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& Partners
Planning. Design. Economics.

Assessment of Housing Needs

Gloucester, Cheltenham & Tewkesbury
Joint Core Strategy

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1.0

Introduction

1.1

Nathaniel Lichfield & Partners (NLP) was appointed by Gloucester City Council, and Cheltenham and Tewkesbury Borough Councils to undertake an independent assessment of housing requirements for the Joint Core Strategy (JCS) area.

1.2

The key purpose of this study is to provide further evidence to support the emerging JCS by:

- 1 Verifying the approach that has been undertaken to date in respect of the Local Projections and Household estimates and the translation of these figures to dwelling requirements;
- 2 Reviewing the representations that have made in respect of housing strategy matters and providing commentary and advice on the ways in which these might impact upon the assessment of market and affordable housing requirements;
- 3 Demonstrating the housing requirements for the overall JCS area, at an individual local authority area level, and for the Cheltenham and Gloucester Wider Policy Areas; and,
- 4 Providing a clear understanding of the impact of the NPPF upon housing requirements for the JCS area.

Context

1.3

The context to this study is the continuing reform of the planning system to deliver on localism. This presents a major opportunity for local government to seize the agenda for its localities, but with it comes new responsibilities that run in tandem with an unprecedented tightening of public spending and the reality of continued economic difficulties over the next few years.

1.4

On 6 July 2010, the Secretary of State for Communities and Local Government expressed his intention to revoke the Regional Strategies such that they would no longer form part of the statutory development plan. Following a period of uncertainty caused by various legal challenges, the enactment of the Localism Bill provided the legislative platform by which Regional Strategies will be formally abolished.

1.5

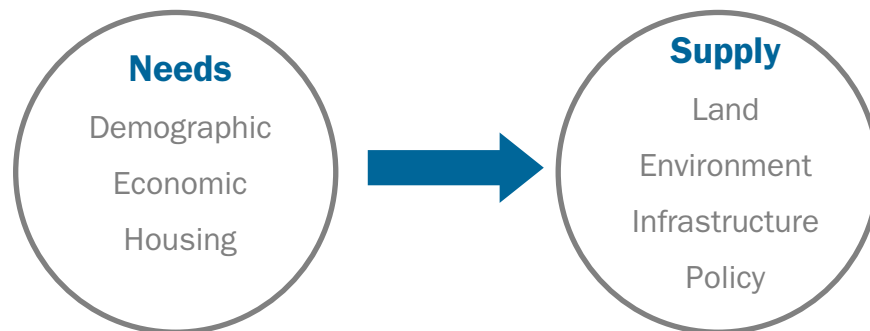
The implication of the eventual removal of centrally-imposed housing requirements is that responsibility for establishing housing requirement figures for Local Plans now falls to local councils. The NPPF echoes this requirement. In seeking to “*boost significantly*” the supply of housing, it requires local planning authorities to “*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*”. It also emphasises that local planning authorities should continue to demonstrate a 5-year housing land supply – which is to be supplemented by an additional buffer of 5% to ensure choice and competition

in the market or, where there has been a record of persistent under-delivery of housing, an additional buffer of 20%. The NPPF requires local planning authorities to evidence and defend their local housing requirements at examination. This highlights the importance of ensuring that the housing need figures that are set out within Local Plans are soundly rooted in a robust evidence base. A failure to meet this need may result in a Local Plan being found to be unsound.

1.6 It is important to distinguish these two elements as follows:

- 1 Housing needs: how many houses are needed in a local area?
- 2 Housing supply: how / where can these houses be delivered?

1.7 The implication of this is that housing supply matters should be taken into consideration following the identification of local needs. They should not be used to inform the assessment of needs and any Local Plan that seeks to do so is unlikely to be found sound.



HEaDROOM

1.8 At the present time there is no commonly agreed approach for local planning authorities to follow in setting local housing requirements, beyond the principles established in national policy. In response, NLP has developed an analytical framework for defining the quantum of housing that should be planned for through Local Development Frameworks. This framework (HEaDROOM) provides the basis for assembling and presenting evidence on local housing requirements in a transparent manner.

1.9 A central component of this framework is an understanding of the role of housing in ensuring that the future population of a locality can be accommodated (taking account of the dynamics of housing markets and other material factors) and the extent to which housing plays a crucial role in securing the economic growth and housing needs of a local area.

1.10 HEaDROOM makes use of the industry-leading PopGroup suite of software¹ which was developed by the Local Government Association and is directly used by over 70 local authorities in the UK and by the Department for Communities and Local Government. This provides a robust and transparent means by which the housing implications associated with a range of inputs can be tested. These inputs include:

- 1 Fertility and mortality rates;
- 2 Domestic and international migration trends;
- 3 Household headship rates;
- 4 Housing vacancy rates (including second home and holiday home ownership levels);
- 5 Employment change; and,
- 6 Unemployment levels and commuting patterns.

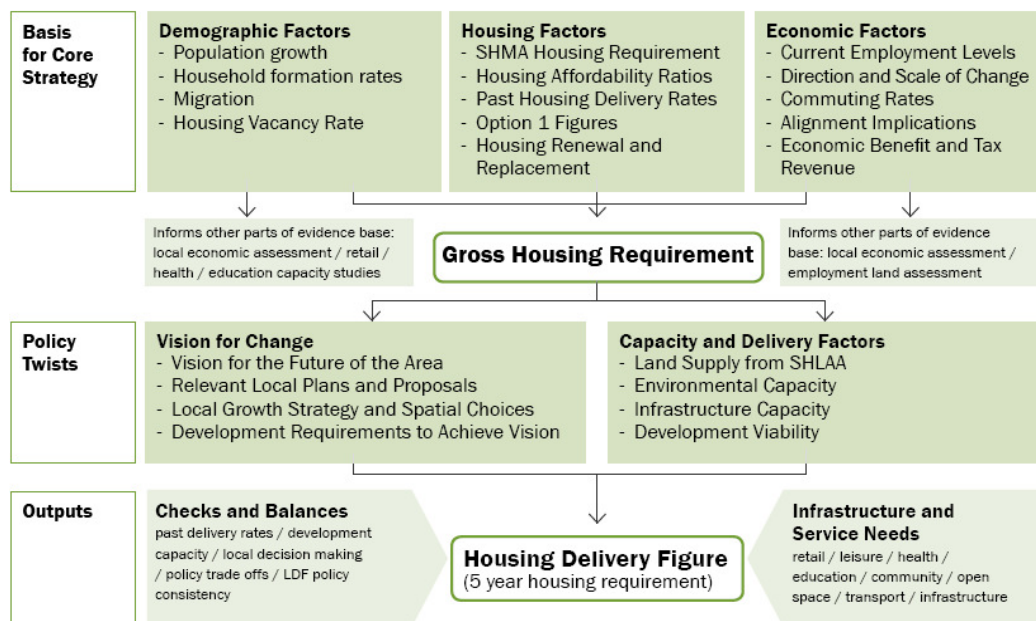
1.11 By flexing each of these inputs in turn, it is possible to develop a range of alternative scenarios which will have a range of implications in terms of the future housing requirements. The strengths and weaknesses of data and conclusions for each assessment basis can then be considered and balanced in order to achieve a much narrower range of housing numbers targets.

1.12 HEaDROOM provides a mechanism by which key challenges can be understood and competing objectives assessed. It offers an understanding of the role of housing in ensuring that the future population of a locality can be accommodated in a manner that respects environmental limitations and strategic aspirations, but which also recognises the extent to which housing plays a crucial role in securing the economic well-being of the local area. In so doing, it has the capacity to provide the detailed evidence that is required to inform sound planning decisions, based upon an appreciation of the (potentially competing) policy requirements and the local nature of the relevant area.

1.13 The HEaDROOM framework is summarised below:

¹ This is the same modelling software that was also used by Gloucestershire County Council.

Figure 1.1 NLP HEaDROOM Framework



1.14 The HEaDROOM framework has been employed as part of this study in order to inform the assessment of the work that has been undertaken to date and the identification of a preferred set of housing requirement figures going forwards. By modelling a number of alternative trend and economic change-based scenarios, this report sets out the housing, economic, demographic and labour force impacts of different levels of housing growth in order to help the decision-making process that must inform the preparation of the JCS. The use of different scenarios provides the basis for strength of assessment and clarity regarding the objective assessment of housing need.

1.15 It is important to note that HEaDROOM is dependent upon the availability of a wide range of existing data sources. Many of the modelled assumptions take account of datasets (particularly those demographically-driven) that are updated annually. It will be important to keep the analysis under review and to take account of emerging information as it arises.

Structure

1.16 This report is structured as follows:

- Review of the work that has been undertaken to date to inform the emerging JCS (Chapter 2.0);
- Evidence for a gross housing requirement, taking account of the latest data and best practice relating to housing, economic and demographic factors (Chapter 3.0);
- Appraisal of the identified level of housing need against a range of indicators (Chapter 4.0);
- Conclusion (Chapter 5.0).

2.0

Review of Work Undertaken to Date

2.1

The JCS ‘Developing the Preferred Option’ consultation document was published for consultation in December 2011. This drew upon a large body of evidence that had been prepared by Gloucestershire County Council and by Gloucester City, Cheltenham Borough and Tewkesbury Borough Councils. The Housing Background Paper sought in particular to draw this evidence together in order to establish the identified housing scenarios.

2.2

Consideration should now be given to whether this evidence is sufficient to meet the NPPF requirements to boost significantly the supply of housing and for local planning authorities “to 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”. This section reviews the evidence that informed the consultation document in order to appraise whether any further analysis is required to enable the JCS team to progress towards a sound Core Strategy.

Evidence Base

2.3

The JCS housing evidence base comprises the following key reports:

- 1 Gloucestershire Local Projection 2010 Report – prepared in June 2010 by the Research and Intelligence Team within the Chief Executive’s Support Unit at Gloucestershire County Council;
- 2 Housing Trend Analysis & Population and Household Projections Report – commissioned by Gloucestershire County and District Planning Authorities and prepared in May 2011 by the Research and Intelligence Team within the Chief Executive’s Support Unit at Gloucestershire County Council; and,
- 3 JCS Housing Background Paper, November 2011.

2.4

The Gloucestershire reports were prepared on a County-wide basis and provide population and household information for each of the six local authorities and for the County as a whole. The June 2010 report sets out projections, based upon an analysis of past trends whilst the May 2011 report provides more detailed past trend analysis and sets out a series of employment-based projections. The projections contained within these reports were derived from the PopGroup suite of software.

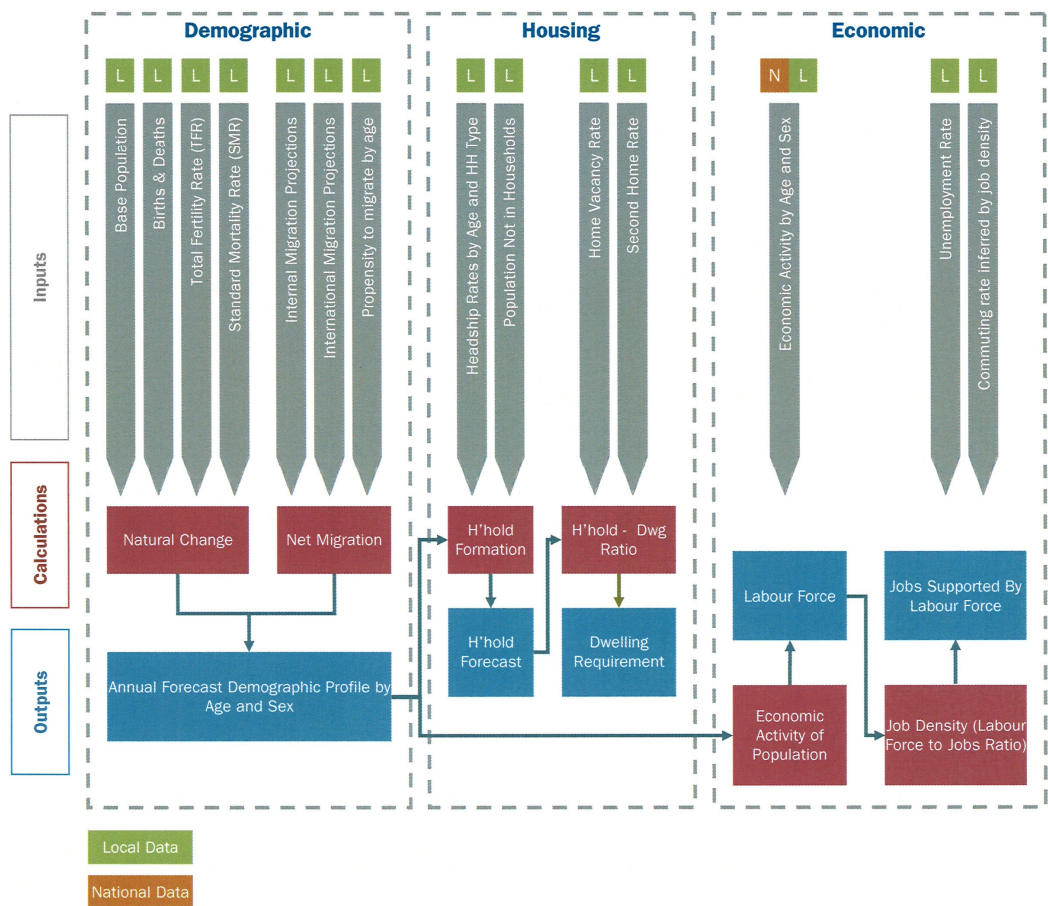
2.5

The Housing Background Paper which was prepared by Gloucester City, Cheltenham Borough and Tewkesbury Borough Councils translates the population and household projections to a dwelling requirement figure and also rebases the figures to 2011, to reflect the JCS period of 2011 to 2031 and taking account of past under- and over-supply of housing between 2006 and 2011.

2.6 The work that was undertaken by Gloucestershire County Council was based on locally-derived population evidence that had the capacity to test the impact of future policies on future population changes. This is in contrast with the ONS Sub National Population Projections (SNPP) which are policy neutral and do not consider the impact of specific interventions. However, in practice, the projections that informed the JCS were based on locally-derived past trend evidence and therefore did not consider policy implications.

2.7 The locally derived analysis that was undertaken by Gloucestershire County Council incorporated each of the components summarised below. In this section, we consider the approach that was adopted by Gloucestershire County Council and by Gloucester City, Cheltenham Borough and Tewkesbury Borough Councils in translating the household projections to dwelling requirements.

Figure 2.1 Components of Housing Requirement Analysis



2.8 A full analysis of the work that has been undertaken to date, in respect of each of the matters detailed above, is contained within Appendix 2. This concludes that although there are a number of matters of concern in relation to the detailed methodology that was adopted by Gloucestershire County Council, its local population and household projections appear to be generally robust. However, this analysis was undertaken in 2010 and relied on the data that was

available at that time and which has now been superseded. Although the approach that was adopted in the translation of households to dwellings was robust, the analysis that was undertaken is not considered to be reliable due to discrepancies with the data that was applied.

- 2.9 It is important that the JCS is informed by the most up-to-date information and for this reason, the information contained within the Gloucestershire Local Projection 2010 report is no longer considered to be appropriate as an evidence base to the JCS. Unfortunately, due to reduced resources, Gloucestershire County Council is no longer undertaking its own demographic projections and so it is necessary to rely upon alternative sources. However, recent changes in the methodological approach that is adopted by ONS and CLG represents a useful and reliable starting point for the assessment of demographic trends and dwelling requirements. Gloucestershire County Council has acknowledged that it is more comfortable with ONS data following the recent changes in its methodological approach. It therefore confirmed that ONS data represents the most reliable basis for any future modelling exercises.
- 2.10 In the light of these matters, further analysis is necessary to take account of the most recent data releases and also to reflect current best practice in undertaking demographic and housing projections.

Joint Core Strategy scenarios

- 2.11 The analysis undertaken by the JCS team informed the preparation of three of the four scenarios contained within the JCS Preferred Option Consultation Document:
- 1 Scenario C (36,850 units) represents the local projection of housing need that was identified through the analysis undertaken by GCC and the JCS team;
 - 2 Scenario B (33,200 units) represents a 10% reduction from the local projection of housing need and equates to the level of delivery between 2006 and 2011; and,
 - 3 Scenario D (40,500) represents a 10% uplift on the local projection of housing need and equates to the level of delivery between 2006 and 2008.
- 2.12 These scenarios were rooted in the analysis that was undertaken by GCC and by the JCS team which is considered in some detail above and set out in full at Appendix 2. In view of the findings of our analysis, we have undertaken a further investigation of the housing requirement within the JCS area.
- 2.13 In addition, the Preferred Option Consultation Document also included a supply-led scenario (A) which sought to base the requirement figure upon the capacity of the urban area and the assumption of 2,400 units in the wider rural parts of Tewkesbury Borough. Such an approach is not robust as it fails to recognise the distinction between housing requirements and housing supply and does not reflect the level of housing requirements that exist in the area. As such, it is

not considered that it would be accepted as sound by the Examination Inspector.

Representations

- 2.14 As part of this study, we have undertaken a detailed review of representations that were made to the JCS Preferred Option consultation document. These representations raised a number of important issues and highlighted the existence of a number of misconceptions which, if not addressed, could form the basis by which the reasonable assumptions that have informed the objective assessment of housing need for the JCS area might be challenged.
- 2.15 A detailed response to the key issues raised by the representations is set out in Appendix 3.

3.0

Evidence for a Gross Housing Requirement

3.1

In the light of issues relating to the evidence base that was prepared by Gloucestershire County Council, NLP has applied its HEaDROOM framework to test the housing implications associated with a range of demographic, housing and economic scenarios. The purpose of this analysis has been to apply the most up to date evidence and best practice to help inform a robust indication of future housing requirements.

3.2

Official population projections are provided by ONS on a biennial basis. These project the total population, cohort population and components of change over a 25 year period on a national and sub-national basis. The most recent population projections are the 2010-based Sub National Population Projections (SNPP). Sub National Population Projections are subsequently translated to the CLG Household Projections, taking account of household headship rates and the numbers of persons that do not reside in households. The most recent household projections have a base date of 2008 and are derived from the 2008 SNPP.

3.3

The following scenarios were considered as part of this assessment:

Demographic-led scenarios:

- 1 CLG 2008 household projections;
- 2 ONS 2010 SNPP; and,
- 3 Past trend migration.

Economic-led scenario:

- 4 JCS employment-led.

3.4

In addition, we undertook a series of sensitivity tests to consider the specific implications of a number of key factors:

- 1 Natural change;
- 2 International migration; and,
- 3 Alternative commuting and unemployment.

3.5

The HEaDROOM framework uses PopGroup modelling which has been applied to cover the JCS period 2011 to 2031 on the basis that there is a robust baseline position for 2010. The preparation of an updated set of projections on the basis of this revised base date avoids any need to “rebase” the plan and the evidence upon which it is built.

3.6

Although Gloucester City, Cheltenham Borough and Tewkesbury Borough Councils are working together to prepare a Joint Core Strategy, they remain separate local planning authorities for the purposes of plan implementation. To this end, a separate five year housing assessment figure will be established for each area. For this reason, it is necessary to understand the dwelling requirements at a local authority and at a JCS level. In addition, it is anticipated

that some of the Cheltenham and Gloucester related growth should, subject to capacity, be sought within settlements in Tewkesbury Borough or (in the case of Gloucester) within settlements such as Innsworth, Churchdown and Brockworth that lie on the edge of the City but within Tewkesbury Borough. The amount of Cheltenham and Gloucester-related housing that will need to be accommodated within Tewkesbury Borough will depend upon:

- 1 The overall housing requirements for the JCS and each individual authority area; and,
- 2 The capacity of Cheltenham and Gloucester to accommodate future housing growth.

3.7 Whilst this report will help to identify the objectively assessed level of housing need, it does not consider housing supply matters. This important work is to follow at a later date and will inform the final distribution of housing growth across the JCS area. The figures set out in this section therefore do not take account of the NPPF supply buffer although this matter is considered in Appendix 5.

Demographic Analysis

3.8 Whilst there is no official requirement for local authorities to take account of the SNPP and CLG household projections when preparing their housing requirements, it is prudent to do so. However, on the basis that these are policy neutral projections that set out what would happen if past trends (over the past 5 years) are repeated, it is also helpful to consider alternative approaches.

3.9 In the light of this, a series of demographic options have been tested in order to consider what projections of natural change, migration and headship rates will mean for the future levels of household growth and dwelling requirements.

CLG 2008-based Household Projections Assessment

3.10 This scenario considers the dwelling requirements implied by the 2008-based CLG household projections by setting these figures alongside an allowance for second homes and vacancies.

3.11 The key results associated with this scenario are illustrated below:

Table 3.1 CLG 2008-based Household Projections Scenario Headline Outputs

Category	Change, 2011-31	Annual
Population	46,700	2,335
Households	30,070	1,500
Dwellings	31,200	1,560

Source: NLP Analysis of PopGroup Outputs

Key Implications: This scenario would result in an additional 46,700 people across the JCS area between 2011 and 2031. This will comprise both natural change and migration, although unlike the other demographic scenarios, migration would account for a larger proportion of the population change than natural change.

It would generate a need for 31,200 new dwellings over the JCS period between 2011 and 2031. This equates to 1,560 new dwellings per annum.

ONS 2010-based Sub National Population Projection Assessment (Baseline Scenario)

3.12 This baseline scenario mirrors the demographic change for the JCS area as projected by the most recent 2010-based ONS SNPP by applying the same core assumptions on fertility, mortality and migration. However, on the basis that the 2010-based CLG household projections have not yet been released, it considers the dwelling implications associated with the SNPP by applying the 2008-based CLG household projections alongside an allowance for second homes and vacancies which is detailed in Appendix 4. As such, it reflects the current latest data but will be subject to change when the 2010-based household projections are released, albeit that we would not expect this to significantly change the dwelling implications.

3.13 The key results associated with this scenario are illustrated below:

Table 3.2 ONS 2010-based SNPP Projections Scenario Headline Outputs

Category	Change, 2011-31	Annual
Population	44,700	2,235
Households	27,500	1,375
Dwellings	28,500	1,425
Indigenous Labour Force	7,600	380
Jobs Supported*	9,100 – 11,400	455 – 570

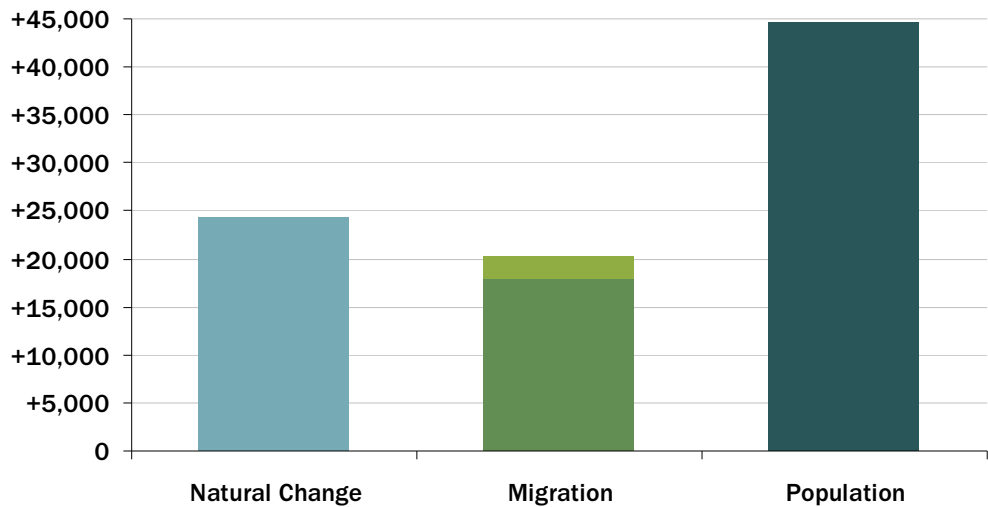
* Employment range based upon different assumptions relating to reduction of unemployment levels. Existing commuting levels held steady throughout the JCS period.

Source: NLP Analysis of PopGroup Outputs

3.14

Under this scenario, the total population of the JCS area is projected to rise by 44,650 people between 2011 and 2031. This change would be driven by natural change and migration in broadly equal measure with international migration accounting for only a small proportion of the increase.

Figure 3.1 Demographic Change in JCS Area (2010 SNPP-based Scenario)²



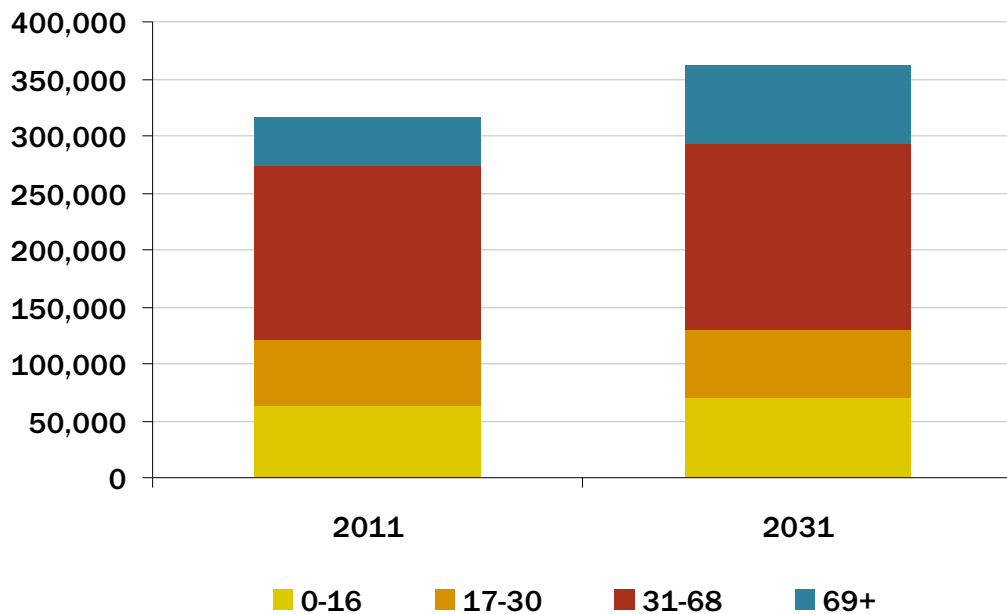
Source: NLP Analysis of PopGroup Outputs

3.15

The projected change in the demographic composition is set out below. This shows that the number of people of retirement age (69 years) is expected to rise by over 60% whilst the number of working age people is expected to rise by just 6% over the same period.

Figure 3.2 Changing Population Composition in JCS Area (2010 SNPP-based Scenario)

² The darker shade of green reflects domestic migration; the lighter shade of green reflects international migration.



Source: NLP Analysis of PopGroup Outputs

3.16 The population change anticipated by this scenario equates to an additional 27,455 households over the JCS period, reflecting projected shifts in household composition, as applied by the CLG in their 2008-based household projections. Taking account of existing housing vacancy rates for each of the JCS authorities, an additional 28,480 dwellings would be required to accommodate these additional households between 2011 and 2031.

3.17 Applying age specific economic activity rates for each local authority area to the forecast population shows that this would increase the labour force of the area by 7,600 people over the 20 year study period (4.5%). Taking account of alternative assumptions relating to changes in local unemployment rates over the JCS period, this increase in the number of economically active persons would support between 9,100 and 11,400 jobs (455 – 570 per annum).

Key Implications: This scenario would involve a requirement for 28,500 new dwellings over the JCS period between 2011 and 2031. This equates to 1,425 new dwellings per annum. It would support a moderate level of economic growth but significantly below past trends (1,300 jobs p.a, 2001-2010³) and the rate that is anticipated by the JCS employment evidence base.

³ Source: ABI / BRES data

This suggests that adoption of this scenario would not result in a joined-up strategy and would fail to deliver upon the economic aspirations that exist for the area.

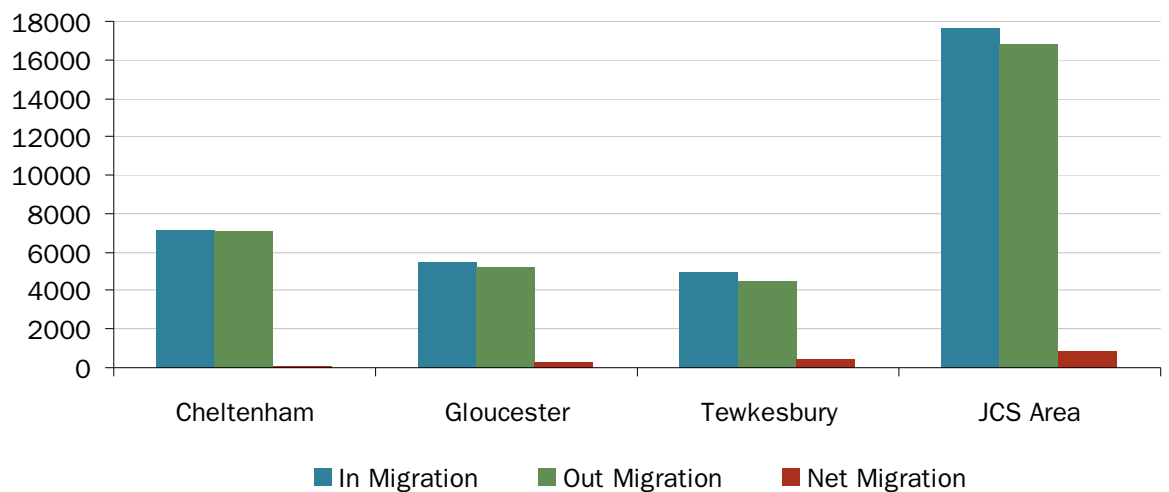
Past Trend Migration Assessment

3.18 The Sub-National Population Projections are trend based projections which consider the demographic and dwelling implications associated with the rolling forward of past trends over the last five years. However, recognising that migration levels can change over a relatively short period of time, it is useful to consider the implications of longer term migration as an input into the demographic analysis. This scenario therefore applies the following longer term migration rates:

- 1 Domestic Migration: Past trends between 1999 and 2010; and,
- 2 International Migration: Past trends between 2001 and 2008.

3.19 In both cases, the longer term past trend data was obtained from the ONS Population Estimates Unit. The specific levels of past migration that have informed this analysis are set out below⁴:

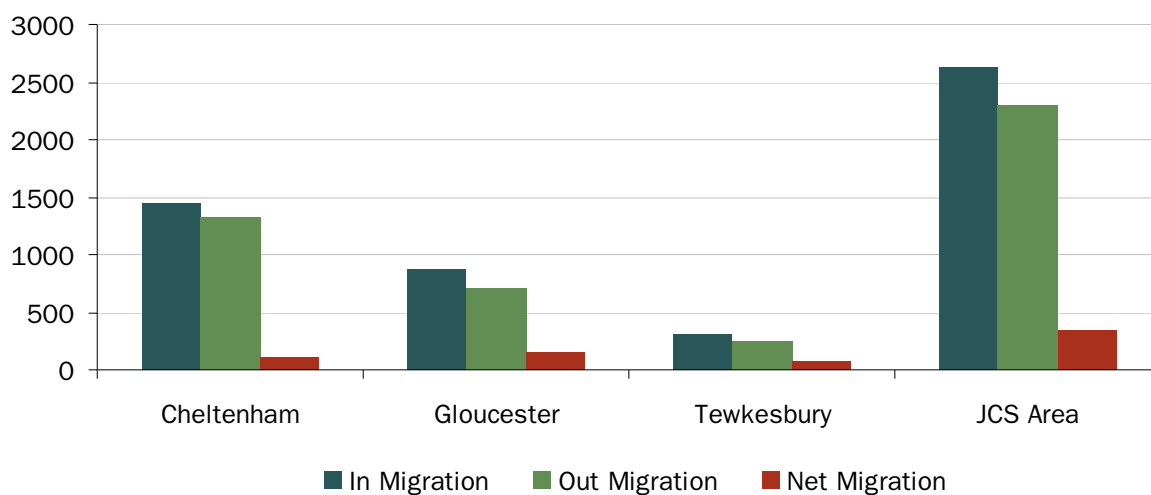
Figure 3.3 Average Domestic Migration Rates, 1999-2010



Source: ONS Population Estimates Unit

⁴ The periods covered by these data sets are different because of variations in the way that domestic and international migration statistics are obtained and retained by ONS.

Figure 3.4 Average International Migration Rates, 2001-2008



Source: ONS Population Estimates Unit

3.20

This scenario therefore models the following migration rates which are 17% above the migration levels contained within the baseline scenario and are 4.6% below those contained in the 2008-based household projections scenario:

Table 3.3 Migration Inputs into Demographic Scenarios

	Long Term Past Trend Migration	Baseline Scenario Migration	2008-based Household Projections Scenario Migration
Domestic	16,920	17,970	17,600
International	6,840	2,322	6,400
Total	23,760	20,292	24,900

Source: ONS Population Estimates Unit / ONS Migration Statistics Unit

Table 3.4 Comparison between Migration Inputs into Past Trend Migration Scenario and other Demographic Scenarios

	LT Past Trend Migration compared to Baseline Scenario Migration	LT Past Trend Migration compared to 2008-based H'hold Projections Scenario Migration
Domestic	-5.8%	-3.9%
International	194.6%	6.9%
Total	17.1%	-4.6%

Source: ONS Population Estimates Unit / ONS Migration Statistics Unit

3.21 The broad similarity between the migration inputs into each of these scenarios accounts for the comparability of the output results.

3.22 The key results associated with this scenario are illustrated below:

Table 3.5 Past Trend Migration Scenario Headline Outputs

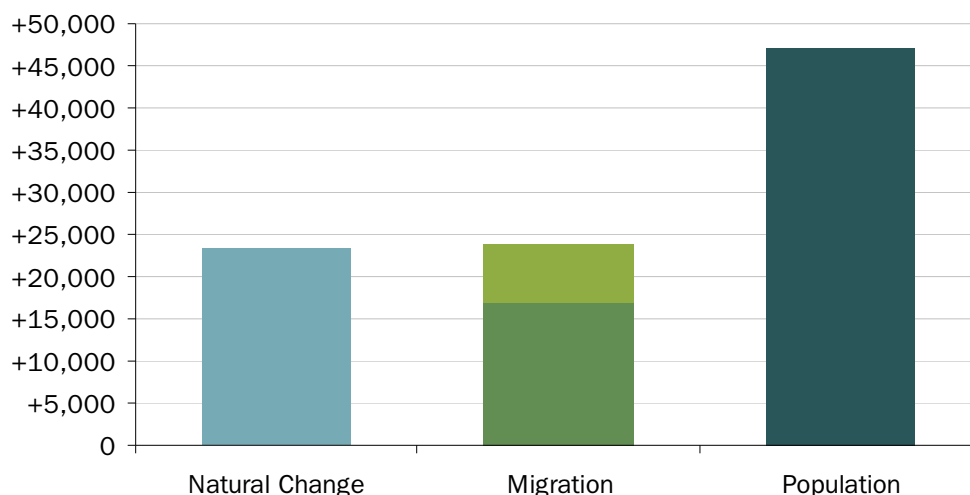
Category	Change, 2011-31	Annual
Population	47,100	2,355
Households	28,500	1,425
Dwellings	29,600	1,480
Indigenous Labour Force	7,800	390
Jobs Supported*	9,600 – 12,000	480 – 600

* Employment range based upon different assumptions relating to reduction of unemployment levels. Existing commuting levels held steady throughout the JCS period.

Source: NLP Analysis of PopGroup Outputs

3.23 Under this scenario, the total population of the JCS area is projected to rise by 47,080 people between 2011 and 2031. This change would be driven by natural change and migration in broadly equal measure with international migration accounting for approximately 25% of the increase.

Figure 3.5 Demographic Change in JCS Area (Past Trend Migration Scenario)⁵



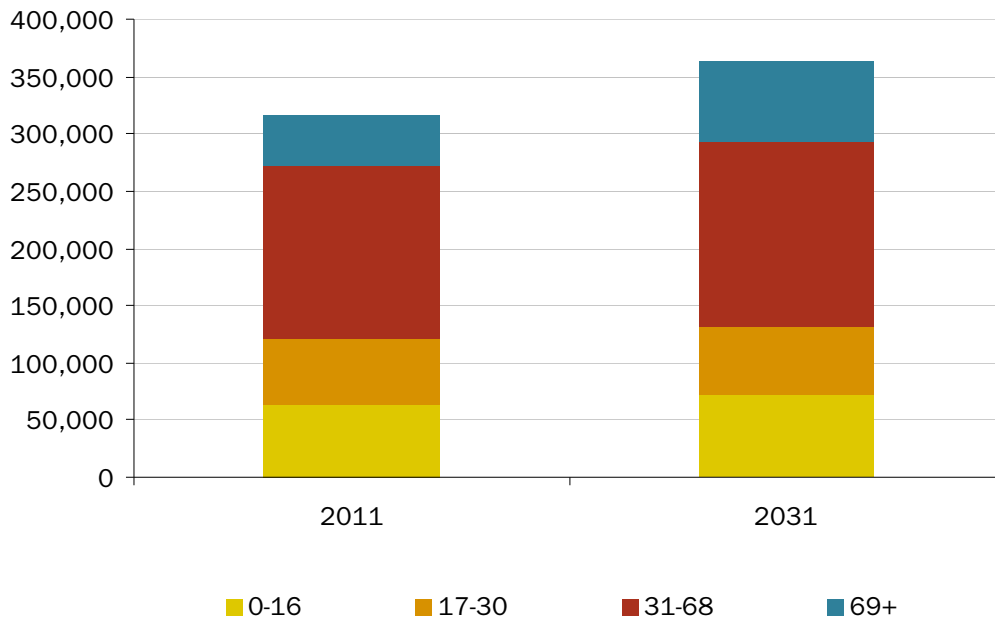
⁵ The darker shade of green reflects domestic migration; the lighter shade of green reflects international migration.

Source: NLP Analysis of PopGroup Outputs

3.24

The projected change in the demographic composition is set out below. This shows that the number of people aged over 69 years is again expected to rise by over 60% between 2011 and 2031. By contrast the number of working age people is expected to rise by 6% over the same period.

Figure 3.6 Changing Population Composition in the JCS Area (Past Trend Migration Scenario)



Source: NLP Analysis of PopGroup Outputs

3.25

The population change anticipated by this scenario equates to an additional 28,540 households over the JCS period, reflecting projected shifts in household composition, as applied by the CLG in their 2008-based household projections. Taking account of existing second home ownership and vacancy rates for each of the JCS authorities, an additional 29,611 dwellings would be required to accommodate these additional households between 2011 and 2031.

3.26

Applying age specific economic activity rates for each local authority area to the forecast population shows that this would increase the indigenous labour force of the area by 7,800 people over the 20 year study period (4.5%). Taking account of alternative assumptions relating to changes in local unemployment rates over the JCS period, this increase in the number of economically active persons would support between 9,600 and 12,000 jobs.

Key Implications: This scenario would involve a requirement for 29,600 new dwellings over the JCS period between 2011 and 2031. This equates to 1,480 new dwellings per annum. This would support a slightly higher level of economic growth than that associated with the 2010-based SNPP but still significantly below past trends (1,320 jobs p.a, 2001-2010 according to ABI / BRES) and the rate that is anticipated by the JCS employment evidence base.

If implemented, this scenario would also fail to deliver the economic aspirations that exist for the area and, as such, would not achieve a joined-up strategy within the JCS.

Sensitivity Tests

- 3.27 Having considered the housing requirements associated with the core demographic scenarios, it is also helpful to test the sensitivity of the projections to changes in key migration factors. This is intended to demonstrate the significant importance of natural change and domestic migration and the lesser importance of international migration as components of demographic change. This sensitivity analysis is therefore designed to respond to criticisms that these matters have not been appropriately considered in the JCS evidence base and also to assist the JCS team in identifying a reliable dwelling requirement figure.

Zero Migration

- 3.28 This demographic scenario assumes that no internal or international migration will take place in the future. It therefore considers the housing requirements that would be associated with the JCS authorities providing only for pressures arising from its internal population in terms of births, deaths, an ageing population and changing social (household formation and dwelling occupancy/consumption) patterns. Although the circumstances that are tested by this scenarios are not realistic and would not be expected to happen, this is powerful in demonstrating the implications of internal population change alone and the importance of migration in contributing towards a more balanced population structure and economic well-being.

- 3.29 The key results associated with this scenario are illustrated below:

Table 3.6 Zero Migration Scenario Headline Outputs

Category	Change, 2011-31	Annual
Population	24,400	1,220
Households	17,300	865
Dwellings	18,000	900
Indigenous Labour Force	-8,200	-410
Jobs Supported*	-5,200 to -3,100	-260 to -185

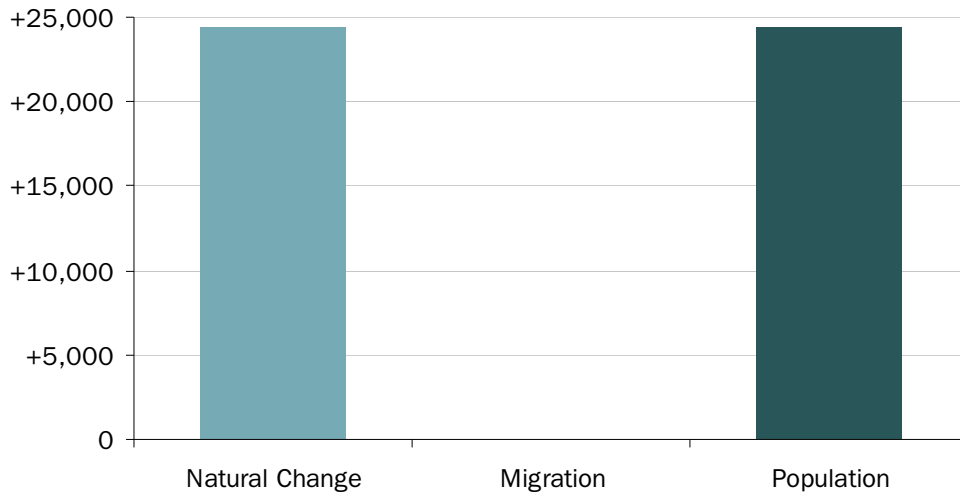
* Employment range based upon different assumptions relating to reduction of unemployment levels. Existing commuting levels held steady throughout the JCS period.

Source: NLP Analysis of PopGroup Outputs

3.30

Under this scenario, the total population of the JCS area is projected to rise by 24,360 people between 2011 and 2031. This change is half that of the 2010-based SNPP and the past trend based scenarios and therefore demonstrates the importance of migration as a component of future population change.

Figure 3.7 Demographic Change in JCS Area (Zero Migration Scenario)

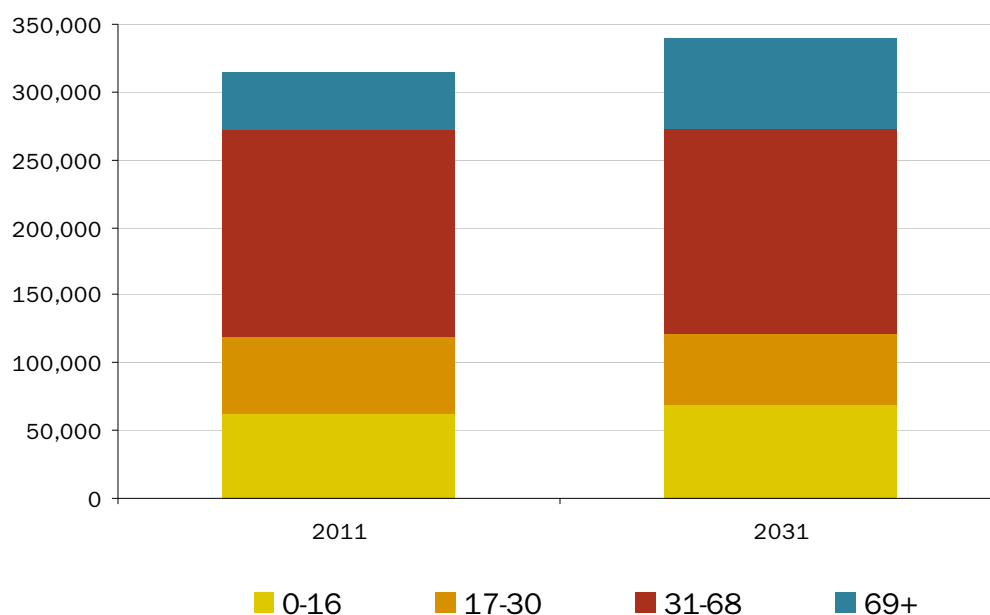


Source: NLP Analysis of PopGroup Outputs

3.31

Reliance upon natural change only would result in a significant change in the demographic profile of the area. The number of people of retirement age is expected to rise by 55% between 2011 and 2031, such that this age cohort would account for 20% of the population in 2031, compared to 13% in 2011. By contrast the number of working age people is expected to fall by 2.5% over the same period.

Figure 3.8 Changing Population Composition in the JCS Area (Zero Migration Scenario)



Source: NLP Analysis of PopGroup Outputs

- 3.32 Taking account of existing housing vacancy rates for each of the JCS authorities, an additional 17,950 dwellings would be required to accommodate the additional number of households that would be associated with the internal population changes. It should be noted that this figure is above that associated with Scenario A in the consultation draft JCS (16,200), demonstrating the extent to which this scenario is not even sufficient to meet needs that are emerging within the local population itself.
- 3.33 Applying age specific economic activity rates for each local authority area to the forecast population shows that this would reduce the indigenous labour force of the area by over 8,000 people over the 20 year study period (-5%). Taking account of alternative assumptions relating to changes in local unemployment rates over the JCS period, this reduction in the number of economically active persons would result in the area being able to support between 4,000 and 7,000 fewer jobs by the end of the JCS period. Clearly this would fail to accord with the economic aspirations of the JCS and would necessitate increasing levels of in-commuting to ensure that the current economic position can be sustained.

Key Implications: Although this scenario is not realistic and would not be realised in practice, it is valuable in demonstrating the importance of catering for migrants in order to ensure the future well-being of the area.

This scenario would involve a requirement for just 18,000 new dwellings over the JCS period between 2011 and 2031. This equates to 900 new dwellings per annum. This level of provision would only support the changing

requirements of the existing population and would entirely fail to meet the needs of any migrants.

In reality, such an approach would not result in there being no more migration movements into or out from the area. Rather, the in-migration of people for retirement purposes is likely to result in the displacement of local, working age persons on the basis that they would be less able to compete in the housing market. The implication of providing this level of development is likely to be even more dramatic in terms of the impacts upon the demographic profile of the area and resultant pressure upon services and facilities.

The identification of this level of housing growth would result in a substantial reduction in the number of economically active persons and the number of jobs that could be filled by local persons. Adoption of this approach would therefore effectively constitute planning for the long term economic decline of the area as the reduction in the local workforce would undermine the competitiveness of the area and its attractiveness to potential inward investors. This is in stark contrast to the aspirations of the economic vision for the area and conflicts with the clearly stated objectives of the NPPF.

Domestic Migration

- 3.34 A number of representations to the Preferred Options consultation expressed concern that the dwelling requirement figures contained within Scenarios B, C and D represented an over-estimation on the grounds that, due to factors such as the recession, changing circumstances within the Euro-zone and the Government's migration cap, international migration is likely to fall in the future. In the light of this context, this scenario considers the implications of there being no international in or out migration in the future. It therefore considers the housing requirements that would be associated with migration between the JCS area and other parts of the UK and natural change.
- 3.35 The purpose of this scenario is therefore to illustrate the sensitivity of the housing requirement figure to levels of international migration, by assuming a worst case scenario (i.e. that there is no international migration in the future) even though this is, in reality, unlikely to happen. The key results associated with it are illustrated below:

Table 3.7 Domestic Migration Scenario Headline Outputs

Category	Change, 2011-31	Annual
Population	42,400	2,120
Households	26,500	1,325
Dwellings	27,500	1,375
Indigenous Labour Force	4,400	220
Jobs Supported*	6,200 – 8,500	310 – 425

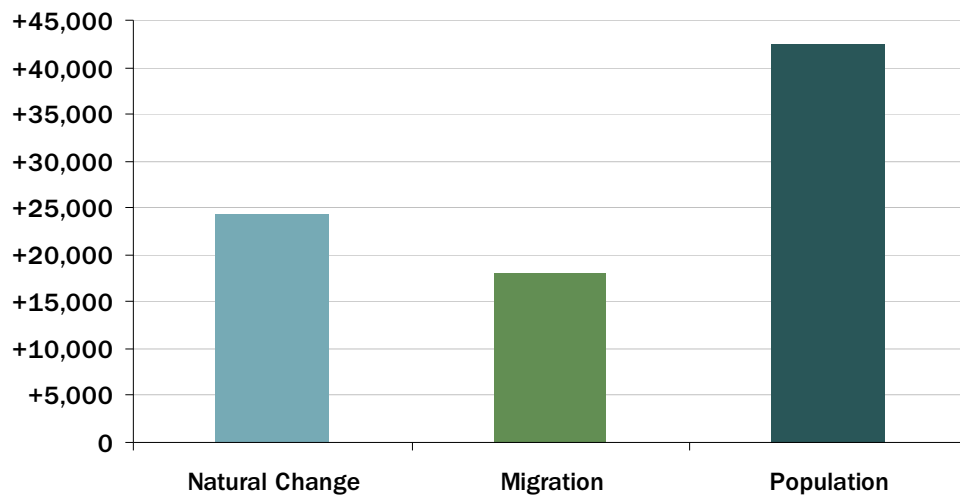
* Employment range based upon different assumptions relating to reduction of unemployment levels. Existing commuting levels held steady throughout the JCS period.

Source: NLP Analysis of PopGroup Outputs

3.36

Under this scenario, the total population of the JCS area is projected to rise by 42,400 people between 2011 and 2031. This change is broadly similar to that of the 2010-based SNPP scenario. This is important in demonstrating the comparatively limited impact of international migration – and the dominance of domestic migration – as a component of future population change.

Figure 3.9 Demographic Change in JCS Area (Domestic Migration Scenario)

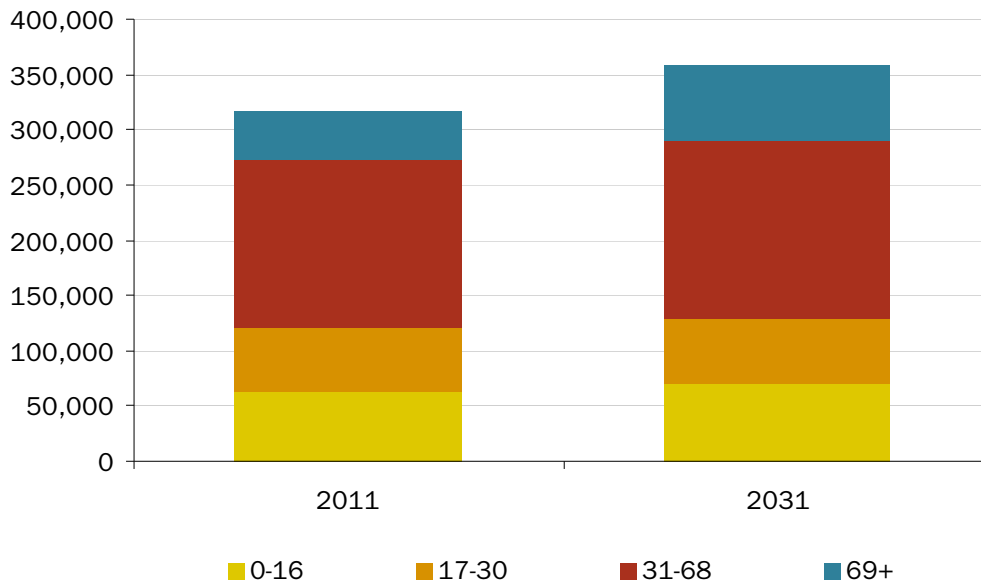


Source: NLP Analysis of PopGroup Outputs

3.37

The implication of this scenario would again be a significant change in the demographic profile of the area. The number of people of retirement age is expected to rise by 60% between 2011 and 2031, such that this age cohort would account for 19% of the population in 2031, compared to 13% in 2011.

Figure 3.10 Changing Population Composition in the JCS Area (Domestic Migration Scenario)



Source: NLP Analysis of PopGroup Outputs

3.38 The population change anticipated by this scenario equates to an additional 26,480 households over the JCS period, reflecting projected shifts in household composition, as applied by the CLG in their 2008-based household projections. Taking account of existing housing vacancy rates and second home ownership levels for each of the JCS authorities, an additional 27,450 dwellings would be required to accommodate these additional households between 2011 and 2031. Again, this is not dissimilar to the dwelling requirement figure that is associated with the 2010-SNPP scenario, demonstrating the extent to which net migration makes only a limited contribution towards anticipated population increase within the JCS area.

3.39 However, it is evident that this sensitivity test results in a rather more substantial economic impact. Applying age specific economic activity rates for each local authority area to the forecast population shows that this would increase the indigenous labour force of the area to approximately 60% of the SNPP scenario. Taking account of alternative assumptions relating to changes in local unemployment rates over the JCS period, this increase in the number of economically active persons would support between 6,200 and 8,800 jobs. This is important in highlighting the role of international migration in helping to sustain the local workforce and economy. This shows how failing to provide for the dwelling requirements of international migrants would therefore have an adverse impact local economic well-being and growth.

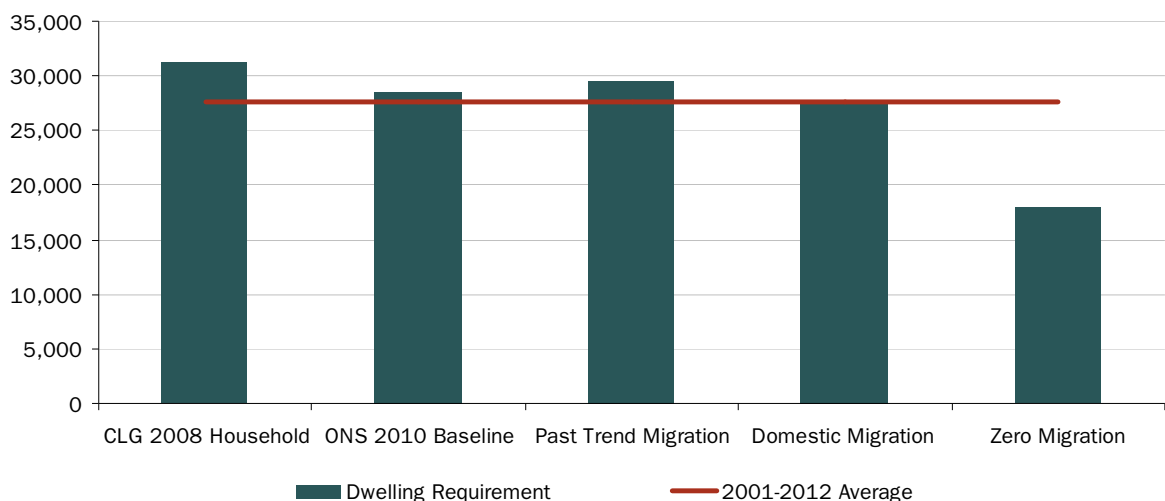
Key Implications: This scenario would involve a requirement for 27,500 new dwellings over the JCS period between 2011 and 2031. This equates to 1,375 new dwellings per annum. Although this is broadly similar to the housing requirement associated with the 2010-SNPP scenario, this approach would result in an ability to accommodate less half the jobs associated with the SNPP scenario. This approach would therefore have a substantial implication upon the local economy, demonstrating the sensitivity of the labour force to international migration.

On the basis of the evidence set out above, it is clear that international migration will continue to play an important role within the JCS area and it would not be within the scope of local authority powers to control it. However, even if it was possible to limit international migration, this would not have a substantial impact upon total housing requirements but would have more significant effect upon the economic well-being of the area. The reason for this can be attributed to differences in the age profile of those living in the JCS area under this scenario compared to the other demographic-led scenarios. Under this zero international migration scenario, the change in the number of economically active persons is much lower than for the baseline and long term migration scenarios, highlighting the role of international migration upon the economic health of the area.

Summary of Demographic Scenarios

3.40 The demographic scenarios produce a range of potential housing requirement figures, as summarised below:

Figure 3.11 Potential Dwelling Requirement, 2011-2031



Source: NLP Analysis of PopGroup Outputs

- 3.41 In considering these results, it is important to recognise that the zero migration scenario is intended for illustrative purposes only. It is not reasonable to expect that population growth and future housing requirements within the JCS area would only arise as a result of natural change. Accordingly, this scenario should not be regarded as a viable option as it will not be possible to prevent migration which will be important for the economic and social well-being of the area.
- 3.42 The other demographic scenarios all generate a housing requirement of approximately 30,000. This comparability is important in pointing towards clear evidence of the future housing need that would arise if demographic factors alone were taken into consideration. However, as set out in more detail below, the demographic scenarios do not take account of the economic aspirations that exist for the area and, as such, do not provide an adequate basis for a joined-up Joint Core Strategy that accords with the requirements of the NPPF.
- 3.43 The domestic migration scenario shows that international migrants make a limited contribution to population growth. However, the age and economic status of those moving into the JCS area from overseas mean that this group makes a substantial contribution to employment growth. This serves to underline the importance of international migration within the JCS area.

Economic Analysis

- 3.44 An important strategy aim of the JCS is to promote economic growth. This is expressed in the vision for:
- “A strategy which fosters growth in the local economy and provides sufficient homes, including affordable homes, in sustainable locations, without increasing the risk of flooding, or harming high quality landscape, whilst maintaining and enhancing the separate vitality, identity and character of individual settlements.”*
- 3.45 This objective also reflects the guidance set out within the pro-growth NPPF.
- 3.46 The demographic scenarios set out above results in a requirement for approximately 30,000 dwellings over the JCS period from 2011 to 2031. Due to the ageing population within the area and the demographic profile of migrants into the area, each of these scenarios would result in a substantially greater increase in the number of retired people compared to those of working age. The implication is that the demographic scenarios would all result in a relatively modest increase in the number of working age persons (and the natural change scenario would result in a decline in the number of working age people). As such, the number of jobs that could be supported by local workers is very limited – from a decline in 7,000 to an increase in 12,000.
- 3.47 The precise number of jobs that could be supported by each scenario will depend upon the application of assumptions relating to changes in the unemployment rate over time. The rate and scale of any such change cannot be precisely known at this time, but a series of sensitivity tests can be applied, as follows:

Table 3.8 Employment Sensitivity Tests

Sensitivity Test		Variable
1	Unemployment reduction to longer term average	<p>Unemployment levels in each local authority reduced gradually to the average rate experienced between 2004 and 2011:</p> <p>1 Cheltenham: 5.4%</p> <p>2 Gloucester: 5.8%</p> <p>3 Tewkesbury: 4.2%</p>
2	Unemployment reduction to longer term minimum	<p>Unemployment levels in each local authority reduced gradually to the lowest rate experienced between 2004 and 2011:</p> <p>1 Cheltenham: 4.2%</p> <p>2 Gloucester: 4.2%</p> <p>3 Tewkesbury: 3.1%</p>

3.48 It has been assumed that existing commuting patterns will be retained throughout the JCS period.

3.49 None of the demographic scenarios reflect the economic aspirations that exist for the area or the economic forecasts that have been prepared to inform the JCS. The implication of this is that if the housing requirement was set to reflect the demographic scenarios alone, then the housing and employment elements of JCS strategy would not be joined up and the economic growth that is anticipated would be reliant upon a substantial increase in commuting into the area. Such an approach would not be sustainable and would raise fundamental questions regarding the soundness of the resultant strategy.

3.50 In order to seek alignment between the economic and housing elements of the JCS, it is necessary to consider the housing requirements that would be associated with the anticipated level of employment growth, bearing in mind future unemployment, economic activity and commuting patterns.

3.51 This scenario tests the demographic changes that would be associated with the level of future employment growth identified by two economic forecasters, Cambridge Econometrics and Experian Business Strategies and then considers the number of dwellings that would be required to accommodate that population change.

Cambridge Econometrics

3.52 The Cambridge Econometrics forecasts were commissioned by the JCS authorities to inform the economic assessment that was undertaken by NLP in 2011. These forecasts are consistent with Cambridge Econometrics' Economic

Prospects for the Nations and Regions of the UK (July 2011) and BRES employment data.

- 3.53 Although there is no clear intelligence on the likely speed of full recovery or whether we might face a further recession, the cyclical nature of the economy means that a future upturn is almost universally anticipated. In this context, long term economic forecasting would have a greater reliability than short term forecasts as it would assume – and take account of – longer term cyclical trends which can even out individual periods of growth and decline.
- 3.54 In terms of overall growth, CE forecasts that the number of jobs in the study area will rise by 15.3% from 176,950 to 203,960 between 2011 and 2031. This compares closely to ONS data which show a 7.4% increase in employment (11,900 jobs) between 2001 and 2010.

Table 3.9 Employment Growth, 2011 - 2031

	Employment		Change	
	2011	2031	Actual	%
Cheltenham	61,070	71,240	10,170	16.7
Tewkesbury	43,610	52,590	8,980	20.6
Gloucester	72,270	80,130	7,860	10.9
Total	176,950	203,960	27,010	15.3

Figures have been rounded to the nearest 10

Source: Cambridge Econometrics, 2011

- 3.55 The economic scenario adopts a different starting point to the demographic scenarios. The demographic scenarios apply input data relating to (inter alia) natural change and migration and then identify the resultant population change, dwelling requirements and number of jobs that would be supported by the economically active population. By contrast the economic scenario uses the employment forecast prepared by Cambridge Econometrics as its starting point and then identifies the number of migrants that would be expected, taking account of assumptions regarding commuting, unemployment and economic activity levels and the likely future levels of non-economic migration from this. It then tests the likely levels of natural change and population growth and identifies resultant household growth and dwelling requirements.
- 3.56 The Cambridge Econometrics scenario is therefore based on the creation of 27,000 new jobs between 2011 and 2031 and the implications of the sensitivities set out in Table 3.8. As set out above, the precise implications of an employment-led scenario can be difficult to fully quantify so a range of figures is set out below:

Table 3.10 CE Scenario Headline Outputs

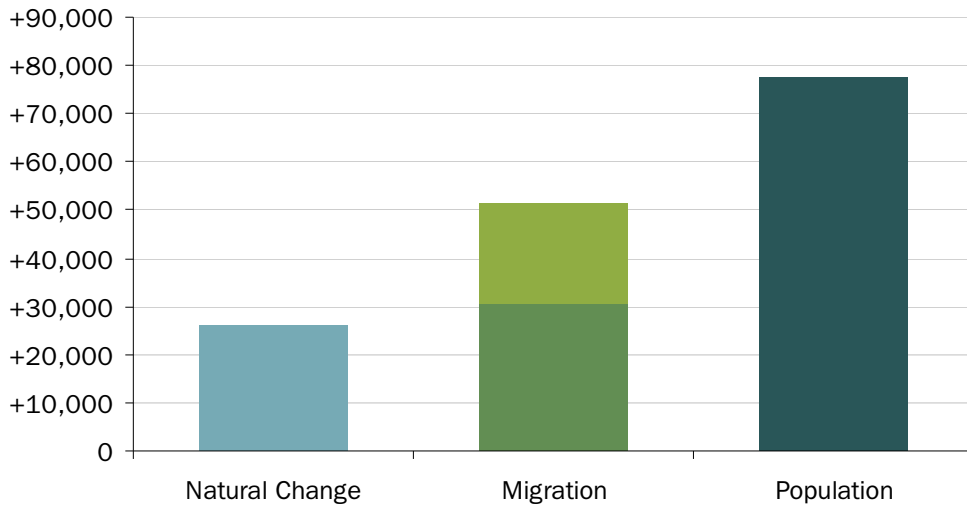
Category	Change, 2011-31	Annual
Population	73,200 – 77,500	3,660 – 3,875
Households	39,800 – 41,600	1,990 – 2,080
Dwellings	41,300 – 43,200	2,065 – 2,150

The ranges set out reflect the different scenarios summarised in Table 3.8

Source: NLP Analysis of PopGroup Outputs

- 3.57 Under this scenario, the total population of the JCS area is projected to rise by between 73,200 and 77,500 people between 2011 and 2031. This is a substantial increase which is 65% above the level associated with the 2010-based SNPP scenario. The population increase associated with an additional 27,000 jobs is so high because the JCS area attracts a very large number of retired people – a characteristic that is expected to continue – such that for every working age person that moves into the area (to fill one of the new jobs) more than one retired (and economically inactive) people will also move into the area. As has been explained elsewhere in this report, migration trends will continue in the longer term and attempts to adjust them through the allocation and development of housing are unlikely to be successful but would tend to have unexpected consequences in terms of resulting in the displacement of local, working age people, to the detriment of the local economy and community.
- 3.58 The level of migration associated with this scenario is almost double the long term past trends and 50% above the peak level that was experienced between 2003 and 2007. 60% of the migration associated with this scenario would be domestic whilst the remaining 40% would be international migration. Again, this shows the continued importance of domestic migration as the key component of demographic change and also the significance of international migration to employment growth and economic well-being within the JCS area.

