+2,915	+2,828	+2,798	+2,747	+2,708	+2,686	+2,677 +2,622	+2,601	+2,579	+2,557	+2,542	+2,516	+2,491
Crude Birth Rate /000 Crude Death Rate /000	15.96 8.47	15.93 7.87	15.74 7.79	15.54 7.70	15.46 7.63	15.39 7.55	15.25 7.48	15.11 7.44	14.98 7.42	14.87 7.39	14.76 7.38	14.66 7.38	14.57 7.40	14.49 7.42	14.42 7.45	14.36 7.49	14.31 7.52	14.27 14.25 7.57 7.62	14.23 7.67	14.22 7.73	14.22 7.79	14.23 7.85	14.24 7.93	14.26 8.01
Crude Net Migration Rate /000							-1.78	-1.80	-1.86			-2.09	-2.16					-2.08 -2.12				-2.08		-2.07
	-1.47	-1.50	-1.60	-1.29	-1.54	-1.60		-1.00		-1.95	-2.01	-2.09	-2.10	-2.14	-2.16	-2.15	-2.13		-2.11	-2.09	-2.08	4.00	-2.08	-2.07
Summary of Popul	ation es	stimate	s/forec		-1.54	-1.60		-1.80		-1.96	-2.01	-2.09	-2.10	-2.14	-2.16	-2.15	-2.13		2.11	-2.09	-2.08	2.00	-2.08	-2.07
Summary of Popul	ation es	stimate at mid-yea	s/forec	asts			2018		2020									2/20 2/20						
Summary of Popul	ation es Population 2012 41,369	at mid-yea 2013 41,319	s/forec ar 2014 41,334	2015 41,263	2016 41,429	2017 41,236	2018 41,234	2019 41,155	2020 41,087	2021 41,041	2022 40,969	2023 40,875	2024 40,787	2025 40,714	2026 40,658	2027 40,616	2028 40,595	2029 2030 40,597 40,622	2031 40,673	2032 40,749	2033 40,849	2034 40,974	2035 41,124	2036 41,297
Summary of Popul.  0-4 5-10 11-15	ation es	stimate at mid-yeu 2013	s/forec	asts 2015	2016	2017 41,236 48,288		2019 41,155 48,505		2021	2022	2023	2024	2025	2026	2027	2028		2031	2032	2033	2034	2035 41,124 47,712	2036
0-4 5-10 11-15 16-17	ation es Population 2012 41,369 45,421 36,262 14,362	2013 41,319 46,311 36,070 14,516	2014 41,334 46,977 36,084 14,322	2015 41,263 47,767 35,805 14,532	2016 41,429 48,027 35,998 14,558	2017 41,236 48,288 36,782 14,144	41,234 48,480 37,467 13,918	2019 41,155 48,505 38,164 14,113	41,087 48,512 38,901 14,256	2021 41,041 48,426 39,428 14,473	2022 40,969 48,590 39,369 15,088	2023 40,875 48,420 39,743 15,360	2024 40,787 48,408 39,731 15,495	2025 40,714 48,321 39,791 15,694	2026 40,658 48,243 39,766 15,737	2027 40,616 48,190 39,914 15,591	2028 40,595 48,108 39,749 15,720	40,597 40,622 48,004 47,908 39,767 39,715 15,868 15,751	2031 40,673 47,828 39,667 15,783	2032 40,749 47,769 39,630 15,728	2033 40,849 47,727 39,566 15,712	2034 40,974 47,706 39,481 15,734	2035 41,124 47,712 39,396 15,727	2036 41,297 47,747 39,323 15,691
0-4 5-10 11-15 16-17 18-99Female, 64Male 60/95 - 74	ation es Population 2012 41,369 45,421 36,262 14,362 302,303 50,299	at mid-yea 2013 41,319 46,311 36,070 14,516 303,323 51,260	2014 41,334 46,977 36,084 14,322 304,760 52,393	2015 41,263 47,767 35,805 14,532 306,079 53,300	2016 41,429 48,027 35,998 14,558 307,285 54,732	2017 41,236 48,288 36,782 14,144 308,575 56,113	41,234 48,480 37,467 13,918 309,337 57,552	2019 41,155 48,505 38,164 14,113 309,837 58,700	41,087 48,512 38,901 14,256 310,298 60,013	2021 41,041 48,426 39,428 14,473 310,723 61,362	2022 40,969 48,590 39,369 15,088 311,009 61,404	2023 40,875 48,420 39,743 15,360 311,431 61,877	2024 40,787 48,408 39,731 15,495 312,143 62,672	2025 40,714 48,321 39,791 15,694 312,714 63,475	2026 40,658 48,243 39,766 15,737 313,506 64,415	2027 40,616 48,190 39,914 15,591 314,141 65,427	2028 40,595 48,108 39,749 15,720 314,946 66,203	40,597 40,622 48,004 47,908 39,767 39,715 15,868 15,751 315,416 316,183 67,044 68,071	2031 40,673 47,828 39,667 15,783 316,722 68,864	2032 40,749 47,769 39,630 15,728 317,340 69,564	2033 40,849 47,727 39,566 15,712 318,193 69,826	2034 40,974 47,706 39,481 15,734 319,117 70,053	2035 41,124 47,712 39,396 15,727 320,136 70,052	2036 41,297 47,747 39,323 15,691 321,073 70,052
0-4 5-10 11-15 16-17 18-59Female, 64Male 60/05 74 75-64 85+	ation es Population 2012 41,369 45,421 36,262 14,362 302,303 50,299 24,773 9,830	stimate at mid-yea 2013 41,319 46,311 36,070 14,516 303,323 51,260 25,101 9,885	2014 41,334 46,977 36,084 14,322 304,760 52,393 25,259 10,130	2015 41,263 47,767 35,806 14,532 308,079 53,300 25,475 10,425	2016 41,429 48,027 35,998 14,558 307,285 54,732 25,392 10,739	2017 41,236 48,288 36,782 14,144 308,575 56,113 25,381 11,038	41,234 48,480 37,467 13,918 309,337 57,552 25,659 11,298	2019 41,155 48,505 38,164 14,113 309,837 58,700 26,062 11,685	41,087 48,512 38,901 14,256 310,298 60,013 26,286 12,095	2021 41,041 48,426 39,428 14,473 310,723 61,82 26,634 12,515	2022 40,969 48,590 39,369 15,088 311,009 61,404 28,230 13,017	2023 40,875 48,420 39,743 15,360 311,431 61,877 29,473 13,504	2024 40,787 48,408 39,731 15,495 312,143 62,672 30,489 13,873	2025 40,714 48,321 39,791 15,694 312,714 63,475 31,425 14,294	2026 40,658 48,243 39,766 15,737 313,506 64,415 32,372 14,528	2027 40,616 48,190 39,914 15,591 314,141 65,427 33,283 14,810	2028 40,595 48,108 39,749 15,720 314,946 66,203 34,121 15,240	40,597 40,622 48,004 47,908 39,767 39,715 15,868 15,751 315,416 316,183 67,044 68,071 34,852 35,506 15,819 16,288	2031 40,673 47,828 39,667 15,783 316,722 68,864 36,299 16,829	2032 40,749 47,769 39,630 15,728 317,340 69,564 36,238 18,249	2033 40,849 47,727 39,566 15,712 318,193 69,826 36,597 19,376	2034 40,974 47,706 39,481 15,734 319,117 70,063 37,108 20,230	2035 41,124 47,712 39,396 15,727 320,136 70,052 37,759 21,038	2036 41,297 47,747 39,323 15,691 321,073 70,052 38,588 21,690
0-4 5-10 11-15 16-17 18-05Female, 64Male 0200: 74 78-84 286	ation es Population 2012 41,369 45,421 36,262 14,362 14,362 302,303 50,299 24,773 9,830 524,619	at mid-yes 2013 41,319 46,311 36,070 14,516 303,323 51,260 25,101 9,885	2014 41,334 46,977 36,084 14,322 304,760 52,393 25,259 10,130	2015 41,263 47,767 35,805 14,532 308,079 53,300 25,475	2016 41,429 48,027 35,998 14,558 307,285 54,732 25,392	2017 41,236 48,288 36,782 14,144 308,575 56,113 25,381	41,234 48,480 37,467 13,918 309,337 57,552 25,659	2019 41,155 48,505 38,164 14,113 309,837 58,700 26,062	41,087 48,512 38,901 14,256 310,298 60,013 26,286	2021 41,041 48,426 39,428 14,473 310,723 61,362 26,634	2022 40,969 48,590 39,369 15,088 311,009 61,404 28,230	2023 40,875 48,420 39,743 15,360 311,431 61,877 29,473	2024 40,787 48,408 39,731 15,495 312,143 62,672 30,489	2025 40,714 48,321 39,791 15,694 312,714 63,475 31,425	2026 40,658 48,243 39,766 15,737 313,506 64,415 32,372	2027 40,616 48,190 39,914 15,591 314,141 65,427 33,283	2028 40,595 48,108 39,749 15,720 314,946 66,203 34,121 15,240	40,597 40,622 48,004 47,908 39,767 39,715 15,868 15,751 315,416 316,183 67,044 68,071 34,852 35,506	2031 40,673 47,828 39,667 15,783 316,722 68,864 36,299	2032 40,749 47,769 39,630 15,728 317,340 69,564 36,238	2033 40,849 47,727 39,566 15,712 318,193 69,826 36,597	2034 40,974 47,706 39,481 15,734 319,117 70,053 37,108	2035 41,124 47,712 39,396 15,727 320,136 70,052 37,759	2036 41,297 47,747 39,323 15,691 321,073 70,052 38,588
0-4 5-10 11-15 16-17 16-17 16-17 75-64 26-7 Total Dependency ratios, mean	ation es Population 2012 41,389 45,421 36,262 14,362 302,303 50,299 24,773 9,830 524,619 age and se	at mid-yea 2013 41,319 46,311 98,070 14,516 303,323 51,280 25,101 9,885 527,785 ex ratio 0.37	2014 41,334 46,977 36,084 14,322 304,760 304,760 3052,393 25,259 10,130 531,261	2015 41,263 47,767 35,805 14,532 308,079 53,300 25,475 10,425 534,845	2016 41,429 48,027 35,998 14,558 307,285 54,732 25,732 10,739 538,161	2017 41,236 48,288 36,782 14,144 308,575 56,113 25,381 11,038 541,557	41,234 48,480 37,467 13,918 309,337 57,552 25,659 11,298 544,947	2019 41,155 48,505 38,164 14,113 309,837 58,700 26,062 11,685 548,222	41,087 48,512 38,901 14,256 310,298 60,013 26,286 12,095 551,449	2021 41,041 48,403 39,428 14,473 310,723 61,362 26,634 12,515 554,602	2022 40,969 48,590 30,369 15,088 311,009 61,404 28,230 13,017 557,676	2023 40,875 48,823 39,743 15,360 311,431 61,877 29,473 13,504 560,684	2024 40,787 48,408 39,731 15,495 312,143 62,672 30,489 13,873 563,599	2025 40,714 48,321 39,791 15,694 312,714 63,475 31,425 14,294 566,427	2026 40,658 45,243 30,766 15,737 313,506 64,415 32,14,528 569,225	2027 40,616 48,190 39,914 15,591 314,141 65,427 33,283 14,810 571,972	2028 40,595 48,108 39,749 15,720 314,946 66,203 34,121 15,240 574,680	40,597 40,622 48,004 47,908 39,767 39,715 15,868 15,751 15,868 15,751 316,183 67,044 68,071 34,852 35,505 15,819 16,288 777,367 580,043 0.37 0.37	2031 40,673 47,828 39,667 15,783 316,722 68,864 36,299 16,829 582,665	2032 40,749 47,769 39,630 15,728 317,340 69,564 36,238 18,249 585,266	2033 40,849 47,727 39,566 15,712 318,193 69,826 36,597 19,376 587,845	2034 40,974 47,706 39,481 15,734 319,117 70,053 37,108 20,230 590,402	2035 41,124 47,712 39,396 15,727 3320,138 70,052 37,759 21,038 592,944 0.37	2036 41,297 47,747 39,323 15,691 321,073 70,052 38,582 21,690 595,460
0-4 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1	ation es Population 2012 41,369 45,421 38,282 14,382 302,303 50,299 24,773 9,830 524,619 age and s 0,37 0,22	at mid-yes 2013 41,319 46,311 38,070 14,518 303,323 51,280 25,101 9,885 527,785 ex ratio	2014 41,334 46,977 36,084 14,322 14,322 10,130 52,393 25,259 10,130 531,261	2015 41,263 47,767 35,805 14,532 306,079 53,300 25,475 10,425 534,645	2016 41,429 48,027 35,998 14,558 307,285 54,739 538,161	2017 41,236 48,288 36,782 14,144 308,575 56,113 25,381 11,038	41,234 48,480 37,467 13,918 309,337 57,552 25,659 11,298 544,947	2019 41,155 48,505 38,164 14,113 309,837 58,700 26,062 11,685 548,222	41,087 48,512 38,901 14,256 310,298 60,013 26,286 12,095 551,449 0.38 0.25	2021 41,041 48,428 39,428 14,473 310,728 26,634 12,515 554,602 0.38 0.25	2022 40,969 48,590 33,369 15,088 311,009 61,404 28,230 13,017 557,676	2023 40,875 48,420 39,743 15,580 311,431 61,877 29,473 13,504 560,684	2024 40,787 48,408 39,731 15,495 312,142 30,489 13,873 563,599	2028 40,714 48,321 39,791 15,694 312,714 63,475 31,425 14,294 566,427	2026 40,658 48,243 39,766 15,737 313,506 64,415 32,372 14,528 569,225	2027 44,616 48,190 39,914 15,591 314,141 65,427 33,283 14,810 571,972	2028 40,595 48,108 39,749 15,720 314,946 66,203 34,121 15,240 574,680	40,597 40,622 48,004 47,908 39,767 39,715 15,868 15,751 15,416 316,183 67,044 68,071 34,852 35,505 15,819 16,288 677,367 580,043	2031 40,673 47,828 39,667 15,783 316,722 68,884 36,299 16,829 582,665	2032 40,749 47,769 39,630 15,728 317,340 69,564 36,238 18,249 585,266	2033 40,849 47,727 39,566 15,712 318,193 69,826 36,597 19,376 587,845	2034 40,974 47,706 39,481 15,734 319,117 70,063 37,108 20,230 590,402	2035 41,124 47,712 39,396 15,727 320,136 70,052 37,759 21,038	2036 41,297 47,747 39,323 15,691 321,073 70,052 38,588 21,690 595,460
