Nathaniel Lichfield & Partners
Planning. Design. Economics.

Peel Hall, Warrington

Technical Paper on Housing Issues

Satnam Millennium Limited

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41640/MW/CR

Nathaniel Lichfield & Partners
3rd Floor
One St James's Square
Manchester M2 6DN

nlpplanning.com

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Registered Office:
14 Regent's Wharf
All Saints Street
London N1 9RL

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1.0 Introduction

1.1 This Technical Paper on Housing Issues has been prepared by Nathaniel Lichfield & Partners [NLP] on behalf of Satnam Millennium Limited. It analyses the objective assessment of housing need (both market and affordable) for Warrington Borough, and also assesses the extent to which the Borough can demonstrate a 5-year housing land supply.

1.2 It is written to accompany an:

"Outline application for a new residential neighbourhood including C2 and C3 uses; local employment (B1 use); local centre including food store up to 2,000m², A1-A5 (inclusive) and D1 use class units of up to 600m² total (with no single unit of more than 200m^2) and family restaurant/ pub of up to 800 m^2 (A3/A4 use); site for primary school; open space including sports pitches with ancillary facilities; means of access and supporting infrastructure at Peel Hall, Warrington."

1.3 In terms of the latest development plan position, Warrington's Local Plan Core Strategy [WLPCS] was adopted in 2014, setting a housing requirement of 10,500 (500 dwellings per annum [dpa]) between 2006 and 2027. However following the adoption of the WLPCS there was a successful High Court Challenge that resulted in the removal of the housing policies from the Local Plan.

1.4 As a consequence, the Council's overall housing requirement has been overturned and a new Strategic Housing Market Assessment [SHMA] commissioned for the wider Mid-Mersey HMA including the Boroughs of St Helens and Halton. This document, published in January 2016[1], identified a housing need of 839 dpa for Warrington Borough over the period 2014 to 2037.

Context

1.5 The Framework outlines a two-step approach to setting housing requirements in Local Plans. Firstly, to define the full objectively assessed need [OAN] for development and then secondly, to set this against any adverse impacts or constraints which would mean that need might not be met. This is enshrined in the approach set out in the Framework [§14] which sets out the presumption in favour of sustainable development:

"For plan-making this means that:

- *LPAs should positively seek opportunities to meet the development needs of their area;*
- *Local Plans should meet objectively assessed needs, with sufficient flexibility to adapt to rapid change, unless:*
  - *any adverse impacts of doing so would significantly and*

[1]GL Hearn (January 2016): Mid Mersey Strategic Housing Market Assessment for Halton, Warrington and St Helens Councils.

demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or

- *specific policies in this Framework indicate development should be restricted."*

1.6 The Framework goes on to set out that in order to 'boost significantly' the supply of housing, 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 the framework…" [§47]

1.7 The first step is therefore to identify full objectively assessed needs and the Framework sets out the approach to defining such evidence which is required to underpin a local housing requirement.

1.8 It sets out that in evidencing housing needs:

"LPAs should have a clear understanding of housing needs in their area. They should:

- *prepare a SHMA to assess their full housing needs, working with neighbouring authorities where housing market areas cross administrative boundaries. The Strategic Housing Market Assessment should 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 need for all types of housing, including affordable housing and the needs of different groups in the community…; and*
  - *caters for housing demand and the scale of housing supply necessary to meet this demand…"* [§159]

1.9 Furthermore, the core planning principles set out in the Framework [§17] indicate that 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 housing affordability.

1.10 The Framework is supplemented by the Practice Guidance which was published as an online tool in March 2014. The Practice Guidance 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"[2].

1.11 The Guidance states that household projections published by CLG should provide the starting point estimate of overall housing need[3]. Housing need, as

[2] 2a-005-20140306
[3] 2a-015-20140306

suggested by household projections, should be adjusted to reflect appropriate market signals, as well as other market indicators of the balance between the demand for and supply of dwellings. Relevant signals may include land prices, house prices, rents, affordability (the ratio between lower quartile house prices and the lower quartile income or earnings can be used to assess the relative affordability of housing), rate of development and, overcrowding[4].

1.12 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[5].

1.13 The Guidance recognises that market signals are affected by a number of economic factors, and 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, and monitor the response of the market over the plan period[6].

1.14 Although the Practice Guidance 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 Framework [§158] places on the economy and the requirement 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.

1.15 The Inspector at the Fairford Inquiry[7] 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 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" [IR. §19].

[4] 2a-019-20140306
[5] 2a-020-20140306
[6] ibid
[7] Land South of Cirencester Road, Fairford (PINS Ref No: APP/F1610/A/14/2213318) (22 September 2014).

1.16 This view reflects the position expressed by the Inspector (and confirmed by the Secretary of State) in the Pulley Lane Inquiries in Droitwich Spa[8]. 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".* [IR. §8.45]

1.17 The Practice Guidance concludes by suggesting that the total need for affordable housing should be identified and converted into annual flows by calculating the total net need (subtract total available stock from total gross need) and converting total net need into an annual flow.

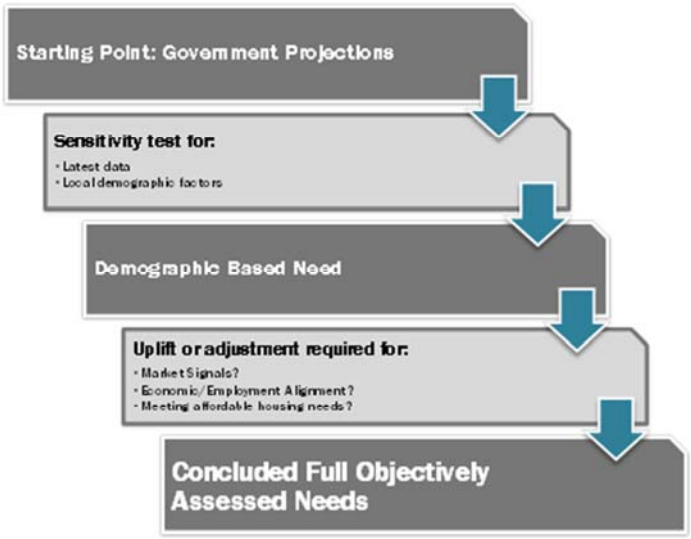
1.18 The total affordable housing need should then be considered in the context of its likely delivery as a proportion of mixed market and affordable housing developments, given the probable percentage of affordable housing to be delivered by market housing led developments:

"*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*.[9]"

1.19 It is against this policy context that the housing need for Warrington must be considered. The Framework and the Practice Guidance set out a logical process for undertaking a full objective assessment of needs. This approach is summarised in Figure 1.1.

[8] 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).
[9] ID: 2a-029-20140306

Figure 1.1 The Framework and Practice Guidance Approach to Objectively Assessing Housing Needs



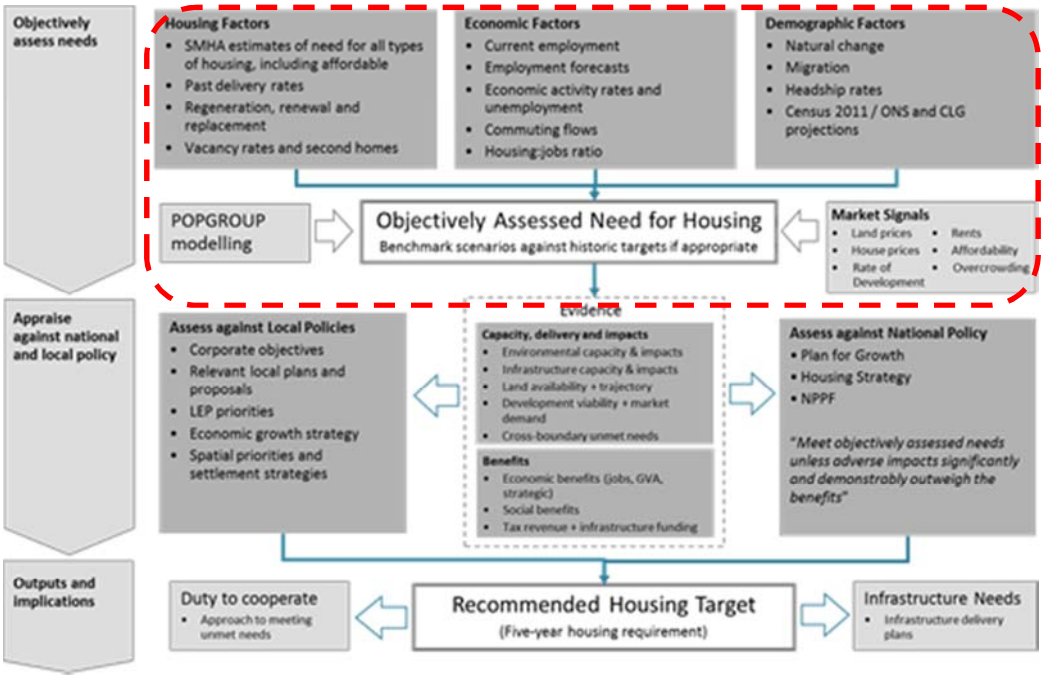
Source: NLP based upon the Framework/ Practice Guidance

HEaDROOM Approach to Defining Housing Need

1.20 At the present time there is no commonly agreed or prescribed approach for LPAs and other bodies to follow in setting local housing needs. 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 provides the basis for assembling and presenting evidence on local housing requirements in a transparent manner.

1.21 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 dynamic of housing markets and other material factors) and the extent to which housing needs of a local area, meet the requirements of the Framework. HEaDROOM therefore closely follows the advice contained within the Practice Guidance. This framework is set out in Figure 1.2.

Figure 1.2 NLP HEaDROOM Analytical Framework for Assessing Housing Needs and Requirements



Source: NLP

Report Structure

1.22 This report is set out as follows:

- **Section 2.0** – This section provides an overview and critique of the Warrington Borough's housing need evidence;
- **Section 3.0** – This section sets out NLP's objective assessment of housing need for the Borough, based upon the latest government projections, economic factors, market signals and affordable housing needs;
- **Section 4.0** – This section analyses whether Warrington Borough can demonstrate a five-year housing land supply;
- **Section 5.0 –** This section set out the conclusions on Warrington's housing OAN and supply considerations.

2.0 Review and Critique of Warrington's Housing Need Evidence

Warrington Borough Council's Housing Requirement

2.1 The Warrington Local Plan Core Strategy [WLPCS], adopted in July 2014, sets out the Council's vision, aims and strategy for the Borough, including the overarching planning policies that will guide growth during the period to 2027.

2.2 However, in February 2015 the High Court[10] quashed parts of the Warrington Local Plan Core Strategy, specifically:

1 Policy W1 and Policy CS2, and specifically to "*delivering sufficient land for housing to accommodate an annual average of 500 dwellings (net of clearance) between 2006 and March 2027, and a minimum of 10,500 over the whole period*"[11]; and,

2 Paragraph 6.38 relating to the delivery of *"1,100 new homes as a sustainable urban extension to West Warrington.*"

2.3 The High Court reasons were as follows::

i The assessed need for affordable housing (as set out in the 2011 Mid-Mersey SHMA) was 477 dpa;

ii This assessed need was never expressed or included as part of the OAN;

iii Under the 'Housing Requirements' section of the Report, the Inspector does not deal with affordable housing. Paragraphs 102-104 set out above is under a section entitled 'Other Housing Needs'. This is in the context of Policy SN2, which relates to the percentage of housing developments that should incorporate affordable housing.

iv Nor is there anything in Mr Bell's statement which suggests that the proper exercise was undertaken. This exercise is:

v having identified the OAN for affordable housing, that should then be considered in the context of its likely delivery as a proportion of mixed market/affordable housing development; 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;

vi the Local Plan should then meet the OAN for affordable housing, subject only to the constraints referred to in NPPF, paragraphs 14 and 47."[1]

[10] [2015] EWHC 370 (Admin)
[11] High Court Judgement Order, Appendix (Available online at: https://www.warrington.gov.uk/download/downloads/id/8613/local_core_plan_strategy_court_order_feb_2015.pdf)
[1] [2015] EWHC 370 (Admin), paragraph 43

2.4 The Council is currently reviewing its housing OAN as a result of this decision. All other policies within the plan remain unaltered.

2.5 The WLPCS acknowledges that, partly on the back of economic success and changes in demographics, an increased supply of future new homes is required, as there is a significant shortfall of affordable homes within the Borough:

"The most recent SHMA suggests that over 400 additional new affordable homes need to be provided in the borough each year, with supply simply unable to keep pace with demand. The major reason affordable need is high is that the average house price is between 5 and 6 times average household incomes. This trend is not however unique to Warrington with the neighbouring Mid Mersey authorities of Halton and St. Helens also recording similar levels." [§2.23]

2.6 To address this, Policy SN2 (which remains extant despite the High Court judgement) of the WLPCS seeks to significantly boost the supply of affordable housing ensuring that all developments which incorporate open market housing and with a capacity of 5 or more dwellings make provision for affordable housing on the following basis:

- 20% on a previously developed or greenfield site between 5 and 14 dwellings regardless of its location within the borough;
- 20% on a previously developed site of 15 or more dwellings within Inner Warrington inclusive of the Town Centre;
- 30% on a previously developed site of 15 or more dwellings where that site is located outside of Town Centre and Inner Warrington;
- 30% on a greenfield site of 15 or more dwellings regardless of its location within the borough.

Mid Mersey SHMA 2016

2.7 The Mid-Mersey SHMA, undertaken by GL Hearn in association with JG Consulting, was published in January 2016. It provides an overview of the objectively assessed need for market and affordable housing in the three Mid-Mersey Boroughs of Warrington, Halton and St Helens, which the SHMA considers to form a self-contained Housing Market Area [HMA].

2.8 Whilst recognising that there are overlaps within the HMAs, with Warrington having (for example) a relationship with Cheshire West and Chester in particular, it was GL Hearn's view that "*the triangulation of the sources strongly supports defining a Mid-Mersey HMA based on Warrington, St Helens and Halton Boroughs*" [§2.120]

2.9 The SHMA uses the most up to date 2012-based CLG Sub-National Household Projections [SNHP] to underpin its modelling work, applied by ONS 2012-based Sub-National Population Projections [SNPP]. The modelling work undertaken by GL Hearn initially considered the validity of these population projections and their consistency with past trends.

2.10 The document concluded that at HMA level the 2012-based SNPP were sound, although this under-estimated population growth in Halton and over–estimated population growth in St Helens, based on past trends. It was considered that this may also reflect the 'unattributable' component of population change. The latest MYE and UPC adjustment were considered to provide a more equitable distribution of growth.

Table 2.1 Summary of Demographic Calculations (dwellings per annum, 2014-2037)

	Warrington	Halton	St Helens	Mid-Mersey
Scenario 1 – 2012-based SNPP	**840**	233	466	**1,539**
Scenario 2 –SNPP Incorporating 2013 and 2014 MYE	**732**	261	468	**1,462**
Scenario 3 – Implications of UPC	**779**	515	269	**1,563**
Scenario 4 – SNPP Incorporating MYE and UPC	**755**	388	369	**1,512**

Source: 2016 Mid Mersey SHMA

2.11 As for the latest 2012-based SNHP, these were also considered to be 'reasonably sound', although the 25-34 age group "*does potentially show some degree of suppression in the past (although there is no evidence that a continuation of a suppressed trend is being projected forward.*" [page 82]

2.12 The SHMA subsequently ran a number of economic-led projections in PopGroup, using projections from Oxford Economics [OE] (June 2015) and, for Warrington and St Helens, Cambridge Econometrics (April 2015 for St Helens, and the earlier Cheshire and Warrington Economic Model for Warrington). The analysis indicated that there would be a need to adjust upwards the housing need from the demographic-led projections using either baseline economic forecast.

Table 2.2 Summary of Demographic Calculations (dwellings per annum, 2014-2037)

2014-37	Warrington		Halton		St Helens		Mid-Mersey	
	Job growth	Dpa	Job growth	Dpa	Job growth	Dpa	Job growth	Dpa
Experian Scenario	**22,613**	820	4,952	444	1,909	325	**29,474**	**1,589**
CE/CWEM	**17,705**	700	-	-	5,124	445	**-**	**1,709**

Source: 2016 Mid-Mersey SHMA

2.13 The report concluded that in demographic terms the projection linked to more recent migration data, and with an adjustment for UPC was considered to be the most robust projection to inform the OAN in the HMA (and the individual authorities), i.e. Scenario 4. As regards the economic projections, GL Hearn considered that the OE projections for Warrington and Halton were realistic, although in St Helens the (higher) CE figure was preferred as it aligns with the findings of that Borough's Employment Land Needs Study. The range, of between 1,512 dpa and 1,710 overall, is summarised in Table 2.3.

Table 2.3 Economic Uplift from the Demographic Baseline)

	Warrington	Halton	St Helens	Mid-Mersey
Economic-based	**820**	444	445	**1,710**
Demographic OAN (Scenario 4)	**755**	388	369	**1,512**
Difference	**+64**	+56	+77	**+197**

Source: 2016 Mid-Mersey SHMA

2.14 The SHMA also set out an analysis of affordable housing needs for the three LPAs, based on secondary sources including the 2011 Census, and followed the Basic Needs Assessment Model. The findings are summarised in Table 2.4. This suggests that the annual affordable housing need for Warrington Borough is 220 dpa, more than half the overall Mid-Mersey need. The Mid-Mersey figure is significantly lower than the 2011 SHMA, which identified a net need of 2,519.

Table 2.4 Estimated level of affordable housing need per annum (2014-2037)

	Current Need	Newly Forming Households	Existing Households falling into Need	Total Need	Supply	Total Need
Warrington	61	830	386	1,277	1,057	**220**
Halton	43	458	426	928	809	**119**
St Helens	61	713	701	1,475	1,379	**96**
Mid-Mersey	**165**	**2,001**	**1,513**	**3,680**	**3,244**	**436**

Source: 2016 Mid-Mersey SHMA

2.15 The 2016 SHMA concluded that, as the affordable need as a percentage of the Demographic based projections would be 51% for Halton, 21% for St Helens, 26% for Warrington and 28% across the sub-region as a whole:

"There is therefore no strong evidence that an uplift to the OAN is needed on the basis of affordable housing need. However, any uplift to the OAN above the demographic baseline would still potentially result in additional affordable provision through increased developer contribution etc." [§7.98]

2.16 The SHMA also reviewed housing market signals to test whether this could justify an upward adjustment to planned housing numbers as per the requirements of the Practice Guidance[12].

2.17 The analysis recognised that Warrington house prices are above the regional average, and that housing delivery has fallen since 2008. In particular:

"Looking at wider evidence, there are some signs of affordability pressures, with the evidence suggesting that over the 2001-2011 period the number of people renting increased, as did house sharing and levels of overcrowding (except St Helens). The evidence however is inconsistent and provides only a modest case for considering an adjustment to housing provision relative to the demographic projections." [page 138]

[12]ID: 2a-020-20140306

2.18 The SHMA concluded that overall there are some affordability pressures in the HMA, and that due to increases in shared ownership and to meet the needs of concealed and homeless households some upward adjustment could be required. GL Hearn judged that this should be based on an uplift to headship rates for people aged 25-34 towards the 2008-based SNHP. This would increase the housing OAN by 46 dwellings annually across the HMA and 19dpa in Warrington.

Table 2.5 Mid-Mersey OAN Calculations

	Demographic Scenario 4				Employment Led Preferred Scenario			
	N	Uplift	% Uplift	OAN	N	Uplift	% Uplift	OAN
Warrington	755	19	2.5%	774	820	19	2.3%	**839**
Halton	388	21	5.5%	410	444	22	5.0%	**466**
St Helens	369	5	1.5%	374	445	6	1.2%	**451**
Mid-Mersey	**1,512**	**46**	**3.0%**	**1,558**	**1,710**	**47**	**2.7%**	**1,756**

Source: 2016 Mid-Mersey SHMA

2.19 The SHMA therefore concluded that the OAN is 1,756 dpa across the Mid-Mersey HMA, of which 466 dpa would be located in Halton, 451 dpa in St Helens and 839 dpa in Warrington.

Critique

Definition of the Housing Market Area

2.20 The Mid-Mersey SHMA (2016) defines the three local authorities of Halton, St Helens and Warrington as a self-contained HMA. It states that the data about household and population moves suggests that Mid-Mersey has a relatively high level of self-containment although the evidence points to higher levels of in-migration into Warrington.

2.21 However, data for travel to work patterns is less clear cut, reflecting the area's strong transport links and strategic accessibility which support longer distance commuting patterns including to both the Liverpool and Manchester City Regions. There is also some evidence of an increase in commuting since 2001.

2.22 NLP disagrees with the assertion that the three Mid-Mersey Authorities form a self-contained HMA. Warrington Borough in itself represents a self-contained HMA, and indeed has a stronger relationship with parts of Cheshire than it does with either St Helens or Halton. These concerns were set out in a letter to the Council (12th June 2015), the key points of which are summarised below:

1 Migration flows suggest that far from comprising a wider HMA, all three authorities display high levels of self-containment and could be considered separate HMAs in their own right. For example, GL Hearn's Table 2 on page 33 of the 2016 SHMA demonstrates that all 3 authorities exceed the 70% CLG threshold for migratory self-containment in their own right (once long distance moves are correctly excluded). Furthermore, combining the three authorities has a minimal impact on

boosting the level of containment – indeed Halton's self-containment, based on 'all flows', barely changes from 78% even with St Helens or Warrington included.

2 Two separate LEP areas cover the three districts – the Liverpool City Region LEP covers Halton and St Helens; whilst Warrington is included in the Cheshire and Warrington LEP (and, indeed, proposals for a Combined Authority covering Warrington and the two Cheshire Boroughs have been submitted to Government). The strong economic relationships between Warrington and the two Cheshire authorities were not explored sufficiently by GL Hearn.

3 The contextual house price and rental data which has also been used in an attempt to link the three districts together clearly demonstrates that Warrington operates in a very different market to both St Helens and Halton, and has significantly higher house prices and rental costs. This is particularly so the further one moves eastwards in Warrington Borough (as illustrated in Figures 8 and 9 of the SHMA), with these areas more aligned with the Cheshire housing market than that of Halton or Merseyside. This fits with the scope of the LEP and the proposed Combined Authority boundaries. This suggests it is unlikely that a household looking to meet their housing needs in, say, Lymm, would be prepared to move to St Helens or Runcorn to meet their housing requirements.

4 Commuting flows do not suggest that the three districts represent a self-contained HMA – indeed, quite the opposite. For example, Tables 7 and 8 of the SHMA indicate that movements between Halton and St Helens are much lower than other comparator areas. Only 1,500 residents commute from Halton into St Helens daily for work, which was only the 20th most significant commuting relationship involving one of the three authorities, and the 14th most significant in the opposite direction. In contrast, 10,778 residents commute from St Helens to Knowsley and Liverpool daily.

5 The SHMA recognises [§2.115] that Warrington has slightly different dynamics, primarily due to high house prices in Lymm, with both migration and TTWA trends identifying a degree of self-containment which meets or exceeds expected thresholds for HMAs. It is also recognised that St Helens has strong relationships with Liverpool, Knowsley and Wigan [§2.118].

2.23 The information clearly points towards Warrington being a self-contained HMA in its own right, as it exceeds the CLG thresholds on both commuting and migratory self-containment and is located in a completely separate LEP area to St Helens and Halton. Whilst recognising that there are linkages between the three authorities, all three have strong migratory and commuting relationships with other authorities in the sub-region that have not been properly explored, such as Warrington's relationship with Cheshire; St. Helens' and Wigan; and Halton with Cheshire West & Chester and Liverpool.

2.24 On this basis, it would be more appropriate to identify and deliver housing targets within their own individual district boundaries. A failure to do so could mean that there is a disconnect between where housing is provided, and where it is needed the most. Increasing the housing requirement in Halton or St Helens will not meet Warrington's housing OAN.

2.25 We therefore consider that Warrington Council needs to meet its full OAN within its own Local Authority boundary and not rely on Halton and St. Helens to cater for a significant portion of the need.

Demographic Factors

2.26 The SHMA ran a series of demographic scenarios, taking the 2012-based SNPP and equivalent SNHP as the initial starting point, which is appropriate. Sensitivity tests are applied analysing the implications of Unattributable Population Change [UPC] and the Latest Mid-Year population estimates for 2013 and 2014. The preferred scenario (4) simply takes the midpoint between the UPC Scenario (2) and 2014 MYE (3) to come to a population growth figure of 44,464 between 2014 and 2037, which appears somewhat simplistic.

2.27 Whilst we agree that an adjustment to modelling to take into account the 2013 and 2014 MYE is entirely reasonable, the impact that this appears to have on GL Hearn's model appears out of all proportion to the change in population reported. For Warrington, the 2014 MYE population is some 181 lower than was projected in the 2012 SNPP for that year. We agree that an adjustment needs to be made. However, GL Hearn do not outline why, following their re-based 2014 population figure, the 2037 population for Warrington under this key scenario will rise to just 229,997, a level of growth that is 5,401 lower than the 2012-based SNPP would suggest. This has a profound impact on the dwelling requirement and we are concerned that GL Hearn are placing undue weight on two years' worth of data and distorting the housing OAN accordingly.

2.28 The SHMA recognises that:

"The SNPP looks to be a sound projection with regard to population growth in the HMA. However, the analysis does highlight some concerns in relation to Halton (too low in relation to past trends) and St Helens (too high). This may to some degree reflect the 'unattributable' component of population change within ONS population data for the 2001-11 period." [§4.26]

2.29 This appears a reasonable compromise for St Helens and Halton in this instance. However, GL Hearn is also suggesting that the 2012-based SNPP for Warrington appears sound (indeed according to Figure 23 of the SHMA, the SNPP for WBC is virtually identical to past trends). However, by taking forward scenario 4 for Warrington, the draft SHMA is assuming a much lower level of population growth for this Borough, by just 24,687 residents 2014-2037, compared to 28,970 under the 2012-based SNPP. There is therefore a clear danger that the demographic housing OAN for Warrington at least could under-estimate the Borough's growth potential.

Unattributable Population Change

The ONS describes Unattributable Population Change [UPC] as follows:

2.30 *"Following the 2011 Census, the inter-censal population estimates were rebased so that the midyear estimates (MYEs) for the period mid-2002 to mid-2011 were in line with the 2011 Census. After making allowances for methodological changes and estimated errors in the components during the decade, the remaining difference between the rolled forward 2011 MYEs and the 2011 Census based MYEs for England was 103,700. This is referred to as Unattributable Population Change."*[13]

2.31 From GL Hearn's 'Components of Population Change' Tables (15-18 in the SHMA) it is apparent that UPC is strongly positive for Halton between 2001/2 and 2010/11, and strongly negative for St Helens (resulting in very high growth for Halton in the UPC Scenario 3 for Halton, and very low growth for St Helens). Although it is recognised that the data can be at times opaque, it would have been of some assistance if GL Hearn had attempted some analysis as to the underlying reasons why the UPC adjustment had to be so high for Halton/St Helens, and the realism of the 2012-based SNPP as a consequence.

2.32 Importantly, GL Hearn's preferred demographic scenario (4) comprises a blend of Scenario 2, which makes adjustments for the MYE, and Scenario 3, which makes an adjustment for UPC. The incorporation of an allowance for UPC reduces the net population growth in Warrington from 28,970 based on the 2012-based SNPP (2014-2037) to 25,804, a reduction of 3,166 (Table 23 of the 2016 SHMA).

2.33 We query whether this reduction should have been applied to Warrington. ONS decided not to adjust its 2012-based SNPP, so that the UPC is excluded from the past migration flows which the projections carry forward. Accordingly the CLG 2012 household projections, which are derived from ONS 2012, also exclude the UPC. This was because:

"An adjustment for UPC could only be made if it can be demonstrated that it measures a bias in the trend data that will continue into the future.

Quality assurance of the 2012-based SNPP did not reveal any problems indicating that adjustments for UPC are necessary. The resulting projections generally appear to better reflect trends across all the LAs than recent sets of projections.

ONS decided not to make an adjustment for UPC in the 2012-based National Population Projections or in the series of population estimates based on the 2011 Census. This is because the UPC for England (103,700) is within the confidence interval for the international migration estimates. It is also within the sum of the confidence intervals for the 2001 and 2011 Census.

[13] Office for National Statistics (January 2014) 2012-based SNPP for England: Report on Unattributable Population Change, p.2

The UPC is unlikely to be seen in continuing sub-national trends as:

- *It is unclear what proportion of the UPC is due to sampling error in the 2001 Census, adjustments made to MYEs post the 2001 Census, sampling error in the 2011 Census and/or error in the inter-censal components (mainly migration).*
- *If it is due to either 2001 Census or 2011 Census then the components of population change will be unaffected.*
- *If it is due to international migration, it is likely that the biggest impacts will be seen earlier in the decade and will have less of an impact in the later years, because of improvements introduced to migration estimates in the majority of these years. [14]"*

2.34 Therefore ONS proposed that no adjustment be made in the 2012-based SNPP for the unexplained component of population change in the revised population estimates series.

2.35 Since this report, ONS has provided further information[15] on the potential causes of unattributable population change in local authorities. Whilst the precise cause of UPC cannot be certainly identified, it indicates that for Warrington the cause is potentially related to issues in the recording of migration as well as mis-recording of the population at the time of the 2001 Census.

2.36 In the case of Warrington, UPC is very modest, and negative, i.e. there were fewer people (104) recorded at the 2011 Census than expected based on rolled forward estimates. The ONS data presents very limited evidence and justification for adopting UPC adjustments within the demographic modelling, other than to suggest that UPC is more likely to be due to:

1 Under-estimate of female internal migration 20-24 and males 30-34;

2 Under-estimate of male and female internal migration 25-29;

3 Under-estimate of immigration of females 30-34;

4 The relative size of international emigration flows for males and females aged 25-29, and also females aged 30-34;

5 The statistical process of rolling forward from 2001 had an impact on estimates for females aged 55-59 and 65-69.

2.37 As such, whilst it is likely that some of the UPC can be accounted for by internal and international migration errors, at least part of the error was due to inaccurate recording in the 2001 Census, which will have had no effect on the 2012-based SNPP.

2.38 Furthermore, the 2012-based SNPP is based on trends (in births, deaths and migration) observed over the 5-6 preceding years, and ONS' report on UPC

[14] Office for National Statistics (January 2014) 2012-based Subnational Population Projections for England: Report on Unattributable Population Change, p.4

[15] http://www.ons.gov.uk/ons/guide-method/method-quality/specific/population-and-migration/population-statistics-research-unit--psru-/latest-publications-from-the-population-statistics-research-unit/index.html

states that migration errors will likely have a bigger impact in the early 2000s due to improvements in estimating migration over time. Hence the 2012-based SNPP draws trends from a period where methods of estimation were improved (rather than the early 2000s) and likely to remain a robust and suitable basis for projecting population growth. Furthermore, the error margin was very small for Warrington Borough.

2.39 On this basis we would question whether the substantial adjustment made in GL Hearn's modelling to allow for UPC for Warrington Borough is justified.

Market Signals and Headship Rates

2.40 The Practice Guidance requires that the housing need figure as derived by the household projections be adjusted to take into account market signals. It indicates that comparisons should be made against the national average, the housing market area and other similar areas, in terms of both absolute levels and rates of change. Worsening trends in any market signal would justify an uplift on the demographic-led needs[16]. In addition, the Practice Guidance highlights the need to look at longer terms trends and the potential volatility in some indicators[17].

2.41 The Practice Guidance also sets out that *"…plan-makers should not attempt to estimate the precise impact of an increase…rather they should increase planning supply by an amount that, on reasonable assumptions…could be expected to improve affordability…"*[17]

2.42 This clearly distinguishes between the demographic-led need for housing (generated by population and household growth) and the market signals uplift which is primarily a supply response over and above the level of demographic need to help address negatively performing market signals, such as worsening affordability.

2.43 The SHMA (Section 8) examines a range of market signals as set out in the Practice Guidance, comparing Warrington, Halton and St Helens to the North West and England. This can be summarised as follows:

1 **Land Prices** – no analysis has been presented; however there is a lack of readily available data in this indicator and as such it is reasonable to exclude this from the analysis;

2 **House Prices** – the SHMA compares median house prices over the period 1996-2007 (Figure 40) and secondly over the period 2008-2012 (Figure 41). The SHMA states that based on 2013/14 data, the average (median) house price in Warrington was £156,500 compared to £120,000 for St Helens and £122,000 for Halton. The data consistently shows that Warrington experiences house prices that are higher than either of the two Mid-Mersey comparators, across all house types;

3 **Rents** – the SHMA presents rental costs between 2011 and 2014 and

[16] ID 2a-019-20140306
[17] ID 2a-020-20140306

given the limitations on data this is a reasonable assessment. Again, Warrington's private rental levels are significantly above the comparator areas, with a median rate of £525, which is above Halton (£500), St Helens (£450) and the North West as a whole (£500). Furthermore, growth rates in Warrington over the past four years outstrip the other two comparators (+2.9%, compared to +1% in Halton and a fall of 5.3% in St Helens).