Figure 3.12 Demographic Change in JCS Area (CE Scenario)⁶



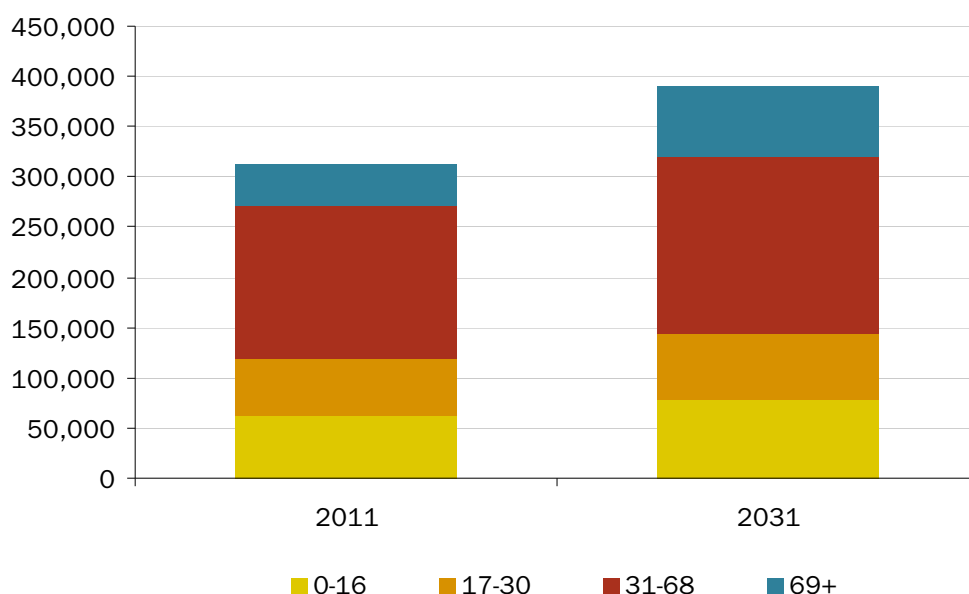
Source: NLP Analysis of PopGroup Outputs

3.59

This scenario only would result in a significant change in the demographic profile of the area. The number of people of retirement age is expected to rise by 60% between 2011 and 2031, such that this age cohort would account for 19% of the population in 2031, compared to 13% in 2011.

⁶ The darker shade of green reflects domestic migration; the lighter shade of green reflects international migration.

Figure 3.13 Changing Population Composition in the JCS Area (CE Scenario)



Source: NLP Analysis of PopGroup Outputs

3.60

The population change anticipated by this scenario equates to between 39,800 and 41,650 additional households over the JCS period. Between 41,300 and 43,220 additional dwellings would be required to accommodate these households between 2011 and 2031.

Key Implications: This scenario would involve a requirement of between 41,300 and 43,200 additional dwellings over the JCS period between 2011 and 2031. This equates to between 2,065 and 2,160 new dwellings per annum. This is clearly in excess of the demographic scenarios but is important in highlighting the housing requirements that are associated with the additional 1,350 jobs per annum has been forecast by Cambridge Econometrics (and that compares to the past trend figure of 1,320 jobs p.a, 2001-2010 according to ABI / BRES).

Experian Business Strategies Ltd

- 3.61 An additional set of employment forecasts was also provided by Experian Business Strategies in 2012. These were compiled using Experian's UK Regional Planning Service (RPS) and provide forecasts to 2031, as well as historical records from 1997⁷.
- 3.62 In terms of overall growth, the number of jobs in the study area is forecast to rise by 8.4% (15,580) from 185,240 to 200,820 between 2011 and 2031. This is lower than the 7.4% increase in employment (11,900 jobs) between 2001 and 2010 that is recorded by ONS.

Table 3.11 Employment Growth, 2011 - 2031

	Employment		Change	
	2011	2031	Actual	%
Cheltenham	66,750	73,690	6,940	10.4
Tewkesbury	43,390	46,850	3,460	8.0
Gloucester	75,100	80,280	5,100	6.8
Total	185,240	200,820	15,580	8.4

Figures have been rounded to the nearest 10

Source: Experian Business Strategies, 2012

- 3.63 The Experian scenario is therefore based on the creation of 15,580 new jobs between 2011 and 2031 and again tests the sensitivities set out in Table 3.8. The results of this model run are set out below:

Table 3.12 Experian Scenario Headline Outputs

Category	Change, 2011-31	Annual
Population	54,000 – 58,300	2,700 – 2,910
Households	31,300 – 33,100	1,565 – 1,655
Dwellings	32,500 – 34,400	1,625 – 1,720

The ranges set out reflect the different scenarios summarised in Table 3.8

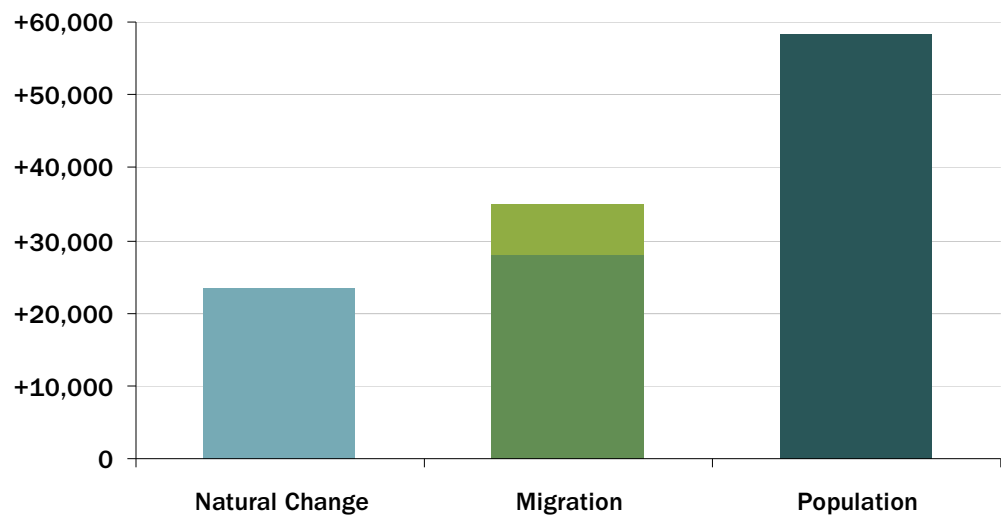
⁷ Experian and CE data differ in respect of the time period that they cover – CE provides figures for 1981 – 2031, whilst Experian forecasts employment between 1997 and 2031.

Source: NLP Analysis of PopGroup Outputs

3.64 Under this scenario, the total population of the JCS area is projected to rise by between 54,000 and 58,300 people between 2011 and 2031. This is between 20% and 30% above the level associated with the 2010-based SNPP scenario.

3.65 The level of migration associated with this scenario would necessitate an increase above past trends. 80% of the migration associated with this scenario would be domestic whilst the remaining 20% would be international migration. Again, this shows the continued importance of domestic migration as the key component of demographic change and also the significance of international migration to employment growth and economic well-being within the JCS area.

Figure 3.14 Demographic Change in JCS Area (Experian Scenario)⁸

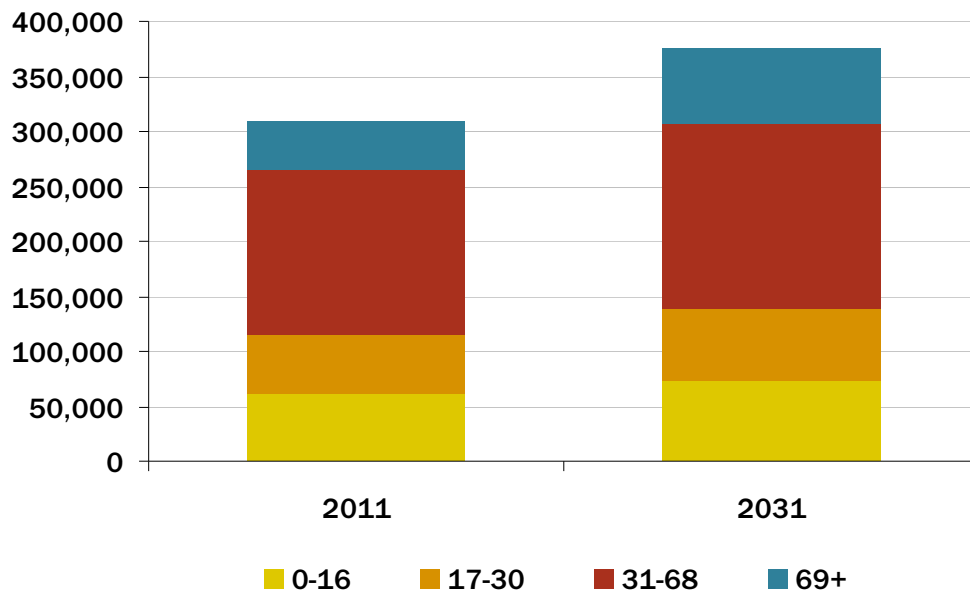


Source: NLP Analysis of PopGroup Outputs

3.66 This scenario only would result in a significant change in the demographic profile of the area. The number of people of retirement age is expected to rise by 65% between 2011 and 2031.

⁸ The darker shade of green reflects domestic migration; the lighter shade of green reflects international migration.

Figure 3.15 Changing Population Composition in the JCS Area (Experian Scenario)



Source: NLP Analysis of PopGroup Outputs

3.67

The population change anticipated by this scenario equates to between 31,300 and 33,100 additional households over the JCS period. Between 32,500 and 34,400 additional dwellings would be required to accommodate these households between 2011 and 2031.

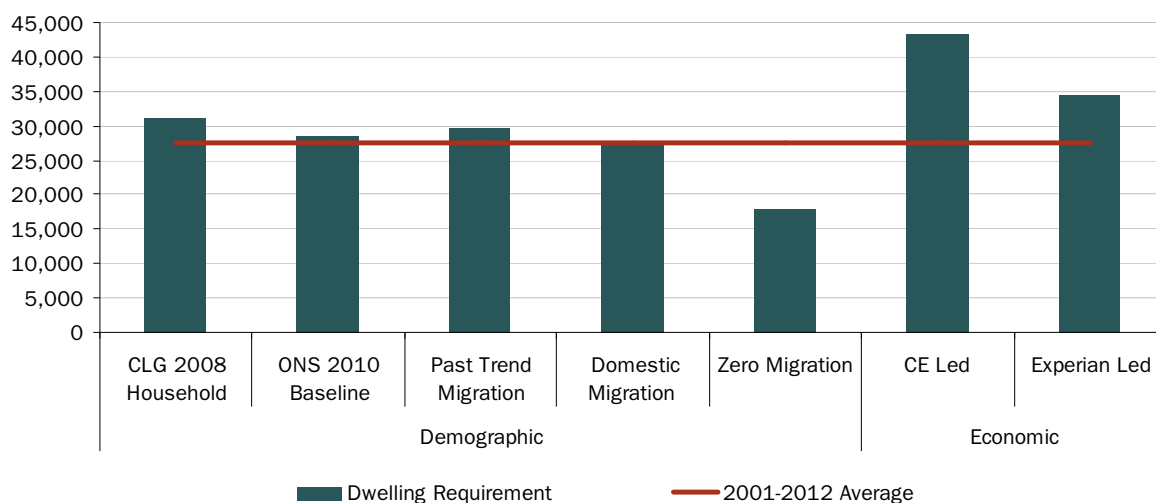
Key Implications: This scenario would involve a requirement of between 32,500 and 34,400 additional dwellings over the JCS period between 2011 and 2031. This equates to between 1,630 and 1,720 new dwellings per annum. This is more than the demographic scenarios but would provide the basis for alignment between housing provision and the growth of 780 jobs per annum that has been forecast by Experian Business Strategies (and that compares to the past trend figure of 1,320 jobs p.a, 2001-2010 according to ABI / BRES).

Summary of Scenarios

3.68

A graphical summary of the dwelling requirements for each scenario between 2011 and 2031 is set out below and compared to the long term average level of housing completions between 2001 and 2010.

Figure 3.16 Dwelling Requirement, 2011-2031



Source: NLP Analysis of PopGroup Outputs

3.69

The table below summarises each of the scenarios in tabular form, in terms of the key demographic and supply factors.

Table 3.13 Summary of Scenarios

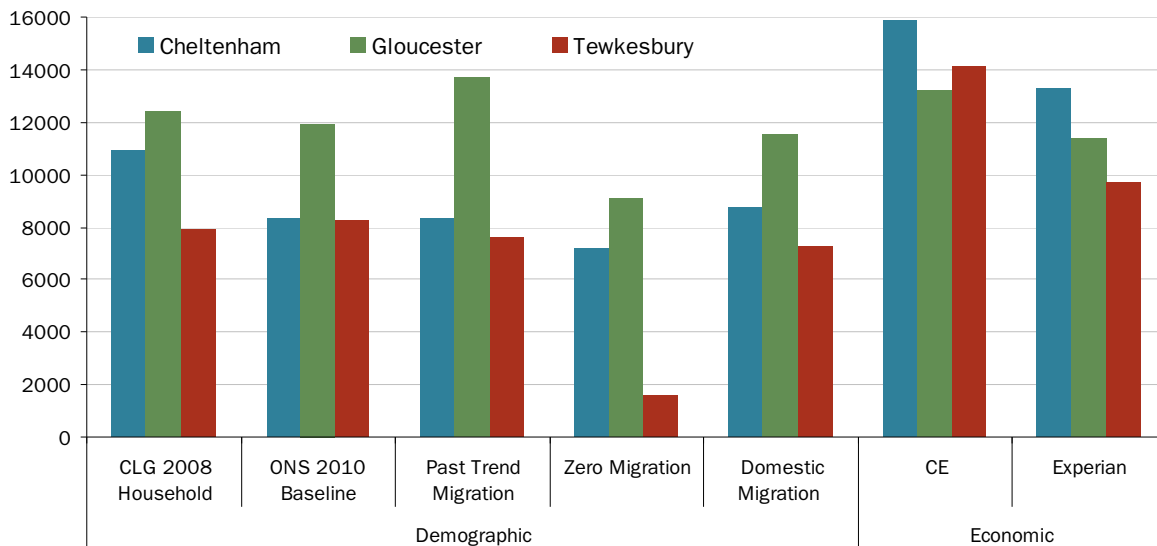
	Demographic Led					Economic Led	
	CLG 2008 Household	ONS 2010 Baseline	Past Trend Migration	Zero Migration	Domestic Migration	CE	Experian
Pop Change	46,700	44,700	47,100	24,400	42,400	73,200 – 77,500	54,000 – 58,300
Natural Change	22,300	24,400	23,300	24,400	24,400	25,300 – 26,000	22,800 – 23,500
Net Migration	24,400	20,300	23,800	0	18,000	47,900 – 51,500	31,200 – 34,800

Dwelling Change	31,200	28,500	29,600	18,000	27,500	41,300 – 43,250	32,500 – 34,400
Dwellings p.a.	1,560	1,425	1,480	900	1,375	2,065 – 2,160	1,625 – 1,720
Jobs	11,700 – 14,100	9,100 – 11,400	9,600 – 12,000	-5,200 to -3,100	6,200 – 8,500	27,000	15,580

Source: GCC / CLG Household Projections / NLP Analysis of PopGroup Outputs

3.70 An overview of the housing requirement figures for each local authority area is set out below. A summary of the implications in tabular form is contained within Appendix 6:

Figure 3.17 Dwelling Requirement by Local Authority, 2011-2031



Source: NLP Analysis of PopGroup Outputs

3.71 Whilst it is useful to compare each of the scenarios in graphical and tabular form, careful regard should be given to the implications of each in terms of:

- 1 Their economic implications;
- 2 Their impact upon the demographic structure of the JCS area;
- 3 The reliance upon migration to achieve the necessary level of population change and the implications associated with any such net inflow; and,
- 4 Their deliverability, judged against past trend completions, land availability and viability factors.

- 3.72 Taking account of all of these matters, we set out below an assessment of our recommendations regarding the most appropriate level of growth within the JCS area over the period to 2031.

Assessment of recommendations

Zero migration is not a realistic option

- 3.73 The zero-migration scenario is useful to demonstrate the future need that is generated by the resident population across the three areas. However, it does not offer a realistic future scenario of what will happen in these areas in the future.
- 3.74 It is not possible to prevent the movement of people into or out of any area and, following on from an understanding of what has happened in the past, it is evident that migration will continue to be an important component of demographic change in the future. Migration can be of considerable benefit for the social and economic well-being of an area. It ensures a good mix of people of all age groups, including those of working age that are able to work within the local area. As such, it can contribute towards a more balanced and economically functional society. It is important to acknowledge these benefits and to respond to them by making adequate provision for the future needs of migrants.
- 3.75 An argument has been put forward to suggest that the in-migration of older people can be controlled by limiting the delivery of housing. However, this is not the case as many older in-migrants are likely to be better able to compete in the housing market and therefore migration levels are not likely to be constrained by housing supply. Rather, this action would have a disproportionate impact upon local and younger people who are typically less able to compete in the market.
- 3.76 Reliance only upon natural change would result in a significant change in the demographic profile of the area. The number of people of retirement age is expected to rise by 55% between 2011 and 2031, such that this age cohort would account for 20% of the population in 2031, compared to 13% in 2011. By contrast the number of working age people is expected to fall by 2.5% over the same period.
- 3.77 Without migration, an area will therefore become stagnant and less economically active. This would undermine the attractiveness of the area to potential investors and will also lead to an aging population and increased dependency whereby a smaller pool of local workers are required to bear the additional financial and other burdens associated with the demands on services that are created by the increased number of retired people. This would affect the potential delivery of the JCS vision for the area and would weaken the overall economic position of this important area.

Demographic scenarios fail to take full account of economic factors

- 3.78 The housing requirement figure for the JCS area should not solely rely on demographic data but (in accordance with the guidance contained within the NPPF) should also reflect the economic aspirations for the area. The baseline (demographic-led) scenario falls well short in terms of its ability to meet both the CE and Experian forecasts for the JCS area between 2011 and 2031.
- 3.79 Recognising the importance of achieving a balanced strategy that is internally consistent and therefore seeks to balance future housing and employment growth, it is evident that the objectively assessed housing requirement should be based both on demographic and economic considerations.
- 3.80 A more balanced population increase will help facilitate and avoid the loss of younger people and increase in older persons in the future. Helping to stem the outflow of working age persons and achieving a balanced community will ensure the JCS area avoids the economic difficulties associated with an ageing population whereby there is a greater demand for services but a more limited supply of labour to provide such services and a reduced income from taxation to fund them.
- 3.81 Whilst the demographic scenarios would result in an increase in the working-age population and would ensure that an increase in employment could be sustained, they fail to reflect the level of economic growth that is anticipated and, as such, would compromise the deliverability of the economic vision for the area. In so doing, it would also result in social implications through the creation of an increasingly aged population.

Need to ensure alignment and maximise economic potential of the area

- 3.82 The importance of selecting an appropriate future housing requirement figure is to ensure balanced growth in-line with the economic potential of an area. To achieve balanced and well-distributed growth, economic policies must align with policies seeking the future development of houses in the area. Policies must therefore ensure that they are pulling in the same direction to achieve the wanted outcomes.
- 3.83 Alignment of housing and the economy is essential to ensuring sustainable development and support for growth. The objectively assessed housing need figure for the JCS area should not solely rely on demographic data but also on an understanding of the future employment changes in the area. The requirements identified by demographic scenarios fail to reflect job forecasts whilst the alternative economic-led approaches provide this better alignment between jobs and housing.
- 3.84 The delivery of sufficient housing for the (expanding) workforce represents an essential element in ensuring that economic growth can be attracted and sustained. Recognition of the housing need associated with the employment forecasts would accord with the objectives of the NPPF and the JCS vision.

- 3.85 As such, the jobs-based housing strategy would both support growth and by accommodating an increased number of economically active people, would enhance the attractiveness of the area to inward investors.
- 3.86 Increasing the housing supply will enable a larger proportion of people to be more able to compete in a broader housing market. A more balanced population increase will then help facilitate and avoid the loss of younger people and thereby support the increase in older persons in the future.
- 3.87 Providing good 'social' foundations for an area, i.e. the correct type and amount of housing will mean economic growth can be achieved. Drawing together these considerations, the objectively assessed housing need for the JCS area should be based upon the employment-led scenarios. This would equate to a requirement for between 32,500 and 43,250 dwellings between 2011 and 2031.
- 3.88 The selection of the final figure will depend upon the preferred level of employment growth for the JCS area. The identification of the number of new jobs that are to be sought through the JCS will be based upon the identification of policy aspirations relating to the promotion of key sectors in accordance with the economic and spatial vision for the area.
- 3.89 This work remains to be undertaken and may result in a housing requirement figure that falls outside of the range set out above.

Testing the Options

Meet ambitions regarding increasing supply

- 4.1 The NPPF seeks to “*boost significantly the supply of housing*” and in so doing, it emphasises the need for local planning authorities to ensure their Local Plan meets the full, objectively assessed needs for housing in the area.
- 4.2 Average annual completions between 2001-2010 across the three areas, Cheltenham, Gloucester and Tewkesbury have been 1,350 per annum (420, 600 and 330 respectively). Rates of up to 1,900 homes per annum were delivered between 2005 and 2009, a period which included the start of the recession and during which two of the JCS authorities (Cheltenham and Tewkesbury) were failing to meet their identified requirements.
- 4.3 This level of past trends would equate to a total supply of 38,000 dwellings over the JCS period. If achieved, the housing figures associated with the Experian forecasts would result in a 25% increase against the long term average delivery but a 10% reduction from the peak supply – meaning that depending upon the period that was used for comparison, the level of growth associated with this scenario may not accord with the NPPF objective of boosting the supply of housing. The delivery associated with the CE projections would represent a boost in supply of between 10% and 55% (depending upon the period against which the figures are appraised).
- 4.4 The requirement figure for the JCS area should not solely rely on demographic data but also on the economic projections for the area. The baseline (demographic-led) scenario fails to deliver the level of future employment growth that has been identified for the area and which would accord with the NPPF and the local economic vision. The JCS must therefore seek to better align their economic aspirations with housing requirements in order to deliver a more robust plan.

Accord with advice on affordability

- 4.5 The economic led scenario results in a requirement between 32,500 and 43,250 dwellings over the JCS plan period. The NPPF requires the supply of local planning authorities “*to 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*”.
- 4.6 The adverse social impacts of failing to provide adequate housing have been set out in this report. The past average delivery of 1,900 dwellings per annum across JCS area coincided with worsening affordability. Whilst the revised requirement figure will not resolve all affordability issues, it will prevent the situation from deteriorating further. By contrast, if insufficient housing is provided across the JCS area, this will significantly increase the affordability problem.

- 4.7 Affordability is a function of house prices and income levels. In order to tackle this issue within the JCS area, it will be necessary to address both elements in conjunction with one another – i.e. by increasing the supply of housing and stimulating economic growth so that more jobs (and increased average incomes) can be encouraged. As the Gloucestershire Econometric Model has highlighted, seeking to tackle one element in isolation would not be sufficient to fully respond to on-going affordability concerns.

Demographic profile

- 4.8 The population increase associated with the economic-led scenarios is affected by:
- 1 The need to attract economic migrants into the area in order to occupy newly created jobs and those that have been left vacant as people retire; and,
 - 2 The continued popularity of the area as a retirement destination and the expectation that the trend of people moving into the area for retirement purposes will continue.
- 4.9 If delivered, the objectively assessed level of housing need would be important in helping to prevent the further polarisation of the demographic profile within the JCS area. By attracting a large number of economic migrants into the area, this level of house building would help contribute towards a more evenly distributed population structure, avoiding loss of younger people and increase in older persons.

Sustainable pattern of development, balancing the needs of the economy and minimise need for commuting

- 4.10 Paragraph 18 of the NPPF states:
- “The Government is committed to securing economic growth in order to create jobs and prosperity, building on the country’s inherent strengths and to meeting the twin challenges of global competition and of a low carbon future”.*
- 4.11 It is through the planning system that significant weight should be placed on the need to support economic growth through national down to local policies.
- 4.12 In targeting economic regeneration and growth, the delivery of a wide choice of quality homes is a fundamental element of this. The NPPF places great emphasis on economic growth and it must be recognised that both the creation of jobs and development of housing go hand-in-hand and each one is inherent to the other’s success. This means that an area cannot grow economically by creating a large amount of new jobs without the housing to support the workforce. Neither can it deliver a large amount of new housing without providing the new residents with additional employment opportunities.

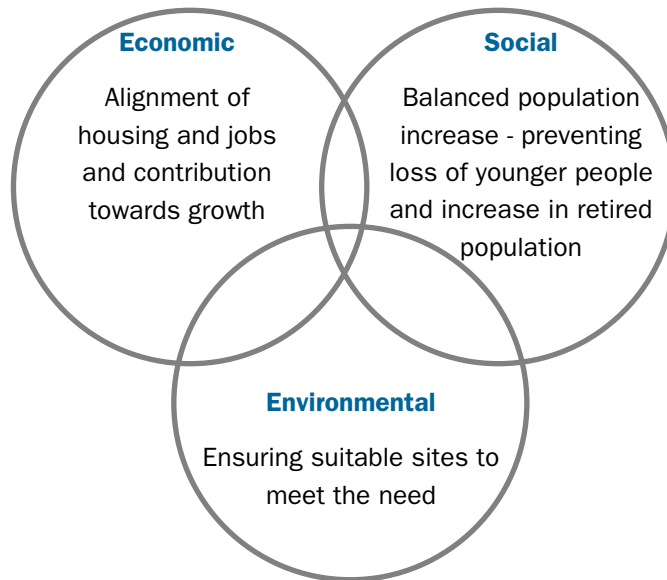
- 4.13 Alignment of housing and the economy is essential to ensuring sustainable development and support for growth. The requirements identified by demographic scenarios fail to reflect job forecasts whilst the alternative economic-led approach provides better alignment between jobs and housing. Additional housing is required in order to meet the economic aspirations of the area and prevent unsustainable increases in in-commuting occurring because the existing housing supply in the JCS area is not adequate to provide for its workforce.
- 4.14 In addition to providing a scenario which best aligns jobs and housing, the identified level of residential development would deliver an extensive economic boost across the JCS area in terms of:
- 1 New Homes Bonus;
 - 2 On going Council Tax receipts;
 - 3 Future expenditure by those living within the new properties;
 - 4 Indirect and induced benefits arising from employment and expenditure associated with the new housing; and,
 - 5 Investment in the area by developers.

Market capacity and deliverability

- 4.15 The NPPF outlines the critical importance of ensuring Local Plans meet the need for housing in the market area. As part of this , paragraph 47 states:
- “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”.*
- 4.16 We consider the implications of this in Appendix 5 but it is evident that this will necessitate an increase in supply over and above the objectively assessed need.
- 4.17 Rates of up to 1,900 homes per annum have been delivered in the past and could be replicated, given the scale of need and with a supportive policy position. This past level of peak completions occurred at a time when two of the local authorities were persistently failing to meet their requirements. On this basis, more could have been built, clearly demonstrating the suggested requirement figure is not an unrealistic target across the JCS area.
- 4.18 However, going forwards, it will be necessary to review the capacity to meet the objectively assessed need. As set out at the start of this report, if it is found that sufficient capacity does not exist, then the JCS authorities should seek to maximize the delivery of housing and provide evidence to demonstrate the constraints that exist and the implications of these in terms of economic and social considerations. However, just because the requirement cannot be met does not mean that it does not exist.

4.19

The NPPF emphasises the importance of achieving sustainable development. The employment-led scenario would contribute towards the social and economic components of sustainability whilst the supply side assessment would contribute towards the environmental component:



Joined-up policy making

4.20

Paragraph 14 of the NPPF states:

“At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking”.

For plan-making this means that;

- i local planning authorities should positively seek opportunities to meet the development needs of their area;*
- ii local Plans should meet objectively assessed needs, with sufficient flexibility to adapt to rapid change*

For decision-taking this means;

- iii where the development plan is absent, silent or relevant policies are out-of-date, granting permission...”.*

4.21

This emphasises the importance of up-to-date and locally relevant planning policies which will enable development and do not stifle it. It also makes clear that if suitable policies are not in place then sustainable forms of development will be favoured.

4.22

The JCS authorities must therefore develop concise and specific policies which shape future development in the right direction. These should entwine the economic/jobs aspect of development and the development of new housing. As previously discussed, the integration of both of these elements is inherent to future growth which is balanced across the JCS area.

4.23 New policy initiatives should be encouraged that help balance economic, social and environmental matters. For example, policies may seek to encourage the reduction of unemployment and vacancy rates by using area-specific housing/employment led schemes.

Distribution of growth

4.24 Following the review and development of a requirement figure for the JCS area, the next phase is to assess the housing land supply across each authority to consider the potential to deliver what the requirement sets out.

4.25 Despite being considered within the context of a JCS, it is important that each Local Authority seeks to meet their individual requirement figure in the first instance, rather than assuming that the duty to cooperate would allow it to be met elsewhere. Whilst the reality is that growth is likely to be strategically planned across the three authority areas, the basis for the identification of potential housing sites should be to seek to locate them where the need exists. There must be a duty to cooperate in order to achieve housing targets but growth must be evenly distributed to ensure the development balanced communities across the JCS area.

4.26 The housing need for each of the JCS authorities is set out below. This does not take account of issues arising as a result of the duty to co-operate but rather reflects the specific requirements for each of the three local authority areas:

Table 4.1 Housing Requirement for each Local Authority Area – Economic Led

LA Area	Housing Need, 2011-2031
Cheltenham	12,650 – 15,900
Gloucester	10,550 – 13,200
Tewkesbury	9,300 – 14,100
TOTAL	32,500 – 43,500

Source: NLP Analysis of PopGroup Outputs

4.27 These therefore represent the policy area requirements to be provided for either in each local authority area or through the application of the duty to co-operate. Key factors to be taken into account when seeking to identify how the required level of housing is to be accommodated include:

- 1 Land availability in each local authority area;
- 2 Environmental constraints;
- 3 Infrastructure provision and constraints; and,
- 4 Viability and deliverability considerations.

5.0 **Conclusion**

5.1 Nathaniel Lichfield & Partners (NLP) was appointed by Gloucester City Council, and Cheltenham and Tewkesbury Borough Councils to undertake an independent assessment of housing requirements for the Joint Core Strategy (JCS) area.

5.2 The key purpose of this study is to provide further evidence to support the emerging JCS by:

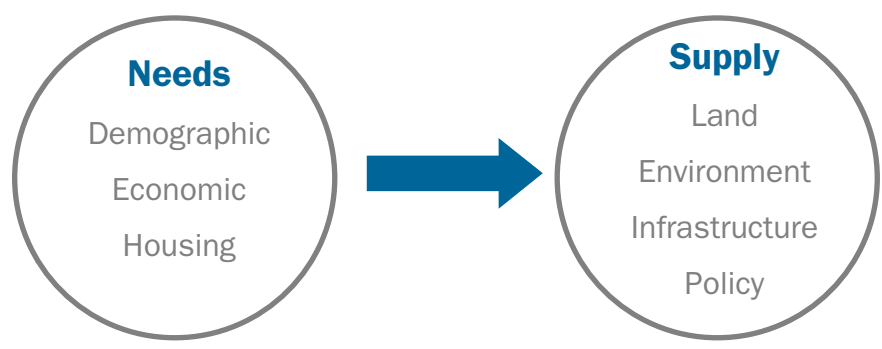
- 1 Verifying the approach that has been undertaken to date in respect of the Local Projections and Household estimates and the translation of these figures to dwelling requirements;
- 2 Reviewing the representations that have made in respect of housing strategy matters and providing commentary and advice on the ways in which these might impact upon the assessment of market and affordable housing requirements;
- 3 Demonstrating the housing requirements for the overall JCS area, at an individual local authority area level, and for the Cheltenham and Gloucester Wider Policy Areas; and,
- 4 Providing a clear understanding of the impact of the NPPF upon housing requirements for the JCS area.

Housing Needs and Housing Supply

5.3 In seeking to fulfil the stated brief, this study distinguishes between housing need and housing supply and focuses upon the NPPF requirement to identify an objective assessment of needs.

- 1 Housing needs: how many houses are needed in a local area?
- 2 Housing supply: how / where can these houses be delivered?

5.4 The implication of this is that housing supply matters should not be taken into consideration following the identification of local needs.



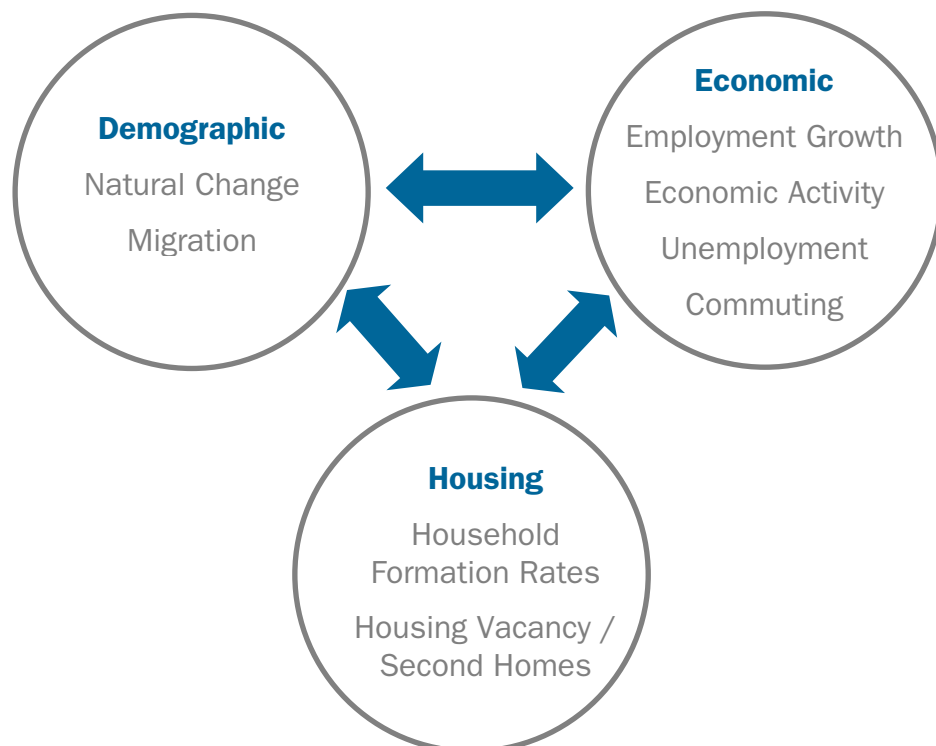
Housing Needs

5.5 Housing requirements in any area are affected by the following inter-related considerations:

- 1 **Demographic:** the change in the number and profile of the people that will live in the local area;
- 2 **Housing:** the number of dwellings that are required to accommodate the changing population size and structure; and,
- 3 **Economic:** the number of workers and jobs that can be supported by the local population.

5.6 The relationship between these factors is complex and each can shape housing demand. As such, the implication of changes to each need to be taken into account when seeking to identify the objectively assessed local housing need. In the context of the NPPF objectives, and in the interests of reflecting the JCS vision to “*foster growth in the local economy and provide sufficient homes...*”, it is particularly important to understand how alignment can be achieved between economic and housing objectives.

5.7 The key variables that should be tested as part of the process of objectively assessing need are summarised below:



The Objectively Assessed Housing Need

- 5.8 The identification of an objectively assessed level of housing need within this report is based upon a series of assumptions relating to each of these broad factors. These are discussed in detail in Chapter 3 and Appendices 2 and 3. In summary, two broad types of scenarios were considered, as follows:
- 1 **Demographic-led scenarios:** apply input data relating to (inter alia) natural change and migration and then identify the resultant population change, dwelling requirements and number of jobs that would be supported by the economically active population.
 - 2 **Economic-led scenarios:** use the employment forecast prepared by Experian Business Strategies and Cambridge Econometrics as their starting point and then identifies the number of migrants that would be expected, taking account of assumptions regarding commuting, unemployment and economic activity levels and the likely future levels of non-economic migration from this. They then test the likely levels of natural change and population growth and identify resultant household growth and dwelling requirements.
- 5.9 The demographic scenarios result in a requirement for 30,000 dwellings over the JCS period from 2011 to 2031. Due to the ageing population within the area and the demographic profile of migrants into the area, each of these scenarios would result in a substantially greater increase in the number of retired people compared to those of working age. The implication is that the demographic scenarios would all result in a relatively modest increase in the number of working age persons (and the natural change scenario would result in a decline in the number of working age people). As such, the number of jobs that could be supported by local workers is limited in the context of the level of growth that is forecast by Cambridge Econometrics and Experian.
- 5.10 None of the demographic scenarios reflect the economic forecasts that have been prepared to inform the JCS. The delivery of 30,000 dwellings would fail to support the level of employment growth that has been identified as being likely to occur over the JCS period. The implication of this is that if the housing requirement was set to reflect the demographic scenarios alone, then the housing and employment elements of JCS strategy would not be joined up and the economic growth that is anticipated would be reliant upon a substantial increase in commuting into the area. Such an approach would not be sustainable and would raise fundamental questions regarding the soundness of the resultant strategy. In addition, it would also conflict with the key objectives of the NPPF.
- 5.11 Against this context, the importance of selecting the correct future housing requirement figure is to ensure balanced growth in line with the economic potential of an area. To achieve balanced and well-distributed growth, economic policies must align with policies seeking the future development of houses in the area. Policies must therefore ensure that they are pulling in the same

direction to achieve the wanted outcomes. A failure to achieve this objective could serve to undermine the soundness of the JCS and the ability of the local planning authorities to control the future granting of planning permission.

- 5.12 Alignment of housing and the economy is therefore essential to ensuring sustainable development and support for growth. The objectively assessed housing need figure for the JCS area should not solely rely on demographic data but also on an understanding of the future employment changes in the area. This is because the delivery of sufficient housing for the (expanding) workforce is essential to ensuring that economic growth can be attracted and sustained. Recognition of the housing need associated with the employment forecasts would accord with the objectives of the NPPF and the JCS vision.
- 5.13 As such, the economic scenarios have tested the housing implications of the creation of 15,500 and 27,000 new jobs between 2011 and 2031. It would both support growth and by accommodating an increased number of economically active people, would enhance the attractiveness of the area to inward investors.
- 5.14 Increasing the housing supply will enable a larger proportion of people to be more able to compete in a broader housing market. A more balanced population increase will then help facilitate and avoid the loss of younger people and thereby support the increase in older persons in the future.
- 5.15 Providing good 'social' foundations for an area, i.e. the correct type and amount of housing will mean economic growth can be achieved. Drawing together these considerations, the objectively assessed housing need for the JCS area should be based upon the employment-led scenarios. This would equate to a requirement for between 32,500 and 43,250 dwellings between 2011 and 2031.
- 5.16 The selection of the final figure will depend upon the preferred level of employment growth for the JCS area. The identification of the number of new jobs that are to be sought through the JCS will be based upon the identification of policy aspirations relating to the promotion of key sectors in accordance with the economic and spatial vision for the area.
- 5.17 This work remains to be undertaken and may result in a housing requirement figure that falls outside of the range set out above.

Sub-JCS Implications

- 5.18 Despite being considered within the context of a JCS, it is important that each Local Authority seeks to meet their individual requirement figure in the first instance, rather than assuming that the duty to cooperate would allow it to be met elsewhere. Whilst the reality is that growth is likely to be strategically planned across the three authority areas, the basis for the identification of potential housing sites should be to seek to locate them where the need exists. There must be cooperation in order to achieve housing targets but

growth must be evenly distributed to ensure the development balanced communities across the JCS area.

- 5.19 The housing need for each of the JCS authorities is set out below. This does not take account of issues arising as a result of the duty to co-operate but rather reflects the specific economic-led requirements for each of the three local authority areas:

Table 5.1 Housing Requirement for each Local Authority Area

LA Area	Housing Need, 2011-2031
Cheltenham	12,650 – 15,900
Gloucester	10,550 – 13,200
Tewkesbury	9,300 – 14,100
TOTAL	32,500 – 43,500

Source: NLP Analysis of PopGroup Outputs

- 5.20 These therefore represent the policy area requirements to be provided for either in each local authority area or through the application of the duty to co-operate. Key factors to be taken into account when seeking to identify how the required level of housing is to be accommodated include:

- 1 Land availability in each local authority area;
- 2 Environmental constraints;
- 3 Infrastructure provision and constraints; and,
- 4 Viability and deliverability considerations.

Towards the JCS: Matters to Consider

- 5.21 In seeking to progress towards the preparation of a sound JCS, the following key actions are required:

- 1 The importance of making the necessary decisions and delivering a JCS.
- 2 The importance of distinguishing between housing needs and supply:
 - i Establishing the “objectively assessed housing need” and presenting it within a sound evidence base; and,
 - ii Understanding how to meet the housing need in a sustainable manner.
- 3 Ensuring a coherent strategy which is consistent in its ability to achieve the stated vision and to meet the requirements of the NPPF.
- 4 Ensuring that the duty to co-operate is fully addressed, recognising that Tewkesbury may be required to accommodate some Cheltenham and Gloucester related growth but that Cheltenham and Gloucester should

seek to maximise capacity within their administrative areas in the first instance.

Appendix 1 Context to the JCS Area

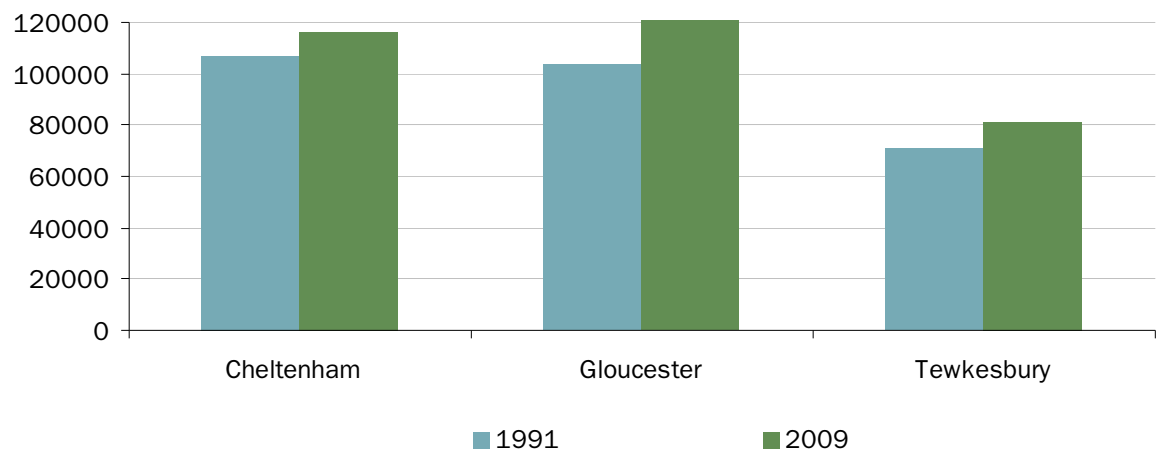
This section provides a high level overview of the key drivers and current evidence base of the housing market in the Cheltenham, Gloucester and Tewkesbury Joint Core Strategy Area in relation to demographic, economic and housing factors. In so doing it draws upon a range of locally and nationally published datasets.

Demographic Context

Population/Households

The populations of Cheltenham, Tewkesbury and Gloucester have all been growing steadily over the past two decades. Cheltenham saw its population rise by 8.6% between 1991 and 2009, whilst Gloucester saw its population rise by 16.4% and Tewkesbury experienced a 14.9% population rise over the same period.

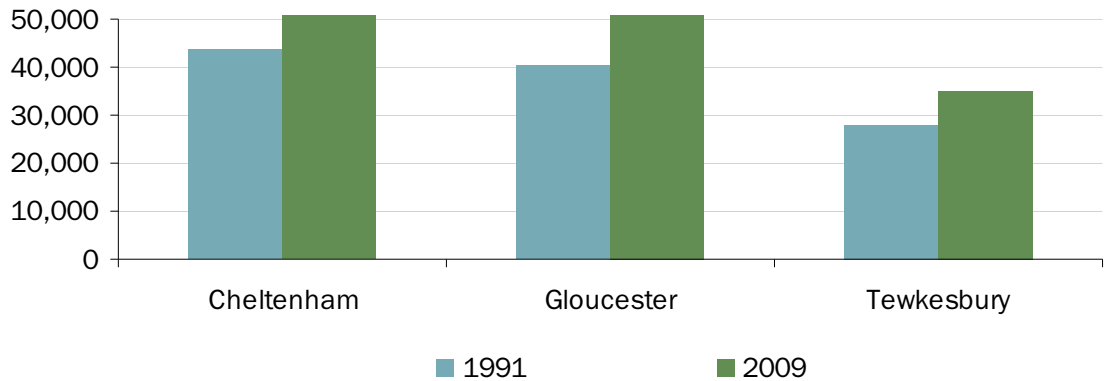
Figure 5.1 Population Change in the JCS Area, 1991 and 2009



Source: Gloucestershire County Council Housing Trend Analysis, 2011

This population increase has led to a growth in households demonstrating a somewhat higher percentage increase. Cheltenham has seen an increase in households of 18.7%, whilst Gloucester saw households rise by 27.8% and Tewkesbury by 25.4%.

Figure 5.2 Household Change in the JCS Area, 1991 and 2009

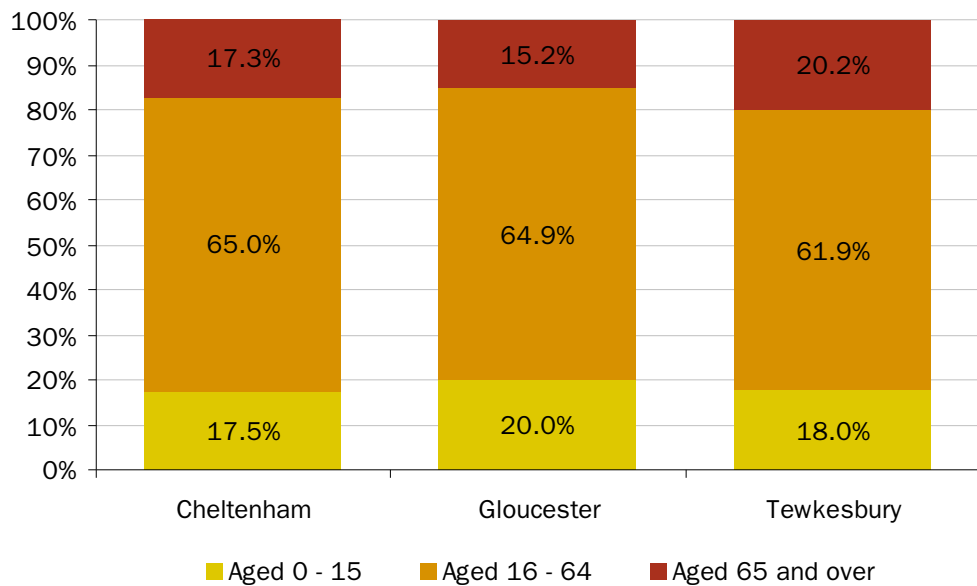


Source: Gloucester County Council Housing Trend Analysis, 2011

Figure 5.3 shows the current population structure for the three local authority areas:

- 1 Cheltenham demonstrates a high proportion of adults of working age, and almost equal proportions of younger people and those aged 65 and over;
- 2 Gloucester follows a similar pattern, although has a slightly higher proportion of younger people and a lower proportion of those aged 65 and over; and,
- 3 Tewkesbury has the lowest proportion of working aged adults of the three local authorities and the highest proportion of those aged 65 and over.

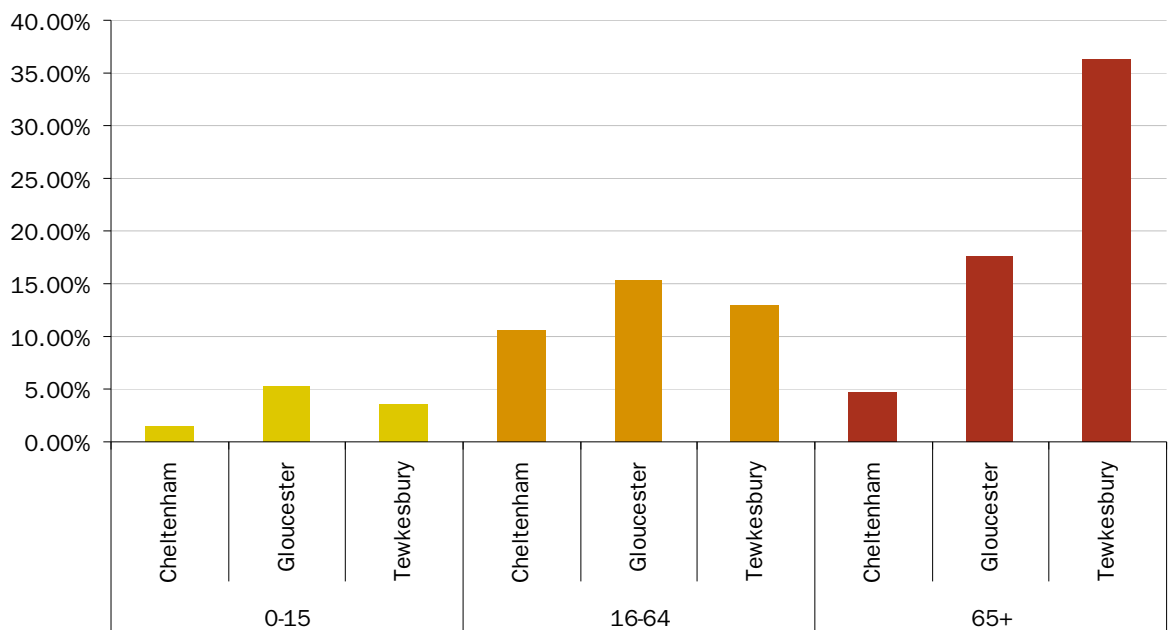
Figure 5.3 Demographic Structure in Cheltenham, Gloucester and Tewkesbury, 2010



Source: ONS Mid Year Population Projections

Figure 5.4 shows how the age structure of the three local authority areas has changed between 1992 and 2010. In Cheltenham, the number of people of working aged has increased by 10.6% over this period, with smaller increases in younger people (1.5%) and those aged 65 or over (4.7%). In Gloucester, the increase in those of working age was higher at 15.3% although this was overshadowed by an increase of 17.7% in the number of those aged 65 or over. Tewkesbury saw a considerable increase in those aged 65 or over (36.4%) which was substantially greater than the increase in the working age population of 13%.

Figure 5.4 Change in Population Structure, 1992-2010



Source: ONS Mid Year Population Projections

This points towards wider evidence regarding an ageing population, an important factor that will need to be addressed in planning for the future of the area, particularly given the need to sustain a working age population to support the economy.

These changes in the population structure create significant pressures upon the housing market. Average household sizes in England have been steadily declining over the past three decades, reflecting similar social trends to Gloucester and Tewkesbury. With people living longer, and a change in the dynamics of households such as single-person households, this creates an increased demand for housing.

Migration

Although commuting flows (considered later in this section) provide a reasonable proxy for the extent of the housing market within which the three

local authorities sit, a further way of considering this relationship is migration flows.

Patterns of migration are a function of a range of housing market factors combined with household circumstances. Key factors include affordability (which itself is influenced by a range of factors), accessibility (particularly related to place of work and ease of commuting) and the supply, range and quality of local employment opportunities.

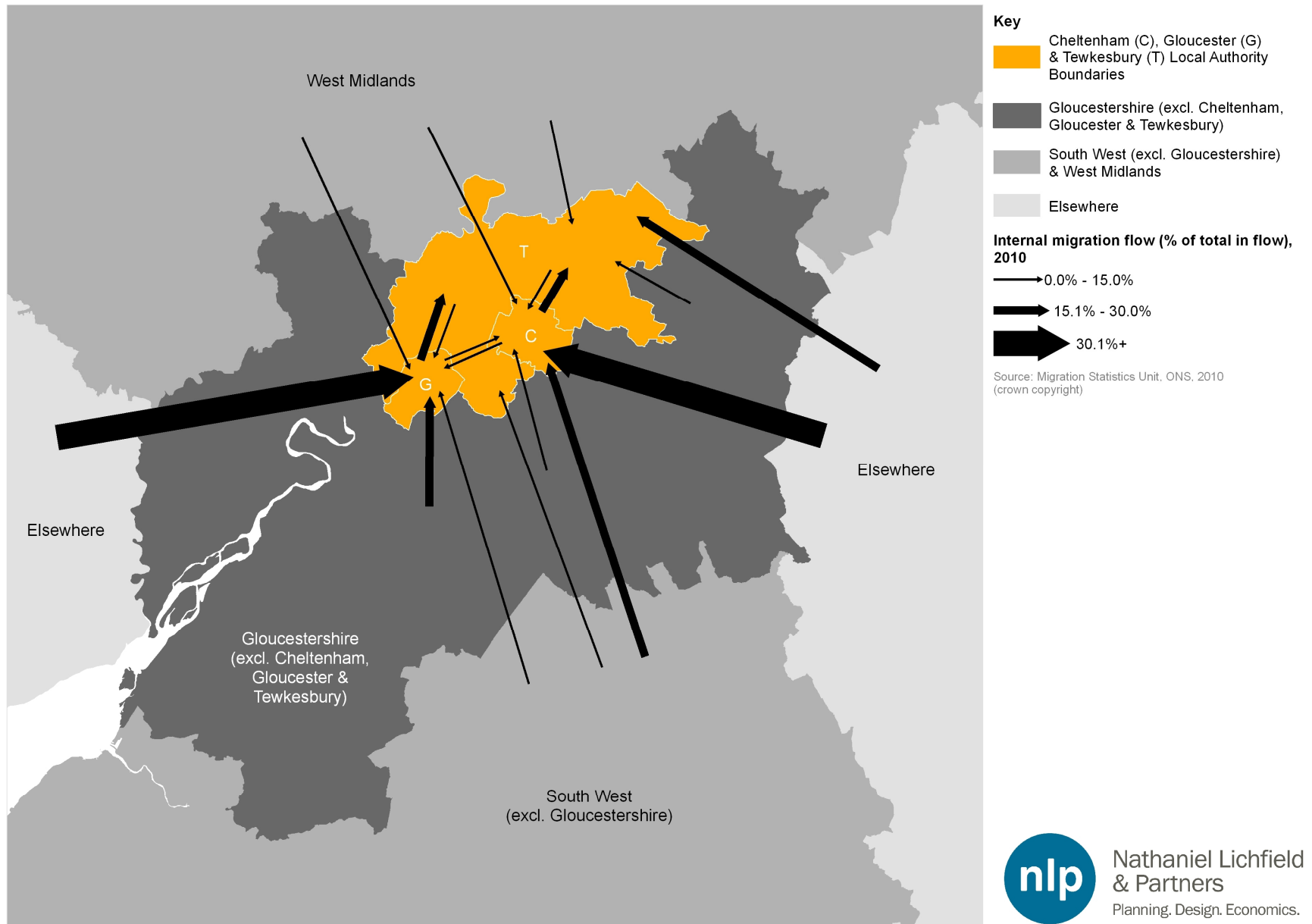
The landscape plans contained below illustrate the migratory patterns observed in 2009/2010. This shows that whilst there is a considerable level of inter-dependency between Cheltenham, Tewkesbury and Gloucester, there are high levels of outflow and inflow between Gloucester and elsewhere and Cheltenham and elsewhere. There is limited (0-15%) migration between Gloucester and Cheltenham themselves. In both Cheltenham and Gloucester, the level of inflow/outflow was almost equal with no significant net loss or gain. Tewkesbury on the other hand had a net gain of approximately 900 people.

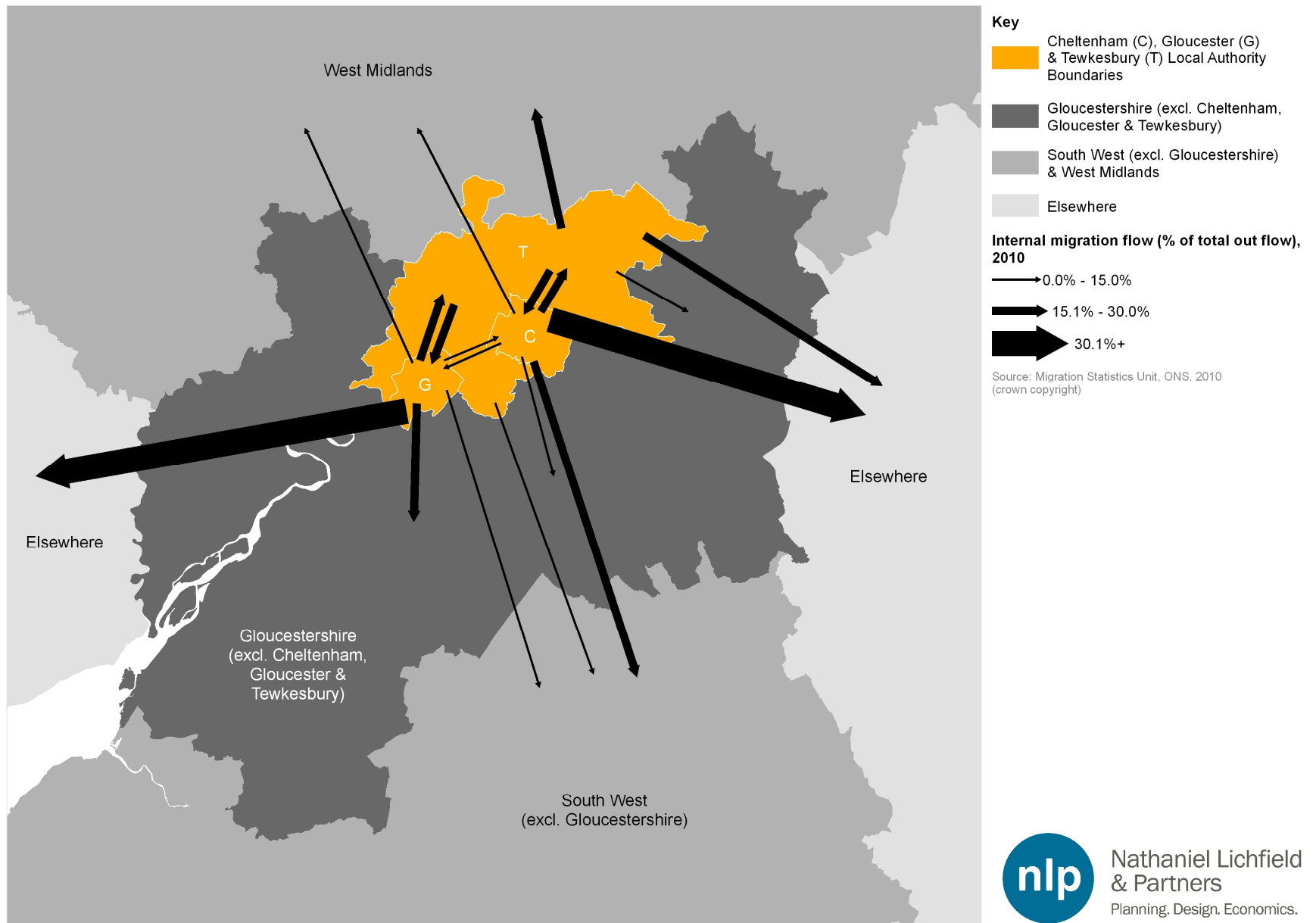
Table 2.1 below shows international migration flows into and out of the three authorities. Unlike internal migration, in 2009/2010 Cheltenham experienced more than double the amount of international 'in' migration than 'out' with a net gain of approximately 900 people. Both Tewkesbury and Gloucester also experienced higher levels of in migration although not to the same level, with net gains of 100 and 300 respectively.

Table 5.2 International Migration 2009-2010

	International 'In' Migration (Number of People)	International 'Out' Migration (Number of People)	Net Migration
Cheltenham	1,600	700	900
Gloucester	800	500	300
Tewkesbury	200	100	100
Study Area	2,600	1,300	1,300

Source: NLP Analysis of PopGroup Outputs





Economy & Commuting

Employment levels and job growth are important drivers of demand for housing. Based on the latest Business Register and Employment Survey (BRES) data – the successor dataset to the Annual Business Inquiry (ABI) – there were 66,700 jobs in Cheltenham, 66,400 jobs in Gloucester and 40,000 jobs in Tewkesbury in 2010. It implies a distribution of 39:38:23 of the 173,100 jobs between the study area, which is reflective of the important economic roles of both Gloucester and Cheltenham.

The ratio of employment and labour force, taking account of commuting provided the basis by which the PopGroup software will assess and relate economic change to dwelling requirements, drawing on population, dwelling and employment forecasts across the component authority area (as set out in the modelling contained within this study).

In considering economic issues in relation to each part of the JCS area, it is important to do so in the context of the areas geography and location of employment. In particular, it is noted that a significant proportion of Tewkesbury's job growth is reflected by employment and business park growth occurring on the edge of Gloucester, particularly at Gloucester Business Park and other business areas on the periphery of the City.

Commuting

The relationship between employment levels and economic activity in any area can be expressed through the PopGroup modelling software in terms of an "LF Ratio". A ratio of 1.0 would reflect a balance between the number of workers and employment opportunities and would therefore result in a position of zero net commuting (even with gross flows in either direction). By contrast, a ratio in excess of 1.0 would reflect a position of net out-commuting of workers as in Cheltenham and Tewkesbury whilst a ratio of less than 1.0 would reflect a position of net in-commuting, as in Gloucester.

An analysis of employment and economic activity levels has highlighted the following LF ratio figures for 2010:

Table 5.3 Commuting Levels, expressed as LF Ratios

Local Authority Area	LF Ratio
Cheltenham	1.06
Gloucester	0.93
Tewkesbury	1.17

Source: NLP Analysis

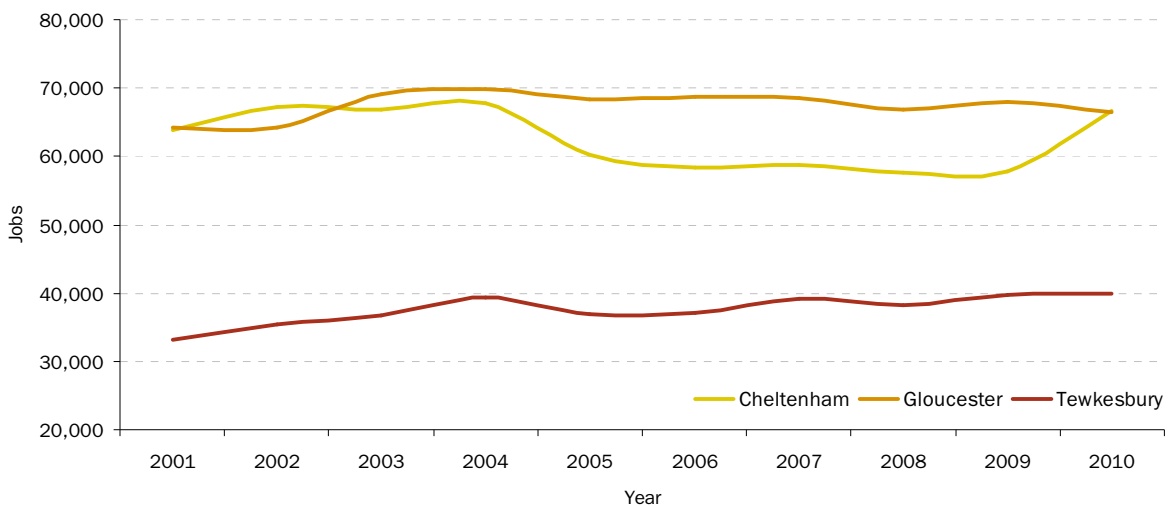
From the above, it is clear that Gloucester City has a much more important role than the areas as a commuting magnet. By far, Tewkesbury is the biggest exporter of labour within the study area.

Economic Activity and Employment

Figure 5.5 shows employment levels over the period 2001-2010. Cheltenham has seen an overall increase in jobs of approximately 2,900 although this has come after a considerable fall after the peak of 2004 which saw a decrease of approximately 10,000 jobs between 2004 and 2009, before things improved dramatically in 2009/10.

Gloucester saw a rise in the number of jobs until 2004 and has experienced a gradual fall since, although still had a net gain of approximately 2,200 over the period 2001-2010. Tewkesbury on the other hand has seen a steady rise in jobs over the period with no considerable falls. Overall, Tewkesbury had a net gain of approximately 6,900 between 2001 and 2010.