Summary of Populi 0-4 5-10 11-15 11-15 11-15 15-16 16-	ation es Population 2012 41,382 45,421 36,282 14,382 302,303 50,299 24,773 9,830 524,619 age and s 0,37 0,22 0,599 33,3	2013 41,319 46,311 36,070 14,516 903,323 51,260 25,101 9,885 527,785 ex ratio 0.37 0.22 0.60 33,4	s/forec ar 2014 41,334 46,977 36,084 14,322 304,760 52,393 25,259 10,130 531,261 0.37 0.23 0.60 33.5	2015 41,263 47,767 35,805 14,532 308,079 53,300 25,475 10,425 534,645	2016 41,429 48,027 35,998 14,598 54,732 25,992 10,739 538,161 0.37 0.23 0.61 33.7	2017 41,236 48,288 36,782 14,144 308,575 56,113 25,381 11,038 541,557	41,234 48,480 37,467 13,918 309,337 57,552 25,659 11,298 544,947 0.38 0.24 0.62 33.9	2019 41,155 48,505 38,164 14,113 309,837 58,700 26,062 11,885 548,222 0.38 0.24 0.62 34.0	41,087 48,512 38,901 14,256 310,298 60,013 26,286 12,095 551,449 0.38 0.25 0.63 34.1	2021 41,041 48,426 39,428 14,473 310,723 61,362 26,634 12,515 554,602 0.38 0.25 0.83 34.2	2022 40,969 48,590 39,369 15,089 61,404 28,230 13,017 557,676	2023 40,875 48,420 39,743 15,360 311,431 61,877 29,473 13,504 560,684	2(2/4 40,787 48,408 39,731 15,408 39,731 52,672 30,489 13,873 563,599 0.38 0.27 0.64	2025 40,714 48,321 39,791 15,694 63,475 31,425 14,294 1566,427 0.37 0.27 0.65 34.6	2026 40,658 48,243 39,766 15,737 313,506 64,415 32,372 14,528 569,225 0.37 0.28 0.65 34,7	2027 40,616 48,190 39,914 15,591 314,141 65,427 33,283 14,15 571,972 0.37 0.28 0.68 34,9	2028 40,595 48,108 39,749 15,720 314,946 66,203 34,121 15,240 574,680 0.37 0.29 0.69 35.1	40,597 40,622 48,004 47,908 39,767 39,715 15,868 15,751 315,416 316,183 67,044 68,071 34,852 35,505 15,819 16,288 577,367 580,043 0.37 0.37 0.29 0.30 0.66 0.67 35.2 35.4	2031 40,673 47,828 316,722 68,864 36,299 16,829 582,665 0.37 0.30 0.57	2032 40,749 47,769 39,630 15,728 317,340 69,564 36,238 18,249 585,266	2033 40,849 47,727 39,566 15,712 38,593 69,826 36,597 19,376 0.37 0.37 0.37 0.68 35,8	2034 40,974 47,706 39,481 15,734 319,117 70,053 37,108 20,230 590,402 0.37 0.32 0.69 35,9	2035 41,124 47,712 39,396 15,727 320,136 70,052 37,759 21,038 592,944 0.37 0.32 0.69 36.0	2036 41,297 47,747 39,323 15,891 321,073 70,052 39,588 21,690 0.37 0.33 0.70 36,0
Summary of Popul  0-4  5-10  11-15  16-17  16-18  16-17  Total  Dependency ratios, mean  0-15  16-65  65-7  16-65  65-7  16-65  65-7  16-65  65-7  16-65	ation es Population 2012 41,369 45,421 38,262 14,362 302,303 50,299 24,773 9,830 524,619 age and so 0.37 0.22 0.59	2013 41,319 46,311 36,070 14,516 303,323 51,260 25,101 9,885 527,785 ex ratio 0.37 0.22 0.60	s/forec ar 2014 41,334 46,977 36,084 14,322 304,760 52,393 10,130 531,261 0.37 0.23 0.60	2015 41,263 47,767 35,805 14,532 306,079 53,300 25,475 10,425 534,645	2016 41,429 48,027 35,998 14,558 307,285 54,732 25,902 10,739 538,161 0.37 0.23	2017 41,236 48,288 36,782 14,144 308,575 56,113 25,381 11,038 541,557	41,234 48,480 37,467 13,918 309,337 57,552 25,659 11,298 544,947 0.38 0.24 0.62	2019 41,155 48,505 38,164 14,113 309,837 58,700 26,062 11,685 548,222 0.38 0.24 0.62	41,087 48,512 38,901 14,256 310,298 60,013 26,286 12,095 551,449 0.38 0.25 0.63	2021 41,041 48,426 39,428 14,473 61,382 26,634 12,515 554,602 0.38 0.25 0.63	2022 40,969 48,590 30,369 15,088 311,009 61,404 28,230 13,017 557,676	2023 40,875 48,420 39,743 15,360 311,431 61,877 29,473 13,504 560,684	2024 40,787 48,408 39,731 15,495 312,143 62,672 30,489 13,873 563,599	2025 40,714 48,321 39,791 15,694 312,714 63,475 14,294 566,427 0.37 0.27 0.65	2026 40,658 48,243 39,766 15,737 313,506 64,415 22,372 14,528 569,225	2027 40,616 48,190 39,914 15,427 33,283 14,810 571,972 0,37 0,28 0,66	2028 40,595 48,108 39,749 15,720 314,946 66,203 34,121 15,240 574,680	40,597 40,622 48,004 47,908 39,767 39,715 15,868 15,751 315,416 316,183 67,044 68,071 34,852 35,67 15,819 16,288 577,367 580,043 0.37 0.37 0.29 0.30 0.66 0.67	2031 40,673 47,828 39,667 15,783 316,722 68,864 36,299 582,665	2032 40,749 47,769 39,630 15,728 317,340 69,584 36,238 18,249 585,266	2033 40,849 47,727 39,566 15,712 318,193 69,826 36,597 19,376 587,845	2034 40,974 47,706 39,481 13,431 319,117 70,053 37,108 20,230 590,402	2035 41,124 47,712 39,396 15,727 320,136 70,052 37,759 21,038 592,944 0.37 0.32 0.69	2036 41,297 47,747 39,323 15,691 321,073 70,052 38,588 21,690 0.37 0.33 0.70
Summary of Popul.  0-4  0-10  11-15  16-17  16-18  16-17  16-17  16-18  Departmentory ratios, mean of 15, 116-56  65 / 16-65  Median age males  See ratio males /100 females  See ratio males /100 females	ation es Population 2012 41,369 45,421 36,262 14,362 302,303 50,209 24,773 9,800 524,619 age and s 0,37 0,22 0,59 33,3 35,0 97,0	stimate at mid-yes 2013 41,319 46,311 36,070 14,516 303,323 51,280 25,101 9,885 527,785 ex ratio 0.37 0.22 0.60 33,44 35,0	2014 41,334 46,977 36,084 14,322 304,760 52,393 25,259 10,130 531,261 0.37 0.23 0.60 33.5 35.0	2015 41,263 47,767 35,805 14,532 306,079 53,300 25,475 10,425 534,645 0.37 0.23 0.60 33.6 33.6	2016 41,429 48,027 35,998 14,558 307,285 54,732 25,732 25,732 10,739 538,161 0.37 0.23 0.61 33.7 35.2	2017 41,236 48,288 36,782 14,144 308,575 56,113 25,381 11,038 541,557 0.38 0.24 0.61 33.8 35.3	41,234 48,480 37,467 13,918 309,337 57,552 25,659 11,298 544,947 0.38 0.24 0.62 33.9 35.5	2019 41,155 48,505 38,505 38,507 58,700 26,062 11,685 548,222 0.38 0.24 0.62 34.0 35.7	41,087 48,512 38,901 14,256 310,298 60,013 26,286 12,095 551,449 0.38 0.25 0.63 34.1 35.8	2021 41,041 48,426 39,428 110,723 61,362 26,634 12,515 554,602 0.38 0.25 0.63 34.2 38.0	2022 40,969 48,590 39,369 15,089 61,404 28,230 13,017 557,676	2023 40,875 48,420 39,743 15,360 311,431 61,877 13,504 560,684 0.38 0.26 0.64 34,3 36,2	2024 40,787 48,408 39,731 15,495 312,143 62,672 30,489 13,873 583,599 0.38 0.27 0.64 34,4	2025 40,714 48,321 39,791 15,694 312,714 63,475 31,425 586,427 0.37 0.27 0.65 34.6 36.5	2026 40,658 48,243 39,766 15,737 313,506 64,415 22,372 14,528 569,225 0.37 0.28 0.65 34.7 36.7	2027 40,616 48,190 33,914 15,591 314,141 65,427 33,283 14,810 571,972 0.37 0.28 0.66 34,9 36,8	2028 40,595 48,108 39,749 15,720 314,946 66,203 34,121 15,240 574,680 0.37 0.29 0.66 35.1 36.9	40,597 40,622 48,004 47,908 39,767 39,751 15,868 15,751 15,868 15,751 15,816 316,183 67,044 68,071 34,852 35,505 15,819 16,288 377,367 580,043 0.37 0.37 0.29 0.30 0.66 0.67 35.2 35,44 37.0 37.2	2031 40,673 47,828 39,667 15,783 316,722 68,884 36,299 582,665 0.37 0.30 0.67 35.5	2032 40,749 47,769 39,630 15,728 317,340 69,564 36,238 18,249 585,266 0.37 0.31 0.68 35,6	2033 40,849 47,727 39,566 15,712 318,193 69,826 36,597 19,376 587,845 0.37 0.32 0.68 35,8 37,5	2034 40,974 47,706 39,481 15,734 319,117 70,053 37,108 20,230 590,402 0.37 0.32 0.69 35,9 37,6	2035 41,124 47,712 39,396 15,727 320,136 70,052 37,759 21,038 592,944 0.37 0.32 0.69 36.0	2036 41,297 47,747 39,323 15,691 321,073 321,073 321,073 38,588 21,690 0.37 0.33 0.70 36,00 37,7
Summary of Popul  0-4  5-10  15-15  15-15  15-17  15-27  Toda  Dependency ratios, mean  0-15 / 16-65  0-15 and 65-/ 16-65  0-15 and 65-/ 16-65	ation es Population 2012 41,369 45,421 36,262 14,362 302,303 50,209 24,773 9,800 524,619 age and s 0,37 0,22 0,59 33,3 35,0 97,0	stimate at mid-yes 2013 41,319 46,311 36,070 14,516 303,323 51,280 25,101 9,885 527,785 ex ratio 0.37 0.22 0.60 33,44 35,0	2014 41,334 46,977 36,084 14,322 304,760 52,393 25,259 10,130 531,261 0.37 0.23 0.60 33.5 35.0	2015 41,263 47,767 35,805 14,532 306,079 53,300 25,475 10,425 534,645 0.37 0.23 0.60 33.6 33.6	2016 41,429 48,027 35,998 14,558 307,285 54,732 25,732 25,732 10,739 538,161 0.37 0.23 0.61 33.7 35.2	2017 41,236 48,288 36,782 14,144 308,575 56,113 25,381 11,038 541,557 0.38 0.24 0.61 33.8 35.3	41,234 48,480 37,467 13,918 309,337 57,552 25,659 11,298 544,947 0.38 0.24 0.62 33.9 35.5	2019 41,155 48,505 38,505 38,507 58,700 26,062 11,685 548,222 0.38 0.24 0.62 34.0 35.7	41,087 48,512 38,901 14,256 310,298 60,013 26,286 12,095 551,449 0.38 0.25 0.63 34.1 35.8	2021 41,041 48,426 39,428 110,723 61,362 26,634 12,515 554,602 0.38 0.25 0.63 34.2 38.0	2022 40,969 48,590 39,369 15,089 61,404 28,230 13,017 557,676	2023 40,875 48,420 39,743 15,360 311,431 61,877 13,504 560,684 0.38 0.26 0.64 34,3 36,2	2024 40,787 48,408 39,731 15,495 312,143 62,672 30,489 13,873 583,599 0.38 0.27 0.64 34,4	2025 40,714 48,321 39,791 15,694 312,714 63,475 31,425 586,427 0.37 0.27 0.65 34.6 36.5	2026 40,658 48,243 39,766 15,737 313,506 64,415 22,372 14,528 569,225 0.37 0.28 0.65 34.7 36.7	2027 40,616 48,190 33,914 15,591 314,141 65,427 33,283 14,810 571,972 0.37 0.28 0.66 34,9 36,8	2028 40,595 48,108 39,749 15,720 314,946 66,203 34,121 15,240 574,680 0.37 0.29 0.66 35.1 36.9	40,597 40,622 48,004 47,908 39,767 39,751 15,868 15,751 15,868 15,751 15,816 316,183 67,044 68,071 34,852 35,505 15,819 16,288 377,367 580,043 0.37 0.37 0.29 0.30 0.66 0.67 35.2 35,44 37.0 37.2	2031 40,673 47,828 39,667 15,783 316,722 68,884 36,299 582,665 0.37 0.30 0.67 35.5	2032 40,749 47,769 39,630 15,728 317,340 69,564 36,238 18,249 585,266 0.37 0.31 0.68 35,6	2033 40,849 47,727 39,566 15,712 318,193 69,826 36,597 19,376 587,845 0.37 0.32 0.68 35,8 37,5	2034 40,974 47,706 39,481 15,734 319,117 70,053 37,108 20,230 590,402 0.37 0.32 0.69 35,9 37,6	2035 41,124 47,712 39,396 15,727 320,136 70,052 37,759 21,038 592,944 0.37 0.32 0.69 36.0	2036 41,297 47,747 39,323 15,691 321,073 321,073 321,073 38,588 21,690 0.37 0.33 0.70 36,00 37,7
Summary of Popul  0-4  0-10  1	ation es Population 2012 41,369 45,421 36,262 14,362 302,303 50,209 24,773 9,830 524,619 age and s 0.37 0.22 0.59 33.3 35.0 97.0	at mid-yea 2013 41,319 46,311 38,070 14,516 303,323 51,260 25,101 9,885 527,785 ex ratio 0.37 0.22 0.60 33,4 35,0 97,3	2014 41,334 46,971 36,084 14,322 304,760 52,393 25,259 10,130 0.37 0.23 0.60 33.5 97.5	2015 41,263 47,767 35,805 14,532 306,079 53,300 25,475 10,425 534,645 0.37 0.23 0.60 33,6 5,805 0.80 33,6 1,97,8	2016 41,429 48,027 35,998 14,558 307,285 54,732 25,392 10,739 538,161 0.37 0.23 0.61 33.7 35.2 98.0	2017 41,298 48,298 36,782 14,144 308,575 56,113 25,381 11,038 541,557 0.38 0.24 0.61 33.8 35.3 98.2	41,234 48,460 37,467 13,918 309,337 57,552 25,659 11,298 544,947 0.38 0.24 0.62 33.9 35.5 98.4	2019 41,155 48,505 38,164 14,113 309,837 58,700 26,062 11,685 548,222 0.38 0.24 0.62 33.7 98.6	41,087 48,512 38,901 14,256 310,298 60,013 26,286 12,095 551,449 0.38 0.25 0.63 34,1 35,8 98.8	2021 41,041 48,426 39,428 14,473 11,723 61,362 26,634 12,515 554,602 0.38 0.25 0.63 34.2 36.0 98.9	2022 40,969 48,590 39,369 15,088 311,009 61,404 28,230 13,017 557,676 0.38 0.26 0.63 34.2 36.1	2023 40,875 48,420 39,743 15,360 311,431 61,877 29,473 13,504 560,684 0.38 0.26 0.64 34.3 36.2 99.3	2024 40,787 48,408 39,731 15,2143 62,672 30,489 13,873 563,599 0.38 0.27 0.84 99,4	2025 40,714 48,321 39,791 15,694 63,475 31,425 14,294 0.37 0.27 0.27 0.27 0.27 0.29 9.8	2026 40,658 48,243 39,766 15,257 313,506 64,415 22,372 14,528 0.37 0.28 0.65 34,7 99,7	2027 40,616 48,190 39,914 15,591 11,141 65,427 33,283 14,810 571,972 0.37 0.28 9.66 34,9 36,8 99,9	2028 40,595 48,108 39,749 15,720 314,946 66,203 34,121 15,240 574,680 0.37 0.29 0.66 35,1 36,9 100.0	40,507 40,822 40,822 40,820 47,920 40,822 40,822 40,821 40	2031 40,673 47,822 30,667 15,722 68,864 36,299 16,829 0.37 0.30 0.67 35,5 37,3 100.3	2032 40,749 47,769 39,630 13,630 13,730 69,564 36,238 18,249 585,266 0.37 0.31 0.68 35,6 37,4 100,4	2033 40,849 47,727 39,566 15,712 318,193 69,826 36,597 19,376 587,845 0.37 0.32 0.68 35,8 37,5 100,5	2034 40,974 47,706 39,481 1319,117 70,053 37,108 20,230 590,402 0.37 0.32 0.69 35,9 37,6 100,6	2035 41,124 47,712 39,396 15,727 320,136 70,052 37,759 21,038 592,944 0.37 0.39 0.69 36.0 37.6 100.7	2036 41,297 47,747 39,323 15,691 321,073 70,052 38,588 21,690 0.37 0.33 0.70 36.0 37.7 100.8