4 **Affordability** – the SHMA acknowledges the affordability issues faced within Warrington Borough, noting that the Borough "*has the highest affordability ratio (at just under 6-times earnings) in the HMA with Halton the lowest (4.15). Arguably market house prices in St Helens and Halton are manageable compared to the National figures but are still more than 4-times the lower quartile household incomes*" [§8.29].

5 **Rates of Development** – the Practice Guidance is clear that historic rates of development should be benchmarked against the planned level of supply over a meaningful period. In this instance, whilst net housing completions over the last decade are reviewed in the SHMA, there is no assessment against the achievement of a particular target. It does recognise that there has been a significant decline in overall completions post-recession: "*the reduction in new build properties and lack of mortgage availability is likely to have directly influenced demand and therefore house prices and household formation rates*" [§8.39].

6 **Overcrowding** – the Practice Guidance indicates that a range of signals demonstrate unmet need for housing in an area, including indicators on overcrowding, concealed/sharing households and homelessness[18]. The SHMA market signals analysis is limited in that it does not consider any homelessness indicators. In terms of overcrowding, the SHMA highlights that the HMA has seen an increase between 2001 and 2011, albeit at a lower level than nationally.

2.44 The SHMA concludes (§8.42 onwards) that, based on the market signals analysis, there are some signs of affordability pressures, although this is inconsistent and provides only a modest case for considering an adjustment to housing provision relative to the demographic-led projections.

2.45 The Practice Guidance is clear that any market signals uplift should be made on the demographic-led *needs* as an additional *supply* response which could help improve affordability[19], and further goes on to clarify that:

"…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…could be expected to improve affordability…" [NLP emphasis].

2.46 However, the SHMA instead considers that by making an adjustment to the headship rates of younger cohorts, this then forms the 'market signals uplift'

[18] ID 2a-019-20140306
[19] ID 2a-020-20140306

(stated in §8.134). This uplift figure (totalling just 46 additional dpa across the three Mid-Mersey authorities, of which 19 dpa relates to Warrington Borough) represents a 3.0% uplift on the starting point overall, and 2.5% for Warrington.

2.47 The SHMA states that this uplift:

"…could be argued to be modest and is some way below the sort of levels that have been suggested by some Inspectors at Local Plan inquiries…" [§8.138]

2.48 We welcome the fact that GL Hearn has sought to overcome some of these issues through the use of an uplift to the demographic starting point. However, the approach adopted in the SHMA is contrary to the Practice Guidance in a number of ways. The Practice Guidance is clear that the precise impacts of market signals uplift should not be explored. However, the SHMA has attempted to estimate the precise impact of improving affordability through modelling increased household formation rates in younger age groups. In doing so, the SHMA fails to distinguish between the demographic-led needs of the three authorities and the supply response which is represented by a market signals uplift. By encompassing the two aspects together, the market signals uplift is conflated. The approach utilised in the SHMA is set out in Figure 2.1.

Figure 2.1 GL Hearn Approach to Account for Market Signals

Source: NLP based on GL Hearn, using figures from GL Hearn 2016 Mid-Mersey SHMA

2.49 The Practice Guidance is also clear that:

"…the more significant the affordability constraints…and the stronger the other indicators of high demand… the larger the improvement in affordability needed and, therefore the larger the additional supply response should be.[20]*"*

2.50 Whilst it is not clear cut from the Practice Guidance how an upwards adjustment should be calculated, some recent Local Plan Inspector's findings have given an indication as to what might be an appropriate uplift. The Inspector's Report into the Eastleigh Borough Local Plan[21] provides an interpretation of the Practice Guidance in terms of a reasonable uplift on demographic-led needs in light of market signals:

"It is very difficult to judge the appropriate scale of such an uplift. I consider a cautious approach is reasonable bearing in mind that any practical benefit is likely to be very limited because Eastleigh is only a part of a much larger HMA. Exploration of an uplift of, say, 10% would be compatible with the "modest" pressure of market signals recognised in the SHMA itself." [§40 to §41]

[20] ID 2a-020-20140306
[21] http://www.eastleigh.gov.uk/pdf/ppi_Inspectorsreport12Feb15.pdf

2.51 The Eastleigh Inspector has ultimately concluded that a modest uplift of 10% is a reasonable proxy for quantifying an increase from purely demographic based needs to take account of 'modest' negatively performing market signals. This is more than 4-times the level applied to Warrington Borough's OAN in the 2016 Mid-Mersey SHMA.

2.52 Other key points are as follows:

1 Warrington's uplift equates to just 19 dpa, or 2.5%, whilst St Helens has just 5 dpa added to its OAN in the SHMA. Such levels of uplift are likely to do little to address the housing issues prevalent in both districts, and particularly in southern and eastern parts of Warrington Borough, which the SHMA notes as having generally higher housing costs, for both purchasing and renting, than the wider comparators [§8.122]. The approach used by GL Hearn increases Halton's OAN by 5.5%, more than double the level identified for Warrington despite the latter exhibiting more severe adverse market signals.

2 The Practice Guidance is clear that comparator areas should include districts within the same strategic HMA, and/or similar economic areas. However the SHMA only uses 'wider comparators', specifically the North West region and England and Wales. Given the strong linkages and housing market commonalities between Mid-Mersey and neighbouring authorities in Greater Manchester, Cheshire, Lancashire and the rest of Merseyside, we consider that it is essential to use these areas as comparators in the first instance to test whether a more comprehensive adjustment for worsening market signals could be justified.

3 The approach taken appears to only accelerate headship rates to 2025, whereupon the rates decline again to 2033 (see Figure 49 of the SHMA). A steeper acceleration up to 2037 may have been appropriate to partially catch up to the 2008-based SNHP headship rates for these age cohorts, given that these could be argued to represent a better fit with longer term trends.

4 The impact of recessionary factors (such as reduced supply and mortgage availability) has disproportionately affected household formation amongst younger age groups (i.e. males and females aged 15-34). Furthermore, research by NHPAU found that cohorts who are less able to access home ownership early in their housing career due to 'boom' or recession factors impacting on affordability are nevertheless able to 'catch up' – 80% of the gap at age 30 is 'caught up' by the age of 40. There is every reason to believe that this finding is broadly analogous to household formation, and supports the resumption to long term trends and increased household formation as the 'pent up' demand (particularly in younger age groups) is released.

Therefore, this would be an appropriate assumption to make when adjusting the demographic baseline modelling in any case, given the likelihood of a continued economic recovery and the Government's very clearly stated intention to significantly boost the number of Starter Homes

across the country, which is intended to increase the number of first time buyers under the age of 40 who are able to get on the property ladder. If so, then an additional uplift on top of GL Hearn's headship rate assumption would be justified in this instance to address worsening housing market signals.

2.53 In summary, the fundamental shortcoming associated with adopting the approach set out in the SHMA regarding market signals means it generates a conclusion that is not robust. Whilst we welcome the fact that GL Hearn recognises that some form of market uplift is required:

1 The SHMA conflates market signals with adjustments to headship rates when the Practice Guidance indicates these are separate steps in separate parts of the process; headship rates adjustments in ID 2a-015 and market signals adjustment in ID 2a-020;

2 The market signals adjustment within OAN is an increase in **supply** in response to a number of indicators; this is a separate element to the demographic-led housing **need** identified;

3 The Practice Guidance indicates that *"the housing need number suggested by "…(the starting point) should be adjusted to reflect appropriate market signals".* [22] It is therefore clear that it is necessary to increase supply over and above the demographic-led need in the population to address the supply-side imbalance, hence this should not be considered a demand-side adjustment as advocated by GL Hearn. This was also highlighted within the Barker Review[23], which indicated that to address house price increases, supply side increases were needed (over and above the needs generated by population growth);

4 The Practice Guidance also indicates that that *"…plan makers should not attempt to estimate the precise impact of an increase in planned housing supply…[24]"* hence the approach adopted in the SHMA does not comply with the Practice Guidance in this aspect. The SHMA models the impact of an increase in household formation in younger age groups returning to their 2001 level and determines that this would result in improved affordability.

5 The scale of increase, at just 3.0% overall and 2.5% for Warrington, is totally insufficient to rebalance the local housing market. The approach taken results in the perverse outcome whereby Halton's housing OAN uplift is more than twice the rate applied to Warrington, despite the latter Borough exhibiting far clearer indicators of market stress.

2.54 The SHMA approach fundamentally fails to address market signals in any proper manner, nor in the way advocated by the Practice Guidance or recent Inspectors. The SHMA underplays the market signals pressures within the three authorities and Warrington Borough in particular and does not make an appropriate uplift to help address the affordability issues.

[22] ID2a-019-20140306
[23] Review of Housing Supply: Delivering Stability: Securing our Future Housing Needs. Kate Barker, March 2004
[24] ID2a-019-20140306

Economic Activity Rates and Job Growth

2.55 With regards to considering the need to uplift a housing figure to take account of the economic potential of the local authority, the Framework sets out the following:

"The Government is committed to ensuring that the planning system does everything it can to support sustainable economic growth. Planning should operate to encourage and not act as an impediment to sustainable growth. Therefore significant weight should be placed on the need to support economic growth through the planning system." [§19] (NLP emphasis)

2.56 The Practice Guidance requires that assessments of likely job growth are made, looking at past trends in job growth and/or economic forecasts, whilst also considering the growth in working age population[25]. The potential job growth should be considered in the context of potential unsustainable commuting patterns and as such plan-makers should consider how the location of new housing could help address this[25].

2.57 In terms of making an assessment of the likely growth in job numbers, the SHMA uses a combination of data sources and concludes that the most appropriate forecasts to use are the Oxford Economics [OE] growth projections for Halton (+215 jobs per annum) and Warrington (983 jobs per annum), and Cambridge Econometrics [CE] for St Helens (223 jobs per annum) to align with the dataset informing that Borough's Employment Land Review [ELR].

2.58 We welcome GL Hearn's use of econometric modelling to inform the OAN in this instance, and the use of the most positive baseline forecasts apparently available to them. However, the SHMA recognises that these figures:

"are baseline figures which are trend based and do not take account of planned intervention or major developments such as Parkside Strategic Rail Freight Interchange, Mersey Gateway Bridge or Omega Park, which are expected to increase employment locally in St Helens, Halton and Warrington respectively and generate spin off growth in neighbouring authorities". [§5.5]

2.59 It may well have been helpful to plan for a higher rate of growth, particularly given that when questioned during the workshop, the consultants confirmed that the figures for Warrington in particular were lower than had been consistently achieved in the past. It is also unclear from the SHMA how the level of job growth planned for aligns with the employment land OAN in the ELRs of either Halton or Warrington.

2.60 Regarding economic activity rates, the SHMA confirms that the modelling has used the figures provided by OE and overlaid these onto the demographic projections and Census data. The resultant employment rate for over 16s is illustrated in Figure 33 of the SHMA and shows a significant increase for Warrington Borough in particular up to 2021, before it begins to fall slightly. Similar patterns are apparent for both Halton and St Helens, albeit of a lower magnitude. Exact figures are provided in Table 43 of the SHMA and appear to

[25] ID2a-018-20140306

be extremely optimistic for Warrington Borough in particular, as reproduced in Table 2.6.

Table 2.6 Employment Rates for Warrington Borough

	Age	2014	2037	+/-
Males	16-24	56.7%	61.5%	**4.8%**
	25-34	85.0%	92.5%	**7.5%**
	35-49	88.8%	97.2%	**8.4%**
	50-64	76.0%	86.2%	**10.2%**
	65+	14.0%	16.5%	**2.5%**
Females	16-24	61.2%	66.4%	**5.2%**
	25-34	84.1%	96.0%	**11.9%**
	35-49	86.5%	98.4%	**11.9%**
	50-64	67.5%	81.2%	**13.7%**
	65+	9.6%	11.7%	**2.1%**

Source: 2016 Mid-Mersey SHMA / OE

2.61 To expect the employment rate for males aged between 35-49 to increase 10 percentage points, from an already high employment rate of 89%, to 97% by 2037 appears unrealistic; similarly, an increase of 12 percentage points for females in the same age category, resulting in a virtually full employment rate of 98%, does not accord with what might reasonably expected to happen. This suggests that almost all families with children in Warrington will have both parents (aged between 25 and 49) in work.

2.62 By way of comparison, the Office for Budget Responsibility [OBR] recently published age and sex-specific economic activity rate projections to 2060 for the UK as a whole. These rates are reproduced in Table 2.7. Whilst caution should be taken when comparing these economic activity rates with the employment rates in Table 2.6, they nevertheless indicate a very different direction of change than suggested by OE/GL Hearn. For example, across the country as a whole, OBR suggests that the proportion of economically active residents (both male and female) will actually decline in the 30-44 age bracket.

Table 2.7 UK OBR Economic Activity Rates

	Male			Female		
	2014	2037	+/-	2014	2037	+/-
16-19	-	49.6%	-	-	48.6%	-
20-24	78.9%	80.7%	**1.8%**	70.9%	70.1%	**-0.8%**
25-29	92.1%	89.4%	**-2.7%**	77.4%	74.8%	**-2.6%**
30-34	93.7%	90.7%	**-3%**	78.4%	74.6%	**-3.8%**
35-39	93.6%	89.9%	**-3.7%**	79.3%	77.4%	**-1.9%**
40-44	92.8%	88.4%	**-4.4%**	80.7%	80.6%	**-0.1%**
45-49	92.0%	87.7%	**-4.3%**	83.1%	83.5%	**0.4%**
50-54	89.2%	86.3%	**-2.9%**	80.4%	80.9%	**0.5%**
55-59	81.8%	80.4%	**-1.4%**	70.5%	74.5%	**4.0%**
60-64	59.3%	67.7%	**8.4%**	41.2%	60.9%	**19.7%**
65-69	25.8%	38.5%	**12.7%**	16.9%	34.5%	**17.6%**
70-74	12.3%	14.2%	**1.9%**	7.1%	12.6%	**5.5%**
75-89	4.4%	5.7%	**1.3%**	1.9%	4.6%	**2.7%**

Source: OBR 2015

2.63 Furthermore it is NLP's view that the economic activity rates published by the forecasting agencies cannot be applied outside of each specific model, since they are influenced by all of the assumptions made about population, jobs, unemployment and commuting rates within the model. A more appropriate approach might have been the application of fixed economic activity rates based upon the local economic context and robust assumptions about future change, supported by external data sources such as OBR.

Affordable Housing

2.64 The SHMA concludes that the need for affordable homes is just 436 dpa across the Mid-Mersey area. This is surprising given that parts of Warrington in particular have some of the highest house prices in northern England. Furthermore, this level of affordable housing need is well below the levels previously identified by GL Hearn and JGC in their 2011 Mid-Mersey SHMA. Halton's net annual requirement appears to have fallen from 891 dpa previously to 119 dpa now; St Helens, from 1,225 dpa to just 96 dpa; and Warrington from 477 dpa to 220 dpa.

2.65 It is recognised that the 2016 SHMA has annualised the requirement, whilst the 2011 SHMA aims to address the net current need over the first five years. However, whilst this explains some of the difference, the net backlog need totals only 792 across Mid-Mersey in the 2011 SHMA, hence spreading this out over 23 years rather than just five would not, on its own, explain the very significant difference (or why St Helen's need, for example, has fallen by 92% in 4 years).

2.66 Furthermore it would have been helpful if the SHMA had incorporated Housing Register data into the modelling work, even if this was just as a sensitivity test. Whilst recognising that there can be issues over the quality and consistency of Housing Register data, it nevertheless provides an important indication of the overall level of need in an area and is referenced as such in the Practice Guidance. For example, for Warrington Borough, the 2014/15 Local Authority Housing Statistics Dataset suggests that as of 1st April 2015, there were 2,454 households on the housing waiting list. This is some way above the 1,411 gross backlog need estimated by GL Hearn for the Borough (Table 55).

2.67 Higher levels of backlog need could suggest a higher level of affordable need, which risks under-estimating the true scale of affordability issues in the districts, and may justify a further uplift to the housing OAN.

Towards an Objectively Assessed Housing Need

2.68 This section has highlighted that there are a number of issues within the SHMA in assessing housing need and as such the conclusion is unfortunately not a sound and policy-compliant assessment. The key shortcomings of the SHMA are as follows:

a A failure to recognise the clear evidence that Warrington functions as a standalone Housing Market Area, with relationships to the neighbouring

Cheshire authorities that are at least as strong as with St Helens and/or Halton;

b A failure to explain why, following a modest adjustment of -181 to Warrington's 2014 base population following the release of the 2014 MYE, this scenario results in a level of population growth some 5,400 lower than the 2012-based SNPP projects, which has a profound impact on the demographic OAN;

c An unjustified adjustment for UPC in Warrington Borough, which has had the effect of suppressing the demographic projection;

d Conflating the market signals uplift with the necessary adjustment to headship rates in spite of recent Inspector's reports and the market signals pressure within Warrington Borough which indicate there is significant upward pressure on the housing numbers to help address affordability issues;

e Applying a rate of uplift for Halton Borough that is more than double the uplift for Warrington Borough, despite the latter area exhibiting more severe and worsening housing market signals;

f The application of unrealistic employment activity rates which under-estimates the level of net in-migration that would be required to sustain the local economy at the desired level;

g Limited exploration of economic-led scenarios, relying on baseline 'policy off' scenarios that in Warrington's case at least, are significantly below past trends.

3.0 Assessing Housing Needs

Housing Needs and Requirements

3.1 The difference between need and requirement is an important one and has been clarified in the Solihull High Court Decision[26]:

1 **Objectively assessed housing need** – the objectively assessed need for housing in an area broadly encompasses demographic needs, analysis of market signals, economic factors and provision for all types of housing (**including** affordable), not taking into account and policy considerations concerning the ability to meet these housing needs.

2 **Housing requirement (Proposed Delivery)** – this figure reflects not only the objectively assessed need for housing, but also any policy considerations that might require that figure to be manipulated to determine the actual housing target for an area. For example, built development in an area might be constrained by the extent of land which is the subject of policy protection. Once these policy considerations have been applied to the figure for full objectively assessed need for housing in an area, the result is a housing requirement figure.

3.2 A recent High Court judgement between West Berkshire District Council and the SoS for Communities and Local Government and HDD Burghfield Common[27] confirmed the position established in St Albans versus SoS CLG and also Hunston, the fact that a Section 78 Inspector is not prevented from calculating the OAN from which to derive the annual housing requirement for a District and thereupon to calculate the five-year housing land supply:

"It does not follow that a s.78 inspector is prevented from calculating the OAN for the district from which one can then identify the annual housing requirement for the district and thereupon calculate the housing land supply." [§37]

3.3 The same Judgement also confirms that an Inspector is entitled to find that a developer's evidence at an Inquiry, in identifying a more appropriate figure for the OAN, can amount to "*significant new evidence*" [§41] to justify a departure from the figure in the Core Strategy/Local Plan as per the Practice Guidance[28].

3.4 In this regard, NLP considered it appropriate to recalibrate the housing OAN for Warrington Borough by modelling a number of scenarios to establish the need for housing in line with the HEaDROOM framework.

3.5 This is based on different demographic, economic and housing related factors which draw upon analysis of context and past trends. The assumptions underpinning the assessment are discussed below before the outputs of the PopGroup modelling are analysed.

[26] (1) Gallagher Homes Limited and Lioncourt Homes Limited v Solihull Metropolitan Borough Council [2014] EWHC 1283
[27] [2016] EWHC 267 (Admin)
[28] ID 03-030-20140306

CLG 2012-based Household Projections

3.6 The Practice Guidance states that up-to-date household projections published by the CLG should provide the starting point estimate of overall housing need. The Practice Guidance goes on to state that "*plan makers may consider sensitivity testing, specific to their local circumstances, based on alternative assumptions in relation to the underlying demographic projections and household formation rates*"[29].

3.7 The CLG 2012-based household projections were released in February 2015 and provide projections on household growth and headship rates for Local Authorities in England. They provide the most up-to-date, full (25 year) projections of household growth and formation rates since the 2008-based projections and take into account the 2011 Census. Over the period 2014-2037, the latest 2012-based SNHP project an average annual household growth of 813 in Warrington as shown in Table 3.1.

Table 3.1 Household Growth for Warrington Borough

	2012-based Household Projections				2013-2033 annual H'Hold Growth		2012-2021 annual H'hold Growth	
	2014	2037	2014-2037	Annual H'holds	2012-SNHP	2008-SNHP	2012-SNHP	2011-SNHP
Warrington*	87,981	106,682	18,701	**813**	855	800	969	1,030

Source: CLG 2008/2011/2012-based Household Projections

*Note – the time periods have been changed to align across the various SNHPs

Note: It is important to note that each of these household projections are based on their respective population projections. Hence applying household headship rates to different populations, (such as applying the 2011-based headship rates to the 2012-based population as in the previous update report) will result in a different household growth figure than those presented above.

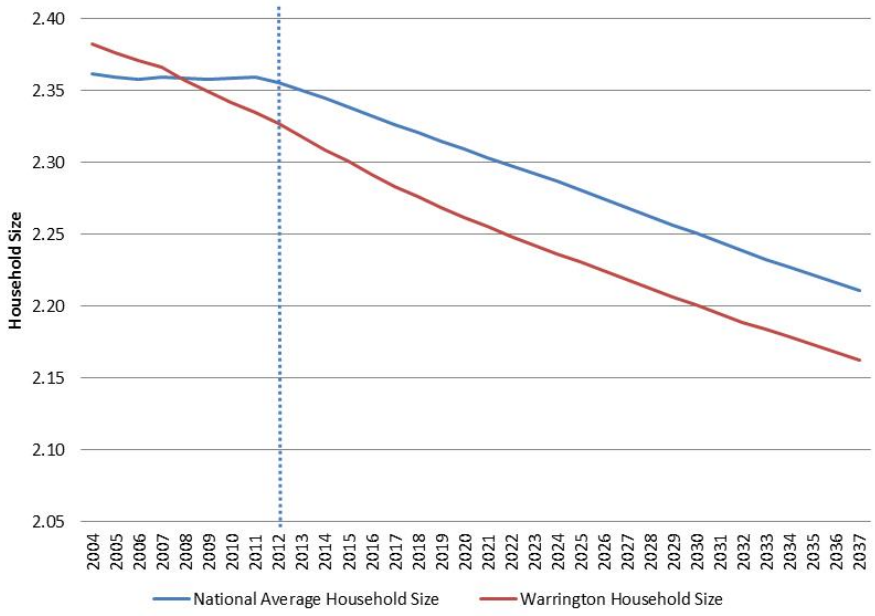
3.8 The Table indicates that over comparable time periods, the 2012-based SNHP projects annual growth rates significantly above the 2008-based projections, but below the (Interim) 2011-based SNHP.

Household Size

3.9 Figure 3.1 compares Warrington's rate of change against the national average over time. Both exhibit a clear downward trend from 2011 onwards, although Warrington did not experience the general hiatus in household size experienced nationally between the Censuses. In 2007, the national and Warrington averages were identical (2.36). However, since that time Warrington's average household size has declined significantly, to 2.16 by 2037, significantly lower than the national figure of 2.21.

[29] ID 2a-015-20140306

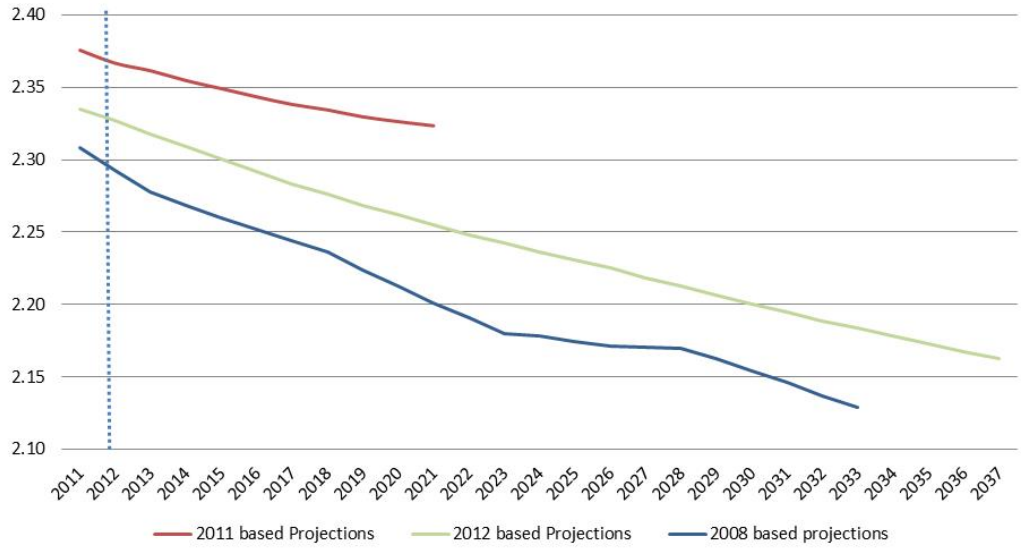
Figure 3.1 National and Warrington Average Household Size 2004-2037



Source: CLG 2008/2011/2012-based Household Projections, NLP

3.10 Figure 3.2 illustrates the average household size for the three most recent sets of household projections for Warrington Borough. This indicates that the 2008-based projections had the steepest rate of change, with the 2011-based projections being (by far) the most pessimistic. The latest 2012 SNHP fall between the former two projections, although they are more closely aligned to the 2011-based projections. The annual rate of change between the 2008-based and 2012-based projections is similar, although the starting point for both is very different.

Figure 3.2 Average Household Size in Warrington Borough



Source: CLG 2008/2011/2012-based Household Projections

3.11 The 2011-based (Interim) projections were heavily influenced by (at the time)

recent recessionary trends and as such projected relatively low rates of household formation. The 2012-based SNHP are more optimistic than these rates, albeit they remain far from the 2008-based counterparts.

3.12 The 2012 based household projections are influenced by recessionary trends since 2007, including mortgage rationing, financial instability and acute affordability constraints. Although the methodology for the household projections draws upon household formation trends over a 40 year period since 1971, they do contain a 'recency bias' reflecting trends over the last 10 years much more than trends over the longer term. The projected average household size shows a slight return to longer term trends. However, this will have been influenced by recent recessionary supply-side constraints. It is important to note that there will also be some variation between these projections due to the age-structure of the population upon which each is based.

3.13 To help rectify the impacts of supressed household formation, NLP has devised a sensitivity adjustment to the 2012 SNHP. Because young people have been disproportionately impacted by supressed household formation in recent years, the sensitivity focuses around those aged 15-34. Young people are living with their parents for longer than seen historically or pay a significantly greater proportion of their earnings to rent, which makes it harder to save a deposit for a house. The sensitivity is based on the assumption that, post 2017 (to allow for the full return to pre-recession trends) headship rates in the 15-34 age groups will increase in line with longer term trends, such that by 2033, half of the difference between the 2012-based and 2008-based projections is made up. This results in average household sizes declining at a slightly faster rate than the baseline 2012 projection as a higher percent of young people form households.

3.14 Research by NHPAU[30] found that cohorts who are less able to access home ownership earlier in their housing career due to 'boom' or 'recession' factors impacting on affordability are nevertheless able to 'catch-up' – 80% of the gap at the age of 30 is 'caught-up' by the age of 40. There is every reason to believe this finding is broadly analogous to household formation, and supports the resumption of long term trends.

Scenarios

3.15 the following scenarios were modelled in PopGroup by NLP:

Demographic-led Projections:

a **PopGroup 2012-based SNHP:** This scenario represents a projection of the demographic shift based on current factors and recent trends in Warrington Borough, aligning household growth to the 2012-based SNHP. It takes account of dwelling vacancy rates in order to derive a housing need figure from the projections in household growth.

[3030] NHPAU (2010) How do Housing Price Booms and Busts Affect Home Ownership for Different Birth Cohorts?

Sensitivity Tests:

i **Scenario Ai: Partial Catch-Up Headship Rates –** Using the 2012-based headship rates as a starting point, it is projected that by 2033 (starting after 2017 to allow for full economic recovery) headship rates for the younger adult age groups[31] will have caught up half of the difference between the 2012 and 2008-based SNHP headship rates. The underlying population upon which this scenario is based is the same as Scenario A, i.e. the 2012-based SNHP;

ii **Scenario Aii: 2013 & 2014 MYE –** Using the 2013 & 2014 MYE and applying the fertility, mortality, migration and headship rates from the 2012-based SNPP thereafter.

iii **Scenario Aiii: 2013 & 2014 MYEs + Partial Catch-Up [PCU] Headship Rates –** As Aii, but incorporation of PCU headship rates on the same basis of Scenario Ai;

b **Long Term Migration Trends -** based on average gross flows of internal and international migration in Warrington over a ten year period as taken from the ONS MYE Series, assuming Warrington will continue to see migration at a level in line with recent trends.

Employment-led Projections

c **Experian Job Growth** – A 'policy-off' trend scenario based upon Experian's local area-based econometric model. This provides potential unconstrained employment growth in Warrington of +22,409 jobs 2014-2037, at an annual rate of 974.

d **Job Stabilisation** – Assumes that there are no additional jobs created over the assessment period, i.e. the number of jobs remains at the level achieved in 2014.

e **Past Trends Job Growth**– A past trends job growth scenario based upon the level of job growth consistently achieved in Warrington in the recent past. Based on the historic evidence provided in the Experian dataset, this indicates that Warrington's economy gained 1,386 jobs annually in recent years. This rate of growth was incorporated into the PopGroup model over the period 2014-2037.

Other Inputs and Assumptions

3.16 In addition to the more detailed inputs discussed, the following inputs have been used in the PopGroup demographic modelling undertaken by NLP. The sources of the data used for each input are listed below and full explanations of the assumptions around each input are included in Appendix 1. In all scenarios except those based on the 2012 SNPP the MYEs for 2013-2014 are

[31] As defined by males and females in the age groups 15-19, 20-24, 25-29 and 30-34.

taken into account to bring the population in line with the latest available data[32].

a 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 projected TFRs and SMRs under each scenario in PopGroup;

b Projected **migration** under the 2012-SNPP based scenario is taken from the age-specific numbers of in and out internal and international migrants as projected. For the long term trend scenarios, the total number of migrants is constrained to those figures, and the age-profile is based on the 2012-SNPP projections of migration. For the economic-led scenarios, migration is flexed (i.e. inflated or constrained) in order to produce a population and labour force sufficient to support the given level of job change;

c Inputs on **headship rates** are based on the 2012-based SNHP which provide data by 5 year age group and sex for Warrington. These cover a 25-year period to 2037 and the sensitivity scenario is as described above, taking into account the 2008-based SNHP;

d In Warrington housing **vacancies and second homes** will result in the number of dwellings needed exceeding the total number of households under any scenario (as in any area). Hence in establishing the level of future housing need therefore, a vacancy rate is applied to the household projections. For Warrington a 2012-2014 average is taken from CLG Council Tax Base data, which indicates that **3.2%** of homes are vacant/second homes. This rate is held constant in the modelling;

e In order to calculate **unemployment rates**, the figures for 2012 (6.5%), 2013 (6.3%) and 2014 (4.6%) were used for these specific years in the modelling (from the Annual Population Survey Model-based estimates). These rates are higher than the pre-recession average, which was 3.7%. As such, in projecting future unemployment it is estimated that by 2020 unemployment rates will have returned to the pre-recession average, then held constant to 2037. Therefore NLP incorporated the following annual unemployment rates into the PopGroup modelling: 2012 = 6.5%; 2013 = 6.3%; 2014 = 4.6%. The latter figure was gradually reduced on a pro-rata basis to **3.7% by 2020**, and then held constant at this rate thereafter.

f Age and gender-specific **economic activity rates** are used. Between the ages of 16 and 89 the rates of change within the **Office for Budget Responsibility's** recent labour market participation rates (age and sex-specific) have been applied (November 2015). These national rates have been re-based to Warrington Borough (using 2011 Census data).

g It has been assumed that the **labour force ratio** remains static with no inferred increase or decrease in the ratio of people to jobs. In Warrington,

[32] For the scenarios based on the 2012 SNPP/SNHP, the population in 2012/13 has not been constrained to the 2013 Mid-Year Estimates as these are simply a re-modelling exercise to re-create the government projections

APS and Experian data indicates that in 2012, 2013 and 2014 the labour force ratio was 0.752, 0.749 and 0.706 respectively; i.e. Warrington is an area of in-commuting. Beyond 2014, the most up to date figure of **0.706** has been applied and kept constant.

Demographic Scenario Modelling Results

3.17 The demographic scenarios used the components of population change (births, deaths and migration) to project future population change. Under each scenario, the assumptions around household formation and headship rates are applied in order to derive the number of households within the population over time. This is converted into a dwelling need, and in addition the labour force / job change is derived based on the age profile of the projected population. The outputs are presented over the period 2014-2037.