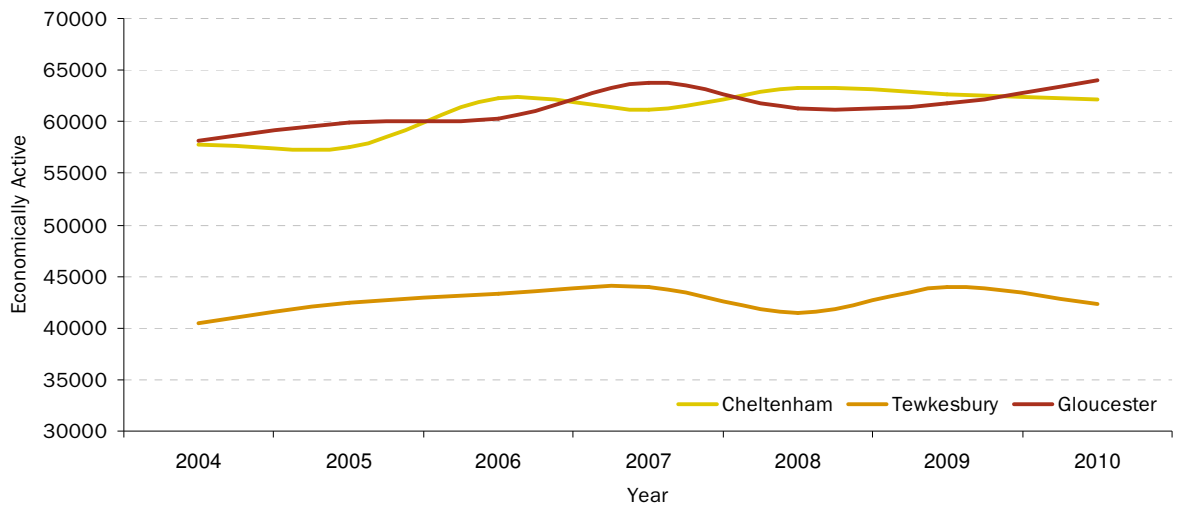
Figure 5.5 Employment within the JCS Area, 2001 - 2010



Source: ONS - ABI / BRES data

Against this, the number of economically active persons in Cheltenham increased by 7.4%, Tewkesbury by 4.4% and Gloucester by 10% over the period 2004 to 2010. The implication of this is that by 2010, the number of economically active people within the study area had increased by 7.6% to 168,400. Interestingly, the number of economically active in Tewkesbury is 5.9% over the number of jobs available within the authority area, indicating likely implications for commuting patterns.

Figure 5.6 Number of Economically Active Persons within JCS area, 2001-2010

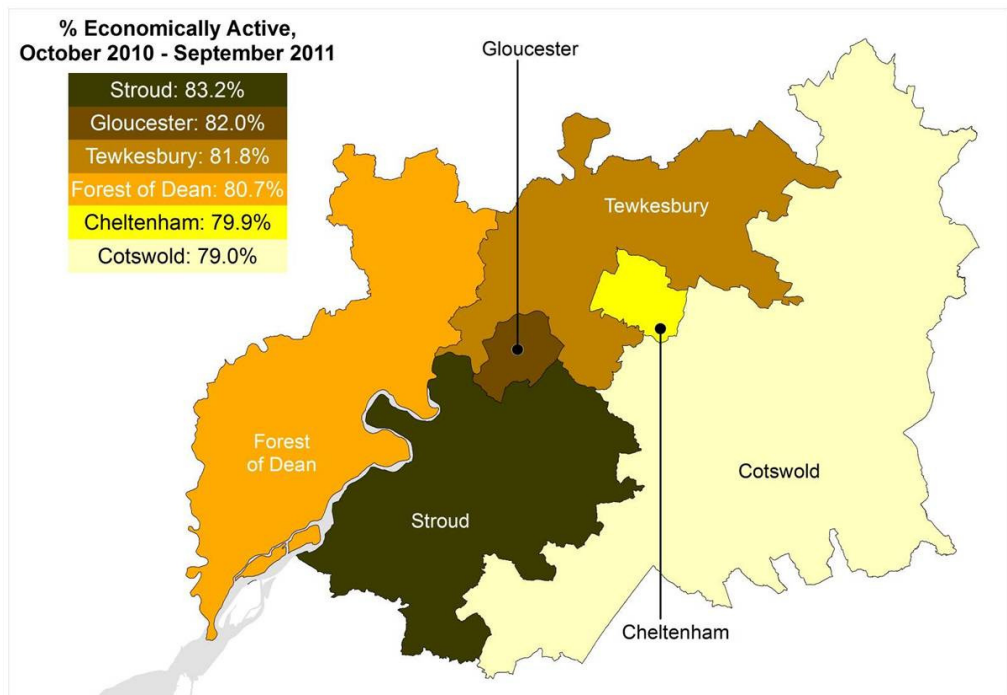


Source: ONS

5.22

Figure 5.7 below sets the economic activity rates in the JCS area in 2011 within the County-wide context. This shows how all three JCS authorities enjoyed high levels of economic activity, particularly when compared to the regional (78.4%) and national averages (76.1%).

Figure 5.7 Economic Activity Levels in Gloucestershire, 2010-2011



Source: ONS

Appendix 2 Review of Work Undertaken to Date

Demographic Factors

Population projections within an area take account of the impact of natural change and migration factors in order to identify the future population by age and gender.

Baseline Population

This represents the population by gender and year of age at the base year. Population change over the forecasting period is set against this baseline.

Table 5.4 Assessment of Baseline Population

GCC / JCS Authorities Data Source	NLP Recommended Data Source
The base year taken for the assessment was 2008 and locally derived baseline population data was applied. This was estimated as being 2% higher than the ONS Mid Year Estimates. This deviation related particularly to the working age population (20-49 years old) and would have had implications upon other components of the population structure.	The Office of National Statistics' (ONS) Population Estimates Unit which splits population by age cohort and gender. The base year should be adjusted to reflect that of the emerging JCS.

Given that the JCS covers the period from 2011 to 2031, it is important to ensure that the population base date can be aligned as closely as possible to this. Application of the data contained within the latest 2010 Sub National Population Projections results in a base year of 2010 whilst application of data contained within the latest CLG household projections results in a base year of 2008. Both sets of projections can be used to provide a projection for the JCS period.

Application of these latest figures would remove the requirement for the rebasing exercise which has been undertaken and which is summarised in the Housing Background Paper.

The application of more up-to-date baseline information provides a more robust framework against which to consider future requirements, in accordance with the NPPF.

Births and Deaths

The Total Fertility Rate (TFR) is the average number of children that would be born to a woman over her lifetime if she were to experience the exact current age specific fertility rates (ASFR) through her lifetime and if she were to survive from birth to the end of her productive life. It is a standardised measurement which eliminates the impact of changes in the age distribution of the population and thereby allows analysis of trends over time. Projected TFR rates are applied to the population forecast to establish the number of births over the JCS period.

A Standard Mortality Rate (SMR) is a measure of the number of deaths in some population, scaled to the size of that population, per unit time. It is typically expressed as a number of deaths per 1,000 individuals per year. Projected SMR rates are applied to the population forecast to establish the number of deaths over the JCS period.

Table 5.5 Assessment of Natural Change

	GCC / JCS Authorities Data Source	NLP Recommended Data Source
Fertility	Past trend based, taking account of the past 3 years – rather than the usual 5, due to higher fertility in the County since 2007. Local data provided by Gloucestershire Primary Care Trust.	ONS 2010-based Sub-National Population Projections (SNPP). The TFR for each year is derived through PopGroup using the total births forecast for each year from the SNPP and working back from this to identify what the TFR is for that year.
Mortality	Past trend based, taking account of the past 5 year. Local data provided by Gloucestershire Primary Care Trust.	ONS 2010-based Sub-National Population Projections (SNPP). The SMR for each year is derived through PopGroup using the total deaths forecast for each year from the SNPP and working back from this to identify what the SMR is for that year.

The fertility and mortality rates contained within the SNPP take account of local past trends but are then subject to adjustments to ensure that the total population projections for each local authority area reflect the national population projections.

The data that informed the latest SNPP reflects the birth and death rates for the period between 2005 and 2010, whilst the 2008-based SNPP was informed by birth and death rates between 2003 and 2008. Both therefore include the period of higher fertility in Gloucestershire. However, as there is no clear

assurance that the recent higher levels of fertility will be maintained in the future, it is considered that a 5 year past trend-based analysis is more likely to provide a robust indication of future change.

Natural change tends to be less fluid than migration but it is influenced by migration. The balance of in- and out-flows of people might change the demographic profile of a particular area in terms of those of child bearing age (impacting upon the number of births) and of older age (impacting upon the number of deaths). Modelling TFR and SMR rather than actual numbers of births and deaths allows the implications of these changes to be fully tested. An approach that is based upon the total fertility rate and standard mortality rate is therefore considered to be more reliable than one which focuses upon actual numbers of births and deaths as it can offer a more reliable basis for alternative scenarios to be tested.

Domestic Migration

Domestic migration covers gross in and out movements between individual local authorities and the rest of the UK (including adjoining local authorities) and also cross-border movements (i.e. between England and Wales, Scotland and Northern Ireland).

Because of the way that local authority boundaries are drawn and data is recorded, a very short distance move might therefore be officially categorised as contributing towards internal migration. This is an important consideration, particularly in urban authorities where the administrative boundary is drawn tightly around the settlement boundary, such that there is relatively limited capacity for additional house building. An imbalance of supply and demand might result in large numbers of people seeking to move the adjoining authority areas where there might be a better supply of housing that meets their needs or where houses might be cheaper.

The distribution of migration by age is provided through an application of Age Specific Migration Rates represent the rate of in- and out-migration per 1,000 people of a specific year of age. Separate Age Specific Migration Rates are provided for males and females. These are important in helping to understand the implications of migration in terms of the future local demographic profile and economic activity, fertility and household requirements, as well as in respect of education, health and other facilities.

Table 5.6 Assessment of Domestic Migration

GCC / JCS Authorities Data Source	NLP Recommended Data Source
<p>Past trend based, taking account of the past 5 years – data from ONS.</p>	<p>2008 data supplied by the ONS’s migration statistics unit and used within the ONS 2008-based SNPP. This is based upon 5 year past trends.</p> <p>Alternative migration scenarios might be based upon longer term migration trends or specific migration figures.</p>

The migration rates contained within the SNPP take account of local past trends but are then subject to adjustments to ensure that the total population projections for each local authority area reflect the national population projections.

Given that past trend migration rate might have been affected by the level of housing delivery, consideration should also be to alternative migration trends in order to test the sensitivity of the housing requirement figure to different levels of migration and in order to identify a more robust basis for future analysis.

It is important to note that demographic forecasts consider future migration in relation to total flows. No consideration is given to the point of departure in the case of in-migration or the destination in the case of out-migration. However, in order to consider the dynamics of population change within the JCS area, it is helpful to consider the geography of migration movements, for example in relation to the flow of migrants between Cheltenham, Gloucester and Tewkesbury and the following areas:

- 1 Each of the other constituent authorities;
- 2 Other parts of Gloucestershire;
- 3 Other parts of the South West region;
- 4 The adjoining West Midlands region; and,
- 5 Elsewhere within the UK.

In seeking to understand all of these trends, it is important to consider key push and pull factors relating to:

- 1 The supply of, and demand for housing;
- 2 The availability of employment opportunities;
- 3 The relative location of each local authority area; and,
- 4 The image and profile of the areas.

An analysis of the internal migration flows into each of the JCS authorities demonstrates the level of interconnection between the authorities and the wider area. Key trends include:

- 1 A high level of migration from Gloucester and Cheltenham into Tewkesbury. Given the geography of the local authority boundaries, this trend is expected. The fact that there is a larger relative flow of migrants from Cheltenham to Tewkesbury (compared to Gloucester and Tewkesbury) reflects the higher level of housing completions within Gloucester and therefore the spatial balance of supply and demand.
- 2 There is also a significant (albeit smaller) reverse movement from Tewkesbury to Cheltenham and Gloucester. This is likely to be characterised by those attracted to the urban centres and seeking employment opportunities.
- 3 The level of migration into Cheltenham and Tewkesbury from Gloucestershire is similar (9.7% and 10.6% respectively), whilst 23.2% of internal migrants into Gloucester move from Gloucestershire. The reason for this difference is unclear but might be associated with the status of Gloucester as the county town.
- 4 There is a greater level of migration between Cheltenham and Gloucester and the rest of the South West region than between Cheltenham and Gloucester and the West Midlands. This may be explained by their economic importance within the region and their contribution towards the most prosperous part of the region.
- 5 By contrast, Tewkesbury is better connected with the West Midlands in terms of the flow of internal migrants, although it should be noted that the overall number of movements into and out from Tewkesbury are lower than for the larger urban centres.
- 6 A greater level of migration from the rest of the UK to Cheltenham and Gloucester than to Tewkesbury. This reflects the scale of these main settlements and their importance as commercial centres. By contrast, the smaller scale of settlements within Tewkesbury borough means that it is less able to attract large numbers of migrants from the rest of the UK.

Table 5.7 Domestic Migration Flow into JCS Area (% of total flow)

		From						
		Cheltenham	Gloucester	Tewkesbury	Gloucestershire	South West	West Midlands	Rest of UK
TO	Cheltenham	-	6.6%	12.3%	9.7%	17.5%	12.7%	41.3%
	Gloucester	9.8%	-	13.3%	23.2%	12.3%	8.6%	32.8%
	Tewkesbury	26.6%	17.4%	-	10.6%	9.2%	12.8%	23.4%

Source: Migration Statistics Unit, ONS 2010

Table 5.8 Domestic Migration Flow from JCS Area (% of total flow)

		From		
		Cheltenham	Gloucester	Tewkesbury
TO	Cheltenham	-	8.4%	20.7%
	Gloucester	7.8%	-	18.5%
	Tewkesbury	18.5%	15.5%	-
	Gloucestershire	9.7%	21.4%	11.7%
	South West	16.4%	14.8%	9.0%
	West Midlands	10.4%	9.1%	15.9%
	Rest of UK	37.2%	30.7%	24.1%

Source: Migration Statistics Unit, ONS 2010

The data indicates that a large proportion of internal migrants come into Cheltenham and Gloucester from elsewhere in the UK (i.e. from beyond the South West and the West Midlands). To put these figures into context, we have reviewed migration flows into and out from comparator cities. This has revealed that relative migration flows between the comparator cities and the rest of the UK is higher than that between Cheltenham and Gloucester and the rest of the UK:

Table 5.9 Migration Between Comparator Cities and the Rest of UK

	% in-migration from rest of UK	% out-migration to rest of UK
Cambridge*	46.2	33.6
Exeter**	53.5	44.7
Warwick***	42.2	55.1

* Rest of the UK defined as beyond East of England and London

** Rest of UK defined as beyond South West

*** Rest of UK defined as beyond West Midlands and South West

Source: Migration Statistics Unit, ONS 2010

5.23

The position highlighted above represents the level of movements during the year ending June 2010. By comparing the internal migration flows between 2005 and 2010, it is possible to understand the extent to which this position was characteristics of longer term trends. As set out below, this shows a very high level of consistency in terms of the level and actual amount of in and out migration across the JCS area over this period. The implication of this is that it is reasonable to assume a likelihood that these patterns of movement – which shape housing requirements – might continue in the future.

Internal migration represents a significant component of demographic change and it is not within the scope of the planning system to seek to control migration in any way. The implication of this is that the JCS should consider the likely level of internal and international migration over the next 20 years and plan to meet the associated requirement for additional dwellings.

International Migration

International migration relates to gross movements between individual local authorities and countries outside of the UK. It is recognised that international migration is difficult to predict and that it is highly dependant upon political change. The Government has an explicit policy objective to reduce in-migration but the deliverability of its aspirations remains subject to question.

Table 5.10 Assessment of International Migration

GCC / JCS Authorities Data Source	NLP Recommended Data Source
<p>Inflow based on local analysis using NiNO statistics for 5 year past trends.</p> <p>Outflow based on IPS results for 5 year past trends.</p>	<p>2008 data supplied by the ONS's migration statistics unit and used within the ONS 2008-based SNPP.</p> <p>Alternative migration scenarios might be based upon longer term migration trends or specific migration figures.</p>

The migration rates contained within the SNPP take account of local past trends but are then subject to adjustments to ensure that the total population projections for each local authority area reflect the national population projections.

Although the GCC analysis avoids this adjustment by using “raw” data, it is noted that different data sources have been used in respect of in and out migration. It is not clear why this approach has been adopted but there is a concern that it might result in an inconsistent record of in and out migration and hence, an unreliable indication of net migration trends. A single source of in migration and out migration data is considered to provide a more consistent and reliable basis by which projections can be established.

Given that past trend migration rate might have been affected by the level of housing delivery, consideration should also be to alternative migration trends in order to test the sensitivity of the housing requirement figure to different levels of migration and in order to identify a more robust basis for future analysis.

International migration is an important demographic trend that will continue to influence the population of the UK and local areas in the future and it is important to respond to this reality by planning for the implications of growth. Regardless of the extent to which Government policies seek to influence the level of international migration into the UK, it will remain a key component of demographic change and will continue to offer significant benefits to the UK:

- 1 Migration from established EU states is expected to continue at a steady rate.
- 2 We anticipate a stabilisation of migration from recent accession states, although not at the very high levels that were experienced in the pre-recession years. As with movement from established EU countries, it is not possible to control this flow of people.
- 3 EU enlargement will bring with it an increase in the number of migrants coming into the Country, although transitional arrangements and phased accession might help to control the scale of any initial wave such that it would be of the level seen since 2004.

- 4 We anticipate a return to (limited) net in-migration from Old Commonwealth countries and a continuation of flows from New Commonwealth and other countries.
- 5 The migration cap alone will have a limited effect upon net in-migration.

Regardless of where international migrants come from, they will continue to contribute to population increase in the UK. This should be recognised by and responded to by policymakers at all levels. A failure to meet the needs of international migrants will not only stifle economic recovery and growth, it will also intensify social integration issues as migrants and UK residents compete for scarce resources. Conversely, to properly plan for population growth – including population increase resulting from international migration – can be of great benefit not only to the economy but also to the creation of vibrant and viable communities across the UK.

Housing Factors

Population forecasts can be translated to household projections through the application of an allowance for housing headship and the number of people not in households. This is a key stage in preparing the JCS evidence base. In respect of this element of the evidence base, GCC prepared the household projections which were then translated into a dwelling requirement by the JCS team.

Housing Headship Rates

Headship rates are the number of people who are counted as heads of households. An understanding of the overall headship levels and the type of households that they represent (e.g. married households, family households, single person households, etc) can be important in highlighting social and demographic trends (including a movement towards smaller average household sizes) as well as the changes in the overall number of households.

Table 5.11 Assessment of Headship Rates

GCC / JCS Authorities Data Source	NLP Recommended Data Source
Government data which was used to underpin the 2006-based CLG household projections	<p>Government data which was used to underpin the 2008-based CLG household projections and applied to the demographic projections for each year as output by the PopGroup model.</p> <p>These headship rates are split by gender and age cohort.</p>

The household headship and adjustment figures that were included in the GCC analysis were based upon the 2006-based CLG household projections. This was the most up to date information that was available at the time of

preparation. However, this work pre-dates publication of 2008-based CLG household analysis.

The housing projections that inform the JCS should take account of the most up-to-date information and so should be updated to reflect the 2008 CLG household projections. The 2010-based CLG household projections are expected to be published later in 2012. It would be prudent to review the implications of this information when it becomes available.

Population not in Households

Concealed households are defined as those that neither owns nor rents the dwelling within which they reside and which wish to move into their own accommodation and form a separate household.

PopGroup details the number of concealed families within each study area and this should provide a basis by which the scale of further increase in housing supply that is required to address housing concealment might be identified.

Table 5.12 Assessment of Population Not in Households

GCC / JCS Authorities Data Source	NLP Recommended Data Source
Government data which was used to underpin the 2006-based CLG household projections	Assumptions used to underpin the 2008-based CLG household forecasts. No change is assumed in the rate of concealed households from the CLG identified rate, although a reduction in this rate may be desirable the extent to which this is realistic and achievable is less certain.

Vacancy / Second Homes

Analysis of vacancies and second homes and the backlog of unmet need was undertaken by the JCS team in order to inform its translation of the GCC household projections to dwelling requirements. In any area, the number of households is not the same as the number of dwellings. This is because a number of properties are always empty because they are second homes, are long term vacant houses or comprise short term transactional vacancies. The implication of this is that more dwellings than households are required to meet needs. The relationship between households and dwellings can be established through the application of a vacancy and second homes rate.

In seeking to understand housing vacancy rates, it is important to note how a high level of vacancy would constitute an inefficient use of the housing stock and should be subject to measures to seek to bring empty homes back into active use. However, just because a dwelling happens to be empty does not mean that it is available for reuse and that it could therefore be taken into

consideration when seeking to identify how to meet future housing needs. By contrast, a very low level of housing vacancy could affect the efficient operation of the housing market as some vacancies are required in order to ensure that normal transactions can take place. The average vacancy rate in England is currently 3% and a reduction below this would raise a concern regarding a potential impact upon the housing market.

Table 5.13 Assessment of Vacancy / Second Homes

GCC / JCS Authorities Data Source		NLP Recommended Data Source
<p>3% vacancy rate for each local authority area. Para 3.6 of the Housing Background Paper states that this is based upon Empty Property Agency data.</p> <p>Numbers were provided for second homes although it is understood that the figure for Gloucester was set at zero as the City Council considered the second home rate to be negligible:</p>		<p>A range of data sources can be applied, including ONS 2008 vacancy and second home data and Housing Strategy Statistical Appendix (HSSA) data, although the coverage for this information is not 100%.</p> <p>An alternative source of information is the CLG calculation of Council Tax base for formula grant purposes (October 2011). This sets out the level of vacant/unoccupied and second homes that are exempt from Council Tax or subject to a discount.</p>
	Second Homes	
Cheltenham	187	
Gloucester	0	
Tewkesbury	55	

As set out above, CLG data provide a more sensitive indication of the vacancy rate and number of second homes:

Table 5.14 Second Home and Vacancy Rate in the JCS Area (October 2011)

Local Authority Area	2 nd homes		Vacant		Combined	
	Count	Rate	Count	Rate	Count	Rate
Cheltenham	790	1.5%	1,659	3.1%	2,449	4.6%
Gloucester	152	0.3%	1,741	3.2%	1,893	3.5%
Tewkesbury	239	0.7%	774	2.1%	1,013	2.8%
South West	42,083	1.2%	95,366	2.5%	137,449	3.7%
England	246,510	1.1%	678,291	2.9%	924,801	4.0%

Source: Council Tax Base for Formula Grant Purposes (CTB)

By comparison, the latest Empty Property Agency data (2011) is set out below:

Table 5.15 Vacancy Rate in the JCS Area (2011)

Local Authority Area	Vacancy Rate
Cheltenham	3.13%
Gloucester	3.25%
Tewkesbury	2.21%

Source: Empty Property Agency

Backlog of Unmet Housing Demand

The level of unmet housing need that will need to be carried forward to the next plan period and added to the emerging level of housing demand.

Table 5.16 Assessment of Unmet Housing Demand

GCC / JCS Authorities Data Source	NLP Recommended Data Source								
<p>Actual numbers are provided, based upon a review of the 2010 District Housing Needs Studies:</p> <table border="1"> <thead> <tr> <th></th> <th>Hsg need backlog</th> </tr> </thead> <tbody> <tr> <td>Cheltenham</td> <td>550</td> </tr> <tr> <td>Gloucester</td> <td>636</td> </tr> <tr> <td>Tewkesbury</td> <td>42</td> </tr> </tbody> </table>		Hsg need backlog	Cheltenham	550	Gloucester	636	Tewkesbury	42	<p>The objective assessment of housing need that is considered by this report reflects the future requirements over the JCS period, between 2011 and 2031.</p> <p>Consideration will need to be given to any over- or under-supply within each of the local authority areas between the start of the Plan period and the time of adoption. This should be through the Plan Monitor and Manage process.</p> <p>It is not considered that any historic over- or under-supply should be brought forward into the new Plan period as this could create a risk of:</p> <ol style="list-style-type: none"> 1 Future shortages (in the event of an historic over-supply which results in a reduction in the future requirement level); or, 2 In the case of an historic under-supply, the future requirement being set at a level that cannot be achieved. <p>Going forwards, the main focus should be on identifying an appropriate housing requirement</p>
	Hsg need backlog								
Cheltenham	550								
Gloucester	636								
Tewkesbury	42								

figure to cover the JCS period and seeking to ensure that it can be met, in accordance with the requirements of the NPPF.

Employment Factors

Economic data is applied in order to test the implications of particular population/housing scenarios upon the economic well-being of the area, in terms of the number of economically active migrants that would be attracted to the area by new house building and the number of new jobs that these people might support. This analysis does not provide forecasts of future employment growth but is important in helping to demonstrate the extent to which there is alignment between specific employment and housing strategies. The economic data can also be applied in order to test the housing implications of specific employment growth scenarios (i.e. how many dwellings are required to help support the creation of a certain number of new jobs). In order to achieve sustainable forms of development, it is important to ensure that there can be a balance between jobs and houses.

Economic Activity Rate

This is the percentage of the local population (both employed and unemployed) that constitutes the manpower supply of the labour market. Age and gender specific economic activity rates are used to take account of the variations that exist in the economic activity rates for males and females of different ages.

ONS Labour Force Projections (1998) which have been rebased from their 2010 estimate using a uniform adjustment to all age cohorts to meet current total economic activity based upon NOMIS data. The economic activity rates are assumed to remain static going forward with the exception of an adjustment in Male and Female 60-69 cohorts to take account of changing pension ages.

Commuting Rate / Unemployment

Commuting and unemployment both determine the ratio of jobs to workers:

- 1 In many cases, the people that live in an area are not the same as those that work there. The balance of in and out commuting flows will differ between different areas. An understanding of the current net position is important in order to gauge the housing implications of economic growth. Differential levels of house building and job creation will alter current commuting patterns.
- 2 The presence of unemployed people within a local authority area will result in an imbalance between the number of jobs and workers (economically active persons). Although it might not be possible to eliminate all unemployment, a policy objective going forwards should be to seek to reduce unemployment levels – particularly where they are presently above the regional or national average level.

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). This has not been altered over the forecasting period with no assumed increase or reduction in net commuting proportions.

Data taken from the ONS Annual Population Survey model based estimate for November 2010. A gradual reduction in unemployment to the 2004-2010 average figures is assumed, reflecting the fact that these levels are the highest recorded in each of the CGT authorities since pre-recession and that as the economy grows out of recession, unemployment will fall back to a similar rate as seen in the past.

Employment Growth

The changing levels of employment in different economic sectors over a 20 year period from 2011 to 2031, as well as historic growth.

Table 5.17 Assessment of Employment Projections

GCC / JCS Authorities Data Source	NLP Recommended Data Source
CE projections were prepared in 2010. These covered the period to 2020 but these do not cover the whole plan period and it is unclear how the projections for the period from 2021 to 2031 have therefore been achieved.	Up to date econometric forecasts relating to the entire JCS period.

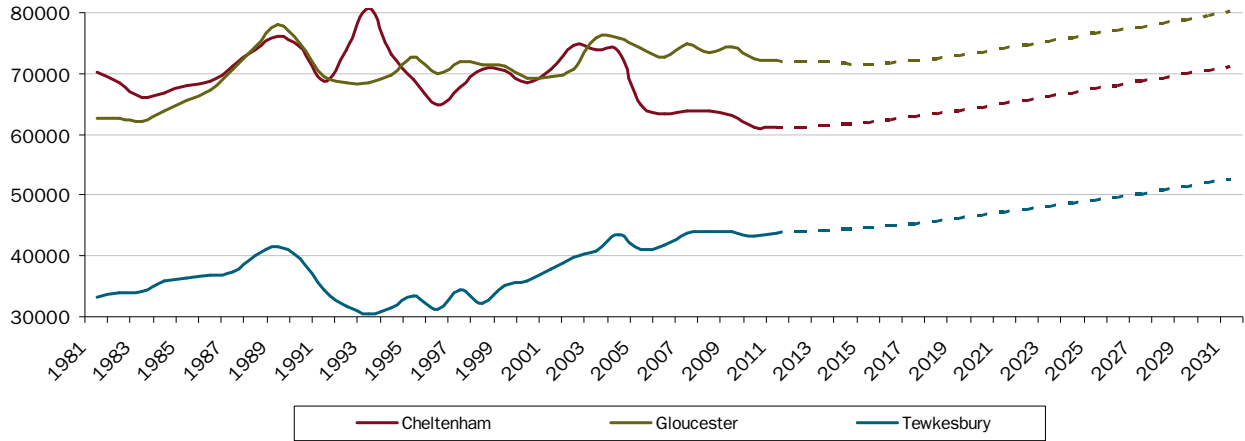
At a time of dramatic economic change, the period of time for which forecasts can be considered reliable is substantially reduced. Given the availability of more recent 2011-based forecasts, it is not considered appropriate to rely upon the forecasts that were prepared in 2010. In addition, the fact that these only projected forwards to 2020 represents a further cause of concern as they cannot therefore be relied upon to provide robust housing projections for the JCS period.

A series of econometric forecasts have been prepared by Cambridge Econometrics to inform the emerging JCS. The most recent projections were prepared in June 2011. This analysis shows the changing levels of employment in 41 different economic sectors over a 20 year period from 2011 to 2031, as well as historic growth from 1981. These sectors relate to the UK Standard Industrial Classification (SIC) codes groups (UK SIC, 2007). The Cambridge Econometrics forecasts that have informed this study are consistent with their Economic Prospects for the Nations and Regions of the UK (July 2011) and BRES employment data.

In terms of overall growth, the number of jobs in the study area is forecast to rise by 15.3% (27,000) from 176,950 to 203,960 between 2011 and 2031.

This compares to a change of just 2.5% (4,330 jobs) in the preceding 20 years between 1991 and 2011.

Figure 5.8 Employment Change, 1981-2031



Source: Cambridge Econometrics, 2011

An additional set of economic forecasts was obtained from Experian Business Strategies in August 2012. These base forecasts were compiled using Experian’s UK Regional Planning Service (RPS). This is a comprehensive economic forecasting service that provides coverage of the UK economy and its regions and counties. It has supported government organisations, local authorities and a wide range of private businesses in decision-making by providing them with forecasts and analysis of regions and local areas for a wide range of economic and demographic indicators.

The RPS provides forecasts down to local area level covering 38 sectors and providing detailed employment and GVA estimates up to 2031. Using the best available data, it is built econometrically on historical and geographical relationships. A range of assumptions about the way in which the national and regional economy is likely to perform are built into the forecasts and these are refreshed on a quarterly basis. Both short and long term drivers are incorporated to reflect the changing economic climate. The key assumptions that are incorporated into the model are summarised below:

Table 5.18 Key assumptions use to inform the Experian UK Regional Planning Service

Short Term Drivers		Long Term Drivers	
Household Sector	Weak earnings growth	Labour force	Ageing population
	Welfare cuts		Long term skills
	Persistence of unemployment		Labour force participation
	Lack of access to credit		
Investment	Low interest rates	Capital	Productivity growth
	Restricted access to credit		Investment and

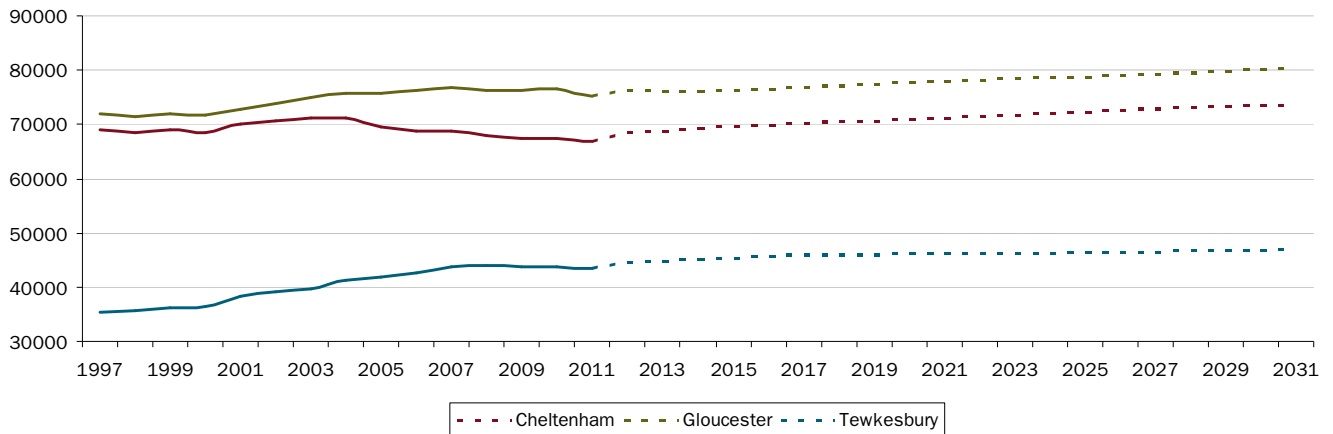
	Persistence of unemployment		infrastructure Advance of developing economies
Fiscal Austerity	Impact of cuts Continuation of inflationary pressure	Other factors	Industrial profile Regional variations
External Sector	Weak sterling Eurozone crisis US economy Global imbalances		

Source: Experian Business Strategies Ltd

Experian’s forecasts are a relevant and appropriate basis for assessing the economic growth potential of the economy of the JCS area.

In terms of overall growth, the number of jobs in the study area is forecast to rise by 8.4% (15,580) from 185,240 to 200,820 between 2011 and 2031. This compares to a change of 5% (8,730 jobs) between 1997 and 2011.

Figure 5.9 Employment Change, 1997-2031



Source: Experian Business Strategies Ltd

Appendix 3 Inputs into HEaDROOM Modelling

Population Base

The forecasts that are prepared by PopGroup build upon a base population which sets out the number of people that resided across Cheltenham, Tewkesbury and Gloucester in 2008 (the base year) by individual year of age. This data, which was supplied by Office of National Statistics, reflects the population base that was used to inform the 2008-based Population and Household projections for Cheltenham, Gloucester and Tewkesbury.

Fertility

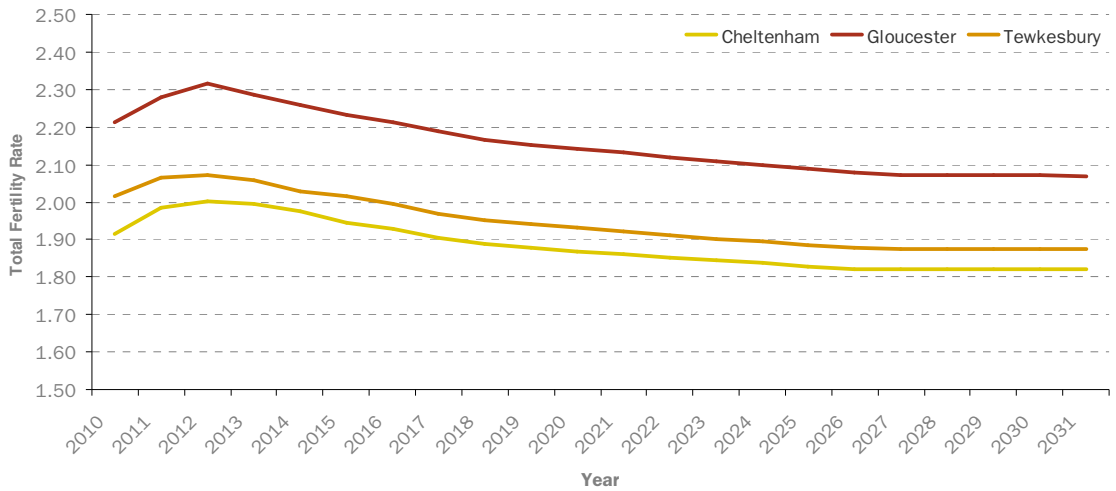
The number of births in any area is a function of the number of women of childbearing age (16-44) and fertility rates. It can also be influenced by migration rates as:

- 1 Migration will result in changes to the number of women of childbearing age; and,
- 2 The fertility rate of migrants might be greater than that of UK born women.

The Total Fertility Rate (TFR) is the average number of children that would be born to a woman over her lifetime if she were to experience the exact current Age Specific Fertility Rates (ASFR) through her lifetime and if she were to survive from birth to the end of her productive life. It is a standardised measurement which eliminates the impact of changes in the age distribution of the population and thereby allows analysis of time trends. It generally produces a better match of births to those that are likely to have children. As such, it is considered to be more reliable than the General Fertility Rate (GFR) which is a measure of the number of live births per 1,000 women aged 16-44. The UK Total Fertility Rate rose from 1.64 in 2002 to 1.96 in 2008. It then fell again to 1.94 in 2009.

The Total Fertility Rate for the CGT area is derived from an analysis of the 2008-based Population Projections. It is expected that the TFR across the three local authority areas will change as follows between 2010 and 2031:

Figure 5.10 Total Fertility Rates in JCS Area, 2010-2031



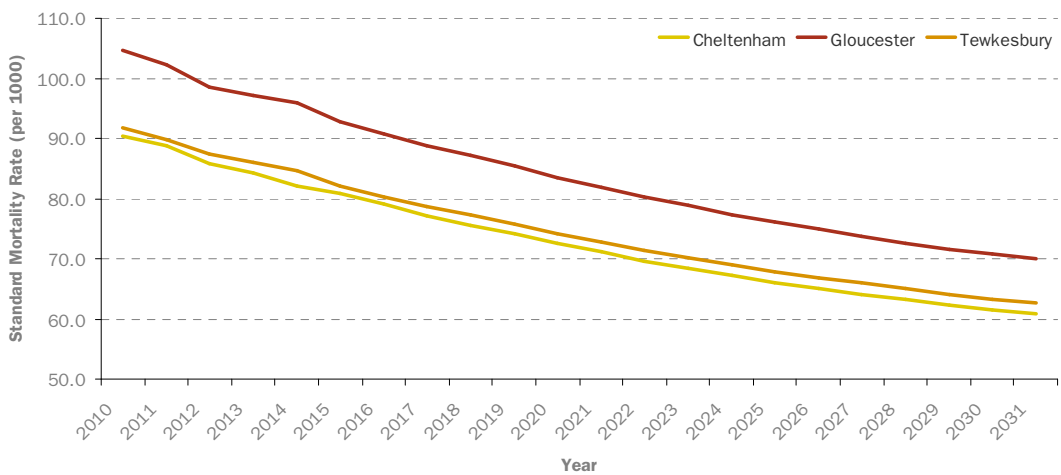
Source: NLP Analysis of PopGroup Outputs

Mortality

The Standard Mortality Rate (SMR) is a measure of the number of deaths in some population, scaled to the size of that population, per unit time. It is typically expressed as a number of deaths per 1,000 individuals per year. PopGroup makes use of a single SMR figure for all persons rather than separate figures for males and females.

The Standard Mortality Rate for the three local authority areas is again derived from an analysis of the 2008-based Population Projections. It is expected that the SMR for the three areas will fall between 2010 and 2031 as follows:

Figure 5.11 Standard Mortality Rates in JCS Area, 2010-2031



Source: NLP Analysis of PopGroup Outputs

This reduction in mortality rates coincides with the increase in life expectancy from 81.5 to 84 years over the JCS area across the JCS period.

Migration

The net balance between in- and out-migration represents another key determinant upon population levels and the scale of growth within a local authority area. It can be subject to substantially greater fluctuations than natural change and can be influenced by economic, political and housing factors, as well as by personal choice.

Domestic Migration

There is no single system to record population movements between local authorities within England and Wales or moves between UK constituent countries. Internal migration figures and forecasts are therefore derived using administrative data as proxy sources:

1 National Health Service Central Register (NHSCR)

The NHSCR received notification when a patient in England and Wales transfers to a new NHS doctor within a different health authority area. Data on such re-registrations is used as proxy indicators for movements between local authorities in the UK. The former local health authority areas are broadly – although not entirely – analogous with local authority boundaries. Estimates derived from NHSCR data are considered to give the most comprehensive coverage of the population and to provide the most reliable indicator of internal migration within the UK.

2 GP Patient Register Data System (PRDS)

PRDS data is used to estimate internal migration at a smaller geographical level. A comparison of PRDS data for consecutive years allows an estimate to be made of people that have moved to a different postcode area. An internal migrant is defined as a person that has changed their area of residence between one year and the next.

3 Higher Education Statistics Agency (HESA)

A weakness of reliance on GP registration changes is that some people – in particular, young men – can be slow to change register with a new GP when they move. One of the main causes of migration amongst young people is to attend a higher education establishment. For this reason, Higher Education Statistics Agency (HESA) data is used to supplement patient registration data to improve the estimation of higher education students – and hence, internal migration flows.

Recognising that students and former students will eventually re-register with a GP, an adjustment is made to prevent double-counting.

The UK migration figures include long and short distance population movements. Short distance movement that involve crossing a local authority boundary would therefore be counted as a UK migration. Such movements are

expected to account for a large proportion of the total UK migration flows. An appreciation of this flow is particularly helpful in understanding the scale of net-out UK migration from many areas where housing supply and house price pressures over recent years might have resulted in large numbers of people moving to adjoining local authority areas in order to access suitable housing. Such flows also tend to be associated with increased levels of in-commuting.

UK migration rates include cross border migration. This is the level of migration between England, Wales, Scotland and Northern Ireland.

International Migration

Estimates and forecasts of long-term international migration are taken from 3 sources:

1 International Passenger Survey (IPS)

Data on the number of people intending to enter or leave England and Wales for a period of at least 12 months is obtained from the IPS. This is a voluntary sample survey of passengers travelling through the main UK airports, seaports and the Channel Tunnel. It identifies migrants and their towns of destination or residence prior to departure.

The IPS is intention-based and does not initially take account of any changes in intention. Using the LFS in conjunction with the IPS therefore provides a more accurate estimate and forecast of the location and destination of migrants.

2 Labour Force Survey (LFS)

The LFS is a quarterly sample survey of private households in the UK. It is intended to provide information on the UK labour market but also provides the basis for estimates of international migration that might already have occurred. Local authority estimates are achieved by supplementing LFS data with:

- i National Insurance numbers;
- ii GP registrations to overseas nationals and armed forces; and,
- iii Population estimates by ethnic group.

3 Home Office data on asylum seekers

The IPS does not include asylum seekers entering or leaving the UK. Information on the number of asylum seekers that remain in the UK for more than 12 months is collected by the Immigration and Nationality Directorate of the Home Office. Information is collated for:

- i Those who applied for asylum;
- ii Those who were refused asylum;
- iii Those who appealed against their asylum decision;
- iv Those who returned home; and,
- v Those who withdrew their application.

As there is no age or gender-specific information about international migration flows, it is not possible to establish Age Specific Migration Rates for a particular local authority area.

There has been considerable discussion regarding future international migration flows into the UK. NLP has undertaken research into this issue and has found that there is clear evidence to show that high levels of international migration will continue in the future.

Household Vacancy

In any area, it is expected that housing vacancies and second homes will result in the number of dwellings exceeding the number of households. In establishing future projections, it is likewise expected that the dwelling requirement will exceed the household forecast.

A level of transactional housing vacancy is required to ensure the effective operation of any housing market. The minimum level of transactional vacancy that is required is normally viewed as 3%. In areas of very low vacancy, it might therefore be appropriate to seek to increase the vacancy level to this figure.

A high level of long term vacancy (more than 6 months) represents an inefficient use of the existing stock and, so far as possible, should be addressed. Reducing the housing vacancy rate can be an important mechanism by which part of the emerging household requirement can be addressed without requiring such a high level of new house building. Bringing empty houses into active use can, however, be difficult to achieve and there tend not to be any local policies which set out clear targets for reductions in housing vacancy level.

Second home ownership is a common characteristic in many parts of the UK – particularly in those areas that are popular tourist destinations. Such dwellings would not be the primary residence of their owners and might be vacant for some (or much) of the year.

Vacancy and second homes rate can be calculated using Census Data. This data is provided on a local-authority basis and for the purposes of this analysis, it is assumed that the vacancy rate within each local authority area will reflect the figure for that local authority.

Appendix 4 Review of Representations

Issue Raised by Consultation Response	Response
<p>The figures seem to be based on the idea that wealth, population and migration to the area are “givens”. Why is this the case? The projections seem to take account of the pre-recession conditions and so are no longer realistic. The prospect of economic growth is not good. (525, 1061, 1249, 1356, 2622)</p>	<p>The reality is that over the next 20 years, the population of the JCS area will increase by both natural change and net in-migration. The JCS cannot do anything to turn this tide and should plan for the likely housing requirements that will emerge.</p> <p>The vision for the area is to enhance the economic well-being of and this will result in an increased level of wealth. This is to be encouraged and the JCS should not plan for stagnation or decline – that would not be sustainable and would not be in the best interests of local people or local communities.</p> <p>The recession has had a large impact upon CGT but the JCS should plan for growth, recognising that the recession and its lasting impacts will not continue forever and that growth will eventually occur. The plan should respond to this and help to stimulate, shape and direct growth when it does happen.</p>
<p>Cannot rely upon 20 year population projections as who knows what would happen in the future (1356).</p>	<p>The strategy is based upon the most reliable data and considers the implications of a range of different scenarios. In addition, the plan will be subject to regular review which will ensure that any changes in underlying factors can be taken into consideration and that appropriate adjustments can then be made.</p>
<p>Projections rely upon the continuation of current migration rates and trends in average household size. The continuation of past</p>	<p>The analysis tests a range of scenarios, including past trends but also including economic led options. This helps to</p>

<p>migration rates would be undesirable and damage the local environment (1249).</p>	<p>understand the implications of different levels of growth and the level of development that is required. Consideration of supply is also taken into account in order to ensure that the necessary level of development would not have adverse environmental impacts.</p>
<p>Past migration levels reflect constrained levels of growth and so past trend based scenarios serve to perpetuate historic supply issues. (DK, 1575)</p>	<p>The analysis considers different periods as a basis for the past trend analysis and set these against alternative growth options.</p>
<p>There is a risk that you would never have enough housing as the popularity of CGT means that more housing will be able to accommodate more people and will therefore encourage more people into the area. (480)</p> <p>New housing encourages household formation and further inward migration. This suggests that further housing provision now will simply serve to increase future demand. (1025)</p>	<p>There is no clear evidence to show that increasing the housing supply would necessarily stimulate demand. Rather, housing provision should respond to known drivers of demand. By addressing housing and economic matters in an aligned manner, it will be possible to ensure that adequate provision of housing.</p> <p>This it is important in highlighting the futility of seeking to restrict net in-migration through the planning process (i.e. supply of housing).</p> <p>The most prudent course of action would be to develop a strategy that reflects the economic aspirations of the area and past trends, together with the physical capacity of the area to accommodate change. A balance needs to be drawn but that must be set at a reasonable level.</p>
<p>Out-migration of people in their 20s creates issues regarding a loss of skills and resultant economic problems which might make it harder to attract businesses into the area and for businesses to develop and grow as they would like to. (275)</p>	<p>This highlights the importance of considering housing and economic issues together and points towards the need for new housing in order to help support and sustain the local economy – both in its own right and to accommodate workers.</p>

<p>The high level of in-migration of older people into Cheltenham is limited by the supply of housing. (275)</p>	<p>This is not the case as may older in-migrants are likely to be better able to compete in the housing market and therefore migration levels not likely to be constrained by housing supply. Rather, housing supply would have a disproportionate impact upon local and younger people who are typically less able to compete in the market.</p>
<p>The suggestion seems to be that the “<i>overall trend for JCS area towards ageing population</i>” is set in stone. The strategy should seek to prevent too many retired people from moving into Cheltenham. (275, 1503)</p> <p>It would be better for retired people to transfer their wealth to parts of the country where there is a surplus of housing, e.g. North East. (275)</p>	<p>The trend towards an ageing population is happening at a national and local level and is clearly evidenced.</p> <p>It is not possible to control the in-migration of certain groups of people and, in any event, this is not a planning matter. The JCS should seek to deliver an adequate supply of housing in order to meet future needs and to prevent any adverse economic or social implications.</p> <p>Securing a redistribution of people and wealth to different parts of the country is not something that the JCS is able to achieve.</p>
<p>An increase in the number of older migrants will serve to create pressures in terms of local services. (1025)</p>	<p>This is true and serves to underline the need to consider the needs and implications of population growth and of the future population profile.</p>
<p>Need to target affordable housing at existing local need rather than simply building more houses. (480)</p>	<p>This is true in respect of affordable housing but it is not possible to target local needs in relation to open market housing which are not subject to occupancy restrictions of controls.</p>
<p>It is the duty of local planning authorities to make provision only for the natural increase in existing population within the JCS area. The level of in-migration should be the subject of debate. (1025, 1249)</p>	<p>This is not the case. The JCS should seek to provide an adequate supply of housing to meet the needs of the future population by catering for both existing residents and in-migrants. In so doing, it is important to recognise that the</p>

	<p>planning system is unable to control in-migration levels but that it can ensure that a shortage of housing does not have an adverse impact upon the local economy and the well-being of existing communities.</p>
<p>No consideration has been given to the nature of occupation of migrant households. For example, international migrants will predominantly be taking short term work with tied accommodation or shared multi-occupancy. The JCS should not assume that permanent accommodation needs should be provided for a transitory workforce. (2622)</p>	<p>There is no evidence to support this suggestion.</p> <p>A larger component of migration relates to domestic movements.</p>
<p>What would the impact of the migration cap be upon future housing need within CGT? (1061, 1356)</p>	<p>The impact is expected to be very limited given the limited scope of the migration cap and also given the fact that the largest component of migration is domestic movements.</p>
<p>Household size is not decreasing as fast as predicted. It might even be increasing, driven by economic factors (275, 1053):</p> <ul style="list-style-type: none"> vi There is plenty of spare capacity within existing dwellings which creates an opportunity to increase average household size; vii More young people are living with parents for longer; and, viii Larger families are leading to larger average household sizes. <p>The fact that people are living for longer does not necessarily mean that there would be an increase in single person households. (1503)</p>	<p>Average household size is falling, driven by a wide range of social and demographic factors including:</p> <ul style="list-style-type: none"> i More people living alone; ii People starting families at a later age and consequently tending to have fewer children; iii An increasing family level of breakdown; and, iv An increased life expectancy. <p>It is not within the scope of the JCS to seek to shape average households sizes. Any efforts to do so through controlling the supply of dwellings will not be successful and will serve to exacerbate economic imbalances and difficulties.</p>
<p>The analysis does not take account of household dissolution – e.g. people dying, moving into care or moving away from the</p>	<p>The analysis does take full account of these issues. The number of people moving out of the area is considered through</p>

<p>area. (1356)</p>	<p>the assessment of net migration. Household dissolution is considered through the application of household headship rates by age cohort on an annual basis and through the application of an allowance for the number of people that are not in households (again, on an annual basis) (2008 CLG household projection).</p>
<p>The ratio of people to households is incorrect. A figure of 1.225 has been applied but the actual figure is 2.2. (1061, 1249, 1399)</p>	<p>An error in arithmetic has resulted in this conclusion being drawn. The figure of 1.225 relates population change to household change. However, this ignores changes within the existing population. The calculation should apply total population to the total number of households.</p>
<p>Inadequate consideration has been given to the potential reduction in the number of vacancies. (1356)</p>	<p>The area is characterised by a very low level of vacancy and it is not considered that a further reduction could reasonably be incorporated into the housing assessment.</p>
<p>Importance of ensuring alignment between jobs and houses (DK, 1456, 1575, 2622)</p>	<p>This is reflected in consideration of the labour/employment implications of different scenarios and also through the specific testing of the housing implications of the JCS employment projections.</p> <p>The employment forecasts prepared by GCC is not considered to provide a reliable basis for future projection as it:</p> <ul style="list-style-type: none"> i Is based on 2010 forecasts; and, ii Only projects forward to 2020, rather than to 2031.
<p>Need to ensure that there is work to cater for the additional population. (1025)</p>	<p>This highlights the importance of seeking to ensure alignment between jobs and housing.</p>
<p>There are already a large number of unemployed people that would fill new jobs. (1503)</p>	<p>Helping to address unemployment must be a key policy priority but the economic strategy should not limit itself to that</p>

	objective; it should also seek to increase the overall well-being of the area. This will include the creation of additional jobs (beyond existing local need) and might also include different jobs (i.e. in sectors that are not suited to those already in the labour market).
The economic forecasts are not reliable – they only go up to 2020 and should be reviewed in the context of more up-to-date evidence. (1399)	We have now considered the implications of the CE projections that informed the 2011 NLP economic report.
Development must be driven by demand. (275, 1503) It is important to get an accurate assessment of actual need. (480)	It is, hence the reviews of different drivers of demand and a consideration of key demographic, social and economic trends.
There is no evidence to suggest that the need for additional housing will increase by as much as indicated. The demand for dwelling might actually fall in the future. (525)	A considerable body of evidence has been prepared which considers the long term requirements for housing, based upon a number of different scenarios and taking account of a wide range of relevant considerations and factors. Taking account demographic change (natural change and net in-migration) and household consumption factors, it is considered that there is clear evidence that the future need for households will increase in the JCS area.
A population increase of 45,000 does not mean that you need 30,000 extra dwellings. At an average of 2 persons per dwelling, it would meet a requirement for c. 20,000 dwellings which is closer to scenario A. (1356)	This calculation fails to take account of the changing household requirements of those already living within the JCS area. Changing consumption patterns means that additional dwellings would be required even in the context of a zero population change.
There has been lots of scaremongering regarding the potential implications of scenario A – e.g. the housing market would fail,	Scenario A would fail to meet housing requirements for the JCS area. As such, it would result in competition within the housing

<p>lots of people would leave the area (especially those of working age), that it would just be retired people left and that it would lead to overcrowding. Why is this? (1356)</p>	<p>market which would favour those most able to compete. Invariably this would be the older, better off in-migrants. Those local people that are less able to compete would then be forced to relocate – resulting in economic implications for the area. Those that cannot relocate might need to share space with friends/family, resulting in overcrowding. This is not scaremongering but rather the very real implications arising from a failure to provide adequate new housing within the JCS area.</p>
<p>Need to recognise the adverse social impacts of failing to provide adequate housing – in particular, of failing to provide sufficient affordable houses. (263)</p> <p>A failure to provide for future housing requirements would have an impact upon the demographic profile and labour supply of the JCS area. (1456, 1575)</p>	<p>This is absolutely correct and this analysis seeks to highlight the risks associated with the various housing scenarios.</p>
<p>Want to see firm proposals regarding “off-loading” of housing projections into adjoining districts. (1399)</p>	<p>It is not the responsibility of neighbouring authority areas to meet the housing requirements of CGT. Cross boundary working does not mean that reasonable obligations can be off-loaded. Rather, all efforts should be made to meet the identified housing requirement within the JCS area, in accordance with the obligations set out in the NPPF.</p>

Appendix 5 Housing Delivery in the JCS Area

A key priority of the NPPF is to boost the supply of housing. In order to help realise this aspiration, paragraph 47 states that local planning authorities should identify (and update on an annual basis) a supply of deliverable housing in order to provide five years worth of housing against their housing requirements. In addition, the NPPF requires a buffer of 5% to be applied to ensure choice and competition in the market for land. In those areas where there has been a record of persistent under delivery of land the buffer should be increased to 20% to provide a realistic prospect of achieving the planned supply.

The implication of this policy requirement is that the supply of housing within each local authority component of the JCS area should be adequate to exceed the requirement level by 5% or 20% as applicable.

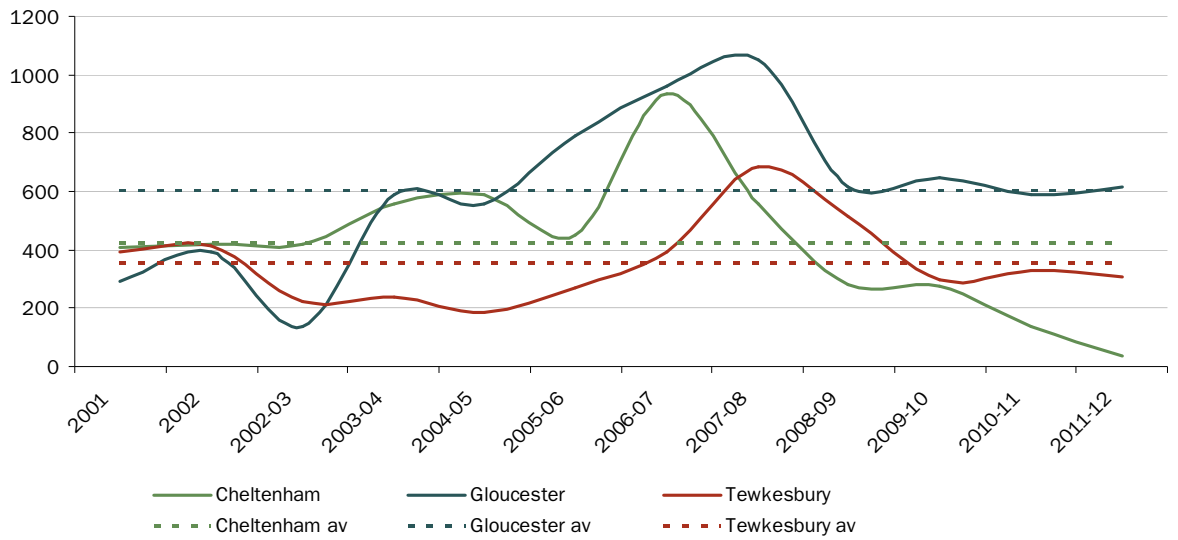
In the light of this, the purpose of this section is to examine past supply across the JCS area in order to examine whether a 5% or a 20% uplift rate should be applied. NLP has reviewed housing completions within each of the three authorities over the period from 2001 to 2011. This is intended to provide a long term view of delivery and therefore to provide a robust justification for the application of a 5% or a 20% buffer.

Housing Delivery in Cheltenham, Gloucester and Tewkesbury

At present, there is no official guidance regarding the definition of “persistent under delivery” and it is likely that this will be subject to differing opinions which will need to be tested at the JCS examination. Initial Inspector’s decisions have tended to require evidence of persistent under delivery over a full 5 year period in order to justify the application of a 20% uplift.

As set out below, the level of housing completion within the JCS area has fluctuated substantially. The level of delivery in Gloucester and Tewkesbury peaked in 2007-8, at the height of the housing market, whilst the largest number of completions in Cheltenham occurred in 2006-7 and then fell substantially. The fact that housing completions were falling in Cheltenham at a time when the market was still growing suggests supply-side problems which will need to be taken into consideration through the JCS process.

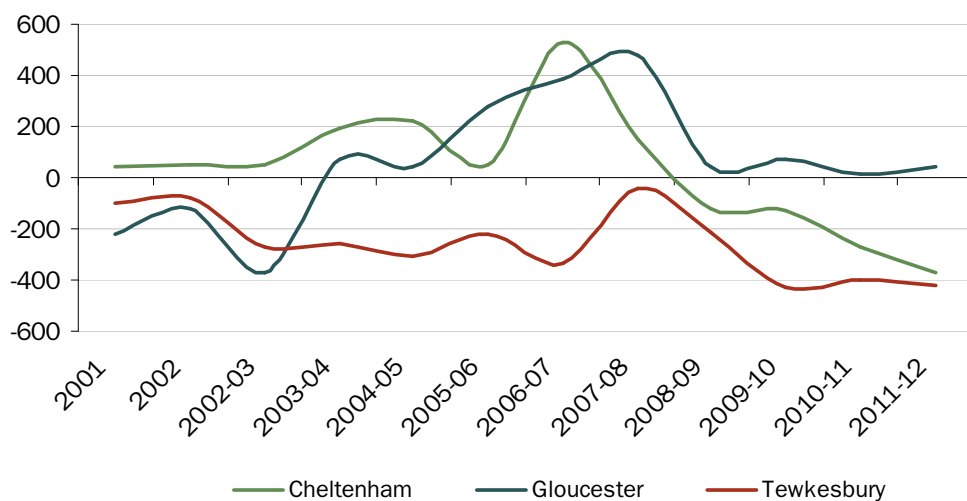
Figure 5.12 Past housing completions in Cheltenham, Gloucester and Tewkesbury



Source: JCS Area Monitoring Data

In addition to considering actual development rates, a potentially more useful form of analysis sets this against housing requirements in order to demonstrate any over- or under-supply. As shown below, this analysis highlights a persistent under-supply in Tewkesbury which has failed to meet its housing requirements in every year since 2001. By contrast, the housing requirements have been met in each year since 2003-4 in Gloucester City, including during the recent period of recession. The situation in Cheltenham has been rather more mixed, with an over-supply of housing (compared to requirement levels) between 2001 and 2006-7, followed by an increasing under-supply between 2007 and 2011.

Figure 5.13 The Difference between Housing Completions and Requirements across Cheltenham, Gloucester and Tewkesbury Joint Authority Area



Source: JCS Area Monitoring Data

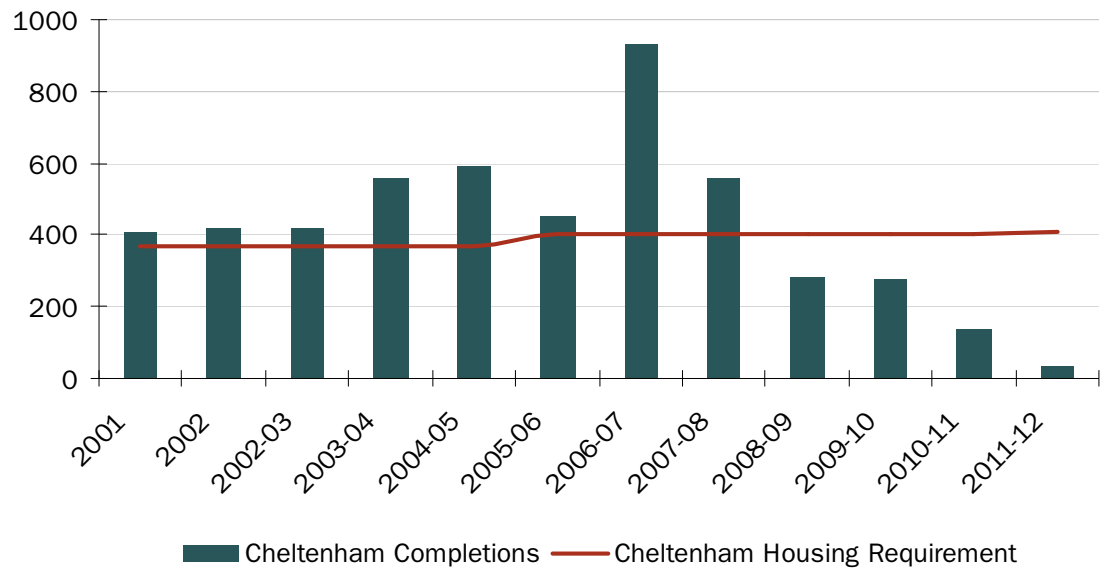
Cheltenham

Over the period from 2001 to 2012, the total number of housing completions in Cheltenham has exceeded the total requirements by 385 units (109%). However, over the past 4 years, housing completions have fallen substantially, down to just 36 in 2011-12. The result of this has been a total under-supply of 892 units over this period, with supply equating to just 45% of the requirements.

Of particular note, the level of under-delivery in Cheltenham is worsening. In 2008-9 and 2009-10, supply equated to 69% of the requirements. However, in 2010-11, supply had fallen to 34% of the requirements whilst in 2011-12, less than 10% of the required number of dwellings were delivered.

In the light of this, NLP considers that there is clear evidence of persistent under-delivery in Cheltenham and that a 20% buffer should therefore be provided to ensure future supply and choice.

Figure 5.14 Cheltenham Housing Completions against Identified Housing Requirement



Source: JCS Area Monitoring Data

Gloucester

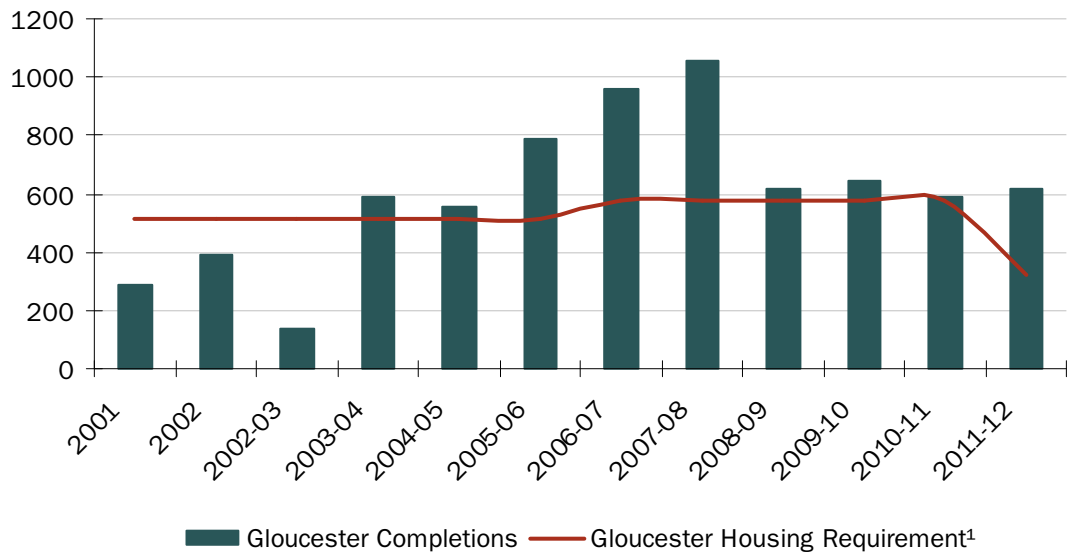
Over the period from 2001 to 2012, the total number of housing completions in Gloucester has exceeded the total requirements by 670 units (110%). However, this overall figure is skewed by an under-delivery of 715 units between 2001 and 2003, which equated to the delivery of just 53% of requirements.