Summary of Populi  0-4  5-10  11-15  11-15  15-16  11-15  16-56Female, 64Male  6056-74  75-64  85e  Dependency ratios, mean  0-15/16-65  65/1/16-65  Median age females  Active of persons  Number of Persons	ation es  Population 2012 41,369 45,421 36,262 11,362 302,303 50,299 24,773 9,830 524,619 337 0,22 0,59 333 35.0 97.0 straint 411 200,521 +993	stimate at mid-yes 2013 41,319 46,311 38,070 14,516 303,323 51,280 25,101 9,885 527,785 ex ratio 0.37 0.22 0.60 0.37 0.22 0.60 0.37 0.27 0.29 0.60 0.37 0.24 0.60 0.37 0.25 0.60 0.60 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.7	2014 41,334 46,971 36,084 14,322 304,760 52,393 25,259 10,130 0,60 33,5 35,0 97,5	2015 41,263 47,767 35,805 14,532 306,079 53,306 25,475 10,425 534,845 0.37 0.23 0.60 33.6 35.1 97.8	2016 41,427 35,998 14,558 307,285 54,732 25,392 10,739 538,161 0.37 0.23 0.61 33.7 35.2 98.0	2017 41,294 48,288 36,782 14,144 306,575 56,113 25,381 11,038 541,557 0.38 0.28 0.061 33.8 35.3 98.2	41,224 48,463 37,467 13,918 309,337 57,552 25,559 11,228 544,947 0,52 33.9 35.5 98.4	2019 41,155 48,505 38,164 14,113 309,837 58,700 26,062 11,685 548,222 0.38 0.24 0.62 34.0 35.7 98.6	41,087 48,512 38,901 14,256 310,298 60,013 26,296 12,095 551,449 0.38 0.25 0.63 34.1 35.8 98.8	2021 41,041 48,426 39,428 14,473 310,723 61,362 26,634 12,515 554,602 0.38 0.25 0.63 34.2 36.0 98.9	2022 40,969 48,590 30,369 15,088 311,009 61,404 28,230 13,017 557,676 0.38 0.26 3.4.2 36.1	2023 40,875 48,420 39,743 15,360 311,431 61,877 29,473 13,504 560,684 0.38 0.26 0.64 34.3 36.2 99.3	2024 40,787 48,408 39,731 15,495 20,672 30,489 13,873 563,599 0.38 0.27 0.54 34.4 36.4 99.4	2025 40,714 48,321 39,791 15,694 63,475 31,425 14,294 0.37 0.27 0.65 34,6 36,5 99,6	2026 40,658 48,243 39,766 13,506 64,415 22,372 14,528 0.37 0.28 0.65 34,7 99,7	2027 40,616 48,190 39,914 15,591 314,141 66,427 32,283 14,810 0.28 0.68 99,9 77	2028 40,595 48,108 39,749 15,720 314,946 66,203 34,121 15,240 0,37 0,29 0,66 35,1 36,9 100,0	40,597 40,822 40,820 40,930 40,940 40	2031 40,673 47,828 39,667 15,783 316,722 68,864 16,829 16,	2032 40,749 47,769 39,630 15,728 317,340 69,564 36,238 18,249 585,266 0.37 0.31 0.68 35.6 37.4 100.4	2033 40,849 47,727 39,566 15,712 318,193 69,826 56,597 19,376 0.32 0.68 35,8 37,5 100.5	2034 40,974 47,706 39,481 15,734 319,117 70,053 37,108 20,230 590,402 0.37 0.32 0.69 35,9 37,6 100,6	2035 41,124 47,712 39,396 15,727 70,052 37,759 21,038 592,944 0.37 0.32 0.69 36.0 37.6 100.7	2036 41,297 47,747 39,323 15,907 321,907 321,690 38,588 21,690 0.37 0.33 0.70 36.0 37.7 100.8
Summary of Popul  0-4  0-1  0-1  0-1  0-1  0-1  0-1  0-1	ation es  Population 2012 41,369 45,421 36,262 14,362 302,303 50,209 50,209 324,773 9,850 524,619 3ge and s 0.37 0.22 0.59 333 35.0 97.0 straint +11 200,521 +903 211,386	at mid-yei 2013 41,319 46,311 36,070 14,518 303,323 51,280 25,101 9,885 527,785 ex ratio 0,37 0,22 0,80 33,4 35,0 97,3	2014 41,334 46,977 36,084 14,322 304,760 52,393 52,559 10,130 531,261 0.37 0.23 0.60 33.5 35.0 97.5	2015 41,263 47,767 35,805 14,532 306,079 53,300 25,475 10,423 0,50 30,079 534,645 0,37 0,23 0,50 35,1 97,8	2016 41,429 35,998 14,558 307,285 54,732 10,739 538,161 0.37 0.23 0.61 33.7 35.2 98.0	2017 41,236 48,288 36,782 14,144 308,575 56,113 25,381 11,038 541,557 0.38 0.24 0.61 338,3 35,3 98,2	41,234 48,480 37,467 13,918 309,337 57,552 25,559 11,298 544,947 0.38 0.24 0.62 33.9 35.5 98.4	2019 41,155 48,505 38,164 14,113 300,837 58,700 26,062 11,685 548,222 34,0 35,7 98,6 -15	41,087 48,512 38,901 14,256 310,288 60,013 26,286 12,095 551,449 0.38 0.25 0.63 34,1 35,8 98,8	2021 41,041 48,426 39,428 14,473 310,723 61,382 26,634 12,515 554,602 0.38 0.25 0.63 342 23,60 98.9	2022 40,969 48,590 39,369 15,088 311,009 61,404 628,230 13,017 557,676 0.38 0.26 0.63 34.2 36.1	2023 40,875 48,420 39,743 15,360 311,431 61,877 29,473 13,504 0.26 0.64 34.3 36.2 99.3 -113	2024 40,787 48,408 39,731 15,495 312,143 62,672 30,489 13,673 0.38 0.27 0.64 34,4 99,4 -12 222,190 42,678	2025 40,714 48,321 39,791 15,694 312,714 63,475 11,4295 11,4294 0.37 0.27 0.65 34,6 36,5 99,6	2026 40,658 48,243 39,766 15,737 313,506 64,415 569,225 0,65 34,7 99,7 -8	2027 40,616 48,190 39,914 15,591 314,141 66,427 33,283 14,810 0.37 0.28 0.66 34.9 38.8 99.9	2028 40,595 48,108 39,749 15,720 314,946 66,203 34,121 15,240 574,680 0.37 0.29 0.66 35.1 36.9 100.0	40,597 40,822 40,822 40,823 40,824 40	2031 40,673 47,823 39,667 15,783 316,722 68,864 36,299 18,829 18,	2032 40,749 47,769 39,630 15,728 317,340 69,564 36,238 18,249 585,266 0.37 0.31 0.68 35,6 37,4 100,4	2033 40,849 47,727 39,566 15,712 318,193 69,826 65,927 19,376 0.37 0.37 0.68 35,8 37,5 100.5	2034 40,974 47,706 39,481 15,734 319,117 70,053 37,108 20,230 590,402 0.37 0.32 0.69 35.9 37.6 100.6	2035 41,124 47,712 39,396 15,727 320,136 70,052 21,038 592,944 0.37 0.32 0.69 36.0 37.6 100.7	2036 41,297 47,747 39,323 15,691 321,073 70,052 38,588 21,690 0.37 0.33 0.70 0.33 0.70 36.0 37,7 100.8
Summary of Populi  0-4  5-10  11-15  11-15  15-16  11-15  16-56Female, 64Male  6056-74  75-64  85e  Dependency ratios, mean  0-15/16-65  65/1/16-65  Median age females  Active of persons  Number of Persons	ation es  Population 2012 41,369 45,421 36,262 11,362 302,303 50,299 24,773 9,830 524,619 337 0,22 0,59 333 35.0 97.0 straint 411 200,521 +993	at mid-yei 2013 41,319 46,311 36,070 14,518 303,323 51,280 25,101 9,885 527,785 ex ratio 0,37 0,22 0,80 33,4 35,0 97,3	2014 41,334 46,971 36,084 14,322 304,760 52,393 25,259 10,130 0,60 33,5 35,0 97,5	2015 41,263 47,767 35,805 14,532 306,079 53,306 25,475 10,425 534,845 0.37 0.23 0.60 33.6 35.1 97.8	2016 41,429 48,027 35,998 14,558 307,285 54,732 25,392 10,739 538,161 0.37 0.23 0.61 33.7 35.2 98.0	2017 41,294 48,288 36,782 14,144 306,575 56,113 25,381 11,038 541,557 0.38 0.28 0.061 33.8 35.3 98.2	41,224 48,463 37,467 13,918 309,337 57,552 25,559 11,228 544,947 0,52 33.9 35.5 98.4	2019 41,155 48,505 38,164 14,113 309,837 58,700 26,062 11,685 548,222 0.38 0.24 0.62 34.0 35.7 98.6	41,087 48,512 38,901 14,256 310,298 60,013 26,296 12,095 551,449 0.38 0.25 0.63 34.1 35.8 98.8	2021 41,041 48,426 39,428 14,473 310,723 61,362 26,634 12,515 554,602 0.38 0.25 0.63 34.2 36.0 98.9	2022 40,969 48,590 30,369 15,088 311,009 61,404 28,230 13,017 557,676 0.38 0.26 3.4.2 36.1	2023 40,875 48,420 39,743 15,360 311,431 61,877 29,473 13,504 560,684 0.38 0.26 0.64 34.3 36.2 99.3	2024 40,787 48,408 39,731 15,495 20,672 30,489 13,873 563,599 0.38 0.27 0.54 34.4 36.4 99.4	2025 40,714 48,321 39,791 15,694 63,475 31,425 14,294 0.37 0.27 0.65 34,6 36,5 99,6	2026 40,658 48,243 39,766 13,506 64,415 22,372 14,528 0.37 0.28 0.65 34,7 99,7	2027 40,616 48,190 39,914 15,591 314,141 66,427 32,283 14,810 0.28 0.68 99,9 77	2028 40,595 48,108 39,749 15,720 314,946 66,203 34,121 15,240 574,680 0.37 0.29 0.66 35.1 36.9 100.0	40,597 40,822 40,820 40,930 40,940 40	2031 40,673 47,828 39,667 15,783 316,722 68,864 16,829 16,	2032 40,749 47,769 39,630 15,728 317,340 69,564 36,238 18,249 585,266 0.37 0.31 0.68 35.6 37.4 100.4	2033 40,849 47,727 39,566 15,712 318,193 69,826 56,597 19,376 0.32 0.68 35,8 37,5 100.5	2034 40,974 47,706 39,481 15,734 319,117 70,053 37,108 20,230 590,402 0.37 0.32 0.69 35,9 37,6 100,6	2035 41,124 47,712 39,396 15,727 70,052 37,759 21,038 592,944 0.37 0.32 0.69 36.0 37.6 100.7	2036 41,297 47,747 39,323 15,907 321,907 321,690 38,588 21,690 0.37 0.33 0.70 36.0 37.7 100.8
Summary of Populi  0-4  5-10  11-15  1-10  11-15  15-56 Female, 64Male  6056-7-4  75-64  85-9  Dependency ratios, mean  0-15/16-65  65/1/16-65  Median age females  Me	ation es  Population  2012 41,389 45,421 36,282 14,382 302,303 50,299 24,773 9,800 524,619 age and 9 0,37 0,22 0,59 33,3 35,0 97,0 straint +11  200,521 +903 211,386 +1,046	stimate at mid-yes at mid-yes 2013 41,319 80,070 90,333,3 90,333,3 90,22 0,80 97,3 201,768 41,247 41,1768 41,247 41,314	s/forec w 2014 41,334 41,334 41,324 304,760 10,130 25,293 25,293 25,293 25,293 25,293 25,293 25,293 25,293 25,293 25,293 25,293 25,293 25,293 25,293 26,293 41,525 41,526 41,524 41,5	2015 41,283 41,767 38,806 41,4532 308,079 53,300 25,475 10,425 534,846 0.37 0.23 0.60 33,6 33,6 33,6 33,6 33,6 33,6 34,846 41,57 20,4866 41,57 215,986 41,857	2016 41,429 48,027 35,988 14,558 307,285 54,732 25,392 10,739 538,161 0.37 0.23 0.61 33.7 298.0	2017 41,236 48,288 36,782 14,144 308,575 56,113 25,381 11,038 541,557 0.38 0.24 0.61 33.8 35.3 98.2 	41,224 48,480 37,467 137,467 137,552 25,659 11,228 544,947 0.38 0.24 0.62 33.9 35.5 98.4 -15 209,482 +1,604 220,832 +1,604	2019 41,155 48,505 38,164 14,113 309,837 58,700 28,062 11,685 548,222 11,685 -15 211,079 +1,588 222,517 +1,684	41,087 48,512 38,991 14,256 60,013 26,286 12,095 551,449 0.38 0.25 0.63 34,1 35,8 98,8 -15 212,589 +1,590 +1,591	2021 41,041 48,426 39,426 14,473 310,722 26,634 12,515 564,602 0.38 0.25 0.63 34.2 36.0 98.9 -15 214,153 +1,564 225,757 +1,649	2022 40,969 48,590 30,368 311,008 61,404 28,230 13,017 657,676 0.38 0.26 0.63 34.2 36.1 -15 216,824 +2,871 +2,816	2023 40,875 48,420 39,743 15,360 311,431 61,877 29,473 13,504 560,684 0.54 34.3 34.3 34.3 34.3 34.3 34.3 34.3 3	2024 40,787 48,408 39,731 15,405 312,143 62,672 30,489 13,873 0.24 34,4 34,4 99,4 -12 222,190 42,673 42,823 42,823	2025 40,714 48,321 30,791 15,694 31,271 62,475 31,425 11,294 0.37 0.27 0.86 34,6 34,6 34,6 34,6 34,6 34,6 34,6 34,	2026 40,658 48,243 30,766 15,737 313,506 64,415 23,372 0.26 0.37 0.26 34.7 99.7 -8 227,395 +2,570 +2,2709	2027 40,818 48,190 30,914 15,591 314,141 65,427 31,283 14,810 571,972 0.37 0.28 54,9 99,9 -7 229,952 42,557 242,412 42,696	2028 40.595 39.749 314.548 314.548 314.521 315.249 0.37 34.121 15.249 0.37 38.9 100.0 6	40,507 40,822 40,823 40,824 40	2031 40,673 47,828 39,667 15,783 316,722 68,864 36,299 16,829 582,665 37,3 100	2032 40,749 41,769 39,639 15,728 317,346 69,564 36,238 18,249 585,266 0.37 0.31 0.68 35,6 37,4 100.4	2033 40,849 47,727 39,568 15,712 318,192 36,527 19,376 19,376 19,376 10,32 0,68 35,8 37,5 100,5	2034 40,974 47,706 38,481 15,734 319,117 70,063 37,108 20,230 0.37 0.32 0.69 35,9 37,6 100.6	2035 41,124 47,712 39,396 15,727 70,052 37,759 21,038 592,944 0.37 0.32 0.69 36.0 37.6 100.7	2036 41,297 39,323 39,323 38,588 21,569 0.37 0.37 36,588 41,507 38,588 41,507 4