Scenario A: 2012 SNHP/2012 SNPP (2012 Baseline)

3.18 This scenario models the 2012-based SNHP and the 2012-based SNPP. This means that it produces the same projection (in terms of the total number of households) as the headline projections of the CLG Live Table; however, modelling the scenario through PopGroup allows the derivation of job-related outputs and more specific levels of population change by age. Under this scenario, the population of Warrington is projected to increase by 28,970 to 2037. The population growth is due to high levels of in-migration (17,465 by 2037) and to a lesser extent, natural change (+11,505).

3.19 Using 2012-based SNHP headship rates, this would generate a total household growth of 18,701 which, following the application of a second homes/vacancy rate, equates to a net dwelling need for 19,319 new homes at an annual rate of 840 dpa.

3.20 Despite the population growth, the ageing profile of the population will result in a moderating influence on the labour force, which would grow by 5,551 although as the area is a net beneficiary of commuting, this could sustain a n increase of jobs in the order of 8,928, or 388 annually.

3.21 The key outputs for this scenario are summarised in Table 3.2.

Table 3.2 Summary of Outputs - Scenario A: 2012 SNHP, 2012 SNPP

	Warrington
Population Change	+28,970
of which natural change	+11,505
of which net migration	+17,465
Households	+18,701
Dwellings	+19,319
Dwellings p.a.	**+840**
Jobs	+8,928
Jobs p.a.	+388

Source: NLP / CLG / ONS

Scenario Ai: 2012 SNPP Base, PCU Headship Rate Sensitivity

3.22 Whilst the 2012 household representative rates are more optimistic than their 2011-based (Interim) counterparts, they nevertheless remain more pessimistic compared to the 2008-based SNHP. These represented projections of headship in line with longer term trends and did not take into account impacts of the recession on both the supply of housing and the ability of households to form, given the lack of mortgage finance availability. NLP has tested a scenario which assumes that over time, 'pent up' demand within the younger population (15-34 age group) will be released over time. This results in higher household formation rates for those age cohorts which, over the long term, represent a partial return to longer term trends.

3.23 Adopting higher headship rates in younger age groups (as discussed) under a 'partial catch-up' scenario would result in a higher level of housing need in Warrington of 883 dpa, representing 5.1% increase on Baseline Scenario A.

Table 3.3 Dwelling Outputs - A and Ai (Headship Rate Sensitivities)

Warrington	Dwelling Outputs	
	2014-37	d.p.a.
2012 SNHP	19,319	840
Scenario Ai: Partial Catch Up	20,304	883

Source: NLP using PopGroup

Scenario Aii: 2013 & 2014 MYE

3.24 The 2014 MYE indicates that Warrington Borough's population is some 181 lower than was projected for that year by the 2012-based SNPP. Under this sensitivity test scenario, the 2013 and 2014 MYEs were included as a population constraint in the requisite years. The population was then rebased going forward applying the fertility, mortality and migration rates from the 2012 SNHP. The 2014 MYE indicate that the population in Warrington in 2014 is 206,428, some 181 lower than was projected in the 2012 SNPP.

3.25 Based on the lower starting point in 2014, the population of Warrington is projected to increase by 28,835 to 2037, a lower rate of growth than is projected in the 2012-based SNPP. Overall, this scenario results in a reduced dwelling need of 18,829 between 2014 and 2037, equivalent to 819 dpa (a 3% reduction).

3.26 This is still significantly higher than the equivalent projection produced by GL Hearn in their 2016 SHMA (Scenario 2), which forecast a population growth of 23,569 to 2037 and a dwelling need of just 709 dpa.

3.27 The key outputs for this scenario are summarised in Table 3.4.

Table 3.4 Summary of Outputs – Scenario Aii: 2013 & 2014 Mid-Year Population Estimates

Warrington	Dwelling Outputs	
	2014-37	d.p.a.
2012 SNHP	19,319	840
Scenario Aii: 2013/2014 MYE	18,829	819

Source: NLP / CLG / ONS

Scenario Aiii: 2013 & 2014 MYE and PCU Headship Rate Sensitivity

3.28 This scenario combines the aforementioned MYE adjustments and the PCU headship rate adjustment together. This scenario would result in an increase in the total population of 28,835 (the same as for Scenario Aii), but because more households are generated from the same population structure, this results in a net household growth of 19,195 and an increase in the number of dwellings by 19,830, of 862 dpa. Such a level of growth could sustain an additional 8,681 jobs, or 377 annually.

Table 3.5 Summary of Outputs – Scenario Aii: 2013 & 2014 Mid-Year Population Estimates

Warrington	Dwelling Outputs	
	2014-37	d.p.a.
2012 SNHP	19,319	840
Scenario Aiii: 2013/2014 MYE / PCU	19,830	862

Source: NLP / CLG / ONS

Scenario B: Long Term Migration Trends

3.29 This scenario projects forward the level of migration experienced by Warrington over the past ten years. Long term migration trends in Warrington have been consistently positive, with the longer term average being 397 (net) per annum. This scenario trends forward this figure, assuming that migration in Warrington will follow longer term trends (thereby eliminating the impacts of any anomalies in recent years and the economic downturn).

3.30 Under this scenario, population change is high, at 1,403 annually. Over the period to 2037, this translates into a level of need slightly above the Baseline Scenario A, at 19,658 or 855 dpa. The key outputs from the migration trend based scenarios are shown in Table 3.6.

Table 3.6 Scenario B: Long Term Migration

	Scenario B: Long Term Migration	
	2014-2037	p.a.
Population	32,273	1,403
Dwellings	19,658	855
Jobs	10,992	478

Source: NLP using PopGroup

Demographic Summary

3.31 In line with the Practice Guidance requirement to use the most recent government projections as the starting point for assessing housing needs, it is considered the 2012 SNPP/SNHP form the demographic-led starting point for an objective assessment of need in Warrington. It is necessary however to apply a dwelling vacancy rate in order to derive a housing need from this household growth figure, hence the housing need is slightly higher than the household growth. The initial starting point is therefore 840 dpa.

3.32 For reasons discussed in Section 2.0 of this report, it is considered appropriate to use the latest MYE data, and to re-base the projections accordingly. This would result in a slightly lower level of dwelling need, at 819 dpa. However, once a suitable adjustment is made to this scenario to incorporate a realistic change to headship rates for younger age cohorts, this raises the demographic OAN to **862 dpa**.

3.33 NLP consider that this figure represents the appropriate demographic starting point for the objectively assessed need for housing in Warrington Borough, rather than the 755 dpa demographic-led figure taken forward in the 2016 SHMA, which makes no allowance for accelerating headship rates (at this stage), and appears to assume an unjustifiably pessimistic level of population growth in Warrington based on the 2014 MYE.

Market Signals

3.34 The Framework sets out the central land-use planning principles that should underpin both plan-making and decision taking. It outlines twelve core principles of planning that should be taking account of, including the role of market signals in effectively informing planning decisions:

"Plans should take account of market signals, such as land prices and housing affordability, and set out a clear strategy for allocating sufficient land which is suitable for development in their area, taking account of the needs of the residential and business communities." [§17]

3.35 The Practice Guidance 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 demand and supply of housing.

3.36 The Guidance explicitly sets out six market signals:

1 Land Prices;

2 House Prices;

3 Rents;

4 Affordability;

5 Rate of development; and,

6 Overcrowding/Homelessness

3.37 It goes on to state that appropriate comparison of these should be carried out with an upward adjustment made where such market signals indicate an imbalance between supply and demand, and a need to increase housing to meet demand and tackle affordability issues is identified:

"This includes comparison with longer terms trends (both in absolute levels and rates of change) in the housing market area; similar demographic and economic areas; and nationally. Divergence under any of these circumstances will require upwards adjustment to planned housing numbers compared to those solely on household projections…

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.[33]"

3.38 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 projections.

3.39 In the context of the Framework and the Practice Guidance, the housing market signals have been reviewed to assess the extent to which they indicate a supply and demand imbalance in Warrington and therefore indicating that upward adjustments should be made on the demographic-led needs identified.

Land Prices

3.40 Data for Land Prices in Warrington Borough is presented in Table 3.7. During the period 2001 to 2010 land values in Warrington increased significantly, with growth for all three categories outstripping growth at a national level.

Table 3.7 Land Prices Warrington/England

	Warrington Land Values			England Land Values		
	2001	2010	%	2001	2010	%
Small Residential	£1,200,000	£2,100,000	+75%	£1,300,000	£1,900,000	+46%
Bulk Residential	£950,000	£1,900,000	+100%	£1,250,000	£1,770,000	+42%
Flats & Maisonettes	£500,000	£1,900,000	+280%	£1,370,000	£1,960,000	+43%

Source: Property Market Reports

House Prices

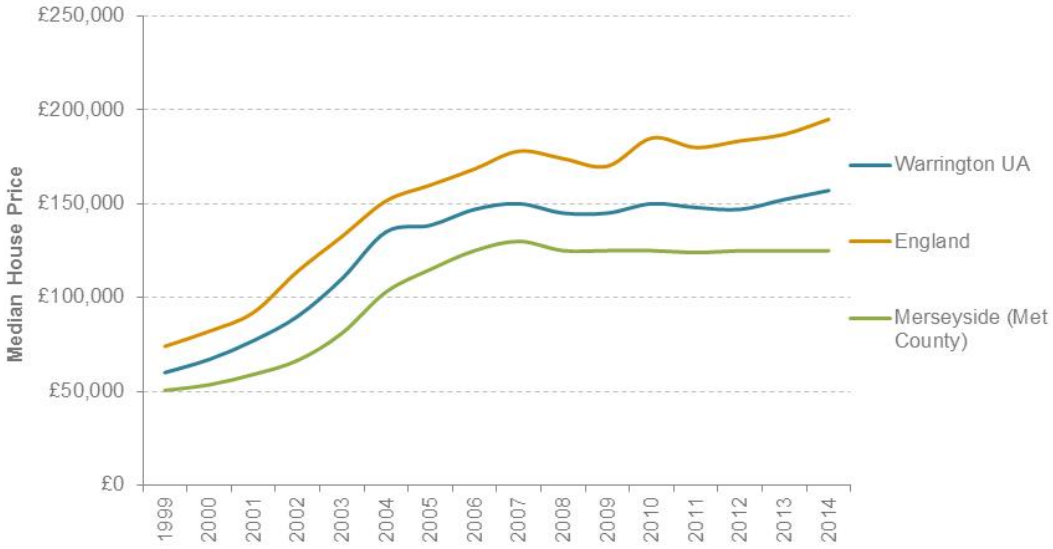
3.41 The Practice Guidance identifies that longer terms changes in house prices may indicate an imbalance between the demand and supply of housing. It suggests using mix-adjusted house process; however, these are not available at the Local/Unitary Authority level, hence price paid data is deemed the best

[33] ID 2a-020-20140306

indicator for house prices. CLG publish series data on district level median house prices from 1996 to 2012, and for 2013 and 2014 Land Registry 'Price Paid' Data has been used.

3.42 Figure 3.3 and Table 3.8 show average (median) house prices across Warrington, Merseyside and England over the last 15 years. Although Warrington is not located within Merseyside, it provides a useful comparator. Warrington has consistently seen higher house prices when compared with Merseyside. Furthermore, in recent years Warrington's house prices have gradually increased in line with national rates of increase whilst the Merseyside average has flatlined since 2008.

Figure 3.3 Average (Median) House Price - 1999 to 2014



Source: CLG Live Table 586/Land Registry

Table 3.8 Average (Median) House Price - 1999 to 2014

	1999	2014	% Change	Absolute Change
Warrington	**£60,000**	**£157,000**	**162%**	**+ £97,000**
England	£74,000	£195,000	164%	+ £121,000
Merseyside	£50,500	£125,000	148%	+ £74,500

Source: CLG Live Table 586/Land Registry

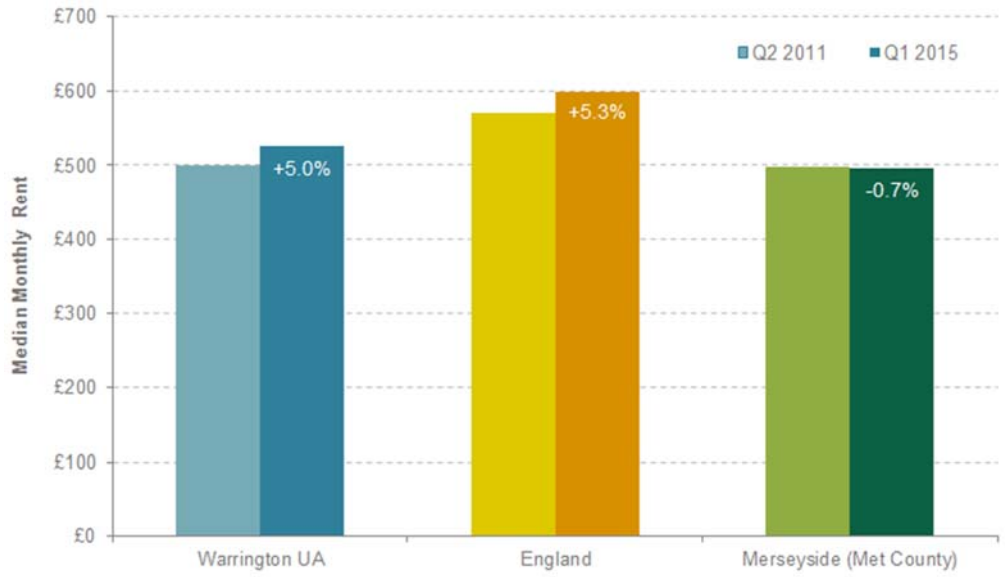
3.43 In terms of rates of change over the past 15 years, Warrington, at 162% has seen a rate of change which is broadly comparable to the national rate of 164%. Average house prices in Warrington increased by £97,000 over the 15 year period. In contrast, the Merseyside average increased by only 148%, or £74,500. This demonstrates the strength of the Warrington housing market in comparison with the Merseyside authorities, and both Halton and St Helens.

Rents

3.44 Increasing rental costs are another indicator of housing market stress. Series

data for rents from the VOA are only available from Q2 2011 to Q1 2015; however trends in rental costs are still clear. The average (median) monthly rents for all dwellings in each area are shown in Figure 3.4 and Table 3.9. As of 2015, average monthly rents in Warrington are below the England average although they are increasing at a similar rate. Average monthly rents in Warrington and Merseyside in 2011 were broadly comparable but in the intervening years they have started to diverge. Warrington's average monthly rents increased by 5% whilst the Merseyside equivalent decreased by 0.7%.

Figure 3.4 Average (Median Monthly Rent and Change - Q2 2011 to Q3 2014)



Source: VOA Private Rental Market Statistics

Table 3.9 Average (Median Monthly Rent and Change - Q2 2011 to Q1 2015)

	Q2 2011	Q1 2015	% Change	Absolute Change
Warrington	**£500**	**£525**	**5%**	**+£25**
England	£570	£600	5.3%	+£30
Merseyside	£498	£495	-0.7%	- £3

Source: VOA Private Rental Market Statistics

Affordability

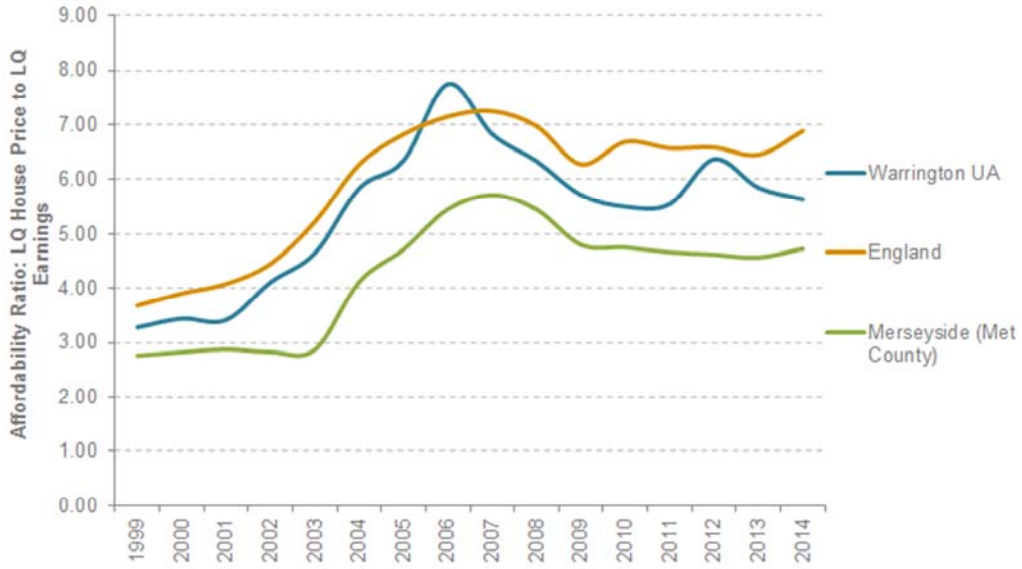
3.45 The Practice Guidance identifies that assessing affordability involves comparing the cost of housing against households' ability to pay. The relevant indicators are lower quartile [LQ] house process and LQ earnings which together form an affordability ratio which can be tracked over time.

3.46 The affordability ratio across the Warrington, Merseyside and England is shown in Figure 3.5 and Table 3.10. A similar pattern materialises as with house prices, with Warrington being below the national average but above the Merseyside, Halton and St Helen's averages.

3.47 In 1999 Warrington's affordability ratio was 3.28, which was below the national rate of 3.68 but significantly higher than both Halton (2.42) and St Helens (2.55). However, the ratio rose rapidly to the extent that it actually exceeded the national average in 2006, peaking at 7.75 compared to 7.15 nationally. Following the onset of the recession, the ratio fell to a low of 5.50 in 2009, and has fluctuated since that time.

3.48 In terms of increase over the last 15 years, Warrington's ratio has increased by 72%, which is above the rate of growth in Halton and below that of St Helens, albeit the Borough was starting (and ending) at a much higher base.

Figure 3.5 Affordability Ratio 1999-2014



Source: CLG Live Table 576/Land Registry/ASHE

Table 3.10 Affordability Ratio 1999-2014

	1999	2014	% Change	Absolute Change
Warrington	**3.28**	**5.64**	**72%**	**2.36**
England	3.68	6.88	87%	3.2
Merseyside	2.76	4.73	71%	1.97
Halton	2.42	4.07	68%	1.65
St Helens	2.55	4.76	87%	2.21

Source: CLG Live Table 576/Land Registry/ASHE

Rate of Development

3.49 The rate of development is a supply-orientated indicator of past delivery and the extent to which it has kept pace with planned supply. In assessing the likelihood of under delivery of a plan, the Practice Guidance sets out that a comparison of completions against the relevant requirement in the corresponding period should be undertaken. It may also be an indicator of any

'backlog' of unmet needs; however, this is based on the assumption that these requirements were a reasonable and objective assessment of development need for that period.

3.50 According to the SHMA, over the period 2003/04 to 2013/14 the average annual completions figure for Warrington Borough was 840 dwellings, a figure comfortably in excess of the North West Regional Strategy[34] target of 380 (net of clearance).

Overcrowding and Homelessness

3.51 Overcrowding, shared household and homelessness are further indicators that there are unmet needs in an area. The Practice Guidance indicates that *"… overcrowding, concealed and sharing households, homelessness and the numbers in temporary accommodation demonstrate unmet need for housing … [long term increases] might be a signal to consider increasing planned housing numbers…[35]"* The Censuses provide data on overcrowded households and concealed families (also a proxy for sharing households), and data on homelessness can be obtained from CLG.

3.52 Overcrowded households are identified by the Census as households with fewer rooms [or bedrooms] than required, based on a standard formula based on the number of people in a household and their relationship. Table 3.11 shows the change in the percent of household who were overcrowded at the time of the 2001 and 2011 Censuses. Nationally, there has been an increase from 7.1% to 8.7% in 2011, an increase of 23%. Across Warrington, the increase has been 5.3% over the same period, with 4.5% of households being classified as overcrowded.

Table 3.11 Overcrowding

	Overcrowded Households		Change in %	Change in Percentage Points
	2001	2011		
Warrington	**4.3%**	**4.5%**	**+5.3%**	**+0.23**
England	7.1%	8.7%	+22.7%	+1.6

Source: Census 2001/2011

3.53 Concealed families occur when the household is comprised of more than one family; in the Census, each family is assigned a 'family reference person'; where the family reference person is not the household reference person, this family is considered to be 'concealed'. An example of a concealed family is a couple (with or without children) living in a parent's home.

3.54 Nationally, the rate of concealed families rose by 59% over the ten years 2001 to 2011, to 1.85%. Table 3.12 indicates that the rate of concealed families also increased in Warrington, but at a lower rate of 28%.

[34] GO-NW (September 2008): North West of England Regional Spatial Strategy to 2021 (Table 7.1
[35] ID 2a-020-20140306

Table 3.12 Concealed Families (as % of all families) 2001 and 2011

	Concealed Families (as % of all families)		Change in %	Change in Percentage Points
	2001	2011		
Warrington	**0.87%**	**1.12%**	**28.21%**	**+0.25**
England	1.16%	1.85%	59.18%	+0.69

Source: Census 2001/2011

3.55 CLG provides data on the number of households in each Local Authority which are accepted as homeless and in 'priority need' as well as households in temporary accommodation. The rate of households in priority need (which includes those with dependent children or vulnerable households) is presented in Table 3.13.

Table 3.13 Households in Priority Need 2004/05 to 2013/14

	Households in Priority Need (per 1,000 households)		Change in %	Change in Percentage Points
	2004/05	2014/15		
Warrington	**~**	**0.98**	**~**	**~**
England	5.73	2.40	-58%	-3.3

Source: CLG Live Table 784/P1e Returns

3.56 Nationally, the number of households (per 1,000) who are homeless and in priority need has declined by almost 60% from 5.73 to 2.32 over the last ten years. Insufficient information is available for Warrington to derive the same percentage change but the proportion of households in Priority Need in 2014/15 is lower than the national average (Table 3.14).

Table 3.14 Households in Temporary Accommodation 2004/05 to 2104/15

	Households in Temporary Accommodation (per 1,000 households)		Change in %	Change in Percentage Points
	2004/05	2014/15		
Warrington	**~**	**0.22**	**~**	**~**
England	4.79	2.85	-40.5%	-1.94

Source: CLG Live Table 784/P1e Returns

Comparison of Market Signals

3.57 In addition to assessing market signals within Warrington, the Practice Guidance states that

"Appropriate comparisons of Indicators should be made. This includes comparisons with longer term trends (both in absolute level and rates of change) in the: housing market area; similar demographic and economic

areas; and nationally…"[36]

3.58 Therefore, for the purposes of this assessment, Warrington has been compared to neighbouring authorities and other authorities within the North West which may have housing market links with Warrington and may constitute the wider, strategic, housing market area. The intention of comparing these areas with Warrington is to provide a range of benchmark centres which will either compete economically with Warrington or are similar in geographic, economic and demographic factors.

3.59 Table 3.15 and Table 3.16 demonstrate how Warrington Borough ranks in terms of the indicators. A higher ranking in these tables indicates a worse performing market signals, and vice versa.

[36] ID 2a-020-20140306

Table 3.15 Warrington Market Signals Comparator Table - Cost of Housing

Rank	House Prices			Affordability			Rents		
	Median (2014)	% Change (1999-2014)	Absolute Change (1999-2014)	Ratio (2014)	% Change (1999-2014)	Absolute Change (1999-2014)	Median (Q1 2015)	% Change (Q2 2011-Q1 2015)	Absolute Change (Q2 2011-Q1 2015)
1	Trafford	Trafford	Trafford	Trafford	Trafford	Trafford	Trafford	Cheshire East UA	Trafford
2	England	England	England	England	Stockport	England	England	Cheshire West and Chester UA	Cheshire East UA
3	Cheshire East UA	Warrington UA	Stockport	Cheshire East UA	England	Stockport	Cheshire East UA	Stockport	Cheshire West and Chester UA
4	Stockport	Liverpool	Warrington UA	Cheshire West and Chester UA	St Helens	Warrington UA	Cheshire West and Chester UA	Trafford	Stockport
5	Cheshire West and Chester UA	Stockport	Halton UA	Stockport	Liverpool	St Helens	Stockport	England	England
6	Warrington UA	Wigan	St Helens	Warrington UA	Wigan	Wigan	Warrington UA	Warrington UA	Warrington UA
7	Halton UA	Halton UA	Liverpool	Wigan	Warrington UA	Liverpool	Knowsley	Halton UA	Halton UA
8	St Helens	St Helens	Wigan	St Helens	Halton UA	Halton UA	Halton UA	Wigan	Wigan
9	Wigan	Knowsley	Knowsley	Halton UA	Knowsley	Knowsley	St Helens	Knowsley	Knowsley
10	Liverpool	#N/A	#N/A	Liverpool	#N/A	#N/A	Liverpool	St Helens	St Helens
11	Knowsley	#N/A	#N/A	Knowsley	#N/A	#N/A	Wigan	Liverpool	Liverpool

Table 3.16 Warrington Market Signals Comparator Table – Overcrowding and Homelessness

Rank	Concealed Families			Households in Temporary Accommodation			Land Prices	
	Concealed Families, % (2011)	Change (%) (2001-2011)	Change (percentage points) (2001-2011)	Households in Temporary Accommodation, per 1,000 Households (2014/15)	% Change (2004/05-2014/15)	Absolute Change (2004/05-2014/15)	Bulk Residential (£/Ha) (2010)	Change (%) (2001-2010)
1	Knowsley	Stockport	England	England	Knowsley	Knowsley	Stockport	Cheshire East UA
2	England	England	Stockport	Trafford	England	Stockport	Warrington UA	Knowsley
3	Liverpool	Cheshire East UA	Knowsley	Halton UA	Stockport	Wigan	Cheshire West and Chester UA	Wigan
4	Trafford	Cheshire West and Chester UA	Liverpool	Stockport	Trafford	Halton UA	England	Warrington UA
5	Stockport	Wigan	Trafford	Cheshire West and Chester UA	Halton UA	Trafford	Trafford	Cheshire West and Chester UA
6	Halton UA	Trafford	Halton UA	Liverpool	Wigan	Liverpool	Cheshire East UA	Stockport
7	St Helens	Halton UA	Cheshire East UA	Knowsley	Liverpool	Cheshire East UA	Wigan	England
8	Wigan	Liverpool	Wigan	Warrington UA	Cheshire West and Chester UA	Cheshire West and Chester UA	Liverpool	Liverpool
9	Cheshire West and Chester UA	Knowsley	Cheshire West and Chester UA	Cheshire East UA	Cheshire East UA	St Helens	Knowsley	Trafford
10	Warrington UA	Warrington UA	St Helens	St Helens	St Helens	England	#N/A	#N/A
11	Cheshire East UA	St Helens	Warrington UA	Wigan	#N/A	#N/A	#N/A	#N/A

Summary

3.60 In line with the Practice Guidance, the evidence on market signals does indicate upwards adjustment on the demographic-led starting point may be required in Warrington. House prices, land prices, rents and affordability indicate potential problems within the Borough compared to England and comparator areas; however the Borough has performed better in terms of other indicators and in particular has delivered relatively high levels of housing since 2003/04.

3.61 In general, we agree with the conclusion of the 2016 SHMA that some uplift to the demographic starting point is required:

"*Overall, the analysis of market signals points to some affordability pressures in the HMA although not as bad as that seen in the wider comparators. However, due to the increases in shared ownership and to meet the needs of concealed and homeless households some upward adjustment to assessment of housing need may be required"* [§8.124]

3.62 However, whilst we recognise that the extent of any uplift is necessary an area of professional judgement, it is considered that the uplift of 2.5% applied in the 2016 SHMA to Warrington's demographic starting point is insufficient, particularly when this is contrasted with the 5.1% uplift GL Hearn apply to the Halton figure where housing affordability pressures are manifestly lower.

3.63 The demographic-led starting point has been concluded, as described in Section 3.0, as 862 dpa (Scenario Aiii) and the uplift to take account of market signals will need to be set at that which is 'reasonable', noting that:

"…[plan-makers] *should increase planned supply by an amount that, on reasonable assumptions…could be expected to improve affordability…"*[37]

3.64 Recent Inspector's examination findings have suggested an uplift of 10% is appropriate[38], with the Inspector into the Eastleigh Core Strategy specifically concluding:

"It is very difficult to judge the appropriate scale of such an uplift. I consider a cautious approach is reasonable bearing in mind that any practical benefit is likely to be very limited because Eastleigh is only a part of a much larger HMA. Exploration of an uplift of, say, 10% would be compatible with the "modest" pressure of market signals recognised in the SHMA itself."[39]

3.65 At face value, the evidence suggests the scale of market signal pressure in Warrington is also "modest" and, as such, a reasonable market signal uplift to the demographic baseline might be considered to be 10%.

3.66 By way of illustration, a 10% uplift on the 862 dpa 'starting point' would equal

[37] ID 2a-020-20140306
[38] Examination of the Uttlesford Local Plan, Inspector's Conclusion, 22 December 2014
[39] Eastleigh Borough Local Plan Inspector's Report February 2015 (Paragraphs 39, 40 and 41) http://www.eastleigh.gov.uk/pdf/ppi_Inspectorsreport12Feb15.pdf

total housing needs of **948 dpa**.

Economic and Employment Trends

3.67 With regards to considering the need to uplift a housing figure to take account of the economic potential of the local authority, the Framework sets out the following.

"The Government is committed to ensuring that the planning system does everything it can to support sustainable economic growth. Planning should operate to encourage and not act as an impediment to sustainable growth. Therefore significant weight should be placed on the need to support economic growth through the planning system." [§19] (NLP emphasis)

3.68 The Practice Guidance requires that assessments of likely job growth are made, looking at past trends in job growth and/or economic forecasts, whilst also considering the growth in working age population[40]. The potential job growth should be considered in the context of potential unsustainable commuting patterns and as such plan-makers should consider how the location of new housing could help address this[40].

3.69 Although there are a complex set of issues involved in matching labour markets (with different occupational groups having a greater or lesser propensity to travel to work), there are some simple metrics which can explore the basis alignment of employment, demographic and housing change, notably the amount of housing needed to sustain a labour force, assuming certain characteristics of commuting and employment levels.

3.70 Ensuring a sufficient supply of homes within east access of employment represents a central facet of any efficiently functioning economy and can help to minimise housing 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.

3.71 To model this demographically, the PopGroup model constrains or inflates migration to a level (reflecting the age profile of migrants specific to each district) which, alongside natural change, produces a labour force sufficient to support the given level of employment, taking account of projected economic activity rates, unemployment and commuting patterns.

Job Growth

3.72 The Practice Guidance indicates that when considering economic factors in terms of housing needs, that:

"Plan makers should make an assessment of the likely changes in job numbers based on past trends and/or economic forecasts as appropriate, and also having regards to the growth of the working age population…"

[40] ID 2a-018-20140306

3.73 In this context, NLP has modelled job stabilisation and past growth trends in Warrington, and has obtained the latest Experian job forecasts for the Borough.

3.74 In all of the modelled scenarios, the number of additional jobs in 2012/13 and 2013/14 is constrained to what actually occurred in those years (according to each forecast). The annual change/forecast figures are then applied from 2014/2015 onwards.

Scenario C: Experian Job Forecasts

3.75 The June 2015 Experian projections (obtained to be directly comparable with the June 2015 Oxford Economics projections used in the 2016 SHMA) were modelled by NLP in PopGroup. This suggested that Warrington Borough would grow by 20,460 between 2014 and 2035, at an average rate of 974 annually. Projected on a pro-rata basis to 2037 this would indicate an overall level of job growth equal to 22,409. This is very similar to the 22,613 employment increase projected by Oxford Economics over the same time period, and which was used to define the 839 dpa housing OAN identified in the 2016 SHMA for Warrington Borough.

3.76 To support this level of job growth, NLP's PopGroup model indicates that Warrington's population would need to increase by 46,636. This would equate to an overall household growth of 25,538 and a housing need of 26,382 dwellings, equivalent to 1,147 dpa.

Table 3.17 Model Outputs - Scenario C: Experian Job Growth

	Warrington
Population Change	+46,636
of which natural change	+14,113
of which net migration	+32,523
Households	+25,538
Dwellings	+26,382
Dwellings p.a.	**+1,147**
Jobs	+22,409
Jobs p.a.	+974

Source: NLP using PopGroup

Scenario D: Job Stabilisation

3.77 This scenario projects the number of dwellings needed in Warrington to sustain the current level of jobs in the area (i.e. job growth over the plan period 2014-2037 would be neutral). As shown in Table 3.18, the population would increase by just 15,685, with a household growth of 13,045 and a housing need of 13,477 dwellings (583 dpa). As this is below all of the demographic scenarios and would effectively result in the Borough's vibrant economy stagnating, it is not suggested that this scenario be taken any further forward.