Since 2003, housing completions in Gloucester have exceeded supply by a total of 1,400 units (130%) and even though supply fell substantially between

2007-8 and 2008-9, the number of new houses that have been delivered in Gloucester City has remained above the requirement level (107%).

In the light of this, it is evident that Gloucester has consistently met its housing requirements. As such, future supply should be based on the application of just a 5% buffer to ensure choice and competition in the market.

Figure 5.15 Gloucester Housing Completions Against Identified Housing Requirement



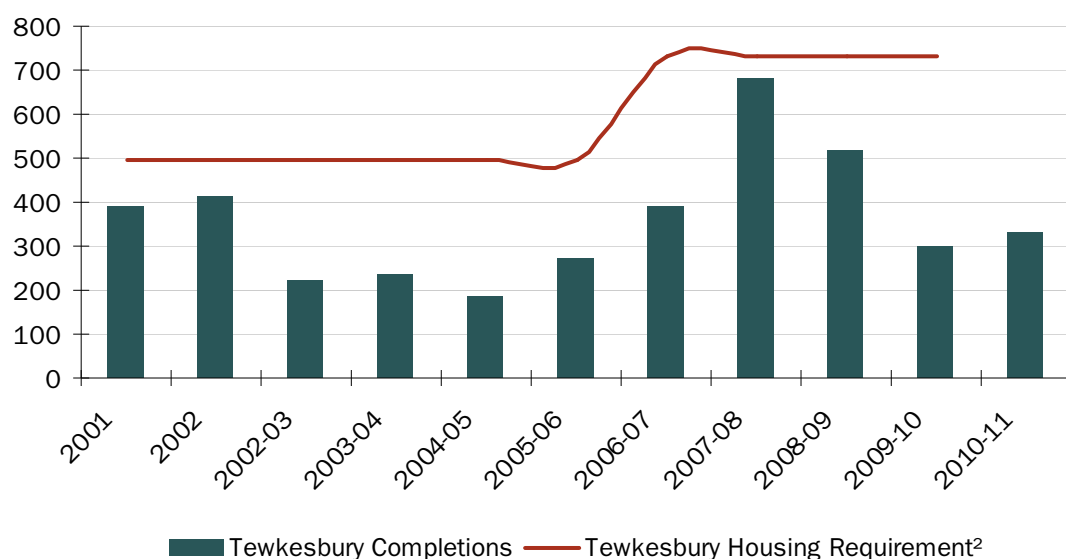
Source: JCS Area Monitoring Data

Tewkesbury

There has been an under-supply in housing in Tewkesbury in each year since 2001. Over the period from 2001 to 2012, the total number of housing completions in Tewkesbury has been 2,350 below the number required. This equates to a delivery rate of just 64%.

Given that Tewkesbury's housing completions have consistently fallen short of their housing requirements between 2001 and 2011, a buffer of 20% is therefore needed in identifying deliverable housing sites within the Borough over the next 5 years.

Figure 5.16 Tewkesbury Housing Completions Against Identified Housing Requirement



Source: JCS Area Monitoring Data

Implications for the JCS

Although the JCS will contain a single housing requirement figure, it will also provide a requirement figure for each of the individual local authority areas. Moreover, a separate 5 year supply will be calculated and applied for each area. This will be important to ensure that an appropriate distribution of housing can be achieved across the JCS area. In the light of evidence relating to past completions, we would be concerned that a single 5 year requirement figure might result in the delivery being skewed away from individual areas, to the detriment of the overall supply.

In the light of this, it is appropriate to apply individual buffer levels, based upon the history of housing supply in each local authority area. This will reflect the importance that the NPPF applies to boosting the housing supply in each local authority area. This analysis has shown that the housing supply within each of the constituent JCS local authority areas should be calculated on the following basis:

Table 5.19 Housing Supply Buffer Requirements

LA Area	Buffer
Cheltenham	20%
Gloucester	5%
Tewkesbury	20%

The 5% and 20% buffers would not affect the actual housing need in each area but would require the supply to be increased in order to ensure that the objectively assessed housing need can be achieved. Consideration of how best to actually meet the housing requirement will be subject to further analysis by the JCS team and falls outside of the scope of this study

Appendix 6 Summary of Results for Each Local Authority

Cheltenham

Table 5.20 Summary of Scenario Outputs: Cheltenham

	Demographic Led					Economic Led	
	CLG 2008 Household	ONS 2010 Baseline	Past Trend Migration	Zero Migration	Domestic Migration	CE	Experian
Pop Change	15,400	11,400	12,200	7,400	11,900	26,700 – 28,100	22,000 – 23,400
Natural Change	6,400	7,400	7,900	7,400	7,400	9,700 – 10,000	9,300 – 9,600
Net Migration	9,000	4,000	4,300	0	4,500	17,000 – 18,100	12,700 – 13,900
Dwelling Change	11,000	8,300	8,300	7,200	8,700	15,200 – 15,900	12,600 – 13,300
Dwellings p.a.	550	415	415	360	4,400	760 – 800	630 – 665
Jobs	4,000 – 4,800	1,500 – 2,200	750 – 1,500	-1,200 - -1,800	1,600 – 2,400	10,150	6,900

Source: CLG Household Projections / NLP Analysis of PopGroup Outputs

Gloucester

Table 5.21 Summary of Scenario Outputs: Gloucester

	Demographic Led					Economic Led	
	CLG 2008 Household	ONS 2010 Baseline	Past Trend Migration	Zero Migration	Domestic Migration	CE	Experian
Pop Change	19,400	19,700	24,200	15,700	18,700	21,400 – 23,300	17,000 – 18,900
Natural Change	15,400	15,700	15,600	15,700	15,700	13,900 – 14,200	13,000 – 13,300
Net Migration	4,000	4,000	8,600	0	3,000	7,500 – 9,100	4,000 – 5,600
Dwelling Change	12,400	11,900	13,700	9,200	11,500	12,400 – 13,200	10,200 – 11,400
Dwellings p.a.	620	595	685	460	575	620 – 660	510 – 570
Jobs	6,300 – 7,500	5,600 – 6,800	7,700 – 9,000	-50 - -1,200	4,000 – 5,200	7,900	5,200

Source: CLG Household Projections / NLP Analysis of PopGroup Outputs

Tewkesbury

Table 5.22 Summary of Scenario Outputs: Tewkesbury

	Demographic Led					Economic Led	
	CLG 2008 Household	ONS 2010 Baseline	Past Trend Migration	Zero Migration	Domestic Migration	CE	Experian
Pop Change	19,500	13,600	10,700	1,300	11,800	25,200 – 26,100	15,000 – 15,900
Natural Change	15,400	1,300	-200	1,300	1,300	1,700 – 1,900	500 – 600
Net Migration	4,000	12,300	10,900	0	10,500	23,400 – 24,200	14,500 – 15,300
Dwelling Change	12,400	8,200	7,600	1,600	7,300	13,700 – 14,100	9,300 – 9,700
Dwellings p.a.	620	410	380	80	365	685 – 705	450 – 485
Jobs	6,300 – 7,500	2,000 – 2,500	1,100 - 1,500	-3,100 - -3,500	600 – 1,100	9,000	3,500

Source: CLG Household Projections / NLP Analysis of PopGroup Outputs

Appendix 7 PopGroup Output Sheets

Population Estimates and Forecasts

CE EMPLOYMENT LED

Components of Population Change

Chet, Glouc, Tewkes

Year beginning July 1st

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Births																				
Male	2,076	2,098	2,088	2,062	2,042	2,041	2,055	2,067	2,089	2,115	2,145	2,175	2,197	2,223	2,248	2,266	2,288	2,316	2,345	2,372
Female	1,978	1,998	1,989	1,964	1,945	1,944	1,957	1,969	1,990	2,014	2,043	2,072	2,092	2,117	2,141	2,159	2,179	2,206	2,233	2,259
<i>All Births</i>	4,054	4,095	4,077	4,026	3,988	3,985	4,013	4,036	4,079	4,129	4,188	4,247	4,289	4,340	4,389	4,425	4,468	4,522	4,578	4,631
TFR	2.11	2.13	2.11	2.08	2.05	2.03	2.01	1.99	1.98	1.97	1.96	1.95	1.95	1.94	1.93	1.92	1.92	1.92	1.92	1.92
Births input																				
Deaths																				
Male	1,342	1,328	1,347	1,361	1,355	1,364	1,373	1,387	1,402	1,415	1,434	1,451	1,473	1,494	1,519	1,543	1,572	1,600	1,626	1,656
Female	1,461	1,449	1,446	1,445	1,441	1,433	1,431	1,431	1,433	1,435	1,443	1,453	1,464	1,475	1,489	1,508	1,528	1,550	1,573	1,602
<i>All deaths</i>	2,803	2,777	2,793	2,806	2,796	2,797	2,804	2,818	2,835	2,850	2,876	2,904	2,937	2,969	3,008	3,051	3,101	3,150	3,200	3,258
SMR: males	93.3	89.9	88.6	87.2	84.6	82.7	80.9	79.4	77.9	76.2	74.8	73.4	72.3	71.0	70.0	68.9	68.0	67.1	66.3	65.5
SMR: females	93.6	91.1	89.2	87.5	85.6	83.7	81.9	80.2	78.5	76.8	75.3	73.8	72.4	71.0	69.7	68.5	67.4	66.3	65.2	64.4
<i>SMR: male & female</i>	93.5	90.5	88.9	87.3	85.1	83.2	81.4	79.8	78.2	76.5	75.0	73.6	72.3	71.0	69.8	68.7	67.7	66.7	65.8	65.0
Expectation of life	81.5	81.7	81.8	82.0	82.2	82.3	82.5	82.6	82.7	82.9	83.0	83.1	83.2	83.3	83.4	83.5	83.6	83.7	83.8	83.9
Deaths input																				
In-migration from the UK																				
Male	8,348	8,427	8,361	8,346	8,508	8,598	8,578	8,630	8,663	8,721	8,745	8,682	8,693	8,728	8,708	8,709	8,705	8,716	8,704	8,694
Female	9,082	9,164	9,096	9,085	9,248	9,367	9,361	9,397	9,408	9,466	9,485	9,416	9,447	9,474	9,448	9,440	9,437	9,465	9,463	9,471
<i>All</i>	17,430	17,591	17,457	17,431	17,757	17,964	17,939	18,027	18,071	18,187	18,230	18,098	18,139	18,202	18,155	18,149	18,142	18,182	18,168	18,166
SMigR: males	50.4	50.7	50.0	49.8	50.7	50.9	50.2	50.1	49.8	49.6	49.2	48.1	47.7	47.3	46.6	46.0	45.4	44.9	44.2	43.6
SMigR: females	54.4	54.6	53.9	53.7	54.6	55.0	54.4	54.2	53.7	53.6	53.1	52.1	51.7	51.3	50.4	49.6	48.8	48.3	47.5	46.8
Migrants input																				
Out-migration to the UK																				
Male	8,136	8,045	8,106	8,112	7,954	7,851	7,857	7,812	7,798	7,743	7,721	7,793	7,768	7,745	7,772	7,779	7,784	7,750	7,753	7,744
Female	8,843	8,774	8,847	8,867	8,700	8,595	8,614	8,571	8,541	8,480	8,459	8,519	8,503	8,463	8,483	8,482	8,483	8,478	8,489	8,501
<i>All</i>	16,980	16,819	16,953	16,979	16,653	16,446	16,471	16,383	16,339	16,223	16,180	16,312	16,271	16,208	16,255	16,261	16,268	16,228	16,242	16,244
SMigR: males	49.1	48.4	48.5	48.4	47.4	46.5	46.0	45.4	44.8	44.1	43.4	43.2	42.6	42.0	41.6	41.1	40.6	39.9	39.4	38.8
SMigR: females	52.9	52.3	52.4	52.4	51.3	50.4	50.1	49.4	48.8	48.0	47.3	47.1	46.6	45.8	45.3	44.6	43.9	43.2	42.6	42.0
Migrants input																				
In-migration from Overseas																				
Male	1,294	1,377	1,303	1,288	1,461	1,570	1,556	1,602	1,626	1,690	1,714	1,644	1,663	1,695	1,669	1,666	1,662	1,682	1,672	1,671
Female	1,137	1,214	1,154	1,143	1,296	1,394	1,383	1,425	1,444	1,497	1,517	1,455	1,476	1,507	1,486	1,483	1,480	1,500	1,496	1,495
<i>All</i>	2,430	2,591	2,457	2,431	2,757	2,964	2,939	3,027	3,071	3,187	3,230	3,098	3,139	3,202	3,155	3,149	3,142	3,182	3,168	3,166
SMigR: males	112.2	119.2	112.2	110.7	125.6	134.0	131.5	134.1	134.9	138.8	139.3	132.0	132.4	133.8	130.3	128.7	126.9	127.0	124.7	123.0
SMigR: females	101.9	108.3	102.2	100.8	114.2	122.0	119.7	122.3	122.6	125.9	126.1	119.6	120.4	121.9	118.9	117.4	115.8	115.9	113.9	112.2
Migrants input																				
Out-migration to Overseas																				
Male	1,378	1,286	1,356	1,368	1,186	1,069	1,082	1,032	1,007	942	917	989	967	931	955	957	960	937	945	944
Female	1,105	1,037	1,101	1,116	972	880	893	855	836	785	767	826	808	781	804	807	812	795	802	804
<i>All</i>	2,484	2,323	2,457	2,483	2,157	1,950	1,975	1,887	1,843	1,727	1,684	1,816	1,775	1,712	1,759	1,765	1,772	1,732	1,746	1,748

SMiGR: males	119.5	111.3	116.8	117.5	101.9	91.3	91.4	86.4	83.5	77.4	74.5	79.5	77.0	73.5	74.6	73.9	73.3	70.8	70.5	69.5	
SMiGR: females	99.0	92.5	97.5	98.5	85.7	77.0	77.3	73.3	71.0	66.0	63.8	67.9	65.9	63.1	64.3	63.9	63.5	61.4	61.1	60.4	
Migrants input																					
Migration - Net Flows																					
UK	+451	+772	+504	+452	+1,103	+1,518	+1,468	+1,644	+1,731	+1,964	+2,051	+1,787	+1,869	+1,995	+1,900	+1,889	+1,875	+1,954	+1,925	+1,921	+30,771
Overseas	-53	+268	-0	-52	+599	+1,014	+964	+1,140	+1,227	+1,460	+1,547	+1,283	+1,365	+1,491	+1,396	+1,385	+1,371	+1,450	+1,421	+1,417	+20,691
Summary of population change																					
Natural change	+1,251	+1,319	+1,284	+1,220	+1,192	+1,188	+1,209	+1,219	+1,244	+1,279	+1,311	+1,343	+1,352	+1,371	+1,381	+1,374	+1,367	+1,372	+1,378	+1,374	+26,029
Net migration	+398	+1,040	+504	+399	+1,702	+2,533	+2,432	+2,784	+2,959	+3,423	+3,598	+3,069	+3,234	+3,485	+3,296	+3,273	+3,246	+3,404	+3,347	+3,338	+51,463
Net change	+1,649	+2,358	+1,788	+1,620	+2,894	+3,721	+3,641	+4,003	+4,203	+4,703	+4,909	+4,412	+4,586	+4,856	+4,677	+4,647	+4,613	+4,776	+4,725	+4,712	+77,491

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	19,583	20,018	20,193	20,348	20,398	20,470	20,488	20,467	20,489	20,592	20,780	21,022	21,257	21,512	21,783	22,039	22,273	22,492	22,730	22,969	23,212	
5-10	20,501	20,718	21,540	22,119	22,641	23,274	24,019	24,591	24,831	25,067	25,247	25,414	25,486	25,526	25,620	25,786	26,018	26,295	26,589	26,900	27,213	
11-15	18,376	18,132	17,628	17,434	17,370	17,381	17,421	17,950	18,618	19,172	19,840	20,534	21,066	21,311	21,590	21,766	21,901	21,939	21,946	21,980	22,092	
16-17	7,870	7,802	7,741	7,618	7,413	7,333	7,321	7,070	7,027	7,365	7,436	7,430	7,681	8,312	8,665	8,699	8,789	8,912	9,091	9,164	9,133	
18-59Female, 64Male	181,928	181,670	182,117	182,091	182,196	183,223	184,777	186,147	187,658	188,961	190,808	192,777	194,236	195,520	197,197	199,095	200,790	202,681	204,732	206,821	208,926	
60/65 -74	37,517	38,657	39,610	40,486	41,201	41,903	42,559	42,939	43,472	44,045	44,613	44,655	44,938	45,733	46,768	47,887	49,063	50,131	51,121	52,137	53,122	
75-84	18,651	18,815	19,124	19,453	19,687	19,933	20,377	21,198	21,995	22,786	23,612	25,009	26,141	27,013	27,710	28,296	28,827	29,038	29,291	29,508	29,709	
85+	8,693	8,957	9,174	9,367	9,627	9,911	10,187	10,428	10,703	11,007	11,362	11,766	12,213	12,677	13,127	13,571	14,124	14,910	15,674	16,420	17,203	
Total	313,119	314,768	317,127	318,914	320,534	323,428	327,149	330,790	334,792	338,995	343,698	348,607	353,019	357,606	362,462	367,139	371,786	376,399	381,175	385,899	390,611	77,491

Population impact of constraint

Number of persons	-2,907	-790	-148	-684	-789	+514	+1,345	+1,244	+1,596	+1,771	+2,235	+2,410	+1,881	+2,046	+2,297	+2,108	+2,085	+2,058	+2,216	+2,159	+2,150	
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Labour Force

Number of Labour Force	167,537	167,613	168,085	168,126	168,106	169,027	170,291	171,620	173,145	174,573	176,309	178,151	179,920	181,691	183,640	185,452	187,322	189,362	191,446	193,528	195,655	28,118
Change over previous year	-1,171	+75	+473	+40	-20	+921	+1,265	+1,329	+1,524	+1,428	+1,736	+1,842	+1,769	+1,770	+1,949	+1,812	+1,870	+2,040	+2,084	+2,081	+2,128	
Number of supply units	152,143	152,153	152,682	152,822	152,931	153,912	155,212	156,563	158,094	159,535	161,267	163,099	164,870	166,540	168,310	169,950	171,640	173,480	175,360	177,240	179,160	27,017
Change over previous year	-79	+10	+530	+139	+109	+980	+1,301	+1,351	+1,531	+1,441	+1,731	+1,832	+1,771	+1,670	+1,770	+1,640	+1,690	+1,840	+1,880	+1,880	+1,920	

Households

Number of Households	137,016	138,161	139,540	140,669	141,682	143,290	145,319	147,324	149,460	151,686	154,120	156,576	158,871	161,255	163,737	166,228	168,649	171,182	173,758	176,260	178,658	41,642
Change over previous year	+337	+1,146	+1,379	+1,129	+1,013	+1,608	+2,030	+2,005	+2,136	+2,226	+2,434	+2,456	+2,296	+2,384	+2,482	+2,491	+2,421	+2,533	+2,576	+2,502	+2,398	
Number of supply units	142,297	143,485	144,914	146,086	147,137	148,807	150,914	152,994	155,211	157,523	160,049	162,598	164,981	167,456	170,033	172,619	175,131	177,761	180,435	183,032	185,520	43,223
Change over previous year	+344	+1,187	+1,430	+1,172	+1,051	+1,669	+2,107	+2,080	+2,218	+2,311	+2,527	+2,549	+2,383	+2,475	+2,577	+2,586	+2,512	+2,630	+2,673	+2,598	+2,488	

This report was compiled from a forecast produced on 23/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	+74	+181	+146	+54	+321	+486	+408	+515	+516	+571	+598	+510	+582	+596	+555	+544	+540	+581	+592	+542
Overseas	+88	+195	+160	+68	+335	+500	+422	+529	+530	+585	+612	+524	+596	+610	+569	+558	+554	+595	+606	+556

Summary of population change

Natural change	+370	+398	+398	+396	+385	+397	+421	+438	+466	+492	+517	+542	+558	+581	+590	+593	+601	+605	+609	+609	+9,965
Net migration	+162	+377	+307	+122	+656	+987	+831	+1,044	+1,046	+1,156	+1,211	+1,034	+1,178	+1,206	+1,124	+1,102	+1,093	+1,176	+1,199	+1,099	+18,107
Net change	+531	+775	+705	+518	+1,041	+1,383	+1,252	+1,483	+1,512	+1,648	+1,728	+1,575	+1,735	+1,786	+1,714	+1,695	+1,694	+1,781	+1,807	+1,707	+28,071

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	6,525	6,673	6,782	6,894	6,935	6,979	7,022	7,055	7,110	7,195	7,311	7,449	7,586	7,732	7,879	8,013	8,130	8,238	8,348	8,447	8,539	
5-10	6,713	6,745	6,996	7,114	7,316	7,572	7,892	8,083	8,218	8,355	8,440	8,518	8,584	8,651	8,741	8,859	9,001	9,160	9,325	9,501	9,664	
11-15	6,641	6,488	6,200	6,131	6,104	6,032	5,938	6,149	6,286	6,464	6,717	7,033	7,213	7,335	7,475	7,550	7,607	7,649	7,691	7,747	7,833	
16-17	3,212	3,243	3,153	3,049	2,851	2,830	2,909	2,740	2,717	2,840	2,782	2,734	2,855	3,124	3,213	3,254	3,333	3,375	3,427	3,458	3,458	
18-59Female, 64Male	66,048	66,060	66,470	66,632	66,769	67,250	67,820	68,391	69,068	69,563	70,256	70,899	71,333	71,758	72,301	72,995	73,599	74,269	75,030	75,806	76,512	
60/65 -74	12,830	13,169	13,446	13,768	13,964	14,165	14,418	14,521	14,726	14,938	15,132	15,186	15,312	15,583	15,977	16,302	16,581	16,927	17,167	17,496	17,825	
75-84	6,932	6,954	7,014	7,142	7,202	7,263	7,379	7,596	7,826	7,999	8,226	8,628	9,017	9,282	9,495	9,672	9,903	9,975	10,158	10,291	10,362	
85+	3,666	3,766	3,812	3,847	3,954	4,046	4,142	4,235	4,302	4,413	4,549	4,694	4,818	4,988	5,159	5,310	5,495	5,750	5,978	6,185	6,445	
Total	112,567	113,098	113,873	114,578	115,095	116,136	117,520	118,771	120,254	121,766	123,414	125,142	126,717	128,453	130,239	131,953	133,649	135,343	137,123	138,931	140,638	28,071

Population impact of constraint

Number of persons	-1,230	-52	+163	+93	-92	+442	+773	+617	+830	+832	+942	+997	+820	+964	+992	+910	+888	+879	+962	+985	+885
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Labour Force

Number of Labour Force	61,709	61,822	62,073	62,211	62,291	62,733	63,265	63,784	64,347	64,875	65,481	66,119	66,733	67,394	68,089	68,728	69,400	70,117	70,857	71,608	72,358	10,649
Change over previous year	-632	+113	+251	+137	+81	+442	+532	+519	+563	+528	+606	+638	+614	+661	+695	+639	+672	+717	+740	+751	+751	
Number of supply units	54,432	54,532	54,812	54,992	55,122	55,572	56,103	56,623	57,184	57,714	58,315	58,946	59,556	60,146	60,766	61,336	61,936	62,576	63,236	63,906	64,576	10,144
Change over previous year	-146	+100	+280	+180	+130	+450	+531	+520	+561	+531	+601	+631	+611	+590	+620	+570	+600	+640	+660	+670	+670	

Households

Number of Households	50,274	50,666	51,162	51,650	52,030	52,615	53,365	54,056	54,850	55,708	56,588	57,474	58,294	59,162	60,078	60,990	61,822	62,749	63,662	64,585	65,399	15,125
Change over previous year	-84	+393	+496	+488	+380	+584	+750	+692	+794	+858	+880	+885	+821	+868	+915	+912	+832	+927	+912	+923	+814	
Number of supply units	52,698	53,109	53,629	54,141	54,539	55,152	55,938	56,663	57,495	58,394	59,317	60,245	61,105	62,015	62,975	63,931	64,803	65,775	66,732	67,699	68,552	15,854
Change over previous year	-88	+412	+520	+511	+398	+613	+786	+725	+832	+899	+923	+928	+860	+910	+960	+956	+873	+972	+956	+967	+853	

This report was compiled from a forecast produced on 23/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	-260	-133	-245	-121	+158	+322	+264	+348	+374	+489	+506	+400	+441	+522	+468	+432	+409	+454	+452	+434
Overseas	-376	-249	-361	-237	+42	+206	+148	+232	+258	+373	+390	+284	+325	+406	+352	+316	+293	+338	+336	+318

Summary of population change

Natural change	+739	+773	+742	+699	+684	+684	+687	+684	+683	+691	+699	+706	+705	+708	+710	+709	+707	+714	+723	+729	+14,175
Net migration	-635	-382	-606	-358	+199	+527	+412	+580	+631	+861	+896	+684	+766	+929	+820	+748	+703	+792	+788	+752	+9,108
Net change	+104	+390	+137	+341	+883	+1,211	+1,099	+1,263	+1,314	+1,552	+1,595	+1,390	+1,471	+1,637	+1,530	+1,458	+1,410	+1,506	+1,511	+1,481	+23,284

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	8,385	8,544	8,554	8,560	8,526	8,513	8,484	8,425	8,394	8,393	8,431	8,484	8,530	8,587	8,657	8,722	8,781	8,835	8,906	8,989	9,081	
5-10	8,324	8,500	8,930	9,183	9,458	9,709	9,995	10,227	10,265	10,311	10,322	10,345	10,331	10,294	10,286	10,308	10,360	10,422	10,488	10,561	10,639	
11-15	7,085	6,955	6,737	6,708	6,663	6,754	6,887	7,151	7,471	7,750	8,029	8,289	8,500	8,559	8,637	8,660	8,672	8,650	8,609	8,588	8,596	
16-17	2,888	2,828	2,874	2,835	2,802	2,761	2,666	2,586	2,661	2,809	2,864	2,916	2,999	3,261	3,425	3,422	3,436	3,459	3,528	3,546	3,506	
18-59Female, 64Male	69,381	68,942	68,710	68,298	68,158	68,429	68,941	69,218	69,536	69,784	70,389	70,999	71,400	71,755	72,279	72,829	73,313	73,880	74,451	75,024	75,685	
60/65 -74	12,590	12,894	13,115	13,384	13,600	13,809	14,002	14,171	14,435	14,747	15,036	15,134	15,359	15,739	16,225	16,805	17,358	17,830	18,300	18,769	19,137	
75-84	6,229	6,259	6,307	6,321	6,352	6,370	6,510	6,728	6,907	7,107	7,281	7,668	7,978	8,267	8,474	8,659	8,775	8,803	8,896	9,015	9,144	
85+	2,604	2,668	2,753	2,828	2,900	2,996	3,069	3,147	3,248	3,329	3,428	3,542	3,670	3,776	3,892	4,000	4,167	4,393	4,599	4,797	4,981	
Total	117,486	117,590	117,980	118,117	118,458	119,341	120,552	121,652	122,915	124,230	125,781	127,377	128,767	130,238	131,875	133,404	134,862	136,272	137,778	139,289	140,770	23,284

Population impact of constraint

Number of persons	-1,927	-1,065	-812	-1,036	-788	-231	+97	-18	+150	+201	+431	+466	+254	+336	+499	+390	+318	+273	+362	+358	+322
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Labour Force

Number of Labour Force	63,237	62,927	62,749	62,402	62,175	62,367	62,728	63,068	63,487	63,846	64,363	64,918	65,462	65,985	66,617	67,180	67,742	68,345	68,957	69,579	70,211	6,973
Change over previous year	-803	-310	-178	-348	-227	+192	+361	+340	+419	+359	+517	+555	+544	+523	+632	+563	+602	+612	+622	+632		
Number of supply units	63,237	62,927	62,817	62,536	62,375	62,635	63,065	63,475	63,965	64,395	64,986	65,616	66,236	66,837	67,477	68,047	68,617	69,227	69,847	70,477	71,117	7,879
Change over previous year	-183	-310	-111	-281	-161	+260	+430	+410	+490	+430	+590	+630	+620	+600	+640	+570	+570	+610	+620	+630	+640	

Households

Number of Households	50,620	50,825	51,132	51,302	51,543	52,039	52,677	53,273	53,941	54,602	55,381	56,174	56,904	57,700	58,543	59,349	60,121	60,948	61,788	62,617	63,403	12,783
Change over previous year	-95	+205	+307	+171	+241	+496	+638	+596	+668	+661	+779	+793	+730	+796	+843	+807	+771	+827	+841	+828	+787	
Number of supply units	52,456	52,668	52,986	53,163	53,412	53,926	54,588	55,205	55,897	56,582	57,390	58,212	58,968	59,793	60,666	61,502	62,301	63,158	64,029	64,888	65,703	13,247
Change over previous year	-98	+212	+318	+177	+249	+514	+661	+617	+692	+685	+807	+822	+756	+825	+873	+836	+799	+857	+871	+858	+815	

This report was compiled from a forecast produced on 23/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	+637	+724	+602	+519	+625	+710	+795	+781	+841	+904	+947	+877	+846	+876	+877	+912	+926	+919	+881	+945
Overseas	+235	+322	+200	+117	+223	+308	+393	+379	+439	+502	+545	+475	+444	+474	+475	+510	+524	+517	+479	+543

Summary of population change

Natural change	+142	+148	+144	+125	+123	+108	+101	+97	+96	+96	+95	+95	+90	+83	+81	+71	+59	+53	+46	+36
Net migration	+871	+1,045	+802	+636	+847	+1,019	+1,189	+1,160	+1,281	+1,406	+1,491	+1,352	+1,290	+1,350	+1,352	+1,423	+1,450	+1,436	+1,360	+1,487
Net change	+1,014	+1,193	+946	+761	+970	+1,127	+1,290	+1,256	+1,377	+1,502	+1,586	+1,447	+1,379	+1,433	+1,433	+1,494	+1,509	+1,489	+1,406	+1,523

+1,888
+24,248
+26,136

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	4,673	4,800	4,857	4,894	4,937	4,978	4,983	4,986	4,985	5,004	5,037	5,089	5,141	5,194	5,247	5,304	5,363	5,419	5,476	5,533	5,592
5-10	5,464	5,473	5,614	5,821	5,867	5,993	6,133	6,282	6,348	6,402	6,484	6,550	6,572	6,581	6,592	6,619	6,657	6,713	6,776	6,837	6,909
11-15	4,650	4,689	4,690	4,595	4,603	4,595	4,596	4,650	4,861	4,957	5,094	5,212	5,354	5,417	5,478	5,556	5,622	5,641	5,646	5,645	5,663
16-17	1,770	1,731	1,714	1,734	1,760	1,743	1,745	1,744	1,648	1,717	1,791	1,780	1,827	1,927	2,028	2,023	2,020	2,078	2,136	2,160	2,169
18-59Female, 64Male	46,499	46,668	46,937	47,161	47,269	47,544	48,016	48,538	49,054	49,614	50,163	50,878	51,503	52,007	52,617	53,272	53,878	54,532	55,251	55,991	56,729
60/65 -74	12,097	12,594	13,049	13,333	13,637	13,928	14,139	14,247	14,312	14,360	14,445	14,335	14,268	14,412	14,566	14,781	15,125	15,375	15,654	15,872	16,161
75-84	5,490	5,602	5,803	5,989	6,133	6,300	6,489	6,873	7,262	7,681	8,104	8,714	9,146	9,465	9,742	9,966	10,149	10,260	10,238	10,203	10,202
85+	2,423	2,523	2,608	2,693	2,774	2,869	2,976	3,046	3,153	3,265	3,385	3,531	3,724	3,913	4,077	4,261	4,463	4,767	5,097	5,438	5,778
Total	83,066	84,080	85,273	86,219	86,980	87,951	89,077	90,367	91,623	93,000	94,502	96,088	97,535	98,915	100,348	101,781	103,275	104,784	106,273	107,679	109,203

26,136

Population impact of constraint

Number of persons	+250	+327	+501	+258	+92	+303	+475	+645	+616	+737	+862	+947	+808	+746	+806	+808	+879	+906	+892	+816	+943
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Labour Force

Number of Labour Force	42,591	42,863	43,263	43,513	43,640	43,926	44,298	44,768	45,310	45,851	46,465	47,114	47,725	48,311	48,934	49,544	50,180	50,900	51,633	52,341	53,086
Change over previous year	+264	+272	+399	+250	+127	+287	+372	+470	+542	+541	+614	+649	+611	+586	+623	+611	+635	+721	+733	+708	+745
Number of supply units	34,473	34,693	35,054	35,294	35,434	35,704	36,044	36,465	36,945	37,426	37,966	38,537	39,077	39,557	40,067	40,567	41,087	41,677	42,277	42,857	43,467
Change over previous year	+250	+220	+360	+240	+140	+270	+340	+420	+480	+480	+541	+571	+540	+480	+510	+500	+520	+590	+600	+580	+610

10,495
8,994

Households

Number of Households	36,122	36,670	37,246	37,716	38,109	38,636	39,278	39,995	40,669	41,376	42,151	42,928	43,673	44,393	45,117	45,889	46,706	47,485	48,308	49,059	49,856
Change over previous year	+516	+548	+576	+471	+392	+528	+642	+717	+674	+707	+775	+777	+745	+720	+724	+772	+817	+779	+822	+751	+797
Number of supply units	37,143	37,707	38,299	38,783	39,186	39,729	40,388	41,126	41,819	42,546	43,343	44,141	44,908	45,648	46,393	47,187	48,027	48,828	49,674	50,446	51,265
Change over previous year	+530	+564	+592	+484	+403	+543	+660	+738	+693	+727	+797	+799	+766	+741	+744	+794	+840	+801	+846	+772	+820

13,734
14,122
706

This report was compiled from a forecast produced on 23/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

This file was produced using the scenario file G:\HEaDROOM\1. POPGROUP v3.1 DF
CompatibleModel Runs\CGT\Cheltenham, Gloucester, Tewkesbury
JCS_in\scenario_EMPLOYMENT LED 2.xls

Tick to save as new flat file

It was run on 23/05/2012 at 13:00:40

Produce flat file	
Clicking the button will copy all data from this components file onto a single sheet in another workbook (for pivots, etc)	G:\HEaDROOM\1. POPGROUP v3.1 DF CompatibleModel Runs\CGT\Cheltenham, Gloucester, Tewkesbury JCS_outFlatComp_EMPLOYMENT LED 2.xls

<< Append to (blank if not to be appended)

<< Save flat file with this name (may be blank if to be appended to an existing file)

Forecast after model set up to replicate ONS 2010 Based population projection data.

Comments from the PopBase2010.xls workbook, which was last updated on 26/02/2008

2010 Mid-Year Estimate of population taken from ONS sub-national 2010-based projections.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the TFR FertONS2010.xls workbook, which was last updated on 09/09/2007

Area fertility schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area fertility differentials each year computed to approximately reproduce the area fertility projected by ONS. The differential is the ratio of ONS projected births to the births predicted from the group schedule.
Area counts of births each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or mortality, remove the counts of births. The schedule and the differentials will then apply ONS projected local fertility rates to the alternative population each year. When running scenarios using alternative fertility, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the TFR MortONS2010.xls workbook, which was last updated on 09/09/2007

Area mortality schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area mortality differentials each year computed to approximately reproduce the area mortality projected by ONS. The differential is the ratio of ONS projected deaths to the deaths predicted from the group schedule.
Area counts of deaths each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or fertility, remove the counts of deaths. The schedule and the differentials will then apply ONS projected local mortality rates to the alternative population each year. When running scenarios using alternative mortality, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the LT PAST TREND Mig_INUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal in-migrants each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the LT PAST TREND Mig_OUTUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal out-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the LT PT Mig_INOVONS2010.xls workbook, which was last updated on 09/09/2007

Area overseas in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.

Area counts of overseas in-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the LT PT Mig_OUTOVONS2010.xls workbook, which was last updated on 09/09/2007

Area overseas out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.

Area counts of overseas out-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the JOBS Cons2011-35.xls workbook, which was last updated on 08/05/2012

Population 2011-2035 taken from ONS sub-national 2010 based projections.

Further details on ONS 2008 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the JOBS DFSupply2.xls workbook, which was last updated on 11/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conv A labour force to dwellings conversion has been given with separate rates for unemployment and commuting.

Comments from the DFSupply.xls workbook, which was last updated on 04/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conv A single conversion ratio has been used.

Version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

Version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

Population Estimates and Forecasts

CE EMPLOYMENT LED - LOW UNEMPLOYMENT

Components of Population Change

Chet, Glouc, Tewkes

Year beginning July 1st

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Births																				
Male	2,076	2,098	2,088	2,062	2,042	2,041	2,053	2,062	2,080	2,102	2,128	2,155	2,173	2,193	2,210	2,223	2,242	2,267	2,297	2,325
Female	1,978	1,998	1,989	1,964	1,945	1,944	1,955	1,963	1,981	2,002	2,027	2,052	2,069	2,088	2,105	2,117	2,136	2,159	2,187	2,214
<i>All Births</i>	4,054	4,095	4,077	4,026	3,988	3,985	4,008	4,025	4,061	4,104	4,155	4,207	4,242	4,281	4,315	4,341	4,378	4,427	4,484	4,539
TFR	2.11	2.13	2.11	2.08	2.05	2.03	2.01	1.99	1.98	1.97	1.96	1.95	1.95	1.94	1.93	1.92	1.92	1.92	1.92	1.92
Births input																				
Deaths																				
Male	1,342	1,328	1,347	1,361	1,355	1,364	1,373	1,386	1,401	1,414	1,432	1,449	1,471	1,491	1,515	1,539	1,568	1,595	1,621	1,651
Female	1,461	1,449	1,446	1,445	1,441	1,433	1,431	1,430	1,432	1,434	1,441	1,451	1,462	1,472	1,486	1,504	1,524	1,546	1,569	1,597
<i>All deaths</i>	2,803	2,777	2,793	2,806	2,796	2,797	2,803	2,817	2,833	2,848	2,873	2,901	2,933	2,963	3,001	3,043	3,092	3,141	3,190	3,248
SMR: males	93.3	89.9	88.6	87.2	84.6	82.7	80.9	79.4	77.9	76.2	74.8	73.4	72.3	71.0	70.0	68.9	68.0	67.1	66.3	65.5
SMR: females	93.6	91.1	89.2	87.5	85.6	83.7	81.9	80.2	78.5	76.8	75.3	73.8	72.4	71.0	69.7	68.5	67.4	66.3	65.2	64.4
<i>SMR: male & female</i>	93.5	90.5	88.9	87.3	85.1	83.2	81.4	79.8	78.2	76.5	75.0	73.6	72.3	71.0	69.8	68.7	67.7	66.7	65.8	65.0
Expectation of life	81.5	81.7	81.8	82.0	82.2	82.3	82.5	82.6	82.7	82.9	83.0	83.1	83.2	83.3	83.4	83.5	83.6	83.7	83.8	83.9
Deaths input																				
In-migration from the UK																				
Male	8,348	8,427	8,361	8,346	8,508	8,578	8,547	8,600	8,633	8,691	8,715	8,652	8,643	8,665	8,662	8,686	8,681	8,715	8,701	8,690
Female	9,082	9,164	9,096	9,085	9,248	9,346	9,328	9,364	9,374	9,432	9,450	9,381	9,389	9,403	9,394	9,411	9,408	9,462	9,459	9,468
<i>All</i>	17,430	17,591	17,457	17,431	17,757	17,924	17,876	17,964	18,007	18,123	18,166	18,033	18,031	18,068	18,056	18,097	18,089	18,176	18,161	18,157
SMigR: males	50.4	50.7	50.0	49.8	50.7	50.8	50.1	50.0	49.8	49.7	49.3	48.3	47.8	47.4	46.9	46.5	45.9	45.5	44.8	44.2
SMigR: females	54.4	54.6	53.9	53.7	54.6	54.8	54.3	54.1	53.7	53.6	53.2	52.2	51.8	51.4	50.7	50.1	49.3	48.9	48.1	47.4
Migrants input																				
Out-migration to the UK																				
Male	8,136	8,045	8,106	8,112	7,954	7,871	7,887	7,843	7,829	7,775	7,753	7,826	7,821	7,812	7,823	7,807	7,813	7,755	7,757	7,748
Female	8,843	8,774	8,847	8,867	8,700	8,615	8,647	8,603	8,573	8,512	8,491	8,551	8,557	8,530	8,532	8,506	8,508	8,479	8,492	8,505
<i>All</i>	16,980	16,819	16,953	16,979	16,653	16,486	16,534	16,446	16,403	16,287	16,244	16,377	16,379	16,342	16,354	16,313	16,321	16,234	16,249	16,253
SMigR: males	49.1	48.4	48.5	48.4	47.4	46.6	46.2	45.6	45.1	44.4	43.8	43.7	43.2	42.8	42.3	41.8	41.3	40.5	40.0	39.4
SMigR: females	52.9	52.3	52.4	52.4	51.3	50.5	50.3	49.7	49.1	48.4	47.8	47.6	47.2	46.6	46.1	45.3	44.6	43.8	43.2	42.6
Migrants input																				
In-migration from Overseas																				
Male	1,294	1,377	1,303	1,288	1,461	1,548	1,523	1,568	1,593	1,656	1,679	1,608	1,605	1,623	1,616	1,638	1,633	1,679	1,668	1,666
Female	1,137	1,214	1,154	1,143	1,296	1,376	1,353	1,396	1,415	1,467	1,487	1,425	1,426	1,445	1,439	1,459	1,456	1,498	1,493	1,491
<i>All</i>	2,430	2,591	2,457	2,431	2,757	2,924	2,876	2,964	3,007	3,123	3,166	3,033	3,031	3,068	3,056	3,097	3,089	3,176	3,161	3,157
SMigR: males	112.2	119.2	112.2	110.7	125.6	132.2	128.7	131.6	132.6	136.7	137.3	130.1	128.9	129.5	127.8	128.3	126.6	128.8	126.3	124.4
SMigR: females	101.9	108.3	102.2	100.8	114.2	120.4	117.2	120.0	120.6	124.0	124.5	118.0	117.3	118.1	116.7	117.3	115.7	117.7	115.5	113.6
Migrants input																				
Out-migration to Overseas																				
Male	1,378	1,286	1,356	1,368	1,186	1,092	1,117	1,067	1,042	977	953	1,026	1,026	1,005	1,010	986	989	940	949	949
Female	1,105	1,037	1,101	1,116	972	898	921	883	865	814	796	856	856	841	849	831	836	797	805	808
<i>All</i>	2,484	2,323	2,457	2,483	2,157	1,990	2,038	1,950	1,907	1,791	1,748	1,881	1,883	1,846	1,858	1,817	1,825	1,738	1,753	1,757

SMiGR: males	119.5	111.3	116.8	117.5	101.9	93.2	94.5	89.6	86.7	80.7	77.9	83.0	82.4	80.2	79.8	77.3	76.7	72.1	71.8	70.8		
SMiGR: females	99.0	92.5	97.5	98.5	85.7	78.6	79.8	75.9	73.7	68.8	66.6	70.9	70.4	68.7	68.8	66.8	66.4	62.6	62.2	61.5		
Migrants input																						
Migration - Net Flows																						
UK	+451	+772	+504	+452	+1,103	+1,438	+1,341	+1,518	+1,605	+1,836	+1,921	+1,656	+1,653	+1,726	+1,701	+1,784	+1,768	+1,943	+1,912	+1,905	+28,988	
Overseas	-53	+268	-0	-52	+599	+934	+837	+1,014	+1,101	+1,332	+1,417	+1,152	+1,149	+1,222	+1,197	+1,280	+1,264	+1,439	+1,408	+1,401	+18,908	
Summary of population change																						
Natural change	+1,251	+1,319	+1,284	+1,220	+1,192	+1,188	+1,205	+1,208	+1,227	+1,256	+1,281	+1,306	+1,309	+1,318	+1,315	+1,297	+1,286	+1,286	+1,293	+1,291	+25,335	
Net migration	+398	+1,040	+504	+399	+1,702	+2,371	+2,179	+2,531	+2,706	+3,168	+3,339	+2,808	+2,802	+2,948	+2,899	+3,065	+3,032	+3,382	+3,320	+3,306	+47,897	
Net change	+1,649	+2,358	+1,788	+1,620	+2,894	+3,560	+3,384	+3,739	+3,933	+4,424	+4,620	+4,114	+4,111	+4,266	+4,213	+4,362	+4,318	+4,668	+4,613	+4,597	+73,231	

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	19,583	20,018	20,193	20,348	20,398	20,470	20,479	20,442	20,445	20,523	20,682	20,890	21,089	21,300	21,518	21,722	21,913	22,089	22,296	22,512	22,744	
5-10	20,501	20,718	21,540	22,119	22,641	23,274	24,011	24,572	24,799	25,023	25,188	25,341	25,396	25,407	25,462	25,590	25,785	26,018	26,275	26,548	26,819	
11-15	18,376	18,132	17,628	17,434	17,370	17,381	17,415	17,936	18,596	19,142	19,802	20,488	21,010	21,240	21,501	21,662	21,787	21,816	21,817	21,838	21,931	
16-17	7,870	7,802	7,741	7,618	7,413	7,333	7,316	7,059	7,012	7,346	7,415	7,406	7,653	8,274	8,616	8,647	8,742	8,865	9,045	9,118	9,085	
18-59Female, 64Male	181,928	181,670	182,117	182,091	182,196	183,223	184,651	185,821	187,128	188,227	189,866	191,624	192,871	193,811	195,058	196,627	198,145	199,859	201,887	203,951	206,030	
60/65 -74	37,517	38,657	39,610	40,486	41,201	41,903	42,553	42,924	43,448	44,010	44,566	44,596	44,866	45,640	46,650	47,748	48,907	49,958	50,936	51,941	52,915	
75-84	18,651	18,815	19,124	19,453	19,687	19,933	20,375	21,192	21,986	22,774	23,596	24,990	26,118	26,983	27,672	28,254	28,783	28,992	29,245	29,460	29,658	
85+	8,693	8,957	9,174	9,367	9,627	9,911	10,186	10,425	10,698	10,999	11,352	11,754	12,198	12,658	13,102	13,542	14,094	14,877	15,640	16,386	17,168	
Total	313,119	314,768	317,127	318,914	320,534	323,428	326,987	330,371	334,110	338,044	342,468	347,088	351,202	355,313	359,579	363,792	368,155	372,473	377,141	381,754	386,351	73,231

Population impact of constraint

Number of persons	-2,907	-790	-148	-684	-789	+514	+1,183	+991	+1,343	+1,518	+1,980	+2,151	+1,620	+1,614	+1,760	+1,711	+1,877	+1,844	+2,194	+2,132	+2,118	
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Labour Force

Number of Labour Force	167,537	167,613	168,085	168,126	168,106	169,027	170,178	171,325	172,665	173,907	175,453	177,103	178,676	180,128	181,683	183,196	184,904	186,777	188,834	190,887	192,986	25,449
Change over previous year	-1,171	+75	+473	+40	-20	+921	+1,151	+1,147	+1,340	+1,242	+1,546	+1,649	+1,573	+1,452	+1,555	+1,513	+1,708	+1,873	+2,057	+2,053	+2,099	
Number of supply units	152,143	152,153	152,682	152,822	152,931	153,912	155,213	156,564	158,096	159,538	161,270	163,103	164,875	166,547	168,320	169,961	171,651	173,491	175,371	177,251	179,171	27,029
Change over previous year	-79	+10	+530	+139	+109	+980	+1,301	+1,351	+1,532	+1,442	+1,733	+1,833	+1,772	+1,672	+1,772	+1,641	+1,690	+1,840	+1,880	+1,880	+1,920	

Households

Number of Households	137,016	138,161	139,540	140,669	141,682	143,290	145,256	147,157	149,183	151,295	153,609	155,939	158,105	160,285	162,514	164,797	167,090	169,490	172,012	174,462	176,811	39,795
Change over previous year	+337	+1,146	+1,379	+1,129	+1,013	+1,608	+1,966	+1,900	+2,027	+2,111	+2,314	+2,330	+2,166	+2,180	+2,229	+2,283	+2,293	+2,400	+2,522	+2,450	+2,349	
Number of supply units	142,297	143,485	144,914	146,086	147,137	148,807	150,848	152,820	154,924	157,117	159,519	161,937	164,185	166,448	168,763	171,132	173,512	176,004	178,621	181,165	183,602	41,305
Change over previous year	+344	+1,187	+1,430	+1,172	+1,051	+1,669	+2,042	+1,972	+2,104	+2,192	+2,402	+2,418	+2,248	+2,263	+2,314	+2,370	+2,379	+2,492	+2,617	+2,544	+2,438	

This report was compiled from a forecast produced on 23/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	+74	+181	+146	+54	+321	+486	+363	+470	+471	+526	+553	+464	+487	+500	+459	+544	+538	+578	+588	+537
Overseas	+88	+195	+160	+68	+335	+500	+377	+484	+485	+540	+567	+478	+501	+514	+473	+558	+552	+592	+602	+551

Summary of population change

Natural change	+370	+398	+398	+396	+385	+397	+421	+436	+461	+485	+508	+530	+543	+561	+565	+563	+570	+574	+577	+578
Net migration	+162	+377	+307	+122	+656	+987	+739	+953	+956	+1,065	+1,119	+941	+988	+1,015	+932	+1,101	+1,090	+1,169	+1,190	+1,088
Net change	+531	+775	+705	+518	+1,041	+1,383	+1,160	+1,390	+1,417	+1,551	+1,627	+1,471	+1,531	+1,575	+1,496	+1,664	+1,660	+1,743	+1,767	+1,666

+9,717
+16,955
+26,672

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	6,525	6,673	6,782	6,894	6,935	6,979	7,022	7,051	7,100	7,178	7,285	7,412	7,535	7,663	7,790	7,900	8,002	8,096	8,193	8,282	8,369
5-10	6,713	6,745	6,996	7,114	7,316	7,572	7,892	8,079	8,212	8,344	8,426	8,499	8,560	8,618	8,696	8,799	8,931	9,077	9,228	9,389	9,534
11-15	6,641	6,488	6,200	6,131	6,104	6,032	5,938	6,146	6,281	6,457	6,707	7,022	7,198	7,316	7,450	7,520	7,577	7,618	7,659	7,711	7,791
16-17	3,212	3,243	3,153	3,049	2,851	2,830	2,909	2,737	2,712	2,833	2,775	2,727	2,847	3,110	3,196	3,236	3,321	3,366	3,418	3,448	3,448
18-59Female, 64Male	66,048	66,060	66,470	66,632	66,769	67,250	67,820	68,318	68,920	69,339	69,956	70,522	70,879	71,149	71,535	72,067	72,664	73,327	74,082	74,850	75,548
60/65 -74	12,830	13,169	13,446	13,768	13,964	14,165	14,418	14,518	14,720	14,929	15,120	15,170	15,292	15,556	15,942	16,259	16,534	16,878	17,116	17,442	17,768
75-84	6,932	6,954	7,014	7,142	7,202	7,263	7,379	7,595	7,823	7,995	8,222	8,622	9,010	9,272	9,483	9,657	9,889	9,962	10,144	10,276	10,347
85+	3,666	3,766	3,812	3,847	3,954	4,046	4,142	4,235	4,301	4,411	4,547	4,690	4,813	4,982	5,150	5,300	5,484	5,739	5,967	6,174	6,434
Total	112,567	113,098	113,873	114,578	115,095	116,136	117,520	118,680	120,070	121,487	123,038	124,664	126,135	127,666	129,242	130,738	132,403	134,063	135,806	137,573	139,239

26,672

Population impact of constraint

Number of persons	-1,230	-52	+163	+93	-92	+442	+773	+525	+739	+742	+851	+905	+727	+774	+801	+718	+887	+876	+955	+976	+874
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Labour Force

Number of Labour Force	61,709	61,822	62,073	62,211	62,291	62,733	63,265	63,717	64,211	64,671	65,207	65,774	66,316	66,833	67,382	67,873	68,537	69,245	69,976	70,717	71,458
Change over previous year	-632	+113	+251	+137	+81	+442	+532	+452	+495	+459	+536	+567	+542	+518	+549	+491	+664	+708	+730	+741	+741
Number of supply units	54,432	54,532	54,812	54,992	55,122	55,572	56,103	56,624	57,185	57,716	58,317	58,948	59,559	60,150	60,771	61,342	61,942	62,582	63,242	63,912	64,582
Change over previous year	-146	+100	+280	+180	+130	+450	+531	+521	+561	+531	+601	+631	+611	+591	+621	+571	+600	+640	+660	+670	+670

9,750
10,150

Households

Number of Households	50,274	50,666	51,162	51,650	52,030	52,615	53,365	54,018	54,773	55,588	56,424	57,263	58,035	58,812	59,631	60,442	61,255	62,162	63,054	63,957	64,753
Change over previous year	-84	+393	+496	+488	+380	+584	+750	+654	+754	+816	+836	+839	+772	+777	+819	+811	+813	+906	+893	+903	+796
Number of supply units	52,698	53,109	53,629	54,141	54,539	55,152	55,938	56,623	57,414	58,269	59,145	60,024	60,834	61,648	62,506	63,357	64,209	65,159	66,094	67,041	67,875
Change over previous year	-88	+412	+520	+511	+398	+613	+786	+685	+791	+855	+876	+879	+810	+814	+859	+850	+852	+950	+936	+946	+834

14,479
15,177

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Migration - Net Flows

UK	-260	-133	-245	-121	+158	+274	+217	+301	+327	+441	+458	+351	+392	+423	+368	+331	+308	+451	+447	+428
Overseas	-376	-249	-361	-237	+42	+158	+101	+185	+211	+325	+342	+235	+276	+307	+252	+215	+192	+335	+331	+312

Summary of population change

Natural change	+739	+773	+742	+699	+684	+684	+684	+678	+675	+680	+686	+690	+687	+688	+685	+679	+672	+675	+685	+692	+13,879
Net migration	-635	-382	-606	-358	+199	+433	+318	+486	+537	+766	+799	+586	+668	+729	+619	+546	+499	+785	+779	+741	+7,509
Net change	+104	+390	+137	+341	+883	+1,117	+1,002	+1,164	+1,212	+1,446	+1,485	+1,277	+1,355	+1,417	+1,304	+1,226	+1,172	+1,460	+1,464	+1,433	+21,388

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	8,385	8,544	8,554	8,560	8,526	8,513	8,478	8,413	8,373	8,361	8,387	8,425	8,457	8,499	8,551	8,596	8,632	8,664	8,720	8,792	8,878	
5-10	8,324	8,500	8,930	9,183	9,458	9,709	9,990	10,217	10,250	10,291	10,296	10,313	10,291	10,245	10,220	10,224	10,255	10,293	10,346	10,405	10,468	
11-15	7,085	6,955	6,737	6,708	6,663	6,754	6,884	7,144	7,461	7,737	8,013	8,269	8,476	8,530	8,601	8,616	8,619	8,588	8,544	8,518	8,517	
16-17	2,888	2,828	2,874	2,835	2,802	2,761	2,664	2,581	2,655	2,802	2,856	2,907	2,988	3,248	3,406	3,400	3,412	3,432	3,504	3,522	3,482	
18-59Female, 64Male	69,381	68,942	68,710	68,298	68,158	68,429	68,866	69,068	69,310	69,483	70,011	70,543	70,866	71,143	71,510	71,899	72,221	72,625	73,187	73,752	74,404	
60/65 -74	12,590	12,894	13,115	13,384	13,600	13,809	13,999	14,165	14,424	14,732	15,017	15,110	15,329	15,702	16,178	16,746	17,287	17,747	18,210	18,671	19,032	
75-84	6,229	6,259	6,307	6,321	6,352	6,370	6,509	6,727	6,904	7,103	7,277	7,662	7,971	8,259	8,464	8,646	8,760	8,785	8,877	8,994	9,123	
85+	2,604	2,668	2,753	2,828	2,900	2,996	3,068	3,146	3,246	3,327	3,425	3,538	3,666	3,771	3,886	3,993	4,159	4,383	4,589	4,787	4,970	
Total	117,486	117,590	117,980	118,117	118,458	119,341	120,458	121,460	122,624	123,836	125,281	126,767	128,044	129,398	130,815	132,119	133,345	134,516	135,976	137,441	138,874	21,388

Population impact of constraint

Number of persons	-1,927	-1,065	-812	-1,036	-788	-231	+3	-112	+56	+107	+336	+369	+156	+238	+299	+189	+116	+69	+355	+349	+311
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Labour Force

Number of Labour Force	63,237	62,927	62,749	62,402	62,175	62,367	62,661	62,934	63,285	63,575	64,022	64,506	64,979	65,430	65,918	66,336	66,752	67,205	67,806	68,418	69,039	5,802
Change over previous year	-803	-310	-178	-348	-227	+192	+294	+273	+351	+290	+447	+485	+472	+451	+488	+418	+416	+453	+602	+612	+621	
Number of supply units	63,237	62,927	62,817	62,536	62,375	62,635	63,065	63,475	63,965	64,395	64,986	65,616	66,237	66,837	67,477	68,048	68,618	69,228	69,848	70,478	71,118	7,881
Change over previous year	-183	-310	-111	-281	-161	+260	+430	+410	+490	+430	+591	+631	+620	+600	+640	+570	+570	+610	+620	+630	+640	

Households

Number of Households	50,620	50,825	51,132	51,302	51,543	52,039	52,639	53,195	53,822	54,440	55,174	55,920	56,602	57,347	58,098	58,810	59,484	60,209	61,027	61,833	62,599	11,979
Change over previous year	-95	+205	+307	+171	+241	+496	+600	+556	+626	+618	+734	+747	+682	+746	+751	+712	+674	+726	+817	+806	+766	
Number of supply units	52,456	52,668	52,986	53,163	53,412	53,926	54,548	55,125	55,774	56,414	57,175	57,948	58,655	59,427	60,205	60,943	61,641	62,393	63,240	64,075	64,870	12,414
Change over previous year	-98	+212	+318	+177	+249	+514	+622	+576	+649	+640	+761	+774	+706	+773	+778	+737	+698	+752	+847	+835	+794	

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Migration - Net Flows

UK	+637	+724	+602	+519	+625	+677	+762	+747	+807	+869	+911	+841	+774	+803	+875	+910	+922	+915	+877	+940
Overseas	+235	+322	+200	+117	+223	+275	+360	+345	+405	+467	+509	+439	+372	+401	+473	+508	+520	+513	+475	+538

Summary of population change

Natural change	+142	+148	+144	+125	+123	+108	+99	+94	+91	+91	+87	+86	+79	+70	+65	+55	+43	+37	+30	+21	+1,740
Net migration	+871	+1,045	+802	+636	+847	+952	+1,122	+1,092	+1,213	+1,337	+1,421	+1,280	+1,146	+1,204	+1,348	+1,418	+1,443	+1,428	+1,351	+1,477	+23,432
Net change	+1,014	+1,193	+946	+761	+970	+1,060	+1,221	+1,186	+1,304	+1,427	+1,508	+1,366	+1,225	+1,273	+1,413	+1,472	+1,486	+1,465	+1,381	+1,498	+25,172

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	4,673	4,800	4,857	4,894	4,937	4,978	4,979	4,978	4,971	4,984	5,010	5,053	5,097	5,137	5,177	5,226	5,279	5,330	5,383	5,438	5,498
5-10	5,464	5,473	5,614	5,821	5,867	5,993	6,130	6,275	6,337	6,387	6,466	6,528	6,545	6,544	6,546	6,567	6,598	6,647	6,701	6,755	6,817
11-15	4,650	4,689	4,690	4,595	4,603	4,595	4,593	4,645	4,854	4,948	5,082	5,197	5,336	5,394	5,450	5,526	5,592	5,610	5,613	5,609	5,623
16-17	1,770	1,731	1,714	1,734	1,760	1,743	1,743	1,741	1,644	1,712	1,784	1,773	1,819	1,916	2,014	2,011	2,009	2,066	2,123	2,147	2,155
18-59Female, 64Male	46,499	46,668	46,937	47,161	47,269	47,544	47,965	48,436	48,898	49,405	49,899	50,559	51,127	51,519	52,014	52,661	53,260	53,907	54,619	55,349	56,078
60/65 -74	12,097	12,594	13,049	13,333	13,637	13,928	14,136	14,241	14,303	14,348	14,429	14,316	14,245	14,382	14,530	14,743	15,085	15,333	15,611	15,828	16,115
75-84	5,490	5,602	5,803	5,989	6,133	6,300	6,488	6,870	7,258	7,676	8,097	8,706	9,137	9,452	9,725	9,951	10,134	10,245	10,224	10,189	10,188
85+	2,423	2,523	2,608	2,693	2,774	2,869	2,976	3,044	3,150	3,261	3,381	3,525	3,718	3,904	4,066	4,250	4,451	4,755	5,085	5,425	5,765
Total	83,066	84,080	85,273	86,219	86,980	87,951	89,010	90,231	91,417	92,721	94,149	95,657	97,024	98,249	99,522	100,935	102,407	103,893	105,359	106,740	108,238

Population impact of constraint

Number of persons	+250	+327	+501	+258	+92	+303	+408	+578	+548	+669	+793	+877	+736	+602	+660	+804	+874	+899	+884	+807	+933
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Labour Force

Number of Labour Force	42,591	42,863	43,263	43,513	43,640	43,926	44,252	44,675	45,169	45,661	46,225	46,823	47,382	47,865	48,383	48,987	49,615	50,327	51,052	51,752	52,488	9,897
Change over previous year	+264	+272	+399	+250	+127	+287	+326	+423	+494	+492	+564	+598	+559	+484	+518	+604	+628	+712	+724	+700	+737	
Number of supply units	34,473	34,693	35,054	35,294	35,434	35,704	36,045	36,465	36,946	37,427	37,968	38,539	39,080	39,560	40,071	40,571	41,091	41,681	42,281	42,861	43,471	8,998
Change over previous year	+250	+220	+360	+240	+140	+270	+340	+421	+481	+481	+541	+571	+541	+481	+511	+500	+520	+590	+600	+580	+610	

Households

Number of Households	36,122	36,670	37,246	37,716	38,109	38,636	39,252	39,943	40,589	41,267	42,011	42,755	43,467	44,125	44,784	45,545	46,351	47,119	47,931	48,672	49,459	13,337
Change over previous year	+516	+548	+576	+471	+392	+528	+616	+691	+646	+678	+744	+745	+712	+658	+659	+761	+806	+768	+812	+741	+787	
Number of supply units	37,143	37,707	38,299	38,783	39,186	39,729	40,362	41,072	41,737	42,434	43,199	43,964	44,696	45,373	46,051	46,833	47,662	48,452	49,286	50,049	50,858	13,714
Change over previous year	+530	+564	+592	+484	+403	+543	+634	+710	+664	+697	+765	+766	+732	+677	+678	+782	+829	+790	+835	+762	+809	

This report was compiled from a forecast produced on 23/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

This file was produced using the scenario file G:\HEaDROOM\1. POPGROUP v3.1 DF
CompatibleModel Runs\CGT\Cheltenham, Gloucester, Tewkesbury
JCS_in\scenario_EMPLOYMENT LED 2 LOW UNEMP.xls

Tick to save as new flat file

<p>Produce flat file</p> <p>Clicking the button will copy all data from this components file onto a single sheet in another workbook (for pivots, etc)</p>	<p>G:\HEaDROOM\1. POPGROUP v3.1 DF CompatibleModel Runs\CGT\Cheltenham, Gloucester, Tewkesbury JCS_out\FlatComp_EMPLOYMENT LED 2 LOW UNEMP.xls</p>	<p><< Append to (blank if not to be appended)</p> <p><< Save flat file with this name (may be blank if to be appended to an existing file)</p>
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It was run on 23/05/2012 at 13:03:09

Forecast after model set up to replicate ONS 2010 Based population projection data.