Summary of Popula  0-4  5-10  11-15  11-15  15-10  11-15  15-50 Femals, 54Maie  60567-7  70-84  55-7  Total  Dependency ratios, mean  0-15 /16-65  65-7 /16-65  0-15 and 65-7  Median age females  See ratio ratios  Median age females  Recommended  Population impact of cons  Number of parsons  Households  Number of parsons  Labour Force  Number of recommended  Labour Force  Number of Labour Force	ation es Population 2012 41,369 41,369 41,369 46,421 41,369 56,629 9,830 57 62,477 022 9,830 97,0 037 022 11,366 61,046 +1,046 +1,046  226,172 +742 245,172	stimate at mid-yes at mid-yes 2013 41.319 41.319 36.070 36.070 303.223 51.260 37 0.22 27.785 27.785 28.41 201.768 41.247 41.314 246.733	S/forec W 2014 41,334 41,324 30,4760 30,4760 0.37 0.32 0.60 0.37 0.32 0.60 97.5 41,525 41,525 41,526	2015 41383 47787 35,805 47787 35,805 35,805 358,079 25,475 33,80 33,00 25,475 33,80 33,80 33,80 33,80 33,80 33,80 33,80 41,672 204,865 41,677 250,006 41,677	2016 41,429 48,027 35,998 14,558 307,285 54,732 25,392 10,739 538,161 0.37 35.2 98.0 -12 206,378 +1,513 217,595 +1,595	2017 41,236 48,288 36,782 14,144 56,113 25,381 11,038 541,557 0.38 363 363 363 362 13 207,877 +1,499 219,141 +1,581	41,224 48,480 37,467 13,918 309,337 57,552 25,659 11,228 544,947 0.38 0.24 0.62 33.9 35.5 98.4 -15 209,482 +1,604 220,832 +1,604 220,832 +1,604 220,832 +1,604 220,832 +1,604	2019 41,155 48,505 38,104 14,113 30,837 58,702 211,685 548,222 34,0 0,24 0,26 33,7 98,6 -15 211,079 +1,588 222,517 +1,688 222,517 +1,688 41,393	41,087 48,512 38,901 14,256 60,013 26,286 12,095 551,449 0.38 0.25 0.63 34.1 35.8 98.8 -15 212,589 +1,509 41,509 41,501 224,108 +1,501	2021 41,041 48,426 39,428 14,473 310,723 61,362 26,634 12,515 564,602 0.35 0.63 34.2 36.0 98.9 -15 214,153 +1,564 225,757 +1,649	2022 40.989 39.389 31.009 31.1009 31.1009 28.230 31.007 557.676 0.38 0.26 34.2 36.1 15 15 228.675 42.876 42.876 42.876	2023 40,875 48,420 39,743 15,560 311,431 61,877 29,473 13,504 560,684 0.26 0.64 34.3 36.2 99.3 -113 219,512 42,688 42,833 258,842 +787	2024 40,787 48,408 39,731 15,405 312,143 52,672 30,489 13,873 583,599 0.38 0.27 0.64 34,4 36,4 99,4 -12 222,190 42,678 42,678 42,678 42,623	2025 40,714 48,321 39,791 716,694 48,321 39,791 716,694 312,714 314,295 566,407 0.37 0.27 0.47 99,8 111 224,826 42,235 227,008 42,778 2260,291 7799	2026 40,658 48,243 30,768 15,737 313,506 64,415 22,372 0.28 0.37 0.26 34,7 99,7 99,7 99,7 99,7 92,7 92,7 92,7 92	2027 40,616 48,190 30,914 15,591 314,141 65,427 33,283 14,810 571,972 0.32 0.66 34.9 36.8 99.9 36.8 99.9 77 220,952 42,557 242,412 42,696	2028 40,595 48,108 30,749 15,720 314,946 68,209 34,121 15,720 0,37 0,29 0,37 0,29 100,0 6 6 222,462 42,510 728,646	40,507 40,622 40,004 47,906 39,767 39,715 154,46 316,183 156,191 16,289 177,367 580,043 0.37 0.37 0.37 0.37 0.39 0.39 0.49 10.1 100.2 10.1 100.2 10.2 10.3 14,183	2031 40,673 47,828 39,667 15,783 316,722 68,864 36,299 16,829 582,665 0.37 0.30 0.67 35.5 37.3 100.3 100.3 240,005 +2,558 250,010 +2,697	2032 40,749 47,769 39,630 15,728 317,340 69,564 36,238 18,249 585,266 0.37 0.31 0.68 35,6 37,4 100,4 4 242,514 42,509 255,656 +2,645	2033 40,849 47,727 39,566 15,712 318,193 69,826 36,597 19,376 587,845 0.32 0.68 35,8 37,5 100.5 33,5 37,5 100.5 34,5 37,5 100.5 34,5 37,5 100.5 36,5 37,5 100.5 37,5 37,5 37,5 37,5 37,5 37,5 37,5 37,	2034 40,974 47,706 39,481 15,734 319,117 70,053 37,108 20,230 590,402 0.37 0.32 0.69 35,9 37,6 100,6 35,9 41,616 260,055 +1,1703	2035 41,124 47,712 39,396 15,277 39,396 70,052 37,759 21,038 592,944 0.37 0.32 0.69 36.0 37.6 100.7 -3 248,286 41,597 261,739 +1,684	2036 41,297 47,747 39,322 15,691 321,073 35,598 35,598 0,37 0,37 0,37 100,8 4 41,597 100,8 4 15,691 41,597 100,8
Summary of Popula  0-4  5-10  11-15  5-10  11-15  15-16  16-56* Fernale, 64Maie  6006-7-7  7-8-4  85e  Dependency ratios, mean  0-15/16-66  0-15 and 65e/16-65  Median age females  Mustan of person  Number of supply units  Change in one previous year  Labour Force  Number of Supply units	ation es Propulation 41,369 45,421 41,369 45,421 14,362	stimate at mid-yes at mid-yes 2013 41.319 2013 41.319 36.070 303.223 303.223 51.260 25.101 0.25 0.37 0.22 0.37 0.22 0.37 0.22 201.785 41.247 212.701 41.314 41.561	s/forect 12 2014 41.334 44.337 44.337 30.048 30.4760 40.4760 40.476	2015 41,283 47,767 5,565 514,582 534,645 534,645 534,645 10,425 534,645 10,425 534,645 11,657 10,425 204,865 11,657	2016 41,429 48,027 51,4558 54,732 53,07,285 538,161 10,239 0,61 10,239 0,61 10,239 0,61 10,239 0,61 10,239 0,61 10,239 11,51 12,51 12,51 12,51 13,51 14,51 1	2017 41 236 48 288 48 288 58 782 114,144 25 381 11 038 541,557 0.38 35 3 35 3 36 2 0.24 0.61 11 038 35 3 36 2 0.24 0.61 11 4,140 0.61 11 4,140 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.6	41,224 48,480 37,467 13,918 300,337 57,552 25,659 11,298 544,947 0,832 31,93 35,5 98,4 -15 209,482 +1,604 220,832 +1,601 +1,149 209,793	2019 41,155 48,505 38,164 14,113 309,837 58,700 28,002 11,885 548,222 34,0 35,7 98,6 -15 211,079 +1,594 -1564 2255,324 +1,393 211,590	41,087 48,512 38,901 14,256 310,288 60,013 26,286 12,095 0.38 0.25 0.63 34.1 35.8 98.8 -15 212,589 +1,509 224,108 +1,501 216,531 +1,501 213,120	2021 41,041 48,429 310,428 41,4473 310,723 61,302 25,854 402 25,757 41,669 462 25,757 41,669 462 25,757 41,669	2022 40,960 48,500 30,560 48,500 15,088 31,004 51,0	2022 40,875 48,420 15,800 30,743 15,800 31,14,81 510,084 500,084 0,26 0,26 0,26 0,26 0,26 0,26 0,26 0,26	2024 40,787 48,468 30,731 15,465 40,787 15,468 40,787 15,468 40,87 15,47	2025 40,714 48,221 90,791 15,694 68,347 5 686,427 0.37 92.6 68,427 0.55 92.6 14,294 42,245 227,008 42,778 224,826 42,778	2026 40,858 48,243 15,737 15,737 14,228 0,65 64,415 22,172 23,717 48,278 22,777 23,777 23,777 23,777 24,7709	2027 40,616 48,190 30,914 15,591 314,141 65,427 33,283 14,810 571,972 0,28 0,66 34,9 36,8 99,9 7 229,952 42,557 222,412 42,566 24,566 2	2028 40,595 48,108 79,799 79,7	40,507 40,622 40,622 40,624 40	2031 40,673 47,828 39,667 15,783 316,722 68,864 36,229 18,829 582,665 0,37 0,30 0,67 35,5 37,3 3 100,3 42,583 42,583 42,583 42,583 42,687 42,687 42,687	2032 40,749 47,769 39,630 15,728 317,340 69,564 36,238 18,249 585,266 35,6 37,4 100,4 242,514 +2,509 25,665 +2,2645 265,680 +809 220,721	2033 40,949 47,727 93,956 93,956 93,957 15,712 15,712 15,712 15,712 15,712 15,712 15,712 15,712 15,712 15,712 15,712 15,713 15,7	2034 40,074 47,706 15,734 17,70,653 37,911 70,653 37,6 10,053 37,6 10,06 33,5 9 37,6 10,06 41,15 20,06 41,15 20,06 41,15	2035 41,124 47,712 39,396 15,727 320,136 70,062 37,759 21,038 592,944 0,37 0,32 0,69 36,0 37,6 100,7 -3 248,286 +1,597 +1,684 288,310 +842 222,906	2036 41,297 47,247 15,691 15,691 15,691 15,691 15,691 15,691 21,690 21,690 33,070 30,03 30,0 37,7 100,8 41,597 41,597 41,597 44,
Summary of Popula  0-4  5-10  11-15  11-15  10-05  77-84  85-  Dependency ratios, mean  0-15 /16-85  85- /16-85  Nester of the Section of the	ation es Population 2012 41,369 41,369 41,369 46,421 41,369 56,629 9,830 57 62,477 022 9,830 97,0 037 022 11,366 61,046 +1,046 +1,046  226,172 +742 245,172	stimate at mid-yes at mid-yes 2013 41.319 41.319 36.070 36.070 303.223 51.260 37 0.22 27.785 27.785 28.41 201.768 41.247 41.314 246.733	S/forec W 2014 41,334 41,324 30,4760 30,4760 0.37 0.32 0.60 0.37 0.32 0.60 97.5 41,525 41,525 41,526	2015 41383 47787 35,805 47787 35,805 35,805 358,079 25,475 33,80 33,00 25,475 33,80 33,80 33,80 33,80 33,80 33,80 33,80 41,672 204,865 41,677 250,006 41,677	2016 41,429 48,027 35,998 14,558 307,285 54,732 25,392 10,739 538,161 0.37 35.2 98.0 -12 206,378 +1,513 217,595 +1,595	2017 41,236 48,288 36,782 14,144 56,113 25,381 11,038 541,557 0.38 363 363 363 362 13 207,877 +1,499 219,141 +1,581	41,224 48,480 37,467 13,918 309,337 57,552 25,659 11,228 544,947 0.38 0.24 0.62 33.9 35.5 98.4 -15 209,482 +1,604 220,832 +1,604 220,832 +1,604 220,832 +1,604 220,832 +1,604	2019 41,155 48,505 38,104 14,113 30,837 58,702 211,685 548,222 34,0 0,24 0,26 33,7 98,6 -15 211,079 +1,588 222,517 +1,688 222,517 +1,688 41,393	41,087 48,512 38,901 14,256 60,013 26,286 12,095 551,449 0.38 0.25 0.63 34.1 35.8 98.8 -15 212,589 +1,509 41,509 41,501 224,108 +1,501	2021 41,041 48,426 39,428 14,473 310,723 61,362 26,634 12,515 564,602 0.35 0.63 34.2 36.0 98.9 -15 214,153 +1,564 225,757 +1,649	2022 40.989 39.389 31.009 31.1009 31.1009 28.230 31.007 557.676 0.38 0.26 34.2 36.1 15 15 228.675 42.876 42.876 42.876	2023 40,875 48,420 39,743 15,560 311,431 61,877 29,473 13,504 560,684 0.26 0.64 34.3 36.2 99.3 -113 219,512 42,688 42,833 258,842 +787	2024 40,787 48,408 39,731 15,405 312,143 52,672 30,489 13,873 583,599 0.38 0.27 0.64 34,4 36,4 99,4 -12 222,190 42,678 42,678 42,678 42,623	2025 40,714 48,321 39,791 716,694 48,321 39,791 716,694 312,714 314,295 566,407 0.37 0.27 0.47 99,8 111 224,826 42,235 227,008 42,778 2260,291 7799	2026 40,658 48,243 30,768 15,737 313,506 64,415 22,372 0.28 0.37 0.26 34,7 99,7 99,7 99,7 99,7 92,7 92,7 92,7 92	2027 40,616 48,190 30,914 15,591 314,141 65,427 33,283 14,810 571,972 0.32 0.66 34.9 36.8 99.9 36.8 99.9 77 220,952 42,557 242,412 42,696	2028 40,595 48,108 30,749 15,720 314,946 68,209 34,121 15,720 0,37 0,29 0,37 0,29 100,0 6 6 222,462 42,510 728,646	40,507 40,622 40,004 47,906 39,767 39,715 154,46 316,183 156,191 16,289 177,367 580,043 0.37 0.37 0.37 0.37 0.39 0.39 0.49 10.1 100.2 10.1 100.2 10.2 10.3 14,183	2031 40,673 47,828 39,667 15,783 316,722 68,864 36,299 16,829 582,665 0.37 0.30 0.67 35.5 37.3 100.3 100.3 240,005 +2,558 250,010 +2,697	2032 40,749 47,769 39,630 15,728 317,340 69,564 36,238 18,249 585,266 0.37 0.31 0.68 35,6 37,4 100,4 4 242,514 42,509 255,656 +2,645	2033 40,849 47,727 39,566 15,712 318,193 69,826 36,597 19,376 587,845 0.32 0.68 35,8 37,5 100.5 33,5 37,5 100.5 34,5 37,5 100.5 34,5 37,5 100.5 36,5 37,5 100.5 37,5 37,5 37,5 37,5 37,5 37,5 37,5 37,	2034 40,974 47,706 39,481 15,734 319,117 70,053 37,108 20,230 590,402 0.37 0.32 0.69 35,9 37,6 100,6 35,9 41,616 260,055 +1,1703	2035 41,124 47,712 39,396 15,277 39,396 70,052 37,759 21,038 592,944 0.37 0.32 0.69 36.0 37.6 100.7 -3 248,286 41,597 261,739 +1,684	2036 41,297 47,747 39,322 15,691 321,073 35,598 35,598 0,37 0,37 0,37 100,8 4 41,597 100,8 4 15,691 41,597 100,8