Table 3.18 Model Outputs - Scenario D: Job Stabilisation

	Warrington
Population Change	+15,685
of which natural change	+4,885
of which net migration	+10,800
Households	+13,045
Dwellings	+13,477
Dwellings p.a.	**+586**
Jobs	0
Jobs p.a.	0

Source: NLP Using PopGroup

Scenario E: Past Trends Job Growth

3.78 Warrington has seen very strong rates of economic growth in recent years, with annual job growth of 1,386 achieved between 1997 and 2014, even allowing for the recession and subsequent economic downturn. Were historic trends of job growth to continue, this would sustain population growth of 59,178, of which 42,786 would be through net in-migration. The housing need generated by this scenario is 31,441, equating to 1,367 dpa (Table 3.19).

Table 3.19 Model Outputs - Scenario E: Past Trends Job Growth

	Warrington
Population Change	+59,178
of which natural change	+16,392
of which net migration	+42,786
Households	+30,435
Dwellings	+31,441
Dwellings p.a.	**+1,367**
Jobs	+31,875
Jobs p.a.	+1,386

Source: NLP using PopGroup

Economic Summary

3.79 The housing outcomes under each of these economic scenarios indicate a need for between 586 dpa (Scenario D, Job Stabilisation) and 1,367 dpa (Scenario E, Past Trends Job Growth), with the Experian projections sitting in between (1,147 dpa). Whilst the 586 dpa figure is clearly untenable given that this would result in a figure significantly below the demographic baseline and would not see Warrington's economy grow to anywhere near its potential, the Experian job growth figure is comparable with the OE projection used to inform the 2016 SHMA housing OAN, although the different approach taken to economic activity rates amongst other inputs in the modelling would result in a higher dwelling need under NLP's scenario.

Affordable Housing Needs

3.80 The Practice Guidance states that, with regard to taking into account affordable housing needs:

"The total affordable housing need should then be considered in the context of its likely delivery as a proportion of mixed market and affordable housing developments, given the probable percentage of affordable housing to be delivered by market housing led developments. 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."[41]

3.81 As noted above, the inclusion of affordable housing needs in OAHN calculations is particularly prescient in this instance, given that it was the subject of the recent (19th February 2015) High Court Decision between Satnam Millennium Ltd vs Warrington Borough Council[42] which set out the requirements of an OAHN to cater for affordable housing needs in its calculation. The decision found that the adopted OAHN figure proposed in Warrington's Local Plan was not in compliance with policy because "*the assessed need was never expressed or included as part of the OAN.*" [§43]

3.82 The decision found that the "proper exercise" had not been undertaken, namely:

"(a) having identified the OAN for affordable housing, that should then be considered in the context of its likely delivery as a proportion of mixed market/affordable housing development; 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;

(b) the Local Plan should then meet the OAN for affordable housing, subject only to the constraints referred to in NPPF, paragraphs 14 and 47." [43]

3.83 As such, the below calculations of affordable housing need must be considered in the conclusions of objectively assessed housing need.

3.84 As noted in Section 2.0, the 2016 SHMA identifies a need for 220 affordable dwellings per annum in Warrington Borough over the period 2014-2037. Whilst NLP has some reservations concerning this figure, for the purposes of this assessment we have used this to calculate whether an uplift to eh overall OAN would be justified.

3.85 Policy SN2 of the WLPCS seeks to significantly boost the supply of affordable housing by ensuring that all developments which incorporate open market housing and with a capacity of 5 or more dwellings make provision for affordable housing. This is on the basis of 20% for brownfield sites with between 5 and 14 dwellings, or sites of 15 or more dwellings within Inner Warrington; and 30% for sites with 15 or more dwellings everywhere else in the

[41] ID 2a-029-20140306
[42] 2015] EWHC 370 (Admin) Case No: CO/4055/2014 http://www.bailii.org/ew/cases/EWHC/Admin/2015/370.html

Borough.

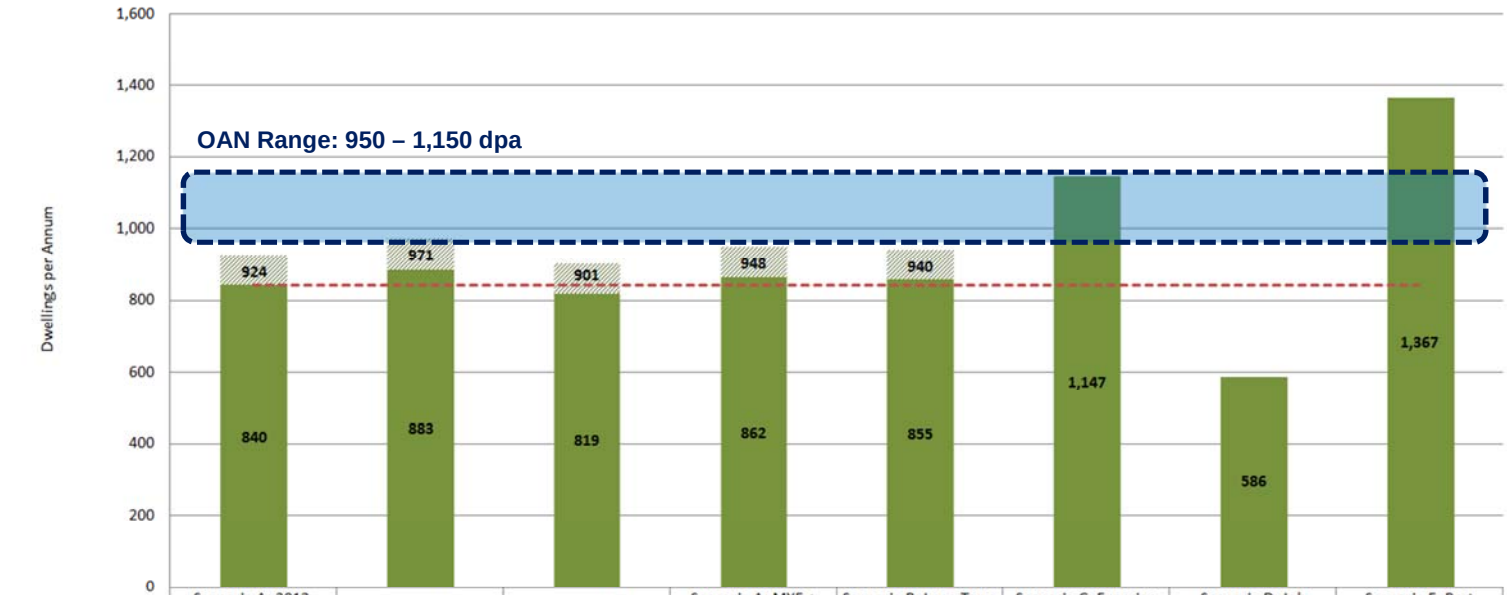
3.86 Taking a mid-point in this range - 25% - would suggest that in order to deliver 220 affordable dwellings annually, at least **880 dpa** would need to be provided overall.

3.87 This figure is below the suggested demographic starting point (adjusted for market signals), of 948 dpa; and also below both the Experian Job Growth Scenario C (1,147 dpa) and also the Past Trends Job Growth Scenario E (1,367 dpa). On this basis, a further uplift to the OAN to fully address affordable housing needs would be unnecessary in this instance.

Full Objectively Assessed Needs

3.88 As previously discussed, it is considered that Warrington represents a self-contained HMA and should meet its own needs within its own boundaries. Figure 3.6 summarises the various housing need scenarios for Warrington Borough.

Figure 3.6 Warrington Housing Need Scenarios



	Scenario A: 2012-SNPP Baseline	Scenario Ai: PCU	Scenario Aii: MYE	Scenario A: MYE + PCU	Scenario B: Long Term Migration	Scenario C: Experian JoB growth	Scenario D: Job Stabilisation	Scenario E: Past Trends Job Growth
Uplift	84	88	82	86	85			
Warrington	840	883	819	862	855	1,147	586	1,367
2016 SHMA OAN	840	840	840	840	840	840	840	840

Source: NLP Using PopGroup

3.89 On the above basis, and in light of the clear need (as set out in the Practice Guidance) for an uplift above the demographic baseline to account for market signals and economic growth, there is no basis for considering objectively assessed needs within the Borough would be as low as the 840 dpa recommended in the 2016 SHMA.

3.90 However, the scale of objectively assessed need is a judgement and various considerations are necessary before a final housing OAN range is arrived at.

NLP considers these to be as follows:

1 840 dpa equates to the 2012-based household projections (Scenario A), falling to 819 dpa incorporating the 2013 and 2014 MYEs. This rises to **862 dpa** with necessary adjustments being made to headship rates in the younger age categories and also incorporating the 2014 MYE (Scenario Aiii). This is considered to represent the adjusted demographic starting point for identifying housing OAN in Warrington Borough;

2 Given the evidence concerning worsening market signals in Warrington Borough, it is considered that the SHMA's very modest upwards adjustment, of 2.5% is insufficient and a more realistic (although still relatively modest) uplift in the order of **10%** would be required. This would increase the demographic-led OAN up to **948 dpa**;

3 **1,147 dpa** represents the level of housing growth necessary to provide a sufficiently large labour force to support the Experian job growth forecasts for the Borough, assuming the commuting rates remain constant. The level of job growth under this scenario is very similar to the level contained within the OE projections used by GL Hearn to inform their housing OAN;

4 Warrington Borough has experienced very high levels of job growth over the past few years. Were this level of growth to continue, this would require an even higher dwelling need, of up to **1,367 dpa**;

5 This would suggest an employment-led range of housing needs would equate to between **1,147 dpa and 1,367 dpa**;

6 The scale of affordable housing needs (based on GL Hearn's identified affordable housing OAN), once considered as a proportion of market housing delivery, would not require an uplift to the estimates of total need even at the bottom end of the range;

7 On balance, NLP considers that a suitable housing OAN range for Warrington Borough would be in the order of **950 dpa – 1,150 dpa** (rounded), with greater weight to be attached to the higher end of the range in order to align with the Borough's stated job growth objectives and the approach taken in the 2016 Mid-Mersey SHMA.

4.0 # Housing Land Supply

Introduction

4.1 The Framework[43] stresses the Government's intention to significantly boost the supply of housing. As a consequence, the focus of national policy is to ensure the delivery of housing and in that context the Framework advises that only deliverable sites should be included within the 5-year supply. To be considered deliverable:

"…sites should be available now, offer a suitable location for development now, and be achievable with a realistic prospect that housing will be delivered on the site within five years and in particular that development of the site is viable. Sites with planning permission should be considered deliverable until permission expires, unless there is clear evidence that schemes will not be implemented within five years, for example they will not be viable, there is no longer a demand for the type of units or sites have long term phasing plans." [Footnote 11]

4.2 The Practice Guidance[44] provides further clarification and notes that deliverable sites for housing could include those that are allocated for housing in the development plan and sites with planning permission (outline or full that have yet to be implemented) unless there is clear evidence that schemes will not be implemented within 5-years. It goes on to state that:

"…planning permission or allocation in a development plan is not a prerequisite for a site being deliverable in terms of the five-year supply. Local planning authorities will need to provide robust, up to date evidence to support the deliverability of sites, ensuring that their judgements on deliverability are clearly and transparently set out. If there are no significant constraints (e.g. infrastructure) to overcome such as infrastructure sites not allocated within a development plan or without planning permission can be considered capable of being delivered within a five-year timeframe."[45]

4.3 Therefore, when assessing a 5-year housing land supply position, it is important to be cautious in relation to the likelihood of sites delivering, and the scale of that delivery. This is because the purpose of the assessment is to provide a realistic view of whether there is sufficient land available to meet the community's need for housing.

4.4 The Council's evidence on this matter is set out in the Warrington SHLAA and the Mid Mersey SHMA (both published in January 2016).

4.5 This Section sets out an initial review of the robustness of the Council's assessment of its deliverable housing land supply, and considers the extent to which a 5-year forward supply of housing land can be readily identified.

[43]Framework - §47 - §49 and Footnotes 11 & 12
[44]ID:3-031-20140306
[45]3-031-20140306

5-Year Land Requirement

4.6 Warrington Borough Council's most recently published housing land supply position is set out in its latest SHLAA (January 2016).

4.7 The SHLAA has not produced a straightforward summary of how it calculated its five year housing land supply position (as it did in recent Annual Monitoring Reports, notably in 2014). Nevertheless, and without specifying the number of years supply it considers to be deliverable in the Borough, it concludes that:

"Through undertaking this work it is becoming increasingly apparent that the Council is not currently able to identify sufficient land to meet its likely housing need in accordance with the requirements of the National Planning Policy Framework. This means that the Council will need to undertake a more fundamental review of the Plan than envisaged in the current LDS (April 2015) with further work required to enable the Council to assess the options for and implications of meeting its housing need in full[46]*."* [§4.2]

4.8 In the absence of clarity from the Council the remainder of this Section seeks to set out the various components of the 5-year land supply calculation as set out in the SHLAA; whether NLP considers these to be appropriate in the light of the Framework and Practice Guidance and their interpretation in recent appeal decisions; and what a reasonable position may be regarding Warrington's actual five year land supply position.

Step 1: Appropriate Housing Requirement

4.9 The calculation of a 5-year housing land supply requirement must be compliant with the Framework:

"Identify and update annually a supply of specific deliverable sites sufficient to provide five years' worth of housing against their housing requirements with an additional buffer of 5% (moved forward from later in the plan period) to ensure choice and competition in the market for land. Where there has been a record of persistent under delivery of housing, local planning authorities should increase the buffer to 20% (moved forward from later in the plan period) to provide a realistic prospect of achieving the planned supply and to ensure choice and competition in the market for land." [§47]

Housing Requirement Figure

4.10 The precise housing requirement figure used by WBC in calculating the 5-year housing land supply in its 2016 SHLAA is not specified; however, paragraphs 4.1 and 4.2 of that document refer to the fact that in light of the housing OAN established in the 2016 Mid-Mersey SHMA, the Council cannot identify sufficient land to meet its likely housing need in full.

[46] Warrington Borough Council (January 2016): Strategic Housing Land Assessment

4.11 Paragraph 11.40 of the 2016 SHMA states that the OAN for Warrington Borough over the period 2014-2037 is **839 dpa** (based on the Economic Scenario). It is therefore presumed that this is the figure that WBC has assessed its 5-year housing land supply against.

4.12 Whilst it is recognised that the SHMA's 839 dpa figure has not been independently tested, clearly the 500 dpa figure that formerly underpinned Policy CS2 the Borough's WLPCS has now been quashed following the February 2015 High Court[47] judgement, hence it is entirely right that the Council has tested its supply against a higher OAN figure.

4.13 However, as set out in Section 3.0, NLP has some concerns regarding the robustness of the 839 dpa figure in the SHMA. Based on similar assumptions concerning employment growth, our modelling suggests that an appropriate OAN range would be in the order of **950 dpa – 1,150 dpa**, with greater weight to be attached to the employment-led projection informing the top end of that range.

4.14 Again, as noted earlier, in the recent West Berkshire High Court Judgment[48], an Inspector is entitled to find that a developer's evidence for an Inquiry, in identifying a more appropriate figure for the OAN, can amount to "*significant new evidence*" to justify a departure from the figure in the Core Strategy/Local Plan [§41].

4.15 This being the case, NLP has modelled three scenarios – the 2016 SHMA's OAN of 839 dpa, and our own OAN range of 950 dpa and 1,150 dpa – to set against Warrington Borough's five year land supply.

5% or 20% Buffer

4.16 The Practice Guidance states that:

'*the assessment of a local delivery record is likely to be more robust if a longer term view is taken, since this is likely to take account of the peaks and troughs of the housing market cycle*'[49].

4.17 WBC's 2016 SHLAA has provided completions data for the period 2009/10 to 2014/15, as set out in Table 4.1. This indicates that Warrington has delivered 3,542 dwellings over the past 6 years, at a rate of 590 dpa.

[47] [2015] EWHC 370 (Admin)
[48] West Berkshire District Council versus SOS CLG and HDD Burghfield Common Ltd, Citation Number: [2016]EWHC 267 (Admin)
[49] ID: 03-035-20140306

Table 4.1 Warrington Housing Completions 2009/10 - 2014/15

Year	Net Housing Completions
2009/10	388
2010/11	527
2011/12	600
2012/13	647
2013/14	693
2014/15	687
TOTAL	**3,542 (590 dpa)**

Source: WBC 2016 SHLAA, Table 3.8

4.18 WBC has not attempted to test whether there is an historical case of undersupply to consider in the land supply calculation. However, given the level of delivery, NLP does not take the view on this occasion that there is an historical case of undersupply to consider in Warrington. Therefore NLP are of the view that the application of a **5% buffer** is appropriate.

Backlog (past undersupply)

4.19 The Practice Guidance sets out that the relevant test for considering backlog within a five year land supply assessment is whether the rate of development shows that actual supply fell below planned supply. Planned supply, in this context, will have been the relevant adopted housing requirement for the period against which past supply is being assessed.

4.20 The cumulative completions show that the Council has over-delivered when set against the North West Regional Spatial Strategy target of 380 dpa (2003-2021) and the WLPCS requirement of 500 dpa. However, both figures are now respectively out of date and/or quashed. The 2016 SHMA has identified a new housing OAN that relates specifically to the time period 2014-2037. In this instance therefore, it is considered that only backlog against the housing OAN for 2014/15 should be taken into account. A total of **687 dwellings** were delivered for that year.

4.21 Depending upon whether the Council's OAN figure of 839 dpa is used, or whether NLP's range of 950 dpa to 1,150 dpa is applied, **the backlog for this one year would be between 152 to 463 dwellings.**

Step 2: Components of Supply

4.22 The Framework states the following in respect of what constitutes a 'specific deliverable site' (i.e. a site that can be delivered within five years):

"To be considered deliverable, sites should be available now, offer a suitable location for development now, and be achievable with a realistic prospect that housing will be delivered on the site within five years and in particular that development of the site is viable. Sites with planning permission should be considered deliverable until permission expires, unless there is clear evidence that schemes will not be implemented within five years, for example they will not be viable, there is no longer a demand for the type of units or sites have

long term phasing plans." [Footnote 11]

4.23 In this regard, WBC has set out three components of housing land supply which it considers will come forward over the next five years. This comprises 'Sites with Planning Permission'; 'Sites without Planning Permission'; and 'Windfall Sites'. The Council considers that from these sources, a supply of 3,340 dwellings could be delivered over the next 5-years (Table 4.2).

Table 4.2 Five Year Housing Supply

Components of Supply (2014-2019)	LPA
Sites with Planning Permission	2,064
Sites without Planning Permission	956
Windfalls	320
Total	**3,340**

Source: Warrington Borough Council SHLAA 2016

4.24 The delivery rate of these sites for the individual years is summarised in Table 4.3.

Table 4.3 HLS – Deliverable Housing Land Supply

	No of Sites	2015/16	2016/17	2017/18	2018/19	2019/20	Total
PDL	130	351	455	640	571	342	**2,359**
PDL/GF	1	0	0	8	0	0	**8**
GF	49	43	42	145	196	227	**653**
Total	**180**	**396**	**497**	**793**	**767**	**569**	**3,340**

Source: Warrington Borough Council SHLAA 2016

Sites with Planning Permission

4.25 It is now a standard approach[50] that sites with planning permission should be included in the supply (unless there is a good reason to exclude them) whereas sites without planning permission should be excluded (unless there is a good reason to include them). This interpretation is entirely logical as the absence of a planning permission is a clear impediment to development, which is contrary to the test that land should be available now.

4.26 NLP has not undertaken a detailed inspection of the Council's identified five year housing land supply, but has briefly assessed the site pro-formas which are included in Appendix 1 of the 2016 SHLAA.

4.27 Of the 537 sites assessed, 145 were considered deliverable and had a valid planning permission as of 1st April 2015. These are deemed capable of delivering 2,064 dwellings over the next five years, as set out in Table 4.4.

[50] 3-031-20140306

Table 4.4 HLS - Sites with Planning Permission

	No of Sites	2015/16	2016/17	2017/18	2018/19	2019/20	Total
PDL	107	351	455	421	256	147	**1,630**
PDL/GF	0	0	0	0	0	0	**0**
GF	38	43	42	70	112	167	**434**
Total	**145**	**394**	**497**	**491**	**368**	**314**	**2,064**

Source: Warrington Borough Council 2016 SHLAA

Sites without Planning Permission

4.28 Of the 537 sites assessed, the Council anticipate that 956 dwellings can be delivered on 35 sites without planning permission during the period 2015 - 2020.

Table 4.5 HLS - Sites without Planning Permission

	No of Sites	2015/16	2016/17	2017/18	2018/19	2019/20	Total
PDL	23	0	0	219	315	195	729
PDL/GF	1	0	0	8	0	0	8
GF	11	0	0	75	84	60	219
Total	**35**	**0**	**0**	**302**	**399**	**255**	**956**

Source: Warrington Borough Council SHLAA

4.29 In making their assessment of likely supply of sites without planning permission, the Council has given regard to the following significant sites, which they anticipate to be capable of delivering 770 dwellings during the period 2015 to 2020.

Table 4.6 Key Achievable Sites without Planning Permission

Site	SHLAA Ref	Area (Ha)	Total Capacity	5 Year Supply Capacity
Peel Hall	1,506	59.5	1,480	150
Land at Pewterspear Green	1,650	7.5	185	132
Lingley Mere	2,134	5.7	200	150
Omega	2,135	75	972	338
Total		**147.7**	**2,837**	**770**

Source: Warrington Borough Council SHLAA

4.30 Whilst it may not have a direct impact on the projected five year housing land availability assessment, NLP would like to note that the total capacity of the site at Peel Hall is now unlikely to exceed 1,200, and not the 1,480 stated by the Council. A similar point would also apply to other strategic sites, such as the HCA-owned site at Pewterspear Green, off Henbury Gardens (SHLAA ref: 1650) which we understand is also likely to deliver fewer dwellings over the next five years than has been suggested in the SHLAA. NLP are therefore of the opinion that the identified capacity for sites without planning consent should be viewed with a degree of caution.

Build Rates

4.31 The SHLAA methodology applies a variety of build rates across the different site sizes identified. Where up-to-date information regarding build rates has been provided by developers and/or landowners, this has been utilised.

4.32 Where this has not been available the build rates published in Table 2.2 of the SHLAA have been employed, namely:

a **Sites with fewer than 50 dwellings:** 20 dwellings built per annum;

b **Sites containing 50 – 150 dwellings:** 35 dwellings built per annum;

c **Sites with more than 150 dwellings:** 55 dwellings built per annum.

4.33 We welcome the use of individual site circumstances where possible to provide the most accurate assessment of delivery. We also consider that the application of standard rates is acceptable in principle.

4.34 However, we disagree with some of the assumptions applied to derive the standard delivery rates. The Council has assumed a standard delivery rate of 20 dpa on all sites less than 50. We consider that a delivery rate of 20 dpa on site of less than 50 is ambitious and should be reduced downwards in order to reflect the nature of the companies that deliver this size of site and the consequently low delivery rates.

4.35 A standard build rate of 15 dpa for sites between 30-50 units is considered a more reasonable average for sites of this size. We would also advocate creating a separate category for smaller sites of less than 30 units as the delivery on these sites is likely to be slower given the capacity of the smaller developers which usually pursue these sites.

4.36 It is highly unlikely that a site of 20 units would be built out in a single year by a small developer.

4.37 Warrington Council advocate using a standard build rate of 35 dpa for sites with a capacity of between 50 and 150 units. Again, it is considered that 35dpa for this range is not appropriate and we would advocate that two alternative ranges are adopted.

4.38 Sites should be categorised into sites with capacity for 51-100 units and 101-250 units. From our experience, the standard build rate applied to sites with a capacity of 51-100 units should be 25 dpa. For sites between 101-250 units in size, the build rate should be 30-35 dpa. This is because sites of 51-100 units are built out at a slightly slower rate than larger sites and it is important for the Council to adopt a conservative approach to ensure their delivery trajectory is not over inflated.

4.39 Furthermore, most sites with a capacity of less than 250 units are build out by one developer and it is accepted that the HBF usually suggest that 0.5-0.8 dwellings per week (25 dpa-42 dpa) approximates to a reasonable delivery rate (per outlet). As such, a standard delivery rate of 30/35 dpa on such sites is conservative and appropriate.

4.40 Following on from this, WBC should revise their upper site size limit from 150 to 250 units. It is considered more likely that sites of 250+ units could be built out by a number of developers/outlets but should be assessed on a site-by-site basis. The Council assumes a delivery of 55 dpa on sites over 150 units but we consider this to be excessive as a standardised rule of thumb. In general,

on sites between 150 and 250 units there will be a single developer and delivery is unlikely to reach 55 dpa. On sites over 250 units, delivery of 55 dpa should only be considered appropriate where there are at least 2 developers (or outlets).

Lead in Times

4.41 With regard to lead in times, the 2016 SHLAA assumes that sites below 150 units with full planning permission will start delivering units after 1.5 years; sites with outline permission after 2 years; and sites without permission after 2.5 years. Larger sites with outline permission are projected to start delivering units after 3 years; and those without permission, after 4 years.

4.42 It is considered that the lead in times as proposed would be appropriate for all sites of less than 50 units. However, we would advocate that an additional 6 months is added to each category for all larger sites between 50 and 150 and the table in the SHLAA should be amended in line with Table 4.7.

Table 4.7 Recommended Site Lead in Times

Site Status				
Site Size	**Under Construction**	**Full Permission / Reserved Matters**	**Outline Permission**	**Sites without Permission**
Less than 50	None	1.5 years	2 years	2.5 years
50 - 150	None	2 years	2.5 years	3 years

4.43 It is considered that on larger sites over 50 units there are generally more complex issues to overcome which cause delays. For example, delays in the planning process (e.g. the approval of reserved matters and discharges of planning conditions) as well as the time taken to implement development (e.g. marketing land and completing land purchase; preparing detailed design for infrastructure; mobilising statutory utilities; and, commencing development) are particularly prevalent on larger sites. As such, a 'one size fits all' approach is inappropriate and there should be a differentiation between site sizes to make allowances for larger sites which come forward at a slower pace.

4.44 The lead in time proposed for larger sites is not reliable; does not accurately reflect the time take for the majority of sites to start delivering; and is consequently not appropriate for use as a standard average for calculating deliverable supply.

4.45 We also express a degree of caution in relation to applying a standard lead in time for all sites without planning permission. The Framework [Footnote 11] is clear that to be considered deliverable, sites should be available now, offer a suitable location for development now, and be achievable with a realistic prospect that housing will be delivered on the site within five years and in particular that development of the site is viable. In addition, the Planning Practice Guidance[51] notes that allocation in a development plan is not a prerequisite for a site being deliverable in terms of the five year supply.

[51] ID: 03-031-20140306

4.46 Clear evidence is therefore required to justify the inclusion of sites without permission in the five year supply, including a demonstration that the site is viable and a commitment from a developer that the site can be brought forward within five years.

4.47 The timescales for a site coming forward are very dependent on a number of factors such as the developer's commitment to the site and infrastructure requirements as an example. The standard lead in times should only be applied to sites where developers are actively pursuing development on the site and preparing the necessary planning application. The standard lead in time should not be applied universally and a degree of pragmatism and realism should be applied. Sites where developers have shown limited commitment should be pushed back in the delivery trajectory accordingly.

Windfall Allowance

4.48 Paragraph 48 of the Framework sets out the following with regards to windfall:

"LPAs may make an allowance for windfall sites in the five-year supply if they have compelling evidence that such sites have consistently become available in the local area and will continue to provide a reliable source of supply. Any allowance should be realistic having regard to the Strategic Housing Land Availability Assessment, historic windfall delivery rates and expected future trends, and should not include residential gardens".

4.49 The windfalls figure has been applied in the calculation as set out in the 2016 SHLAA as follows:

"In terms of deriving an allowance from the analysis to employ future projections, the average across the 2009/10 to 2014/15 monitoring periods has been derived and employed. This equates to a forward windfall allowance of 64 dpa to be added to the deliverable supply". [§3.24]

Table 4.8 Summary of Annual Windfall Sites

Year	No of Units
2009/2010	18
2010/2011	53
2011/2012	27
2012/2013	65
2013/2014	83
2014/2015	139
Total	**385**
Annual Average	**64**

Source: Warrington Borough Council 2016 SHLAA Appendix 7

4.50 With regards to the application of the windfalls figure in the calculation, windfalls are ultimately future small site planning permissions. The Council has included the windfall figure in all five years of its five year supply calculation.

4.51 On balance NLP considers that the inclusion of a windfall allowance in this instance is acceptable for the latter three years of the calculation. However for

the first two years it is not unreasonable to assume that the Council would already have identified the vast majority of sites likely come forward, given that it has made an allowance for small sites with/without planning permission in years 1 and 2.

4.52 As these are unlikely to be completely unforeseen, it is recommended that for the first two years the windfall allowance should be zero, rather than the 64 dpa allowance made in the SHLAA 2016. This would still allow for a windfall provision of 192 dwellings in the latter three years of the assessment period.

Lapse Rates

4.53 From an assessment of the SHLAA it does not appear to make any kind of allowance for lapse rates in the Council's calculation of housing supply in Warrington over the next five years. The inclusion of a lapse rate for planning permissions which have been approved in the context of the requirements of the Framework has been established in the High Court judgment between Cotswold District Council and the SOS for CLG. The judgment sets out that the inclusion of a lapse rate is reasonable.

"Secondly, the inspector did not err in her interpretation and application of footnote 11 to paragraph 47 of the Framework. That deals with whether there is a supply of specific deliverable sites sufficient to provide five years housing. The footnote says that sites with planning permission should be considered deliverable until permission expires unless there is clear evidence that schemes will not implemented. The inspector specifically referred to footnote 11. She noted that the Council had agreed that planning permissions would lapse before implementation in relation to small sites at a rate of 15 a year based on Council records. The inspector inferred that a lapse rate would apply in relation to large sites too. In the absence of other evidence, she concluded that the application of a 10% lapse rate was reasonable. That was essentially a matter for judgment of the inspector (whose reasoning the Secretary of State adopted). She directed herself to the terms of the footnote. She had evidence about the lapse rate for certain sites and drew reasonable conclusions from that evidence and the problems that arise in relation to construction and funding." [§71] NLP emphasis

4.54 As set out above, NLP considers that a lapse rate percentage should be included as part of the supply calculation. This could be utilised more effectively should there be a step change in the number of planning permissions approved from one year to the next.

4.55 A lapse rate should ideally be calculated by following specific planning applications through to their expiry date, whereby any applications which are allowed to expire become part of the lapse rate.

4.56 NLP suggest that in the case of Warrington Borough, and in line with the Judgement quoted above, a 10% lapse rate for the deliverable sites with planning permission would be reasonable. However, as there is a greater risk that sites without planning permission will not come forward as planned, a

higher discount should be applied, and that in this instance a figure of 15% would be appropriate to apply. This would reduce the deliverable supply as follows:

- Deliverable sites with planning permission: 2,064 units, discounted by 10% = 1,858 dwellings;
- Deliverable sites without planning permission: 956 units, discounted by 15% = 813 dwellings.

Conclusions

4.57 Based upon the analysis in Section 4.0, Table 4.9 provides a summary comparison of Warrington's presumed five year housing land supply against NLP's version, which amends the housing OAN position, introduces a lapse rate and discounts the first two-years' windfall supply only.

4.58 This calculation should not be interpreted as an acceptance on NLP's part that we agree with the Council's assumptions concerning the deliverability of their forward supply. We have not undertaken a detailed analysis of deliverability and reserve the right to do so at a later stage in the process.

4.59 Furthermore, and as stated above, we also disagree with many of the SHLAA's assumptions concerning build rates and lead in times, and we would again reserve the right to revisit this assessment at a later date when further information has become available.

4.60 With these caveats in mind, Table 4.9 indicates that based on the Council's approach and their data assumptions, they would appear to have a 3.7 year forward supply of sites. This under-supply of deliverable sites against the SHMA's OAN is tacitly accepted in the SHLAA in paragraph 4.2.

4.61 Applying NLP's higher OAN, incorporating a lapse rate and discounting two-years' worth of windfall allowance, would reduce this 5-year supply of housing land supply still further, to between 2.2 and 2.7 years depending upon the scale of housing need identified.

4.62 As such, NLP considers that even under the most optimistic assumptions, and using the lowest housing OAN, Warrington Borough Council cannot demonstrate a defensible five year housing land supply position at the current time.