Comments from the PopBase2010.xls workbook, which was last updated on 26/02/2008

2010 Mid-Year Estimate of population taken from ONS sub-national 2010-based projections.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the TFR FertONS2010.xls workbook, which was last updated on 09/09/2007

Area fertility schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area fertility differentials each year computed to approximately reproduce the area fertility projected by ONS. The differential is the ratio of ONS projected births to the births predicted from the group schedule.
Area counts of births each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or mortality, remove the counts of births. The schedule and the differentials will then apply ONS projected local fertility rates to the alternative population each year. When running scenarios using alternative fertility, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the TFR MortONS2010.xls workbook, which was last updated on 09/09/2007

Area mortality schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area mortality differentials each year computed to approximately reproduce the area mortality projected by ONS. The differential is the ratio of ONS projected deaths to the deaths predicted from the group schedule.
Area counts of deaths each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or fertility, remove the counts of deaths. The schedule and the differentials will then apply ONS projected local mortality rates to the alternative population each year. When running scenarios using alternative mortality, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the LT PAST TREND Mig_INUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal in-migrants each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the LT PAST TREND Mig_OUTUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal out-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the LT PT Mig_INOVONS2010.xls workbook, which was last updated on 09/09/2007

Area overseas in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.

Area counts of overseas in-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

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Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the JOBS Cons2011-35.xls workbook, which was last updated on 08/05/2012

Population 2011-2035 taken from ONS sub-national 2010 based projections.

Further details on ONS 2008 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the JOBS DFSupply.xls workbook, which was last updated on 18/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conv A labour force to dwellings conversion has been given with separate rates for unemployment and commuting.

Comments from the DFSupply.xls workbook, which was last updated on 04/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conv A single conversion ratio has been used.

version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

SMiGR: males	112.8	108.0	107.9	106.7	105.7	105.1	104.6	104.1	103.9	103.7	103.7	103.6	103.6	103.3	102.9	102.2	101.6	101.0	100.3	99.7	
SMiGR: females	93.5	89.7	89.9	89.3	88.7	88.4	88.0	87.9	87.8	87.8	87.9	87.9	88.0	88.0	88.0	87.6	87.3	87.0	86.4	85.8	
Migrants input																					
Migration - Net Flows																					
UK	+7,118	-508	+1,448	+1,376	+1,040	+1,234	+1,122	+1,072	+1,241	+1,088	+1,179	+959	+1,383	+1,414	+1,541	+1,353	+976	+1,103	+982	+806	+27,926
Overseas	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+6,840
Summary of population change																					
Natural change	+1,139	+1,369	+1,306	+1,275	+1,281	+1,271	+1,269	+1,257	+1,250	+1,251	+1,233	+1,211	+1,175	+1,153	+1,117	+1,073	+1,028	+988	+951	+906	+23,503
Net migration	+7,460	-166	+1,790	+1,718	+1,382	+1,576	+1,464	+1,414	+1,583	+1,430	+1,521	+1,301	+1,725	+1,756	+1,883	+1,695	+1,318	+1,445	+1,324	+1,148	+34,766
Net change	+8,600	+1,203	+3,096	+2,993	+2,663	+2,847	+2,733	+2,671	+2,833	+2,681	+2,754	+2,512	+2,900	+2,908	+2,999	+2,768	+2,345	+2,433	+2,275	+2,054	+58,269

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	19,230	20,072	20,193	20,445	20,617	20,745	20,847	20,793	20,760	20,766	20,773	20,799	20,806	20,836	20,863	20,883	20,879	20,846	20,835	20,821	20,809	1,579
5-10	20,274	20,791	21,559	22,193	22,780	23,412	24,100	24,673	24,879	25,100	25,251	25,378	25,463	25,414	25,403	25,429	25,453	25,468	25,480	25,488	25,474	5,200
11-15	18,201	18,226	17,671	17,519	17,497	17,494	17,469	17,975	18,599	19,114	19,729	20,398	20,813	21,056	21,302	21,471	21,613	21,703	21,640	21,601	21,583	3,382
16-17	7,687	7,933	7,809	7,662	7,500	7,383	7,331	7,060	6,992	7,310	7,344	7,277	7,517	8,163	8,490	8,528	8,607	8,632	8,815	8,945	8,887	1,200
18-59Female, 64Male	178,767	183,671	183,252	184,270	185,383	186,174	186,969	187,554	187,970	188,154	188,396	188,682	188,705	188,706	188,961	189,665	190,046	190,383	190,839	191,212	191,614	12,847
60/65 -74	37,401	38,760	39,688	40,615	41,388	42,102	42,738	43,092	43,580	44,098	44,609	44,564	44,774	45,494	46,440	47,480	48,568	49,538	50,427	51,341	52,178	14,777
75-84	18,538	18,883	19,164	19,518	19,777	20,008	20,441	21,247	22,023	22,799	23,573	24,949	26,053	26,913	27,600	28,182	28,701	28,887	29,114	29,297	29,472	10,934
85+	8,625	8,985	9,188	9,397	9,673	9,958	10,230	10,464	10,727	11,019	11,367	11,749	12,177	12,626	13,057	13,479	14,016	14,773	15,511	16,232	16,975	8,351
Total	308,722	317,322	318,524	321,620	324,614	327,277	330,124	332,857	335,528	338,361	341,042	343,796	346,308	349,208	352,116	355,116	357,883	360,229	362,662	364,937	366,992	58,269

Population impact of constraint

Number of persons	-7,304	+6,272	-1,354	+602	+530	+194	+388	+276	+226	+395	+242	+333	+113	+537	+568	+695	+507	+130	+257	+136	-40
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Labour Force

Number of Labour Force	164,688	169,465	169,153	170,090	170,994	171,721	172,294	172,925	173,463	173,869	174,132	174,439	174,892	175,504	176,133	176,846	177,462	178,077	178,693	179,277	179,827	15,140
Change over previous year	-4,021	+4,777	-312	+937	+904	+727	+573	+631	+537	+406	+263	+307	+453	+612	+629	+714	+616	+614	+617	+583	+550	
Number of supply units	149,545	153,785	153,614	154,584	155,544	156,364	157,055	157,805	158,475	159,025	159,445	159,906	160,496	161,126	161,706	162,366	162,936	163,506	164,076	164,616	165,126	15,581
Change over previous year	-2,677	+4,240	-171	+970	+960	+820	+690	+750	+670	+550	+420	+460	+590	+630	+580	+660	+570	+570	+570	+540	+510	

Households

Number of Households	135,436	139,208	140,187	141,843	143,412	144,995	146,687	148,341	149,938	151,583	153,181	154,708	156,175	157,802	159,414	161,153	162,727	164,276	165,824	167,261	168,519	33,083
Change over previous year	-1,243	+3,772	+979	+1,656	+1,569	+1,583	+1,692	+1,654	+1,597	+1,645	+1,599	+1,527	+1,466	+1,627	+1,613	+1,739	+1,574	+1,549	+1,548	+1,437	+1,259	
Number of supply units	140,659	144,574	145,590	147,310	148,939	150,582	152,339	154,055	155,715	157,424	159,084	160,671	162,195	163,885	165,561	167,368	169,002	170,611	172,218	173,711	175,018	34,359
Change over previous year	-1,295	+3,915	+1,016	+1,720	+1,629	+1,643	+1,757	+1,716	+1,660	+1,709	+1,661	+1,586	+1,524	+1,691	+1,676	+1,806	+1,634	+1,609	+1,607	+1,493	+1,307	

This report was compiled from a forecast produced on 05/09/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	+2,773	-10	+693	+496	+341	+479	+370	+494	+480	+444	+519	+500	+717	+633	+638	+505	+376	+434	+419	+279	+11,579
Overseas	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+2,280

Summary of population change

Natural change	+337	+429	+424	+436	+439	+448	+465	+476	+493	+509	+517	+526	+528	+538	+532	+521	+512	+496	+481	+463	+9,569
Net migration	+2,887	+104	+807	+610	+455	+593	+484	+608	+594	+558	+633	+614	+831	+747	+752	+619	+490	+548	+533	+393	+13,859
Net change	+3,224	+533	+1,231	+1,047	+894	+1,041	+949	+1,084	+1,087	+1,066	+1,151	+1,140	+1,358	+1,284	+1,284	+1,140	+1,002	+1,044	+1,014	+855	+23,428

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	6,439	6,721	6,838	6,999	7,097	7,173	7,260	7,291	7,339	7,400	7,465	7,541	7,616	7,700	7,773	7,833	7,869	7,888	7,904	7,903	7,891	
5-10	6,662	6,786	7,035	7,176	7,405	7,667	7,976	8,184	8,331	8,484	8,587	8,681	8,780	8,838	8,910	8,993	9,074	9,153	9,230	9,309	9,365	
11-15	6,592	6,540	6,236	6,181	6,166	6,084	5,965	6,173	6,305	6,481	6,732	7,058	7,217	7,363	7,517	7,614	7,697	7,780	7,813	7,856	7,907	
16-17	3,154	3,317	3,200	3,081	2,895	2,852	2,913	2,736	2,704	2,821	2,754	2,692	2,821	3,108	3,196	3,246	3,325	3,336	3,404	3,474	3,473	
18-59Female, 64Male	65,106	67,191	67,407	67,991	68,517	68,848	69,096	69,371	69,675	69,775	69,955	70,095	70,150	70,237	70,374	70,731	70,920	71,088	71,323	71,514	71,671	
60/65 -74	12,797	13,211	13,484	13,825	14,041	14,246	14,495	14,593	14,789	14,990	15,173	15,210	15,323	15,583	15,962	16,273	16,535	16,861	17,078	17,381	17,670	
75-84	6,905	6,980	7,034	7,170	7,237	7,290	7,400	7,612	7,838	8,008	8,224	8,622	9,010	9,277	9,491	9,671	9,900	9,966	10,141	10,265	10,329	
85+	3,645	3,778	3,822	3,865	3,978	4,070	4,166	4,257	4,323	4,431	4,567	4,708	4,830	4,999	5,166	5,312	5,494	5,743	5,967	6,171	6,422	
Total	111,300	114,524	115,057	116,288	117,335	118,229	119,270	120,219	121,303	122,390	123,456	124,607	125,747	127,105	128,390	129,673	130,813	131,815	132,859	133,873	134,728	23,428

Population impact of constraint

Number of persons	-2,497	+2,673	-110	+593	+396	+241	+379	+270	+394	+380	+344	+419	+400	+617	+533	+538	+405	+276	+334	+319	+179
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Labour Force

Number of Labour Force	60,852	62,870	62,939	63,438	63,879	64,195	64,431	64,690	64,914	65,081	65,215	65,393	65,660	66,019	66,333	66,657	66,926	67,184	67,442	67,688	67,924	7,071
Change over previous year	-1,489	+2,018	+69	+499	+441	+316	+236	+258	+224	+168	+133	+178	+267	+359	+314	+325	+269	+258	+258	+247	+235	
Number of supply units	53,676	55,456	55,576	56,077	56,527	56,867	57,137	57,427	57,688	57,898	58,078	58,298	58,599	58,919	59,199	59,489	59,729	59,959	60,189	60,409	60,619	6,942
Change over previous year	-902	+1,780	+120	+500	+450	+340	+270	+290	+260	+210	+180	+220	+300	+320	+280	+290	+240	+230	+230	+220	+210	

Households

Number of Households	49,813	51,233	51,648	52,351	52,956	53,516	54,131	54,701	55,324	55,986	56,605	57,212	57,810	58,475	59,130	59,820	60,373	60,969	61,531	62,078	62,503	12,690
Change over previous year	-546	+1,420	+416	+703	+605	+560	+615	+570	+623	+661	+619	+607	+599	+665	+655	+690	+553	+596	+562	+548	+424	
Number of supply units	52,214	53,703	54,139	54,876	55,509	56,096	56,741	57,339	57,992	58,685	59,334	59,970	60,598	61,295	61,981	62,704	63,284	63,909	64,498	65,071	65,516	13,302
Change over previous year	-572	+1,488	+436	+737	+634	+587	+645	+598	+653	+693	+649	+636	+628	+697	+687	+723	+580	+625	+589	+574	+445	

This report was compiled from a forecast produced on 05/09/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	+1,393	-1,001	-223	+9	+39	+152	+132	+181	+259	+187	+167	-4	+134	+223	+285	+192	+69	+143	+104	+18	+2,458
Overseas	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+3,140

Summary of population change

Natural change	+684	+779	+735	+707	+706	+705	+700	+692	+682	+682	+675	+664	+648	+636	+622	+612	+600	+595	+594	+588	+13,307
Net migration	+1,550	-844	-66	+166	+196	+309	+289	+338	+416	+344	+324	+153	+291	+380	+442	+349	+226	+300	+261	+175	+5,598
Net change	+2,234	-64	+669	+873	+903	+1,013	+990	+1,030	+1,098	+1,026	+999	+817	+939	+1,016	+1,064	+960	+826	+895	+855	+764	+18,905

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	8,206	8,484	8,454	8,488	8,497	8,509	8,520	8,464	8,433	8,415	8,404	8,393	8,367	8,351	8,343	8,335	8,322	8,304	8,307	8,323	8,348	
5-10	8,218	8,478	8,871	9,131	9,416	9,653	9,905	10,136	10,167	10,219	10,230	10,250	10,251	10,192	10,158	10,143	10,135	10,119	10,105	10,089	10,069	
11-15	7,011	6,954	6,719	6,706	6,676	6,767	6,876	7,128	7,426	7,685	7,935	8,177	8,335	8,387	8,449	8,473	8,495	8,504	8,451	8,417	8,390	
16-17	2,802	2,844	2,873	2,831	2,817	2,768	2,663	2,581	2,652	2,797	2,839	2,864	2,932	3,190	3,339	3,336	3,346	3,332	3,403	3,442	3,398	
18-59Female, 64Male	68,040	69,258	68,707	68,755	69,032	69,316	69,661	69,842	69,970	70,046	70,242	70,400	70,386	70,349	70,426	70,652	70,799	70,976	71,136	71,242	71,449	
60/65 -74	12,565	12,914	13,128	13,412	13,642	13,854	14,040	14,204	14,456	14,753	15,027	15,098	15,300	15,653	16,106	16,659	17,183	17,626	18,067	18,510	18,835	
75-84	6,185	6,251	6,291	6,313	6,356	6,377	6,521	6,744	6,926	7,132	7,298	7,681	7,981	8,263	8,464	8,642	8,754	8,775	8,859	8,965	9,086	
85+	2,580	2,658	2,735	2,810	2,883	2,979	3,049	3,126	3,224	3,304	3,403	3,515	3,643	3,748	3,864	3,972	4,140	4,362	4,566	4,762	4,937	
Total	115,608	117,842	117,777	118,446	119,319	120,222	121,235	122,225	123,255	124,352	125,379	126,377	127,194	128,133	129,149	130,213	131,173	131,999	132,894	133,749	134,513	18,905

Population impact of constraint

Number of persons	-3,805	+1,120	-1,274	-496	-264	-234	-121	-141	-92	-14	-86	-106	-277	-139	-50	+12	-81	-204	-130	-169	-255	
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Labour Force

Number of Labour Force	62,036	63,226	62,767	62,819	62,971	63,182	63,393	63,653	63,903	64,102	64,242	64,381	64,540	64,708	64,926	65,192	65,429	65,676	65,913	66,140	66,357	4,321
Change over previous year	-2,005	+1,190	-458	+52	+152	+211	+211	+260	+250	+200	+140	+139	+159	+168	+217	+267	+237	+247	+237	+227	+217	
Number of supply units	62,036	63,226	62,835	62,954	63,174	63,454	63,734	64,064	64,384	64,654	64,864	65,074	65,303	65,543	65,763	66,033	66,273	66,523	66,763	66,993	67,213	5,178
Change over previous year	-1,385	+1,190	-391	+120	+220	+280	+280	+330	+320	+270	+210	+210	+230	+240	+220	+270	+240	+250	+240	+230	+220	

Households

Number of Households	49,970	50,984	51,144	51,537	51,995	52,524	53,090	53,651	54,229	54,800	55,373	55,918	56,411	56,980	57,558	58,164	58,722	59,306	59,892	60,450	60,941	10,972
Change over previous year	-745	+1,015	+160	+393	+458	+529	+567	+561	+578	+571	+572	+546	+493	+569	+578	+606	+558	+584	+586	+558	+491	
Number of supply units	51,782	52,834	52,999	53,406	53,880	54,429	55,016	55,597	56,196	56,788	57,381	57,946	58,457	59,047	59,645	60,274	60,852	61,457	62,064	62,642	63,152	11,370
Change over previous year	-772	+1,052	+166	+407	+474	+548	+587	+581	+599	+592	+593	+565	+511	+589	+598	+628	+578	+605	+607	+578	+509	

This report was compiled from a forecast produced on 05/09/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows																					
UK	+2,953	+502	+978	+871	+659	+603	+619	+397	+503	+457	+493	+463	+532	+558	+618	+657	+530	+527	+459	+509	+13,889
Overseas	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+1,420
Summary of population change																					
Natural change	+118	+161	+147	+132	+136	+118	+104	+89	+74	+60	+41	+22	-0	-21	-37	-60	-84	-104	-124	-145	+628
Net migration	+3,024	+573	+1,049	+942	+730	+674	+690	+468	+574	+528	+564	+534	+603	+629	+689	+728	+601	+598	+530	+580	+15,309
Net change	+3,142	+734	+1,196	+1,074	+866	+793	+794	+558	+648	+588	+604	+555	+603	+608	+652	+668	+518	+494	+406	+436	+15,936

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	4,585	4,867	4,901	4,958	5,024	5,063	5,067	5,037	4,988	4,951	4,904	4,865	4,823	4,785	4,747	4,715	4,688	4,654	4,624	4,595	4,570
5-10	5,393	5,528	5,654	5,886	5,959	6,093	6,218	6,352	6,381	6,397	6,433	6,448	6,432	6,383	6,335	6,293	6,245	6,196	6,145	6,090	6,040
11-15	4,598	4,731	4,716	4,632	4,654	4,643	4,628	4,674	4,868	4,948	5,062	5,163	5,261	5,306	5,336	5,383	5,421	5,418	5,376	5,328	5,286
16-17	1,731	1,772	1,735	1,750	1,788	1,764	1,754	1,743	1,636	1,693	1,751	1,721	1,764	1,865	1,955	1,946	1,936	1,963	2,009	2,029	2,015
18-59Female, 64Male	45,621	47,222	47,138	47,524	47,834	48,010	48,213	48,340	48,325	48,332	48,198	48,187	48,169	48,120	48,161	48,283	48,328	48,319	48,380	48,455	48,494
60/65 -74	12,039	12,635	13,077	13,378	13,705	14,002	14,203	14,295	14,334	14,355	14,410	14,257	14,151	14,258	14,373	14,548	14,850	15,051	15,282	15,451	15,672
75-84	5,448	5,652	5,839	6,034	6,184	6,341	6,520	6,891	7,259	7,660	8,051	8,645	9,062	9,373	9,645	9,868	10,047	10,147	10,114	10,067	10,056
85+	2,400	2,549	2,630	2,723	2,812	2,910	3,015	3,081	3,179	3,284	3,397	3,527	3,705	3,879	4,027	4,194	4,382	4,667	4,979	5,299	5,616
Total	81,814	84,956	85,690	86,886	87,960	88,826	89,619	90,413	90,971	91,619	92,207	92,812	93,367	93,969	94,578	95,229	95,897	96,415	96,909	97,315	97,751

Population impact of constraint

Number of persons	-1,002	+2,480	+29	+505	+398	+186	+130	+146	-76	+30	-16	+20	-10	+59	+85	+145	+184	+57	+54	-14	+36
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Labour Force

Number of Labour Force	41,800	43,369	43,447	43,833	44,144	44,344	44,469	44,582	44,646	44,685	44,675	44,665	44,691	44,777	44,875	44,997	45,107	45,217	45,339	45,449	45,546	3,747
Change over previous year	-527	+1,569	+78	+386	+311	+200	+126	+113	+64	+39	-10	-10	+27	+85	+98	+122	+110	+110	+122	+110	+98	
Number of supply units	33,833	35,103	35,203	35,553	35,843	36,043	36,183	36,314	36,404	36,474	36,504	36,534	36,594	36,664	36,744	36,844	36,934	37,024	37,124	37,214	37,294	3,461
Change over previous year	-391	+1,270	+100	+350	+290	+200	+140	+130	+90	+70	+30	+30	+60	+70	+80	+100	+90	+90	+100	+90	+80	

Households

Number of Households	35,654	36,991	37,395	37,955	38,461	38,955	39,466	39,988	40,385	40,797	41,204	41,579	41,953	42,346	42,726	43,169	43,632	44,001	44,401	44,733	45,075	9,421
Change over previous year	+48	+1,337	+403	+560	+506	+494	+510	+522	+397	+412	+407	+375	+374	+393	+380	+442	+463	+368	+400	+332	+343	
Number of supply units	36,663	38,037	38,452	39,028	39,549	40,057	40,582	41,119	41,527	41,951	42,369	42,754	43,139	43,544	43,935	44,389	44,866	45,245	45,657	45,997	46,350	9,687
Change over previous year	+50	+1,375	+415	+576	+521	+508	+525	+537	+408	+424	+418	+385	+385	+404	+391	+455	+477	+379	+412	+341	+353	

This report was compiled from a forecast produced on 05/09/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

This file was produced using the scenario file G:\HEaDROOM\1. POPGROUP v3.1 DF
Compatible\Model Runs\Cardiff\CGT\Cheltenham, Gloucester, Tewkesbury
JCS_in\scenario_EXPERIAN EMPLOYMENT LED.xls

Tick to save as new flat file

It was run on 05/09/2012 at 15:57:39

<p>Produce flat file</p>	
<p>Clicking the button will copy all data from this components file onto a single sheet in another workbook (for pivots, etc)</p>	<p>G:\HEaDROOM\1. POPGROUP v3.1 DF Compatible\Model Runs\Cardiff\CGT\Cheltenham, Gloucester, Tewkesbury JCS_out\FlatComp_EXPERIAN EMPLOYMENT LED.xls</p>

<< Append to (blank if not to be appended)

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Forecast after model set up to replicate ONS 2010 Based population projection data.

Comments from the PopBase2010.xls workbook, which was last updated on 26/02/2008

2010 Mid-Year Estimate of population taken from ONS sub-national 2010-based projections.

Further details on ONS 2008 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the TFR FertONS2010.xls workbook, which was last updated on 09/09/2007

Area fertility schedules taken from ONS sub-national 2010-based projection, 2011-12.

Area fertility differentials each year computed to approximately reproduce the area fertility projected by ONS. The differential is the ratio of ONS projected births to the births predicted from the group schedule.

Area counts of births each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration or mortality, remove the counts of births. The schedule and the differentials will then apply ONS projected local fertility rates to the alternative population each year. When running scenarios using alternative fertility, remove the counts and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the TFR MortONS2010.xls workbook, which was last updated on 09/09/2007

Area mortality schedules taken from ONS sub-national 2010-based projection, 2011-12.

Area mortality differentials each year computed to approximately reproduce the area mortality projected by ONS. The differential is the ratio of ONS projected deaths to the deaths predicted from the group schedule.

Area counts of deaths each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration or fertility, remove the counts of deaths. The schedule and the differentials will then apply ONS projected local mortality rates to the alternative population each year. When running scenarios using alternative mortality, remove the counts and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the LT PAST TREND Mig_INUKONS2010.xls workbook, which was last updated on 22/06/2012

Area internal in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.

Area counts of internal in-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the LT PAST TREND Mig_OUTUKONS2010.xls workbook, which was last updated on 22/06/2012

Area internal out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.

Area counts of internal out-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the LT PT Mig_INOVONS2010.xls workbook, which was last updated on 22/06/2012

Area overseas in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.

Area counts of overseas in-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

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Comments from the LT PT Mig_OUTOVONS2010.xls workbook, which was last updated on 22/06/2012

Area overseas out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

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Area counts of overseas out-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.

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<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the ExperianJOBS Cons2011-35.xls workbook, which was last updated on 29/08/2012

Population 2011-2035 taken from ONS sub-national 2010 based projections.

Further details on ONS 2008 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the JOBS DFSupply2.xls workbook, which was last updated on 11/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conv A labour force to dwellings conversion has been given with separate rates for unemployment and commuting.

Comments from the DFSupply.xls workbook, which was last updated on 04/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conv A single conversion ratio has been used.

version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

SMigR: males	112.8	108.0	107.9	106.7	105.7	105.1	104.7	104.4	104.3	104.3	104.4	104.4	104.5	104.5	104.3	103.8	103.2	102.7	101.9	101.2	
SMigR: females	93.5	89.7	89.9	89.3	88.7	88.4	88.1	88.2	88.2	88.2	88.5	88.6	88.8	89.1	89.2	89.0	88.7	88.5	87.9	87.2	
Migrants input																					
Migration - Net Flows																					
UK	+7,118	-508	+1,448	+1,376	+1,040	+1,057	+849	+801	+972	+821	+912	+690	+937	+863	+1,141	+1,155	+780	+1,111	+986	+809	+24,356
Overseas	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+6,840
Summary of population change																					
Natural change	+1,139	+1,369	+1,306	+1,275	+1,281	+1,271	+1,265	+1,246	+1,232	+1,226	+1,202	+1,174	+1,131	+1,099	+1,050	+997	+947	+904	+869	+826	+22,811
Net migration	+7,460	-166	+1,790	+1,718	+1,382	+1,399	+1,191	+1,143	+1,314	+1,163	+1,254	+1,032	+1,279	+1,205	+1,483	+1,497	+1,122	+1,453	+1,328	+1,151	+31,196
Net change	+8,600	+1,203	+3,096	+2,993	+2,663	+2,670	+2,456	+2,389	+2,546	+2,389	+2,455	+2,206	+2,409	+2,304	+2,533	+2,494	+2,069	+2,357	+2,197	+1,977	+54,007

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	19,230	20,072	20,193	20,445	20,617	20,745	20,833	20,758	20,701	20,678	20,653	20,642	20,611	20,591	20,560	20,528	20,483	20,412	20,378	20,349	20,332	
5-10	20,274	20,791	21,559	22,193	22,780	23,412	24,089	24,646	24,836	25,038	25,168	25,274	25,334	25,248	25,190	25,171	25,156	25,126	25,104	25,078	25,030	
11-15	18,201	18,226	17,671	17,519	17,497	17,494	17,463	17,958	18,572	19,077	19,681	20,339	20,741	20,964	21,184	21,332	21,459	21,534	21,462	21,409	21,371	
16-17	7,687	7,933	7,809	7,662	7,500	7,383	7,325	7,047	6,974	7,288	7,318	7,248	7,484	8,117	8,429	8,463	8,547	8,570	8,755	8,884	8,823	
18-59Female, 64Male	178,767	183,671	183,252	184,270	185,383	186,174	186,842	187,223	187,435	187,417	187,457	187,543	187,365	187,042	186,894	187,290	187,515	187,701	188,157	188,530	188,931	
60/65 -74	37,401	38,760	39,688	40,615	41,388	42,102	42,732	43,077	43,553	44,060	44,556	44,496	44,689	45,383	46,298	47,311	48,376	49,323	50,196	51,095	51,917	
75-84	18,538	18,883	19,164	19,518	19,777	20,008	20,436	21,236	22,006	22,777	23,546	24,918	26,017	26,866	27,540	28,119	28,639	28,827	29,058	29,242	29,416	
85+	8,625	8,985	9,188	9,397	9,673	9,958	10,227	10,457	10,715	11,003	11,347	11,724	12,147	12,586	13,006	13,421	13,954	14,707	15,444	16,165	16,909	
Total	308,722	317,322	318,524	321,620	324,614	327,277	329,947	332,403	334,792	337,338	339,728	342,183	344,389	346,799	349,102	351,636	354,130	356,199	358,555	360,752	362,729	54,007

Population impact of constraint

Number of persons	-7,304	+6,272	-1,354	+602	+530	+194	+211	+3	-45	+126	-25	+66	-156	+91	+17	+295	+309	-66	+265	+140	-37	
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Labour Force

Number of Labour Force	164,688	169,465	169,153	170,090	170,994	171,721	172,179	172,627	172,980	173,203	173,283	173,407	173,676	173,988	174,247	174,680	175,153	175,623	176,231	176,807	177,349	12,662
Change over previous year	-4,021	+4,777	-312	+937	+904	+727	+458	+448	+354	+222	+80	+124	+269	+312	+259	+433	+473	+471	+608	+575	+543	
Number of supply units	149,545	153,785	153,614	154,584	155,544	156,364	157,054	157,804	158,474	159,024	159,444	159,905	160,494	161,124	161,704	162,365	162,934	163,504	164,074	164,614	165,124	15,579
Change over previous year	-2,677	+4,240	-171	+970	+960	+820	+690	+750	+670	+550	+420	+460	+590	+630	+580	+660	+570	+569	+570	+540	+510	

Households

Number of Households	135,436	139,208	140,187	141,843	143,412	144,995	146,620	148,166	149,650	151,178	152,655	154,056	155,395	156,819	158,183	159,724	161,182	162,612	164,122	165,523	166,751	31,315
Change over previous year	-1,243	+3,772	+979	+1,656	+1,569	+1,583	+1,625	+1,545	+1,485	+1,528	+1,477	+1,402	+1,339	+1,424	+1,364	+1,541	+1,459	+1,430	+1,509	+1,402	+1,228	
Number of supply units	140,659	144,574	145,590	147,310	148,939	150,582	152,270	153,873	155,416	157,003	158,538	159,994	161,385	162,865	164,283	165,883	167,397	168,883	170,450	171,907	173,181	32,522
Change over previous year	-1,295	+3,915	+1,016	+1,720	+1,629	+1,643	+1,688	+1,604	+1,543	+1,587	+1,534	+1,456	+1,391	+1,480	+1,418	+1,600	+1,514	+1,486	+1,567	+1,457	+1,275	

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Migration - Net Flows

UK	+2,773	-10	+693	+496	+341	+479	+273	+398	+385	+350	+425	+405	+521	+437	+442	+510	+381	+436	+420	+278	+10,431
Overseas	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+2,280

Summary of population change

Natural change	+337	+429	+424	+436	+439	+448	+465	+473	+488	+501	+507	+512	+511	+516	+504	+488	+479	+464	+449	+431	+9,302
Net migration	+2,887	+104	+807	+610	+455	+593	+387	+512	+499	+464	+539	+519	+635	+551	+556	+624	+495	+550	+534	+392	+12,711
Net change	+3,224	+533	+1,231	+1,047	+894	+1,041	+852	+985	+987	+964	+1,046	+1,032	+1,146	+1,067	+1,060	+1,112	+974	+1,014	+982	+823	+22,013

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	6,439	6,721	6,838	6,999	7,097	7,173	7,260	7,286	7,327	7,378	7,432	7,495	7,555	7,617	7,667	7,702	7,723	7,729	7,734	7,725	7,710	
5-10	6,662	6,786	7,035	7,176	7,405	7,667	7,976	8,180	8,322	8,471	8,568	8,655	8,748	8,793	8,850	8,914	8,983	9,049	9,111	9,174	9,213	
11-15	6,592	6,540	6,236	6,181	6,166	6,084	5,965	6,170	6,299	6,472	6,720	7,043	7,199	7,339	7,485	7,575	7,657	7,738	7,769	7,807	7,850	
16-17	3,154	3,317	3,200	3,081	2,895	2,852	2,913	2,733	2,698	2,814	2,746	2,683	2,812	3,093	3,178	3,225	3,310	3,325	3,392	3,462	3,460	
18-59Female, 64Male	65,106	67,191	67,407	67,991	68,517	68,848	69,096	69,296	69,524	69,549	69,653	69,719	69,699	69,636	69,622	69,824	70,011	70,179	70,415	70,608	70,764	
60/65 -74	12,797	13,211	13,484	13,825	14,041	14,246	14,495	14,590	14,783	14,980	15,159	15,192	15,300	15,552	15,920	16,222	16,478	16,799	17,013	17,312	17,599	
75-84	6,905	6,980	7,034	7,170	7,237	7,290	7,400	7,611	7,834	8,003	8,218	8,615	9,001	9,265	9,475	9,652	9,883	9,950	10,126	10,250	10,313	
85+	3,645	3,778	3,822	3,865	3,978	4,070	4,166	4,256	4,320	4,428	4,562	4,701	4,821	4,988	5,152	5,295	5,476	5,725	5,949	6,153	6,404	
Total	111,300	114,524	115,057	116,288	117,335	118,229	119,270	120,122	121,107	122,094	123,058	124,104	125,135	126,282	127,349	128,409	129,521	130,495	131,508	132,491	133,313	22,013

Population impact of constraint

Number of persons	-2,497	+2,673	-110	+593	+396	+241	+379	+173	+298	+285	+250	+325	+305	+421	+337	+342	+410	+281	+336	+320	+178
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Labour Force

Number of Labour Force	60,852	62,870	62,939	63,438	63,879	64,195	64,431	64,621	64,777	64,875	64,940	65,049	65,247	65,467	65,641	65,825	66,090	66,345	66,599	66,843	67,075	6,223
Change over previous year	-1,489	+2,018	+69	+499	+441	+316	+236	+190	+155	+99	+65	+109	+198	+219	+174	+184	+266	+254	+254	+243	+232	
Number of supply units	53,676	55,456	55,576	56,077	56,527	56,867	57,137	57,427	57,688	57,898	58,079	58,299	58,599	58,920	59,200	59,491	59,731	59,961	60,191	60,411	60,621	6,945
Change over previous year	-902	+1,780	+120	+500	+450	+340	+270	+290	+260	+210	+180	+220	+300	+321	+280	+290	+240	+230	+230	+220	+210	

Households

Number of Households	49,813	51,233	51,648	52,351	52,956	53,516	54,131	54,663	55,244	55,863	56,437	56,997	57,547	58,121	58,681	59,272	59,809	60,387	60,934	61,467	61,879	12,066
Change over previous year	-546	+1,420	+416	+703	+605	+560	+615	+532	+582	+618	+574	+559	+550	+574	+560	+591	+537	+579	+546	+533	+412	
Number of supply units	52,214	53,703	54,139	54,876	55,509	56,096	56,741	57,298	57,908	58,557	59,159	59,745	60,322	60,923	61,511	62,130	62,693	63,299	63,872	64,431	64,863	12,648
Change over previous year	-572	+1,488	+436	+737	+634	+587	+645	+557	+610	+648	+602	+586	+577	+601	+588	+619	+563	+607	+573	+559	+432	

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Migration - Net Flows

UK	+1,393	-1,001	-223	+9	+39	+50	+31	+81	+158	+87	+67	-104	+34	+18	+79	-13	-134	+146	+107	+20	+844
Overseas	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+3,140

Summary of population change

Natural change	+684	+779	+735	+707	+706	+705	+697	+686	+674	+671	+661	+648	+629	+615	+597	+582	+565	+557	+556	+552	+13,006	
Net migration	+1,550	-844	-66	+166	+196	+207	+188	+238	+315	+244	+224	+53	+191	+175	+236	+144	+23	+303	+264	+177	+3,984	
Net change	-2,653	+2,234	-64	+669	+873	+903	+912	+886	+924	+989	+915	+885	+701	+820	+790	+833	+726	+588	+860	+819	+729	+16,990

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	8,206	8,484	8,454	8,488	8,497	8,509	8,512	8,447	8,405	8,376	8,351	8,324	8,284	8,253	8,223	8,193	8,157	8,116	8,109	8,117	8,138	
5-10	8,218	8,478	8,871	9,131	9,416	9,653	9,899	10,124	10,147	10,191	10,194	10,205	10,196	10,125	10,072	10,035	10,003	9,962	9,934	9,905	9,872	
11-15	7,011	6,954	6,719	6,706	6,676	6,767	6,873	7,120	7,415	7,670	7,915	8,152	8,306	8,351	8,403	8,416	8,426	8,424	8,366	8,326	8,290	
16-17	2,802	2,844	2,873	2,831	2,817	2,768	2,660	2,575	2,645	2,788	2,829	2,853	2,918	3,174	3,316	3,309	3,316	3,298	3,371	3,412	3,367	
18-59Female, 64Male	68,040	69,258	68,707	68,755	69,032	69,316	69,585	69,690	69,741	69,742	69,862	69,944	69,855	69,744	69,670	69,744	69,738	69,763	69,922	70,028	70,235	
60/65 -74	12,565	12,914	13,128	13,412	13,642	13,854	14,038	14,199	14,448	14,740	15,009	15,074	15,269	15,615	16,057	16,596	17,106	17,534	17,965	18,398	18,714	
75-84	6,185	6,251	6,291	6,313	6,356	6,377	6,519	6,741	6,921	7,126	7,291	7,673	7,972	8,253	8,451	8,626	8,734	8,752	8,838	8,945	9,066	
85+	2,580	2,658	2,735	2,810	2,883	2,979	3,048	3,124	3,221	3,299	3,397	3,508	3,634	3,738	3,852	3,957	4,121	4,341	4,544	4,740	4,916	
Total	115,608	117,842	117,777	118,446	119,319	120,222	121,134	122,020	122,943	123,932	124,848	125,733	126,433	127,253	128,043	128,876	129,602	130,190	131,049	131,869	132,598	16,990

Population impact of constraint

Number of persons	-3,805	+1,120	-1,274	-496	-264	-234	-223	-242	-192	-115	-186	-206	-377	-239	-255	-194	-286	-407	-127	-166	-253	
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Labour Force

Number of Labour Force	62,036	63,226	62,767	62,819	62,971	63,182	63,325	63,517	63,698	63,829	63,901	63,972	64,062	64,162	64,241	64,370	64,468	64,576	64,809	65,032	65,246	3,210
Change over previous year	-2,005	+1,190	-458	+52	+152	+211	+143	+192	+181	+131	+71	+71	+90	+100	+80	+128	+98	+108	+233	+223	+214	
Number of supply units	62,036	63,226	62,835	62,954	63,174	63,454	63,734	64,063	64,383	64,653	64,863	65,072	65,302	65,542	65,761	66,031	66,270	66,520	66,760	66,990	67,210	5,174
Change over previous year	-1,385	+1,190	-391	+120	+220	+280	+280	+330	+320	+270	+210	+210	+229	+240	+220	+270	+240	+249	+240	+230	+220	

Households

Number of Households	49,970	50,984	51,144	51,537	51,995	52,524	53,052	53,572	54,109	54,636	55,163	55,662	56,108	56,629	57,116	57,630	58,094	58,582	59,149	59,690	60,166	10,197
Change over previous year	-745	+1,015	+160	+393	+458	+529	+528	+521	+536	+528	+527	+499	+446	+520	+488	+514	+464	+488	+567	+541	+476	
Number of supply units	51,782	52,834	52,999	53,406	53,880	54,429	54,976	55,515	56,071	56,618	57,164	57,681	58,143	58,682	59,188	59,720	60,201	60,706	61,294	61,855	62,348	10,567
Change over previous year	-772	+1,052	+166	+407	+474	+548	+547	+539	+556	+547	+546	+517	+462	+539	+505	+532	+481	+505	+588	+561	+494	

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Migration - Net Flows

UK	+2,953	+502	+978	+871	+659	+528	+544	+323	+429	+384	+420	+389	+382	+408	+620	+659	+533	+528	+460	+511	+13,082
Overseas	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+1,420

Summary of population change

Natural change	+118	+161	+147	+132	+136	+118	+103	+87	+70	+55	+34	+14	-9	-32	-51	-73	-97	-116	-136	-156	+502
Net migration	+3,024	+573	+1,049	+942	+730	+599	+615	+394	+500	+455	+491	+460	+453	+479	+691	+730	+604	+599	+531	+582	+14,502
Net change	+3,142	+734	+1,196	+1,074	+866	+717	+718	+481	+570	+510	+525	+474	+444	+447	+640	+656	+507	+483	+395	+426	+15,004

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	4,585	4,867	4,901	4,958	5,024	5,063	5,062	5,026	4,969	4,925	4,871	4,823	4,772	4,721	4,669	4,634	4,603	4,567	4,536	4,507	4,484	
5-10	5,393	5,528	5,654	5,886	5,959	6,093	6,214	6,342	6,366	6,375	6,406	6,413	6,391	6,330	6,268	6,222	6,169	6,114	6,058	5,999	5,944	
11-15	4,598	4,731	4,716	4,632	4,654	4,643	4,625	4,668	4,858	4,935	5,046	5,143	5,236	5,274	5,296	5,341	5,376	5,372	5,328	5,277	5,230	
16-17	1,731	1,772	1,735	1,750	1,788	1,764	1,752	1,739	1,631	1,687	1,744	1,712	1,753	1,850	1,936	1,929	1,921	1,947	1,992	2,011	1,996	
18-59Female, 64Male	45,621	47,222	47,138	47,524	47,834	48,010	48,161	48,237	48,170	48,126	47,942	47,880	47,812	47,662	47,602	47,722	47,766	47,759	47,820	47,894	47,933	
60/65 -74	12,039	12,635	13,077	13,378	13,705	14,002	14,200	14,288	14,323	14,339	14,389	14,231	14,120	14,217	14,322	14,493	14,792	14,989	15,217	15,385	15,604	
75-84	5,448	5,652	5,839	6,034	6,184	6,341	6,517	6,885	7,250	7,649	8,038	8,630	9,044	9,349	9,615	9,841	10,022	10,125	10,094	10,048	10,037	
85+	2,400	2,549	2,630	2,723	2,812	2,910	3,013	3,077	3,174	3,276	3,388	3,515	3,691	3,860	4,003	4,169	4,357	4,641	4,952	5,272	5,589	
Total	81,814	84,956	85,690	86,886	87,960	88,826	89,543	90,261	90,742	91,312	91,822	92,346	92,820	93,264	93,711	94,351	95,007	95,514	95,998	96,393	96,818	15,004

Population impact of constraint

Number of persons	-1,002	+2,480	+29	+505	+398	+186	+55	+71	-150	-44	-89	-53	-84	-91	-65	+147	+186	+60	+55	-13	+38
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Labour Force

Number of Labour Force	41,800	43,369	43,447	43,833	44,144	44,344	44,423	44,489	44,506	44,498	44,442	44,386	44,367	44,360	44,365	44,485	44,594	44,703	44,823	44,932	45,029	3,229
Change over previous year	-527	+1,569	+78	+386	+311	+200	+79	+66	+17	-7	-56	-56	-19	-7	+5	+121	+109	+109	+121	+109	+97	
Number of supply units	33,833	35,103	35,203	35,553	35,843	36,043	36,183	36,314	36,403	36,473	36,503	36,533	36,593	36,663	36,743	36,843	36,933	37,023	37,123	37,213	37,293	3,460
Change over previous year	-391	+1,270	+100	+350	+290	+200	+140	+130	+90	+70	+30	+30	+60	+70	+80	+100	+90	+90	+100	+90	+80	

Households

Number of Households	35,654	36,991	37,395	37,955	38,461	38,955	39,438	39,931	40,297	40,679	41,054	41,397	41,739	42,069	42,385	42,822	43,280	43,643	44,039	44,367	44,706	9,052
Change over previous year	+48	+1,337	+403	+560	+506	+494	+482	+493	+367	+382	+375	+343	+342	+330	+316	+436	+458	+364	+396	+328	+339	
Number of supply units	36,663	38,037	38,452	39,028	39,549	40,057	40,553	41,060	41,437	41,829	42,215	42,568	42,920	43,259	43,584	44,033	44,503	44,877	45,284	45,621	45,970	9,308
Change over previous year	+50	+1,375	+415	+576	+521	+508	+496	+507	+377	+392	+386	+353	+352	+340	+325	+449	+471	+374	+407	+337	+349	

This report was compiled from a forecast produced on 05/09/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

This file was produced using the scenario file G:\HEaDROOM\1. POPGROUP v3.1 DF
Compatible\Model Runs\Cardiff\CGT\Cheltenham, Gloucester, Tewkesbury
JCS_in\pscenario_EXPERIAN EMPLOYMENT LED LOW UNEMP.xls

Tick to save as new flat file

It was run on 05/09/2012 at 16:03:27

Produce flat file		<< Append to (blank if not to be appended)
Clicking the button will copy all data from this components file onto a single sheet in another workbook (for pivots, etc)	G:\HEaDROOM\1. POPGROUP v3.1 DF Compatible\Model Runs\Cardiff\CGT\Cheltenham, Gloucester, Tewkesbury JCS_out\FlatComp_EXPERIAN EMPLOYMENT LED LOW UNEMP.xls	<< Save flat file with this name (may be blank if to be appended to an existing file)

Forecast after model set up to replicate ONS 2010 Based population projection data.

Comments from the PopBase2010.xls workbook, which was last updated on 26/02/2008

2010 Mid-Year Estimate of population taken from ONS sub-national 2010-based projections.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the TFR FertONS2010.xls workbook, which was last updated on 09/09/2007

Area fertility schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area fertility differentials each year computed to approximately reproduce the area fertility projected by ONS. The differential is the ratio of ONS projected births to the births predicted from the group schedule.
Area counts of births each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or mortality, remove the counts of births. The schedule and the differentials will then apply ONS projected local fertility rates to the alternative population each year. When running scenarios using alternative fertility, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the TFR MortONS2010.xls workbook, which was last updated on 09/09/2007

Area mortality schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area mortality differentials each year computed to approximately reproduce the area mortality projected by ONS. The differential is the ratio of ONS projected deaths to the deaths predicted from the group schedule.
Area counts of deaths each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or fertility, remove the counts of deaths. The schedule and the differentials will then apply ONS projected local mortality rates to the alternative population each year. When running scenarios using alternative mortality, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the LT PAST TREND Mig_INUKONS2010.xls workbook, which was last updated on 22/06/2012

Area internal in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal in-migrants each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the LT PAST TREND Mig_OUTUKONS2010.xls workbook, which was last updated on 22/06/2012

Area internal out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal out-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the LT PT Mig_INOVONS2010.xls workbook, which was last updated on 22/06/2012

Area overseas in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.

Area counts of overseas in-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the LT PT Mig_OUTOVONS2010.xls workbook, which was last updated on 22/06/2012

Area overseas out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

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<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the ExperianJOBS Cons2011-35.xls workbook, which was last updated on 29/08/2012

Population 2011-2035 taken from ONS sub-national 2010 based projections.

Further details on ONS 2008 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the JOBS DFSupply.xls workbook, which was last updated on 18/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conv A labour force to dwellings conversion has been given with separate rates for unemployment and commuting.

Comments from the DFSupply.xls workbook, which was last updated on 04/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conv A single conversion ratio has been used.

version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

SMiGR: males	136.9	136.6	136.7	137.1	136.5	136.0	135.7	135.5	135.5	135.6	135.7	135.8	135.9	135.9	135.6	135.2	134.6	134.0	133.2	132.4	
SMiGR: females	122.8	122.8	123.2	123.9	123.6	123.4	123.3	123.3	123.4	123.5	123.7	123.8	124.0	124.0	123.8	123.4	122.9	122.3	121.7	121.0	
Migrants input																					
Migration - Net Flows																					
UK	+884	+902	+854	+873	+878	+868	+864	+878	+829	+831	+845	+857	+896	+920	+907	+918	+921	+928	+893	+938	+17,685
Overseas	+411	+393	+364	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+6,749
Summary of population change																					
Natural change	+1,059	+1,107	+1,072	+1,107	+1,150	+1,193	+1,220	+1,231	+1,243	+1,243	+1,232	+1,208	+1,173	+1,135	+1,099	+1,053	+1,006	+957	+906	+851	+22,245
Net migration	+1,296	+1,295	+1,218	+1,202	+1,207	+1,196	+1,193	+1,206	+1,157	+1,160	+1,173	+1,185	+1,224	+1,249	+1,235	+1,246	+1,249	+1,256	+1,221	+1,266	+24,434
Net change	+2,355	+2,402	+2,290	+2,309	+2,357	+2,389	+2,413	+2,437	+2,400	+2,403	+2,405	+2,393	+2,397	+2,384	+2,334	+2,299	+2,255	+2,213	+2,127	+2,117	+46,679

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	19,095	19,217	19,072	19,077	19,133	19,232	19,331	19,452	19,601	19,749	19,873	19,963	20,021	20,058	20,064	20,054	20,033	20,006	19,986	19,964	19,950	
5-10	20,499	20,838	21,656	22,108	22,412	22,762	23,125	23,244	23,079	23,104	23,186	23,319	23,446	23,582	23,755	23,917	24,043	24,134	24,192	24,220	24,229	
11-15	18,277	18,126	17,738	17,594	17,572	17,607	17,698	18,235	18,860	19,192	19,553	19,875	19,976	19,826	19,813	19,854	19,938	20,045	20,163	20,319	20,466	
16-17	7,869	7,733	7,655	7,626	7,556	7,454	7,319	7,087	7,080	7,396	7,477	7,457	7,737	8,238	8,349	8,173	8,133	8,147	8,178	8,177	8,194	
18-59Female, 64Male	185,911	186,621	187,461	188,172	189,070	189,962	190,696	191,260	191,645	191,732	191,933	192,201	192,341	192,328	192,491	192,887	193,043	193,305	193,546	193,808	194,069	
60/65 -74	37,268	38,275	39,079	39,818	40,381	40,917	41,447	41,744	42,175	42,676	43,149	43,084	43,285	43,914	44,786	45,780	46,792	47,719	48,588	49,442	50,284	
75-84	18,731	18,931	19,244	19,593	19,885	20,145	20,578	21,311	22,043	22,701	23,402	24,652	25,662	26,422	27,000	27,484	27,921	28,067	28,257	28,434	28,575	
85+	8,709	8,973	9,211	9,418	9,706	9,993	10,267	10,541	10,828	11,161	11,541	11,968	12,444	12,941	13,435	13,878	14,423	15,158	15,884	16,557	17,271	
Total	316,359	318,714	321,116	323,406	325,715	328,072	330,461	332,874	335,311	337,711	340,114	342,519	344,912	347,309	349,693	352,027	354,326	356,581	358,794	360,921	363,038	46,679

Population impact of constraint

Number of persons	+5	-13	+10	-26	-6	-9	-16	-8	+19	-7	-17	-4	-4	+3	+4	-9	+6	-10	+1	-28	+16	
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Households

Number of Households	138,496	140,111	141,709	143,273	144,875	146,466	148,057	149,655	151,253	152,774	154,303	155,740	157,216	158,684	160,116	161,529	162,946	164,386	165,834	167,210	168,566	30,070
Change over previous year	+1,577	+1,614	+1,599	+1,564	+1,602	+1,591	+1,591	+1,599	+1,598	+1,521	+1,529	+1,437	+1,477	+1,468	+1,431	+1,413	+1,417	+1,440	+1,448	+1,376	+1,356	
Number of supply units	143,850	145,526	147,186	148,810	150,473	152,125	153,777	155,436	157,096	158,675	160,262	161,753	163,286	164,811	166,297	167,764	169,236	170,731	172,235	173,664	175,073	31,223
Change over previous year	+1,638	+1,676	+1,660	+1,624	+1,663	+1,652	+1,652	+1,660	+1,659	+1,579	+1,587	+1,492	+1,533	+1,524	+1,486	+1,468	+1,472	+1,496	+1,504	+1,429	+1,409	

Labour Force

Number of Labour Force	171,126	172,020	172,882	173,679	174,442	175,192	175,697	176,345	176,957	177,266	177,547	177,852	178,376	178,771	179,124	179,439	179,798	180,284	180,692	181,136	181,684	10,558
Change over previous year	+1,262	+894	+862	+798	+763	+749	+505	+648	+611	+310	+280	+305	+524	+396	+353	+315	+359	+486	+408	+444	+548	
Number of supply units	155,791	156,804	157,783	158,703	159,585	160,457	161,106	161,889	162,632	163,098	163,536	163,900	164,397	164,769	165,100	165,399	165,740	166,200	166,587	167,003	167,517	11,726
Change over previous year	+1,346	+1,013	+979	+920	+882	+872	+649	+783	+743	+466	+438	+363	+497	+373	+331	+299	+341	+461	+386	+417	+514	

This report was compiled from a forecast produced on 09/08/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	+128	+96	+81	+90	+111	+112	+117	+113	+90	+97	+111	+135	+177	+201	+190	+213	+210	+211	+185	+192	+2,859
Overseas	+346	+336	+320	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+6,115

Summary of population change

Natural change	+292	+302	+290	+302	+314	+328	+341	+351	+359	+362	+362	+357	+350	+340	+330	+316	+302	+285	+266	+246	+6,397
Net migration	+475	+432	+401	+391	+411	+413	+418	+413	+390	+398	+412	+436	+478	+501	+491	+514	+511	+512	+486	+493	+8,974
Net change	+767	+734	+691	+693	+725	+741	+759	+764	+749	+760	+774	+793	+828	+841	+821	+830	+813	+797	+752	+739	+15,371

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	6,438	6,460	6,420	6,417	6,425	6,445	6,464	6,499	6,545	6,593	6,637	6,675	6,702	6,723	6,735	6,738	6,739	6,732	6,731	6,724	6,718	
5-10	6,844	6,937	7,220	7,328	7,430	7,577	7,722	7,740	7,690	7,692	7,712	7,742	7,773	7,814	7,871	7,924	7,970	8,008	8,035	8,052	8,063	
11-15	6,578	6,576	6,401	6,389	6,373	6,333	6,310	6,535	6,703	6,820	6,970	7,103	7,125	7,077	7,065	7,071	7,091	7,117	7,154	7,205	7,257	
16-17	3,098	2,958	2,920	2,919	2,882	2,866	2,850	2,725	2,724	2,854	2,829	2,806	2,943	3,126	3,153	3,100	3,085	3,090	3,095	3,089	3,093	
18-59Female, 64Male	68,890	69,198	69,519	69,668	69,957	70,258	70,473	70,687	70,837	70,848	70,915	70,990	71,002	71,015	71,113	71,318	71,460	71,609	71,731	71,841	71,943	
60/65 -74	12,791	13,122	13,367	13,631	13,780	13,933	14,119	14,189	14,340	14,489	14,631	14,600	14,658	14,836	15,116	15,408	15,653	15,944	16,195	16,483	16,761	
75-84	7,032	7,090	7,143	7,277	7,361	7,417	7,538	7,750	7,967	8,127	8,347	8,740	9,094	9,345	9,536	9,697	9,895	9,943	10,053	10,129	10,161	
85+	3,661	3,758	3,843	3,895	4,009	4,113	4,207	4,317	4,400	4,532	4,674	4,833	4,985	5,174	5,362	5,516	5,709	5,972	6,218	6,441	6,707	
Total	115,332	116,099	116,833	117,524	118,217	118,942	119,683	120,442	121,206	121,955	122,715	123,489	124,282	125,110	125,951	126,772	127,602	128,415	129,212	129,964	130,703	15,371

Population impact of constraint

Number of persons	-3	-2	-6	-17	-13	-3	-9	-4	+0	-8	-11	-6	-13	-1	+3	-13	-0	-10	+3	-12	-2	
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Households

Number of Households	51,462	52,032	52,571	53,103	53,649	54,185	54,728	55,272	55,824	56,344	56,862	57,346	57,843	58,354	58,846	59,339	59,843	60,373	60,894	61,393	61,877	10,415
Change over previous year	+548	+570	+538	+532	+546	+536	+543	+544	+551	+520	+518	+484	+497	+511	+492	+493	+503	+530	+521	+499	+484	
Number of supply units	53,944	54,541	55,106	55,664	56,236	56,798	57,367	57,937	58,515	59,061	59,604	60,111	60,632	61,167	61,684	62,201	62,728	63,284	63,830	64,353	64,860	10,917
Change over previous year	+575	+598	+564	+558	+572	+562	+569	+570	+578	+546	+543	+507	+521	+536	+516	+517	+527	+556	+546	+523	+507	

Labour Force

Number of Labour Force	64,097	64,453	64,761	65,031	65,299	65,565	65,704	65,943	66,130	66,199	66,279	66,381	66,561	66,725	66,877	67,023	67,202	67,418	67,592	67,751	67,957	3,860
Change over previous year	+496	+356	+309	+270	+268	+266	+139	+239	+187	+69	+80	+101	+180	+165	+152	+146	+179	+216	+174	+159	+206	
Number of supply units	56,599	56,974	57,308	57,608	57,907	58,204	58,389	58,664	58,893	59,017	59,151	59,242	59,402	59,549	59,685	59,815	59,974	60,167	60,323	60,465	60,648	4,050
Change over previous year	+498	+375	+334	+300	+299	+297	+185	+275	+229	+124	+134	+91	+161	+147	+135	+130	+160	+193	+155	+142	+184	

This report was compiled from a forecast produced on 09/08/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	+337	+318	+302	+283	+271	+243	+236	+234	+207	+190	+189	+193	+188	+184	+186	+172	+180	+173	+160	+180	+4,424
Overseas	+6	-1	-10	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-384

Summary of population change

Natural change	+705	+746	+731	+754	+778	+802	+817	+819	+825	+825	+821	+811	+796	+782	+770	+757	+743	+730	+714	+699	+15,424
Net migration	+343	+317	+292	+261	+249	+220	+213	+212	+184	+167	+166	+170	+166	+162	+164	+149	+158	+150	+138	+158	+4,040
Net change	+1,048	+1,063	+1,023	+1,015	+1,027	+1,022	+1,030	+1,031	+1,009	+992	+987	+981	+962	+944	+934	+906	+901	+880	+852	+857	+19,464

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	8,239	8,333	8,266	8,302	8,353	8,421	8,484	8,543	8,614	8,679	8,728	8,759	8,773	8,777	8,770	8,760	8,745	8,733	8,726	8,723	8,725
5-10	8,342	8,564	8,988	9,195	9,385	9,538	9,701	9,794	9,718	9,759	9,816	9,894	9,965	10,027	10,104	10,171	10,219	10,249	10,262	10,266	10,262
11-15	7,124	6,987	6,805	6,758	6,720	6,800	6,915	7,150	7,457	7,632	7,778	7,914	7,981	7,916	7,936	7,970	8,023	8,081	8,135	8,203	8,264
16-17	2,936	2,912	2,913	2,891	2,856	2,783	2,672	2,603	2,654	2,765	2,821	2,854	2,948	3,175	3,228	3,138	3,132	3,144	3,169	3,176	3,185
18-59Female, 64Male	71,698	72,174	72,685	73,157	73,677	74,156	74,544	74,825	74,991	75,053	75,222	75,382	75,511	75,566	75,647	75,829	75,904	76,065	76,201	76,333	76,504
60/65 -74	12,460	12,777	13,027	13,304	13,500	13,699	13,887	14,014	14,234	14,498	14,710	14,743	14,884	15,160	15,558	16,027	16,496	16,895	17,267	17,620	17,952
75-84	6,178	6,208	6,254	6,269	6,316	6,341	6,481	6,705	6,899	7,105	7,304	7,704	8,037	8,320	8,508	8,670	8,776	8,798	8,866	8,948	9,027
85+	2,657	2,727	2,807	2,892	2,976	3,072	3,148	3,228	3,326	3,411	3,515	3,631	3,763	3,883	4,017	4,137	4,313	4,544	4,763	4,972	5,179
Total	119,634	120,682	121,745	122,768	123,783	124,810	125,832	126,862	127,893	128,902	129,894	130,881	131,862	132,824	133,768	134,702	135,608	136,509	137,389	138,241	139,098

Population impact of constraint

Number of persons	-6	+4	-2	-0	-3	+3	-9	+1	+13	-0	-7	+2	+6	+2	+1	+4	-5	-1	-2	-10	+14
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Households

Number of Households	51,411	52,063	52,722	53,360	54,013	54,662	55,304	55,942	56,579	57,180	57,776	58,345	58,927	59,503	60,064	60,611	61,155	61,731	62,299	62,844	63,384
Change over previous year	+647	+652	+659	+638	+653	+649	+642	+637	+638	+601	+595	+569	+582	+576	+561	+548	+543	+576	+568	+545	+540
Number of supply units	53,276	53,952	54,634	55,296	55,972	56,644	57,310	57,971	58,631	59,254	59,871	60,461	61,064	61,661	62,242	62,810	63,373	63,970	64,559	65,123	65,683
Change over previous year	+670	+675	+683	+661	+676	+672	+666	+661	+661	+623	+617	+590	+603	+597	+581	+568	+563	+597	+589	+564	+560

Labour Force

Number of Labour Force	65,354	65,854	66,326	66,763	67,143	67,519	67,812	68,153	68,454	68,637	68,794	68,960	69,242	69,432	69,588	69,745	69,917	70,160	70,360	70,574	70,833
Change over previous year	+641	+500	+472	+437	+381	+376	+293	+341	+301	+183	+157	+166	+282	+189	+157	+157	+171	+243	+201	+213	+259
Number of supply units	65,425	65,996	66,540	67,050	67,504	67,955	68,323	68,740	69,117	69,375	69,607	69,850	70,136	70,328	70,486	70,645	70,819	71,065	71,268	71,484	71,747
Change over previous year	+711	+571	+544	+510	+455	+451	+368	+417	+377	+258	+233	+243	+286	+192	+159	+159	+174	+246	+203	+216	+263

This report was compiled from a forecast produced on 09/08/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	+419	+489	+472	+500	+497	+514	+512	+531	+533	+544	+545	+530	+531	+536	+530	+533	+531	+544	+548	+565	+10,402
Overseas	+59	+57	+54	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+1,018

Summary of population change

Natural change	+62	+59	+51	+51	+58	+63	+63	+61	+59	+57	+49	+40	+26	+13	-1	-19	-39	-58	-75	-94	+424
Net migration	+478	+546	+525	+550	+547	+563	+561	+581	+583	+594	+595	+579	+581	+586	+580	+582	+580	+594	+598	+615	+11,420
Net change	+540	+605	+576	+601	+605	+626	+624	+642	+642	+651	+644	+619	+607	+599	+579	+563	+541	+536	+523	+521	+11,844

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	4,418	4,424	4,386	4,358	4,355	4,366	4,383	4,410	4,442	4,477	4,508	4,529	4,546	4,558	4,559	4,556	4,549	4,541	4,529	4,517	4,507	
5-10	5,313	5,337	5,448	5,585	5,597	5,647	5,702	5,710	5,671	5,653	5,658	5,683	5,708	5,741	5,780	5,822	5,854	5,877	5,895	5,902	5,904	
11-15	4,575	4,563	4,532	4,447	4,479	4,474	4,473	4,550	4,700	4,740	4,805	4,858	4,870	4,833	4,812	4,813	4,824	4,847	4,874	4,911	4,945	
16-17	1,835	1,863	1,822	1,816	1,818	1,805	1,797	1,759	1,702	1,777	1,827	1,797	1,846	1,937	1,968	1,935	1,916	1,913	1,914	1,912	1,916	
18-59Female, 64Male	45,323	45,249	45,257	45,347	45,436	45,548	45,679	45,748	45,817	45,831	45,796	45,829	45,828	45,747	45,731	45,740	45,679	45,631	45,614	45,634	45,622	
60/65 -74	12,017	12,376	12,685	12,883	13,101	13,285	13,441	13,541	13,601	13,689	13,808	13,741	13,743	13,918	14,112	14,345	14,643	14,880	15,126	15,339	15,571	
75-84	5,521	5,633	5,847	6,047	6,208	6,387	6,559	6,856	7,177	7,469	7,751	8,208	8,531	8,757	8,956	9,117	9,250	9,326	9,338	9,357	9,387	
85+	2,391	2,488	2,561	2,631	2,721	2,808	2,912	2,996	3,102	3,218	3,352	3,504	3,696	3,884	4,056	4,225	4,401	4,642	4,903	5,144	5,385	
Total	81,393	81,933	82,538	83,114	83,715	84,320	84,946	85,570	86,212	86,854	87,505	88,149	88,768	89,375	89,974	90,553	91,116	91,657	92,193	92,716	93,237	11,844

Population impact of constraint

Number of persons	+15	-15	+17	-9	+10	-9	+2	-5	+6	+1	+1	-0	+4	+2	+0	+1	+12	+1	+0	-7	+5	
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Households

Number of Households	35,623	36,015	36,416	36,810	37,213	37,619	38,024	38,442	38,851	39,250	39,665	40,049	40,446	40,828	41,206	41,578	41,949	42,282	42,641	42,973	43,305	7,682
Change over previous year	+382	+392	+401	+394	+403	+406	+405	+417	+409	+399	+415	+384	+397	+381	+378	+372	+371	+334	+358	+332	+332	
Number of supply units	36,630	37,033	37,446	37,851	38,265	38,683	39,100	39,529	39,949	40,360	40,787	41,181	41,590	41,982	42,371	42,754	43,135	43,478	43,846	44,188	44,529	7,899
Change over previous year	+393	+403	+413	+405	+414	+418	+417	+429	+421	+411	+427	+395	+409	+392	+389	+383	+381	+343	+368	+341	+342	

Labour Force

Number of Labour Force	41,675	41,713	41,794	41,886	42,000	42,108	42,181	42,249	42,373	42,430	42,474	42,511	42,573	42,614	42,659	42,671	42,680	42,706	42,740	42,812	42,894	1,219
Change over previous year	+125	+38	+81	+91	+114	+108	+73	+68	+124	+57	+43	+37	+62	+42	+45	+12	+9	+26	+34	+71	+82	
Number of supply units	33,767	33,834	33,936	34,046	34,174	34,298	34,394	34,485	34,623	34,706	34,778	34,808	34,859	34,893	34,929	34,939	34,946	34,968	34,996	35,054	35,122	1,354
Change over previous year	+137	+67	+102	+110	+129	+124	+96	+92	+137	+83	+72	+30	+51	+34	+37	+10	+7	+21	+28	+59	+67	

This report was compiled from a forecast produced on 09/08/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

This file was produced using the scenario file G:\HEaDROOM1. POPGROUP v3.1 DF
CompatibleModel Runs\CGT\ONS2008POP_1_inp\scenario_ONS2008b.xls

Tick to save as new flat file

It was run on 09/08/2012 at 17:00:50

<p>Produce flat file</p>	<p>G:\HEaDROOM1. POPGROUP v3.1 DF CompatibleModel Runs\CGT\ONS2008POP_1_out\FlatComp_ONS2008b.xls</p>
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Clicking the button will copy all data from this components file onto a single sheet in another workbook (for pivots, etc)

<< Append to (blank if not to be appended)

<< Save flat file with this name (may be blank if to be appended to an existing file)

Forecast after model set up to replicate ONS 2008 Based population projection data.