Population	<b>Estimates</b>	and	Forecasts	Bradf

#### **Bradford Core Strategy Jobs**

Components of Population Change

Components of Po	Pear begin																									
	2012-13			015-16	2016-17	2017-18	2018-19 201	9-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31 2	031-32	2032-33	2033-34	2034-35	2035-36	036-37	
Births Male	4,309	4,457	4,330	4,351	4,386	4,439	4,467	4,485	4,509	4,569	4,632	4,689	4,752	4,812	4,876	4,941	5,006	5,070	5,137	5,208	5,273	5,336	5,398	5,460	5,515	
Female	4,104	4,245	4,124	4,144	4,177	4,227	4,254	4,271	4,295	4,352	4,411	4,466	4,526	4,583	4,644	4,706	4,768	4,829	4,892	4,960	5,022	5,082	5,141	5,200	5,252	
All Births	8,414	8,702	8,453	8,496	8,564	8,666	8,721	8,756	8,804		9,043	9,154	9,277	9,395	9,520	9,647	9,774	9,899	10,029	10,168	10,295	10,418	10,539	10,660	10,767	
TFR Births input	2.30	2.30	2.28	2.26	2.26	2.26	2.26	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.26	2.26	2.26	2.27	2.27	2.27	2.27	2.27	
Deaths																										
Male Female	2,080 2,339	1,974 2,154	1,967 2,108	1,960 2,095	1,953 2,094	1,956 2,082	1,961 2,073	1,974 2,073	1,988		2,028	2,054 2,120	2,085 2,139	2,116 2,160	2,148 2,185	2,184 2,211	2,222 2,232	2,261 2,263	2,303 2,295	2,343 2,327	2,383 2,362	2,427 2,399	2,469 2,435	2,514 2,478	2,557 2,523	
All deaths	4,419	4,129	4,074	4,054	4,046	4,039	4,034	4,047	4,068	4,095	4,130	4,174	4,224	4,276	4,333	4,396	4,454	4,525	4,598	4,669	4,745	4,826	4,904	4,992	5,079	
SMR: males SMR: females	119.1 123.5	110.6 112.7	108.5	105.4	102.5 105.6	99.8 103.2	97.3 100.7	95.1 98.6	92.9 96.7		88.8 92.9	87.1 91.3	85.5 89.7	83.9 88.1	82.5 86.7	81.1 85.3	79.9 83.7	78.7 82.6	77.7 81.4	76.6 80.4	75.5 79.3	74.5 78.3	73.5 77.1	72.6 76.3	71.7 75.5	
SMR: persons Expectation of life: males	121.4 77.3	111.7	109.1	106.4 78.8	104.1	101.5	99.0 79.7	96.9 80.0	94.8		90.8	89.2 81.1	87.6 81.3	86.0 81.6	84.5 81.8	83.2 82.0	81.7 82.2	80.6 82.3	79.5 82.5	78.4 82.7	77.4 82.8	76.3 83.0	75.2 83.2	74.4 83.3	73.5 83.5	
Expectation of life: females	81.0	82.0	82.3	82.5	82.7	82.9	83.1	83.4	83.6	83.8	84.0	84.2	84.4	84.6	84.8	85.0	85.2	85.3	85.5	85.6	85.7	85.9	86.1	86.2	86.3	
Expectation of life: persons Deaths input	79.2	80.2	80.5	80.7	81.0	81.2	81.5	81.7	82.0	82.3	82.5	82.7	82.9	83.1	83.3	83.5	83.7	83.9	84.0	84.2	84.3	84.5	84.7	84.8	84.9	
In-migration from the UK																										
Male Female	8,950 9,263	5,464 5.643	7,860 8,105	7,512 7,730	7,801 8.006	7,733 7,920	7,633 7,797	7,731 7.882	8,220 8,364		8,231 8,344	8,308 8,412	8,256 8,355	8,302 8,401	8,313 8,410	8,320 8,421	8,313 8,416	8,373 8,481	8,449 8,562	8,386 8,502	8,355 8,475	8,376 8,498	8,419 8,545	8,366 8,494	8,366 8,496	
All	18,214	11,108	15,965	15,243	15,807	15,653	15,429	15,612	16,584			16,720	16,611	16,703	16,723		16,728	16,854	17,012	16,887	16,830	16,874	16,964	16,860	16,862	
SMigR: males SMigR: females	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Migrants input																										
Out-migration to the UK																										
Male Female	6,392 6,430	10,012 10,030	7,673 7,675	8,094 8,081	7,883 7,832	8,030 7,959	8,171 8,102	8,094 8,007	7,639 7,524	7,487	7,707 7,577	7,678 7,552	7,798 7,674	7,814 7,680	7,892 7,729		8,037 7,859	8,033 7,861	8,040 7,859	8,166 7,973	8,263 8,065	8,307 8,106	8,321 8,118	8,437 8,231	8,503 8,291	
All SMinR: males	12,822	20,042	15,347 25.9	16,175 26.8	15,715 25.8	15,988 25.9	16,273 26.1	16,101	15,162 23.5		15,285 23.4	15,230	15,473 23.1	15,494 22.8	15,621 22.7	15,741 22.6	15,896 22.5	15,894 22.2	15,898 21.9	16,138 22.0	16,328	16,413 21.8	16,439 21.6	16,669	16,794 21.6	
SMigR: females	21.8	33.1	25.7	26.7	25.7	25.8	26.0	25.5	23.8		23.4	22.9	23.0	22.7	22.5		22.3	22.0	21.7	21.8	21.8	21.6	21.4	21.5	21.4	
Migrants input	1	-		•			-	-							1			- 1	-					•	•	
In-migration from Overses	2,504	2,509	2.504	0.00	2,537	2,552	0.504	0.00	0.000	2,501	0.50	2,501	0.55	0.50:	0.571	0.531	0.55	2,501	2.501	0.55	0.00	0.571	2,501	2,501	2,501	
				2,605			2,501	2,501	2,501		2,501		2,501	2,501	2,501	2,501	2,501			2,501	2,501	2,501				
Female All	1,732 4,236	1,735 4,245	1,732 4,236	1,793 4,398	1,752 4,289	1,761 4,313	1,730 4,231	1,730 4,231	1,730 4,231		1,730 4,231															
SMigR: males SMigR: females	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Migrants input	-							1																		
Out-migration to Overseas	1,211	1,212	1,214	1,212	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	
Female	898	899	900	899	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	
All SMigR: males	2,109 74.5	2,111 72.4	2,114 73.3	2,111 72.1	2,114 71.3	2,114 70.3	2,114 69.3	2,114	2,114 67.9		2,114 65.9	2,114 65.0	2,114 64.1	2,114 63.2	2,114 62.4	2,114 61.6	2,114	2,114 60.0	2,114 59.3	2,114 58.5	2,114 57.8	2,114 57.2	2,114 56.6	2,114 56.0	2,114 55.4	
SMigR: females Migrants input	68.7	66.9	68.4	67.4	66.9	66.1	65.5	65.0	64.5		62.9	62.1	61.3	60.5	59.8	59.1	58.4	57.7	56.9	56.2	55.5	54.9	54.3	53.8	53.3	
Migration - Net Flows																										
UK	+5,392	-8,935	+617	-933	+92	-335	-844	-489	+1,422		+1,291	+1,489	+1,138	+1,209	+1,101	+1,000	+832	+960	+1,114	+749	+502	+461	+525	+192	+68	
Overseas	+2,126	+2,133	+2,122	+2,286	+2,175	+2,200	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	
Summary of population c																										
Natural change Net migration	+3,995 +7,518	+4,573 -6,802	+4,379 +2,739	+4,441 +1,354	+4,517 +2,267	+4,627 +1,864	+4,687 +1,274	+4,709 +1,629	+4,736 +3,540	+3,720	+4,912 +3,409	+4,981 +3,607	+5,053 +3,256	+5,119 +3,327	+5,187 +3,219	+5,252 +3,118	+5,321 +2,950	+5,374 +3,077	+5,431 +3,231	+5,498 +2,867	+5,550 +2,620	+5,592 +2,578	+5,635 +2,643	+5,667 +2,309	+5,688 +2,186	
Net change Crude Birth Rate /000	+11,513 15.86	-2,229 16.26	+7,118 15.73	+5,795 15.62	+6,785 15,56	+6,492 15.56	+5,961 15.49	+6,338 15.38	+8,276 15,27		+8,321 15.24	+8,587 15.21	+8,309 15.20	+8,446 15,19	+8,407 15.18	+8,370	+8,270 15,18	+8,451 15.18	+8,663 15.18	+8,365	+8,170 15.20	+8,170 15.19	+8,278	+7,977 15.18	+7,874 15.17	
Crude Death Rate /000 Crude Net Migration Rate /000	8.33 14.17	7.72	7.58 5.10	7.45 2.49	7.35 4.12	7.25 3.35	7.16 2.26	7.11	7.06 6.14	7.00	6.96 5.74	6.94 5.99	6.92 5.34	6.91	6.91 5.13	6.92 4.91	6.92 4.58	6.94 4.72	6.96 4.89	6.98 4.28	7.00	7.04 3.76	7.07	7.11	7.15 3.08	
					4.12	3.35	2.26	2.86	6.14	6.36	5.74	5.99	5.34	5.38	5.13	4.91	4.58	4.72	4.89	4.28	3.87	3.76	3.81	3.29	3.08	
Summary of Popul				casts																						
	Population 2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	203
0-4 5-10	41,369 45,421	42,055 46,800	41,693 47,151	41,953 48,180	42,354 48,609	42,498 49,126	42,837 49,570	42,996 49,918	43,291	43,767	44,276 51,221	44,760 51,574	45,288 52 135	45,826 52,562	46,400 53,104	46,974 53,688	47,551 54.278	48,130 54,842	48,729 55,439	49,358 56,075	49,973 56,720	50,575 57,360	51,178 58,005	51,790 58,668	52,374 59,323	52,90
11-15	36,262	36,471	36,272	36,120	36,406	37,317	38,139	38,966	39,869	40,639	40,876	41,535	41,833	42,282	42,613	43,131	43,366	43,819	44,166	44,620	45,077	45,529	45,973	46,436	46,912	47,40
16-17 18-59Female, 64Male	14,362 302,303	14,765 309,293	14,587 306,266	14,960 310,186	15,021 312,946	14,654 316,578	14,471 319,406	14,697 321,619	14,889 324,044		15,884 331,685	16,250 335,464	16,504 339,712	16,814 343,618	16,951 347,811	16,924 351,812	17,182 355,917	17,444 359,596	17,531 363,672	17,713 367,679	17,761 371,601	17,922 375,563	18,128 379,617	18,319 383,874	18,472 387,888	18,62
60/65 -74 75-84	50,299 24,773	51,615 25,285	52,591 25,409	53,670 25,745	55,225 25,760	56,774 25.839	58,365 26,211	59,660 26,701	61,154 27,008	62,764	63,064 29,239	63,823 30,611	64,918 31,771	66,019 32,851	67,285 33,947	68,622 35,009	69,734 35,988	70,918 36,861	72,286 37.681	73,437 38.643	74,493 38,697	75,087 39,211	75,657 39.892	75,993 40,729	76,300 41,765	76,42 42.88
85+	9,830	9,848	9,935	10,208	10,495	10,816	11,095	11,496	11,934	12,400	12,969	13,517	13,960	14,458	14,766	15,124	15,639	16,313	16,872	17,515	19,081	20,327	21,294	22,212	22,963	23,68
Total	524,619	536,132	533,903	541,021	546,817	553,602	560,093	566,054	572,392	580,668	589,214	597,534	606,122	614,431	622,877	631,284	639,654	647,924	656,375	665,038	673,403	681,573	689,743	698,021	705,997	713,87
Dependency ratios, mean 0-15 / 16-65	0.37	ex ratio 0.37	0.37	0.37	0.37	0.37	0.38	0.38	0.38		0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.38	0.0
65+ / 16-65 0-15 and 65+ / 16-65	0.22	0.22	0.23	0.23	0.23	0.23	0.24	0.24	0.24		0.25	0.25	0.25	0.26 0.63	0.26 0.63	0.27	0.27	0.27	0.28	0.28	0.28	0.29	0.29	0.29	0.30	0.0
Median age males Median age females	33.3 35.0	33.2 34.7	33.4 34.9	33.5 34.9	33.5 35.0	33.5 35.0	33.6 35.1	33.6 35.2	33.7 35.3	7 33.7	33.6	33.7 35.3	33.7 35.3	33.8 35.3	33.9 35.4		34.1 35.5	34.2 35.5	34.3 35.6	34.4 35.6	34.5 35.6	34.6 35.7	34.7 35.7	34.8 35.8	34.8 35.8	34
Median age females Sex ratio males /100 females	35.0 97.0	97.3	34.9 97.6	34.9 97.8	35.0 98.1	35.0 98.3	35.1 98.5	35.2 98.7	35.3 98.9		35.3 99.3	35.3 99.5	35.3 99.6	35.3 99.8	35.4 100.0	35.4 100.1	35.5 100.3	35.5 100.4	35.6 100.5	35.6 100.6	35.6 100.7	35.7 100.8	35.7 100.9	35.8 101.0	35.8 101.1	101
Population impact of cons Number of persons	straint -52	+8,287	-6,014	+3,583	+2,032	+3,088	+2,719	+2,233	+2,604	+4,552	+4,791	+4,517	+4,769	+4,467	+4,534	+4,442	+4,345	+4,173	+4,278	+4,458	+4,092	+3,843	+3,802	+3,870	+3,540	+3,41
Labour Force																										
Number of Labour Force Change in Labour Force over p	245,172	251,267 +6.095	249,806	253,342 +3.536	256,159 +2.817	258,960 +2.801	261,746 +2,786	264,516 +2,770	267,271 +2,755		274,246	277,733	281,220 +3.487	284,707 +3.487	288,194	291,681	295,168 +3,487	298,655 +3.487	302,142 +3.487	305,629 +3.487	309,117 +3.487	312,604 +3.487	316,091 +3,487	319,578 +3.487	323,065 +3,487	326,5 +3,4
Number of supply units	198,867	201,764	204,661	207,558	210,455	213,352	216,249	219,146	222,043	224,940	227,837	230,734	233,631	236,528	239,425	242,322	245,219	248,116	251,013	253,910	256,807	259,704	262,601	265,498	268,395	271,2
Change in over previous year	+3,257	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,897	+2,8
Households																										
Number of Households Change in Households over pre	200,521	204,305	204,063	206,782	209,017	211,576	214,181	216,677	219,159		226,166 +3.789	229,947	233,860	237,711	241,677	245,678	249,631	253,573 +3.943	257,484 +3.911	261,483	265,333 +3.850	269,143	272,785	276,425 +3.639	279,901 +3.476	283,3
Number of supply units	211,386	215,375	215,120	217,987	220,342	223,040	225,786	228,418	231,034	234,427	238,421	242,407	246,532	250,591	254,773	258,990	263,157	267,313	271,436	275,651	279,710	283,727	287,566	291,403	295,067	+3,4 298,7
Change in over previous year	+1,046	+3,989	-255	+2,866	+2,356	+2,698	+2,746	+2,632	+2,616	+3,393	+3,994	+3,986	+4,125	+4,059	+4,182	+4,217	+4,167	+4,156	+4,123	+4,215	+4,059	+4,017	+3,839	+3,836	+3,665	+3,64