Table 4.9 5-Year Land Supply Scenario Outcomes

Five Year Supply of Deliverable Housing Land	Council (assumed) five year housing land supply position	NLP stated five year housing land supply position	
		@950 dpa OAN	@1,150 dpa OAN
Total Housing Requirement (OAHN = 2015/16 – 2019/20)	5 x 839 dpa = 4,195	4,750	5,750
Shortfall (2014/15 = 687 dwellings delivered)	152	263	463
5% buffer (to requirement and backlog)	217	251	311
Housing Supply Required 2015/16 – 2019/20	**4,564**	**5,264**	**6,524**
Sites with Planning Permission	2,064	1,858	
Sites without Planning Permission	956	813	
Supply based on windfall allowance	320	192	
Deliverable Supply	**3,340**	**2,863**	
Surplus of Deliverable supply (O) over supply required (G)	**-1,224**	**-2,401**	**3,661**
Number of Years Supply (expressed as Years of Residual Requirement)	**3.66**	**2.72**	**2.19**

Source: NLP analysis

5.0 Conclusion

5.1 This report has critiqued the approach taken in identifying the objective assessment of housing need for Warrington in the Mid-Mersey 2016 SHMA and provided a new analysis using alternative assumptions and data inputs. NLP has utilised a range of scenarios (as well as market signals analysis) to conclude on an objective assessment of need in compliance with the Framework and Practice Guidance.

5.2 NLP has also analysed the Council's housing land supply evidence contained within the 2016 SHLAA. Whilst recognising that they cannot demonstrate a 5-year land supply, the Council has neglected to specify the precise level of under-supply. NLP has sought to rectify this by providing an estimate of the number of years of deliverable housing supply available in Warrington, applying the Council's methodology and also our own.

5.3 In summary:

1 Warrington clearly functions as a standalone HMA and should look to meet its full housing need within its own local authority boundaries;

2 The SHMA's modelling has over-estimated the likely impact of the 2014 MYE and made an unjustifiable UPC adjustment to the modelling. Both measures artificially suppress the housing need identified;

3 The SHMA conflates that supply-side market signals adjustment with demand-side adjustments to household formation rates which are distinct steps in the Practice Guidance;

4 NLP considers that a 10% rather than 2.5% market signals uplift applied in the 2016 SHMA would be more appropriate in the Warrington context;

5 The application of unrealistic economic activity growth rates over-estimates the extent to which the local economy can sustain high levels of job growth without higher levels of net in-migration;

6 NLP considers that a suitable housing OAN range for Warrington Borough would be in the order of **950 dpa – 1,150 dpa**, with greater weight to be attached to the higher end of the range in order to align with the Borough's stated job growth objectives;

7 Based on WBC's approach and its data assumptions in the SHLAA, Warrington Borough has a 3.7 year forward supply of sites. That the Borough cannot demonstrate a 5-year housing land supply is recognised by WBC in the SHLAA;

8 Applying NLP's higher OAN, incorporating a lapse rate and discounting two-years' worth of windfall allowance, would reduce this 5-year housing land supply still further, to between 2.2 and 2.7 years depending upon the scale of housing need identified.

Appendix 1 Inputs and Assumptions

Baseline Demographic Scenarios	Scenario A: 2012-based SNPP	Scenario B: Long Term Migration Trends
Population		
Baseline Population	A 2012 baseline population is taken from the 2012-based SNPP. This population is split by single year of age and gender.	
Births	The number of projected births in Warrington from the ONS 2012-based SNPP is used.	Fertility Rates derived from the 2012-based SNPP for Warrington are used.
Deaths	The number of projected deaths in Warrington from the ONS 2012-based SNPP is used.	Standardised Mortality Ratios derived from the 2012-based SNPP for Warrington area used.
Internal Migration	Gross domestic in and out migration flows are adopted based on forecast migration for Warrington from the ONS 2012-based SNPP are used.	Migration flows for 2012/13 and 2013/14 are taken from the Mid-Year Estimates for Warrington. Thereafter, a ten year average for 2004/05 to 2013/14 is used.
International Migration	As above but for international flows	
Propensity to Migrate (Age Specific Migration Rates)	Age Specific Migration Rates (ASMigR) for both in and out domestic migration are based upon the age profile of migrants to and from Warrington in the 2012-based SNPP. These identify a migration rate for each age cohort (for both in and out flows separately) which is applied to each individual age providing an Age Specific Migration Rate. This then drives the demographic profile of those people moving into and out of the Borough (but not the total numbers of migrants).	

Demographic Sensitivities	Scenario Ai: 2012-based SNPP, with Partial Catch-up Headship Rates	Scenario Aii: 2012-based SNPP re-based to 2014	Scenario Aii: 2012-based SNPP, with Partial Catch-up Headship Rates re-based to 2014
Population			
Baseline Population	A 2014 baseline population is taken from the 2012-based SNPP. This population is split by single year of age and gender. At 2013 and 2014 the total population is constrained to the Mid-Year Estimates for Aii and Aiii.		
Births	The total number of births in Warrington for 2012/13 and 2013/14 is entered. For 2014/15 onwards the fertility rate from the 2012-based SNPP for Warrington is used.		
Deaths	The number of deaths in Warrington for 2012/13 and 2013/14 is used. For 2014/15 onwards the standardised mortality ratio from the 2012-based SNPP for Warrington is used.		
Internal Migration	The migration figures for 2012/13 and 2013/14 are used. For 2014/15 onwards, the projected levels of migration are taken from the 2012-based SNPP.	The migration figures for 2012/13 and 2013/14 are entered. For 2014/15 onwards, the projected levels of migration from the 2012-based SNPP are equalised.	The migration figures for 2012/13 and 2013/14 are entered. For 2014/15 onwards, all migration flows are set to 0.
International Migration	As above but for international flows		
Propensity to Migrate (Age Specific Migration Rates)	Age Specific Migration Rates (ASMigR) for both in and out domestic migration are based upon the age profile of migrants to and from Warrington in the 2012-based SNPP. These identify a migration rate for each age cohort (for both in and out flows separately) which is applied to each individual age providing an Age Specific Migration Rate. This then drives the demographic profile of those people moving into and out of the Borough (but not the total numbers of migrants).		

Employment-led Scenarios (and Supply-Led Scenarios)	Scenario C: Experian Job Growth	Scenario D: Job Stabilisation	Scenario E: Past Trends Job Growth
Population			
Baseline Population	A 2012 baseline population is taken from the 2012-based SNPP. This population is split by single year of age and gender.		
Births	The Total Fertility Rate for Warrington (as derived from the 2012-based SNPP) is applied.		
Deaths	The Standardised Mortality Ratios for Warrington (as derived from the 2012-based SNPP) are applied.		
Internal Migration	Migration is inflated/constrained according the change in number of jobs over the projection period.		
International Migration	As above but for international flows		
Propensity to Migrate (Age Specific Migration Rates)	Age Specific Migration Rates (ASMigR) for both in and out domestic migration are based upon the age profile of migrants to and from Warrington in the 2012-based SNPP. These identify a migration rate for each age cohort (for both in and out flows separately) which is applied to each individual age providing an Age Specific Migration Rate. This then drives the demographic profile of those people moving into and out of the Borough (but not the total numbers of migrants).		

	All Scenarios
Housing	
Headship Rates	Headship rates specific to Warrington taken from the CLG 2012-based household projections are used. These are split by five year age group and sex. **Partial Catch-up Sensitivity** – as above, however rates in the 15-34 age groups are projected to make up 50% of the difference between the 2012-based and 2008-based projections by 2033.
Population Not in Households	The number of population not in households (e.g. those in institutional care) is similarly taken from the assumptions used to underpin the 2012-based CLG household forecasts. This is applied as a number below age 75 and a rate above age 75. No change is assumed in the rate of this from the CLG identified rate.
Vacancy / 2nd Home Rate	A vacancy and second homes rate is applied to the number of households, representing the natural vacancies/not permanently occupied homes which occur within the housing market and mean that more dwellings than households are required to meet needs. The average rate of vacant/second homes in Warrington over the 2012-14 period has averaged 3.2%. This has been taken from CLG Council Tax Base data and is held constant over the period to 2037.
Economic	
Economic Activity Rate	Age and gender specific economic activity rates are used. Between the ages of 16 and 89 the rates of change within the Office for Budget responsibility's recent labour market participation rates (age and sex specific) have been applied (November 2015. These national rates have been re-based to Warrington Borough (using 2011 Census data).
Labour Force Ratio	A standard net commuting rate is inferred through the modelling using a Labour Force ratio which is worked out using the formula: (A) Number of employed workers living in area ÷ (B) Number of workers who work in the area (number of jobs). In Warrington, APS and Experian data indicate that for 2014 the LF ratio was 0.706. This is applied and held constant over the projection period.
Unemployment	A model-based estimate of unemployment taken from the Annual Population Survey is used. For 2012, 2013 and 2014 the figures for unemployment are used (6.5%, 6.3% and 4.6% respectively). It is assumed that by 2020, unemployment in Warrington will reach its pre-recession level of 3.7%. From 2020 onwards this is held constant.

Appendix 2 PopGroup Output Sheets

Population Estimates and Forecasts

Scenario: PopGroup 2012-based SNHP

Components of Population Change

Warrington

Year beginning July 1st .....

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37
Births																											
Male	1,270	1,275	1,217	1,225	1,274	1,283	1,291	1,297	1,299	1,299	1,299	1,297	1,294	1,289	1,284	1,278	1,271	1,264	1,259	1,254	1,250	1,248	1,248	1,249	1,252	1,258	1,266
Female	1,209	1,214	1,159	1,166	1,214	1,222	1,229	1,235	1,238	1,237	1,237	1,235	1,232	1,228	1,223	1,217	1,211	1,204	1,199	1,194	1,190	1,189	1,188	1,189	1,193	1,198	1,206
All Births	2,479	2,489	2,376	2,391	2,488	2,505	2,520	2,532	2,537	2,536	2,536	2,532	2,526	2,517	2,506	2,495	2,482	2,469	2,457	2,448	2,440	2,437	2,436	2,438	2,445	2,457	2,472
TFR	1.98	1.99	1.89	1.89	1.95	1.95	1.95	1.95	1.95	1.95	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.94	1.94	1.94	1.94
Births input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Deaths																											
Male	833	863	930	859	872	874	885	889	896	907	919	931	944	958	975	993	1,007	1,023	1,039	1,055	1,072	1,085	1,101	1,119	1,134	1,149	1,161
Female	907	939	1,014	906	886	885	893	894	897	905	913	922	932	944	955	968	982	999	1,017	1,033	1,050	1,067	1,083	1,101	1,114	1,130	1,147
All deaths	1,740	1,802	1,944	1,765	1,758	1,759	1,778	1,783	1,793	1,813	1,832	1,853	1,876	1,902	1,930	1,961	1,989	2,021	2,055	2,088	2,122	2,153	2,184	2,220	2,248	2,278	2,308
SMR: males	115.7	116.3	121.5	109.0	107.1	103.9	101.6	98.7	96.2	94.0	91.9	90.0	88.1	86.4	85.0	83.7	82.2	80.8	79.6	78.4	77.3	76.2	75.2	74.4	73.3	72.4	71.5
SMR: females	119.1	119.8	127.1	111.9	107.1	104.5	103.0	100.5	98.3	96.6	94.6	92.7	91.0	89.4	87.7	86.1	84.6	83.3	82.1	80.9	79.7	78.9	77.8	76.9	75.7	74.9	74.1
SMR: persons	117.5	118.1	124.3	110.5	107.1	104.2	102.3	99.6	97.2	95.3	93.2	91.3	89.5	87.9	86.3	84.9	83.4	82.0	80.8	79.6	78.5	77.5	76.4	75.6	74.5	73.6	72.8
Expectation of life: males	77.9	77.8	77.3	78.7	79.0	79.4	79.6	79.9	80.3	80.5	80.8	81.1	81.3	81.6	81.8	82.0	82.3	82.5	82.7	82.8	83.0	83.2	83.3	83.5	83.6	83.8	84.0
Expectation of life: females	81.7	81.7	81.0	82.4	82.7	83.0	83.2	83.4	83.6	83.8	84.1	84.3	84.5	84.7	84.9	85.1	85.3	85.4	85.6	85.7	85.9	86.0	86.2	86.3	86.5	86.6	86.7
Expectation of life: persons	79.9	79.8	79.3	80.6	80.9	81.2	81.4	81.7	82.0	82.2	82.5	82.7	82.9	83.1	83.4	83.6	83.8	84.0	84.1	84.3	84.5	84.6	84.7	84.9	85.1	85.2	85.4
Deaths input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
In-migration from the UK																											
Male	3,210	3,392	3,406	3,525	3,454	3,465	3,473	3,481	3,486	3,488	3,487	3,486	3,485	3,485	3,490	3,498	3,508	3,518	3,529	3,540	3,550	3,559	3,571	3,583	3,593	3,604	3,617
Female	3,365	3,552	3,556	3,670	3,470	3,475	3,475	3,476	3,475	3,468	3,461	3,452	3,445	3,440	3,442	3,449	3,459	3,470	3,482	3,496	3,507	3,518	3,532	3,545	3,555	3,567	3,580
All	6,575	6,944	6,962	7,195	6,925	6,940	6,949	6,957	6,962	6,956	6,948	6,938	6,929	6,924	6,932	6,947	6,967	6,988	7,012	7,037	7,058	7,077	7,103	7,128	7,148	7,172	7,197
SMigR: males	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SMigR: females	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Out-migration to the UK																											
Male	2,940	3,389	3,149	3,341	3,154	3,170	3,163	3,175	3,187	3,181	3,187	3,183	3,193	3,209	3,220	3,229	3,236	3,256	3,265	3,260	3,283	3,286	3,295	3,305	3,316	3,326	3,338
Female	2,990	3,411	3,152	3,358	3,146	3,145	3,146	3,163	3,139	3,121	3,127	3,123	3,139	3,143	3,152	3,178	3,194	3,200	3,204	3,238	3,241	3,248	3,261	3,272	3,286	3,298	3,309
All	5,930	6,800	6,301	6,699	6,300	6,315	6,310	6,338	6,327	6,302	6,313	6,306	6,333	6,352	6,372	6,407	6,431	6,456	6,468	6,498	6,524	6,534	6,557	6,577	6,601	6,624	6,646
SMigR: males	28.1	32.2	30.0	31.6	29.7	29.8	29.6	29.6	29.6	29.5	29.5	29.5	29.5	29.6	29.7	29.7	29.7	29.7	29.7	29.6	29.6	29.5	29.5	29.5	29.5	29.4	29.4
SMigR: females	28.9	32.9	30.5	32.4	30.2	30.2	30.1	30.2	30.0	29.8	29.8	29.8	29.9	29.8	29.8	30.0	30.0	29.9	29.8	30.0	29.8	29.8	29.7	29.7	29.7	29.7	29.7
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
In-migration from Overseas																											
Male	618	699	555	684	500	524	507	509	497	497	497	497	497	498	499	500	501	501	501	503	503	503	504	504	503	503	502
Female	606	612	535	650	438	457	441	442	433	433	433	432	432	433	434	433	433	433	434	434	435	434	435	434	434	433	433
All	1,224	1,311	1,089	1,333	938	980	949	951	929	929	930	929	929	931	933	933	933	934	935	937	937	937	939	939	937	936	935
SMigR: males	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	0.0	0.0
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	0.0	0.0
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Out-migration to Overseas																											
Male	625	611	371	429	416	414	414	413	413	413	413	413	413	414	415	416	416	417	417	419	419	419	420	420	419	419	418
Female	583	588	423	458	345	345	342	340	339	339	339	338	338	340	340	340	339	340	340	341	341	341	342	341	341	340	340
All	1,208	1,199	794	887	760	759	756	752	752	752	752	751	752	754	755	756	755	757	758	760	760	760	762	761	760	759	758
SMigR: males	105.6	102.5	62.5	71.9	69.4	68.9	68.7	68.3	68.2	68.2	68.3	68.3	68.4	68.6	68.8	69.1	69.0	69.1	69.0	69.1	68.8	68.6	68.6	68.3	67.9	67.6	67.3
SMigR: females	127.4	127.9	92.2	99.7	74.8	74.6	73.9	73.4	73.4	73.5	73.7	73.7	74.0	74.4	74.6	74.7	74.7	74.8	74.8	74.7	74.6	74.2	74.1	73.6	73.3	72.9	72.5
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Migration - Net Flows																											
UK	+645	+144	+661	+496	+625	+624	+639	+619	+635	+654	+635	+633	+597	+572	+560	+541	+535	+532	+543	+539	+533	+543	+546	+551	+547	+548	+550
Overseas	+16	+112	+296	+446	+178	+221	+193	+199	+177	+177	+177	+178	+178	+178	+178	+177	+178	+178	+177	+177	+177	+177	+177	+177	+177	+177	+177
Summary of population change																											
Natural change	+739	+687	+432	+626	+730	+746	+742	+750	+744	+723	+704	+679	+650	+615	+576	+534	+493	+447	+402	+359	+319	+284	+252	+218	+197	+178	+164
Net migration	+661	+256	+957	+942	+803	+846	+831	+818	+812	+832	+812	+810	+774	+750	+738	+718	+714	+710	+721	+716	+711	+720	+723	+728	+724	+725	+727
Net change	+1,400	+943	+1,389	+1,568	+1,533	+1,591	+1,573	+1,567	+1,556	+1,555	+1,516	+1,490	+1,424	+1,365	+1,314	+1,252	+1,207	+1,157	+1,123	+1,075	+1,030	+1,004	+975	+947	+922	+903	+891
Crude Birth Rate /000	12.27	12.25	11.63	11.62	12.00	11.99	11.97	11.94	11.87	11.78	11.70	11.60	11.50	11.38	11.27	11.15	11.03	10.92	10.81	10.72	10.64	10.57	10.53	10.49	10.48	10.49	10.51
Crude Death Rate /000	8.61	8.87	9.51	8.58	8.48	8.42	8.45	8.41	8.39	8.42	8.45	8.49	8.54	8.60	8.68	8.76	8.84	8.94	9.04	9.14	9.25	9.34	9.44	9.55	9.64	9.73	9.82
Crude Net Migration Rate /000	3.27	1.26	4.68	4.58	3.87	4.05	3.95	3.86	3.80	3.87	3.75	3.71	3.52	3.39	3.32	3.21	3.18	3.14	3.17	3.14	3.10	3.13	3.12	3.13	3.10	3.10	3.09

Summary of Population estimates/forecasts

Population at mid-year

	2010	2011	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	2037
0-4	12,191	12,386	12,519	12,627	12,683	12,771	12,833	12,855	12,934	12,976	13,017	13,042	13,050	13,040	13,017	12,984	12,941	12,889	12,832	12,772	12,714	12,661	12,618	12,587	12,569	12,569	12,587	12,625
5-10	13,874	13,894	14,158	14,364	14,754	15,003	15,267	15,537	15,660	15,797	15,853	15,949	16,013	16,037	16,112	16,148	16,181	16,196	16,191	16,167	16,129	16,080	16,022	15,957	15,888	15,819	15,756	15,701
11-15	12,534	12,498	12,314	12,120	11,953	11,815	11,790	11,950	12,159	12,473	12,760	12,979	13,196	13,365	13,458	13,518	13,598	13,646	13,657	13,726	13,762	13,794	13,811	13,810	13,793	13,764	13,726	13,679
16-17	5,301	5,212	5,112	5,168	5,050	5,007	5,012	4,796	4,710	4,683	4,709	4,855	4,946	5,091	5,213	5,311	5,359	5,383	5,474	5,473	5,459	5,495	5,507	5,530	5,549	5,560	5,559	5,553
18-59Female, 64Male	119,358	119,874	119,671	120,059	120,498	120,997	121,507	121,997	122,300	122,427	122,703	122,675	122,652	122,518	122,342	122,252	122,100	121,983	121,787	121,601	121,491	121,322	121,340	121,481	121,715	122,037	122,348	122,691
60/65 -74	24,295	24,697	25,407	25,819	26,178	26,512	26,857	27,144	27,508	27,734	27,916	28,296	28,146	28,432	28,958	29,515	30,230	31,000	31,750	32,549	33,330	34,083	34,611	34,927	35,012	35,085	34,968	34,721
75-84	10,098	10,381	10,585	10,959	11,446	11,832	12,090	12,507	12,913	13,475	13,934	14,348	15,363	15,977	16,341	16,692	17,010	17,187	17,411	17,505	17,602	17,710	17,463	17,524	17,853	18,130	18,663	19,310
85+	3,658	3,767	3,886	3,926	4,047	4,204	4,376	4,519	4,688	4,864	5,093	5,356	5,625	5,955	6,339	6,675	6,928	7,268	7,607	8,038	8,421	8,792	9,569	10,100	10,483	10,820	11,080	11,300
Total	201,309	202,709	203,652	205,041	206,609	208,141	209,732	211,306	212,873	214,429	215,985	217,501	218,990	220,415	221,779	223,093	224,345	225,552	226,710	227,832	228,908	229,937	230,941	231,916	232,863	233,784	234,687	235,578
Dependency ratios, mean age and sex ratio																												
0-15 / 16-65	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.31	0.31	0.31	0.31	0.31
65+ / 16-65	0.24	0.25	0.26	0.27	0.27	0.28	0.28	0.29	0.30	0.30	0.31	0.31	0.32	0.32	0.33	0.34	0.34	0.35	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.42	0.43	0.44
0-15 and 65+ / 16-65	0.54	0.54	0.56	0.57	0.57	0.58	0.59	0.59	0.60	0.61	0.62	0.62	0.63	0.64	0.64	0.65	0.66	0.67	0.68	0.69	0.70	0.71	0.72	0.72	0.73	0.74	0.74	0.75
Median age males	39.5	39.7	40.0	40.2	40.3	40.4	40.5	40.5	40.5	40.5	40.6	40.7	40.8	41.0	41.1	41.3	41.4	41.5	41.7	41.8	42.0	42.2	42.4	42.6	42.8	43.0	43.2	43.3
Median age females	41.2	41.4	41.8	42.0	42.2	42.4	42.6	42.7	42.7	42.8	42.8	42.9	42.9	43.1	43.3	43.4	43.6	43.7	43.9	44.0	44.2	44.4	44.6	44.8	44.9	45.1	45.3	45.5
Sex ratio males /100 females	98.3	98.3	98.4	98.5	98.5	98.6	98.6	98.7	98.7	98.8	98.8	98.8	98.8	98.8	98.9	98.9	98.9	99.0	99.0	99.0	99.0	99.1	99.1	99.1	99.2	99.2	99.2	99.3
Population impact of constraint																												
Number of persons		-267	-15	+4	+316	+5	+7	+6	+6	+6	+6	+6	+6	+6	+6	+7	+6	+6	+6	+6	+6	+6	+6	+6	+6	+5	+5	+5
Households																												
Number of Households			86,048	86,967	87,985	88,954	89,963	90,968	91,935	92,911	93,839	94,772	95,691	96,540	97,380	98,182	98,984	99,780	100,532	101,282	102,016	102,734	103,422	104,072	104,742	105,381	106,031	106,685
Change in Households over previous year				+920	+1,017	+969	+1,009	+1,005	+967	+976	+928	+933	+919	+849	+840	+802	+802	+797	+752	+750	+734	+718	+688	+650	+670	+639	+650	+654
Number of supply units			88,892	89,842	90,893	91,894	92,937	93,975	94,974	95,982	96,942	97,905	98,854	99,731	100,599	101,428	102,256	103,079	103,855	104,630	105,388	106,131	106,841	107,512	108,204	108,865	109,537	110,212
Change in over previous year				+950	+1,051	+1,001	+1,042	+1,038	+999	+1,009	+959	+964	+949	+877	+868	+828	+828	+823	+776	+775	+758	+742	+710	+671	+692	+661	+671	+675
Labour Force																												
Number of Labour Force			108,227	108,872	106,463	107,088	107,734	108,283	109,282	109,864	109,883	110,092	110,226	110,273	110,314	110,389	110,417	110,576	110,718	110,765	110,848	110,913	111,035	111,197	111,379	111,579	111,775	112,014
Change in Labour Force over previous year				+646	-2,409	+625	+647	+548	+1,000	+582	+19	+209	+134	+47	+41	+75	+28	+159	+141	+47	+83	+65	+122	+162	+182	+200	+195	+240
Number of supply units			134,465	136,105	143,835	144,680	145,828	146,846	148,480	149,550	149,856	150,142	150,325	150,389	150,445	150,546	150,585	150,802	150,995	151,059	151,172	151,261	151,428	151,649	151,896	152,170	152,436	152,763
Change in over previous year				+1,640	+7,730	+844	+1,148	+1,018	+1,634	+1,070	+306	+286	+183	+64	+56	+102	+38	+217	+193	+65	+113	+89	+167	+221	+248	+273	+267	+327

Population Estimates and Forecasts

Scenario Ai: Partial Catch-Up Headship Rates

Components of Population Change

Warrington

Year beginning July 1st .....

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37
Births																											
Male	1,270	1,275	1,217	1,225	1,274	1,283	1,291	1,297	1,299	1,299	1,299	1,297	1,294	1,289	1,284	1,278	1,271	1,264	1,259	1,254	1,250	1,248	1,248	1,249	1,252	1,258	1,266
Female	1,209	1,214	1,159	1,166	1,214	1,222	1,229	1,235	1,238	1,237	1,237	1,235	1,232	1,228	1,223	1,217	1,211	1,204	1,199	1,194	1,190	1,189	1,188	1,189	1,193	1,198	1,206
All Births	2,479	2,489	2,376	2,391	2,488	2,505	2,520	2,532	2,537	2,536	2,536	2,532	2,526	2,517	2,506	2,495	2,482	2,469	2,457	2,448	2,440	2,437	2,436	2,438	2,445	2,457	2,472
TFR	1.98	1.99	1.89	1.89	1.95	1.95	1.95	1.95	1.95	1.95	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.94	1.94	1.94	1.94
Births input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Deaths																											
Male	833	863	930	859	872	874	885	889	896	907	919	931	944	958	975	993	1,007	1,023	1,039	1,055	1,072	1,085	1,101	1,119	1,134	1,149	1,161
Female	907	939	1,014	906	886	885	893	894	897	905	913	922	932	944	955	968	982	999	1,017	1,033	1,050	1,067	1,083	1,101	1,114	1,130	1,147
All deaths	1,740	1,802	1,944	1,765	1,758	1,759	1,778	1,783	1,793	1,813	1,832	1,853	1,876	1,902	1,930	1,961	1,989	2,021	2,055	2,088	2,122	2,153	2,184	2,220	2,248	2,278	2,308
SMR: males	115.7	116.3	121.5	109.0	107.1	103.9	101.6	98.7	96.2	94.0	91.9	90.0	88.1	86.4	85.0	83.7	82.2	80.8	79.6	78.4	77.3	76.2	75.2	74.4	73.3	72.4	71.5
SMR: females	119.1	119.8	127.1	111.9	107.1	104.5	103.0	100.5	98.3	96.6	94.6	92.7	91.0	89.4	87.7	86.1	84.6	83.3	82.1	80.9	79.7	78.9	77.8	76.9	75.7	74.9	74.1
SMR: persons	117.5	118.1	124.3	110.5	107.1	104.2	102.3	99.6	97.2	95.3	93.2	91.3	89.5	87.9	86.3	84.9	83.4	82.0	80.8	79.6	78.5	77.5	76.4	75.6	74.5	73.6	72.8
Expectation of life: males	77.9	77.8	77.3	78.7	79.0	79.4	79.6	79.9	80.3	80.5	80.8	81.1	81.3	81.6	81.8	82.0	82.3	82.5	82.7	82.8	83.0	83.2	83.3	83.5	83.6	83.8	84.0
Expectation of life: females	81.7	81.7	81.0	82.4	82.7	83.0	83.2	83.4	83.6	83.8	84.1	84.3	84.5	84.7	84.9	85.1	85.3	85.4	85.6	85.7	85.9	86.0	86.2	86.3	86.5	86.6	86.7
Expectation of life: persons	79.9	79.8	79.3	80.6	80.9	81.2	81.4	81.7	82.0	82.2	82.5	82.7	82.9	83.1	83.4	83.6	83.8	84.0	84.1	84.3	84.5	84.6	84.7	84.9	85.1	85.2	85.4
Deaths input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
In-migration from the UK																											
Male	3,210	3,392	3,406	3,525	3,454	3,465	3,473	3,481	3,486	3,488	3,487	3,486	3,485	3,485	3,490	3,498	3,508	3,518	3,529	3,540	3,550	3,559	3,571	3,583	3,593	3,604	3,617
Female	3,365	3,552	3,556	3,670	3,470	3,475	3,475	3,476	3,475	3,468	3,461	3,452	3,445	3,440	3,442	3,449	3,459	3,470	3,482	3,496	3,507	3,518	3,532	3,545	3,555	3,567	3,580
All	6,575	6,944	6,962	7,195	6,925	6,940	6,949	6,957	6,962	6,956	6,948	6,938	6,929	6,924	6,932	6,947	6,967	6,988	7,012	7,037	7,058	7,077	7,103	7,128	7,148	7,172	7,197
SMigR: males	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SMigR: females	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Out-migration to the UK																											
Male	2,940	3,389	3,149	3,341	3,154	3,170	3,163	3,175	3,187	3,181	3,187	3,183	3,193	3,209	3,220	3,229	3,236	3,256	3,265	3,260	3,283	3,286	3,295	3,305	3,316	3,326	3,338
Female	2,990	3,411	3,152	3,358	3,146	3,145	3,146	3,163	3,139	3,121	3,127	3,123	3,139	3,143	3,152	3,178	3,194	3,200	3,204	3,238	3,241	3,248	3,261	3,272	3,286	3,298	3,309
All	5,930	6,800	6,301	6,699	6,300	6,315	6,310	6,338	6,327	6,302	6,313	6,306	6,333	6,352	6,372	6,407	6,431	6,456	6,468	6,498	6,524	6,534	6,557	6,577	6,601	6,624	6,646
SMigR: males	28.1	32.2	30.0	31.6	29.7	29.8	29.6	29.6	29.6	29.5	29.5	29.5	29.5	29.6	29.7	29.7	29.7	29.7	29.7	29.6	29.6	29.5	29.5	29.5	29.5	29.4	29.4
SMigR: females	28.9	32.9	30.5	32.4	30.2	30.2	30.1	30.2	30.0	29.8	29.8	29.8	29.9	29.8	29.8	30.0	30.0	29.9	29.8	30.0	29.8	29.8	29.7	29.7	29.7	29.7	29.7
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
In-migration from Overseas																											
Male	618	699	555	684	500	524	507	509	497	497	497	497	497	498	499	500	501	501	501	503	503	503	504	504	503	503	502
Female	606	612	535	650	438	457	441	442	433	433	433	432	432	433	434	433	433	433	434	434	435	434	435	434	434	433	433
All	1,224	1,311	1,089	1,333	938	980	949	951	929	929	930	929	929	931	933	933	933	934	935	937	937	937	939	939	937	936	935
SMigR: males	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	0.0	0.0
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	0.0	0.0
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Out-migration to Overseas																											
Male	625	611	371	429	416	414	414	413	413	413	413	413	413	414	415	416	416	417	417	419	419	419	420	420	419	419	418
Female	583	588	423	458	345	345	342	340	339	339	339	338	338	340	340	340	339	340	340	341	341	341	342	341	341	340	340
All	1,208	1,199	794	887	760	759	756	752	752	752	752	751	752	754	755	756	755	757	758	760	760	760	762	761	760	759	758
SMigR: males	105.6	102.5	62.5	71.9	69.4	68.9	68.7	68.3	68.2	68.2	68.3	68.3	68.4	68.6	68.8	69.1	69.0	69.1	69.0	69.1	68.8	68.6	68.6	68.3	67.9	67.6	67.3
SMigR: females	127.4	127.9	92.2	99.7	74.8	74.6	73.9	73.4	73.4	73.5	73.7	73.7	74.0	74.4	74.6	74.7	74.7	74.8	74.8	74.7	74.6	74.2	74.1	73.6	73.3	72.9	72.5
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Migration - Net Flows																											
UK	+645	+144	+661	+496	+625	+624	+639	+619	+635	+654	+635	+633	+597	+572	+560	+541	+535	+532	+543	+539	+533	+543	+546	+551	+547	+548	+550
Overseas	+16	+112	+296	+446	+178	+221	+193	+199	+177	+177	+177	+178	+178	+178	+178	+177	+178	+178	+177	+177	+177	+177	+177	+177	+177	+177	+177
Summary of population change																											
Natural change	+739	+687	+432	+626	+730	+746	+742	+750	+744	+723	+704	+679	+650	+615	+576	+534	+493	+447	+402	+359	+319	+284	+252	+218	+197	+178	+164
Net migration	+661	+256	+957	+942	+803	+846	+831	+818	+812	+832	+812	+810	+774	+750	+738	+718	+714	+710	+721	+716	+711	+720	+723	+728	+724	+725	+727
Net change	+1,400	+943	+1,389	+1,568	+1,533	+1,591	+1,573	+1,567	+1,556	+1,555	+1,516	+1,490	+1,424	+1,365	+1,314	+1,252	+1,207	+1,157	+1,123	+1,075	+1,030	+1,004	+975	+947	+922	+903	+891
Crude Birth Rate /000	12.27	12.25	11.63	11.62	12.00	11.99	11.97	11.94	11.87	11.78	11.70	11.60	11.50	11.38	11.27	11.15	11.03	10.92	10.81	10.72	10.64	10.57	10.53	10.49	10.48	10.49	10.51
Crude Death Rate /000	8.61	8.87	9.51	8.58	8.48	8.42	8.45	8.41	8.39	8.42	8.45	8.49	8.54	8.60	8.68	8.76	8.84	8.94	9.04	9.14	9.25	9.34	9.44	9.55	9.64	9.73	9.82
Crude Net Migration Rate /000	3.27	1.26	4.68	4.58	3.87	4.05	3.95	3.86	3.80	3.87	3.75	3.71	3.52	3.39	3.32	3.21	3.18	3.14	3.17	3.14	3.10	3.13	3.12	3.13	3.10	3.10	3.09