Comments from the PopBase2008.xls workbook, which was last updated on 26/02/2008

2008 Mid-Year Estimate of population taken from ONS sub-national 2008-based projections.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2008--based-projections/2008-based-subnational-population-projections-for-england--methc>

Comments from the FertONS2008.xls workbook, which was last updated on 09/09/2007

Area fertility schedules taken from ONS sub-national 2008-based projection, 2009-10.
Area fertility differentials each year computed to approximately reproduce the area fertility projected by ONS.
Area counts of births each year taken from ONS sub-national 2008-based projection.
If alternative assumptions are made in a scenario not intended to replicate ONS exactly, remove the counts of births.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2008--based-projections/2008-based-subnational-population-projections-for-england--methc>
Source of standard schedule of rates:
Standard schedule is for 2009/10 taken from ONS England 2008-based projections.

Comments from the MortONS2008.xls workbook, which was last updated on 09/09/2007

Area mortality schedules taken from ONS sub-national 2008-based projection, 2009-10.
Area mortality differentials each year computed to approximately reproduce the area mortality projected by ONS.
Area counts of deaths each year taken from ONS sub-national 2008-based projection.
If alternative assumptions are made in a scenario not intended to replicate ONS exactly, remove the counts of deaths.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2008--based-projections/2008-based-subnational-population-projections-for-england--methc>
Source of standard schedule of rates:
Standard schedule is for 2009/10 taken from ONS England 2008-based projections.

Comments from the Mig_INUKONS2008.xls workbook, which was last updated on 09/09/2007

Area internal in-migration schedules calculated from ONS sub-national 2008-based projection, 2009-10.
Area internal in-migration differentials each year computed to approximately reproduce the area migration projected by ONS.
Area counts of internal in-migrants each year taken from ONS sub-national 2008-based projection.
If alternative assumptions are made in a scenario not intended to replicate ONS exactly, remove the counts of migrants.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2008--based-projections/2008-based-subnational-population-projections-for-england--methc>
Source of standard schedule of rates:
Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2008.xls>

Comments from the Mig_OUTUKONS2008.xls workbook, which was last updated on 09/09/2007

Area internal out-migration schedules calculated from ONS sub-national 2008-based projection, 2009-10.
Area internal out-migration differentials each year computed to approximately reproduce the area migration projected by ONS.
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Source of standard schedule of rates:
Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2008.xls>

Comments from the Mig_INOVONS2008.xls workbook, which was last updated on 09/09/2007

Area overseas in-migration schedules calculated from ONS sub-national 2008-based projection, 2009-10.
Area overseas in-migration differentials each year computed to approximately reproduce the area migration projected by ONS.
Area counts of overseas in-migrants each year taken from ONS sub-national 2008-based projection.
If alternative assumptions are made in a scenario not intended to replicate ONS exactly, remove the counts of migrants.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2008--based-projections/2008-based-subnational-population-projections-for-england--methc>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2008.xls>

Comments from the Mig_OUTOVONS2008.xls workbook, which was last updated on 09/09/2007

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Further details on ONS 2008 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2008--based-projections/2008-based-subnational-population-projections-for-england--methc>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2008.xls>

Comments from the Cons2009-33.xls workbook, which was last updated on 03/12/2010

Population 2009-2033 taken from ONS sub-national 2008 based projections.

Further details on ONS 2008 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2008--based-projections/2008-based-subnational-population-projections-for-england--methc>

Comments from the DFSupply.xls workbook, which was last updated on 04/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conv A single conversion ratio has been used.

Comments from the JOBS DFSupply2.xls workbook, which was last updated on 11/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conv A labour force to dwellings conversion has been given with separate rates for unemployment and commuting.

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ndology-guide.pdf

ersion ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

ersion ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

SMiGR: males	136.9	136.6	136.7	137.1	136.5	136.0	135.7	135.5	135.5	135.6	135.7	135.8	135.9	135.9	135.6	135.2	134.6	134.0	133.2	132.4	
SMiGR: females	122.8	122.8	123.2	123.9	123.6	123.4	123.3	123.3	123.4	123.5	123.7	123.8	124.0	124.0	123.8	123.4	122.9	122.3	121.7	121.0	
Migrants input																					
Migration - Net Flows																					
UK	+884	+902	+854	+873	+878	+868	+864	+878	+829	+831	+845	+857	+896	+920	+907	+918	+921	+928	+893	+938	+17,685
Overseas	+411	+393	+364	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+328	+6,749
Summary of population change																					
Natural change	+1,059	+1,107	+1,072	+1,107	+1,150	+1,193	+1,220	+1,231	+1,243	+1,243	+1,232	+1,208	+1,173	+1,135	+1,099	+1,053	+1,006	+957	+906	+851	+22,245
Net migration	+1,296	+1,295	+1,218	+1,202	+1,207	+1,196	+1,193	+1,206	+1,157	+1,160	+1,173	+1,185	+1,224	+1,249	+1,235	+1,246	+1,249	+1,256	+1,221	+1,266	+24,434
Net change	+2,355	+2,402	+2,290	+2,309	+2,357	+2,389	+2,413	+2,437	+2,400	+2,403	+2,405	+2,393	+2,397	+2,384	+2,334	+2,299	+2,255	+2,213	+2,127	+2,117	+46,679

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	19,095	19,217	19,072	19,077	19,133	19,232	19,331	19,452	19,601	19,749	19,873	19,963	20,021	20,058	20,064	20,054	20,033	20,006	19,986	19,964	19,950	
5-10	20,499	20,838	21,656	22,108	22,412	22,762	23,125	23,244	23,079	23,104	23,186	23,319	23,446	23,582	23,755	23,917	24,043	24,134	24,192	24,220	24,229	
11-15	18,277	18,126	17,738	17,594	17,572	17,607	17,698	18,235	18,860	19,192	19,553	19,875	19,976	19,826	19,813	19,854	19,938	20,045	20,163	20,319	20,466	
16-17	7,869	7,733	7,655	7,626	7,556	7,454	7,319	7,087	7,080	7,396	7,477	7,457	7,737	8,238	8,349	8,173	8,133	8,147	8,178	8,177	8,194	
18-59Female, 64Male	185,911	186,621	187,461	188,172	189,070	189,962	190,696	191,260	191,645	191,732	191,933	192,201	192,341	192,328	192,491	192,887	193,043	193,305	193,546	193,808	194,069	
60/65 -74	37,268	38,275	39,079	39,818	40,381	40,917	41,447	41,744	42,175	42,676	43,149	43,084	43,285	43,914	44,786	45,780	46,792	47,719	48,588	49,442	50,284	
75-84	18,731	18,931	19,244	19,593	19,885	20,145	20,578	21,311	22,043	22,701	23,402	24,652	25,662	26,422	27,000	27,484	27,921	28,067	28,257	28,434	28,575	
85+	8,709	8,973	9,211	9,418	9,706	9,993	10,267	10,541	10,828	11,161	11,541	11,968	12,444	12,941	13,435	13,878	14,423	15,158	15,884	16,557	17,271	
Total	316,359	318,714	321,116	323,406	325,715	328,072	330,461	332,874	335,311	337,711	340,114	342,519	344,912	347,309	349,693	352,027	354,326	356,581	358,794	360,921	363,038	46,679

Population impact of constraint

Number of persons	+5	-13	+10	-26	-6	-9	-16	-8	+19	-7	-17	-4	-4	+3	+4	-9	+6	-10	+1	-28	+16	
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Households

Number of Households	138,496	140,111	141,709	143,273	144,875	146,466	148,057	149,655	151,253	152,774	154,303	155,740	157,216	158,684	160,116	161,529	162,946	164,386	165,834	167,210	168,566	30,070
Change over previous year	+1,577	+1,614	+1,599	+1,564	+1,602	+1,591	+1,591	+1,599	+1,598	+1,521	+1,529	+1,437	+1,477	+1,468	+1,431	+1,413	+1,417	+1,440	+1,448	+1,376	+1,356	
Number of supply units	143,850	145,526	147,186	148,810	150,473	152,125	153,777	155,436	157,096	158,675	160,262	161,753	163,286	164,811	166,297	167,764	169,236	170,731	172,235	173,664	175,073	31,223
Change over previous year	+1,638	+1,676	+1,660	+1,624	+1,663	+1,652	+1,652	+1,660	+1,659	+1,579	+1,587	+1,492	+1,533	+1,524	+1,486	+1,468	+1,472	+1,496	+1,504	+1,429	+1,409	

Labour Force

Number of Labour Force	171,126	172,020	172,882	173,679	174,442	175,192	175,697	176,345	176,957	177,266	177,547	177,852	178,376	178,771	179,124	179,439	179,798	180,284	180,692	181,136	181,684	10,558
Change over previous year	+1,262	+894	+862	+798	+763	+749	+505	+648	+611	+310	+280	+305	+524	+396	+353	+315	+359	+486	+408	+444	+548	
Number of supply units	155,791	156,804	157,783	158,703	159,694	160,736	161,557	162,514	163,431	164,071	164,683	165,321	166,169	166,821	167,306	167,759	168,105	168,572	168,964	169,387	169,908	14,118
Change over previous year	+1,346	+1,013	+979	+920	+990	+1,043	+821	+957	+917	+640	+613	+638	+849	+652	+484	+453	+346	+468	+392	+423	+521	

This report was compiled from a forecast produced on 09/08/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows																					
UK	+128	+96	+81	+90	+111	+112	+117	+113	+90	+97	+111	+135	+177	+201	+190	+213	+210	+211	+185	+192	+2,859
Overseas	+346	+336	+320	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+301	+6,115
Summary of population change																					
Natural change	+292	+302	+290	+302	+314	+328	+341	+351	+359	+362	+362	+357	+350	+340	+330	+316	+302	+285	+266	+246	+6,397
Net migration	+475	+432	+401	+391	+411	+413	+418	+413	+390	+398	+412	+436	+478	+501	+491	+514	+511	+512	+486	+493	+8,974
Net change	+767	+734	+691	+693	+725	+741	+759	+764	+749	+760	+774	+793	+828	+841	+821	+830	+813	+797	+752	+739	+15,371

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	6,438	6,460	6,420	6,417	6,425	6,445	6,464	6,499	6,545	6,593	6,637	6,675	6,702	6,723	6,735	6,738	6,739	6,732	6,731	6,724	6,718	
5-10	6,844	6,937	7,220	7,328	7,430	7,577	7,722	7,740	7,690	7,692	7,712	7,742	7,773	7,814	7,871	7,924	7,970	8,008	8,035	8,052	8,063	
11-15	6,578	6,576	6,401	6,389	6,373	6,333	6,310	6,535	6,703	6,820	6,970	7,103	7,125	7,077	7,065	7,071	7,091	7,117	7,154	7,205	7,257	
16-17	3,098	2,958	2,920	2,919	2,882	2,866	2,850	2,725	2,724	2,854	2,829	2,806	2,943	3,126	3,153	3,100	3,085	3,090	3,095	3,089	3,093	
18-59Female, 64Male	68,890	69,198	69,519	69,668	69,957	70,258	70,473	70,687	70,837	70,848	70,915	70,990	71,002	71,015	71,113	71,318	71,460	71,609	71,731	71,841	71,943	
60/65 -74	12,791	13,122	13,367	13,631	13,780	13,933	14,119	14,189	14,340	14,489	14,631	14,600	14,658	14,836	15,116	15,408	15,653	15,944	16,195	16,483	16,761	
75-84	7,032	7,090	7,143	7,277	7,361	7,417	7,538	7,750	7,967	8,127	8,347	8,740	9,094	9,345	9,536	9,697	9,895	9,943	10,053	10,129	10,161	
85+	3,661	3,758	3,843	3,895	4,009	4,113	4,207	4,317	4,400	4,532	4,674	4,833	4,985	5,174	5,362	5,516	5,709	5,972	6,218	6,441	6,707	
Total	115,332	116,099	116,833	117,524	118,217	118,942	119,683	120,442	121,206	121,955	122,715	123,489	124,282	125,110	125,951	126,772	127,602	128,415	129,212	129,964	130,703	15,371

Population impact of constraint

Number of persons	-3	-2	-6	-17	-13	-3	-9	-4	+0	-8	-11	-6	-13	-1	+3	-13	-0	-10	+3	-12	-2	
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Households

Number of Households	51,462	52,032	52,571	53,103	53,649	54,185	54,728	55,272	55,824	56,344	56,862	57,346	57,843	58,354	58,846	59,339	59,843	60,373	60,894	61,393	61,877	10,415
Change over previous year	+548	+570	+538	+532	+546	+536	+543	+544	+551	+520	+518	+484	+497	+511	+492	+493	+503	+530	+521	+499	+484	
Number of supply units	53,944	54,541	55,106	55,664	56,236	56,798	57,367	57,937	58,515	59,061	59,604	60,111	60,632	61,167	61,684	62,201	62,728	63,284	63,830	64,353	64,860	10,917
Change over previous year	+575	+598	+564	+558	+572	+562	+569	+570	+578	+546	+543	+507	+521	+536	+516	+517	+527	+556	+546	+523	+507	

Labour Force

Number of Labour Force	64,097	64,453	64,761	65,031	65,299	65,565	65,704	65,943	66,130	66,199	66,279	66,381	66,561	66,725	66,877	67,023	67,202	67,418	67,592	67,751	67,957	3,860
Change over previous year	+496	+356	+309	+270	+268	+266	+139	+239	+187	+69	+80	+101	+180	+165	+152	+146	+179	+216	+174	+159	+206	
Number of supply units	56,599	56,974	57,308	57,608	57,907	58,266	58,513	58,851	59,143	59,329	59,526	59,743	60,030	60,305	60,442	60,573	60,735	60,931	61,088	61,232	61,418	4,819
Change over previous year	+498	+375	+334	+300	+299	+359	+247	+338	+292	+187	+197	+216	+287	+274	+137	+132	+162	+196	+157	+144	+186	

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Migration - Net Flows

UK	+337	+318	+302	+283	+271	+243	+236	+234	+207	+190	+189	+193	+188	+184	+186	+172	+180	+173	+160	+180	+4,424
Overseas	+6	-1	-10	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-384

Summary of population change

Natural change	+705	+746	+731	+754	+778	+802	+817	+819	+825	+825	+821	+811	+796	+782	+770	+757	+743	+730	+714	+699	+15,424
Net migration	+343	+317	+292	+261	+249	+220	+213	+212	+184	+167	+166	+170	+166	+162	+164	+149	+158	+150	+138	+158	+4,040
Net change	+1,048	+1,063	+1,023	+1,015	+1,027	+1,022	+1,030	+1,031	+1,009	+992	+987	+981	+962	+944	+934	+906	+901	+880	+852	+857	+19,464

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	8,239	8,333	8,266	8,302	8,353	8,421	8,484	8,543	8,614	8,679	8,728	8,759	8,773	8,777	8,770	8,760	8,745	8,733	8,726	8,723	8,725	
5-10	8,342	8,564	8,988	9,195	9,385	9,538	9,701	9,794	9,718	9,759	9,816	9,894	9,965	10,027	10,104	10,171	10,219	10,249	10,262	10,266	10,262	
11-15	7,124	6,987	6,805	6,758	6,720	6,800	6,915	7,150	7,457	7,632	7,778	7,914	7,981	7,916	7,936	7,970	8,023	8,081	8,135	8,203	8,264	
16-17	2,936	2,912	2,913	2,891	2,856	2,783	2,672	2,603	2,654	2,765	2,821	2,854	2,948	3,175	3,228	3,138	3,132	3,144	3,169	3,176	3,185	
18-59Female, 64Male	71,698	72,174	72,685	73,157	73,677	74,156	74,544	74,825	74,991	75,053	75,222	75,382	75,511	75,566	75,647	75,829	75,904	76,065	76,201	76,333	76,504	
60/65 -74	12,460	12,777	13,027	13,304	13,500	13,699	13,887	14,014	14,234	14,498	14,710	14,743	14,884	15,160	15,558	16,027	16,496	16,895	17,267	17,620	17,952	
75-84	6,178	6,208	6,254	6,269	6,316	6,341	6,481	6,705	6,899	7,105	7,304	7,704	8,037	8,320	8,508	8,670	8,776	8,798	8,866	8,948	9,027	
85+	2,657	2,727	2,807	2,892	2,976	3,072	3,148	3,228	3,326	3,411	3,515	3,631	3,763	3,883	4,017	4,137	4,313	4,544	4,763	4,972	5,179	
Total	119,634	120,682	121,745	122,768	123,783	124,810	125,832	126,862	127,893	128,902	129,894	130,881	131,862	132,824	133,768	134,702	135,608	136,509	137,389	138,241	139,098	19,464

Population impact of constraint

Number of persons	-6	+4	-2	-0	-3	+3	-9	+1	+13	-0	-7	+2	+6	+2	+1	+4	-5	-1	-2	-10	+14	
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Households

Number of Households	51,411	52,063	52,722	53,360	54,013	54,662	55,304	55,942	56,579	57,180	57,776	58,345	58,927	59,503	60,064	60,611	61,155	61,731	62,299	62,844	63,384	11,973
Change over previous year	+647	+652	+659	+638	+653	+649	+642	+637	+638	+601	+595	+569	+582	+576	+561	+548	+543	+576	+568	+545	+540	
Number of supply units	53,276	53,952	54,634	55,296	55,972	56,644	57,310	57,971	58,631	59,254	59,871	60,461	61,064	61,661	62,242	62,810	63,373	63,970	64,559	65,123	65,683	12,407
Change over previous year	+670	+675	+683	+661	+676	+672	+666	+661	+661	+623	+617	+590	+603	+597	+581	+568	+563	+597	+589	+564	+560	

Labour Force

Number of Labour Force	65,354	65,854	66,326	66,763	67,143	67,519	67,812	68,153	68,454	68,637	68,794	68,960	69,242	69,432	69,588	69,745	69,917	70,160	70,360	70,574	70,833	5,479
Change over previous year	+641	+500	+472	+437	+381	+376	+293	+341	+301	+183	+157	+166	+282	+189	+157	+157	+171	+243	+201	+213	+259	
Number of supply units	65,425	65,996	66,540	67,050	67,576	68,100	68,542	69,033	69,485	69,818	70,125	70,443	70,880	71,224	71,534	71,845	72,022	72,272	72,479	72,698	72,965	7,541
Change over previous year	+711	+571	+544	+510	+527	+524	+442	+491	+452	+333	+308	+318	+437	+343	+310	+311	+177	+250	+207	+220	+267	

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Migration - Net Flows

UK	+419	+489	+472	+500	+497	+514	+512	+531	+533	+544	+545	+530	+531	+536	+530	+533	+531	+544	+548	+565	+10,402
Overseas	+59	+57	+54	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+50	+1,018

Summary of population change

Natural change	+62	+59	+51	+51	+58	+63	+63	+61	+59	+57	+49	+40	+26	+13	-1	-19	-39	-58	-75	-94	+424
Net migration	+478	+546	+525	+550	+547	+563	+561	+581	+583	+594	+595	+579	+581	+586	+580	+582	+580	+594	+598	+615	+11,420
Net change	+540	+605	+576	+601	+605	+626	+624	+642	+642	+651	+644	+619	+607	+599	+579	+563	+541	+536	+523	+521	+11,844

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	4,418	4,424	4,386	4,358	4,355	4,366	4,383	4,410	4,442	4,477	4,508	4,529	4,546	4,558	4,559	4,556	4,549	4,541	4,529	4,517	4,507	
5-10	5,313	5,337	5,448	5,585	5,597	5,647	5,702	5,710	5,671	5,653	5,658	5,683	5,708	5,741	5,780	5,822	5,854	5,877	5,895	5,902	5,904	
11-15	4,575	4,563	4,532	4,447	4,479	4,474	4,473	4,550	4,700	4,740	4,805	4,858	4,870	4,833	4,812	4,813	4,824	4,847	4,874	4,911	4,945	
16-17	1,835	1,863	1,822	1,816	1,818	1,805	1,797	1,759	1,702	1,777	1,827	1,797	1,846	1,937	1,968	1,935	1,916	1,913	1,914	1,912	1,916	
18-59Female, 64Male	45,323	45,249	45,257	45,347	45,436	45,548	45,679	45,748	45,817	45,831	45,796	45,829	45,828	45,747	45,731	45,740	45,679	45,631	45,614	45,634	45,622	
60/65 -74	12,017	12,376	12,685	12,883	13,101	13,285	13,441	13,541	13,601	13,689	13,808	13,741	13,743	13,918	14,112	14,345	14,643	14,880	15,126	15,339	15,571	
75-84	5,521	5,633	5,847	6,047	6,208	6,387	6,559	6,856	7,177	7,469	7,751	8,208	8,531	8,757	8,956	9,117	9,250	9,326	9,338	9,357	9,387	
85+	2,391	2,488	2,561	2,631	2,721	2,808	2,912	2,996	3,102	3,218	3,352	3,504	3,696	3,884	4,056	4,225	4,401	4,642	4,903	5,144	5,385	
Total	81,393	81,933	82,538	83,114	83,715	84,320	84,946	85,570	86,212	86,854	87,505	88,149	88,768	89,375	89,974	90,553	91,116	91,657	92,193	92,716	93,237	11,844

Population impact of constraint

Number of persons	+15	-15	+17	-9	+10	-9	+2	-5	+6	+1	+1	-0	+4	+2	+0	+1	+12	+1	+0	-7	+5
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Households

Number of Households	35,623	36,015	36,416	36,810	37,213	37,619	38,024	38,442	38,851	39,250	39,665	40,049	40,446	40,828	41,206	41,578	41,949	42,282	42,641	42,973	43,305	7,682
Change over previous year	+382	+392	+401	+394	+403	+406	+405	+417	+409	+399	+415	+384	+397	+381	+378	+372	+371	+334	+358	+332	+332	
Number of supply units	36,630	37,033	37,446	37,851	38,265	38,683	39,100	39,529	39,949	40,360	40,787	41,181	41,590	41,982	42,371	42,754	43,135	43,478	43,846	44,188	44,529	7,899
Change over previous year	+393	+403	+413	+405	+414	+418	+417	+429	+421	+411	+427	+395	+409	+392	+389	+383	+381	+343	+368	+341	+342	

Labour Force

Number of Labour Force	41,675	41,713	41,794	41,886	42,000	42,108	42,181	42,249	42,373	42,430	42,474	42,511	42,573	42,614	42,659	42,671	42,680	42,706	42,740	42,812	42,894	1,219
Change over previous year	+125	+38	+81	+91	+114	+108	+73	+68	+124	+57	+43	+37	+62	+42	+45	+12	+9	+26	+34	+71	+82	
Number of supply units	33,767	33,834	33,936	34,046	34,210	34,370	34,502	34,630	34,804	34,923	35,032	35,135	35,259	35,293	35,330	35,340	35,348	35,369	35,398	35,457	35,525	1,758
Change over previous year	+137	+67	+102	+110	+165	+160	+132	+128	+174	+120	+108	+103	+124	+35	+37	+10	+7	+22	+28	+59	+68	

This report was compiled from a forecast produced on 09/08/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

This file was produced using the scenario file G:\HEaDROOM\1. POPGROUP v3.1 DF CompatibleModel Runs\CGT\ONS2008POP_1_inp\scenario_ONS2008.xls

Tick to save as new flat file

It was run on 09/08/2012 at 17:02:50

<p>Produce flat file</p>	<p>Clicking the button will copy all data from this components file onto a single sheet in another workbook (for pivots, etc)</p>	<p>G:\HEaDROOM\1. POPGROUP v3.1 DF CompatibleModel Runs\CGT\ONS2008POP_1_out\FlatComp_ONS2008.xls</p>
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Forecast after model set up to replicate ONS 2008 Based population projection data.

Comments from the PopBase2008.xls workbook, which was last updated on 26/02/2008

2008 Mid-Year Estimate of population taken from ONS sub-national 2008-based projections.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2008--based-projections/2008-based-subnational-population-projections-for-england--methc>

Comments from the FertONS2008.xls workbook, which was last updated on 09/09/2007

Area fertility schedules taken from ONS sub-national 2008-based projection, 2009-10.
Area fertility differentials each year computed to approximately reproduce the area fertility projected by ONS.
Area counts of births each year taken from ONS sub-national 2008-based projection.
If alternative assumptions are made in a scenario not intended to replicate ONS exactly, remove the counts of births.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2008--based-projections/2008-based-subnational-population-projections-for-england--methc>
Source of standard schedule of rates:
Standard schedule is for 2009/10 taken from ONS England 2008-based projections.

Comments from the MortONS2008.xls workbook, which was last updated on 09/09/2007

Area mortality schedules taken from ONS sub-national 2008-based projection, 2009-10.
Area mortality differentials each year computed to approximately reproduce the area mortality projected by ONS.
Area counts of deaths each year taken from ONS sub-national 2008-based projection.
If alternative assumptions are made in a scenario not intended to replicate ONS exactly, remove the counts of deaths.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2008--based-projections/2008-based-subnational-population-projections-for-england--methc>
Source of standard schedule of rates:
Standard schedule is for 2009/10 taken from ONS England 2008-based projections.

Comments from the Mig_INUKONS2008.xls workbook, which was last updated on 09/09/2007

Area internal in-migration schedules calculated from ONS sub-national 2008-based projection, 2009-10.
Area internal in-migration differentials each year computed to approximately reproduce the area migration projected by ONS.
Area counts of internal in-migrants each year taken from ONS sub-national 2008-based projection.
If alternative assumptions are made in a scenario not intended to replicate ONS exactly, remove the counts of migrants.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2008--based-projections/2008-based-subnational-population-projections-for-england--methc>
Source of standard schedule of rates:
Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2008.xls>

Comments from the Mig_OUTUKONS2008.xls workbook, which was last updated on 09/09/2007

Area internal out-migration schedules calculated from ONS sub-national 2008-based projection, 2009-10.
Area internal out-migration differentials each year computed to approximately reproduce the area migration projected by ONS.
Area counts of internal out-migrants each year taken from ONS sub-national 2008-based projection.
If alternative assumptions are made in a scenario not intended to replicate ONS exactly, remove the counts of migrants.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2008--based-projections/2008-based-subnational-population-projections-for-england--methc>
Source of standard schedule of rates:
Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2008.xls>

Comments from the Mig_INOVONS2008.xls workbook, which was last updated on 09/09/2007

Area overseas in-migration schedules calculated from ONS sub-national 2008-based projection, 2009-10.
Area overseas in-migration differentials each year computed to approximately reproduce the area migration projected by ONS.
Area counts of overseas in-migrants each year taken from ONS sub-national 2008-based projection.
If alternative assumptions are made in a scenario not intended to replicate ONS exactly, remove the counts of migrants.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2008--based-projections/2008-based-subnational-population-projections-for-england--methc>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2008.xls>

Comments from the Mig_OUTOVONS2008.xls workbook, which was last updated on 09/09/2007

Area overseas out-migration schedules calculated from ONS sub-national 2008-based projection, 2009-10.

Area overseas out-migration differentials each year computed to approximately reproduce the area migration projected by ONS.

Area counts of overseas out-migrants each year taken from ONS sub-national 2008-based projection.

If alternative assumptions are made in a scenario not intended to replicate ONS exactly, remove the counts of migrants.

Further details on ONS 2008 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2008--based-projections/2008-based-subnational-population-projections-for-england--methc>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2008.xls>

Comments from the Cons2009-33.xls workbook, which was last updated on 03/12/2010

Population 2009-2033 taken from ONS sub-national 2008 based projections.

Further details on ONS 2008 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2008--based-projections/2008-based-subnational-population-projections-for-england--methc>

Comments from the DFSupply.xls workbook, which was last updated on 04/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conversion ratio has been used.

Comments from the JOBS DFSupply.xls workbook, which was last updated on 18/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conversion ratio has been given with separate rates for unemployment and commuting.

ndology-guide.pdf

ndology-guide.pdf

ersion ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

ersion ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

Migration - Net Flows

UK	+181	+138	+87	+87	+104	+126	+144	+149	+149	+178	+196	+239	+276	+304	+318	+338	+346	+347	+354	+363
Overseas	+63	+47	+30	+13	-12	-37	-36	-36	-36	-36	-36	-35	-35	-35	-35	-36	-36	-36	-36	-36

Summary of population change

Natural change	+409	+442	+443	+438	+419	+416	+411	+405	+400	+394	+384	+373	+359	+344	+327	+309	+294	+279	+265	+249	+7,359
Net migration	+245	+185	+116	+99	+93	+90	+108	+113	+113	+142	+160	+203	+241	+269	+282	+303	+311	+312	+318	+327	+4,029
Net change	+654	+627	+559	+537	+512	+506	+519	+518	+513	+535	+544	+576	+599	+613	+609	+611	+605	+590	+583	+576	+11,388

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	6,514	6,642	6,726	6,820	6,875	6,916	6,904	6,865	6,818	6,777	6,744	6,714	6,687	6,660	6,628	6,592	6,555	6,522	6,494	6,473	6,461
5-10	6,794	6,829	7,068	7,167	7,321	7,493	7,732	7,871	7,949	8,031	8,074	8,110	8,092	8,051	8,005	7,963	7,928	7,892	7,859	7,826	7,787
11-15	6,681	6,575	6,323	6,284	6,281	6,238	6,164	6,344	6,468	6,597	6,775	6,972	7,100	7,181	7,277	7,337	7,383	7,377	7,341	7,296	7,256
16-17	3,158	3,120	3,016	2,934	2,788	2,745	2,772	2,649	2,639	2,742	2,713	2,677	2,676	2,951	3,006	3,024	3,056	3,106	3,169	3,190	3,184
18-59Female, 64Male	67,357	67,526	67,812	67,837	67,959	68,023	67,949	67,941	67,875	67,681	67,573	67,436	67,277	67,084	66,974	67,000	66,988	67,021	67,071	67,161	67,271
60/65 -74	12,875	13,210	13,471	13,762	13,935	14,099	14,293	14,360	14,507	14,658	14,797	14,775	14,835	15,022	15,310	15,578	15,827	16,128	16,356	16,636	16,912
75-84	6,965	7,001	7,070	7,204	7,285	7,350	7,459	7,671	7,889	8,059	8,273	8,669	9,035	9,281	9,476	9,642	9,831	9,880	9,993	10,065	10,097
85+	3,668	3,763	3,808	3,846	3,947	4,038	4,135	4,228	4,301	4,414	4,545	4,686	4,814	4,984	5,151	5,299	5,479	5,727	5,959	6,178	6,433
Total	114,013	114,667	115,295	115,854	116,391	116,903	117,409	117,928	118,446	118,959	119,495	120,039	120,615	121,215	121,827	122,436	123,048	123,652	124,243	124,826	125,401

Population impact of constraint

Number of persons	+38	-9	-9	-9	-9	-9	-8	-8	-7	-7	-7	-6	-6	-6	-6	-6	-6	-6	-7	-7	-6
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Households

Number of Households	50,876	51,330	51,751	52,142	52,518	52,895	53,312	53,719	54,130	54,529	54,920	55,270	55,641	56,018	56,388	56,773	57,173	57,608	58,034	58,447	58,837
Change over previous year	+518	+454	+421	+390	+376	+378	+416	+408	+410	+399	+391	+350	+371	+377	+371	+385	+400	+435	+426	+413	+390
Number of supply units	53,329	53,805	54,247	54,656	55,050	55,446	55,882	56,309	56,740	57,158	57,568	57,935	58,324	58,719	59,107	59,510	59,930	60,386	60,832	61,265	61,674
Change over previous year	+543	+476	+441	+409	+394	+396	+436	+427	+430	+418	+410	+367	+389	+395	+389	+403	+420	+456	+446	+433	+409

Labour Force

Number of Labour Force	62,785	63,039	63,214	63,279	63,366	63,433	63,362	63,390	63,342	63,221	63,115	63,022	63,026	63,029	63,045	63,071	63,159	63,299	63,426	63,560	63,741
Change over previous year	+443	+255	+175	+65	+86	+67	-71	+27	-48	-120	-107	-92	+3	+3	+16	+27	+87	+140	+128	+134	+181
Number of supply units	55,381	55,605	55,820	55,936	56,073	56,192	56,189	56,273	56,290	56,243	56,208	56,185	56,248	56,250	56,265	56,288	56,366	56,491	56,605	56,725	56,886
Change over previous year	+803	+225	+214	+117	+136	+119	-3	+84	+17	-47	-35	-23	+62	+3	+14	+24	+78	+125	+114	+120	+162

This report was compiled from a forecast produced on 23/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

	2.24	2.23	2.23	2.22	2.22	2.21	2.20	2.20	2.19	2.18	2.18	2.17	2.17	2.16	2.16	2.16	2.15	2.15	2.14	2.14	2.13
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Population Estimates and Forecasts

ONS 2010 SNPP BASELINE

Components of Population Change

Chet, Glouc, Tewkes

Year beginning July 1st

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Births																				
Male	2,128	2,169	2,169	2,160	2,153	2,148	2,135	2,125	2,122	2,116	2,107	2,096	2,083	2,069	2,055	2,044	2,039	2,037	2,038	2,041
Female	2,027	2,066	2,066	2,057	2,050	2,045	2,033	2,024	2,021	2,015	2,007	1,996	1,984	1,971	1,958	1,947	1,942	1,940	1,941	1,944
<i>All Births</i>	4,155	4,235	4,235	4,217	4,203	4,193	4,168	4,149	4,142	4,131	4,114	4,091	4,066	4,040	4,013	3,991	3,980	3,978	3,979	3,985
TFR	2.11	2.13	2.11	2.09	2.07	2.05	2.02	2.01	2.00	1.99	1.98	1.97	1.96	1.95	1.93	1.93	1.92	1.92	1.92	1.92
Births input																				
Deaths																				
Male	1,345	1,330	1,349	1,361	1,355	1,362	1,368	1,379	1,391	1,400	1,415	1,428	1,447	1,464	1,484	1,505	1,528	1,551	1,572	1,597
Female	1,464	1,451	1,446	1,444	1,438	1,429	1,424	1,421	1,420	1,419	1,423	1,430	1,437	1,445	1,455	1,471	1,486	1,504	1,523	1,547
<i>All deaths</i>	2,809	2,781	2,794	2,805	2,793	2,791	2,791	2,800	2,811	2,820	2,838	2,858	2,884	2,908	2,939	2,975	3,014	3,055	3,095	3,144
SMR: males	93.3	89.9	88.7	87.2	84.6	82.8	80.9	79.4	77.9	76.2	74.9	73.4	72.3	71.0	70.0	68.9	68.0	67.1	66.2	65.5
SMR: females	93.7	91.1	89.3	87.5	85.7	83.7	81.9	80.2	78.6	76.9	75.3	73.9	72.5	71.1	69.8	68.6	67.5	66.4	65.4	64.6
<i>SMR: male & female</i>	93.5	90.5	89.0	87.3	85.1	83.2	81.4	79.8	78.3	76.6	75.1	73.7	72.4	71.1	69.9	68.8	67.8	66.8	65.8	65.1
Expectation of life	81.5	81.7	81.8	82.0	82.2	82.3	82.5	82.6	82.7	82.9	83.0	83.1	83.2	83.3	83.4	83.5	83.6	83.7	83.8	83.9
Deaths input																				
In-migration from the UK																				
Male	9,050	9,103	9,153	9,195	9,231	9,257	9,268	9,276	9,275	9,273	9,288	9,307	9,327	9,354	9,396	9,441	9,482	9,527	9,579	9,636
Female	9,853	9,894	9,931	9,959	9,992	10,005	10,007	10,003	9,988	9,976	9,984	10,008	10,031	10,062	10,114	10,178	10,232	10,297	10,369	10,442
<i>All</i>	18,904	18,998	19,084	19,154	19,223	19,262	19,275	19,279	19,262	19,250	19,272	19,315	19,358	19,416	19,510	19,619	19,714	19,824	19,948	20,078
SMigR: males	53.6	53.5	53.3	53.2	53.2	53.1	53.0	52.9	52.9	52.8	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.8
SMigR: females	58.0	57.7	57.6	57.5	57.4	57.4	57.3	57.3	57.2	57.1	57.1	57.1	57.1	57.1	57.1	57.0	56.9	56.9	56.8	56.8
Migrants input																				
Out-migration to the UK																				
Male	8,518	8,577	8,656	8,709	8,744	8,785	8,806	8,816	8,827	8,823	8,833	8,856	8,869	8,890	8,931	8,974	9,017	9,056	9,105	9,163
Female	9,344	9,436	9,517	9,553	9,593	9,598	9,600	9,601	9,595	9,569	9,580	9,588	9,591	9,608	9,666	9,744	9,799	9,871	9,944	10,020
<i>All</i>	17,863	18,013	18,173	18,262	18,336	18,383	18,406	18,417	18,422	18,392	18,413	18,444	18,460	18,499	18,597	18,719	18,816	18,927	19,048	19,184
SMigR: males	50.5	50.4	50.4	50.4	50.4	50.4	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.2	50.2
SMigR: females	55.0	55.0	55.2	55.1	55.1	55.1	55.0	55.0	54.9	54.8	54.8	54.7	54.6	54.5	54.5	54.6	54.5	54.5	54.5	54.5
Migrants input																				
In-migration from Overseas																				
Male	1,556	1,566	1,570	1,575	1,571	1,572	1,574	1,575	1,576	1,576	1,576	1,577	1,578	1,578	1,578	1,578	1,578	1,579	1,579	1,581
Female	1,348	1,362	1,365	1,366	1,366	1,367	1,369	1,370	1,371	1,371	1,372	1,373	1,373	1,373	1,373	1,373	1,373	1,373	1,373	1,375
<i>All</i>	2,904	2,928	2,935	2,941	2,938	2,939	2,943	2,945	2,946	2,947	2,949	2,950	2,951	2,951	2,952	2,951	2,951	2,952	2,952	2,955
SMigR: males	132.0	131.7	130.9	130.4	129.5	129.2	129.2	129.2	129.4	129.7	130.1	130.3	130.6	130.8	130.8	130.4	130.0	129.5	128.7	128.0
SMigR: females	118.4	118.4	117.7	117.1	116.6	116.4	116.6	116.7	116.8	117.1	117.4	117.7	117.9	118.0	117.9	117.6	117.1	116.6	115.9	115.3
Migrants input																				
Out-migration to Overseas																				
Male	1,458	1,484	1,505	1,528	1,549	1,576	1,578	1,578	1,579	1,579	1,579	1,580	1,581	1,581	1,582	1,581	1,582	1,583	1,583	1,584
Female	1,169	1,198	1,216	1,233	1,255	1,279	1,281	1,282	1,283	1,283	1,284	1,284	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,286
<i>All</i>	2,628	2,682	2,721	2,761	2,805	2,856	2,859	2,860	2,862	2,862	2,863	2,864	2,866	2,866	2,867	2,866	2,866	2,868	2,868	2,871

SMigR: males	123.8	124.8	125.4	126.5	127.7	129.6	129.5	129.5	129.7	130.0	130.3	130.6	130.9	131.0	131.0	130.7	130.3	129.8	129.0	128.3		
SMigR: females	102.7	104.1	104.9	105.7	107.2	109.0	109.1	109.2	109.3	109.5	109.9	110.1	110.3	110.4	110.3	110.0	109.6	109.1	108.5	107.9		
Migrants input																						
Migration - Net Flows																						
UK	+1,041	+984	+911	+892	+886	+879	+868	+862	+840	+858	+859	+871	+898	+917	+913	+901	+898	+897	+899	+894	+17,970	
Overseas	+276	+246	+213	+181	+133	+84	+84	+85	+85	+85	+85	+86	+86	+85	+85	+85	+85	+84	+84	+85	+2,322	
Summary of population change																						
Natural change	+1,347	+1,453	+1,441	+1,412	+1,409	+1,402	+1,377	+1,350	+1,331	+1,311	+1,276	+1,233	+1,183	+1,132	+1,074	+1,016	+966	+923	+884	+841	+24,360	
Net migration	+1,317	+1,230	+1,125	+1,073	+1,019	+963	+953	+947	+925	+943	+944	+957	+983	+1,002	+998	+985	+983	+981	+984	+979	+20,292	
Net change	+2,664	+2,684	+2,565	+2,485	+2,429	+2,365	+2,330	+2,296	+2,257	+2,254	+2,220	+2,190	+2,166	+2,134	+2,072	+2,001	+1,949	+1,904	+1,868	+1,820	+44,653	

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	19,653	20,128	20,360	20,628	20,834	21,017	21,047	20,979	20,890	20,812	20,738	20,660	20,585	20,503	20,403	20,288	20,167	20,058	19,971	19,910	19,883	
5-10	20,665	20,943	21,769	22,344	22,851	23,391	24,055	24,575	24,801	25,048	25,232	25,392	25,392	25,304	25,205	25,112	25,020	24,918	24,819	24,712	24,585	
11-15	18,494	18,323	17,860	17,730	17,730	17,787	17,849	18,358	18,956	19,407	19,937	20,457	20,900	21,128	21,399	21,602	21,772	21,795	21,722	21,625	21,538	
16-17	7,960	7,882	7,810	7,732	7,574	7,455	7,369	7,142	7,119	7,428	7,505	7,492	7,725	8,217	8,459	8,472	8,539	8,688	8,888	8,961	8,948	
18-59Female, 64Male	184,759	185,413	186,196	186,796	187,561	188,203	188,667	188,960	189,097	188,929	188,919	188,918	188,811	188,503	188,353	188,460	188,415	188,535	188,687	188,967	189,302	
60/65 -74	37,533	38,607	39,466	40,265	40,915	41,534	42,098	42,427	42,908	43,440	43,954	43,935	44,183	44,882	45,806	46,833	47,891	48,885	49,793	50,724	51,610	
75-84	18,708	18,895	19,219	19,570	19,837	20,074	20,472	21,208	21,905	22,568	23,262	24,522	25,544	26,323	26,942	27,472	27,936	28,108	28,333	28,527	28,695	
85+	8,687	8,933	9,127	9,308	9,556	9,827	10,094	10,333	10,601	10,902	11,243	11,632	12,058	12,504	12,932	13,332	13,832	14,532	15,212	15,866	16,552	
Total	316,460	319,124	321,807	324,373	326,858	329,287	331,652	333,982	336,278	338,534	340,789	343,009	345,198	347,364	349,498	351,570	353,571	355,520	357,424	359,292	361,112	44,653

Population impact of constraint

Number of persons	+116	-7	-8	-7	-9	-8	-8	-7	-6	-7	-5	-5	-5	-5	-5	-6	-6	-7	-7	-7	-7	
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Households

Number of Households	138,337	139,887	141,398	142,845	144,257	145,714	147,188	148,640	150,072	151,442	152,820	154,091	155,405	156,712	157,999	159,292	160,589	161,933	163,275	164,560	165,793	27,455
Change over previous year	+1,658	+1,549	+1,511	+1,447	+1,412	+1,456	+1,474	+1,452	+1,432	+1,370	+1,377	+1,271	+1,314	+1,307	+1,287	+1,293	+1,297	+1,344	+1,342	+1,285	+1,232	
Number of supply units	143,675	145,282	146,850	148,351	149,815	151,325	152,854	154,361	155,846	157,267	158,696	160,015	161,377	162,733	164,068	165,410	166,756	168,151	169,544	170,878	172,157	28,482
Change over previous year	+1,721	+1,607	+1,568	+1,501	+1,464	+1,510	+1,529	+1,506	+1,485	+1,422	+1,429	+1,319	+1,362	+1,356	+1,335	+1,342	+1,346	+1,395	+1,393	+1,334	+1,279	

Labour Force

Number of Labour Force	170,071	170,966	171,734	172,382	172,975	173,539	173,812	174,214	174,545	174,614	174,662	174,707	174,985	175,177	175,369	175,560	175,846	176,293	176,705	177,165	177,687	7,616
Change over previous year	+1,363	+895	+768	+648	+593	+563	+273	+402	+331	+69	+48	+44	+278	+192	+192	+191	+286	+447	+412	+461	+522	
Number of supply units	154,554	155,392	156,276	157,049	157,769	158,463	158,894	159,446	159,925	160,165	160,385	160,603	161,039	161,295	161,475	161,657	161,929	162,349	162,735	163,164	163,653	9,099
Change over previous year	+2,332	+839	+884	+774	+720	+694	+431	+552	+479	+239	+220	+218	+436	+256	+181	+181	+273	+420	+385	+430	+488	

This report was compiled from a forecast produced on 23/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

2.29	2.28	2.28	2.27	2.27	2.26	2.25	2.25	2.24	2.24	2.23	2.23	2.22	2.22	2.21	2.21	2.20	2.20	2.19	2.18	2.18	
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Migration - Net Flows

UK	+315	+283	+261	+243	+222	+202	+182	+168	+149	+136	+122	+116	+109	+102	+94	+78	+71	+66	+63	+59
Overseas	+108	+97	+85	+73	+55	+37	+37	+37	+37	+37	+37	+38	+37	+37	+37	+37	+37	+37	+37	+37

Summary of population change

Natural change	+799	+867	+861	+850	+860	+862	+853	+839	+832	+824	+809	+790	+769	+749	+726	+704	+687	+675	+665	+653	+15,677
Net migration	+422	+380	+346	+316	+277	+239	+220	+205	+186	+173	+160	+153	+147	+139	+131	+115	+108	+103	+100	+95	+4,015
Net change	+1,221	+1,247	+1,207	+1,166	+1,138	+1,102	+1,072	+1,045	+1,018	+997	+969	+943	+916	+889	+857	+819	+795	+778	+764	+748	+19,692

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	8,452	8,671	8,765	8,890	8,989	9,093	9,128	9,110	9,082	9,054	9,024	8,987	8,947	8,904	8,853	8,797	8,740	8,691	8,655	8,633	8,629	
5-10	8,399	8,616	9,061	9,337	9,610	9,843	10,122	10,367	10,453	10,566	10,654	10,745	10,764	10,735	10,701	10,667	10,628	10,582	10,533	10,482	10,422	
11-15	7,161	7,072	6,882	6,878	6,864	6,954	7,075	7,329	7,623	7,858	8,091	8,298	8,493	8,579	8,695	8,785	8,872	8,897	8,876	8,845	8,816	
16-17	2,939	2,896	2,950	2,932	2,899	2,845	2,751	2,672	2,724	2,860	2,906	2,944	3,036	3,252	3,367	3,359	3,378	3,435	3,529	3,566	3,562	
18-59Female, 64Male	71,047	71,509	71,958	72,371	72,842	73,249	73,589	73,782	73,884	73,871	73,990	74,083	74,119	74,068	74,055	74,123	74,160	74,280	74,372	74,500	74,699	
60/65 -74	12,663	13,012	13,271	13,584	13,841	14,078	14,286	14,458	14,705	14,987	15,239	15,298	15,484	15,814	16,235	16,736	17,219	17,647	18,053	18,455	18,802	
75-84	6,247	6,288	6,347	6,383	6,429	6,462	6,606	6,838	7,035	7,249	7,441	7,848	8,178	8,475	8,696	8,885	9,010	9,047	9,133	9,231	9,335	
85+	2,608	2,672	2,751	2,817	2,883	2,971	3,039	3,112	3,206	3,286	3,383	3,495	3,621	3,729	3,843	3,952	4,115	4,337	4,545	4,748	4,944	
Total	119,516	120,737	121,984	123,191	124,357	125,494	126,596	127,668	128,713	129,731	130,728	131,698	132,641	133,557	134,445	135,302	136,122	136,917	137,695	138,460	139,208	19,692

Population impact of constraint

Number of persons	+45	-1	-2	-1	-2	-2	-2	-2	-1	-2	-1	-1	-1	-1	-2	-2	-3	-3	-3	-3	-3
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Households

Number of Households	51,410	52,061	52,718	53,335	53,938	54,568	55,194	55,807	56,413	56,979	57,546	58,082	58,625	59,172	59,709	60,237	60,760	61,321	61,869	62,396	62,904	11,495
Change over previous year	+695	+651	+657	+617	+603	+630	+626	+613	+606	+566	+567	+536	+544	+547	+537	+527	+524	+560	+549	+527	+508	
Number of supply units	53,274	53,949	54,630	55,270	55,895	56,547	57,196	57,831	58,459	59,046	59,633	60,189	60,752	61,318	61,875	62,421	62,964	63,545	64,113	64,659	65,186	11,912
Change over previous year	+720	+675	+681	+640	+625	+653	+649	+635	+628	+587	+588	+555	+563	+567	+557	+546	+543	+581	+568	+546	+527	

Labour Force

Number of Labour Force	64,718	65,218	65,652	66,052	66,387	66,717	66,951	67,229	67,456	67,571	67,671	67,769	67,967	68,095	68,209	68,327	68,493	68,719	68,919	69,139	69,384	4,666
Change over previous year	+678	+500	+434	+400	+335	+330	+234	+278	+227	+115	+99	+98	+198	+129	+114	+118	+166	+227	+200	+220	+245	
Number of supply units	64,718	65,218	65,723	66,194	66,601	67,004	67,311	67,663	67,964	68,153	68,325	68,498	68,771	68,974	69,089	69,208	69,376	69,606	69,809	70,031	70,280	5,561
Change over previous year	+1,297	+500	+505	+472	+407	+402	+307	+352	+301	+189	+173	+172	+273	+203	+115	+119	+168	+230	+202	+222	+249	

This report was compiled from a forecast produced on 23/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

	2.32	2.32	2.31	2.31	2.31	2.30	2.29	2.29	2.28	2.28	2.27	2.27	2.26	2.26	2.25	2.25	2.24	2.23	2.23	2.22	2.21
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Migration - Net Flows

UK	+545	+564	+564	+563	+560	+551	+542	+545	+542	+545	+541	+517	+513	+510	+501	+484	+481	+483	+482	+473
Overseas	+105	+102	+99	+95	+89	+83	+83	+83	+83	+84	+84	+84	+84	+84	+84	+84	+83	+83	+83	+83

Summary of population change

Natural change	+138	+144	+137	+125	+130	+123	+113	+105	+99	+93	+82	+70	+55	+39	+21	+2	-15	-31	-46	-61
Net migration	+650	+666	+662	+658	+649	+634	+625	+629	+626	+628	+624	+600	+596	+594	+585	+568	+564	+567	+566	+556
Net change	+789	+810	+799	+782	+779	+757	+738	+734	+725	+721	+707	+670	+651	+633	+606	+570	+549	+536	+520	+496

+12,248

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	4,686	4,815	4,869	4,918	4,970	5,008	5,014	5,004	4,990	4,980	4,970	4,960	4,951	4,939	4,922	4,898	4,872	4,846	4,822	4,804	4,793
5-10	5,473	5,497	5,640	5,841	5,920	6,055	6,201	6,337	6,398	6,450	6,503	6,538	6,536	6,519	6,499	6,482	6,464	6,445	6,426	6,404	6,376
11-15	4,651	4,676	4,655	4,568	4,585	4,596	4,611	4,684	4,864	4,951	5,071	5,187	5,307	5,367	5,427	5,479	5,517	5,521	5,505	5,483	5,466
16-17	1,863	1,866	1,845	1,867	1,888	1,864	1,846	1,821	1,756	1,827	1,885	1,871	1,914	2,013	2,085	2,089	2,105	2,147	2,190	2,205	2,202
18-59Female, 64Male	46,355	46,377	46,426	46,589	46,760	46,931	47,129	47,237	47,338	47,377	47,356	47,399	47,415	47,351	47,324	47,337	47,267	47,233	47,244	47,306	47,331
60/65 -74	11,996	12,385	12,724	12,919	13,139	13,356	13,518	13,610	13,696	13,795	13,917	13,862	13,865	14,046	14,261	14,519	14,845	15,110	15,385	15,632	15,896
75-84	5,495	5,607	5,802	5,982	6,123	6,262	6,407	6,700	6,982	7,261	7,548	8,005	8,331	8,567	8,770	8,945	9,095	9,181	9,207	9,232	9,263
85+	2,410	2,498	2,568	2,644	2,725	2,818	2,921	2,992	3,094	3,202	3,315	3,452	3,623	3,791	3,938	4,081	4,238	4,468	4,707	4,940	5,175
Total	82,930	83,719	84,529	85,328	86,111	86,890	87,647	88,386	89,119	89,844	90,566	91,272	91,942	92,593	93,226	93,832	94,402	94,951	95,486	96,007	96,502

13,572

Population impact of constraint

Number of persons	+32	+3	+3	+3	+3	+2	+2	+2	+2	+2	+3	+3	+3	+3	+3	+3	+2	+2	+2	+2	+2
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Households

Number of Households	36,052	36,496	36,929	37,369	37,802	38,251	38,683	39,114	39,529	39,935	40,354	40,739	41,138	41,522	41,901	42,283	42,656	43,004	43,372	43,717	44,052
Change over previous year	+446	+444	+433	+439	+433	+449	+432	+432	+415	+405	+419	+385	+399	+384	+379	+382	+373	+349	+368	+345	+334
Number of supply units	37,071	37,528	37,973	38,425	38,870	39,332	39,777	40,220	40,647	41,064	41,495	41,891	42,301	42,696	43,086	43,478	43,862	44,220	44,599	44,954	45,297
Change over previous year	+458	+457	+445	+452	+445	+462	+444	+444	+427	+417	+431	+396	+410	+395	+390	+392	+384	+358	+378	+355	+344

8,000

8,226

Labour Force

Number of Labour Force	42,568	42,709	42,868	43,050	43,222	43,389	43,499	43,596	43,748	43,822	43,877	43,915	43,992	44,053	44,115	44,162	44,195	44,275	44,359	44,466	44,561
Change over previous year	+242	+141	+158	+183	+172	+166	+110	+97	+152	+74	+56	+38	+77	+61	+63	+47	+33	+80	+84	+107	+95
Number of supply units	34,455	34,569	34,734	34,919	35,095	35,267	35,394	35,510	35,671	35,769	35,852	35,920	36,021	36,070	36,122	36,160	36,187	36,252	36,321	36,409	36,487
Change over previous year	+232	+114	+165	+185	+176	+172	+127	+116	+161	+98	+83	+68	+100	+50	+51	+38	+27	+65	+69	+88	+78

1,993

2,032

This report was compiled from a forecast produced on 23/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

	2.30	2.29	2.29	2.28	2.28	2.27	2.27	2.26	2.25	2.25	2.24	2.24	2.23	2.23	2.22	2.22	2.21	2.21	2.20	2.20	2.19
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This file was produced using the scenario file G:\HEaDROOM\1. POPGROUP v3.1 DF Compatible\Model Runs\CGT\Cheltenham, Gloucester, Tewkesbury JCS_inp\scenario_ONS2010 baseline.xls

Tick to save as new flat file

It was run on 23/05/2012 at 13:50:05

Produce flat file		<< Append to (blank if not to be appended)
Clicking the button will copy all data from this components file onto a single sheet in another workbook (for pivots, etc)	G:\HEaDROOM\1. POPGROUP v3.1 DF Compatible\Model Runs\CGT\Cheltenham, Gloucester, Tewkesbury JCS_out\FlatComp_ONS2010 baseline.xls	<< Save flat file with this name (may be blank if to be appended to an existing file)

Forecast after model set up to replicate ONS 2010 Based population projection data.

Comments from the PopBase2010.xls workbook, which was last updated on 26/02/2008

2010 Mid-Year Estimate of population taken from ONS sub-national 2010-based projections. Further details on ONS 2008 based SNPP at: <http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the FertONS2010.xls workbook, which was last updated on 09/09/2007

Area fertility schedules taken from ONS sub-national 2010-based projection, 2011-12. Area fertility differentials each year computed to approximately reproduce the area fertility projected by ONS. The differential is the ratio of ONS projected births to the births predicted from the group schedule. Area counts of births each year taken from ONS sub-national 2010-based projection. When running scenarios using alternative migration or mortality, remove the counts of births. The schedule and the differentials will then apply ONS projected local fertility rates to the alternative population each year. When running scenarios using alternative fertility, remove the counts and change the schedule / differentials to your alternative. Further details on ONS 2010 based SNPP at: <http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html> Source of standard schedule of rates: Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the MortONS2010.xls workbook, which was last updated on 09/09/2007

Area mortality schedules taken from ONS sub-national 2010-based projection, 2011-12. Area mortality differentials each year computed to approximately reproduce the area mortality projected by ONS. The differential is the ratio of ONS projected deaths to the deaths predicted from the group schedule. Area counts of deaths each year taken from ONS sub-national 2010-based projection. When running scenarios using alternative migration or fertility, remove the counts of deaths. The schedule and the differentials will then apply ONS projected local mortality rates to the alternative population each year. When running scenarios using alternative mortality, remove the counts and change the schedule / differentials to your alternative. Further details on ONS 2010 based SNPP at: <http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html> Source of standard schedule of rates: Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the Mig_INUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12. Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule. Area counts of internal in-migrants each year taken from ONS sub-national 2010-based projection. When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative. Further details on ONS 2010 based SNPP at: <http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html> Source of standard schedule of rates: Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the Mig_OUTUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12. Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule. Area counts of internal out-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/re/snpp/sub-national-population-projections/2010-based-projections/rpt-snp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the Mig_INOVONS2010.xls workbook, which was last updated on 09/09/2007

Area overseas in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.

Area counts of overseas in-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/re/snpp/sub-national-population-projections/2010-based-projections/rpt-snp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the Mig_OUTOVONS2010.xls workbook, which was last updated on 09/09/2007

Area overseas out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.

Area counts of overseas out-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/re/snpp/sub-national-population-projections/2010-based-projections/rpt-snp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the Cons2011-35.xls workbook, which was last updated on 03/12/2010

Population 2011-2035 taken from ONS sub-national 2010 based projections.

Further details on ONS 2008 based SNPP at:

<http://www.ons.gov.uk/ons/re/snpp/sub-national-population-projections/2010-based-projections/rpt-snp-2010-based-methodogy-report.html>

Comments from the DFSupply.xls workbook, which was last updated on 04/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conversion ratio has been used.

Comments from the JOBS DFSupply2.xls workbook, which was last updated on 11/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conversion ratio has been given with separate rates for unemployment and commuting.