Population Estimates and Forecasts	Bradford Core Strategy Jobs - Reduction to 3% Unemployment
· opulation Zollinatoo ana i orocacto	Diddiera core chalogy code incadellor to en chempleyment

	rear begin 1012-13 2			015-16 2	016-17 2	017-18 2	018-19 20	119-20 20	20-21 2	021-22 2	022-23 2	023-24 2	024-25 2	025-26 2	026-27 2	027-28 2	028-29 2	029-30 2	2030-31 20	031-32 20	032-33 2	033-34 21	034-35 2	2035-36 2	036-37	
le	4,309	4,457	4,330	4,351	4,366	4,398	4,407	4,404	4,409	4,429	4,451	4,468	4,492	4,514	4,540	4,568	4,597	4,667	4,741	4,822	4,899	4,975	5,051	5,128	5,199	
emale	4,104	4,245	4,124	4,144	4,158	4,189	4,197	4,195	4,200	4,218	4,239	4,256	4,278	4,299	4,324	4,350	4,378	4,445	4,516	4,592	4,666	4,738	4,811	4,884	4,951	
III Births FR	8,414 2.30	8,702 2.30	8,453 2.28	8,496 2.26	8,524 2.26	8,587 2.26	8,603 2.26	8,599 2.25	8,609 2.25	8,646 2.25	8,690 2.25	8,724 2.25	8,770 2.25	8,812 2.25	8,863 2.25	8,918 2.25	8,976 2.25	9,112 2.26	9,257	9,414	9,565	9,713 2.27	9,862	10,012	10,150	
irths input	2.50	2.50	2.20	2.20	2.20	2.20	110	2.23	2.23	1.13	2.23	223	2.20	2.23	2.25	2.23	1.13	2.20	2.20	2.20	2.27	2.27		2.27	2.27	
eaths																										
tale emale	2,080	1,974	1,967	1,960	1,951	1,952	1,955	1,966	1,977	1,992	2,009	2,030	2,056	2,082	2,109	2,140 2,164	2,173 2,179	2,211	2,252	2,291	2,330 2,311	2,372	2,413 2,383	2,457	2,497	
MR: males	4,419	4,129 110.6	4,074	4,054	4,041	4,029 99.8	4,020 97.3	4,028 95.1	4,045	4,062 90.8	4,088	4,122 87.1	4,163 85.5	4,205 83.9	4,252 82.5	4,304 81.1	4,352 79.9	4,423 78.7	4,495 77.7	4,566 76.6	4,641 75.5	4,720 74.5	4,796 73.5	4,882 72.6	4,967 71.7	
MR: females	123.5	112.7	109.7	107.4	105.6	103.2	100.7	98.6	96.7	94.7	88.8 92.9	91.3	89.7	88.1	86.7	85.3	83.7	82.6	81.4	80.4	79.3	78.3	77.1	76.3	75.5	
MR: persons expectation of life: males	121.4 77.3	111.7 78.2	109.1 78.5	106.4 78.8	104.1 79.1	101.5 79.5	99.0 79.7	96.9 80.0	94.8 80.3	92.8 80.6	90.8 80.9	89.2 81.1	87.5 81.3	86.0 81.6	84.5 81.8	83.2 82.0	81.7 82.2	80.6 82.3	79.5 82.5	78.4 82.7	77.4 82.8	76.3 83.0	75.2 83.2	74.4 83.3	73.5 83.5	
xpectation of life: females	81.0	82.0	82.3	82.5	82.7	82.9	83.1	83.4	83.6	83.8	84.0	84.2	84.4	84.6	84.8	85.0	85.2	85.3	85.5	85.6	85.7	85.9	86.1	86.2	86.3	
xpectation of life: persons leaths input	79.2	80.2	80.5	80.7	81.0	81.2	81.5	81.7	82.0	82.2	82.5	82.7	82.9	83.1	83.3	83.5	83.7	83.9	84.0	84.2	84.3	84.5	84.7	84.8	84.9	
n-migration from the UK																										
fale emale	8,950 9,263	5,464 5,643	7,860 8,105	7,201 7,410	7,498 7,695	7,429	7,328 7,485	7,423 7,568	7,570 7,703	7,640 7,760	7,581 7,685	7,651 7,747	7,594 7,684	7,636 7,726	7,643 7,732	7,649 7,741	8,308 8,411	8,346 8,453	8,419 8,531	8,360 8,475	8,336 8,456	8,361 8,483	8,407 8,532	8,363 8,491	8,374 8,504	
u .	18,214	11,108	15,965	14,610	15,192	15,038	14,813	14,991	15,274	15,401	15,266	15,398	15,278	15,362	15,376	15,390	16,719		16,950	16,835	16,791	16,845	16,939	16,853	16,877	
MigR: males MigR: females	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
figrants input																										
Out-migration to the UK																										
fale emale	6,392 6,430	10,012	7,673 7,675	8,411 8,397	8,192 8,138	8,338 8,265	8,480 8,409	8,407 8,316	8,299 8,174	8,270 8,132	8,367 8,227	8,345 8,208	8,470 8,336	8,490 8,345	8,573 8,396	8,636 8,457	8,041 7,864	8,061 7,888	8,071 7,889	8,192 7,999	8,283 8,084	8,321 8,121	8,334 8,130	8,441 8,235	8,495 8,284	
WigR: males	12,822	20,042	15,347 25.9	16,808 27,9	16,330 26.9	16,603 27.1	16,888 27.3	16,723 26.9	16,473 26.4	16,403 26.1	16,594 26.2	16,552 25.9	16,806 26.1	16,835 25,9	16,968 25.9	17,093 25.9	15,905 23.9	15,948 23.6	15,960 23.3	16,191	16,367 23.3	16,442	16,464 22.9	16,676 22.9	16,779 22.8	
MigR: females	21.8	33.4	25.7	27.9	26.8	27.0	27.3	26.9	26.4	26.0	26.2	25.9	26.1	25.9	25.9	25.9 25.8	23.9	23.6	23.2	23.2	23.3	22.9	22.9	22.9	22.6	
figrants input																			1					•		
n-migration from Overseas																										
tale	2,504	2,509	2,504	2,605	2,537	2,552	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	
emale W	1,732 4,236	1,735 4,245	1,732 4,236	1,793 4,398	1,752 4,289	1,761 4,313	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231												
MigR: males MigR: females	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
figrants input	•		•		•	•		•	•	•		•	•	•	•	•	•	•		•		•			•	
out-migration to Overseas	1,211	1,212	1,214	1,212	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	
emale	898	899	900	899	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	
MigR: males	2,109 74.5	2,111 72.4	2,114 73.3	2,111 72.1	2,114 71.6	2,114 70.8	2,114 70.1	2,114 69.6	2,114 69.1	2,114 68.5	2,114 67.9	2,114 67.4	2,114 66.9	2,114 66.5	2,114 66.0	2,114 65.4	2,114 65.0	2,114 64.0	2,114 63.1	2,114 62.1	2,114 61.3	2,114 60.5	2,114 59.8	2,114 59.0	2,114 58.4	
MigR: females	68.7	66.9	68.4	67.4	67.2	66.7	66.3	66.1	65.8	65.5	65.1	64.8	64.4	64.0	63.6	63.2	62.9	62.0	61.0	60.1	59.2	58.4	57.6	56.9	56.3	
igrants input																										
K	+5,392	-8,935	+617 +2.122	-2,198	-1,138 +2,175	-1,564 +2,200	-2,075	-1,732	-1,199	-1,002	-1,328 +2.118	-1,155 +2,118	-1,528 +2,118	-1,472	-1,593	-1,703 +2,118	+813	+851 +2.118	+990 +2.118	+644 +2.118	+424	+402 +2.118	+476 +2.118	+178	+98 +2.118	
lverseas	+2,126	+2,133	+2,122	+2,286	+2,175	+2,200	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	
summary of population cha latural change	ange	+4 573	44 379	+4.441	44 483	+4.558	+4.583	+4.571	+4.564	+4 584	+4 601	+4 601	44 607	44 608	+4.612	+4.614	44 R24	44 689	s4 762	+4 848	+4 924	44 993	45.066	a5 130	a5 183	
let migration	+7,518	-6,802	+2,739	+89	+1,038	+635	+43	+386	+918	+1,116	+790	+963	+590	+645	+525	+415	+2,931	+2,968	+3,107	+2,762	+2,542	+2,520	+2,594	+2,296	+2,216	
let change nude Rinth Rate (000	+11,513	-2,229 16.26	+7,118 15.73	+4,530 15.64	+5,521 15.55	+5,194 15.51	+4,626	+4,957 15.26	+5,482 15.14	+5,699 15.06	+5,391	+5,565 14.91	+5,197 14.85	+5,253 14,79	+5,137 14,75	+5,029	+7,555 14.66	+7,657 14.70	+7,869 14.75	+7,610 14.81	+7,466 14.87	+7,514 14.93	+7,660 14.99	+7,426 15.04	+7,399 15.08	
rude Death Rate /000 rude Net Migration Rate /000	8.33 14.17	7.72	7.58 5.10	7.46 0.16	7.37	7.28 1.15	7.20	7.15	7.11	7.08	7.06	7.04 1.65	7.05	7.06	7.07	7.10 0.68	7.11 4.79	7.13 4.79	7.16 4.95	7.18 4.35	7.22	7.26	7.29 3.94	7.33 3.45	7.38	
-					1.89	1.15	80.0	0.69	1.62	1.94	1.36	1.65	1.00	1.08	0.87	0.68	4.79	4.79	4.95	4.35	3.95	3.87	3.94	3.45	3.29	
Summary of Popula	ition es Population			asts																						
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028		2030	2031	2032	2033	2034	2035	2036	2037
-4 -10	41,369 45,421	42,055 46,800	41,693 47,151	41,953 48,180	42,245 48,531	42,264 48,964	42,459 49,317	42,456 49,563	42,575 49,735	42,742	42,923 50.307	43,061	43,228	43,392	43,580	43,773	43,976 51.335	44,410 51,643	44,905 51 974	45,477 52.349	46,086 52,744	46,730 53 163	47,424 53,615	48,146 54 141	48,859 54,714	49,563 55,351
1-15	36,262	36,471	36,272	36,120	36,358	37,216	37,983	38,751	39,591	40,238	40,346	40,864	41,017	41,305	41,464	41,797	41,828	42,157	42,363	42,648	42,918	43,169	43,400	43,641	43,898	44,180
6-17 8-59Female, 64Male	14,362 302,303	14,765 309,293	14,587 306,266	14,960 310,186	15,001 312,018	14,618 314,744	14,419 316,668	14,626 317,976	14,796 319,490	15,049 321,383	15,702 323,321	16,020 325,189	16,222 327,502	16,479 329,452	16,564 331,668	16,482 333,678	16,675 335,776	16,916 339,370	16,971	17,116 347,123	17,132 350,868	17,240 354.656	17,376 358,534	17,495 362 590	17,573 366 402	17,647 370,237
0/65 -74 5-84	50,299	51,615	52,591	53,670	55,177	56,676 25.802	58,214 26,154	59,453	60,885	62,374	62,551	63,179	64,131	65,081 32,494	66,186 33.527	67,351 34,524	68,285 35,437	69,397	70,688	71,766	72,753	73,287	73,801	74,088	74,347	74,433
5-84 5+	24,773 9,830	25,285 9,848	25,409 9,935	25,745 10,208	25,741 10,481	25,802 10,788	26,154 11,052	26,626 11,440	26,913 11,863	27,352 12,296	29,048 12,832	30,367 13,345	31,472 13,754	32,494 14,217	33,527 14,491	34,524 14,814	35,437 15,290	36,295 15,969	37,094 16,530	38,028 17,175	38,063 18,728	38,547 19,967	39,193 20,929	39,990 21,840	40,979 22,586	42,043 23,303
otal	524,619	536,132	533,903	541,021	545,551	551,072	556,266	560,891	565,848	571,330	577,030	582,421	587,986	593,182	598,436	603,572	608,601	616,156	623,813	631,682	639,293	646,759	654,272	661,932	669,358	676,757
ependency ratios, mean a -15 / 16-65	0.37	0.37	0.37	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
5+ / 16-65 -15 and 65+ / 16-65	0.22	0.22	0.23	0.23	0.23	0.23	0.24	0.24	0.24	0.25 0.63	0.25	0.26	0.26	0.26	0.27	0.27	0.28	0.28	0.29	0.29	0.29	0.30	0.30	0.30	0.31	0.31
fedian age males	33.3	33.2	33.4	33.5	33.5	33.6	33.6	33.7	33.8	33.8	33.9	33.9	34.0	34.1	34.3	34.4	34.5	34.6	34.7	34.7	34.8	34.9	34.9	35.0	35.0	35.0
fedian age females ex ratio males /100 females	35.0 97.0	34.7 97.3	34.9 97.6	34.9 97.8	35.0 98.1	35.1 98.3	35.2 98.5	35.3 98.7	35.4 98.9	35.5 99.1	35.6 99.3	35.7 99.4	35.8 99.6	35.9 99.8	36.0 99.9	36.1 100.1	36.2 100.2	36.2 100.4	36.2 100.5	36.3 100.6	36.3 100.7	36.3 100.8	36.3 100.9	36.3 101.0	36.3 101.1	36.2 101.2
opulation impact of const lumber of persons	raint -52	+8,287	-6,014	+3,583	+766	+1,858	+1,490	+1,001	+1,361	+1,930	+2,186	+1,898	+2,125	+1,800	+1,853	+1,748	+1,642	+4,154	+4,169	+4,334	+3,987	+3,765	+3,744	+3,821	+3,527	+3,449
abour Force lumber of Labour Force	245,172	251,267	249,806	253,342	255,467	257,568	259,647	261,703	263,737	265,749	267,740	269,709	271,658	273,587	275,495	277,384	279,253	282,553	285.852	289,151	292,450	295,749	299,048	302,347	305,646	308,945
hange in Labour Force over p	+742	+6,095	-1,462	+3,538	+2,125	+2,101	+2,079	+2,056	+2,034	+2,012	+1,991	+1,970	+1,949	+1,929	+1,909	+1,889	+1,869	+3,299	+3,299	+3,299	+3,299	+3,299	+3,299	+3,299	+3,299	+3,299
lumber of supply units hange in over previous year	198,867 +3,257	201,764 +2,897	204,661 +2,897	207,558 +2,897	210,455 +2,897	213,352 +2,897	216,249 +2,897	219,146 +2,897	222,043 +2,897	224,940 +2,897	227,837 +2,897	230,734 +2,897	233,631 +2,897	236,528 +2,897	239,425 +2,897	242,322 +2,897	245,219 +2,897	248,116 : +2,897	251,013 +2,897	253,910 +2,897	256,807 +2,897	259,704 +2,897	262,601 +2,897	265,498 +2,897	268,395 +2,897	271,292 +2,897
louseholds lumber of Households	200,521	204,305		206,782	208,627	210,792	212,988	215,057	217,095	219,426	222,290	225,108	228,018	230,829	233,719	236,606	239,415			250,209	253,710	257,184	260,505	263,850	267,050	270,237
hange in Households over pro lumber of supply units	+993 211.386	+3,784 215,375	-242 215 120	+2,719 217.987	+1,845 219,931	+2,165 222,214	+2,196	+2,069 226,710	+2,038 228,858	+2,332 231,316	+2,863 234,334	+2,819 237,306	+2,909 240,373	+2,811 243,336	+2,890 246,383	+2,887 249,426	+2,809	+3,606 256.188	+3,552	+3,636 263,766	+3,501 267,457	+3,474 271,119	+3,322 274,621	+3,345 278,147	+3,200 281,520	+3,187 284 880
					+1.944	+2.283	+2.315	+2.181	+2.148	+2.458	+3.018	+2.971	+3.067	+2.963	+3.047	+3.043	+2.961		+3.745	+3.833	+3.691	+3.662	+3.502	+3.526	+3.373	+3.359