Summary of Population estimates/forecasts

Population at mid-year

	2010	2011	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	2037
0-4	12,191	12,386	12,519	12,627	12,683	12,771	12,833	12,855	12,934	12,976	13,017	13,042	13,050	13,040	13,017	12,984	12,941	12,889	12,832	12,772	12,714	12,661	12,618	12,587	12,569	12,569	12,587	12,625
5-10	13,874	13,894	14,158	14,364	14,754	15,003	15,267	15,537	15,660	15,797	15,853	15,949	16,013	16,037	16,112	16,148	16,181	16,196	16,191	16,167	16,129	16,080	16,022	15,957	15,888	15,819	15,756	15,701
11-15	12,534	12,498	12,314	12,120	11,953	11,815	11,790	11,950	12,159	12,473	12,760	12,979	13,196	13,365	13,458	13,518	13,598	13,646	13,657	13,726	13,762	13,794	13,811	13,810	13,793	13,764	13,726	13,679
16-17	5,301	5,212	5,112	5,168	5,050	5,007	5,012	4,796	4,710	4,683	4,709	4,855	4,946	5,091	5,213	5,311	5,359	5,383	5,474	5,473	5,459	5,495	5,507	5,530	5,549	5,560	5,559	5,553
18-59Female, 64Male	119,358	119,874	119,671	120,059	120,498	120,997	121,507	121,997	122,300	122,427	122,703	122,675	122,652	122,518	122,342	122,252	122,100	121,983	121,787	121,601	121,491	121,322	121,340	121,481	121,715	122,037	122,348	122,691
60/65 -74	24,295	24,697	25,407	25,819	26,178	26,512	26,857	27,144	27,508	27,734	27,916	28,296	28,146	28,432	28,958	29,515	30,230	31,000	31,750	32,549	33,330	34,083	34,611	34,927	35,012	35,085	34,968	34,721
75-84	10,098	10,381	10,585	10,959	11,446	11,832	12,090	12,507	12,913	13,475	13,934	14,348	15,363	15,977	16,341	16,692	17,010	17,187	17,411	17,505	17,602	17,710	17,463	17,524	17,853	18,130	18,663	19,310
85+	3,658	3,767	3,886	3,926	4,047	4,204	4,376	4,519	4,688	4,864	5,093	5,356	5,625	5,955	6,339	6,675	6,928	7,268	7,607	8,038	8,421	8,792	9,569	10,100	10,483	10,820	11,080	11,300
Total	201,309	202,709	203,652	205,041	206,609	208,141	209,732	211,306	212,873	214,429	215,985	217,501	218,990	220,415	221,779	223,093	224,345	225,552	226,710	227,832	228,908	229,937	230,941	231,916	232,863	233,784	234,687	235,578
Dependency ratios, mean age and sex ratio																												
0-15 / 16-65	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.31	0.31	0.31	0.31	0.31
65+ / 16-65	0.24	0.25	0.26	0.27	0.27	0.28	0.28	0.29	0.30	0.30	0.31	0.31	0.32	0.32	0.33	0.34	0.34	0.35	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.42	0.43	0.44
0-15 and 65+ / 16-65	0.54	0.54	0.56	0.57	0.57	0.58	0.59	0.59	0.60	0.61	0.62	0.62	0.63	0.64	0.64	0.65	0.66	0.67	0.68	0.69	0.70	0.71	0.72	0.72	0.73	0.74	0.74	0.75
Median age males	39.5	39.7	40.0	40.2	40.3	40.4	40.5	40.5	40.5	40.5	40.6	40.7	40.8	41.0	41.1	41.3	41.3	41.4	41.5	41.7	41.8	42.0	42.2	42.4	42.6	42.8	43.0	43.2
Median age females	41.2	41.4	41.8	42.0	42.2	42.4	42.6	42.7	42.7	42.8	42.8	42.9	42.9	43.1	43.3	43.4	43.6	43.7	43.9	44.0	44.2	44.4	44.6	44.8	44.9	45.1	45.3	45.5
Sex ratio males /100 females	98.3	98.3	98.4	98.5	98.5	98.6	98.6	98.7	98.7	98.8	98.8	98.8	98.8	98.8	98.9	98.9	98.9	99.0	99.0	99.0	99.0	99.1	99.1	99.1	99.2	99.2	99.2	99.3
Population impact of constraint																												
Number of persons		-267	-15	+4	+316	+5	+7	+6	+6	+6	+6	+6	+6	+6	+6	+7	+6	+6	+6	+6	+6	+6	+6	+6	+6	+5	+5	+5
Households																												
Number of Households			86,048	86,967	87,985	88,954	89,963	90,968	91,978	92,997	93,966	94,942	95,907	96,798	97,685	98,532	99,370	100,205	101,000	101,794	102,572	103,335	104,071	104,778	105,505	106,208	106,917	107,638
Change in Households over previous year				+920	+1,017	+969	+1,009	+1,005	+1,010	+1,020	+969	+976	+965	+891	+887	+847	+839	+835	+794	+795	+778	+763	+736	+707	+726	+703	+710	+721
Number of supply units			88,892	89,842	90,893	91,894	92,937	93,975	95,018	96,071	97,072	98,081	99,077	99,998	100,914	101,789	102,655	103,518	104,339	105,160	105,963	106,751	107,511	108,242	108,992	109,719	110,452	111,197
Change in over previous year				+950	+1,051	+1,001	+1,042	+1,038	+1,043	+1,053	+1,001	+1,008	+996	+920	+916	+875	+866	+863	+821	+821	+803	+788	+760	+731	+750	+726	+733	+745
Labour Force																												
Number of Labour Force			108,227	108,872	106,463	107,088	107,734	108,283	109,282	109,864	109,883	110,092	110,226	110,273	110,314	110,389	110,417	110,576	110,718	110,765	110,848	110,913	111,035	111,197	111,379	111,579	111,775	112,014
Change in Labour Force over previous year				+646	-2,409	+625	+647	+548	+1,000	+582	+19	+209	+134	+47	+41	+75	+28	+159	+141	+47	+83	+65	+122	+162	+182	+200	+195	+240
Number of supply units			134,465	136,105	143,835	144,680	145,828	146,846	148,480	149,550	149,856	150,142	150,325	150,389	150,445	150,546	150,585	150,802	150,995	151,059	151,172	151,261	151,428	151,649	151,896	152,170	152,436	152,763
Change in over previous year				+1,640	+7,730	+844	+1,148	+1,018	+1,634	+1,070	+306	+286	+183	+64	+56	+102	+38	+217	+193	+65	+113	+89	+167	+221	+248	+273	+267	+327

Population Estimates and Forecasts

Scenario Aii: 2013 & 2014 MYE

Components of Population Change

Warrington

Year beginning July 1st .....

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37
Births																											
Male	1,270	1,275	1,217	1,225	1,274	1,283	1,291	1,297	1,299	1,299	1,299	1,297	1,294	1,289	1,284	1,278	1,271	1,264	1,259	1,254	1,250	1,248	1,248	1,249	1,252	1,258	1,266
Female	1,209	1,214	1,159	1,166	1,214	1,222	1,229	1,235	1,238	1,237	1,237	1,235	1,232	1,228	1,223	1,217	1,211	1,204	1,199	1,194	1,190	1,189	1,188	1,189	1,193	1,198	1,206
All Births	2,479	2,489	2,376	2,391	2,488	2,505	2,520	2,532	2,537	2,536	2,536	2,532	2,526	2,517	2,506	2,495	2,482	2,469	2,457	2,448	2,440	2,437	2,436	2,438	2,445	2,457	2,472
TFR	1.98	1.99	1.89	1.90	1.96	1.96	1.96	1.97	1.96	1.96	1.96	1.96	1.95	1.95	1.95	1.95	1.95	1.94	1.94	1.94	1.93	1.93	1.93	1.93	1.93	1.93	1.93
Births input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Deaths																											
Male	833	863	930	859	872	874	885	889	896	907	919	931	944	958	975	993	1,007	1,023	1,039	1,055	1,072	1,085	1,101	1,119	1,134	1,149	1,161
Female	907	939	1,014	906	886	885	893	894	897	905	913	922	932	944	955	968	982	999	1,017	1,033	1,050	1,067	1,083	1,101	1,114	1,130	1,147
All deaths	1,740	1,802	1,944	1,765	1,758	1,759	1,778	1,783	1,793	1,813	1,832	1,853	1,876	1,902	1,930	1,961	1,989	2,021	2,055	2,088	2,122	2,153	2,184	2,220	2,248	2,278	2,308
SMR: males	115.7	116.3	121.5	109.2	106.7	103.5	101.3	98.2	95.7	93.5	91.4	89.4	87.5	85.8	84.4	83.1	81.6	80.3	79.0	77.8	76.8	75.7	74.6	73.8	72.8	71.9	71.0
SMR: female	119.1	119.8	127.1	112.1	107.3	104.8	103.2	100.7	98.5	96.6	94.6	92.7	90.9	89.3	87.6	85.9	84.4	83.1	81.9	80.6	79.5	78.6	77.5	76.6	75.5	74.6	73.8
SMR: person	117.5	118.1	124.3	110.7	107.0	104.1	102.2	99.4	97.1	95.0	93.0	91.0	89.2	87.5	85.9	84.5	83.0	81.6	80.4	79.2	78.1	77.1	76.0	75.2	74.1	73.2	72.4
Expectation	77.9	77.8	77.3	78.7	79.0	79.4	79.7	80.0	80.3	80.6	80.9	81.2	81.4	81.7	81.9	82.1	82.4	82.6	82.7	82.9	83.1	83.2	83.4	83.5	83.7	83.9	84.1
Expectation	81.7	81.7	81.0	82.4	82.7	82.9	83.1	83.4	83.6	83.8	84.0	84.3	84.5	84.7	84.9	85.1	85.3	85.4	85.6	85.8	86.0	86.0	86.2	86.4	86.5	86.6	86.8
Expectation	79.9	79.8	79.3	80.6	80.9	81.2	81.4	81.7	82.0	82.2	82.5	82.7	83.0	83.2	83.4	83.6	83.8	84.0	84.2	84.3	84.5	84.6	84.8	85.0	85.1	85.3	85.4
Deaths input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
In-migration from the UK																											
Male	3,210	3,392	3,406	3,525	3,454	3,465	3,473	3,481	3,486	3,488	3,487	3,486	3,485	3,485	3,490	3,498	3,508	3,518	3,529	3,540	3,550	3,559	3,571	3,583	3,593	3,604	3,617
Female	3,365	3,552	3,556	3,670	3,470	3,475	3,475	3,476	3,475	3,468	3,461	3,452	3,445	3,440	3,442	3,449	3,459	3,470	3,482	3,496	3,507	3,518	3,532	3,545	3,555	3,567	3,580
All	6,575	6,944	6,962	7,195	6,925	6,940	6,949	6,957	6,962	6,956	6,948	6,938	6,929	6,924	6,932	6,947	6,967	6,988	7,012	7,037	7,058	7,077	7,103	7,128	7,148	7,172	7,197
SMigR: male	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SMigR: fema	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Migrants inp	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Out-migration to the UK																											
Male	2,940	3,389	3,149	3,336	3,154	3,170	3,163	3,175	3,187	3,181	3,187	3,183	3,193	3,209	3,220	3,229	3,236	3,256	3,265	3,260	3,283	3,286	3,295	3,305	3,316	3,326	3,338
Female	2,990	3,411	3,152	3,363	3,146	3,145	3,146	3,163	3,139	3,121	3,127	3,123	3,139	3,143	3,152	3,178	3,194	3,200	3,204	3,238	3,241	3,248	3,261	3,272	3,286	3,298	3,309
All	5,930	6,800	6,301	6,699	6,300	6,315	6,310	6,338	6,327	6,302	6,313	6,306	6,333	6,352	6,372	6,407	6,431	6,456	6,468	6,498	6,524	6,534	6,557	6,577	6,601	6,624	6,646
SMigR: male	28.1	32.2	30.0	31.7	29.9	29.9	29.7	29.7	29.7	29.6	29.6	29.5	29.5	29.6	29.6	29.6	29.6	29.6	29.6	29.4	29.5	29.4	29.4	29.3	29.3	29.3	29.3
SMigR: fema	28.9	32.9	30.5	32.4	30.3	30.2	30.1	30.2	29.9	29.7	29.8	29.7	29.8	29.7	29.7	29.8	29.9	29.8	29.7	29.8	29.7	29.6	29.6	29.6	29.6	29.6	29.6
Migrants inp	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
In-migration from Overseas																											
Male	618	699	669	713	470	494	478	482	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470
Female	606	612	717	714	408	426	414	417	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408
All	1,224	1,311	1,386	1,427	879	920	892	898	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878
SMigR: male	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	0.0	0.0
SMigR: fema	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	0.0	0.0
Migrants inp	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Out-migration to Overseas																											
Male	625	611	498	583	390	389	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390
Female	583	588	524	647	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316
All	1,208	1,199	1,022	1,230	706	705	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706
SMigR: male	105.6	102.5	83.9	97.9	65.6	65.3	65.2	65.0	64.8	64.8	64.7	64.7	64.7	64.7	64.7	64.7	64.6	64.4	64.2	64.0	63.7	63.5	63.3	63.0	62.8	62.5	62.3
SMigR: fema	127.4	127.9	114.2	140.8	68.9	68.7	68.6	68.6	68.5	68.6	68.7	68.8	69.0	69.1	69.2	69.3	69.3	69.3	69.1	69.0	68.8	68.5	68.2	68.0	67.7	67.5	67.2
Migrants inp	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Migration - Net Flows																											
UK	+645	+144	+661	+496	+625	+624	+639	+619	+635	+654	+635	+633	+597	+572	+560	+541	+536	+532	+543	+539	+533	+543	+546	+551	+547	+548	+550
Overseas	+16	+112	+364	+197	+173	+215	+186	+192	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172
Summary of population change																											
Natural chan	+739	+687	+432	+626	+730	+746	+742	+750	+744	+723	+704	+679	+650	+615	+576	+534	+493	+447	+402	+359	+319	+284	+252	+218	+197	+178	+164
Net migratio	+661	+256	+1,025	+693	+797	+839	+825	+812	+807	+826	+806	+804	+768	+744	+732	+712	+708	+704	+715	+710	+705	+715	+718	+723	+719	+720	+722
Net change	+1,400	+943	+1,457	+1,319	+1,527	+1,585	+1,567	+1,561	+1,550	+1,550	+1,510	+1,483	+1,418	+1,358	+1,307	+1,246	+1,201	+1,151	+1,117	+1,070	+1,024	+999	+969	+941	+916	+898	+886
Crude Birth I	12.27	12.25	11.63	11.62	12.01	12.00	11.98	11.95	11.89	11.80	11.71	11.61	11.51	11.40	11.28	11.16	11.05	10.93	10.82	10.73	10.65	10.59	10.54	10.51	10.49	10.50	10.53
Crude Death	8.61	8.87	9.51	8.58	8.48	8.43	8.45	8.41	8.40	8.43	8.46	8.50	8.55	8.61	8.69	8.77	8.85	8.95	9.05	9.16	9.26	9.35	9.45	9.56	9.65	9.74	9.83
Crude Net M	3.27	1.26	5.02	3.37	3.85	4.02	3.92	3.83	3.78	3.84	3.72	3.69	3.50	3.37	3.29	3.19	3.15	3.12	3.15	3.11	3.08	3.11	3.10	3.11	3.08	3.08	3.07

Summary of Population estimates/forecasts

Population at mid-year

	2010	2011	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	2037
0-4	12,191	12,386	12,519	12,605	12,620	12,714	12,724	12,712	12,855	12,998	13,042	13,070	13,079	13,069	13,046	13,013	12,970	12,918	12,860	12,801	12,743	12,690	12,646	12,614	12,597	12,597	12,615	12,652
5-10	13,874	13,894	14,158	14,423	14,816	15,041	15,363	15,670	15,722	15,730	15,778	15,878	15,893	15,888	16,022	16,149	16,188	16,206	16,204	16,181	16,143	16,095	16,037	15,972	15,903	15,835	15,771	15,716
11-15	12,534	12,498	12,314	12,111	11,971	11,865	11,836	11,982	12,181	12,528	12,803	13,021	13,291	13,481	13,487	13,450	13,531	13,531	13,514	13,638	13,760	13,799	13,819	13,822	13,807	13,778	13,740	13,694
16-17	5,301	5,212	5,112	5,160	5,040	5,006	5,041	4,850	4,782	4,739	4,765	4,912	4,978	5,136	5,291	5,386	5,401	5,465	5,588	5,488	5,365	5,450	5,540	5,564	5,588	5,602	5,603	5,598
18-59Female	119,358	119,874	119,671	120,069	120,218	120,684	121,145	121,593	121,905	122,032	122,303	122,263	122,228	122,091	121,905	121,799	121,678	121,554	121,365	121,246	121,164	120,947	120,889	121,033	121,259	121,568	121,881	122,218
60/65 -74	24,295	24,697	25,407	25,864	26,205	26,546	26,901	27,189	27,542	27,772	27,960	28,330	28,201	28,494	29,013	29,599	30,297	31,056	31,776	32,536	33,278	34,012	34,517	34,826	34,913	34,977	34,863	34,597
75-84	10,098	10,381	10,585	10,958	11,497	11,894	12,149	12,583	12,978	13,509	13,978	14,392	15,397	16,005	16,360	16,698	17,023	17,205	17,440	17,540	17,651	17,754	17,519	17,582	17,900	18,194	18,709	19,359
85+	3,658	3,767	3,886	3,919	4,061	4,204	4,382	4,527	4,703	4,911	5,139	5,413	5,694	6,016	6,413	6,750	7,005	7,358	7,697	8,132	8,527	8,908	9,686	10,208	10,597	10,928	11,195	11,430
Total	201,309	202,709	203,652	205,109	206,428	207,955	209,540	211,107	212,668	214,218	215,768	217,278	218,761	220,180	221,538	222,846	224,092	225,293	226,444	227,561	228,630	229,654	230,653	231,622	232,563	233,479	234,377	235,263
Dependency ratios, mean age and sex ratio																												
0-15 / 16-65	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.31	0.31	0.31
65+ / 16-65	0.24	0.25	0.26	0.27	0.28	0.28	0.29	0.29	0.30	0.30	0.31	0.31	0.32	0.32	0.33	0.34	0.35	0.35	0.37	0.38	0.39	0.40	0.40	0.41	0.42	0.43	0.43	0.44
0-15 and 65+	0.54	0.54	0.56	0.57	0.58	0.58	0.59	0.60	0.60	0.61	0.62	0.63	0.63	0.64	0.65	0.65	0.66	0.67	0.68	0.69	0.70	0.71	0.72	0.73	0.74	0.74	0.75	0.75
Median age	39.5	39.7	40.0	40.2	40.4	40.5	40.6	40.6	40.6	40.6	40.7	40.8	40.9	41.0	41.1	41.3	41.4	41.5	41.6	41.8	41.9	42.0	42.2	42.4	42.6	42.7	42.9	43.0
Median age	41.2	41.4	41.8	42.0	42.2	42.4	42.6	42.7	42.8	42.8	42.9	42.9	43.0	43.1	43.3	43.4	43.6	43.7	43.9	44.0	44.2	44.4	44.5	44.7	44.9	45.0	45.2	45.3
Sex ratio ma	98.3	98.3	98.4	98.4	98.4	98.5	98.5	98.6	98.6	98.7	98.7	98.7	98.7	98.7	98.8	98.8	98.8	98.8	98.9	98.9	98.9	99.0	99.0	99.0	99.1	99.1	99.1	99.2
Population impact of constraint																												
Number of persons		-267	-15	+72	+67																							
Households																												
Number of Households			86,048	87,024	87,953	88,888	89,849	90,806	91,726	92,673	93,567	94,467	95,354	96,176	97,005	97,790	98,580	99,366	100,105	100,843	101,568	102,285	102,972	103,606	104,257	104,889	105,532	106,180
Change in Households over previous year				+976	+929	+935	+962	+957	+920	+947	+894	+900	+886	+822	+829	+785	+790	+786	+738	+739	+724	+717	+687	+634	+651	+631	+644	+647
Number of supply units			88,892	89,901	90,860	91,826	92,820	93,808	94,759	95,737	96,660	97,590	98,506	99,355	100,212	101,023	101,839	102,651	103,414	104,177	104,925	105,667	106,376	107,031	107,704	108,356	109,021	109,690
Change in over previous year				+1,008	+959	+966	+994	+988	+951	+978	+924	+930	+916	+849	+857	+811	+816	+812	+763	+763	+748	+741	+709	+655	+673	+652	+665	+669
Labour Force																												
Number of Labour Force			108,227	108,841	106,200	106,806	107,434	107,951	108,951	109,524	109,509	109,713	109,837	109,897	109,945	110,001	110,048	110,210	110,343	110,364	110,435	110,512	110,637	110,784	110,945	111,139	111,333	111,573
Change in Labour Force over previous year				+614	-2,641	+606	+627	+518	+1,000	+573	-15	+204	+124	+60	+48	+56	+47	+162	+134	+20	+71	+77	+126	+147	+161	+193	+195	+239
Number of supply units			134,465	136,066	143,480	144,299	145,420	146,396	148,030	149,088	149,347	149,625	149,794	149,876	149,941	150,017	150,081	150,302	150,484	150,512	150,609	150,714	150,885	151,085	151,305	151,569	151,835	152,161
Change in over previous year				+1,601	+7,414	+819	+1,122	+976	+1,634	+1,058	+259	+278	+169	+82	+65	+76	+64	+221	+182	+28	+97	+105	+171	+200	+220	+264	+266	+326

Population Estimates and Forecasts

Scenario Aiii: 2013 & 2014 MYEs + Partial Catch-Up [PCU] Headship Rates

Components of Population Change

Warrington

Year beginning July 1st .....

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37
Births																											
Male	1,270	1,275	1,217	1,225	1,274	1,283	1,291	1,297	1,299	1,299	1,299	1,297	1,294	1,289	1,284	1,278	1,271	1,264	1,259	1,254	1,250	1,248	1,248	1,249	1,252	1,258	1,266
Female	1,209	1,214	1,159	1,166	1,214	1,222	1,229	1,235	1,238	1,237	1,237	1,235	1,232	1,228	1,223	1,217	1,211	1,204	1,199	1,194	1,190	1,189	1,188	1,189	1,193	1,198	1,206
All Births	2,479	2,489	2,376	2,391	2,488	2,505	2,520	2,532	2,537	2,536	2,536	2,532	2,526	2,517	2,506	2,495	2,482	2,469	2,457	2,448	2,440	2,437	2,436	2,438	2,445	2,457	2,472
TFR	1.98	1.99	1.89	1.90	1.96	1.96	1.96	1.97	1.96	1.96	1.96	1.96	1.95	1.95	1.95	1.95	1.95	1.94	1.94	1.94	1.93	1.93	1.93	1.93	1.93	1.93	1.93
Births input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Deaths																											
Male	833	863	930	859	872	874	885	889	896	907	919	931	944	958	975	993	1,007	1,023	1,039	1,055	1,072	1,085	1,101	1,119	1,134	1,149	1,161
Female	907	939	1,014	906	886	885	893	894	897	905	913	922	932	944	955	968	982	999	1,017	1,033	1,050	1,067	1,083	1,101	1,114	1,130	1,147
All deaths	1,740	1,802	1,944	1,765	1,758	1,759	1,778	1,783	1,793	1,813	1,832	1,853	1,876	1,902	1,930	1,961	1,989	2,021	2,055	2,088	2,122	2,153	2,184	2,220	2,248	2,278	2,308
SMR: males	115.7	116.3	121.5	109.2	106.7	103.5	101.3	98.2	95.7	93.5	91.4	89.4	87.5	85.8	84.4	83.1	81.6	80.3	79.0	77.8	76.8	75.7	74.6	73.8	72.8	71.9	71.0
SMR: females	119.1	119.8	127.1	112.1	107.3	104.8	103.2	100.7	98.5	96.6	94.6	92.7	90.9	89.3	87.6	85.9	84.4	83.1	81.9	80.6	79.5	78.6	77.5	76.6	75.5	74.6	73.8
SMR: persons	117.5	118.1	124.3	110.7	107.0	104.1	102.2	99.4	97.1	95.0	93.0	91.0	89.2	87.5	85.9	84.5	83.0	81.6	80.4	79.2	78.1	77.1	76.0	75.2	74.1	73.2	72.4
Expectation of life: males	77.9	77.8	77.3	78.7	79.0	79.4	79.7	80.0	80.3	80.6	80.9	81.2	81.4	81.7	81.9	82.1	82.4	82.6	82.7	82.9	83.1	83.2	83.4	83.5	83.7	83.9	84.1
Expectation of life: females	81.7	81.7	81.0	82.4	82.7	82.9	83.1	83.4	83.6	83.8	84.0	84.3	84.5	84.7	84.9	85.1	85.3	85.4	85.6	85.8	86.0	86.0	86.2	86.4	86.5	86.6	86.8
Expectation of life: persons	79.9	79.8	79.3	80.6	80.9	81.2	81.4	81.7	82.0	82.2	82.5	82.7	83.0	83.2	83.4	83.6	83.8	84.0	84.2	84.3	84.5	84.6	84.8	85.0	85.1	85.3	85.4
Deaths input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
In-migration from the UK																											
Male	3,210	3,392	3,406	3,525	3,454	3,465	3,473	3,481	3,486	3,488	3,487	3,486	3,485	3,485	3,490	3,498	3,508	3,518	3,529	3,540	3,550	3,559	3,571	3,583	3,593	3,604	3,617
Female	3,365	3,552	3,556	3,670	3,470	3,475	3,475	3,476	3,475	3,468	3,461	3,452	3,445	3,440	3,442	3,449	3,459	3,470	3,482	3,496	3,507	3,518	3,532	3,545	3,555	3,567	3,580
All	6,575	6,944	6,962	7,195	6,925	6,940	6,949	6,957	6,962	6,956	6,948	6,938	6,929	6,924	6,932	6,947	6,967	6,988	7,012	7,037	7,058	7,077	7,103	7,128	7,148	7,172	7,197
SMigR: males	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SMigR: females	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Out-migration to the UK																											
Male	2,940	3,389	3,149	3,336	3,154	3,170	3,163	3,175	3,187	3,181	3,187	3,183	3,193	3,209	3,220	3,229	3,236	3,256	3,265	3,260	3,283	3,286	3,295	3,305	3,316	3,326	3,338
Female	2,990	3,411	3,152	3,363	3,146	3,145	3,146	3,163	3,139	3,121	3,127	3,123	3,139	3,143	3,152	3,178	3,194	3,200	3,204	3,238	3,241	3,248	3,261	3,272	3,286	3,298	3,309
All	5,930	6,800	6,301	6,699	6,300	6,315	6,310	6,338	6,327	6,302	6,313	6,306	6,333	6,352	6,372	6,407	6,431	6,456	6,468	6,498	6,524	6,534	6,557	6,577	6,601	6,624	6,646
SMigR: males	28.1	32.2	30.0	31.7	29.9	29.9	29.7	29.7	29.7	29.6	29.6	29.5	29.5	29.6	29.6	29.6	29.6	29.6	29.6	29.4	29.5	29.4	29.4	29.3	29.3	29.3	29.3
SMigR: females	28.9	32.9	30.5	32.4	30.3	30.2	30.1	30.2	29.9	29.7	29.8	29.7	29.8	29.7	29.7	29.8	29.9	29.8	29.7	29.8	29.7	29.6	29.6	29.6	29.6	29.6	29.6
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
In-migration from Overseas																											
Male	618	699	669	713	470	494	478	482	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470
Female	606	612	717	714	408	426	414	417	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408
All	1,224	1,311	1,386	1,427	879	920	892	898	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878
SMigR: males	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	0.0	0.0
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	0.0	0.0
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Out-migration to Overseas																											
Male	625	611	498	583	390	389	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390
Female	583	588	524	647	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316
All	1,208	1,199	1,022	1,230	706	705	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706
SMigR: males	105.6	102.5	83.9	97.9	65.6	65.3	65.2	65.0	64.8	64.8	64.7	64.7	64.7	64.7	64.7	64.7	64.6	64.4	64.2	64.0	63.7	63.5	63.3	63.0	62.8	62.5	62.3
SMigR: females	127.4	127.9	114.2	140.8	68.9	68.7	68.6	68.6	68.5	68.6	68.7	68.8	69.0	69.1	69.2	69.3	69.3	69.3	69.1	69.0	68.8	68.5	68.2	68.0	67.7	67.5	67.2
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Migration - Net Flows																											
UK	+645	+144	+661	+496	+625	+624	+639	+619	+635	+654	+635	+633	+597	+572	+560	+541	+536	+532	+543	+539	+533	+543	+546	+551	+547	+548	+550
Overseas	+16	+112	+364	+197	+173	+215	+186	+192	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172
Summary of population change																											
Natural change	+739	+687	+432	+626	+730	+746	+742	+750	+744	+723	+704	+679	+650	+615	+576	+534	+493	+447	+402	+359	+319	+284	+252	+218	+197	+178	+164
Net migration	+661	+256	+1,025	+693	+797	+839	+825	+812	+807	+826	+806	+804	+768	+744	+732	+712	+708	+704	+715	+710	+705	+715	+718	+723	+719	+720	+722
Net change	+1,400	+943	+1,457	+1,319	+1,527	+1,585	+1,567	+1,561	+1,550	+1,550	+1,510	+1,483	+1,418	+1,358	+1,307	+1,246	+1,201	+1,151	+1,117	+1,070	+1,024	+999	+969	+941	+916	+898	+886
Crude Birth Rate /000	12.27	12.25	11.63	11.62	12.01	12.00	11.98	11.95	11.89	11.80	11.71	11.61	11.51	11.40	11.28	11.16	11.05	10.93	10.82	10.73	10.65	10.59	10.54	10.51	10.49	10.50	10.53
Crude Death Rate /000	8.61	8.87	9.51	8.58	8.48	8.43	8.45	8.41	8.40	8.43	8.46	8.50	8.55	8.61	8.69	8.77	8.85	8.95	9.05	9.16	9.26	9.35	9.45	9.56	9.65	9.74	9.83
Crude Net Migration Rate /000	3.27	1.26	5.02	3.37	3.85	4.02	3.92	3.83	3.78	3.84	3.72	3.69	3.50	3.37	3.29	3.19	3.15	3.12	3.15	3.11	3.08	3.11	3.10	3.11	3.08	3.08	3.07