Constraint caused negative migrant flow for group Cheltenham in year 2011, Male age 83 in flow 3 - adjusted
Constraint caused negative migrant flow for group Cheltenham in year 2011, Male age 84 in flow 3 - adjusted
Constraint caused negative migrant flow for group Cheltenham in year 2011, Male age 86 in flow 3 - adjusted
Constraint caused negative migrant flow for group Cheltenham in year 2011, Male age 88 in flow 3 - adjusted
Constraint caused negative migrant flow for group Cheltenham in year 2011, Female age 86 in flow 3 - adjusted
Constraint caused negative migrant flow for group Gloucester in year 2011, Male age 74 in flow 3 - adjusted
Constraint caused negative migrant flow for group Gloucester in year 2011, Male age 76 in flow 3 - adjusted
Constraint caused negative migrant flow for group Gloucester in year 2011, Male age 77 in flow 3 - adjusted
Constraint caused negative migrant flow for group Gloucester in year 2011, Male age 83 in flow 3 - adjusted
Constraint caused negative migrant flow for group Gloucester in year 2011, Male age 88 in flow 3 - adjusted
Constraint caused negative migrant flow for group Gloucester in year 2011, Female age 75 in flow 3 - adjusted
Constraint caused negative migrant flow for group Gloucester in year 2011, Female age 77 in flow 3 - adjusted
Constraint caused negative migrant flow for group Gloucester in year 2011, Female age 78 in flow 3 - adjusted
Constraint caused negative migrant flow for group Gloucester in year 2011, Female age 81 in flow 3 - adjusted
Constraint caused negative migrant flow for group Gloucester in year 2011, Female age 84 in flow 3 - adjusted
Constraint caused negative migrant flow for group Gloucester in year 2011, Female age 87 in flow 3 - adjusted
Constraint caused negative migrant flow for group Gloucester in year 2011, Female age 89 in flow 3 - adjusted
Constraint caused negative migrant flow for group Gloucester in year 2011, Female age 90 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 8 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 42 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 48 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 53 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 62 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 74 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 75 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 78 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 81 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 83 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 84 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 85 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Male age 88 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Female age 74 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Female age 75 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Female age 76 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Female age 78 in flow 3 - adjusted
Constraint caused negative migrant flow for group Tewkesbury in year 2011, Female age 82 in flow 3 - adjusted

version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

SMigR: males	123.5	124.0	124.7	125.5	127.0	128.6	128.5	128.4	128.6	128.8	129.1	129.4	129.6	129.7	129.6	129.4	128.9	128.3	127.6	126.7		
SMigR: females	102.5	103.1	103.8	104.8	106.3	107.9	107.9	107.9	108.0	108.2	108.5	108.6	108.8	108.9	108.8	108.5	108.1	107.6	107.0	106.3		
Migrants input																						
Migration - Net Flows																						
UK	+1,038	+981	+908	+888	+882	+875	+865	+859	+837	+855	+856	+869	+895	+914	+910	+897	+895	+893	+896	+891	+17,903	
Overseas	+280	+250	+217	+185	+137	+88	+88	+88	+88	+88	+88	+88	+88	+88	+88	+88	+88	+88	+88	+88	+2,389	
Summary of population change																						
Natural change	+1,347	+1,453	+1,441	+1,412	+1,409	+1,402	+1,377	+1,350	+1,331	+1,311	+1,276	+1,233	+1,183	+1,132	+1,074	+1,016	+966	+923	+884	+841	+24,360	
Net migration	+1,317	+1,230	+1,125	+1,073	+1,019	+963	+953	+947	+925	+943	+944	+957	+983	+1,002	+998	+985	+983	+981	+984	+979	+20,292	
Net change	+2,664	+2,684	+2,565	+2,485	+2,429	+2,365	+2,330	+2,296	+2,257	+2,254	+2,220	+2,190	+2,166	+2,134	+2,072	+2,001	+1,949	+1,904	+1,868	+1,820	+44,653	

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	19,653	20,128	20,360	20,628	20,834	21,017	21,047	20,979	20,890	20,812	20,738	20,660	20,585	20,503	20,403	20,288	20,167	20,058	19,971	19,910	19,883	
5-10	20,665	20,943	21,769	22,344	22,851	23,391	24,055	24,575	24,801	25,048	25,232	25,392	25,392	25,304	25,205	25,112	25,020	24,918	24,819	24,712	24,585	
11-15	18,494	18,323	17,860	17,730	17,730	17,787	17,849	18,358	18,956	19,407	19,937	20,457	20,900	21,128	21,399	21,602	21,772	21,795	21,722	21,625	21,538	
16-17	7,960	7,882	7,810	7,732	7,574	7,455	7,369	7,142	7,119	7,428	7,505	7,492	7,725	8,217	8,459	8,472	8,539	8,688	8,888	8,961	8,948	
18-59Female, 64Male	184,759	185,413	186,196	186,796	187,561	188,203	188,667	188,960	189,097	188,929	188,919	188,918	188,811	188,503	188,353	188,460	188,415	188,535	188,687	188,967	189,302	
60/65 -74	37,533	38,607	39,466	40,265	40,915	41,534	42,098	42,427	42,908	43,440	43,954	43,935	44,183	44,882	45,806	46,833	47,891	48,885	49,793	50,724	51,610	
75-84	18,708	18,895	19,219	19,570	19,837	20,074	20,472	21,208	21,905	22,568	23,262	24,522	25,544	26,323	26,942	27,472	27,936	28,108	28,333	28,527	28,695	
85+	8,687	8,933	9,127	9,308	9,556	9,827	10,094	10,333	10,601	10,902	11,243	11,632	12,058	12,504	12,932	13,332	13,832	14,532	15,212	15,866	16,552	
Total	316,460	319,124	321,807	324,373	326,858	329,287	331,652	333,982	336,278	338,534	340,789	343,009	345,198	347,364	349,498	351,570	353,571	355,520	357,424	359,292	361,112	44,653

Population impact of constraint

Number of persons	+116	-7	-8	-7	-9	-8	-8	-7	-6	-7	-5	-5	-5	-5	-5	-6	-6	-7	-7	-7	-7	
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Households

Number of Households	138,337	139,887	141,398	142,845	144,257	145,714	147,188	148,640	150,072	151,442	152,820	154,091	155,405	156,712	157,999	159,292	160,589	161,933	163,275	164,560	165,793	27,455
Change over previous year	+1,658	+1,549	+1,511	+1,447	+1,412	+1,456	+1,474	+1,452	+1,432	+1,370	+1,377	+1,271	+1,314	+1,307	+1,287	+1,293	+1,297	+1,344	+1,342	+1,285	+1,232	
Number of supply units	143,675	145,282	146,850	148,351	149,815	151,325	152,854	154,361	155,846	157,267	158,696	160,015	161,377	162,733	164,068	165,410	166,756	168,151	169,544	170,878	172,157	28,482
Change over previous year	+1,721	+1,607	+1,568	+1,501	+1,464	+1,510	+1,529	+1,506	+1,485	+1,422	+1,429	+1,319	+1,362	+1,356	+1,335	+1,342	+1,346	+1,395	+1,393	+1,334	+1,279	

Labour Force

Number of Labour Force	170,071	170,966	171,734	172,382	172,975	173,539	173,812	174,214	174,545	174,614	174,662	174,707	174,985	175,177	175,369	175,560	175,846	176,293	176,705	177,165	177,687	7,616
Change over previous year	+1,363	+895	+768	+648	+593	+563	+273	+402	+331	+69	+48	+44	+278	+192	+192	+191	+286	+447	+412	+461	+522	
Number of supply units	154,554	155,392	156,276	157,049	157,769	158,463	159,003	159,725	160,375	160,784	161,175	161,563	162,171	162,695	163,218	163,667	164,091	164,665	165,056	165,492	165,987	11,433
Change over previous year	+2,332	+839	+884	+774	+720	+694	+540	+722	+650	+409	+391	+388	+608	+524	+523	+449	+424	+574	+391	+436	+495	

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Migration - Net Flows

UK	+177	+133	+82	+82	+100	+122	+140	+145	+146	+174	+192	+236	+273	+301	+314	+335	+343	+344	+351	+360	+4,351
Overseas	+68	+52	+34	+17	-7	-32	-32	-32	-32	-32	-32	-32	-32	-32	-32	-32	-32	-32	-32	-32	-322

Summary of population change

Natural change	+409	+442	+443	+438	+419	+416	+411	+405	+400	+394	+384	+373	+359	+344	+327	+309	+294	+279	+265	+249	+7,359
Net migration	+245	+185	+116	+99	+93	+90	+108	+113	+113	+142	+160	+203	+241	+269	+282	+303	+311	+312	+318	+327	+4,029
Net change	+654	+627	+559	+537	+512	+506	+519	+518	+513	+535	+544	+576	+599	+613	+609	+611	+605	+590	+583	+576	+11,388

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	6,514	6,642	6,726	6,820	6,875	6,916	6,904	6,865	6,818	6,777	6,744	6,714	6,687	6,660	6,628	6,592	6,555	6,522	6,494	6,473	6,461	
5-10	6,794	6,829	7,068	7,167	7,321	7,493	7,732	7,871	7,949	8,031	8,074	8,110	8,092	8,051	8,005	7,963	7,928	7,892	7,859	7,826	7,787	
11-15	6,681	6,575	6,323	6,284	6,281	6,238	6,164	6,344	6,468	6,597	6,775	6,972	7,100	7,181	7,277	7,337	7,383	7,377	7,341	7,296	7,256	
16-17	3,158	3,120	3,016	2,934	2,788	2,745	2,772	2,649	2,639	2,742	2,713	2,677	2,676	2,951	3,006	3,024	3,056	3,106	3,169	3,190	3,184	
18-59Female, 64Male	67,357	67,526	67,812	67,837	67,959	68,023	67,949	67,941	67,875	67,681	67,573	67,436	67,277	67,084	66,974	67,000	66,988	67,021	67,071	67,161	67,271	
60/65 -74	12,875	13,210	13,471	13,762	13,935	14,099	14,293	14,360	14,507	14,658	14,797	14,775	14,835	15,022	15,310	15,578	15,827	16,128	16,356	16,636	16,912	
75-84	6,965	7,001	7,070	7,204	7,285	7,350	7,459	7,671	7,889	8,059	8,273	8,669	9,035	9,281	9,476	9,642	9,831	9,880	9,993	10,065	10,097	
85+	3,668	3,763	3,808	3,846	3,947	4,038	4,135	4,228	4,301	4,414	4,545	4,686	4,814	4,984	5,151	5,299	5,479	5,727	5,959	6,178	6,433	
Total	114,013	114,667	115,295	115,854	116,391	116,903	117,409	117,928	118,446	118,959	119,495	120,039	120,615	121,215	121,827	122,436	123,048	123,652	124,243	124,826	125,401	11,388

Population impact of constraint

Number of persons	+38	-9	-9	-9	-9	-9	-8	-8	-7	-7	-7	-6	-6	-6	-6	-6	-6	-6	-7	-7	-6	
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Households

Number of Households	50,876	51,330	51,751	52,142	52,518	52,895	53,312	53,719	54,130	54,529	54,920	55,270	55,641	56,018	56,388	56,773	57,173	57,608	58,034	58,447	58,837	7,961
Change over previous year	+518	+454	+421	+390	+376	+378	+416	+408	+410	+399	+391	+350	+371	+377	+371	+385	+400	+435	+426	+413	+390	
Number of supply units	53,329	53,805	54,247	54,656	55,050	55,446	55,882	56,309	56,740	57,158	57,568	57,935	58,324	58,719	59,107	59,510	59,930	60,386	60,832	61,265	61,674	8,344
Change over previous year	+543	+476	+441	+409	+394	+396	+436	+427	+430	+418	+410	+367	+389	+395	+389	+403	+420	+456	+446	+433	+409	

Labour Force

Number of Labour Force	62,785	63,039	63,214	63,279	63,366	63,433	63,362	63,390	63,342	63,221	63,115	63,022	63,026	63,029	63,045	63,071	63,159	63,299	63,426	63,560	63,741	957
Change over previous year	+443	+255	+175	+65	+86	+67	-71	+27	-48	-120	-107	-92	+3	+3	+16	+27	+87	+140	+128	+134	+181	
Number of supply units	55,381	55,605	55,820	55,936	56,073	56,192	56,189	56,333	56,410	56,422	56,446	56,482	56,604	56,726	56,859	57,002	57,081	57,208	57,323	57,444	57,608	2,227
Change over previous year	+803	+225	+214	+117	+136	+119	-3	+144	+77	+12	+24	+37	+122	+122	+133	+143	+79	+127	+115	+121	+164	

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Migration - Net Flows

UK	+314	+282	+260	+242	+221	+201	+182	+167	+148	+135	+122	+115	+108	+101	+93	+77	+70	+65	+62	+57	+3,022
Overseas	+108	+97	+86	+74	+56	+38	+38	+38	+38	+38	+38	+38	+38	+38	+38	+38	+38	+38	+38	+38	+993

Summary of population change

Natural change	+799	+867	+861	+850	+860	+862	+853	+839	+832	+824	+809	+790	+769	+749	+726	+704	+687	+675	+665	+653	+15,677
Net migration	+422	+380	+346	+316	+277	+239	+220	+205	+186	+173	+160	+153	+147	+139	+131	+115	+108	+103	+100	+95	+4,015
Net change	+1,221	+1,247	+1,207	+1,166	+1,138	+1,102	+1,072	+1,045	+1,018	+997	+969	+943	+916	+889	+857	+819	+795	+778	+764	+748	+19,692

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	8,452	8,671	8,765	8,890	8,989	9,093	9,128	9,110	9,082	9,054	9,024	8,987	8,947	8,904	8,853	8,797	8,740	8,691	8,655	8,633	8,629	
5-10	8,399	8,616	9,061	9,337	9,610	9,843	10,122	10,367	10,453	10,566	10,654	10,745	10,764	10,735	10,701	10,667	10,628	10,582	10,533	10,482	10,422	
11-15	7,161	7,072	6,882	6,878	6,864	6,954	7,075	7,329	7,623	7,858	8,091	8,298	8,493	8,579	8,695	8,785	8,872	8,897	8,876	8,845	8,816	
16-17	2,939	2,896	2,950	2,932	2,899	2,845	2,751	2,672	2,724	2,860	2,906	2,944	3,036	3,252	3,367	3,359	3,378	3,435	3,529	3,566	3,562	
18-59Female, 64Male	71,047	71,509	71,958	72,371	72,842	73,249	73,589	73,782	73,884	73,871	73,990	74,083	74,119	74,068	74,055	74,123	74,160	74,280	74,372	74,500	74,699	
60/65 -74	12,663	13,012	13,271	13,584	13,841	14,078	14,286	14,458	14,705	14,987	15,239	15,298	15,484	15,814	16,235	16,736	17,219	17,647	18,053	18,455	18,802	
75-84	6,247	6,288	6,347	6,383	6,429	6,462	6,606	6,838	7,035	7,249	7,441	7,848	8,178	8,475	8,696	8,885	9,010	9,047	9,133	9,231	9,335	
85+	2,608	2,672	2,751	2,817	2,883	2,971	3,039	3,112	3,206	3,286	3,383	3,495	3,621	3,729	3,843	3,952	4,115	4,337	4,545	4,748	4,944	
Total	119,516	120,737	121,984	123,191	124,357	125,494	126,596	127,668	128,713	129,731	130,728	131,698	132,641	133,557	134,445	135,302	136,122	136,917	137,695	138,460	139,208	19,692

Population impact of constraint

Number of persons	+45	-1	-2	-1	-2	-2	-2	-2	-1	-2	-1	-1	-1	-1	-2	-2	-3	-3	-3	-3	-3	
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Households

Number of Households	51,410	52,061	52,718	53,335	53,938	54,568	55,194	55,807	56,413	56,979	57,546	58,082	58,625	59,172	59,709	60,237	60,760	61,321	61,869	62,396	62,904	11,495
Change over previous year	+695	+651	+657	+617	+603	+630	+626	+613	+606	+566	+567	+536	+544	+547	+537	+527	+524	+560	+549	+527	+508	
Number of supply units	53,274	53,949	54,630	55,270	55,895	56,547	57,196	57,831	58,459	59,046	59,633	60,189	60,752	61,318	61,875	62,421	62,964	63,545	64,113	64,659	65,186	11,912
Change over previous year	+720	+675	+681	+640	+625	+653	+649	+635	+628	+587	+588	+555	+563	+567	+557	+546	+543	+581	+568	+546	+527	

Labour Force

Number of Labour Force	64,718	65,218	65,652	66,052	66,387	66,717	66,951	67,229	67,456	67,571	67,671	67,769	67,967	68,095	68,209	68,327	68,493	68,719	68,919	69,139	69,384	4,666
Change over previous year	+678	+500	+434	+400	+335	+330	+234	+278	+227	+115	+99	+98	+198	+129	+114	+118	+166	+227	+200	+220	+245	
Number of supply units	64,718	65,218	65,723	66,194	66,601	67,004	67,383	67,807	68,182	68,443	68,689	68,935	69,282	69,560	69,822	70,090	70,408	70,788	70,994	71,220	71,473	6,755
Change over previous year	+1,297	+500	+505	+472	+407	+402	+379	+424	+374	+262	+246	+246	+347	+277	+263	+268	+318	+381	+206	+226	+253	

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Migration - Net Flows																						
UK	+547	+565	+565	+564	+561	+552	+543	+547	+544	+546	+542	+518	+514	+512	+503	+486	+482	+485	+484	+474	+467	+10,531
Overseas	+104	+101	+97	+94	+88	+82	+82	+82	+82	+82	+82	+82	+82	+82	+82	+82	+82	+82	+82	+82	+82	+1,718
Summary of population change																						
Natural change	+138	+144	+137	+125	+130	+123	+113	+105	+99	+93	+82	+70	+55	+39	+21	+2	-15	-31	-46	-61	-75	+1,324
Net migration	+650	+666	+662	+658	+649	+634	+625	+629	+626	+628	+624	+600	+596	+594	+585	+568	+564	+567	+566	+556	+549	+12,248
Net change	+789	+810	+799	+782	+779	+757	+738	+734	+725	+721	+707	+670	+651	+633	+606	+570	+549	+536	+520	+496	+474	+13,572

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	4,686	4,815	4,869	4,918	4,970	5,008	5,014	5,004	4,990	4,980	4,970	4,960	4,951	4,939	4,922	4,898	4,872	4,846	4,822	4,804	4,793	
5-10	5,473	5,497	5,640	5,841	5,920	6,055	6,201	6,337	6,398	6,450	6,503	6,538	6,536	6,519	6,499	6,482	6,464	6,445	6,426	6,404	6,376	
11-15	4,651	4,676	4,655	4,568	4,585	4,596	4,611	4,684	4,864	4,951	5,071	5,187	5,307	5,367	5,427	5,479	5,517	5,521	5,505	5,483	5,466	
16-17	1,863	1,866	1,845	1,867	1,888	1,864	1,846	1,821	1,756	1,827	1,885	1,871	1,914	2,013	2,085	2,089	2,105	2,147	2,190	2,205	2,202	
18-59Female, 64Male	46,355	46,377	46,426	46,589	46,760	46,931	47,129	47,237	47,338	47,377	47,356	47,399	47,415	47,351	47,324	47,337	47,267	47,233	47,244	47,306	47,331	
60/65 -74	11,996	12,385	12,724	12,919	13,139	13,356	13,518	13,610	13,696	13,795	13,917	13,862	13,865	14,046	14,261	14,519	14,845	15,110	15,385	15,632	15,896	
75-84	5,495	5,607	5,802	5,982	6,123	6,262	6,407	6,700	6,982	7,261	7,548	8,005	8,331	8,567	8,770	8,945	9,095	9,181	9,207	9,232	9,263	
85+	2,410	2,498	2,568	2,644	2,725	2,818	2,921	2,992	3,094	3,202	3,315	3,452	3,623	3,791	3,938	4,081	4,238	4,468	4,707	4,940	5,175	
Total	82,930	83,719	84,529	85,328	86,111	86,890	87,647	88,386	89,119	89,844	90,566	91,272	91,942	92,593	93,226	93,832	94,402	94,951	95,486	96,007	96,502	13,572

Population impact of constraint

Number of persons	+32	+3	+3	+3	+3	+2	+2	+2	+2	+2	+3	+3	+3	+3	+3	+3	+2	+2	+2	+2	+2	
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Households

Number of Households	36,052	36,496	36,929	37,369	37,802	38,251	38,683	39,114	39,529	39,935	40,354	40,739	41,138	41,522	41,901	42,283	42,656	43,004	43,372	43,717	44,052	8,000
Change over previous year	+446	+444	+433	+439	+433	+449	+432	+432	+415	+405	+419	+385	+399	+384	+379	+382	+373	+349	+368	+345	+334	
Number of supply units	37,071	37,528	37,973	38,425	38,870	39,332	39,777	40,220	40,647	41,064	41,495	41,891	42,301	42,696	43,086	43,478	43,862	44,220	44,599	44,954	45,297	8,226
Change over previous year	+458	+457	+445	+452	+445	+462	+444	+444	+427	+417	+431	+396	+410	+395	+390	+392	+384	+358	+378	+355	+344	

Labour Force

Number of Labour Force	42,568	42,709	42,868	43,050	43,222	43,389	43,499	43,596	43,748	43,822	43,877	43,915	43,992	44,053	44,115	44,162	44,195	44,275	44,359	44,466	44,561	1,993
Change over previous year	+242	+141	+158	+183	+172	+166	+110	+97	+152	+74	+56	+38	+77	+61	+63	+47	+33	+80	+84	+107	+95	
Number of supply units	34,455	34,569	34,734	34,919	35,095	35,267	35,431	35,585	35,783	35,919	36,039	36,146	36,284	36,409	36,536	36,575	36,602	36,669	36,738	36,827	36,906	2,451
Change over previous year	+232	+114	+165	+185	+176	+172	+164	+154	+199	+136	+121	+106	+138	+125	+127	+39	+27	+66	+70	+89	+79	

This report was compiled from a forecast produced on 18/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

This file was produced using the scenario file G:\HEaDROOM\1. POPGROUP v3.1 DF
CompatibleModel Runs\CGT\Cheltenham, Gloucester, Tewkesbury JCS_inp\scenario_ONS2010
baseline LOW UNEMP.xls

Tick to save as new flat file

It was run on 18/05/2012 at 08:50:21

Produce flat file		
Clicking the button will copy all data from this components file onto a single sheet in another workbook (for pivots, etc)	G:\HEaDROOM\1. POPGROUP v3.1 DF CompatibleModel Runs\CGT\Cheltenham, Gloucester, Tewkesbury JCS_out\FlatComp_ONS2010 baseline LOW UNEMP.xls	<< Append to (blank if not to be appended) << Save flat file with this name (may be blank if to be appended to an existing file)

Forecast after model set up to replicate ONS 2010 Based population projection data.

Comments from the PopBase2010.xls workbook, which was last updated on 26/02/2008

2010 Mid-Year Estimate of population taken from ONS sub-national 2010-based projections.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the FertONS2010.xls workbook, which was last updated on 09/09/2007

Area fertility schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area fertility differentials each year computed to approximately reproduce the area fertility projected by ONS. The differential is the ratio of ONS projected births to the births predicted from the group schedule.
Area counts of births each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or mortality, remove the counts of births. The schedule and the differentials will then apply ONS projected local fertility rates to the alternative population each year. When running scenarios using alternative fertility, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the MortONS2010.xls workbook, which was last updated on 09/09/2007

Area mortality schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area mortality differentials each year computed to approximately reproduce the area mortality projected by ONS. The differential is the ratio of ONS projected deaths to the deaths predicted from the group schedule.
Area counts of deaths each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or fertility, remove the counts of deaths. The schedule and the differentials will then apply ONS projected local mortality rates to the alternative population each year. When running scenarios using alternative mortality, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the Mig_INUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal in-migrants each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the Mig_OUTUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal out-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the Mig_INOVONS2010.xls workbook, which was last updated on 09/09/2007

Area overseas in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.

Area counts of overseas in-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the Mig_OUTOVONS2010.xls workbook, which was last updated on 09/09/2007

Area overseas out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

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Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the Cons2011-35.xls workbook, which was last updated on 03/12/2010

Population 2011-2035 taken from ONS sub-national 2010 based projections.

Further details on ONS 2008 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the DFSupply.xls workbook, which was last updated on 04/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conversion ratio has been used.

Comments from the JOBS DFSupply.xls workbook, which was last updated on 18/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conversion ratio has been given with separate rates for unemployment and commuting.

Version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

Version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

SMigR: males
 SMigR: females
 Migrants input

Migration - Net Flows

UK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overseas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Summary of population change

Natural change	+1,347	+1,453	+1,441	+1,412	+1,409	+1,402	+1,377	+1,350	+1,331	+1,311	+1,276	+1,233	+1,183	+1,132	+1,074	+1,016	+966	+923	+884	+841	+24,360	
Net migration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net change	+1,347	+1,453	+1,441	+1,412	+1,409	+1,402	+1,377	+1,350	+1,331	+1,311	+1,276	+1,233	+1,183	+1,132	+1,074	+1,016	+966	+923	+884	+841	+24,360	

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	19,608	20,058	20,274	20,539	20,753	20,957	20,997	20,932	20,848	20,775	20,705	20,627	20,552	20,471	20,370	20,254	20,132	20,023	19,935	19,875	19,848	
5-10	20,577	20,782	21,555	22,088	22,557	23,062	23,729	24,259	24,476	24,723	24,923	25,118	25,134	25,051	24,960	24,876	24,790	24,690	24,591	24,484	24,357	
11-15	18,321	17,991	17,412	17,188	17,111	17,103	17,091	17,550	18,131	18,567	19,077	19,587	20,038	20,254	20,519	20,733	20,937	20,977	20,913	20,829	20,757	
16-17	7,895	7,765	7,607	7,438	7,226	7,067	6,954	6,698	6,636	6,925	6,982	6,935	7,146	7,676	7,942	7,927	7,956	8,107	8,342	8,423	8,406	
18-59Female, 64Male	183,625	183,361	183,278	183,076	183,031	182,876	182,561	182,063	181,398	180,416	179,564	178,711	177,750	176,496	175,405	174,630	173,678	172,930	172,214	171,640	171,131	
60/65 -74	37,450	38,467	39,270	40,020	40,625	41,202	41,745	42,063	42,559	43,108	43,638	43,663	43,937	44,685	45,652	46,696	47,773	48,733	49,579	50,449	51,273	
75-84	18,657	18,796	19,068	19,365	19,569	19,743	20,079	20,749	21,369	21,964	22,594	23,770	24,707	25,422	25,975	26,442	26,884	27,043	27,277	27,490	27,684	
85+	8,706	8,966	9,176	9,366	9,621	9,892	10,147	10,366	10,613	10,884	11,191	11,536	11,919	12,310	12,673	13,012	13,435	14,050	14,624	15,169	15,744	
Total	314,839	316,186	317,639	319,080	320,493	321,902	323,304	324,681	326,031	327,362	328,673	329,949	331,182	332,365	333,496	334,570	335,586	336,552	337,475	338,359	339,200	24,360

Households

Number of Households	137,841	138,963	140,059	141,098	142,052	143,044	144,091	145,105	146,064	146,982	147,863	148,624	149,396	150,155	150,870	151,615	152,316	153,093	153,831	154,510	155,095	17,254
Change over previous year	+1,162	+1,122	+1,096	+1,039	+954	+993	+1,047	+1,014	+958	+918	+881	+761	+772	+760	+714	+745	+702	+777	+738	+679	+585	
Number of supply units	143,162	144,330	145,471	146,554	147,548	148,581	149,670	150,725	151,722	152,677	153,593	154,385	155,187	155,977	156,720	157,494	158,223	159,032	159,798	160,504	161,112	17,949
Change over previous year	+1,209	+1,167	+1,142	+1,082	+994	+1,033	+1,089	+1,055	+997	+955	+916	+792	+803	+790	+743	+774	+729	+808	+766	+706	+608	

Labour Force

Number of Labour Force	169,020	169,024	168,953	168,800	168,626	168,440	167,977	167,630	167,199	166,517	165,798	165,049	164,554	163,939	163,305	162,665	162,133	161,793	161,402	161,057	160,782	-8,238
Change over previous year	+312	+4	-71	-153	-174	-186	-463	-346	-431	-682	-718	-749	-495	-615	-634	-640	-532	-340	-391	-346	-275	
Number of supply units	153,606	153,639	153,762	153,809	153,831	153,843	153,603	153,473	153,256	152,809	152,330	151,826	151,560	151,085	150,525	149,961	149,504	149,225	148,894	148,604	148,385	-5,221
Change over previous year	+1,384	+32	+123	+47	+22	+12	-240	-129	-217	-447	-479	-504	-265	-475	-561	-564	-457	-279	-331	-290	-219	

This report was compiled from a forecast produced on 05/09/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

This file was produced using the scenario file G:\HEaDROOM\1. POPGROUP v3.1 DF Compatible\Model Runs\Cardiff\CGT\Cheltenham, Gloucester, Tewkesbury JCS_in\scenario_ONS2010 natural change.xls

Tick to save as new flat file

It was run on 05/09/2012 at 16:45:42

Produce flat file		
Clicking the button will copy all data from this components file onto a single sheet in another workbook (for pivots, etc)	G:\HEaDROOM\1. POPGROUP v3.1 DF Compatible\Model Runs\Cardiff\CGT\Cheltenham, Gloucester, Tewkesbury JCS_out\FlatComp_ONS2010 natural change.xls	<< Append to (blank if not to be appended) << Save flat file with this name (may be blank if to be appended to an existing file)

Forecast after model set up to replicate ONS 2010 Based population projection data.

Comments from the PopBase2010.xls workbook, which was last updated on 26/02/2008

2010 Mid-Year Estimate of population taken from ONS sub-national 2010-based projections. Further details on ONS 2008 based SNPP at: <http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the FertONS2010.xls workbook, which was last updated on 09/09/2007

Area fertility schedules taken from ONS sub-national 2010-based projection, 2011-12. Area fertility differentials each year computed to approximately reproduce the area fertility projected by ONS. The differential is the ratio of ONS projected births to the births predicted from the group schedule. Area counts of births each year taken from ONS sub-national 2010-based projection. When running scenarios using alternative migration or mortality, remove the counts of births. The schedule and the differentials will then apply ONS projected local fertility rates to the alternative population each year. When running scenarios using alternative fertility, remove the counts and change the schedule / differentials to your alternative. Further details on ONS 2010 based SNPP at: <http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html> Source of standard schedule of rates: Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the MortONS2010.xls workbook, which was last updated on 09/09/2007

Area mortality schedules taken from ONS sub-national 2010-based projection, 2011-12. Area mortality differentials each year computed to approximately reproduce the area mortality projected by ONS. The differential is the ratio of ONS projected deaths to the deaths predicted from the group schedule. Area counts of deaths each year taken from ONS sub-national 2010-based projection. When running scenarios using alternative migration or fertility, remove the counts of deaths. The schedule and the differentials will then apply ONS projected local mortality rates to the alternative population each year. When running scenarios using alternative mortality, remove the counts and change the schedule / differentials to your alternative. Further details on ONS 2010 based SNPP at: <http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html> Source of standard schedule of rates: Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

No migration file was specified for In-migration from the UK (optional)

This migration stream was set to zero

No migration file was specified for Out-migration to the UK (optional)

This migration stream was set to zero

No migration file was specified for In-migration from Overseas (optional)

This migration stream was set to zero

No migration file was specified for Out-migration to Overseas (optional)

This migration stream was set to zero

Comments from the DFSupply.xls workbook, which was last updated on 04/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conversion ratio has been used.

Comments from the JOBS DFSupply2.xls workbook, which was last updated on 11/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conversion ratio has been given with separate rates for unemployment and commuting.

Version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

Version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

SMigR: males
 SMigR: females
 Migrants input

Migration - Net Flows

UK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overseas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Summary of population change

Natural change	+1,347	+1,453	+1,441	+1,412	+1,409	+1,402	+1,377	+1,350	+1,331	+1,311	+1,276	+1,233	+1,183	+1,132	+1,074	+1,016	+966	+923	+884	+841	+24,360	
Net migration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net change	+1,347	+1,453	+1,441	+1,412	+1,409	+1,402	+1,377	+1,350	+1,331	+1,311	+1,276	+1,233	+1,183	+1,132	+1,074	+1,016	+966	+923	+884	+841	+24,360	

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	19,608	20,058	20,274	20,539	20,753	20,957	20,997	20,932	20,848	20,775	20,705	20,627	20,552	20,471	20,370	20,254	20,132	20,023	19,935	19,875	19,848	
5-10	20,577	20,782	21,555	22,088	22,557	23,062	23,729	24,259	24,476	24,723	24,923	25,118	25,134	25,051	24,960	24,876	24,790	24,690	24,591	24,484	24,357	
11-15	18,321	17,991	17,412	17,188	17,111	17,103	17,091	17,550	18,131	18,567	19,077	19,587	20,038	20,254	20,519	20,733	20,937	20,977	20,913	20,829	20,757	
16-17	7,895	7,765	7,607	7,438	7,226	7,067	6,954	6,698	6,636	6,925	6,982	6,935	7,146	7,676	7,942	7,927	7,956	8,107	8,342	8,423	8,406	
18-59Female, 64Male	183,625	183,361	183,278	183,076	183,031	182,876	182,561	182,063	181,398	180,416	179,564	178,711	177,750	176,496	175,405	174,630	173,678	172,930	172,214	171,640	171,131	
60/65 -74	37,450	38,467	39,270	40,020	40,625	41,202	41,745	42,063	42,559	43,108	43,638	43,663	43,937	44,685	45,652	46,696	47,773	48,733	49,579	50,449	51,273	
75-84	18,657	18,796	19,068	19,365	19,569	19,743	20,079	20,749	21,369	21,964	22,594	23,770	24,707	25,422	25,975	26,442	26,884	27,043	27,277	27,490	27,684	
85+	8,706	8,966	9,176	9,366	9,621	9,892	10,147	10,366	10,613	10,884	11,191	11,536	11,919	12,310	12,673	13,012	13,435	14,050	14,624	15,169	15,744	
Total	314,839	316,186	317,639	319,080	320,493	321,902	323,304	324,681	326,031	327,362	328,673	329,949	331,182	332,365	333,496	334,570	335,586	336,552	337,475	338,359	339,200	24,360

Households

Number of Households	137,841	138,963	140,059	141,098	142,052	143,044	144,091	145,105	146,064	146,982	147,863	148,624	149,396	150,155	150,870	151,615	152,316	153,093	153,831	154,510	155,095	17,254
Change over previous year	+1,162	+1,122	+1,096	+1,039	+954	+993	+1,047	+1,014	+958	+918	+881	+761	+772	+760	+714	+745	+702	+777	+738	+679	+585	
Number of supply units	143,162	144,330	145,471	146,554	147,548	148,581	149,670	150,725	151,722	152,677	153,593	154,385	155,187	155,977	156,720	157,494	158,223	159,032	159,798	160,504	161,112	17,949
Change over previous year	+1,209	+1,167	+1,142	+1,082	+994	+1,033	+1,089	+1,055	+997	+955	+916	+792	+803	+790	+743	+774	+729	+808	+766	+706	+608	

Labour Force

Number of Labour Force	169,020	169,024	168,953	168,800	168,626	168,440	167,977	167,630	167,199	166,517	165,798	165,049	164,554	163,939	163,305	162,665	162,133	161,793	161,402	161,057	160,782	-8,238
Change over previous year	+312	+4	-71	-153	-174	-186	-463	-346	-431	-682	-718	-749	-495	-615	-634	-640	-532	-340	-391	-346	-275	
Number of supply units	153,606	153,639	153,762	153,809	153,831	153,843	153,707	153,740	153,685	153,399	153,078	152,731	152,623	152,395	152,148	151,829	151,502	151,356	151,021	150,728	150,507	-3,099
Change over previous year	+1,384	+32	+123	+47	+22	+12	-136	+34	-55	-287	-321	-347	-108	-228	-248	-319	-326	-146	-335	-293	-221	

This report was compiled from a forecast produced on 05/09/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overseas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Summary of population change

Natural change	+799	+867	+861	+850	+860	+862	+853	+839	+832	+824	+809	+790	+769	+749	+726	+704	+687	+675	+665	+653
Net migration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net change	+799	+867	+861	+850	+860	+862	+853	+839	+832	+824	+809	+790	+769	+749	+726	+704	+687	+675	+665	+653

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	8,461	8,698	8,800	8,934	9,044	9,165	9,211	9,195	9,171	9,146	9,117	9,079	9,037	8,993	8,940	8,880	8,821	8,770	8,733	8,712	8,709	
5-10	8,393	8,608	9,073	9,369	9,677	9,933	10,247	10,536	10,637	10,768	10,875	10,996	11,034	11,009	10,981	10,950	10,912	10,862	10,807	10,750	10,684	
11-15	7,141	7,039	6,839	6,839	6,813	6,913	7,049	7,327	7,658	7,944	8,213	8,452	8,688	8,790	8,925	9,035	9,155	9,202	9,186	9,163	9,138	
16-17	2,926	2,875	2,918	2,887	2,858	2,808	2,701	2,617	2,687	2,832	2,882	2,937	3,030	3,296	3,449	3,437	3,445	3,506	3,634	3,685	3,681	
18-59Female, 64Male	70,525	70,545	70,573	70,591	70,682	70,736	70,756	70,620	70,386	70,038	69,868	69,672	69,432	69,089	68,789	68,598	68,396	68,319	68,185	68,099	68,144	
60/65 -74	12,676	13,048	13,330	13,668	13,948	14,207	14,442	14,653	14,953	15,293	15,594	15,690	15,922	16,311	16,802	17,393	17,954	18,430	18,892	19,349	19,710	
75-84	6,248	6,288	6,344	6,368	6,405	6,425	6,568	6,797	6,989	7,209	7,408	7,830	8,176	8,500	8,741	8,957	9,106	9,163	9,281	9,420	9,568	
85+	2,614	2,684	2,774	2,856	2,935	3,036	3,111	3,193	3,295	3,378	3,475	3,586	3,712	3,814	3,923	4,027	4,191	4,417	4,626	4,831	5,027	
Total	118,985	119,784	120,651	121,512	122,362	123,222	124,084	124,937	125,776	126,608	127,433	128,242	129,032	129,801	130,551	131,277	131,981	132,669	133,344	134,009	134,662	15,677
Households																						
Number of Households	51,247	51,756	52,276	52,749	53,194	53,666	54,136	54,595	55,045	55,452	55,872	56,269	56,678	57,106	57,509	57,908	58,303	58,764	59,200	59,631	60,044	8,797
Change over previous year	+532	+510	+520	+473	+445	+472	+470	+459	+450	+407	+420	+398	+409	+428	+403	+398	+395	+461	+437	+431	+412	
Number of supply units	53,105	53,634	54,172	54,662	55,123	55,612	56,099	56,575	57,041	57,463	57,898	58,310	58,733	59,177	59,595	60,008	60,417	60,895	61,348	61,794	62,221	9,116
Change over previous year	+551	+528	+539	+490	+461	+489	+487	+476	+466	+422	+435	+412	+423	+444	+418	+413	+409	+478	+453	+447	+427	
Labour Force																						
Number of Labour Force	64,268	64,371	64,426	64,468	64,450	64,452	64,379	64,361	64,295	64,127	63,952	63,785	63,754	63,639	63,513	63,394	63,351	63,396	63,401	63,435	63,512	-756
Change over previous year	+228	+103	+54	+42	-18	+2	-73	-18	-66	-169	-175	-167	-31	-115	-126	-119	-44	+45	+5	+34	+77	
Number of supply units	64,268	64,371	64,495	64,606	64,658	64,730	64,794	64,915	64,987	64,954	64,914	64,882	64,988	65,007	65,016	65,030	65,122	65,304	65,310	65,345	65,424	1,156
Change over previous year	+847	+103	+124	+111	+52	+72	+65	+120	+72	-33	-40	-32	+105	+20	+8	+15	+91	+183	+5	+35	+79	

This report was compiled from a forecast produced on 05/09/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overseas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Summary of population change

Natural change	+138	+144	+137	+125	+130	+123	+113	+105	+99	+93	+82	+70	+55	+39	+21	+2	-15	-31	-46	-61
Net migration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net change	+138	+144	+137	+125	+130	+123	+113	+105	+99	+93	+82	+70	+55	+39	+21	+2	-15	-31	-46	-61

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	4,564	4,590	4,563	4,548	4,572	4,605	4,611	4,605	4,596	4,592	4,587	4,581	4,576	4,569	4,555	4,535	4,512	4,488	4,467	4,449	4,438	
5-10	5,419	5,362	5,408	5,516	5,460	5,460	5,476	5,510	5,484	5,465	5,491	5,522	5,525	5,517	5,509	5,506	5,499	5,490	5,482	5,469	5,449	
11-15	4,641	4,670	4,657	4,551	4,548	4,518	4,472	4,456	4,576	4,563	4,569	4,560	4,585	4,558	4,544	4,568	4,601	4,606	4,600	4,592	4,588	
16-17	1,866	1,863	1,831	1,852	1,889	1,872	1,863	1,848	1,733	1,780	1,839	1,786	1,786	1,837	1,887	1,833	1,783	1,802	1,836	1,845	1,842	
18-59Female, 64Male	45,979	45,627	45,290	45,075	44,866	44,665	44,533	44,310	44,097	43,822	43,424	43,126	42,829	42,435	42,079	41,757	41,327	40,912	40,560	40,280	39,927	
60/65 -74	11,920	12,232	12,489	12,589	12,717	12,846	12,915	12,919	12,916	12,925	12,970	12,855	12,775	12,889	13,002	13,157	13,419	13,580	13,746	13,849	13,997	
75-84	5,472	5,564	5,739	5,904	6,029	6,154	6,275	6,549	6,802	7,052	7,304	7,706	7,955	8,110	8,234	8,327	8,400	8,425	8,358	8,301	8,269	
85+	2,414	2,505	2,580	2,659	2,737	2,828	2,928	2,989	3,088	3,190	3,298	3,428	3,604	3,775	3,919	4,066	4,212	4,432	4,657	4,874	5,088	
Total	82,274	82,413	82,557	82,694	82,818	82,948	83,072	83,185	83,290	83,389	83,483	83,565	83,635	83,689	83,728	83,749	83,751	83,736	83,705	83,659	83,599	1,324
Households																						
Number of Households	35,740	35,857	35,927	35,972	35,993	36,077	36,210	36,356	36,478	36,592	36,706	36,777	36,860	36,935	36,983	37,058	37,139	37,175	37,250	37,289	37,319	1,579
Change over previous year	+134	+117	+69	+45	+21	+84	+132	+147	+121	+114	+114	+72	+82	+75	+48	+75	+81	+36	+75	+40	+29	
Number of supply units	36,751	36,871	36,943	36,989	37,011	37,097	37,233	37,385	37,509	37,626	37,744	37,817	37,902	37,979	38,029	38,106	38,189	38,226	38,303	38,344	38,374	1,623
Change over previous year	+138	+121	+71	+46	+22	+87	+136	+151	+125	+117	+117	+74	+85	+77	+50	+77	+83	+37	+77	+41	+30	
Labour Force																						
Number of Labour Force	42,122	41,891	41,683	41,498	41,313	41,135	40,924	40,689	40,537	40,303	40,041	39,737	39,469	39,212	38,936	38,642	38,324	38,073	37,842	37,643	37,411	-4,711
Change over previous year	-205	-231	-208	-185	-185	-177	-211	-234	-153	-234	-262	-303	-268	-258	-276	-294	-318	-251	-231	-199	-233	
Number of supply units	34,094	33,907	33,774	33,659	33,545	33,436	33,334	33,212	33,157	33,034	32,888	32,707	32,554	32,408	32,247	32,004	31,740	31,532	31,341	31,176	30,984	-3,110
Change over previous year	-130	-187	-133	-115	-115	-109	-102	-121	-55	-123	-146	-181	-153	-145	-162	-243	-264	-208	-191	-165	-193	

This report was compiled from a forecast produced on 05/09/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

This file was produced using the scenario file G:\HEaDROOM\1. POPGROUP v3.1 DF Compatible\Model Runs\Cardiff\CGT\Cheltenham, Gloucester, Tewkesbury JCS_in\scenario_ONS2010 natural change LOW UNEMP.xls

Tick to save as new flat file

It was run on 05/09/2012 at 16:50:15

Produce flat file		
Clicking the button will copy all data from this components file onto a single sheet in another workbook (for pivots, etc)	G:\HEaDROOM\1. POPGROUP v3.1 DF Compatible\Model Runs\Cardiff\CGT\Cheltenham, Gloucester, Tewkesbury JCS_out\FlatComp_ONS2010 natural change LOW UNEMP.xls	<< Append to (blank if not to be appended) << Save flat file with this name (may be blank if to be appended to an existing file)

Forecast after model set up to replicate ONS 2010 Based population projection data.

Comments from the PopBase2010.xls workbook, which was last updated on 26/02/2008

2010 Mid-Year Estimate of population taken from ONS sub-national 2010-based projections. Further details on ONS 2008 based SNPP at: <http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the FertONS2010.xls workbook, which was last updated on 09/09/2007

Area fertility schedules taken from ONS sub-national 2010-based projection, 2011-12. Area fertility differentials each year computed to approximately reproduce the area fertility projected by ONS. The differential is the ratio of ONS projected births to the births predicted from the group schedule. Area counts of births each year taken from ONS sub-national 2010-based projection. When running scenarios using alternative migration or mortality, remove the counts of births. The schedule and the differentials will then apply ONS projected local fertility rates to the alternative population each year. When running scenarios using alternative fertility, remove the counts and change the schedule / differentials to your alternative. Further details on ONS 2010 based SNPP at: <http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html> Source of standard schedule of rates: Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the MortONS2010.xls workbook, which was last updated on 09/09/2007

Area mortality schedules taken from ONS sub-national 2010-based projection, 2011-12. Area mortality differentials each year computed to approximately reproduce the area mortality projected by ONS. The differential is the ratio of ONS projected deaths to the deaths predicted from the group schedule. Area counts of deaths each year taken from ONS sub-national 2010-based projection. When running scenarios using alternative migration or fertility, remove the counts of deaths. The schedule and the differentials will then apply ONS projected local mortality rates to the alternative population each year. When running scenarios using alternative mortality, remove the counts and change the schedule / differentials to your alternative. Further details on ONS 2010 based SNPP at: <http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html> Source of standard schedule of rates: Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

No migration file was specified for In-migration from the UK (optional)

This migration stream was set to zero

No migration file was specified for Out-migration to the UK (optional)

This migration stream was set to zero

No migration file was specified for In-migration from Overseas (optional)

This migration stream was set to zero

No migration file was specified for Out-migration to Overseas (optional)

This migration stream was set to zero

Comments from the DFSupply.xls workbook, which was last updated on 04/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conversion ratio has been used.

Comments from the JOBS DFSupply.xls workbook, which was last updated on 18/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conversion ratio has been given with separate rates for unemployment and commuting.

Version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

Version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

SMigR: males
 SMigR: females
 Migrants input

Migration - Net Flows

UK	+1,045	+988	+915	+897	+891	+883	+872	+865	+844	+861	+861	+873	+900	+919	+916	+904	+902	+901	+903	+898	+18,036	
Overseas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Summary of population change

Natural change	+1,347	+1,453	+1,441	+1,412	+1,409	+1,402	+1,377	+1,350	+1,331	+1,311	+1,276	+1,233	+1,183	+1,132	+1,074	+1,016	+966	+923	+884	+841	+24,360
Net migration	+1,045	+988	+915	+897	+891	+883	+872	+865	+844	+861	+861	+873	+900	+919	+916	+904	+902	+901	+903	+898	+18,036
Net change	+2,391	+2,442	+2,356	+2,309	+2,300	+2,285	+2,249	+2,214	+2,175	+2,172	+2,137	+2,106	+2,083	+2,051	+1,990	+1,919	+1,868	+1,823	+1,787	+1,739	+42,397

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	19,635	20,101	20,316	20,571	20,778	20,970	21,002	20,933	20,845	20,769	20,696	20,617	20,541	20,460	20,360	20,244	20,123	20,014	19,927	19,867	19,839	
5-10	20,660	20,925	21,755	22,334	22,831	23,353	24,022	24,548	24,750	24,979	25,165	25,343	25,344	25,252	25,154	25,063	24,972	24,870	24,769	24,662	24,536	
11-15	18,474	18,300	17,830	17,697	17,696	17,753	17,789	18,302	18,914	19,378	19,901	20,427	20,875	21,072	21,321	21,522	21,713	21,737	21,659	21,562	21,478	
16-17	7,930	7,830	7,745	7,662	7,496	7,380	7,320	7,084	7,041	7,366	7,437	7,399	7,622	8,182	8,460	8,432	8,452	8,598	8,829	8,905	8,882	
18-59Female, 64Male	184,366	184,759	185,293	185,658	186,221	186,689	187,012	187,160	187,166	186,823	186,664	186,509	186,276	185,758	185,434	185,441	185,230	185,201	185,185	185,298	185,443	
60/65 -74	37,550	38,666	39,571	40,416	41,113	41,783	42,409	42,799	43,360	43,965	44,529	44,561	44,825	45,583	46,554	47,603	48,713	49,714	50,617	51,560	52,484	
75-84	18,691	18,874	19,196	19,553	19,826	20,070	20,480	21,238	21,953	22,643	23,377	24,679	25,739	26,562	27,218	27,783	28,310	28,538	28,831	29,095	29,324	
85+	8,689	8,931	9,123	9,294	9,533	9,794	10,045	10,263	10,514	10,795	11,120	11,491	11,910	12,346	12,766	13,167	13,663	14,372	15,048	15,704	16,407	
Total	315,996	318,387	320,828	323,184	325,493	327,793	330,078	332,328	334,542	336,717	338,889	341,026	343,132	345,215	347,266	349,256	351,176	353,043	354,867	356,653	358,392	42,397

Households

Number of Households	138,200	139,669	141,103	142,501	143,820	145,222	146,691	148,120	149,498	150,840	152,163	153,391	154,654	155,930	157,160	158,437	159,659	160,983	162,276	163,523	164,674	26,474
Change over previous year	+1,521	+1,469	+1,434	+1,398	+1,319	+1,402	+1,468	+1,429	+1,378	+1,342	+1,323	+1,228	+1,263	+1,276	+1,230	+1,277	+1,222	+1,324	+1,293	+1,247	+1,152	
Number of supply units	143,533	145,057	146,545	147,995	149,363	150,817	152,341	153,825	155,255	156,648	158,021	159,296	160,607	161,931	163,207	164,532	165,801	167,177	168,519	169,814	171,010	27,477
Change over previous year	+1,579	+1,524	+1,488	+1,450	+1,368	+1,454	+1,524	+1,483	+1,430	+1,393	+1,373	+1,275	+1,311	+1,324	+1,276	+1,325	+1,269	+1,376	+1,343	+1,295	+1,196	

Labour Force

Number of Labour Force	169,681	170,346	170,888	171,314	171,720	172,132	172,281	172,556	172,745	172,681	172,596	172,467	172,643	172,686	172,724	172,743	172,865	173,187	173,438	173,738	174,090	4,408
Change over previous year	+973	+665	+542	+426	+406	+412	+149	+275	+189	-64	-85	-129	+176	+43	+38	+19	+122	+321	+251	+301	+352	-621
Number of supply units	154,200	154,830	155,509	156,082	156,630	157,187	157,505	157,943	158,292	158,409	158,507	158,567	158,911	159,029	159,068	159,091	159,217	159,524	159,762	160,044	160,378	6,178
Change over previous year	+1,978	+630	+679	+572	+548	+557	+318	+438	+349	+117	+98	+60	+344	+118	+39	+23	+126	+308	+238	+281	+334	

This report was compiled from a forecast produced on 18/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	+186	+142	+91	+91	+109	+130	+148	+152	+153	+181	+199	+242	+279	+307	+321	+341	+350	+351	+357	+366
Overseas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Summary of population change

Natural change	+409	+442	+443	+438	+419	+416	+411	+405	+400	+394	+384	+373	+359	+344	+327	+309	+294	+279	+265	+249
Net migration	+186	+142	+91	+91	+109	+130	+148	+152	+153	+181	+199	+242	+279	+307	+321	+341	+350	+351	+357	+366
Net change	+595	+585	+534	+529	+528	+547	+559	+558	+553	+575	+583	+615	+638	+651	+648	+650	+644	+629	+622	+615

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	6,515	6,642	6,724	6,820	6,876	6,921	6,910	6,870	6,824	6,783	6,751	6,720	6,694	6,667	6,634	6,599	6,562	6,528	6,501	6,480	6,468	
5-10	6,792	6,828	7,078	7,176	7,340	7,517	7,775	7,913	7,989	8,074	8,117	8,159	8,141	8,098	8,052	8,010	7,975	7,939	7,907	7,873	7,835	
11-15	6,666	6,557	6,294	6,257	6,257	6,210	6,110	6,318	6,434	6,578	6,770	6,993	7,117	7,191	7,290	7,350	7,405	7,397	7,359	7,313	7,273	
16-17	3,131	3,070	2,949	2,860	2,694	2,653	2,717	2,576	2,561	2,675	2,619	2,568	2,685	2,912	2,963	2,970	2,993	3,043	3,120	3,141	3,133	
18-59Female, 64Male	67,250	67,381	67,644	67,636	67,748	67,817	67,734	67,747	67,717	67,520	67,448	67,314	67,160	66,943	66,835	66,915	66,931	66,989	67,051	67,144	67,254	
60/65 -74	12,880	13,230	13,501	13,808	13,997	14,174	14,395	14,476	14,653	14,829	14,980	14,977	15,050	15,253	15,573	15,839	16,075	16,389	16,605	16,909	17,215	
75-84	6,952	6,981	7,046	7,188	7,268	7,338	7,452	7,668	7,892	8,064	8,292	8,698	9,083	9,344	9,551	9,721	9,940	9,995	10,151	10,257	10,303	
85+	3,669	3,761	3,800	3,824	3,917	3,996	4,079	4,163	4,218	4,318	4,440	4,570	4,684	4,845	5,005	5,147	5,320	5,563	5,780	5,978	6,230	
Total	113,855	114,450	115,035	115,569	116,098	116,626	117,172	117,731	118,289	118,842	119,417	120,000	120,615	121,252	121,903	122,551	123,201	123,845	124,474	125,096	125,710	11,855
Households																						
Number of Households	50,837	51,289	51,715	52,115	52,475	52,843	53,325	53,779	54,208	54,656	55,065	55,442	55,836	56,215	56,600	57,023	57,428	57,913	58,353	58,789	59,169	8,332
Change over previous year	+479	+452	+426	+399	+360	+368	+481	+454	+429	+447	+409	+377	+394	+379	+385	+423	+405	+485	+440	+436	+381	
Number of supply units	53,289	53,762	54,209	54,627	55,005	55,391	55,896	56,372	56,822	57,291	57,720	58,115	58,528	58,925	59,329	59,773	60,197	60,706	61,166	61,623	62,022	8,734
Change over previous year	+502	+473	+447	+419	+378	+386	+505	+476	+450	+469	+429	+395	+413	+397	+404	+443	+425	+509	+461	+457	+399	
Labour Force																						
Number of Labour Force	62,658	62,889	63,041	63,068	63,152	63,225	63,173	63,235	63,184	63,080	62,998	62,910	62,956	62,960	62,981	63,002	63,114	63,281	63,418	63,549	63,740	1,083
Change over previous year	+317	+232	+152	+27	+84	+73	-52	+62	-51	-104	-82	-87	+46	+4	+21	+21	+112	+167	+138	+130	+192	
Number of supply units	55,269	55,473	55,666	55,750	55,883	56,008	56,021	56,136	56,151	56,117	56,104	56,085	56,185	56,189	56,208	56,226	56,326	56,475	56,598	56,714	56,885	1,617
Change over previous year	+691	+204	+193	+83	+134	+125	+14	+115	+14	-33	-14	-19	+100	+4	+18	+19	+100	+149	+123	+116	+171	

This report was compiled from a forecast produced on 18/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	+315	+284	+261	+244	+223	+203	+183	+168	+149	+137	+123	+116	+110	+103	+95	+79	+72	+68	+64	+60
Overseas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Summary of population change

Natural change	+799	+867	+861	+850	+860	+862	+853	+839	+832	+824	+809	+790	+769	+749	+726	+704	+687	+675	+665	+653
Net migration	+315	+284	+261	+244	+223	+203	+183	+168	+149	+137	+123	+116	+110	+103	+95	+79	+72	+68	+64	+60
Net change	+1,114	+1,151	+1,123	+1,094	+1,084	+1,066	+1,036	+1,008	+982	+961	+933	+906	+879	+852	+821	+784	+760	+743	+729	+713

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	8,441	8,653	8,732	8,850	8,945	9,056	9,094	9,073	9,046	9,018	8,988	8,950	8,910	8,867	8,816	8,759	8,702	8,653	8,617	8,596	8,592	
5-10	8,394	8,603	9,050	9,317	9,588	9,800	10,073	10,319	10,386	10,491	10,574	10,677	10,700	10,667	10,634	10,600	10,562	10,514	10,464	10,412	10,352	
11-15	7,157	7,069	6,873	6,874	6,851	6,946	7,065	7,321	7,614	7,855	8,077	8,272	8,464	8,530	8,635	8,719	8,820	8,850	8,825	8,794	8,765	
16-17	2,941	2,894	2,952	2,935	2,903	2,851	2,745	2,660	2,728	2,870	2,911	2,948	3,023	3,268	3,397	3,367	3,359	3,405	3,520	3,563	3,553	
18-59Female, 64Male	70,880	71,232	71,570	71,879	72,264	72,595	72,878	72,998	73,017	72,908	72,974	72,999	72,973	72,830	72,727	72,723	72,685	72,753	72,746	72,762	72,888	
60/65 -74	12,675	13,046	13,328	13,670	13,952	14,218	14,459	14,668	14,958	15,285	15,564	15,640	15,846	16,200	16,650	17,186	17,690	18,112	18,523	18,950	19,297	
75-84	6,245	6,289	6,350	6,381	6,428	6,460	6,614	6,852	7,054	7,280	7,485	7,908	8,258	8,587	8,829	9,046	9,198	9,258	9,379	9,517	9,659	
85+	2,608	2,671	2,752	2,823	2,891	2,981	3,045	3,117	3,213	3,290	3,384	3,496	3,623	3,727	3,841	3,948	4,118	4,347	4,561	4,771	4,972	
Total	119,342	120,456	121,607	122,730	123,823	124,907	125,972	127,008	128,016	128,997	129,958	130,891	131,797	132,676	133,529	134,350	135,133	135,893	136,636	137,365	138,078	18,736
Households																						
Number of Households	51,359	51,976	52,602	53,188	53,743	54,347	54,960	55,560	56,150	56,690	57,239	57,767	58,296	58,841	59,354	59,861	60,355	60,916	61,447	61,964	62,450	11,090
Change over previous year	+645	+617	+626	+585	+556	+603	+614	+600	+590	+540	+548	+528	+529	+546	+513	+507	+494	+561	+530	+517	+486	
Number of supply units	53,222	53,861	54,510	55,117	55,693	56,318	56,954	57,575	58,187	58,747	59,315	59,862	60,410	60,976	61,507	62,032	62,545	63,126	63,675	64,211	64,715	11,492
Change over previous year	+668	+639	+649	+606	+576	+625	+636	+621	+612	+560	+568	+547	+548	+565	+531	+525	+512	+581	+550	+536	+504	
Labour Force																						
Number of Labour Force	64,566	64,960	65,293	65,601	65,843	66,101	66,275	66,494	66,656	66,701	66,728	66,750	66,899	66,954	66,988	67,018	67,108	67,275	67,390	67,523	67,689	3,123
Change over previous year	+525	+394	+333	+308	+242	+258	+174	+220	+161	+45	+28	+22	+149	+55	+34	+29	+90	+167	+115	+132	+166	
Number of supply units	64,566	64,960	65,363	65,742	66,055	66,385	66,631	66,923	67,157	67,275	67,374	67,468	67,691	67,818	67,853	67,974	68,143	68,260	68,394	68,562	3,997	
Change over previous year	+1,145	+394	+403	+379	+313	+330	+246	+292	+234	+117	+100	+94	+223	+128	+34	+30	+91	+170	+117	+134	+169	

This report was compiled from a forecast produced on 18/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	+544	+562	+562	+561	+559	+549	+541	+544	+541	+543	+539	+515	+511	+509	+500	+483	+480	+482	+481	+472
Overseas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Summary of population change

Natural change	+138	+144	+137	+125	+130	+123	+113	+105	+99	+93	+82	+70	+55	+39	+21	+2	-15	-31	-46	-61
Net migration	+544	+562	+562	+561	+559	+549	+541	+544	+541	+543	+539	+515	+511	+509	+500	+483	+480	+482	+481	+472
Net change	+682	+706	+699	+686	+689	+673	+654	+649	+640	+636	+622	+585	+566	+548	+521	+485	+464	+451	+436	+411

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	4,679	4,807	4,860	4,901	4,957	4,993	4,998	4,989	4,976	4,968	4,957	4,947	4,938	4,927	4,909	4,886	4,859	4,833	4,809	4,791	4,779
5-10	5,474	5,494	5,626	5,841	5,903	6,037	6,174	6,316	6,375	6,414	6,474	6,506	6,504	6,487	6,468	6,454	6,436	6,416	6,398	6,377	6,349
11-15	4,651	4,675	4,664	4,566	4,587	4,597	4,615	4,664	4,865	4,944	5,055	5,163	5,294	5,351	5,396	5,453	5,488	5,490	5,475	5,454	5,440
16-17	1,858	1,865	1,844	1,867	1,900	1,877	1,858	1,848	1,752	1,820	1,906	1,882	1,913	2,002	2,100	2,095	2,099	2,150	2,189	2,201	2,196
18-59Female, 64Male	46,236	46,147	46,078	46,143	46,209	46,277	46,400	46,415	46,432	46,394	46,242	46,195	46,143	45,985	45,872	45,803	45,614	45,458	45,388	45,392	45,301
60/65 -74	11,995	12,390	12,743	12,937	13,163	13,391	13,555	13,656	13,748	13,851	13,985	13,945	13,929	14,130	14,332	14,577	14,948	15,212	15,489	15,702	15,972
75-84	5,494	5,604	5,800	5,985	6,129	6,272	6,414	6,718	7,006	7,299	7,600	8,073	8,398	8,631	8,838	9,016	9,173	9,285	9,301	9,321	9,362
85+	2,411	2,499	2,571	2,647	2,724	2,818	2,920	2,983	3,083	3,187	3,295	3,425	3,602	3,774	3,920	4,071	4,225	4,461	4,708	4,954	5,204
Total	82,798	83,481	84,187	84,886	85,572	86,261	86,934	87,588	88,237	88,878	89,514	90,136	90,721	91,287	91,834	92,356	92,841	93,305	93,756	94,192	94,603

11,805

Households

Number of Households	36,004	36,404	36,785	37,199	37,602	38,032	38,406	38,781	39,139	39,494	39,859	40,182	40,523	40,874	41,206	41,552	41,875	42,153	42,477	42,771	43,056
Change over previous year	+398	+400	+381	+414	+403	+431	+373	+375	+358	+355	+365	+323	+341	+351	+332	+347	+323	+278	+323	+294	+285
Number of supply units	37,022	37,433	37,826	38,251	38,665	39,108	39,492	39,878	40,246	40,611	40,986	41,318	41,668	42,030	42,371	42,727	43,059	43,345	43,678	43,980	44,273
Change over previous year	+409	+412	+392	+425	+414	+443	+384	+386	+368	+365	+375	+332	+350	+361	+341	+357	+332	+286	+332	+302	+293

7,052

7,251

Labour Force

Number of Labour Force	42,458	42,497	42,554	42,645	42,725	42,806	42,833	42,826	42,905	42,900	42,870	42,807	42,788	42,772	42,755	42,724	42,644	42,631	42,629	42,667	42,660
Change over previous year	+131	+39	+58	+90	+80	+81	+27	-7	+78	-5	-30	-63	-18	-17	-17	-31	-80	-13	-2	+38	-6
Number of supply units	34,366	34,397	34,480	34,590	34,691	34,794	34,852	34,883	34,984	35,017	35,029	35,014	35,035	35,022	35,008	34,982	34,917	34,906	34,905	34,936	34,930
Change over previous year	+142	+32	+83	+110	+102	+102	+59	+31	+101	+33	+12	-15	+21	-14	-14	-25	-65	-11	-2	+31	-5

202

565

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This file was produced using the scenario file G:\HEaDROOM\1. POPGROUP v3.1 DF
CompatibleModel Runs\CGT\Cheltenham, Gloucester, Tewkesbury JCS_inp\scenario_ONS2010
zero international mig.xls

Tick to save as new flat file

It was run on 18/05/2012 at 10:58:56	Produce flat file		<< Append to (blank if not to be appended)
	Clicking the button will copy all data from this components file onto a single sheet in another workbook (for pivots, etc)	G:\HEaDROOM\1. POPGROUP v3.1 DF CompatibleModel Runs\CGT\Cheltenham, Gloucester, Tewkesbury JCS_out\FlatComp_ONS2010 zero international mig.xls	<< Save flat file with this name (may be blank if to be appended to an existing file)

Forecast after model set up to replicate ONS 2010 Based population projection data.

Comments from the PopBase2010.xls workbook, which was last updated on 26/02/2008

2010 Mid-Year Estimate of population taken from ONS sub-national 2010-based projections.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the FertONS2010.xls workbook, which was last updated on 09/09/2007

Area fertility schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area fertility differentials each year computed to approximately reproduce the area fertility projected by ONS. The differential is the ratio of ONS projected births to the births predicted from the group schedule.
Area counts of births each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or mortality, remove the counts of births. The schedule and the differentials will then apply ONS projected local fertility rates to the alternative population each year. When running scenarios using alternative fertility, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the MortONS2010.xls workbook, which was last updated on 09/09/2007

Area mortality schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area mortality differentials each year computed to approximately reproduce the area mortality projected by ONS. The differential is the ratio of ONS projected deaths to the deaths predicted from the group schedule.
Area counts of deaths each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or fertility, remove the counts of deaths. The schedule and the differentials will then apply ONS projected local mortality rates to the alternative population each year. When running scenarios using alternative mortality, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the Mig_INUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal in-migrants each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the Mig_OUTUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal out-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

No migration file was specified for In-migration from Overseas (optional)

This migration stream was set to zero

No migration file was specified for Out-migration to Overseas (optional)

This migration stream was set to zero

Comments from the DFSupply.xls workbook, which was last updated on 04/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conv
A single conversion ratio has been used.