Population Es	stimates and	Forecasts
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#### Bradford Experian

Com	ponents of Population Change

Components of Po	pulation Year begin																									
	2012-13 2			2015-16	2016-17	2017-18	2018-19 20	19-20 2	020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31 2	031-32	2032-33	2033-34	2034-35	2035-36	2036-37	
Male	4,309	4,385	4,351	4,388	4,397	4,415	4,405	4,385	4,37	2 4,390	2 4,419	4,444	4,479	4,511	4,546	4,582	4,622	4,667	4,719	4,777	4,832	4,886	4,940	4,995	5,044	
Female	4,104	4,176	4,144	4,179	4,187	4,205	4,196	4,177	4,16			4,233	4,265	4,296	4,329	4,364		4,445		4,550			4,706		4,804	
All Births TFR Births input	8,414 2.30	8,561 2.30	8,495 2.28	8,567 2.26	8,584 2.26	8,621 2.26	8,601 2.26	8,562 2.25	8,53 2.2			8,677 2.25	8,744 2.25	8,807 2.25	8,875 2.25	8,946 2.25		9,112		9,327 2.26			9,645 2.27	9,753 2.27	9,848 2.27	
Deaths Male	2,080	1.967	1.969	1.964	1,954	1,954	1.955	1.963	1,97	3 1,988	3 2,005	2.027	2.055	2.082	2.110	2,142	2 2,175	2,211	2.249	2.285	2,321	2.361	2.399	2,440	2,478	
Female All deaths	2,339 4 419	2,145	2,111	2,100	2,095	2,079	2,065 4,019	2,060	2,06	2 2,066	3 2,076	2,027	2,106 4 161	2,123 4,205	2,110 2,144 4.253	2,166	3 2,183	2,211	2,239	2,268 4,553	2,301	2,334	2,399 2,367 4.767	2,407	2,448 4,926	
SMR: males	119.1	110.6	108.5	105.4	102.5	99.8	97.3	95.1	92.	9 90.8	88.8	87.1	85.5	83.9	82.5	81.1	79.9	78.7	77.7	76.6	75.5	74.5	73.5	72.6	71.7	
SMR: females SMR: persons	123.5 121.4	112.7 111.7	109.7 109.1	107.4 106.4	105.6 104.1	103.2 101.5	100.7 99.0	98.6 96.9	96. 94.	8 92.8	90.8	91.3 89.2	89.7 87.5	88.1 86.0	86.7 84.5	85.3 83.2	2 81.7	82.6 80.6	81.4 79.5	80.4 78.4		76.3	77.1 75.2		75.5 73.5	
Expectation of life: males Expectation of life: females	77.3 81.0	78.2 82.0	78.5 82.3	78.8 82.5	79.1 82.7	79.5 82.9	79.7 83.1	80.0 83.4	80. 83.			81.1 84.2	81.3 84.4	81.6 84.6	81.8 84.8	82.0 85.0			85.5	82.7 85.6		85.9	83.2 86.1	86.2	83.5 86.3	
Expectation of life: persons Deaths input	79.2	80.2	80.5	80.7	81.0	81.2	81.5	81.7	82.	0 82.2	2 82.5	82.7	82.9	83.1	83.3	83.5	83.7	83.9	84.0	84.2	84.3	84.5	84.7	84.8	84.9	
In-migration from the UK																										
Male Female	7,869 8,144	6,902 7,128	8,077 8,328	7,082 7,287	7,278 7,469	7,147 7,320	7,052 7,203	7,135 7,274	7,60			7,823 7,921	7,755 7,848	7,759 7,851	7,764 7,854	7,796 7,893				8,014 8,125		8,028 8,145	8,072 8,193		8,044 8,168	
All SMigR: males	16,013 0.2	14,030	16,405 0.2	14,369	14,747	14,467	14,255	14,409	15,34			15,744	15,603 0.2	15,610 0.2	15,617 0.2	15,692		16,048	16,243	16,139	16,096	16,174	16,265	16,187	16,212 0.2	
SMigR: females Migrants input	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	. 0.			0.2	0.2	0.2	0.2	0.2		0.2		0.2			0.2		0.2	
Out-migration to the UK																										
Male Female	7,489 7,534	8,552 8,568	7,452 7,454	8,532 8,518	8,415 8,360	8,625 8,549	8,760 8,687	8,699 8,605	8,26 8,13	8 8,046	8,094	8,170 8,036	8,306 8,174	8,364 8,222	8,451 8,276	8,483 8,307	7 8,289	8,259	8,239	8,544 8,343	8,427	8,452	8,675 8,463	8,564	8,832 8,612	
All SMigR: males	15,023 25.7	17,120 28.9	14,907 25.0	17,049 28.1	16,775 27.5	17,175 28.0	17,446 28.2	17,305 27.9	16,39			16,206 25.4	16,481 25.6	16,586 25,5	16,727 25.5	16,791 25.4		16,699	16,667 24.5	16,887 24.5	17,062		17,138 24.2	17,342 24.2	17,444 24.2	
SMigR: females Migrants input	25.5	28.6	24.9	28.0	27.3	27.8	28.2	27.9	26.	4 25.5	25.8	25.4	25.6	25.5	25.4	25.3	3 25.0	24.7	24.3	24.4	24.4	24.2	24.0	24.1	24.1	
In-migration from Overse	as																									
Male	2,504	2,509	2,504	2,605	2,537	2,552	2,501	2,501	2,50	1 2,501	1 2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	
Female All	1,732 4,236	1,735	1,732	1,793 4.398	1,752	1,761	1,730 4,231	1,730 4,231	1,73			1,730	1,730 4,231	1,730 4,231	1,730	1,730		1,730	1,730	1,730			1,730		1,730 4,231	
SMigR: males SMigR: females	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Migrants input Out-migration to Overseas		•					•				•					•										
Male Female	1,211	1,212 899	1,214	1,212 899	1,214	1,214	1,214 900	1,214	1,21-			1,214	1,214	1,214	1,214	1,214		1,214	1,214	1,214	1,214		1,214	1,214	1,214	
All	2,109	2,111	2,114	2,111	2,114	2,114	2,114	2,114	2,11	4 2,114	4 2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114	
SMigR: males SMigR: females Migrants input	74.5 68.7	73.3 67.9	73.0 68.0	71.6 66.9	71.2 66.8	70.6 66.5	70.1 66.3	69.8 66.4	69. 66.			67.7 65.1	67.1 64.5	66.5 64.0	65.9 63.6	65.3 63.0		64.0		62.6			60.8 58.9	60.3 58.3	59.8 57.9	
Migration - Net Flows																										
UK Overseas	+990 +2,126	-3,089 +2,133	+1,499	-2,680 +2,286	-2,028 +2,175	-2,708 +2,200	-3,191 +2,118	-2,896 +2,118	+2,11			-463 +2,118	-878 +2,118	-976 +2,118	-1,109 +2,118	-1,096 +2,118			-424 +2,118	-748 +2,118			-872 +2,118		-1,232 +2,118	
Summary of population c	hange																									
Natural change Net migration	+3,995 +3,116	+4,449	+4,414 +3,621	+4,503 -394	+4,535 +148	+4,588 -508	+4,582	+4,539 -778	+4,495			+4,559 +1,655	+4,584 +1,240	+4,602 +1,142	+4,621 +1,008	+4,638		+4,690	+4,725	+4,774			+4,879 +1,245		+4,922 +886	
Net change Crude Birth Rate /000	+7,111 15.93	+3,493	+8,035 15.75	+4,110 15.71	+4,683 15.61	+4,080	+3,509	+3,761	+5,56i			+6,215 14.86	+5,824 14.82	+5,744 14.78	+5,630 14.76	+5,658		+6,157	+6,418	+6,144			+6,124 14.85		+5,807 14.89	
Crude Death Rate /000 Crude Net Migration Rate /000	8.37 5.90	7.71	7.57	7.45	7.36	7.28	7.20	7.17	7.1	3 7.06	7.06	7.05	7.05	7.06	7.07	7.10	7.11	7.15	7.18	7.21	7.25	7.30	7.34	7.39	7.45	
Crude Net Migration Rate (000 500 -1.79 6.71 0.72 0.27 0.92 -1.92 1.39 1.88 2.56 2.20 2.83 2.10 1.92 1.68 1.68 1.68 2.37 2.71 2.17 1.81 1.83 1.92 1.47  Summary of Population extractional at mid-wear  Population at mid-wear																										
	2012	2013	2014	2015	2016	2017	2018	2019	2020			2023	2024	2025	2026	2027		2029		2031	2032	2033	2034	2035	2036	2037
0-4 5-10	41,369 45,421	41,674 46,536	41,743 47,216	42,105 48,300	42,396 48,633	42,374 49,019	42,479 49,316	42,425 49,451	42,41	6 49,748		42,832 50,297	43,039 50,582	43,261 50,744	43,518 50,930	43,788 51,119		44,419 51,505		45,244 52,049	52,379		46,645 53,101	53,518	47,662 53,953	48,155 54,423
11-15 16-17	36,262 14,362	36,299 14,693	36,315 14,621	36,211 14,985	36,429 15,021	37,253 14,637	37,977 14,417	38,698 14,607	39,479 14,76	5 40,123 3 15,019	3 40,249 9 15,669	40,788 15,993	40,981 16,206	41,264 16,463	41,453 16,557	41,819 16,499	5 41,880 5 16,698	42,130 16,915	42,297 16,915	42,495 17,036	42,664 17,074	42,819 17,159	42,967 17,262	43,142 17,340	43,342 17,378	43,576 17,412
18-59Female, 64Male 60/65 -74	302,303 50,299	306,055 51,455	307,304 52,636	311,888 53,751	313,375 55,243	315,441 56,715	316,534 58,212	317,026 59,406	317,68			324,128 63,107	326,935 64,081	329,353 65,057	331,923 66,184	334,271 67,372		339,169 69,376		344,822 71,619	347,528 72,533	350,315 72,996	353,227 73,437	356,303 73,650	359,135 73,832	361,977 73,843
75-84 85+	24,773 9,830	25,219 9,800	25,434 9,955	25,781 10,236	25,768 10,503	25,813 10,798	26,148 11,048	26,605 11,421	26,87- 11,83		5 29,009 7 12,807	30,345 13,330	31,463 13,750	32,493 14,222	33,534 14,504	34,539 14,833		36,284 15,968	37,052 16,503	37,956 17,121	37,971 18,641	38,422 19,857	39,040 20,793	39,810 21,675	40,769 22,394	41,802 23,085
Total	524,619	531,730	535,223	543,258	547,368	552,051	556,131	559,639	563,40	0 568,966	574,951	580,820	587,035	592,858	598,603	604,233	3 609,890	615,767	621,924	628,342	634,486	640,450	646,472	652,596	658,465	664,273
Dependency ratios, mean 0-15 / 16-65 65+ / 16-65	0.37 0.22	0.37 0.22	0.37	0.37	0.37 0.23	0.37 0.23	0.38 0.24	0.38 0.24	0.3			0.38	0.37 0.26	0.37 0.26	0.37	0.33		0.37		0.37			0.37		0.37	0.37
0-15 and 65+ / 16-65 Median age males	0.59	0.22	0.22	0.23 0.60 33.4	0.23 0.60 33.5	0.23 0.61 33.6	0.61 33.6	0.24 0.62 33.8	0.6	2 0.63	3 0.63	0.63 34.0	0.26 0.63 34.0	0.26 0.64 34.1	0.27 0.64 34.3	0.65	0.65	0.65	0.66	0.29	0.66	0.67	0.30 0.67 35.1	0.68	0.31 0.68 35.2	0.31 0.68 35.2
Median age females  Median age females  Sex ratio males /100 females	35.0 97.0	33.3 34.8 97.3	33.4 34.9 97.6	33.4 34.8 97.8	33.5 34.9 98.1	35.1 98.3	35.2 98.5	35.4 98.7	35. 98.	5 35.6	35.7	34.0 35.8 99.4	34.0 35.8 99.6	34.1 35.9 99.8	34.3 36.0 99.9	34.4 36.1 100.1	36.1	36.2	36.3	36.3 100.6	36.4	36.4	36.5 100.9	36.5	36.5 101.1	36.5 101.2
Population impact of cons Number of persons		+3,885	-169	+4,464	+284	+969	+346	-115	+19			+2,431	+2,817	+2,451	+2,349	+2,231				+2,920			+2,402		+2,194	+2,118
Labour Force Number of Labour Force	245,172	248,855	250,497	254,610	256,514	258,141	259,577	260,993	262,37	7 264,436	8 286,602	268,853	271,176	273,463	275,654	277,821	1 280,035	282,419	284,886	287,390	289,894	292,397	294,901	297,405	299,908	302,412
Change in Labour Force over p Number of supply units	+742 198.867	+3,683	+1,642	+4,113	+1,904 210,747	+1,627	+1,436 214,457	+1,416 216,227	+1,38 217,97	4 +2,058	8 +2,167	+2,251 223,357	+2,323 225,287	+2,287 227,187	+2,191	+2,167 230.807	7 +2,215	+2,383	+2,468	+2,504	+2,504	+2,504	+2,504 244,997	+2,504	+2,504 249,157	+2,504 251,237
Change in over previous year	+3,257	+960	+5,400	+3,370	+2,150	+1,930	+1,780	+1,770	+1,75			+1,870	+1,930	+1,900	+1,820	+1,800				+2,080			+2,080		42,080	+2,080
Households																										
Number of Households Change in Households over pre	200,521 +993	202,945 +2,423	204,458 +1,513	207,458 +3,000	209,177 +1,719	211,103 +1,926	212,959 +1,855	214,666 +1,708	216,36 +1,69	6 +2,350	+2,929	224,585 +2,944	227,679 +3,095	230,676 +2,997	233,720 +3,044	236,779 +3,060	+3,022	242,887 +3,086	+3,107	249,174 +3,180	+3,018		257,973 +2,813	+2,811	263,448 +2,664	266,096 +2,648
Number of supply units Change in over previous year	211,386 +1,046	213,941 +2,555	215,536 +1,595	218,699 +3,162	220,511 +1,812	222,542 +2,031	224,498 +1,956	226,298 +1,800	228,08 +1,78			236,754 +3,103	240,016 +3,262	243,175 +3,159	246,384 +3,209	249,606 +3,225			259,324 +3,276	262,675 +3,352			271,951 +2,965		277,723 +2,809	280,515 +2,792
J																										