Summary of Population estimates/forecasts

Population at mid-year

	2010	2011	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	2037
0-4	12,191	12,386	12,519	12,605	12,620	12,714	12,724	12,712	12,855	12,998	13,042	13,070	13,079	13,069	13,046	13,013	12,970	12,918	12,860	12,801	12,743	12,690	12,646	12,614	12,597	12,597	12,615	12,652
5-10	13,874	13,894	14,158	14,423	14,816	15,041	15,363	15,670	15,722	15,730	15,778	15,878	15,893	15,888	16,022	16,149	16,188	16,206	16,204	16,181	16,143	16,095	16,037	15,972	15,903	15,835	15,771	15,716
11-15	12,534	12,498	12,314	12,111	11,971	11,865	11,836	11,982	12,181	12,528	12,803	13,021	13,291	13,481	13,487	13,450	13,531	13,531	13,514	13,638	13,760	13,799	13,819	13,822	13,807	13,778	13,740	13,694
16-17	5,301	5,212	5,112	5,160	5,040	5,006	5,041	4,850	4,782	4,739	4,765	4,912	4,978	5,136	5,291	5,386	5,401	5,465	5,588	5,488	5,365	5,450	5,540	5,564	5,588	5,602	5,603	5,598
18-59Female, 64Male	119,358	119,874	119,671	120,069	120,218	120,684	121,145	121,593	121,905	122,032	122,303	122,263	122,228	122,091	121,905	121,799	121,678	121,554	121,365	121,246	121,164	120,947	120,889	121,033	121,259	121,568	121,881	122,218
60/65 -74	24,295	24,697	25,407	25,864	26,205	26,546	26,901	27,189	27,542	27,772	27,960	28,330	28,201	28,494	29,013	29,599	30,297	31,056	31,776	32,536	33,278	34,012	34,517	34,826	34,913	34,977	34,863	34,597
75-84	10,098	10,381	10,585	10,958	11,497	11,894	12,149	12,583	12,978	13,509	13,978	14,392	15,397	16,005	16,360	16,698	17,023	17,205	17,440	17,540	17,651	17,754	17,519	17,582	17,900	18,194	18,709	19,359
85+	3,658	3,767	3,886	3,919	4,061	4,204	4,382	4,527	4,703	4,911	5,139	5,413	5,694	6,016	6,413	6,750	7,005	7,358	7,697	8,132	8,527	8,908	9,686	10,208	10,597	10,928	11,195	11,430
Total	201,309	202,709	203,652	205,109	206,428	207,955	209,540	211,107	212,668	214,218	215,768	217,278	218,761	220,180	221,538	222,846	224,092	225,293	226,444	227,561	228,630	229,654	230,653	231,622	232,563	233,479	234,377	235,263
Dependency ratios, mean age and sex ratio																												
0-15 / 16-65	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.31	0.31	0.31
65+ / 16-65	0.24	0.25	0.26	0.27	0.28	0.28	0.29	0.29	0.30	0.30	0.31	0.31	0.32	0.32	0.33	0.34	0.35	0.35	0.37	0.38	0.39	0.40	0.40	0.41	0.42	0.43	0.43	0.44
0-15 and 65+ / 16-65	0.54	0.54	0.56	0.57	0.58	0.58	0.59	0.60	0.60	0.61	0.62	0.63	0.63	0.64	0.65	0.65	0.66	0.67	0.68	0.69	0.70	0.71	0.72	0.73	0.74	0.74	0.75	0.75
Median age males	39.5	39.7	40.0	40.2	40.4	40.5	40.6	40.6	40.6	40.6	40.7	40.8	40.9	41.0	41.1	41.3	41.4	41.5	41.6	41.8	41.9	42.0	42.2	42.4	42.6	42.7	42.9	43.0
Median age females	41.2	41.4	41.8	42.0	42.2	42.4	42.6	42.7	42.8	42.8	42.9	42.9	43.0	43.1	43.3	43.4	43.6	43.7	43.9	44.0	44.2	44.4	44.5	44.7	44.9	45.0	45.2	45.3
Sex ratio males /100 females	98.3	98.3	98.4	98.4	98.4	98.5	98.5	98.6	98.6	98.7	98.7	98.7	98.7	98.7	98.8	98.8	98.8	98.8	98.9	98.9	98.9	99.0	99.0	99.0	99.1	99.1	99.1	99.2
Population impact of constraint																												
Number of persons		-267	-15	+72	+67																							
Households																												
Number of Households			86,048	87,024	87,953	88,888	89,849	90,806	91,769	92,758	93,693	94,636	95,569	96,434	97,311	98,142	98,972	99,798	100,581	101,364	102,133	102,895	103,631	104,324	105,033	105,729	106,433	107,148
Change in Households over previous year				+976	+929	+935	+962	+957	+963	+990	+934	+944	+933	+865	+877	+831	+829	+826	+783	+783	+769	+762	+736	+693	+709	+696	+705	+715
Number of supply units			88,892	89,901	90,860	91,826	92,820	93,808	94,802	95,825	96,790	97,765	98,729	99,622	100,528	101,387	102,243	103,097	103,906	104,715	105,509	106,297	107,057	107,773	108,505	109,224	109,952	110,690
Change in over previous year				+1,008	+959	+966	+994	+988	+994	+1,023	+965	+975	+964	+894	+906	+859	+857	+854	+808	+809	+794	+788	+760	+716	+732	+719	+728	+739
Labour Force																												
Number of Labour Force			108,227	108,841	106,200	106,806	107,434	107,951	108,951	109,524	109,509	109,713	109,837	109,897	109,945	110,001	110,048	110,210	110,343	110,364	110,435	110,512	110,637	110,784	110,945	111,139	111,333	111,573
Change in Labour Force over previous year				+614	-2,641	+606	+627	+518	+1,000	+573	-15	+204	+124	+60	+48	+56	+47	+162	+134	+20	+71	+77	+126	+147	+161	+193	+195	+239
Number of supply units			134,465	136,066	143,480	144,299	145,420	146,396	148,030	149,088	149,347	149,625	149,794	149,876	149,941	150,017	150,081	150,302	150,484	150,512	150,609	150,714	150,885	151,085	151,305	151,569	151,835	152,161
Change in over previous year				+1,601	+7,414	+819	+1,122	+976	+1,634	+1,058	+259	+278	+169	+82	+65	+76	+64	+221	+182	+28	+97	+105	+171	+200	+220	+264	+266	+326

Population Estimates and Forecasts

Scenario B:Long Term Migration Trends

Components of Population Change

Warrington

Year beginning July 1st .....

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37
Births																											
Male	1,260	1,266	1,210	1,223	1,273	1,275	1,285	1,294	1,301	1,305	1,309	1,313	1,317	1,320	1,324	1,327	1,331	1,334	1,336	1,339	1,342	1,345	1,349	1,354	1,361	1,370	1,380
Female	1,200	1,206	1,153	1,165	1,212	1,215	1,223	1,232	1,239	1,242	1,247	1,251	1,254	1,257	1,261	1,264	1,267	1,270	1,273	1,275	1,278	1,281	1,285	1,290	1,296	1,305	1,314
All Births	2,461	2,473	2,363	2,388	2,485	2,490	2,508	2,526	2,539	2,547	2,557	2,564	2,570	2,578	2,584	2,591	2,598	2,604	2,609	2,614	2,620	2,627	2,635	2,644	2,657	2,675	2,695
TFR	1.97	1.98	1.88	1.89	1.95	1.94	1.94	1.94	1.94	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.92	1.92	1.92	1.92	1.93	1.93	1.93	1.93	1.93	1.93
Births input																											
Deaths																											
Male	845	876	944	863	854	857	865	867	873	883	894	905	917	931	947	964	978	993	1,009	1,025	1,042	1,056	1,072	1,090	1,105	1,121	1,134
Female	894	926	1,000	886	872	866	871	871	874	882	889	897	906	918	929	941	954	970	988	1,004	1,020	1,037	1,053	1,070	1,084	1,099	1,116
All deaths	1,740	1,802	1,944	1,748	1,726	1,723	1,736	1,738	1,747	1,765	1,783	1,802	1,824	1,849	1,876	1,905	1,932	1,963	1,996	2,029	2,062	2,093	2,125	2,161	2,189	2,220	2,250
SMR: males	117.5	118.1	123.3	110.7	106.7	103.9	101.6	98.7	96.2	94.0	91.9	90.0	88.1	86.4	85.0	83.7	82.2	80.8	79.6	78.4	77.3	76.2	75.2	74.4	73.3	72.4	71.5
SMR: females	117.5	118.1	125.3	110.7	107.3	104.5	103.0	100.5	98.3	96.6	94.6	92.7	91.0	89.4	87.7	86.1	84.6	83.3	82.1	80.9	79.7	78.9	77.8	76.9	75.7	74.9	74.1
SMR: persons	117.5	118.1	124.3	110.7	107.0	104.2	102.3	99.6	97.2	95.3	93.2	91.3	89.5	87.9	86.3	84.9	83.4	82.0	80.8	79.6	78.5	77.5	76.4	75.6	74.5	73.6	72.8
Expectation of life: males	77.7	77.7	77.2	78.5	78.9	79.2	79.5	79.8	80.1	80.4	80.7	81.0	81.2	81.5	81.7	81.9	82.2	82.4	82.6	82.8	82.9	83.1	83.3	83.5	83.7	83.8	84.0
Expectation of life: females	81.8	81.8	81.2	82.5	82.8	83.0	83.2	83.4	83.7	83.8	84.1	84.3	84.5	84.7	84.9	85.1	85.3	85.4	85.6	85.7	85.9	86.0	86.2	86.4	86.5	86.7	86.8
Expectation of life: persons	79.9	79.8	79.3	80.6	80.9	81.2	81.4	81.7	82.0	82.2	82.4	82.7	82.9	83.1	83.3	83.6	83.8	83.9	84.1	84.3	84.5	84.6	84.8	85.0	85.1	85.3	85.4
Deaths input																											
In-migration from the UK																											
Male	3,259	3,445	3,459	3,581	3,169	3,174	3,179	3,183	3,187	3,191	3,194	3,196	3,198	3,198	3,198	3,197	3,196	3,195	3,195	3,194	3,194	3,193	3,193	3,194	3,194	3,194	3,194
Female	3,316	3,499	3,503	3,614	3,188	3,183	3,178	3,174	3,170	3,166	3,163	3,161	3,159	3,159	3,159	3,160	3,161	3,162	3,162	3,163	3,163	3,164	3,164	3,163	3,163	3,163	3,163
All	6,575	6,944	6,962	7,195	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357	6,357
SMigR: males	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SMigR: females	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Out-migration to the UK																											
Male	2,981	3,423	3,176	3,373	2,998	2,997	2,997	2,997	3,000	3,003	3,006	3,007	3,007	3,007	3,006	3,004	3,001	3,000	2,999	2,997	2,996	2,996	2,995	2,995	2,995	2,995	2,995
Female	2,949	3,377	3,125	3,326	2,962	2,963	2,963	2,963	2,960	2,957	2,954	2,953	2,953	2,953	2,954	2,956	2,959	2,960	2,961	2,963	2,964	2,964	2,965	2,965	2,965	2,965	2,965
All	5,930	6,800	6,301	6,699	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960	5,960
SMigR: males	28.5	32.5	30.2	31.8	28.0	27.8	27.6	27.4	27.2	27.1	27.0	26.9	26.8	26.7	26.6	26.5	26.3	26.1	26.0	25.8	25.7	25.5	25.4	25.3	25.1	25.0	24.9
SMigR: females	28.5	32.5	30.2	31.8	28.0	27.8	27.6	27.4	27.2	27.1	27.0	26.9	26.8	26.7	26.6	26.5	26.3	26.1	26.0	25.8	25.7	25.5	25.4	25.3	25.1	25.0	24.9
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
In-migration from Overseas																											
Male	743	812	510	554	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511
Female	812	727	422	458	422	422	422	422	422	422	422	422	422	422	422	422	422	422	422	422	422	422	422	422	422	422	422
All	1,554	1,539	932	1,012	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933	933
SMigR: males	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	0.0	0.0
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	0.0	0.0
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Out-migration to Overseas																											
Male	735	722	361	498	327	327	327	327	327	328	328	328	328	328	329	329	329	329	329	329	329	329	329	329	329	329	329
Female	784	689	279	384	253	253	253	253	253	252	252	252	252	252	251	251	251	251	251	251	251	251	251	251	251	251	251
All	1,520	1,411	640	882	580	580	580	580	580	580	580	580	580	580	580	580	580	580	580	580	580	580	580	580	580	580	580
SMigR: males	124.3	121.1	60.8	83.2	54.4	53.9	53.5	53.2	52.9	52.6	52.4	52.3	52.1	52.0	51.9	51.8	51.6	51.5	51.2	51.0	50.7	50.5	50.2	50.0	49.7	49.5	49.3
SMigR: females	171.4	150.1	60.8	83.2	54.4	53.9	53.5	53.2	52.9	52.6	52.4	52.3	52.1	52.0	51.9	51.8	51.6	51.5	51.2	51.0	50.7	50.5	50.2	50.0	49.7	49.5	49.3
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Migration - Net Flows																											
UK	+645	+144	+661	+496	+397	+397	+397	+397	+397	+397	+397	+397	+397	+397	+397	+397	+397	+397	+397	+397	+397	+397	+397	+397	+397	+397	+397
Overseas	+34	+128	+292	+130	+353	+353	+353	+353	+353	+353	+353	+353	+353	+353	+353	+353	+353	+353	+353	+353	+353	+353	+353	+353	+353	+353	+353
Summary of population change																											
Natural change	+721	+671	+419	+639	+758	+767	+772	+787	+792	+782	+774	+762	+747	+729	+709	+686	+666	+640	+613	+585	+558	+534	+510	+484	+468	+455	+445
Net migration	+679	+272	+953	+626	+750	+750	+750	+750	+750	+750	+750	+750	+750	+750	+750	+750	+750	+750	+750	+750	+750	+750	+750	+750	+750	+750	+750
Net change	+1,400	+943	+1,372	+1,265	+1,508	+1,517	+1,522	+1,537	+1,542	+1,532	+1,524	+1,512	+1,497	+1,479	+1,459	+1,436	+1,416	+1,390	+1,363	+1,335	+1,308	+1,284	+1,260	+1,234	+1,218	+1,205	+1,195
Crude Birth Rate /000	12.18	12.17	11.57	11.61	12.00	11.94	11.94	11.94	11.91	11.86	11.82	11.78	11.72	11.68	11.63	11.59	11.54	11.50	11.45	11.41	11.37	11.33	11.30	11.28	11.28	11.30	11.32
Crude Death Rate /000	8.61	8.87	9.51	8.50	8.34	8.26	8.26	8.21	8.20	8.22	8.24	8.28	8.32	8.38	8.44	8.52	8.59	8.67	8.76	8.85	8.94	9.03	9.12	9.22	9.29	9.38	9.45
Crude Net Migration Rate /000	3.36	1.34	4.66	3.04	3.62	3.60	3.57	3.54	3.52	3.49	3.47	3.44	3.42	3.40	3.38	3.35	3.33	3.31	3.29	3.27	3.25	3.24	3.22	3.20	3.18	3.17	3.15

Summary of Population estimates/forecasts

Population at mid-year

	2010	2011	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	2037
0-4	12,191	12,386	12,519	12,446	12,320	12,353	12,363	12,368	12,521	12,661	12,726	12,792	12,847	12,890	12,926	12,960	12,990	13,019	13,047	13,073	13,098	13,122	13,146	13,174	13,206	13,247	13,301	13,368
5-10	13,874	13,894	14,158	14,319	14,639	14,809	14,993	15,178	15,137	15,108	15,106	15,159	15,195	15,220	15,376	15,512	15,582	15,648	15,700	15,741	15,774	15,803	15,829	15,852	15,875	15,896	15,917	15,940
11-15	12,534	12,498	12,314	12,085	11,877	11,701	11,631	11,737	11,905	12,175	12,412	12,581	12,749	12,852	12,812	12,749	12,796	12,816	12,824	12,959	13,079	13,137	13,192	13,234	13,265	13,288	13,308	13,325
16-17	5,301	5,212	5,112	5,188	5,067	5,014	4,999	4,779	4,680	4,638	4,656	4,775	4,840	4,975	5,095	5,175	5,188	5,191	5,257	5,174	5,089	5,181	5,255	5,280	5,310	5,335	5,351	5,362
18-59Female, 64Male	119,358	119,874	119,671	120,413	120,910	121,582	122,223	122,823	123,229	123,452	123,776	123,808	123,826	123,747	123,631	123,615	123,553	123,516	123,390	123,274	123,230	123,078	123,108	123,335	123,653	124,079	124,510	124,976
60/65 -74	24,295	24,697	25,407	25,807	26,163	26,514	26,888	27,196	27,602	27,873	28,102	28,538	28,455	28,809	29,402	30,017	30,791	31,603	32,390	33,206	33,989	34,736	35,250	35,544	35,601	35,634	35,474	35,198
75-84	10,098	10,381	10,585	10,930	11,402	11,794	12,048	12,460	12,845	13,390	13,843	14,245	15,247	15,854	16,218	16,569	16,900	17,099	17,352	17,481	17,615	17,765	17,564	17,666	18,035	18,356	18,926	19,595
85+	3,658	3,767	3,886	3,837	3,911	4,031	4,169	4,296	4,456	4,619	4,828	5,076	5,325	5,635	5,999	6,323	6,555	6,878	7,201	7,615	7,987	8,347	9,107	9,627	10,000	10,329	10,581	10,799
Total	201,309	202,709	203,652	205,024	206,290	207,798	209,315	210,837	212,375	213,917	215,449	216,973	218,485	219,982	221,460	222,919	224,355	225,771	227,161	228,524	229,859	231,167	232,451	233,711	234,945	236,163	237,368	238,563
Dependency ratios, mean age and sex ratio																												
0-15 / 16-65	0.29	0.30	0.30	0.30	0.29	0.29	0.29	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
65+ / 16-65	0.24	0.25	0.26	0.27	0.27	0.28	0.28	0.29	0.29	0.30	0.30	0.31	0.31	0.32	0.32	0.33	0.34	0.35	0.36	0.37	0.38	0.39	0.40	0.41	0.41	0.42	0.43	0.43
0-15 and 65+ / 16-65	0.54	0.54	0.56	0.56	0.57	0.57	0.57	0.58	0.59	0.59	0.60	0.61	0.61	0.62	0.63	0.63	0.64	0.65	0.66	0.68	0.69	0.70	0.71	0.72	0.72	0.73	0.74	0.74
Median age males	39.5	39.7	40.0	40.1	40.2	40.3	40.3	40.3	40.2	40.2	40.3	40.3	40.4	40.5	40.5	40.6	40.7	40.7	40.8	40.9	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7
Median age females	41.2	41.4	41.8	41.9	42.2	42.3	42.5	42.6	42.6	42.7	42.7	42.7	42.8	42.9	43.0	43.1	43.1	43.2	43.3	43.4	43.4	43.5	43.6	43.7	43.8	43.9	43.9	44.0
Sex ratio males /100 females	98.3	98.3	98.4	98.4	98.4	98.5	98.5	98.6	98.7	98.7	98.8	98.8	98.9	98.9	99.0	99.0	99.1	99.1	99.2	99.2	99.2	99.3	99.3	99.4	99.4	99.5	99.5	99.6
Population impact of constraint																												
Number of persons		-249	+1																									
Households																												
Number of Households			86,048	86,689	87,476	88,330	89,215	90,118	91,004	91,972	92,893	93,812	94,722	95,577	96,465	97,321	98,180	99,037	99,850	100,664	101,458	102,238	102,986	103,682	104,399	105,094	105,797	106,505
Change in Households over previous year				+641	+787	+855	+884	+904	+886	+967	+922	+919	+910	+854	+888	+856	+860	+856	+813	+814	+794	+780	+748	+695	+717	+695	+703	+708
Number of supply units			88,892	89,555	90,368	91,250	92,164	93,097	94,013	95,012	95,964	96,914	97,854	98,736	99,654	100,538	101,426	102,311	103,151	103,992	104,812	105,618	106,391	107,109	107,850	108,568	109,294	110,026
Change in over previous year				+662	+813	+883	+913	+934	+915	+999	+952	+949	+940	+883	+918	+884	+888	+885	+840	+841	+820	+806	+773	+718	+741	+718	+726	+731
Labour Force																												
Number of Labour Force			108,227	108,849	106,435	107,158	107,876	108,487	109,700	110,363	110,268	110,523	110,702	110,805	110,911	111,046	111,140	111,371	111,558	111,640	111,783	111,915	112,103	112,313	112,555	112,849	113,148	113,500
Change in Labour Force over previous year				+622	-2,414	+723	+718	+610	+1,213	+663	-94	+255	+178	+103	+106	+135	+95	+231	+187	+82	+143	+132	+189	+210	+241	+294	+299	+352
Number of supply units			134,465	136,076	143,797	144,775	146,020	147,123	149,048	150,229	150,382	150,730	150,973	151,113	151,258	151,442	151,571	151,886	152,141	152,253	152,448	152,628	152,885	153,171	153,500	153,901	154,309	154,789
Change in over previous year				+1,610	+7,721	+977	+1,245	+1,103	+1,925	+1,182	+153	+348	+243	+141	+145	+184	+129	+315	+255	+112	+195	+179	+257	+286	+329	+401	+408	+480

Population Estimates and Forecasts

Scenario C: Experian Job Growth

Components of Population Change

Warrington

Year beginning July 1st .....

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37
Births																											
Male	1,261	1,268	1,212	1,220	1,268	1,271	1,275	1,280	1,272	1,269	1,279	1,287	1,296	1,306	1,315	1,324	1,333	1,339	1,346	1,356	1,366	1,377	1,387	1,398	1,410	1,424	1,438
Female	1,201	1,208	1,154	1,162	1,207	1,210	1,214	1,219	1,211	1,209	1,218	1,226	1,234	1,244	1,252	1,261	1,269	1,275	1,282	1,291	1,301	1,311	1,321	1,331	1,343	1,356	1,370
All Births	2,463	2,476	2,366	2,382	2,475	2,481	2,489	2,499	2,483	2,478	2,497	2,513	2,530	2,549	2,568	2,585	2,602	2,613	2,627	2,647	2,667	2,688	2,708	2,729	2,753	2,779	2,808
TFR	1.97	1.98	1.88	1.89	1.95	1.94	1.94	1.94	1.94	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.92	1.92	1.92	1.92	1.93	1.93	1.93	1.93	1.93	1.93
Births input																											
Deaths																											
Male	845	876	944	871	872	873	879	880	885	894	905	918	932	947	966	984	1,000	1,017	1,034	1,053	1,072	1,088	1,106	1,127	1,144	1,161	1,176
Female	894	926	1,000	894	886	880	885	885	885	892	901	911	922	937	951	966	982	1,001	1,021	1,040	1,058	1,078	1,096	1,116	1,132	1,149	1,168
All deaths	1,740	1,802	1,944	1,765	1,758	1,753	1,764	1,765	1,769	1,786	1,806	1,829	1,854	1,884	1,917	1,950	1,983	2,018	2,055	2,093	2,130	2,166	2,202	2,243	2,275	2,310	2,344
SMR: males	117.5	118.1	123.3	110.7	106.7	103.9	101.6	98.7	96.2	94.0	91.9	90.0	88.1	86.4	85.0	83.7	82.2	80.8	79.6	78.4	77.3	76.2	75.2	74.4	73.3	72.4	71.5
SMR: females	117.5	118.1	125.3	110.7	107.3	104.5	103.0	100.5	98.3	96.6	94.6	92.7	91.0	89.4	87.7	86.1	84.6	83.3	82.1	80.9	79.7	78.9	77.8	76.9	75.7	74.9	74.1
SMR: persons	117.5	118.1	124.3	110.7	107.0	104.2	102.3	99.6	97.2	95.3	93.2	91.3	89.5	87.9	86.3	84.9	83.4	82.1	80.8	79.6	78.5	77.5	76.4	75.6	74.5	73.6	72.8
Expectation of life: males	77.7	77.7	77.2	78.5	78.9	79.3	79.5	79.8	80.1	80.4	80.7	81.0	81.2	81.5	81.7	81.9	82.2	82.4	82.6	82.8	82.9	83.1	83.3	83.5	83.7	83.8	84.0
Expectation of life: females	81.8	81.8	81.2	82.5	82.8	83.1	83.2	83.5	83.7	83.8	84.1	84.3	84.5	84.7	84.9	85.1	85.3	85.4	85.6	85.8	85.9	86.1	86.2	86.4	86.5	86.7	86.8
Expectation of life: persons	79.9	79.8	79.3	80.6	80.9	81.2	81.4	81.7	82.0	82.2	82.4	82.7	82.9	83.1	83.4	83.6	83.8	83.9	84.1	84.3	84.5	84.6	84.8	85.0	85.1	85.3	85.4
Deaths input																											
In-migration from the UK																											
Male	3,210	3,392	3,406	3,525	3,493	3,412	3,469	3,284	3,466	3,692	3,681	3,712	3,736	3,740	3,741	3,753	3,714	3,738	3,797	3,787	3,797	3,785	3,789	3,795	3,793	3,803	3,795
Female	3,365	3,552	3,556	3,670	3,509	3,422	3,471	3,279	3,455	3,672	3,654	3,676	3,693	3,692	3,690	3,700	3,662	3,688	3,747	3,740	3,750	3,741	3,747	3,755	3,752	3,764	3,756
All	6,575	6,944	6,962	7,195	7,001	6,834	6,940	6,563	6,921	7,364	7,335	7,388	7,429	7,433	7,432	7,453	7,376	7,426	7,545	7,527	7,547	7,526	7,536	7,550	7,545	7,567	7,551
SMigR: males	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SMigR: females	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Out-migration to the UK																											
Male	2,940	3,389	3,148	3,336	3,116	3,223	3,168	3,372	3,208	2,975	2,991	2,956	2,941	2,952	2,967	2,974	3,030	3,035	2,996	3,014	3,037	3,060	3,078	3,093	3,116	3,127	3,160
Female	2,990	3,411	3,153	3,363	3,107	3,198	3,151	3,359	3,160	2,918	2,935	2,900	2,892	2,892	2,905	2,927	2,991	2,983	2,940	2,994	2,998	3,025	3,046	3,062	3,088	3,101	3,132
All	5,930	6,800	6,301	6,699	6,223	6,421	6,319	6,732	6,367	5,893	5,926	5,855	5,833	5,844	5,873	5,901	6,021	6,018	5,936	6,008	6,035	6,086	6,123	6,155	6,204	6,228	6,292
SMigR: males	28.1	32.2	30.0	31.7	29.5	30.4	29.8	31.6	30.1	27.9	27.8	27.3	26.9	26.8	26.6	26.4	26.7	26.5	25.9	25.8	25.7	25.6	25.6	25.5	25.5	25.4	25.5
SMigR: females	28.9	32.9	30.5	32.4	29.9	30.7	30.2	32.1	30.4	28.1	28.0	27.4	27.1	26.8	26.7	26.6	26.8	26.5	25.9	26.0	25.8	25.8	25.7	25.6	25.6	25.6	25.6
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
In-migration from Overseas																											
Male	625	713	680	724	470	494	478	482	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470
Female	606	604	709	706	408	426	414	417	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408
All	1,231	1,317	1,389	1,430	879	920	892	898	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878
SMigR: males	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	0.0	0.0
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	0.0	0.0
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Out-migration to Overseas																											
Male	611	605	490	578	390	389	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390
Female	587	587	525	646	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316
All	1,198	1,192	1,015	1,224	706	705	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706
SMigR: males	103.2	101.5	82.6	97.1	65.5	65.2	65.2	65.0	65.3	65.3	64.8	64.3	63.8	63.3	62.8	62.3	61.7	61.2	60.7	60.1	59.5	58.9	58.4	57.9	57.5	57.1	56.7
SMigR: females	128.4	127.8	114.5	140.7	68.9	68.6	68.7	68.6	69.1	69.2	68.8	68.4	68.0	67.4	66.9	66.4	65.8	65.4	64.8	64.1	63.5	62.8	62.2	61.7	61.3	60.8	60.4
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Migration - Net Flows																											
UK	+645	+144	+561	+496	+778	+412	+621	-169	+553	+1,471	+1,410	+1,533	+1,596	+1,589	+1,559	+1,551	+1,355	+1,408	+1,609	+1,519	+1,512	+1,440	+1,413	+1,396	+1,341	+1,338	+1,258
Overseas	+32	+125	+374	+205	+173	+215	+186	+192	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172
Summary of population change																											
Natural change	+723	+674	+422	+618	+717	+728	+725	+734	+713	+692	+691	+684	+675	+665	+651	+635	+619	+595	+572	+554	+536	+522	+506	+487	+478	+469	+464
Net migration	+677	+269	+1,035	+701	+951	+627	+807	+24	+725	+1,643	+1,581	+1,705	+1,768	+1,761	+1,731	+1,723	+1,527	+1,580	+1,781	+1,691	+1,684	+1,612	+1,584	+1,567	+1,512	+1,510	+1,430
Net change	+1,400	+943	+1,457	+1,319	+1,668	+1,355	+1,532	+758	+1,438	+2,334	+2,272	+2,388	+2,443	+2,425	+2,382	+2,358	+2,147	+2,175	+2,353	+2,245	+2,220	+2,134	+2,090	+2,054	+1,990	+1,979	+1,894
Crude Birth Rate /000	12.19	12.19	11.58	11.58	11.94	11.89	11.84	11.82	11.69	11.56	11.53	11.47	11.43	11.39	11.35	11.31	11.27	11.22	11.17	11.14	11.12	11.11	11.09	11.09	11.09	11.11	11.14
Crude Death Rate /000	8.61	8.87	9.51	8.58	8.48	8.40	8.39	8.35	8.33	8.33	8.34	8.35	8.38	8.42	8.47	8.53	8.59	8.66	8.73	8.81	8.88	8.95	9.02	9.11	9.17	9.23	9.30
Crude Net Migration Rate /000	3.35	1.32	5.06	3.41	4.59	3.00	3.84	0.11	3.41	7.66	7.30	7.78	7.98	7.87	7.65	7.54	6.62	6.78	7.57	7.12	7.02	6.66	6.49	6.37	6.09	6.04	5.67

Summary of Population estimates/forecasts

Population at mid-year

	2010	2011	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	2037
0-4	12,191	12,386	12,519	12,605	12,620	12,712	12,679	12,635	12,687	12,783	12,858	12,935	13,017	13,098	13,186	13,278	13,367	13,440	13,513	13,597	13,677	13,760	13,843	13,931	14,025	14,123	14,231	14,343
5-10	13,874	13,894	14,158	14,423	14,816	15,049	15,361	15,666	15,676	15,671	15,740	15,850	15,881	15,906	16,073	16,241	16,344	16,440	16,534	16,630	16,725	16,825	16,918	17,006	17,091	17,174	17,260	17,347
11-15	12,534	12,498	12,314	12,111	11,971	11,870	11,835	11,980	12,156	12,499	12,797	13,039	13,339	13,561	13,600	13,594	13,698	13,707	13,701	13,852	14,001	14,081	14,162	14,238	14,306	14,375	14,449	14,518
16-17	5,301	5,212	5,112	5,160	5,040	5,008	5,040	4,850	4,773	4,730	4,764	4,918	4,995	5,165	5,333	5,442	5,470	5,545	5,681	5,593	5,479	5,567	5,656	5,687	5,728	5,761	5,781	5,805
18-59Female, 64Male	119,358	119,874	119,671	120,069	120,218	120,822	121,138	121,586	121,304	121,381	122,289	122,853	123,514	124,146	124,740	125,399	126,050	126,552	127,026	127,713	128,370	128,885	129,496	130,281	131,126	132,019	132,917	133,778
60/65 -74	24,295	24,697	25,407	25,864	26,205	26,576	26,946	27,253	27,599	27,842	28,078	28,495	28,415	28,762	29,339	29,986	30,748	31,570	32,360	33,199	34,025	34,846	35,436	35,825	35,988	36,127	36,083	35,882
75-84	10,098	10,381	10,585	10,958	11,497	11,912	12,183	12,632	13,026	13,571	14,069	14,512	15,553	16,197	16,589	16,964	17,326	17,540	17,810	17,947	18,092	18,229	18,011	18,100	18,453	18,783	19,345	20,049
85+	3,658	3,767	3,886	3,919	4,061	4,147	4,270	4,381	4,521	4,703	4,920	5,184	5,461	5,783	6,182	6,521	6,781	7,135	7,479	7,927	8,333	8,729	9,535	10,080	10,485	10,829	11,104	11,342
Total	201,309	202,709	203,652	205,109	206,428	208,096	209,452	210,984	211,742	213,180	215,515	217,786	220,175	222,618	225,043	227,425	229,783	231,930	234,105	236,458	238,703	240,923	243,057	245,147	247,201	249,191	251,170	253,064
Dependency ratios, mean age and sex ratio																												
0-15 / 16-65	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32
65+ / 16-65	0.24	0.25	0.26	0.27	0.28	0.28	0.29	0.29	0.30	0.30	0.31	0.31	0.32	0.32	0.33	0.33	0.34	0.35	0.35	0.36	0.37	0.38	0.39	0.39	0.40	0.40	0.41	0.41
0-15 and 65+ / 16-65	0.54	0.54	0.56	0.57	0.58	0.58	0.59	0.60	0.60	0.61	0.62	0.62	0.63	0.63	0.64	0.64	0.65	0.66	0.67	0.68	0.68	0.69	0.70	0.71	0.71	0.72	0.73	0.73
Median age males	39.5	39.7	40.0	40.2	40.4	40.5	40.6	40.7	40.7	40.8	40.8	40.8	40.8	40.9	40.9	41.0	41.0	41.1	41.2	41.2	41.3	41.4	41.6	41.7	41.8	41.9	42.0	42.1
Median age females	41.2	41.4	41.8	42.0	42.2	42.4	42.6	42.7	42.9	43.0	42.9	42.9	42.9	42.9	43.0	43.0	43.1	43.1	43.2	43.3	43.3	43.4	43.5	43.6	43.7	43.8	43.9	44.0
Sex ratio males /100 females	98.3	98.3	98.4	98.4	98.4	98.5	98.5	98.6	98.6	98.6	98.7	98.7	98.7	98.8	98.8	98.8	98.9	98.9	99.0	99.0	99.1	99.1	99.2	99.2	99.3	99.3	99.4	99.4
Population impact of constraint																												
Number of persons		-251	-2	+82	+75	+154	-212	-18	-788	-82	+817	+775	+901	+999	+1,017	+999	+1,011	+819	+876	+1,065	+980	+978	+897	+867	+845	+793	+790	+708
Labour Force																												
Number of Labour Force			108,227	108,841	106,200	106,921	107,440	107,956	108,471	108,983	109,494	110,208	110,923	111,637	112,352	113,066	113,780	114,495	115,209	115,924	116,638	117,352	118,067	118,781	119,496	120,210	120,924	121,639
Change in Labour Force over previous year				+614	-2,641	+721	+518	+516	+515	+513	+511	+714	+714	+714	+714	+714	+714	+714	+714	+714	+714	+714	+714	+714	+714	+714	+714	+714
Number of supply units			134,465	136,066	143,480	144,454	145,429	146,403	147,377	148,351	149,326	150,300	151,274	152,249	153,223	154,197	155,171	156,146	157,120	158,094	159,069	160,043	161,017	161,992	162,966	163,940	164,914	165,889
Change in over previous year				+1,601	+7,414	+974	+974	+974	+974	+974	+974	+974	+974	+974	+974	+974	+974	+974	+974	+974	+974	+974	+974	+974	+974	+974	+974	+974
Households																												
Number of Households			86,048	87,024	87,953	88,939	89,829	90,785	91,428	92,341	93,539	94,748	96,002	97,242	98,503	99,729	100,979	102,163	103,325	104,564	105,768	106,974	108,125	109,210	110,308	111,368	112,441	113,490
Change in Households over previous year				+976	+929	+987	+889	+956	+644	+913	+1,198	+1,210	+1,254	+1,239	+1,262	+1,226	+1,250	+1,184	+1,162	+1,239	+1,205	+1,206	+1,150	+1,085	+1,098	+1,060	+1,073	+1,049
Number of supply units			88,892	89,901	90,860	91,879	92,798	93,786	94,451	95,393	96,631	97,881	99,176	100,456	101,760	103,026	104,317	105,540	106,740	108,020	109,265	110,511	111,699	112,820	113,954	115,050	116,158	117,242
Change in over previous year				+1,008	+959	+1,019	+919	+988	+665	+943	+1,237	+1,250	+1,296	+1,280	+1,303	+1,266	+1,291	+1,223	+1,200	+1,280	+1,244	+1,246	+1,188	+1,121	+1,134	+1,095	+1,109	+1,084

Population Estimates and Forecasts

Scenario D:Job Stabilisation

Components of Population Change

Warrington

Year beginning July 1st .....