Population Estimates and Forecasts	Bradford June 2014 REM Job Growth

Components of Po	Year begin	ning July	1st																							
Births Male	4.309	2013-14	4.237	2015-16 2 4.214	4 204	2017-18 :	2018-19 2	4 178	4 166	4 189	2022-23 2 4.217	4 243	4 276	4 909	4 348	4 391	2028-29	2029-30	4 528	4 582	4631	1033-34 2	034-35 2 4.723	4 767	4 805	
Female	4,104	4,199	4,035	4,013	4,004	4,012	4,000	3,979	3,968	3,990	4,017	4,041	4,073	4,104	4,141	4,182	4,224	4,266	4,312	4,363	4,410	4,454	4,498	4,540	4,576	
All Births TFR Births input	8,414 2.30	8,608 2.30	8,272 2.28	8,227 2.26	8,209 2.26	8,225 2.26	8,200 2.26	8,158 2.25	8,134 2.25	8,179 2.25	8,234 2.25	8,284 2.25	8,349 2.25	8,414 2.25	8,490 2.25	8,572 2.25	8,658 2.25	8,745 2.26	8,840 2.26	8,945 2.26	9,041 2.27	9,131 2.27	9,220 2.27	9,308 2.27	9,382 2.27	
Deaths																										
Male Female	2,080 2,339	1,969 2,148	1,956 2,096	1,945 2,077	1,933 2,071	1,933 2,055	1,933 2,041	1,941 2,036	1,951 2,039	1,965 2,043	1,982 2,052	2,002 2,066	2,029 2,080	2,054 2,096	2,081 2,116	2,111 2,138	2,143 2,154	2,177 2,180	2,212	2,246 2,234	2,280 2,264	2,317 2,295	2,353 2,326	2,391 2,363	2,426	
All deaths SMR: males	4,419 119.1	4,117 110.6	4,052 108.5	4,022 105.4	4,005 102.5	3,988 99.8	3,974 97.3	3,978 95.1	3,990 92.9	4,008 90.8	4,034 88.8	4,068 87.1	4,109 85.5	4,150 83.9	4,197 82.5	4,249 81.1	4,297 79.9	4,357 78.7	4,419 77.7	4,479 76.6	4,544 75.5	4,612 74.5	4,679 73.5	4,754 72.6	4,828 71.7	
SMR: females SMR: persons	123.5 121.4	112.7 111.7	109.7 109.1	107.4 106.4	105.6 104.1	103.2 101.5	100.7 99.0	98.6 96.9	96.7 94.8	94.7 92.8	92.9 90.8	91.3 89.2	89.7 87.6	88.1 86.0	86.7 84.5	85.3 83.2	83.7 81.7	82.6 80.6	81.4 79.5	80.4 78.4	79.3 77.4	78.3 76.3	77.1 75.2	76.3 74.4	75.5 73.5	
Expectation of life: males Expectation of life: females	77.3 81.0	78.2 82.0	78.5 82.3	78.8 82.5	79.1 82.7	79.5 82.9	79.7 83.1	80.0 83.4	80.3 83.6	80.6 83.8	80.9 84.0	81.1 84.2	81.3 84.4	81.6 84.6	81.8 84.8	82.0 85.0	82.2 85.2	82.3 85.3	82.5 85.5	82.7 85.6	82.8 85.7	83.0 85.9	83.2 86.1	83.3 86.2	83.5 86.3	
Expectation of life: persons Deaths input	79.2	80.2	80.5	80.7	81.0	81.2	81.5	81.7	82.0	82.2	82.5	82.7	82.9	83.1	83.3	83.5	83.7	83.9	84.0	84.2	84.3	84.5	84.7	84.8	84.9	
In-migration from the UK		4 800																								
Male Female	8,229 8,516	4,800 4,957	7,187 7,411	6,854 7,053	7,146 7,334	7,085 7,256	6,994 7,145	7,095 7,234	7,573 7,705	7,639 7,758	7,588 7,692	7,666 7,763	7,622 7,713	7,675 7,766	7,694 7,783	7,711 7,804	7,716 7,812	7,789 7,889	7,876 7,982	7,832 7,941	7,816 7,929	7,854 7,969	7,909 8,027	7,875 7,995	7,890 8,012	
All SMigR: males	16,745	9,757	14,599	13,907	14,480	14,341	14,139	14,329	15,278	15,397	15,280	15,429	15,335	15,441	15,477 0.2	15,515 0.2	15,528	15,678	15,858	15,773	15,745	15,823	15,936 0.2	15,870 0.2	15,901	
SMigR: females Migrants input	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Out-migration to the UK																										
Male Female	7,124 7,167	10,687 10,706	8,356 8,358	8,763 8,748	8,549 8,493	8,688 8,612	8,818 8,744	8,740 8,645	8,297 8,172	8,272 8,134	8,360 8,220	8,329 8,192	8,442 8,308	8,450 8,306	8,522 8,345	8,573 8,395	8,643 8,453	8,628 8,442	8,623 8,429	8,729 8,523	8,813 8,601	8,839 8,626	8,841 8,625	8,938 8,720	8,990 8,766	
All SMigR: males	14,292 24.5	21,393 35.9	16,713 28.6	17,511 29.7	17,042 28.8	17,300 29.1	17,563 29.4	17,385 29.0	16,469 27.4	16,407 27.1	16,580 27.1	16,521 26.8	16,749 26.9	16,756 26.7	16,867 26.6	16,968 26.5	17,096 26.5	17,070 26.2	17,052 26.0	17,253 26.0	17,413 26.1	17,464 25.9	17,467 25.7	17,659 25.8	17,755 25.8	
SMigR: females Migrants input	24.3	35.6	28.5	29.7	28.8	29.0	29.4	29.0	27.4	27.1	27.1	26.8	26.9	26.7	26.6	26.5	26.4	26.2	25.9	25.9	25.9	25.8	25.6	25.7	25.7	
In-migration from Overse	eas																									
Male	2,504	2,509	2,504	2,605	2,537	2,552	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	
Female All	1,732 4,236	1,735 4,245	1,732 4,236	1,793 4,398	1,752 4,289	1,761 4,313	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	1,730 4,231	
SMigR: males SMigR: females Migrants input	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Out-migration to Overses	1.211	1.212	1,214	1.212	1.214	1,214	1,214	1,214	1.214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1.214	1.214	1,214	1,214	1.214	1.214	1,214	1,214	1,214	
Female All	898 2,109	899 2.111	900 2.114	899 2.111	900 2.114	900 2.114	900 2.114	900 2.114	900 2.114	900	900	900	900 2.114	900 2.114	900 2.114	900 2.114	900 2.114	900 2.114								
SMigR: males SMigR: females	74.5 68.7	73.0 67.6	74.6 69.7	73.9 69.4	73.7 69.5	73.2 69.3	72.7 69.1	72.4 69.2	72.1 69.1	71.4 68.6	70.7 68.1	70.1 67.7	69.4 67.1	68.8 66.6	68.2 66.0	67.6 65.5	66.9 64.9	66.3 64.4	65.7 63.8	65.1 63.2	64.5 62.6	64.0 62.1	63.5 61.7	63.0 61.2	62.6 60.9	
Migrants input												•						•								
Migration - Net Flows UK	+2,453	-11,635	-2,115	-3,603	-2,562	-2,958	-3,424	-3,056	-1,191	-1,009	-1,300	-1,091	-1,415	-1,314	-1,390	-1,453	-1,568	-1,392	-1,194	-1,480	-1,668	-1,642	-1,531	-1,788	-1,854	
Overseas Summary of population of	+2,126	+2,133	+2,122	+2,286	+2,175	+2,200	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	+2,118	
Natural change	+3,995	+4,490	+4,220	+4,205	+4,204	+4,238	+4,225	+4,180	+4,144	+4,171	+4,200	+4,216	+4,240	+4,264	+4,293	+4,323	+4,361	+4,388	+4,421	+4,466	+4,497	+4,519	+4,542	+4,554	+4,553	
Net migration Net change	+4,580 +8,575	-9,502 -5,012	+7 +4,227	-1,317 +2,888	-386 +3,818	-759 +3,479	-1,306 +2,919	-939 +3,241	+927 +5,071	+1,108 +5,280	+818 +5,018	+1,026 +5,242	+703 +4,944	+803 +5,067	+728 +5,021	+664 +4,987	+550 +4,911	+726 +5,114	+924 +5,345	+638 +5,104	+449	+476 +4,995	+587 +5,129	+330 +4,883	+264 +4,817	
Crude Birth Rate /000 Crude Death Rate /000	15.91 8.35	16.22 7.76	15.60 7.64	15.41 7.53	15.28 7.45	15.21 7.37	15.07 7.30	14.91 7.27	14.75 7.24	14.70 7.20	14.66 7.18	14.62 7.18	14.60 7.18	14.59 7.19	14.59 7.21	14.61 7.24	14.63 7.26	14.65 7.30	14.68 7.34	14.73 7.38	14.76 7.42	14.79 7.47	14.81 7.52	14.84 7.58	14.84 7.64	
Crude Net Migration Rate /000		-17.91	0.01	-2.47	-0.72	-1.40	-2.40	-1.72	1.68	1.99	1.46	1.81	1.23	1.39	1.25	1.13	0.93	1.22	1.53	1.05	0.73	0.77	0.94	0.53	0.42	
Summary of Popu	lation es Population			casts																						
0.4	2012 41,369	2013 41,800	2014 41,155	2015 41,089	2016 41,129	2017 40,887	2018 40,805	2019 40,553	2020 40,444	2021 40,522	2022 40,647	2023 40,766	2024 40,949	2025 41,162	2026 41,433	2027 41,729	2028 42,050	2029 42,398	2030 42,785	2031 43,221	2032 43,659	2033 44,098	2034 44,547	2035 45,009	2036 45,448	2037 45,863
5-10 11-15	41,369 45,421 36,262	41,800 46,624 36,356	41,155 46,793 36.045	47,615 35.782	41,129 47,821 35,953	40,887 48,087 36,735	40,805 48,264 37,419	40,553 48,297 38.097	40,444 48,224 38,836	40,522 48,197 39,422	40,647 48,405 39,466	40,766 48,300 39,898	48,370 39,965	41,162 48,318 40,135	41,433 48,391 40,155	41,729 48,521 40,326	42,050 48,677 40,199	42,398 48,839 40,250	42,785 49,057 40,209	43,221 49,341 40,278	43,669 49,663 40,364	44,098 50,009 40,464	44,547 50,389 40,578	45,009 50,812 40,733	45,448 51,251 40,923	45,863 51,718 41,153
16-17	14,362	14,717	14,502	14,833	14,851	14,448	14,228	14,410	14,552	14,795	15,428	15,729	15,916	16,150	16,206	16,094	16,246	16,406	16,370	16,395	16,295	16,301	16,351	16,391	16,404	16,424
18-59Female, 64Male 60/65 -74	302,303 50,299	307,132 51,508	302,108 52,378	304,006 53,344	304,788 54,777	306,449 56,197	307,333 57,652	307,636 58,807	308,162 60,151	310,032 61,601	311,938 61,753	313,793 62,352	316,109 63,273	318,097 64,193	320,374 65,267	322,469 66,403	324,669 67,314	326,467 68,287	328,655 69,433	330,790 70,363	332,835 71,197	334,903 71,581	337,056 71,939	339,388 72,067	341,486 72,159	343,601 72,075
75-84 85+	24,773 9,830	25,241 9,816	25,325 9,875	25,621 10,119	25,598 10,379	25,638 10,673	25,967 10,925	26,413 11,300	26,675 11,711	27,109 12,148	28,782 12,686	30,082 13,202	31,170 13,613	32,175 14,079	33,191 14,357	34,171 14,683	35,066 15,161	35,853 15,794	36,586 16,313	37,452 16,914	37,434 18,408	37,857 19,591	38,439 20,500	39,167 21,361	40,082 22,057	41,068 22,726
Total  Dependency ratios, mean	524,619 n age and s	533,194 ex ratio	528,182	532,409	535,297	539,115	542,594	545,513	548,754	553,825	559,105	564,123	569,365	574,308	579,375	584,396	589,383	594,294	599,408	604,754	609,857	614,804	619,799	624,927	629,810	634,628
0-15 / 16-65 65+ / 16-65	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
0-15 and 65+ / 16-65 Median age males	0.59	0.59	0.60	0.61	0.61	0.61	0.62	0.62 34.0	0.63	0.63	0.63	0.64 34.2	0.64	0.64	0.64 34.5	0.65 34.6	0.65	0.66	0.66	0.66	0.67 35.0	0.67	0.68	0.68	0.69	0.69
Median age females Sex ratio males /100 females	35.0 97.0	34.8 97.3	35.1 97.6	35.2 97.8	35.3 98.0	35.5 98.3	35.6 98.5	35.8 98.7	35.9 98.9	36.0 99.1	36.1 99.2	36.2 99.4	36.2 99.6	36.3 99.8	36.4 99.9	36.4 100.1	36.5 100.2	36.6 100.4	36.6 100.5	36.6 100.6	36.7 100.7	36.7 100.8	36.7 100.9	36.7 101.0	36.8 101.1	36.8 101.2
Population impact of con Number of persons	nstraint .52	+5.348	8.715	+851	-639	+434	+96	-347	+36	+1.939	+2.179	+1.926	+2.188	+1.913	+2,010	+1.951	+1.892	+1.773	+1.926	+2.151	+1.863	+1.673	+1.700	+1.814	+1.561	+1.497
Labour Force		. 2,240	-,		239					,		,	12,120	,		,	,	,	.,		,	,		,		,
Number of Labour Force Change in Labour Force over a	245,172	249,657 +4,485	246,650 -3,008	248,607 +1,958	249,864 +1,257	251,113 +1,250	252,356 +1,243	253,592 +1,236	254,820 +1,229	256,751 +1,931	258,682 +1,931	260,613 +1,931	262,543 +1,931	264,474 +1,931	266,405 +1,931	268,336 +1,931	270,266 +1,931	272,197 +1,931	+1,931	276,058 +1,931	277,989 +1,931	279,920 +1,931	281,851 +1,931	283,781 +1,931	285,712 +1,931	287,643 +1,931
Number of supply units Change in over previous year	198,867 +3,257	200,471 +1,604	202,075 +1,604	203,679 +1,604	205,283 +1,604	206,887 +1,604	208,491 +1,604	210,095 +1,604	211,699 +1,604	213,303 +1,604	214,907 +1,604	216,511 +1,604	218,115 +1,604	219,719 +1,604	221,323 +1,604	222,927 +1,604	224,531 +1,604	226,135 +1,604	227,739 +1,604	229,343 +1,604	230,947 +1,604	232,551 +1,604	234,155 +1,604	235,759 +1,604	237,363 +1,604	238,967 +1,604
Households																										
Number of Households	200,521	203,397	202,288	204,095	205,397	206,996	208,621	210,105	211,566	213,724	216,408	219,065	221,828	224,507	227,277	230,066	232,795		238,162	240,903	243,506	246,068	248,476	250,887	253,153	255,397
Change in Households over or Number of supply units	211,386	+2,876 214,418	-1,109 213,249	+1,807 215,154	+1,302 216,526	+1,599 218,212	+1,625 219,925	+1,484 221,490	+1,461 223,030	+2,158 225,305	+2,684 228,134	+2,657 230,935	+2,763 233,847	+2,680 236,672	+2,770 239,592	+2,789 242,532	+2,729 245,409	+2,699 248,254	+2,668 251,066	+2,741 253,956	+2,603 256,700	+2,562 259,401	+2,408 261,940	+2,411 264,481	+2,266 266,870	+2,244 269,236
Change in over previous year	+1,046	+3,031	-1,169	+1,905	+1,372	+1,686	+1,713	+1,565	+1,540	+2,275	+2,830	+2,801	+2,912	+2,825	+2,920	+2,940	+2,877	+2,845	+2,812	+2,890	+2,744	+2,701	+2,538	+2,542	+2,389	+2,366



Applications & Appeals

😕 Climate Change & Sustainability

Community Engagement

Daylight & Sunlight

**M** Economics & Regeneration

Environmental Assessment

Expert Evidence

K Graphic Design

Heritage

Property Economics

Q Site Finding & Land Assembly

GIS & Spatial Analytics

Strategy & Appraisal

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