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37
Births																											
Male	1,261	1,268	1,212	1,195	1,121	1,113	1,103	1,093	1,072	1,055	1,050	1,047	1,045	1,046	1,048	1,051	1,056	1,060	1,067	1,078	1,089	1,100	1,111	1,121	1,130	1,140	1,149
Female	1,201	1,208	1,154	1,138	1,067	1,060	1,050	1,041	1,021	1,005	1,000	997	995	996	998	1,001	1,006	1,010	1,016	1,026	1,037	1,048	1,058	1,067	1,077	1,086	1,095
All Births	2,463	2,476	2,366	2,332	2,188	2,174	2,153	2,133	2,093	2,060	2,051	2,044	2,041	2,042	2,046	2,052	2,063	2,070	2,083	2,104	2,125	2,148	2,169	2,188	2,207	2,226	2,244
TFR	1.97	1.98	1.88	1.89	1.95	1.94	1.94	1.94	1.94	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.92	1.92	1.92	1.92	1.93	1.93	1.93	1.93	1.93	1.93
Births input																											
Deaths																											
Male	845	876	944	863	843	845	852	853	857	865	875	886	899	912	928	944	958	972	987	1,002	1,018	1,031	1,045	1,062	1,076	1,089	1,100
Female	894	926	1,000	887	862	857	861	861	862	869	877	886	895	908	920	933	947	963	981	998	1,014	1,032	1,048	1,065	1,078	1,093	1,109
All deaths	1,740	1,802	1,944	1,750	1,705	1,702	1,713	1,714	1,719	1,734	1,752	1,772	1,794	1,820	1,848	1,877	1,905	1,935	1,968	2,000	2,032	2,063	2,093	2,127	2,154	2,182	2,209
SMR: males	117.5	118.1	123.3	110.7	106.7	103.9	101.6	98.7	96.2	94.0	91.9	90.0	88.1	86.4	85.0	83.7	82.2	80.8	79.6	78.4	77.3	76.2	75.2	74.4	73.3	72.4	71.5
SMR: females	117.5	118.1	125.3	110.7	107.3	104.5	103.0	100.5	98.3	96.6	94.6	92.7	91.0	89.4	87.7	86.1	84.6	83.3	82.1	80.9	79.7	78.9	77.8	76.9	75.7	74.9	74.1
SMR: persons	117.5	118.1	124.3	110.7	107.0	104.2	102.3	99.6	97.2	95.3	93.2	91.3	89.5	87.9	86.3	84.9	83.4	82.1	80.8	79.6	78.5	77.5	76.4	75.6	74.5	73.6	72.8
Expectation of life: males	77.7	77.7	77.2	78.5	78.9	79.2	79.5	79.8	80.1	80.4	80.7	81.0	81.2	81.5	81.7	81.9	82.2	82.4	82.6	82.8	82.9	83.2	83.3	83.5	83.7	83.8	84.0
Expectation of life: females	81.8	81.8	81.2	82.5	82.8	83.0	83.2	83.4	83.7	83.8	84.1	84.3	84.5	84.7	84.9	85.1	85.3	85.4	85.6	85.8	85.9	86.1	86.2	86.4	86.6	86.7	86.8
Expectation of life: persons	79.9	79.8	79.3	80.6	80.9	81.2	81.4	81.7	82.0	82.2	82.4	82.7	82.9	83.1	83.4	83.6	83.8	84.0	84.1	84.3	84.5	84.7	84.8	85.0	85.2	85.3	85.5
Deaths input																											
In-migration from the UK																											
Male	3,210	3,392	2,904	1,436	3,343	3,171	3,211	3,085	3,207	3,391	3,418	3,442	3,473	3,476	3,473	3,500	3,460	3,492	3,548	3,550	3,572	3,564	3,573	3,583	3,587	3,601	3,597
Female	3,365	3,552	3,033	1,495	3,358	3,180	3,213	3,081	3,197	3,373	3,393	3,409	3,433	3,432	3,426	3,450	3,411	3,445	3,501	3,506	3,528	3,522	3,534	3,545	3,549	3,564	3,560
All	6,575	6,944	5,937	2,931	6,700	6,351	6,423	6,166	6,404	6,764	6,811	6,851	6,906	6,908	6,898	6,950	6,871	6,937	7,050	7,055	7,100	7,086	7,107	7,128	7,137	7,165	7,157
SMigR: males	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SMigR: females	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Out-migration to the UK																											
Male	2,940	3,389	3,661	5,476	3,267	3,466	3,427	3,571	3,468	3,278	3,255	3,227	3,205	3,217	3,237	3,228	3,285	3,281	3,246	3,251	3,262	3,281	3,293	3,305	3,321	3,329	3,358
Female	2,990	3,411	3,665	5,487	3,257	3,439	3,408	3,558	3,416	3,215	3,194	3,166	3,151	3,152	3,169	3,176	3,242	3,225	3,185	3,229	3,220	3,244	3,259	3,272	3,291	3,301	3,328
All	5,930	6,800	7,326	10,963	6,524	6,904	6,835	7,129	6,885	6,493	6,449	6,392	6,356	6,369	6,406	6,404	6,526	6,506	6,430	6,480	6,482	6,525	6,553	6,576	6,613	6,630	6,686
SMigR: males	28.1	32.2	34.8	52.8	33.8	35.8	35.6	37.2	36.4	34.5	34.2	33.9	33.5	33.5	33.5	33.3	33.7	33.5	32.9	32.8	32.7	32.8	32.7	32.7	32.8	32.8	33.0
SMigR: females	28.9	32.9	35.5	53.9	34.8	36.7	36.6	38.3	37.2	35.2	34.9	34.4	34.1	33.9	33.9	33.7	34.1	33.8	33.2	33.4	33.1	33.2	33.2	33.2	33.3	33.4	33.6
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
In-migration from Overseas																											
Male	625	713	462	502	470	494	478	482	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470
Female	606	604	470	510	408	426	414	417	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408
All	1,231	1,317	932	1,012	879	920	892	898	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878
SMigR: males	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	0.0	0.0
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	0.0	0.0
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Out-migration to Overseas																											
Male	611	605	354	487	390	389	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390
Female	587	587	286	395	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316
All	1,198	1,192	640	882	706	705	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706
SMigR: males	103.2	101.5	59.6	83.4	72.1	72.2	72.8	73.2	74.0	74.6	74.5	74.3	74.1	73.7	73.4	73.0	72.6	72.2	71.9	71.3	70.9	70.5	70.1	69.9	69.7	69.5	69.4
SMigR: females	128.4	127.8	62.4	87.6	77.1	77.5	78.5	79.2	80.4	81.5	81.5	81.4	81.1	80.6	80.2	79.8	79.3	78.9	78.5	78.0	77.5	77.0	76.6	76.2	76.0	75.8	75.7
Migrants input	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Migration - Net Flows																											
UK	+645	+144	-1,389	-8,032	+176	-553	-412	-962	-481	+271	-362	+459	+550	+539	+492	+546	+344	+431	+620	+576	+618	+561	+554	+552	+524	+535	+470	
Overseas	+32	+125	+292	+130	+173	+215	+186	+192	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172
Summary of population change																											
Natural change	+723	+674	+422	+582	+483	+472	+439	+419	+374	+326	+299	+272	+247	+222	+198	+175	+158	+135	+116	+104	+93	+85	+75	+61	+53	+44	+35
Net migration	+677	+269	-1,097	-7,902	+349	-339	-226	-770	-309	+442	+534	+631	+721	+711	+664	+718	+516	+603	+791	+747	+790	+733	+726	+724	+696	+707	+642	
Net change	+1,400	+943	-675	-7,320	+832	+133	+214	-351	+65	+768	+832	+903	+968	+933	+862	+893	+674	+738	+907	+851	+883	+818	+801	+784	+749	+751	+677	
Crude Birth Rate /000	12.19	12.19	11.64	11.70	11.16	11.06	10.94	10.85	10.65	10.46	10.37	10.29	10.23	10.19	10.16	10.15	10.16	10.16	10.18	10.24	10.30	10.37	10.43	10.48	10.53	10.58	10.63
Crude Death Rate /000	8.61	8.87	9.56	8.78	8.70	8.66	8.71	8.72	8.75	8.81	8.86	8.92	8.99	9.08	9.18	9.28	9.38	9.50	9.62	9.73	9.85	9.96	10.06	10.19	10.28	10.38	10.47
Crude Net Migration Rate /000	3.35	1.32	-5.40	-39.65	1.78	-1.72	-1.15	-3.92	-1.57	2.25	2.70	3.18	3.62	3.54	3.30	3.55	2.54	2.96	3.87	3.64	3.83	3.54	3.49	3.47	3.32	3.36	3.04

Summary of Population estimates/forecasts

Population at mid-year

	2010	2011	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	2037
0-4	12,191	12,386	12,519	12,415	11,730	11,620	11,420	11,199	11,045	10,904	10,820	10,751	10,694	10,651	10,624	10,614	10,620	10,625	10,649	10,699	10,763	10,844	10,932	11,030	11,132	11,232	11,333	11,426
5-10	13,874	13,894	14,158	14,290	14,267	14,420	14,543	14,646	14,511	14,378	14,189	14,047	13,874	13,691	13,606	13,513	13,442	13,372	13,314	13,274	13,250	13,250	13,264	13,293	13,340	13,403	13,484	13,578
11-15	12,534	12,498	12,314	12,083	11,697	11,542	11,468	11,566	11,692	11,916	12,130	12,261	12,383	12,431	12,352	12,208	12,094	11,933	11,754	11,687	11,611	11,545	11,486	11,435	11,388	11,357	11,344	11,343
16-17	5,301	5,212	5,112	5,148	4,922	4,907	4,919	4,709	4,606	4,564	4,578	4,696	4,761	4,886	4,986	5,053	5,054	5,026	5,058	4,956	4,835	4,802	4,759	4,730	4,708	4,682	4,650	4,625
18-59Female, 64Male	119,358	119,874	119,671	118,398	111,836	111,945	111,514	111,175	110,255	109,532	109,508	109,288	109,155	109,000	108,804	108,664	108,506	108,231	107,912	107,734	107,572	107,338	107,199	107,145	107,158	107,232	107,310	107,366
60/65 -74	24,295	24,697	25,407	25,828	25,963	26,282	26,588	26,828	27,131	27,305	27,458	27,798	27,609	27,855	28,325	28,818	29,473	30,164	30,847	31,572	32,267	32,929	33,375	33,623	33,640	33,628	33,420	33,082
75-84	10,098	10,381	10,585	10,969	11,387	11,794	12,055	12,472	12,847	13,393	13,862	14,281	15,289	15,896	16,265	16,618	16,942	17,117	17,339	17,431	17,519	17,616	17,355	17,393	17,686	17,933	18,425	19,012
85+	3,658	3,767	3,886	3,845	3,855	3,978	4,115	4,241	4,396	4,558	4,773	5,028	5,287	5,613	5,992	6,328	6,578	6,914	7,246	7,675	8,062	8,437	9,208	9,732	10,114	10,447	10,699	10,909
Total	201,309	202,709	203,652	202,977	195,657	196,489	196,622	196,835	196,484	196,549	197,318	198,150	199,053	200,021	200,954	201,816	202,709	203,383	204,120	205,027	205,879	206,761	207,580	208,381	209,165	209,914	210,665	211,342
Dependency ratios, mean age and sex ratio																												
0-15 / 16-65	0.29	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31
65+ / 16-65	0.24	0.25	0.26	0.27	0.29	0.30	0.30	0.31	0.32	0.33	0.33	0.34	0.35	0.35	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.46	0.47	0.48	0.48
0-15 and 65+ / 16-65	0.54	0.54	0.56	0.57	0.60	0.60	0.61	0.62	0.63	0.64	0.64	0.65	0.65	0.66	0.66	0.67	0.67	0.68	0.69	0.71	0.72	0.73	0.74	0.75	0.76	0.77	0.78	0.79
Median age males	39.5	39.7	40.0	40.4	41.4	41.6	41.8	42.0	42.2	42.4	42.4	42.5	42.6	42.6	42.7	42.8	42.9	43.0	43.0	43.1	43.2	43.2	43.3	43.4	43.5	43.5	43.6	43.6
Median age females	41.2	41.4	41.8	42.2	43.4	43.7	44.1	44.4	44.8	45.1	45.3	45.4	45.5	45.6	45.6	45.7	45.9	46.1	46.2	46.3	46.3	46.4	46.5	46.6	46.6	46.7	46.7	46.7
Sex ratio males /100 females	98.3	98.3	98.4	98.3	98.2	98.2	98.3	98.3	98.3	98.3	98.3	98.3	98.4	98.4	98.4	98.4	98.5	98.5	98.5	98.5	98.6	98.6	98.7	98.7	98.8	98.9	98.9	99.0
Population impact of constraint																												
Number of persons		-251	-2	-2,050	-8,528	-448	-1,178	-1,051	-1,582	-1,116	-384	-272	-173	-47	-33	-67	+5	-192	-101	+76	+37	+85	+18	+8	+1	-23	-13	-80
Labour Force																												
Number of Labour Force		108,227	107,560	99,528	99,528	99,340	99,153	98,967	98,782	98,597	98,597	98,597	98,597	98,597	98,597	98,597	98,597	98,597	98,597	98,597	98,597	98,597	98,597	98,597	98,597	98,597	98,597	98,597
Change in Labour Force over previous year			-666	-8,033	-0	-187	-187	-186	-185	-185	-185	-0	0	+0	0	-0	-0	+0	+0	+0	-0	-0	0	-0	+0	0	0	-0	-0
Number of supply units		134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465	134,465
Change in over previous year			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		
Households																												
Number of Households		86,048	86,235	84,082	84,617	85,031	85,483	85,707	86,065	86,615	87,267	87,951	88,633	89,306	89,925	90,616	91,238	91,859	92,547	93,206	93,874	94,483	95,044	95,609	96,123	96,641	97,127	
Change in Households over previous year			+187	-2,153	+535	+414	+453	+224	+358	+550	+652	+684	+682	+673	+619	+691	+621	+621	+688	+660	+668	+609	+561	+565	+514	+518	+486		
Number of supply units		88,892	89,085	86,861	87,414	87,842	88,309	88,540	88,910	89,478	90,152	90,859	91,564	92,258	92,898	93,612	94,254	94,896	95,606	96,287	96,977	97,607	98,186	98,769	99,300	99,836	100,338	
Change in over previous year			+193	-2,224	+553	+427	+468	+231	+370	+568	+674	+707	+705	+695	+640	+714	+642	+642	+710	+681	+690	+630	+579	+583	+531	+535	+502		

Population Estimates and Forecasts

Scenario E: Past Trends Job Growth

Components of Population Change

Warrington

Year beginning July 1st .....

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37
Births																											
Male	1,261	1,268	1,212	1,220	1,268	1,278	1,288	1,300	1,297	1,301	1,318	1,332	1,347	1,362	1,377	1,391	1,405	1,415	1,426	1,440	1,453	1,467	1,480	1,493	1,507	1,523	1,540
Female	1,201	1,208	1,154	1,162	1,207	1,217	1,226	1,238	1,235	1,239	1,255	1,268	1,282	1,297	1,312	1,325	1,338	1,348	1,358	1,371	1,384	1,397	1,409	1,422	1,435	1,451	1,467
All Births	2,463	2,476	2,366	2,382	2,475	2,494	2,514	2,537	2,533	2,540	2,572	2,600	2,629	2,660	2,689	2,716	2,742	2,762	2,784	2,811	2,836	2,863	2,889	2,914	2,943	2,974	3,007
TFR	1.97	1.98	1.88	1.89	1.95	1.94	1.94	1.94	1.94	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.92	1.92	1.92	1.92	1.93	1.93	1.93	1.93	1.93	1.93
Births input																											
Deaths																											
Male	845	876	944	871	872	874	881	883	888	898	910	924	938	955	974	994	1,010	1,028	1,047	1,066	1,086	1,103	1,123	1,144	1,163	1,181	1,197
Female	894	926	1,000	894	886	881	887	887	888	896	906	917	929	944	959	975	992	1,012	1,032	1,052	1,072	1,093	1,112	1,132	1,149	1,168	1,188
All deaths	1,740	1,802	1,944	1,765	1,758	1,755	1,767	1,770	1,776	1,794	1,816	1,840	1,867	1,899	1,933	1,968	2,002	2,040	2,079	2,118	2,158	2,196	2,234	2,277	2,312	2,349	2,385
SMR: males	117.5	118.1	123.3	110.7	106.7	103.9	101.6	98.7	96.2	94.0	91.9	90.0	88.1	86.4	85.0	83.7	82.2	80.8	79.6	78.4	77.3	76.2	75.2	74.4	73.3	72.4	71.5
SMR: females	117.5	118.1	125.3	110.7	107.3	104.5	103.0	100.5	98.3	96.6	94.6	92.7	91.0	89.4	87.7	86.1	84.6	83.3	82.1	80.9	79.7	78.9	77.8	76.9	75.7	74.9	74.1
SMR: persons	117.5	118.1	124.3	110.7	107.0	104.2	102.3	99.6	97.2	95.3	93.2	91.3	89.5	87.9	86.3	84.9	83.4	82.1	80.8	79.6	78.5	77.5	76.4	75.6	74.5	73.6	72.8
Expectation of life: males	77.7	77.7	77.2	78.5	78.9	79.3	79.5	79.8	80.1	80.4	80.7	81.0	81.2	81.5	81.7	81.9	82.2	82.4	82.6	82.8	82.9	83.1	83.3	83.5	83.7	83.8	84.0
Expectation of life: females	81.8	81.8	81.2	82.5	82.8	83.1	83.2	83.5	83.7	83.8	84.1	84.3	84.5	84.7	84.9	85.1	85.3	85.4	85.6	85.8	85.9	86.1	86.2	86.4	86.5	86.7	86.8
Expectation of life: persons	79.9	79.8	79.3	80.6	80.9	81.2	81.4	81.7	82.0	82.2	82.4	82.7	82.9	83.1	83.4	83.6	83.8	83.9	84.1	84.3	84.5	84.6	84.8	85.0	85.1	85.3	85.4
Deaths input																											
In-migration from the UK																											
Male	3,210	3,392	3,406	3,525	3,614	3,528	3,584	3,390	3,579	3,815	3,796	3,827	3,851	3,856	3,857	3,868	3,829	3,852	3,911	3,900	3,908	3,894	3,896	3,901	3,896	3,905	3,894
Female	3,365	3,552	3,556	3,670	3,631	3,538	3,586	3,385	3,567	3,794	3,767	3,790	3,807	3,806	3,804	3,814	3,775	3,800	3,859	3,851	3,860	3,849	3,854	3,859	3,855	3,864	3,854
All	6,575	6,944	6,962	7,195	7,245	7,066	7,170	6,775	7,146	7,610	7,563	7,617	7,659	7,662	7,662	7,682	7,603	7,652	7,770	7,751	7,768	7,743	7,750	7,760	7,751	7,769	7,748
SMigR: males	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SMigR: females	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Migrants input																											
Out-migration to the UK																											
Male	2,940	3,389	3,148	3,336	2,994	3,107	3,053	3,266	3,095	2,851	2,876	2,840	2,826	2,836	2,851	2,859	2,916	2,921	2,882	2,902	2,926	2,951	2,970	2,987	3,013	3,026	3,061
Female	2,990	3,411	3,153	3,363	2,985	3,082	3,036	3,254	3,048	2,797	2,822	2,787	2,778	2,778	2,792	2,813	2,878	2,871	2,828	2,882	2,888	2,918	2,939	2,957	2,985	3,000	3,034
All	5,930	6,800	6,301	6,699	5,979	6,189	6,089	6,520	6,143	5,648	5,698	5,627	5,603	5,614	5,643	5,672	5,794	5,791	5,710	5,784	5,815	5,869	5,910	5,945	5,998	6,026	6,095
SMigR: males	28.1	32.2	30.0	31.7	28.4	29.2	28.5	30.3	28.7	26.3	26.2	25.6	25.2	25.0	24.8	24.6	24.8	24.5	23.9	23.8	23.7	23.6	23.6	23.4	23.4	23.3	23.4
SMigR: females	28.9	32.9	30.5	32.4	28.7	29.4	28.8	30.7	28.9	26.4	26.3	25.7	25.3	25.0	24.8	24.6	24.9	24.5	23.9	24.0	23.7	23.7	23.6	23.5	23.5	23.4	23.5
Migrants input																											
In-migration from Overseas																											
Male	625	713	680	724	470	494	478	482	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470
Female	606	604	709	706	408	426	414	417	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408
All	1,231	1,317	1,389	1,430	879	920	892	898	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878	878
SMigR: males	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	0.0	0.0
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	0.0	0.0
Migrants input																											
Out-migration to Overseas																											
Male	611	605	490	578	390	389	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390
Female	587	587	525	646	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316
All	1,198	1,192	1,015	1,224	706	705	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706
SMigR: males	103.2	101.5	82.6	97.1	65.5	64.9	64.7	64.3	64.3	64.1	63.3	62.7	62.0	61.3	60.7	60.0	59.4	58.8	58.2	57.4	56.8	56.1	55.6	55.0	54.5	54.1	53.6
SMigR: females	128.4	127.8	114.5	140.7	68.9	68.2	68.0	67.6	67.9	67.7	67.0	66.4	65.7	65.0	64.3	63.6	63.0	62.4	61.7	60.9	60.2	59.5	58.8	58.3	57.7	57.2	56.7
Migrants input																											
Migration - Net Flows																											
UK	+645	+144	+661	+496	+1,266	+877	+1,081	+255	+1,003	+1,962	+1,865	+1,990	+2,055	+2,048	+2,019	+2,009	+1,809	+1,861	+2,060	+1,967	+1,953	+1,874	+1,840	+1,816	+1,753	+1,742	+1,653
Overseas	+32	+125	+374	+205	+173	+215	+186	+192	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172	+172
Summary of population change																											
Natural change	+723	+674	+422	+618	+717	+739	+747	+767	+757	+746	+756	+760	+762	+761	+756	+748	+740	+723	+705	+692	+679	+668	+654	+638	+631	+625	+622
Net migration	+677	+269	+1,035	+701	+1,439	+1,092	+1,267	+448	+1,175	+2,134	+2,037	+2,162	+2,227	+2,220	+2,190	+2,181	+1,981	+2,032	+2,232	+2,139	+2,125	+2,045	+2,012	+1,987	+1,925	+1,914	+1,825
Net change	+1,400	+943	+1,457	+1,319	+2,156	+1,831	+2,014	+1,215	+1,931	+2,879	+2,793	+2,921	+2,989	+2,980	+2,946	+2,929	+2,721	+2,755	+2,937	+2,831	+2,803	+2,713	+2,666	+2,625	+2,556	+2,539	+2,447
Crude Birth Rate /000	12.19	12.19	11.58	11.58	11.93	11.91	11.89	11.91	11.80	11.70	11.70	11.68	11.65	11.63	11.61	11.58	11.55	11.50	11.46	11.43	11.41	11.39	11.37	11.35	11.35	11.35	11.37
Crude Death Rate /000	8.61	8.87	9.51	8.58	8.47	8.38	8.36	8.31	8.28	8.27	8.26	8.26	8.28	8.31	8.35	8.39	8.44	8.50	8.56	8.62	8.68	8.73	8.79	8.87	8.91	8.97	9.02
Crude Net Migration Rate /000	3.35	1.32	5.06	3.41	6.93	5.21	5.99	2.10	5.47	9.83	9.26	9.71	9.87	9.71	9.46	9.30	8.35	8.46	9.19	8.70	8.54	8.14	7.92	7.74	7.42	7.31	6.90

Summary of Population estimates/forecasts

Population at mid-year

	2010	2011	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	2037
0-4	12,191	12,386	12,519	12,605	12,620	12,748	12,757	12,760	12,862	13,014	13,153	13,292	13,435	13,577	13,725	13,875	14,020	14,145	14,266	14,395	14,516	14,636	14,752	14,870	14,990	15,113	15,243	15,378
5-10	13,874	13,894	14,158	14,423	14,816	15,073	15,411	15,745	15,786	15,817	15,928	16,085	16,170	16,254	16,487	16,724	16,900	17,070	17,236	17,402	17,566	17,731	17,886	18,031	18,169	18,301	18,430	18,555
11-15	12,534	12,498	12,314	12,111	11,971	11,884	11,863	12,023	12,214	12,574	12,892	13,155	13,480	13,729	13,797	13,823	13,963	14,013	14,053	14,257	14,463	14,603	14,744	14,879	15,004	15,130	15,259	15,379
16-17	5,301	5,212	5,112	5,160	5,040	5,014	5,051	4,865	4,793	4,754	4,795	4,956	5,040	5,217	5,395	5,512	5,549	5,636	5,786	5,710	5,609	5,714	5,823	5,877	5,942	5,999	6,042	6,089
18-59Female, 64Male	119,358	119,874	119,671	120,069	120,218	121,200	121,877	122,680	122,725	123,148	124,432	125,343	126,351	127,329	128,269	129,274	130,270	131,114	131,928	132,957	133,957	134,810	135,757	136,881	138,066	139,303	140,546	141,751
60/65 -74	24,295	24,697	25,407	25,864	26,205	26,593	26,981	27,306	27,671	27,934	28,193	28,634	28,577	28,951	29,559	30,237	31,034	31,894	32,723	33,604	34,473	35,338	35,972	36,404	36,608	36,788	36,785	36,624
75-84	10,098	10,381	10,585	10,958	11,497	11,920	12,197	12,653	13,053	13,606	14,113	14,565	15,616	16,271	16,674	17,060	17,433	17,658	17,941	18,091	18,249	18,399	18,193	18,296	18,666	19,015	19,599	20,329
85+	3,658	3,767	3,886	3,919	4,061	4,153	4,280	4,395	4,540	4,727	4,949	5,218	5,501	5,829	6,233	6,579	6,844	7,205	7,556	8,011	8,425	8,830	9,648	10,203	10,618	10,971	11,255	11,502
Total	201,309	202,709	203,652	205,109	206,428	208,584	210,415	212,429	213,644	215,576	218,455	221,248	224,169	227,158	230,138	233,084	236,013	238,734	241,489	244,427	247,258	250,061	252,774	255,440	258,065	260,620	263,159	265,606
Dependency ratios, mean age and sex ratio																												
0-15 / 16-65	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
65+ / 16-65	0.24	0.25	0.26	0.27	0.28	0.28	0.28	0.29	0.29	0.30	0.30	0.31	0.31	0.31	0.32	0.32	0.33	0.34	0.35	0.35	0.36	0.37	0.37	0.38	0.38	0.39	0.39	0.40
0-15 and 65+ / 16-65	0.54	0.54	0.56	0.57	0.58	0.58	0.59	0.59	0.60	0.61	0.61	0.62	0.62	0.63	0.63	0.64	0.64	0.65	0.66	0.67	0.68	0.68	0.69	0.70	0.70	0.71	0.71	0.72
Median age males	39.5	39.7	40.0	40.2	40.4	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.6	40.6	40.6	40.7	40.7	40.8	40.9	41.0	41.1	41.2	41.3	41.4	41.5	41.6
Median age females	41.2	41.4	41.8	42.0	42.2	42.4	42.5	42.6	42.7	42.7	42.6	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.6	42.6	42.7	42.7	42.8	42.9	43.0	43.1	43.1	43.2
Sex ratio males /100 females	98.3	98.3	98.4	98.4	98.4	98.5	98.5	98.6	98.6	98.7	98.7	98.7	98.8	98.8	98.9	98.9	99.0	99.0	99.1	99.1	99.2	99.2	99.3	99.3	99.4	99.4	99.5	99.5
Population impact of constraint																												
Number of persons		-251	-2	+82	+75	+642	+253	+442	-364	+368	+1,308	+1,230	+1,357	+1,459	+1,476	+1,459	+1,469	+1,273	+1,329	+1,517	+1,428	+1,420	+1,331	+1,294	+1,265	+1,206	+1,194	+1,103
Labour Force																												
Number of Labour Force			108,227	108,841	106,200	107,226	108,048	108,867	109,682	110,495	111,305	112,321	113,337	114,353	115,370	116,386	117,402	118,418	119,434	120,451	121,467	122,483	123,499	124,515	125,532	126,548	127,564	128,580
Change in Labour Force over previous year				+614	-2,641	+1,026	+822	+819	+816	+813	+810	+1,016	+1,016	+1,016	+1,016	+1,016	+1,016	+1,016	+1,016	+1,016	+1,016	+1,016	+1,016	+1,016	+1,016	+1,016	+1,016	+1,016
Number of supply units			134,465	136,066	143,480	144,866	146,252	147,638	149,024	150,409	151,795	153,181	154,567	155,953	157,339	158,725	160,111	161,496	162,882	164,268	165,654	167,040	168,426	169,812	171,198	172,583	173,969	175,355
Change in over previous year				+1,601	+7,414	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386	+1,386
Households																												
Number of Households			86,048	87,024	87,953	89,114	90,182	91,320	92,139	93,241	94,648	96,063	97,528	98,981	100,460	101,906	103,381	104,791	106,179	107,645	109,078	110,513	111,891	113,201	114,525	115,811	117,111	118,388
Change in Households over previous year				+976	+929	+1,162	+1,067	+1,138	+819	+1,102	+1,408	+1,415	+1,464	+1,453	+1,479	+1,446	+1,475	+1,410	+1,388	+1,467	+1,433	+1,435	+1,378	+1,310	+1,324	+1,286	+1,300	+1,276
Number of supply units			88,892	89,901	90,860	92,060	93,163	94,339	95,185	96,323	97,777	99,239	100,752	102,253	103,781	105,275	106,798	108,255	109,689	111,204	112,684	114,166	115,589	116,943	118,311	119,640	120,983	122,301
Change in over previous year				+1,008	+959	+1,200	+1,103	+1,176	+846	+1,138	+1,454	+1,462	+1,513	+1,501	+1,528	+1,494	+1,524	+1,457	+1,434	+1,515	+1,480	+1,482	+1,423	+1,354	+1,368	+1,328	+1,343	+1,319

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