Comments from the JOBS DFSupply2.xls workbook, which was last updated on 11/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conv
A labour force to dwellings conversion has been given with separate rates for unemployment and commuting.

version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

SMigR: males
 SMigR: females
 Migrants input

Migration - Net Flows

UK	+1,045	+988	+915	+897	+891	+883	+872	+865	+844	+861	+861	+873	+900	+919	+916	+904	+902	+901	+903	+898	+18,036
Overseas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Summary of population change

Natural change	+1,347	+1,453	+1,441	+1,412	+1,409	+1,402	+1,377	+1,350	+1,331	+1,311	+1,276	+1,233	+1,183	+1,132	+1,074	+1,016	+966	+923	+884	+841	+24,360
Net migration	+1,045	+988	+915	+897	+891	+883	+872	+865	+844	+861	+861	+873	+900	+919	+916	+904	+902	+901	+903	+898	+18,036
Net change	+2,391	+2,442	+2,356	+2,309	+2,300	+2,285	+2,249	+2,214	+2,175	+2,172	+2,137	+2,106	+2,083	+2,051	+1,990	+1,919	+1,868	+1,823	+1,787	+1,739	+42,397

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	19,635	20,101	20,316	20,571	20,778	20,970	21,002	20,933	20,845	20,769	20,696	20,617	20,541	20,460	20,360	20,244	20,123	20,014	19,927	19,867	19,839	
5-10	20,660	20,925	21,755	22,334	22,831	23,353	24,022	24,548	24,750	24,979	25,165	25,343	25,344	25,252	25,154	25,063	24,972	24,870	24,769	24,662	24,536	
11-15	18,474	18,300	17,830	17,697	17,696	17,753	17,789	18,302	18,914	19,378	19,901	20,427	20,875	21,072	21,321	21,522	21,713	21,737	21,659	21,562	21,478	
16-17	7,930	7,830	7,745	7,662	7,496	7,380	7,320	7,084	7,041	7,366	7,437	7,399	7,622	8,182	8,460	8,432	8,452	8,598	8,829	8,905	8,882	
18-59Female, 64Male	184,366	184,759	185,293	185,658	186,221	186,689	187,012	187,160	187,166	186,823	186,664	186,509	186,276	185,758	185,434	185,441	185,230	185,201	185,185	185,298	185,443	
60/65 -74	37,550	38,666	39,571	40,416	41,113	41,783	42,409	42,799	43,360	43,965	44,529	44,561	44,825	45,583	46,554	47,603	48,713	49,714	50,617	51,560	52,484	
75-84	18,691	18,874	19,196	19,553	19,826	20,070	20,480	21,238	21,953	22,643	23,377	24,679	25,739	26,562	27,218	27,783	28,310	28,538	28,831	29,095	29,324	
85+	8,689	8,931	9,123	9,294	9,533	9,794	10,045	10,263	10,514	10,795	11,120	11,491	11,910	12,346	12,766	13,167	13,663	14,372	15,048	15,704	16,407	
Total	315,996	318,387	320,828	323,184	325,493	327,793	330,078	332,328	334,542	336,717	338,889	341,026	343,132	345,215	347,266	349,256	351,176	353,043	354,867	356,653	358,392	42,397

Households

Number of Households	138,200	139,669	141,103	142,501	143,820	145,222	146,691	148,120	149,498	150,840	152,163	153,391	154,654	155,930	157,160	158,437	159,659	160,983	162,276	163,523	164,674	26,474
Change over previous year	+1,521	+1,469	+1,434	+1,398	+1,319	+1,402	+1,468	+1,429	+1,378	+1,342	+1,323	+1,228	+1,263	+1,276	+1,230	+1,277	+1,222	+1,324	+1,293	+1,247	+1,152	
Number of supply units	143,533	145,057	146,545	147,995	149,363	150,817	152,341	153,825	155,255	156,648	158,021	159,296	160,607	161,931	163,207	164,532	165,801	167,177	168,519	169,814	171,010	27,477
Change over previous year	+1,579	+1,524	+1,488	+1,450	+1,368	+1,454	+1,524	+1,483	+1,430	+1,393	+1,373	+1,275	+1,311	+1,324	+1,276	+1,325	+1,269	+1,376	+1,343	+1,295	+1,196	

Labour Force

Number of Labour Force	169,681	170,346	170,888	171,314	171,720	172,132	172,281	172,556	172,745	172,681	172,596	172,467	172,643	172,686	172,724	172,743	172,865	173,187	173,438	173,738	174,090	4,408
Change over previous year	+973	+665	+542	+426	+406	+412	+149	+275	+189	-64	-85	-129	+176	+43	+38	+19	+122	+321	+251	+301	+352	
Number of supply units	154,200	154,830	155,509	156,082	156,630	157,187	157,613	158,219	158,736	159,021	159,286	159,514	160,027	160,409	160,784	161,071	161,342	161,799	162,041	162,326	162,665	8,465
Change over previous year	+1,978	+630	+679	+572	+548	+557	+426	+606	+518	+285	+266	+227	+513	+382	+375	+286	+272	+457	+241	+285	+339	

This report was compiled from a forecast produced on 05/09/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	+275	+186	+142	+91	+91	+109	+130	+148	+152	+153	+181	+199	+242	+279	+307	+321	+341	+350	+351	+357	+366	+4,496
Overseas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Summary of population change

Natural change	+358	+409	+442	+443	+438	+419	+416	+411	+405	+400	+394	+384	+373	+359	+344	+327	+309	+294	+279	+265	+249	+7,359
Net migration	+275	+186	+142	+91	+91	+109	+130	+148	+152	+153	+181	+199	+242	+279	+307	+321	+341	+350	+351	+357	+366	+4,496
Net change	+633	+595	+585	+534	+529	+528	+547	+559	+558	+553	+575	+583	+615	+638	+651	+648	+650	+644	+629	+622	+615	+11,855

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
0-4	6,301	6,515	6,642	6,724	6,820	6,876	6,921	6,910	6,870	6,824	6,783	6,751	6,720	6,694	6,667	6,634	6,599	6,562	6,528	6,501	6,480	6,468
5-10	6,874	6,792	6,828	7,078	7,176	7,340	7,517	7,775	7,913	7,989	8,074	8,117	8,159	8,141	8,098	8,052	8,010	7,975	7,939	7,907	7,873	7,835
11-15	6,918	6,666	6,557	6,294	6,257	6,257	6,210	6,110	6,318	6,434	6,578	6,770	6,993	7,117	7,191	7,290	7,350	7,405	7,397	7,359	7,313	7,273
16-17	3,136	3,131	3,070	2,949	2,860	2,694	2,653	2,717	2,576	2,561	2,675	2,619	2,568	2,685	2,912	2,963	2,970	2,993	3,043	3,120	3,141	3,133
18-59Female, 64Male	66,786	67,250	67,381	67,644	67,636	67,748	67,817	67,734	67,747	67,717	67,520	67,448	67,314	67,160	66,943	66,835	66,915	66,931	66,989	67,051	67,144	67,254
60/65 -74	12,701	12,880	13,230	13,501	13,808	13,997	14,174	14,395	14,476	14,653	14,829	14,980	14,977	15,050	15,253	15,573	15,839	16,075	16,389	16,605	16,909	17,215
75-84	6,976	6,952	6,981	7,046	7,188	7,268	7,338	7,452	7,668	7,892	8,064	8,292	8,698	9,083	9,344	9,551	9,721	9,940	9,995	10,151	10,257	10,303
85+	3,530	3,669	3,761	3,800	3,824	3,917	3,996	4,079	4,163	4,218	4,318	4,440	4,570	4,684	4,845	5,005	5,147	5,320	5,563	5,780	5,978	6,230
Total	113,222	113,855	114,450	115,035	115,569	116,098	116,626	117,172	117,731	118,289	118,842	119,417	120,000	120,615	121,252	121,903	122,551	123,201	123,845	124,474	125,096	125,710

Households

Number of Households	50,358	50,837	51,289	51,715	52,115	52,475	52,843	53,325	53,779	54,208	54,656	55,065	55,442	55,836	56,215	56,600	57,023	57,428	57,913	58,353	58,789	59,169	8,332
Change over previous year		+479	+452	+426	+399	+360	+368	+481	+454	+429	+447	+409	+377	+394	+379	+385	+423	+405	+485	+440	+436	+381	
Number of supply units	52,786	53,289	53,762	54,209	54,627	55,005	55,391	55,896	56,372	56,822	57,291	57,720	58,115	58,528	58,925	59,329	59,773	60,197	60,706	61,166	61,623	62,022	8,734
Change over previous year		+502	+473	+447	+419	+378	+386	+505	+476	+450	+469	+429	+395	+413	+397	+404	+443	+425	+509	+461	+457	+399	

Labour Force

Number of Labour Force	62,341	62,658	62,889	63,041	63,068	63,152	63,225	63,173	63,235	63,184	63,080	62,998	62,910	62,956	62,960	62,981	63,002	63,114	63,281	63,418	63,549	63,740	1,083
Change over previous year		+317	+232	+152	+27	+84	+73	-52	+62	-51	-104	-82	-87	+46	+4	+21	+21	+112	+167	+138	+130	+192	
Number of supply units	54,578	55,269	55,473	55,666	55,750	55,883	56,008	56,021	56,196	56,270	56,296	56,341	56,382	56,542	56,664	56,802	56,939	57,040	57,191	57,316	57,434	57,607	2,338
Change over previous year		+691	+204	+193	+83	+134	+125	+14	+174	+74	+26	+46	+40	+160	+123	+137	+138	+101	+151	+124	+118	+173	

This report was compiled from a forecast produced on 05/09/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	+315	+284	+261	+244	+223	+203	+183	+168	+149	+137	+123	+116	+110	+103	+95	+79	+72	+68	+64	+60	+3,059
Overseas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Summary of population change

Natural change	+799	+867	+861	+850	+860	+862	+853	+839	+832	+824	+809	+790	+769	+749	+726	+704	+687	+675	+665	+653	+15,677	
Net migration	+315	+284	+261	+244	+223	+203	+183	+168	+149	+137	+123	+116	+110	+103	+95	+79	+72	+68	+64	+60	+3,059	
Net change	+1,114	+1,151	+1,123	+1,094	+1,084	+1,066	+1,036	+1,008	+982	+961	+933	+906	+879	+852	+821	+784	+760	+743	+729	+713	+701	+18,736

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	8,441	8,653	8,732	8,850	8,945	9,056	9,094	9,073	9,046	9,018	8,988	8,950	8,910	8,867	8,816	8,759	8,702	8,653	8,617	8,596	8,592	
5-10	8,394	8,603	9,050	9,317	9,588	9,800	10,073	10,319	10,386	10,491	10,574	10,677	10,700	10,667	10,634	10,600	10,562	10,514	10,464	10,412	10,352	
11-15	7,157	7,069	6,873	6,874	6,851	6,946	7,065	7,321	7,614	7,855	8,077	8,272	8,464	8,530	8,635	8,719	8,820	8,850	8,825	8,794	8,765	
16-17	2,941	2,894	2,952	2,935	2,903	2,851	2,745	2,660	2,728	2,870	2,911	2,948	3,023	3,268	3,397	3,367	3,359	3,405	3,520	3,563	3,553	
18-59Female, 64Male	70,880	71,232	71,570	71,879	72,264	72,595	72,878	72,998	73,017	72,908	72,974	72,999	72,973	72,830	72,727	72,723	72,685	72,753	72,746	72,762	72,888	
60/65 -74	12,675	13,046	13,328	13,670	13,952	14,218	14,459	14,668	14,958	15,285	15,564	15,640	15,846	16,200	16,650	17,186	17,690	18,112	18,523	18,950	19,297	
75-84	6,245	6,289	6,350	6,381	6,428	6,460	6,614	6,852	7,054	7,280	7,485	7,908	8,258	8,587	8,829	9,046	9,198	9,258	9,379	9,517	9,659	
85+	2,608	2,671	2,752	2,823	2,891	2,981	3,045	3,117	3,213	3,290	3,384	3,496	3,623	3,727	3,841	3,948	4,118	4,347	4,561	4,771	4,972	
Total	119,342	120,456	121,607	122,730	123,823	124,907	125,972	127,008	128,016	128,997	129,958	130,891	131,797	132,676	133,529	134,350	135,133	135,893	136,636	137,365	138,078	18,736

Households

Number of Households	51,359	51,976	52,602	53,188	53,743	54,347	54,960	55,560	56,150	56,690	57,239	57,767	58,296	58,841	59,354	59,861	60,355	60,916	61,447	61,964	62,450	11,090
Change over previous year	+645	+617	+626	+585	+556	+603	+614	+600	+590	+540	+548	+528	+529	+546	+513	+507	+494	+561	+530	+517	+486	
Number of supply units	53,222	53,861	54,510	55,117	55,693	56,318	56,954	57,575	58,187	58,747	59,315	59,862	60,410	60,976	61,507	62,032	62,545	63,126	63,675	64,211	64,715	11,492
Change over previous year	+668	+639	+649	+606	+576	+625	+636	+621	+612	+560	+568	+547	+548	+565	+531	+525	+512	+581	+550	+536	+504	

Labour Force

Number of Labour Force	64,566	64,960	65,293	65,601	65,843	66,101	66,275	66,494	66,656	66,701	66,728	66,750	66,899	66,954	66,988	67,018	67,108	67,275	67,390	67,523	67,689	3,123
Change over previous year	+525	+394	+333	+308	+242	+258	+174	+220	+161	+45	+28	+22	+149	+55	+34	+29	+90	+167	+115	+132	+166	
Number of supply units	64,566	64,960	65,363	65,742	66,055	66,385	66,702	67,066	67,372	67,561	67,733	67,899	68,194	68,394	68,573	68,747	68,984	69,301	69,419	69,556	69,727	5,161
Change over previous year	+1,145	+394	+403	+379	+313	+330	+317	+364	+306	+189	+171	+166	+295	+200	+179	+174	+237	+317	+119	+136	+171	

This report was compiled from a forecast produced on 05/09/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	+544	+562	+562	+561	+559	+549	+541	+544	+541	+543	+539	+515	+511	+509	+500	+483	+480	+482	+481	+472	+10,481
Overseas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Summary of population change

Natural change	+138	+144	+137	+125	+130	+123	+113	+105	+99	+93	+82	+70	+55	+39	+21	+2	-15	-31	-46	-61	+1,324
Net migration	+544	+562	+562	+561	+559	+549	+541	+544	+541	+543	+539	+515	+511	+509	+500	+483	+480	+482	+481	+472	+10,481
Net change	+682	+706	+699	+686	+689	+673	+654	+649	+640	+636	+622	+585	+566	+548	+521	+485	+464	+451	+436	+411	+11,805

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	4,679	4,807	4,860	4,901	4,957	4,993	4,998	4,989	4,976	4,968	4,957	4,947	4,938	4,927	4,909	4,886	4,859	4,833	4,809	4,791	4,779
5-10	5,474	5,494	5,626	5,841	5,903	6,037	6,174	6,316	6,375	6,414	6,474	6,506	6,504	6,487	6,468	6,454	6,436	6,416	6,398	6,377	6,349
11-15	4,651	4,675	4,664	4,566	4,587	4,597	4,615	4,664	4,865	4,944	5,055	5,163	5,294	5,351	5,396	5,453	5,488	5,490	5,475	5,454	5,440
16-17	1,858	1,865	1,844	1,867	1,900	1,877	1,858	1,848	1,752	1,820	1,906	1,882	1,913	2,002	2,100	2,095	2,099	2,150	2,189	2,201	2,196
18-59Female, 64Male	46,236	46,147	46,078	46,143	46,209	46,277	46,400	46,415	46,432	46,394	46,242	46,195	46,143	45,985	45,872	45,803	45,614	45,458	45,388	45,392	45,301
60/65 -74	11,995	12,390	12,743	12,937	13,163	13,391	13,555	13,656	13,748	13,851	13,985	13,945	13,929	14,130	14,332	14,577	14,948	15,212	15,489	15,702	15,972
75-84	5,494	5,604	5,800	5,985	6,129	6,272	6,414	6,718	7,006	7,299	7,600	8,073	8,398	8,631	8,838	9,016	9,173	9,285	9,301	9,321	9,362
85+	2,411	2,499	2,571	2,647	2,724	2,818	2,920	2,983	3,083	3,187	3,295	3,425	3,602	3,774	3,920	4,071	4,225	4,461	4,708	4,954	5,204
Total	82,798	83,481	84,187	84,886	85,572	86,261	86,934	87,588	88,237	88,878	89,514	90,136	90,721	91,287	91,834	92,356	92,841	93,305	93,756	94,192	94,603

Households

Number of Households	36,004	36,404	36,785	37,199	37,602	38,032	38,406	38,781	39,139	39,494	39,859	40,182	40,523	40,874	41,206	41,552	41,875	42,153	42,477	42,771	43,056	7,052
Change over previous year	+398	+400	+381	+414	+403	+431	+373	+375	+358	+355	+365	+323	+341	+351	+332	+347	+323	+278	+323	+294	+285	
Number of supply units	37,022	37,433	37,826	38,251	38,665	39,108	39,492	39,878	40,246	40,611	40,986	41,318	41,668	42,030	42,371	42,727	43,059	43,345	43,678	43,980	44,273	7,251
Change over previous year	+409	+412	+392	+425	+414	+443	+384	+386	+368	+365	+375	+332	+350	+361	+341	+357	+332	+286	+332	+302	+293	

Labour Force

Number of Labour Force	42,458	42,497	42,554	42,645	42,725	42,806	42,833	42,826	42,905	42,900	42,870	42,807	42,788	42,772	42,755	42,724	42,644	42,631	42,629	42,667	42,660	202
Change over previous year	+131	+39	+58	+90	+80	+81	+27	-7	+78	-5	-30	-63	-18	-17	-17	-31	-80	-13	-2	+38	-6	
Number of supply units	34,366	34,397	34,480	34,590	34,691	34,794	34,889	34,957	35,094	35,163	35,212	35,233	35,291	35,351	35,410	35,384	35,318	35,307	35,305	35,337	35,331	966
Change over previous year	+142	+32	+83	+110	+102	+102	+95	+68	+137	+70	+49	+21	+58	+59	+59	-26	-66	-11	-2	+31	-5	

This report was compiled from a forecast produced on 05/09/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

This file was produced using the scenario file G:\HEaDROOM\1. POPGROUP v3.1 DF
Compatible\Model Runs\Cardiff\CGT\Cheltenham, Gloucester, Tewkesbury
JCS_in\pscenario_ONS2010 zero international mig LOW UNEMP.xls

Tick to save as new flat file

It was run on 05/09/2012 at 16:53:38	Produce flat file		<< Append to (blank if not to be appended)
	Clicking the button will copy all data from this components file onto a single sheet in another workbook (for pivots, etc)	G:\HEaDROOM\1. POPGROUP v3.1 DF Compatible\Model Runs\Cardiff\CGT\Cheltenham, Gloucester, Tewkesbury JCS_out\FlatComp_ONS2010 zero international mig LOW UNEMP.xls	<< Save flat file with this name (may be blank if to be appended to an existing file)

Forecast after model set up to replicate ONS 2010 Based population projection data.

Comments from the PopBase2010.xls workbook, which was last updated on 26/02/2008

2010 Mid-Year Estimate of population taken from ONS sub-national 2010-based projections.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the FertONS2010.xls workbook, which was last updated on 09/09/2007

Area fertility schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area fertility differentials each year computed to approximately reproduce the area fertility projected by ONS. The differential is the ratio of ONS projected births to the births predicted from the group schedule.
Area counts of births each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or mortality, remove the counts of births. The schedule and the differentials will then apply ONS projected local fertility rates to the alternative population each year. When running scenarios using alternative fertility, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the MortONS2010.xls workbook, which was last updated on 09/09/2007

Area mortality schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area mortality differentials each year computed to approximately reproduce the area mortality projected by ONS. The differential is the ratio of ONS projected deaths to the deaths predicted from the group schedule.
Area counts of deaths each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or fertility, remove the counts of deaths. The schedule and the differentials will then apply ONS projected local mortality rates to the alternative population each year. When running scenarios using alternative mortality, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the Mig_INUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal in-migrants each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the Mig_OUTUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal out-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

No migration file was specified for In-migration from Overseas (optional)

This migration stream was set to zero

No migration file was specified for Out-migration to Overseas (optional)

This migration stream was set to zero

Comments from the DFSupply.xls workbook, which was last updated on 04/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conv
A single conversion ratio has been used.

Comments from the JOBS DFSupply.xls workbook, which was last updated on 18/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conv
A labour force to dwellings conversion has been given with separate rates for unemployment and commuting.

ersion ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

ersion ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

Population Estimates and Forecasts

PAST TREND MIGRATION

Components of Population Change

Chet, Glouc, Tewkes

	Year beginning July 1st																			
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Births																				
Male	2,122	2,159	2,155	2,140	2,132	2,123	2,116	2,108	2,103	2,099	2,092	2,082	2,072	2,063	2,051	2,038	2,031	2,031	2,033	2,038
Female	2,021	2,056	2,052	2,039	2,030	2,022	2,015	2,008	2,003	1,999	1,992	1,983	1,973	1,965	1,954	1,941	1,934	1,934	1,936	1,941
All Births	4,143	4,216	4,207	4,179	4,162	4,145	4,132	4,115	4,106	4,098	4,084	4,066	4,045	4,028	4,005	3,979	3,964	3,966	3,969	3,978
TFR	2.11	2.13	2.11	2.09	2.06	2.04	2.02	2.00	1.99	1.98	1.97	1.96	1.95	1.94	1.94	1.92	1.92	1.92	1.92	1.92
Births input																				
Deaths																				
Male	1,345	1,332	1,352	1,366	1,362	1,370	1,378	1,390	1,404	1,414	1,430	1,444	1,464	1,482	1,504	1,526	1,552	1,576	1,599	1,626
Female	1,465	1,453	1,450	1,450	1,447	1,439	1,435	1,433	1,433	1,432	1,437	1,445	1,453	1,461	1,473	1,489	1,507	1,526	1,547	1,573
All deaths	2,810	2,786	2,802	2,817	2,809	2,809	2,812	2,823	2,836	2,847	2,867	2,889	2,917	2,944	2,977	3,015	3,059	3,102	3,146	3,198
SMR: males	93.3	89.9	88.6	87.2	84.6	82.8	80.9	79.4	78.0	76.3	74.9	73.5	72.3	71.1	70.0	69.0	68.1	67.2	66.3	65.6
SMR: females	93.7	91.1	89.3	87.5	85.7	83.7	81.9	80.2	78.6	76.9	75.3	73.9	72.5	71.1	69.7	68.6	67.5	66.4	65.3	64.5
SMR: male & female	93.5	90.5	89.0	87.3	85.1	83.2	81.4	79.8	78.3	76.6	75.1	73.7	72.4	71.1	69.9	68.8	67.8	66.8	65.8	65.1
Expectation of life	81.5	81.7	81.8	82.0	82.2	82.3	82.5	82.6	82.7	82.8	83.0	83.1	83.2	83.3	83.4	83.5	83.6	83.7	83.8	83.9
Deaths input																				
In-migration from the UK																				
Male	8,444	8,446	8,445	8,441	8,448	8,441	8,437	8,451	8,467	8,473	8,480	8,484	8,477	8,483	8,486	8,489	8,486	8,475	8,467	8,454
Female	9,184	9,182	9,183	9,187	9,180	9,187	9,191	9,177	9,161	9,155	9,148	9,144	9,151	9,145	9,142	9,139	9,142	9,153	9,161	9,174
All	17,628	17,628	17,628	17,628	17,628	17,628	17,628	17,628	17,628	17,628	17,628	17,628	17,628	17,628	17,628	17,628	17,628	17,628	17,628	17,628
SMigR: males	50.2	49.9	49.5	49.2	49.1	48.8	48.6	48.6	48.6	48.6	48.6	48.5	48.3	48.2	48.0	47.8	47.5	47.2	46.9	46.5
SMigR: females	54.2	53.7	53.4	53.1	52.8	52.7	52.7	52.5	52.4	52.4	52.3	52.2	52.2	52.0	51.7	51.3	50.8	50.4	50.0	49.6
Migrants input																				
Out-migration to the UK																				
Male	8,035	8,022	8,019	8,015	8,013	8,013	8,011	8,013	8,025	8,032	8,035	8,048	8,045	8,056	8,062	8,065	8,065	8,046	8,038	8,024
Female	8,747	8,760	8,763	8,767	8,769	8,769	8,771	8,769	8,757	8,750	8,747	8,734	8,737	8,726	8,720	8,717	8,717	8,736	8,744	8,758
All	16,782	16,782	16,782	16,782	16,782	16,782	16,782	16,782	16,782	16,782	16,782	16,782	16,782	16,782	16,782	16,782	16,782	16,782	16,782	16,782
SMigR: males	47.8	47.4	47.0	46.7	46.5	46.3	46.2	46.1	46.1	46.1	46.0	46.0	45.8	45.8	45.6	45.4	45.2	44.8	44.5	44.2
SMigR: females	51.6	51.3	50.9	50.7	50.5	50.3	50.3	50.2	50.1	50.1	50.0	49.9	49.8	49.6	49.3	48.9	48.5	48.1	47.7	47.4
Migrants input																				
In-migration from Overseas																				
Male	1,402	1,399	1,397	1,395	1,394	1,392	1,391	1,390	1,390	1,390	1,390	1,388	1,386	1,384	1,384	1,383	1,382	1,380	1,379	
Female	1,226	1,229	1,231	1,233	1,234	1,236	1,237	1,238	1,238	1,238	1,238	1,240	1,242	1,244	1,244	1,245	1,246	1,248	1,249	
All	2,628	2,628	2,628	2,628	2,628	2,628	2,628	2,628	2,628	2,628	2,628	2,628	2,628	2,628	2,628	2,628	2,628	2,628	2,628	2,628
SMigR: males	119.4	118.4	117.6	116.8	116.3	115.9	115.5	115.4	115.4	115.5	115.7	115.9	115.8	115.7	115.5	115.2	114.8	114.2	113.4	112.6
SMigR: females	108.0	107.2	106.5	106.0	105.5	105.3	105.3	105.3	105.3	105.4	105.7	105.9	106.3	106.7	106.9	106.8	106.5	106.1	105.4	104.7
Migrants input																				
Out-migration to Overseas																				
Male	1,269	1,265	1,262	1,259	1,256	1,254	1,254	1,252	1,251	1,251	1,251	1,251	1,250	1,249	1,248	1,247	1,246	1,244	1,243	1,242
Female	1,017	1,021	1,024	1,027	1,030	1,032	1,032	1,034	1,035	1,035	1,035	1,036	1,037	1,038	1,039	1,040	1,042	1,043	1,044	
All	2,286	2,286	2,286	2,286	2,286	2,286	2,286	2,286	2,286	2,286	2,286	2,286	2,286	2,286	2,286	2,286	2,286	2,286	2,286	2,286
SMigR: males	108.1	107.1	106.2	105.4	104.8	104.4	104.1	103.9	103.9	104.0	104.1	104.3	104.3	104.3	104.2	103.9	103.4	102.8	102.2	101.4
SMigR: females	89.6	89.0	88.6	88.3	88.1	87.9	87.8	87.9	88.0	88.2	88.4	88.6	88.8	89.1	89.2	89.2	88.9	88.7	88.1	87.5
Migrants input																				
Migration - Net Flows																				
UK	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846
Overseas	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342

+16,920
+6,840

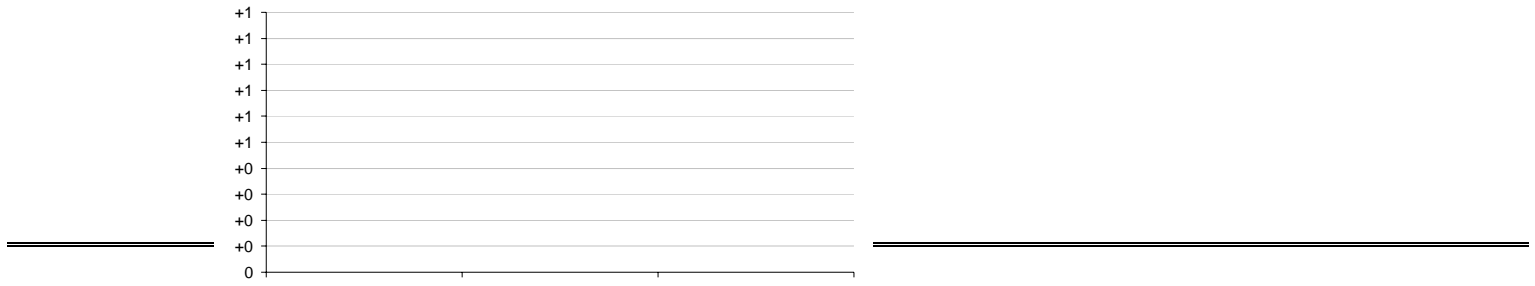
Summary of population change

Natural change	+1,332	+1,430	+1,405	+1,362	+1,354	+1,336	+1,319	+1,292	+1,270	+1,251	+1,216	+1,177	+1,128	+1,084	+1,028	+964	+906	+863	+823	+780	+23,321
Net migration	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+23,760
Net change	+2,520	+2,618	+2,593	+2,550	+2,542	+2,524	+2,507	+2,480	+2,458	+2,439	+2,404	+2,365	+2,316	+2,272	+2,216	+2,152	+2,094	+2,051	+2,011	+1,968	+47,081

Summary of Population estimates/forecasts

	Population at mid-year																					
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		2031
0-4	19,730	20,272	20,538	20,823	21,019	21,184	21,183	21,098	21,006	20,933	20,868	20,807	20,740	20,667	20,586	20,490	20,383	20,280	20,199	20,140	20,111	
5-10	20,607	20,866	21,717	22,345	22,927	23,566	24,333	24,941	25,196	25,449	25,628	25,772	25,756	25,650	25,541	25,452	25,366	25,279	25,184	25,088	24,981	
11-15	18,467	18,241	17,731	17,559	17,517	17,513	17,522	18,033	18,674	19,198	19,824	20,457	20,996	21,255	21,541	21,735	21,897	21,891	21,796	21,694	21,612	
16-17	7,972	7,891	7,798	7,682	7,490	7,378	7,314	7,042	6,980	7,294	7,330	7,303	7,556	8,169	8,492	8,514	8,588	8,744	8,968	9,034	8,993	
18-59Female, 64Male	184,262	184,685	185,304	185,835	186,572	187,205	187,693	188,055	188,262	188,123	188,166	188,180	188,096	187,723	187,551	187,738	187,752	187,989	188,255	188,650	189,090	
60/65 -74	37,601	38,774	39,738	40,649	41,410	42,114	42,749	43,105	43,599	44,119	44,607	44,554	44,756	45,455	46,379	47,391	48,449	49,399	50,268	51,166	52,033	
75-84	18,680	18,846	19,150	19,482	19,724	19,962	20,387	21,189	21,965	22,738	23,541	24,915	26,030	26,887	27,566	28,134	28,645	28,839	29,070	29,262	29,429	
85+	8,707	8,973	9,188	9,384	9,648	9,928	10,191	10,419	10,679	10,964	11,295	11,673	12,097	12,536	12,959	13,377	13,903	14,656	15,388	16,105	16,859	
Total	316,026	318,547	321,165	323,758	326,308	328,850	331,374	333,881	336,361	338,819	341,258	343,662	346,027	348,342	350,615	352,831	354,983	357,077	359,128	361,139	363,107	47,081
Households																						
Number of Households	138,182	139,704	141,226	142,706	144,119	145,607	147,166	148,710	150,213	151,692	153,150	154,516	155,897	157,271	158,611	159,999	161,331	162,765	164,156	165,486	166,723	28,541
Change over previous year	+1,503	+1,522	+1,521	+1,480	+1,413	+1,488	+1,559	+1,544	+1,503	+1,479	+1,458	+1,366	+1,381	+1,374	+1,340	+1,388	+1,332	+1,434	+1,391	+1,330	+1,237	
Number of supply units	143,513	145,092	146,671	148,208	149,674	151,218	152,835	154,437	155,997	157,531	159,044	160,462	161,895	163,320	164,710	166,150	167,531	169,019	170,462	171,842	173,124	29,611
Change over previous year	+1,559	+1,579	+1,579	+1,537	+1,466	+1,544	+1,617	+1,602	+1,559	+1,535	+1,513	+1,417	+1,433	+1,425	+1,390	+1,440	+1,381	+1,488	+1,443	+1,380	+1,282	
Labour Force																						
Number of Labour Force	169,656	170,328	170,943	171,499	172,064	172,630	172,932	173,365	173,719	173,835	173,921	173,983	174,342	174,575	174,806	175,032	175,368	175,898	176,359	176,860	177,423	7,767
Change over previous year	+947	+673	+614	+556	+565	+567	+302	+432	+354	+115	+86	+63	+358	+233	+231	+226	+336	+530	+461	+501	+563	
Number of supply units	154,186	154,831	155,584	156,286	156,990	157,699	158,169	158,763	159,278	159,573	159,844	160,097	160,627	160,939	161,175	161,407	161,749	162,269	162,720	163,209	163,761	9,575
Change over previous year	+1,965	+644	+753	+702	+704	+709	+470	+594	+514	+296	+271	+253	+530	+312	+236	+232	+341	+520	+452	+489	+552	

This report was compiled from a forecast produced on 18/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates



Summary of population change

Natural change	+398	+430	+427	+424	+415	+416	+422	+423	+427	+430	+428	+423	+414	+407	+388	+367	+350	+332	+314	+295
Net migration	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214
Net change	+612	+644	+641	+638	+629	+630	+636	+637	+641	+644	+642	+637	+628	+621	+602	+581	+564	+546	+528	+509

Summary of Population estimates/forecasts

	Population at mid-year																				
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	6,579	6,752	6,877	7,007	7,073	7,120	7,123	7,107	7,093	7,092	7,096	7,106	7,113	7,116	7,111	7,094	7,063	7,028	6,995	6,957	6,926
5-10	6,751	6,788	7,041	7,160	7,370	7,616	7,931	8,120	8,241	8,360	8,423	8,466	8,467	8,449	8,437	8,434	8,434	8,435	8,432	8,430	8,413
11-15	6,681	6,525	6,226	6,153	6,128	6,041	5,929	6,130	6,252	6,414	6,649	6,940	7,118	7,235	7,364	7,428	7,473	7,471	7,450	7,429	7,421
16-17	3,263	3,275	3,163	3,054	2,862	2,823	2,876	2,700	2,667	2,779	2,712	2,660	2,784	3,041	3,119	3,157	3,229	3,286	3,350	3,366	3,353
18-59Female, 64Male	67,034	67,113	67,412	67,502	67,710	67,838	67,783	67,837	67,821	67,621	67,527	67,337	67,080	66,709	66,435	66,372	66,242	66,185	66,154	66,144	66,142
60/65 -74	12,867	13,213	13,488	13,811	14,012	14,201	14,433	14,517	14,694	14,876	15,033	15,047	15,135	15,361	15,704	15,981	16,211	16,507	16,695	16,968	17,245
75-84	6,949	6,970	7,027	7,152	7,214	7,269	7,374	7,585	7,804	7,969	8,189	8,580	8,961	9,215	9,417	9,583	9,801	9,860	10,026	10,138	10,191
85+	3,673	3,775	3,820	3,856	3,963	4,053	4,143	4,231	4,292	4,395	4,521	4,656	4,771	4,931	5,091	5,233	5,408	5,652	5,870	6,068	6,318
Total	113,797	114,410	115,054	115,695	116,332	116,961	117,592	118,227	118,864	119,505	120,150	120,791	121,429	122,057	122,678	123,281	123,861	124,426	124,972	125,500	126,009

Households

Number of Households	50,772	51,211	51,669	52,142	52,580	52,998	53,435	53,862	54,289	54,751	55,171	55,554	55,931	56,284	56,652	57,034	57,355	57,753	58,100	58,438	58,715
Change over previous year	+413	+440	+458	+474	+438	+418	+438	+426	+427	+463	+420	+383	+378	+353	+368	+382	+321	+399	+347	+337	+277
Number of supply units	53,220	53,681	54,160	54,657	55,116	55,553	56,012	56,459	56,906	57,391	57,831	58,233	58,628	58,998	59,384	59,784	60,120	60,538	60,902	61,256	61,546
Change over previous year	+433	+461	+480	+496	+459	+438	+459	+447	+448	+485	+440	+401	+396	+370	+386	+400	+336	+418	+364	+354	+291

Labour Force

Number of Labour Force	62,618	62,783	62,928	63,008	63,162	63,281	63,239	63,292	63,226	63,113	62,994	62,867	62,840	62,755	62,681	62,612	62,605	62,649	62,657	62,660	62,733
Change over previous year	+277	+165	+144	+80	+155	+119	-42	+53	-66	-112	-119	-128	-27	-84	-74	-69	-7	+44	+9	+2	+73
Number of supply units	55,234	55,379	55,566	55,697	55,893	56,057	56,080	56,186	56,187	56,147	56,101	56,046	56,082	56,006	55,940	55,878	55,872	55,911	55,919	55,921	55,986
Change over previous year	+656	+146	+187	+130	+196	+165	+22	+106	+1	-40	-46	-54	+35	-75	-66	-62	-6	+39	+8	+2	+65

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Population Estimates and Forecasts

PAST TREND MIGRATION

Components of Population Change

Gloucester

	Year beginning July 1st																			
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Births																				
Male	922	950	949	946	942	943	941	938	932	929	925	920	914	909	903	899	897	900	905	912
Female	878	905	904	901	898	898	896	893	888	885	881	876	871	865	860	856	854	857	862	869
All Births	1,800	1,854	1,853	1,847	1,840	1,841	1,837	1,831	1,820	1,814	1,806	1,796	1,785	1,774	1,762	1,755	1,750	1,758	1,768	1,781
TFR	2.28	2.32	2.29	2.26	2.23	2.21	2.19	2.17	2.15	2.14	2.13	2.12	2.11	2.10	2.09	2.08	2.07	2.07	2.07	2.07
Births input																				
Deaths																				
Male	491	485	493	502	493	495	499	503	507	510	515	519	526	531	539	545	554	561	567	578
Female	512	504	501	501	499	495	493	494	493	492	494	497	500	501	505	511	517	524	531	540
All deaths	1,003	989	994	1,003	992	990	993	997	1,000	1,002	1,009	1,016	1,025	1,032	1,043	1,056	1,071	1,084	1,099	1,118
SMR: males	101.1	97.3	96.2	95.5	91.5	89.5	87.7	86.0	84.4	82.4	80.8	79.3	78.1	76.6	75.4	74.1	73.1	71.9	70.7	70.1
SMR: females	103.3	99.9	97.8	96.5	94.4	92.0	90.2	88.5	86.5	84.6	83.0	81.6	80.0	78.3	76.8	75.8	74.5	73.3	72.3	71.4
SMR: male & female	102.2	98.6	97.0	96.0	92.9	90.7	88.9	87.2	85.4	83.5	81.9	80.4	79.0	77.4	76.1	74.9	73.8	72.6	71.5	70.7
Expectation of life	80.7	81.0	81.1	81.2	81.4	81.6	81.8	81.9	82.0	82.2	82.3	82.4	82.6	82.7	82.8	82.9	83.0	83.1	83.2	83.3
Deaths input																				
In-migration from the UK																				
Male	2,695	2,691	2,688	2,686	2,689	2,692	2,690	2,689	2,692	2,695	2,697	2,701	2,700	2,700	2,701	2,701	2,701	2,700	2,699	2,693
Female	2,814	2,818	2,821	2,823	2,820	2,817	2,819	2,820	2,817	2,814	2,812	2,808	2,809	2,809	2,808	2,808	2,808	2,809	2,810	2,816
All	5,509	5,509	5,509	5,509	5,509	5,509	5,509	5,509	5,509	5,509	5,509	5,509	5,509	5,509	5,509	5,509	5,509	5,509	5,509	5,509
SMigR: males	41.1	40.7	40.3	40.0	39.8	39.6	39.4	39.2	39.2	39.1	39.0	38.9	38.7	38.5	38.3	37.9	37.6	37.3	37.0	36.5
SMigR: females	42.9	42.7	42.4	42.2	41.9	41.6	41.5	41.3	41.1	41.0	40.8	40.5	40.4	40.1	39.8	39.4	39.0	38.6	38.1	37.8
Migrants input																				
Out-migration to the UK																				
Male	2,580	2,574	2,573	2,573	2,573	2,576	2,575	2,572	2,571	2,572	2,573	2,573	2,573	2,573	2,573	2,574	2,574	2,573	2,573	2,568
Female	2,656	2,662	2,663	2,663	2,663	2,660	2,661	2,664	2,665	2,664	2,663	2,663	2,663	2,663	2,662	2,662	2,662	2,663	2,663	2,668
All	5,236	5,236	5,236	5,236	5,236	5,236	5,236	5,236	5,236	5,236	5,236	5,236	5,236	5,236	5,236	5,236	5,236	5,236	5,236	5,236
SMigR: males	39.4	38.9	38.6	38.3	38.1	37.9	37.7	37.5	37.4	37.3	37.2	37.1	36.9	36.7	36.4	36.1	35.8	35.5	35.2	34.9
SMigR: females	40.5	40.3	40.1	39.8	39.5	39.3	39.1	39.0	38.9	38.8	38.6	38.4	38.3	38.1	37.8	37.4	37.0	36.6	36.1	35.8
Migrants input																				
In-migration from Overseas																				
Male	470	469	469	469	468	468	468	468	468	468	468	468	468	468	468	468	468	468	467	467
Female	401	402	402	402	403	403	403	403	403	403	403	403	403	403	403	403	403	403	404	404
All	871	871	871	871	871	871	871	871	871	871	871	871	871	871	871	871	871	871	871	871
SMigR: males	102.6	101.6	100.8	100.1	99.5	99.1	98.8	98.5	98.4	98.4	98.3	98.3	98.2	98.0	97.6	97.0	96.2	95.4	94.4	93.4
SMigR: females	89.2	88.4	87.7	87.2	86.7	86.4	86.2	86.0	85.8	85.8	85.8	85.6	85.5	85.4	85.2	84.7	84.2	83.5	82.7	81.8
Migrants input																				
Out-migration to Overseas																				
Male	394	394	393	393	393	392	392	393	393	393	393	393	393	393	393	393	393	393	392	392
Female	320	320	321	321	321	322	322	321	321	321	321	321	321	321	321	321	321	321	322	322
All	714	714	714	714	714	714	714	714	714	714	714	714	714	714	714	714	714	714	714	714
SMigR: males	86.1	85.3	84.5	83.9	83.4	83.0	82.8	82.6	82.5	82.5	82.5	82.4	82.2	81.9	81.4	80.8	80.1	79.3	78.4	78.4
SMigR: females	71.1	70.5	70.0	69.6	69.3	69.0	68.8	68.6	68.5	68.4	68.4	68.3	68.2	68.1	67.9	67.5	67.1	66.5	65.9	65.2
Migrants input																				
Migration - Net Flows																				
UK	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273
Overseas	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157

+5,460
+3,140

Summary of population change

Natural change	+797	+865	+859	+843	+848	+850	+845	+834	+820	+812	+798	+780	+760	+742	+719	+699	+680	+673	+669	+664	+15,555
Net migration	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+8,600
Net change	+1,227	+1,295	+1,289	+1,273	+1,278	+1,280	+1,275	+1,264	+1,250	+1,242	+1,228	+1,210	+1,190	+1,172	+1,149	+1,129	+1,110	+1,103	+1,099	+1,094	+24,155

Summary of Population estimates/forecasts

	Population at mid-year																					
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		2031
0-4	8,493	8,755	8,876	9,024	9,136	9,252	9,291	9,275	9,254	9,229	9,205	9,174	9,136	9,093	9,051	9,003	8,954	8,912	8,886	8,881	8,900	
5-10	8,404	8,632	9,116	9,434	9,769	10,055	10,398	10,713	10,833	10,976	11,081	11,198	11,235	11,213	11,184	11,156	11,130	11,093	11,049	11,001	10,951	
11-15	7,145	7,048	6,854	6,859	6,838	6,940	7,077	7,357	7,693	7,989	8,280	8,543	8,802	8,921	9,069	9,180	9,294	9,334	9,319	9,300	9,278	
16-17	2,945	2,899	2,946	2,920	2,894	2,843	2,735	2,653	2,726	2,873	2,919	2,969	3,064	3,336	3,499	3,498	3,514	3,577	3,707	3,760	3,752	
18-59Female, 64Male	70,919	71,344	71,779	72,201	72,699	73,166	73,606	73,891	74,081	74,159	74,416	74,647	74,832	74,914	75,041	75,281	75,512	75,865	76,150	76,478	76,937	
60/65 -74	12,648	12,994	13,253	13,571	13,832	14,073	14,289	14,484	14,768	15,096	15,387	15,478	15,702	16,077	16,551	17,123	17,667	18,131	18,592	19,055	19,426	
75-84	6,246	6,286	6,341	6,364	6,402	6,422	6,562	6,782	6,962	7,164	7,344	7,740	8,061	8,363	8,581	8,778	8,910	8,954	9,061	9,190	9,327	
85+	2,613	2,682	2,771	2,851	2,927	3,026	3,098	3,177	3,277	3,358	3,453	3,565	3,692	3,795	3,908	4,014	4,181	4,406	4,611	4,810	4,997	
Total	119,413	120,640	121,936	123,224	124,498	125,776	127,056	128,331	129,595	130,844	132,086	133,314	134,523	135,713	136,884	138,034	139,162	140,272	141,375	142,474	143,568	24,155
Households																						
Number of Households	51,383	52,045	52,730	53,377	54,010	54,685	55,367	56,043	56,716	57,350	57,999	58,632	59,274	59,941	60,582	61,224	61,860	62,568	63,253	63,926	64,574	13,191
Change over previous year	+669	+662	+685	+648	+633	+675	+682	+676	+673	+634	+649	+633	+642	+668	+641	+641	+636	+708	+685	+673	+648	
Number of supply units	53,247	53,933	54,642	55,313	55,969	56,668	57,375	58,075	58,773	59,430	60,102	60,758	61,423	62,115	62,780	63,444	64,104	64,838	65,547	66,245	66,916	13,669
Change over previous year	+693	+686	+710	+671	+656	+699	+707	+700	+698	+657	+672	+656	+665	+692	+664	+665	+659	+734	+709	+698	+671	
Labour Force																						
Number of Labour Force	64,618	65,079	65,497	65,907	66,262	66,641	66,949	67,315	67,635	67,847	68,054	68,271	68,630	68,906	69,173	69,444	69,788	70,216	70,596	70,998	71,439	6,821
Change over previous year	+577	+461	+418	+410	+355	+379	+308	+366	+320	+212	+207	+218	+358	+276	+267	+271	+344	+428	+380	+402	+441	
Number of supply units	64,618	65,079	65,567	66,049	66,476	66,928	67,309	67,749	68,144	68,431	68,712	69,006	69,442	69,795	70,065	70,340	70,688	71,122	71,507	71,914	72,361	7,743
Change over previous year	+1,197	+461	+488	+482	+427	+452	+381	+440	+395	+286	+282	+293	+436	+353	+270	+275	+348	+433	+385	+407	+447	

This report was compiled from a forecast produced on 18/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Population Estimates and Forecasts

PAST TREND MIGRATION

Components of Population Change

Tewkesbury

	Year beginning July 1st																			
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Births																				
Male	471	472	469	462	459	451	447	443	440	437	433	430	427	424	423	420	417	417	416	415
Female	449	450	447	440	437	430	426	422	419	416	413	409	406	404	403	400	398	397	396	396
All Births	920	922	917	902	896	881	873	864	859	853	846	839	833	828	826	820	815	813	812	811
TFR	2.07	2.07	2.06	2.03	2.02	1.99	1.97	1.95	1.94	1.93	1.92	1.91	1.90	1.89	1.89	1.88	1.87	1.87	1.87	1.87
Births input																				
Deaths																				
Male	382	386	392	394	394	399	404	410	416	421	427	435	443	451	458	467	478	487	496	503
Female	402	401	406	413	412	413	416	418	421	423	428	431	436	441	447	454	462	469	476	486
All deaths	784	787	797	807	806	812	820	828	837	844	855	866	879	892	905	921	939	956	972	989
SMR: males	91.0	89.0	87.6	85.3	82.7	81.2	79.6	78.2	76.6	75.1	73.7	72.5	71.4	70.4	69.2	68.4	67.7	66.9	66.2	65.3
SMR: females	88.9	86.1	84.7	83.9	81.3	79.6	78.0	76.5	75.0	73.3	72.0	70.3	69.2	67.8	66.6	65.4	64.3	63.1	62.1	61.3
SMR: male & female	89.9	87.5	86.1	84.6	82.0	80.4	78.8	77.3	75.8	74.2	72.8	71.4	70.3	69.1	67.9	66.9	66.0	65.0	64.1	63.3
Expectation of life	81.7	81.9	82.0	82.2	82.4	82.5	82.6	82.8	82.9	83.0	83.1	83.2	83.4	83.5	83.6	83.7	83.8	83.9	83.9	84.0
Deaths input																				
In-migration from the UK																				
Male	2,343	2,351	2,358	2,366	2,374	2,382	2,390	2,400	2,407	2,417	2,425	2,429	2,431	2,439	2,441	2,445	2,448	2,449	2,454	2,453
Female	2,612	2,604	2,597	2,589	2,581	2,573	2,565	2,555	2,548	2,538	2,530	2,526	2,524	2,516	2,514	2,510	2,507	2,506	2,501	2,502
All	4,955	4,955	4,955	4,955	4,955	4,955	4,955	4,955	4,955	4,955	4,955	4,955	4,955	4,955	4,955	4,955	4,955	4,955	4,955	4,955
SMigR: males	59.4	59.1	58.8	58.6	58.4	58.2	58.0	57.9	57.7	57.7	57.7	57.5	57.3	57.2	57.0	56.8	56.6	56.3	56.1	55.8
SMigR: females	65.7	65.3	65.0	64.8	64.5	64.3	64.0	63.8	63.7	63.4	63.2	63.1	63.0	62.7	62.4	61.9	61.4	61.1	60.6	60.2
Migrants input																				
Out-migration to the UK																				
Male	2,097	2,105	2,111	2,117	2,123	2,130	2,136	2,143	2,149	2,156	2,162	2,167	2,170	2,176	2,178	2,182	2,184	2,182	2,185	2,184
Female	2,385	2,377	2,371	2,365	2,359	2,352	2,346	2,339	2,333	2,326	2,320	2,315	2,312	2,306	2,304	2,300	2,298	2,300	2,297	2,298
All	4,482	4,482	4,482	4,482	4,482	4,482	4,482	4,482	4,482	4,482	4,482	4,482	4,482	4,482	4,482	4,482	4,482	4,482	4,482	4,482
SMigR: males	53.1	52.9	52.7	52.5	52.3	52.0	51.9	51.7	51.5	51.5	51.5	51.3	51.2	51.1	50.9	50.7	50.5	50.2	50.0	49.7
SMigR: females	60.0	59.6	59.4	59.2	59.0	58.8	58.6	58.4	58.3	58.1	58.0	57.8	57.7	57.4	57.1	56.7	56.3	56.0	55.6	55.3
Migrants input																				
In-migration from Overseas																				
Male	167	168	169	170	170	171	171	172	173	174	175	175	175	176	177	177	177	178	178	178
Female	147	146	145	144	144	143	143	142	141	140	139	139	139	138	137	137	137	136	136	136
All	314	314	314	314	314	314	314	314	314	314	314	314	314	314	314	314	314	314	314	314
SMigR: males	63.0	62.7	62.5	62.1	61.8	61.6	61.4	61.3	61.3	61.4	61.5	61.5	61.5	61.6	61.7	61.7	61.6	61.5	61.3	61.1
SMigR: females	56.2	55.8	55.5	55.2	55.0	54.8	54.6	54.4	54.2	54.1	54.0	54.1	54.2	54.2	54.0	53.9	53.7	53.6	53.3	53.1
Migrants input																				
Out-migration to Overseas																				
Male	133	134	134	135	135	136	136	136	137	137	138	138	138	139	139	139	139	140	140	140
Female	110	109	109	108	108	107	107	107	106	106	105	105	105	104	104	104	104	103	103	103
All	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243
SMigR: males	50.2	49.9	49.7	49.4	49.1	48.9	48.6	48.5	48.4	48.4	48.5	48.5	48.5	48.5	48.5	48.5	48.4	48.3	48.1	48.0
SMigR: females	42.0	41.8	41.6	41.3	41.2	41.1	41.0	40.9	40.9	40.9	40.9	40.9	40.9	41.0	40.9	40.8	40.7	40.6	40.5	40.3
Migrants input																				
Migration - Net Flows																				
UK	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473
Overseas	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71

+9,460
+1,420

Summary of population change

Natural change	+137	+135	+119	+95	+91	+69	+53	+36	+23	+9	-9	-26	-46	-65	-80	-101	-124	-142	-160	-178	-166
Net migration	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+10,880
Net change	+681	+679	+663	+639	+635	+613	+597	+580	+567	+553	+535	+518	+498	+479	+464	+443	+420	+402	+384	+366	+10,714

Summary of Population estimates/forecasts

	Population at mid-year																					
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		2031
0-4	4,659	4,765	4,786	4,793	4,810	4,812	4,769	4,716	4,659	4,613	4,566	4,528	4,491	4,458	4,423	4,393	4,366	4,340	4,318	4,301	4,285	
5-10	5,452	5,445	5,560	5,750	5,788	5,896	6,004	6,107	6,121	6,113	6,123	6,108	6,054	5,987	5,920	5,862	5,802	5,751	5,703	5,658	5,617	
11-15	4,641	4,668	4,651	4,547	4,551	4,532	4,516	4,546	4,729	4,794	4,895	4,974	5,076	5,099	5,109	5,127	5,130	5,085	5,027	4,965	4,913	
16-17	1,764	1,717	1,690	1,707	1,735	1,711	1,703	1,689	1,587	1,642	1,699	1,674	1,709	1,792	1,874	1,859	1,844	1,881	1,911	1,908	1,888	
18-59Female, 64Male	46,309	46,228	46,113	46,132	46,162	46,201	46,305	46,327	46,359	46,344	46,223	46,196	46,183	46,100	46,074	46,085	45,998	45,939	45,950	46,029	46,011	
60/65 -74	12,086	12,566	12,997	13,267	13,565	13,840	14,027	14,104	14,137	14,147	14,187	14,029	13,920	14,018	14,124	14,287	14,571	14,761	14,981	15,144	15,362	
75-84	5,485	5,591	5,783	5,965	6,109	6,271	6,451	6,822	7,200	7,604	8,008	8,595	9,008	9,310	9,569	9,774	9,935	10,024	9,984	9,933	9,911	
85+	2,420	2,517	2,597	2,678	2,758	2,849	2,950	3,011	3,110	3,212	3,321	3,453	3,633	3,809	3,960	4,130	4,314	4,599	4,907	5,227	5,544	
Total	82,816	83,497	84,176	84,839	85,478	86,113	86,726	87,323	87,903	88,469	89,022	89,557	90,075	90,573	91,052	91,517	91,960	92,379	92,781	93,165	93,531	10,714

Households

Number of Households	36,027	36,448	36,827	37,186	37,528	37,924	38,363	38,806	39,209	39,590	39,980	40,330	40,692	41,046	41,377	41,741	42,116	42,444	42,803	43,122	43,433	7,406
Change over previous year	+421	+421	+379	+359	+342	+396	+439	+443	+403	+382	+390	+350	+362	+354	+331	+364	+375	+327	+359	+319	+311	
Number of supply units	37,046	37,479	37,868	38,238	38,590	38,997	39,448	39,903	40,317	40,710	41,110	41,471	41,843	42,207	42,547	42,922	43,307	43,644	44,013	44,341	44,662	7,616
Change over previous year	+433	+433	+390	+370	+352	+407	+451	+455	+414	+392	+401	+360	+372	+364	+340	+375	+385	+337	+369	+328	+320	

Labour Force

Number of Labour Force	42,420	42,466	42,518	42,584	42,639	42,708	42,744	42,758	42,859	42,874	42,873	42,845	42,872	42,914	42,952	42,976	42,975	43,033	43,105	43,202	43,251	831
Change over previous year	+93	+46	+52	+66	+55	+69	+36	+14	+100	+16	-2	-27	+27	+42	+38	+24	-1	+58	+72	+97	+49	
Number of supply units	34,335	34,372	34,451	34,540	34,621	34,714	34,780	34,828	34,946	34,996	35,031	35,045	35,104	35,138	35,169	35,189	35,188	35,236	35,294	35,374	35,414	1,079
Change over previous year	+112	+37	+78	+90	+81	+93	+66	+48	+118	+50	+35	+14	+59	+34	+31	+20	-1	+47	+59	+79	+40	

This report was compiled from a forecast produced on 18/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

This file was produced using the scenario file G:\HEaDROOM\1. POPGROUP v3.1 DF
CompatibleModel Runs\CGT\Cheltenham, Gloucester, Tewkesbury JCS_inp\scenario_PAST
TREND MIGRATION.xls

Tick to save as new flat file

It was run on 18/05/2012 at 08:53:27	Produce flat file		<< Append to (blank if not to be appended)
	Clicking the button will copy all data from this components file onto a single sheet in another workbook (for pivots, etc)	G:\HEaDROOM\1. POPGROUP v3.1 DF CompatibleModel Runs\CGT\Cheltenham, Gloucester, Tewkesbury JCS_out\FlatComp_PAST TREND MIGRATION.xls	<< Save flat file with this name (may be blank if to be appended to an existing file)

Forecast after model set up to replicate ONS 2010 Based population projection data.

Comments from the PopBase2010.xls workbook, which was last updated on 26/02/2008

2010 Mid-Year Estimate of population taken from ONS sub-national 2010-based projections.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the TFR FertONS2010.xls workbook, which was last updated on 09/09/2007

Area fertility schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area fertility differentials each year computed to approximately reproduce the area fertility projected by ONS. The differential is the ratio of ONS projected births to the births predicted from the group schedule.
Area counts of births each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or mortality, remove the counts of births. The schedule and the differentials will then apply ONS projected local fertility rates to the alternative population each year. When running scenarios using alternative fertility, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the TFR MortONS2010.xls workbook, which was last updated on 09/09/2007

Area mortality schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area mortality differentials each year computed to approximately reproduce the area mortality projected by ONS. The differential is the ratio of ONS projected deaths to the deaths predicted from the group schedule.
Area counts of deaths each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or fertility, remove the counts of deaths. The schedule and the differentials will then apply ONS projected local mortality rates to the alternative population each year. When running scenarios using alternative mortality, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the LT PAST TREND Mig_INUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal in-migrants each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the LT PAST TREND Mig_OUTUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal out-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the LT PT Mig_INOVONS2010.xls workbook, which was last updated on 09/09/2007

Area overseas in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.

Area counts of overseas in-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the LT PT Mig_OUTOVONS2010.xls workbook, which was last updated on 09/09/2007

Area overseas out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.

Area counts of overseas out-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the DFSupply.xls workbook, which was last updated on 04/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conversion ratio has been used.

Comments from the JOBS DFSupply2.xls workbook, which was last updated on 11/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conversion ratio from labour force to dwellings has been given with separate rates for unemployment and commuting.

version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

SMigR: males	108.1	107.1	106.2	105.4	104.8	104.4	104.1	103.9	103.9	104.0	104.1	104.3	104.3	104.3	104.2	103.9	103.4	102.8	102.2	101.4		
SMigR: females	89.6	89.0	88.6	88.3	88.1	87.9	87.8	87.9	88.0	88.2	88.4	88.6	88.8	89.1	89.2	89.2	88.9	88.7	88.1	87.5		
Migrants input																						
Migration - Net Flows																						
UK	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+846	+16,920	
Overseas	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+342	+6,840	
Summary of population change																						
Natural change	+1,332	+1,430	+1,405	+1,362	+1,354	+1,336	+1,319	+1,292	+1,270	+1,251	+1,216	+1,177	+1,128	+1,084	+1,028	+964	+906	+863	+823	+780	+23,321	
Net migration	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+1,188	+23,760	
Net change	+2,520	+2,618	+2,593	+2,550	+2,542	+2,524	+2,507	+2,480	+2,458	+2,439	+2,404	+2,365	+2,316	+2,272	+2,216	+2,152	+2,094	+2,051	+2,011	+1,968	+47,081	

Summary of Population estimates/forecasts

Population at mid-year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	19,730	20,272	20,538	20,823	21,019	21,184	21,183	21,098	21,006	20,933	20,868	20,807	20,740	20,667	20,586	20,490	20,383	20,280	20,199	20,140	20,111	
5-10	20,607	20,866	21,717	22,345	22,927	23,566	24,333	24,941	25,196	25,449	25,628	25,772	25,756	25,650	25,541	25,452	25,366	25,279	25,184	25,088	24,981	
11-15	18,467	18,241	17,731	17,559	17,517	17,513	17,522	18,033	18,674	19,198	19,824	20,457	20,996	21,255	21,541	21,735	21,897	21,891	21,796	21,694	21,612	
16-17	7,972	7,891	7,798	7,682	7,490	7,378	7,314	7,042	6,980	7,294	7,330	7,303	7,556	8,169	8,492	8,514	8,588	8,744	8,968	9,034	8,993	
18-59Female, 64Male	184,262	184,685	185,304	185,835	186,572	187,205	187,693	188,055	188,262	188,123	188,166	188,180	188,096	187,723	187,551	187,738	187,752	187,989	188,255	188,650	189,090	
60/65 -74	37,601	38,774	39,738	40,649	41,410	42,114	42,749	43,105	43,599	44,119	44,607	44,554	44,756	45,455	46,379	47,391	48,449	49,399	50,268	51,166	52,033	
75-84	18,680	18,846	19,150	19,482	19,724	19,962	20,387	21,189	21,965	22,738	23,541	24,915	26,030	26,887	27,566	28,134	28,645	28,839	29,070	29,262	29,429	
85+	8,707	8,973	9,188	9,384	9,648	9,928	10,191	10,419	10,679	10,964	11,295	11,673	12,097	12,536	12,959	13,377	13,903	14,656	15,388	16,105	16,859	
Total	316,026	318,547	321,165	323,758	326,308	328,850	331,374	333,881	336,361	338,819	341,258	343,662	346,027	348,342	350,615	352,831	354,983	357,077	359,128	361,139	363,107	47,081
Households																						
Number of Households	138,182	139,704	141,226	142,706	144,119	145,607	147,166	148,710	150,213	151,692	153,150	154,516	155,897	157,271	158,611	159,999	161,331	162,765	164,156	165,486	166,723	28,541
Change over previous year	+1,503	+1,522	+1,521	+1,480	+1,413	+1,488	+1,559	+1,544	+1,503	+1,479	+1,458	+1,366	+1,381	+1,374	+1,340	+1,388	+1,332	+1,434	+1,391	+1,330	+1,237	
Number of supply units	143,513	145,092	146,671	148,208	149,674	151,218	152,835	154,437	155,997	157,531	159,044	160,462	161,895	163,320	164,710	166,150	167,531	169,019	170,462	171,842	173,124	29,611
Change over previous year	+1,559	+1,579	+1,579	+1,537	+1,466	+1,544	+1,617	+1,602	+1,559	+1,535	+1,513	+1,417	+1,433	+1,425	+1,390	+1,440	+1,381	+1,488	+1,443	+1,380	+1,282	
Labour Force																						
Number of Labour Force	169,656	170,328	170,943	171,499	172,064	172,630	172,932	173,365	173,719	173,835	173,921	173,983	174,342	174,575	174,806	175,032	175,368	175,898	176,359	176,860	177,423	7,767
Change over previous year	+947	+673	+614	+556	+565	+567	+302	+432	+354	+115	+86	+63	+358	+233	+231	+226	+336	+530	+461	+501	+563	
Number of supply units	154,186	154,831	155,584	156,286	156,990	157,699	158,278	159,041	159,725	160,190	160,631	161,054	161,756	162,336	162,914	163,416	163,912	164,590	165,049	165,546	166,107	11,921
Change over previous year	+1,965	+644	+753	+702	+704	+709	+578	+763	+684	+465	+440	+423	+702	+580	+578	+502	+496	+678	+459	+497	+561	

This report was compiled from a forecast produced on 18/05/2012 using POPGROUP software developed by Bradford Council, the University of Manchester and Andelin Associates

Migration - Net Flows

UK	+100	+100	+100	+100	+100	+100	+100	+100	+100	+100	+100	+100	+100	+100	+100	+100	+100	+100	+100	+100	+100	+2,000
Overseas	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+114	+2,280

Summary of population change

Natural change	+398	+430	+427	+424	+415	+416	+422	+423	+427	+430	+428	+423	+414	+407	+388	+367	+350	+332	+314	+295	+7,932
Net migration	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+214	+4,280
Net change	+612	+644	+641	+638	+629	+630	+636	+637	+641	+644	+642	+637	+628	+621	+602	+581	+564	+546	+528	+509	+12,212

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	6,579	6,752	6,877	7,007	7,073	7,120	7,123	7,107	7,093	7,092	7,096	7,106	7,113	7,116	7,111	7,094	7,063	7,028	6,995	6,957	6,926	
5-10	6,751	6,788	7,041	7,160	7,370	7,616	7,931	8,120	8,241	8,360	8,423	8,466	8,467	8,449	8,437	8,434	8,434	8,435	8,432	8,430	8,413	
11-15	6,681	6,525	6,226	6,153	6,128	6,041	5,929	6,130	6,252	6,414	6,649	6,940	7,118	7,235	7,364	7,428	7,473	7,471	7,450	7,429	7,421	
16-17	3,263	3,275	3,163	3,054	2,862	2,823	2,876	2,700	2,667	2,779	2,712	2,660	2,784	3,041	3,119	3,157	3,229	3,286	3,350	3,366	3,353	
18-59Female, 64Male	67,034	67,113	67,412	67,502	67,710	67,838	67,783	67,837	67,821	67,621	67,527	67,337	67,080	66,709	66,435	66,372	66,242	66,185	66,154	66,144	66,142	
60/65 -74	12,867	13,213	13,488	13,811	14,012	14,201	14,433	14,517	14,694	14,876	15,033	15,047	15,135	15,361	15,704	15,981	16,211	16,507	16,695	16,968	17,245	
75-84	6,949	6,970	7,027	7,152	7,214	7,269	7,374	7,585	7,804	7,969	8,189	8,580	8,961	9,215	9,417	9,583	9,801	9,860	10,026	10,138	10,191	
85+	3,673	3,775	3,820	3,856	3,963	4,053	4,143	4,231	4,292	4,395	4,521	4,656	4,771	4,931	5,091	5,233	5,408	5,652	5,870	6,068	6,318	
Total	113,797	114,410	115,054	115,695	116,332	116,961	117,592	118,227	118,864	119,505	120,150	120,791	121,429	122,057	122,678	123,281	123,861	124,426	124,972	125,500	126,009	12,212

Households

Number of Households	50,772	51,211	51,669	52,142	52,580	52,998	53,435	53,862	54,289	54,751	55,171	55,554	55,931	56,284	56,652	57,034	57,355	57,753	58,100	58,438	58,715	7,944
Change over previous year	+413	+440	+458	+474	+438	+418	+438	+426	+427	+463	+420	+383	+378	+353	+368	+382	+321	+399	+347	+337	+277	
Number of supply units	53,220	53,681	54,160	54,657	55,116	55,553	56,012	56,459	56,906	57,391	57,831	58,233	58,628	58,998	59,384	59,784	60,120	60,538	60,902	61,256	61,546	8,327
Change over previous year	+433	+461	+480	+496	+459	+438	+459	+447	+448	+485	+440	+401	+396	+370	+386	+400	+336	+418	+364	+354	+291	

Labour Force

Number of Labour Force	62,618	62,783	62,928	63,008	63,162	63,281	63,239	63,292	63,226	63,113	62,994	62,867	62,840	62,755	62,681	62,612	62,605	62,649	62,657	62,660	62,733	115
Change over previous year	+277	+165	+144	+80	+155	+119	-42	+53	-66	-112	-119	-128	-27	-84	-74	-69	-7	+44	+9	+2	+73	
Number of supply units	55,234	55,379	55,566	55,697	55,893	56,057	56,080	56,246	56,307	56,326	56,338	56,343	56,437	56,480	56,532	56,587	56,581	56,620	56,628	56,630	56,697	1,463
Change over previous year	+656	+146	+187	+130	+196	+165	+22	+166	+61	+19	+13	+5	+94	+43	+52	+55	-6	+40	+8	+2	+66	

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Migration - Net Flows

UK	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+273	+5,460
Overseas	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+157	+3,140

Summary of population change

Natural change	+797	+865	+859	+843	+848	+850	+845	+834	+820	+812	+798	+780	+760	+742	+719	+699	+680	+673	+669	+664	+15,555
Net migration	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+430	+8,600
Net change	+1,227	+1,295	+1,289	+1,273	+1,278	+1,280	+1,275	+1,264	+1,250	+1,242	+1,228	+1,210	+1,190	+1,172	+1,149	+1,129	+1,110	+1,103	+1,099	+1,094	+24,155

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
0-4	8,493	8,755	8,876	9,024	9,136	9,252	9,291	9,275	9,254	9,229	9,205	9,174	9,136	9,093	9,051	9,003	8,954	8,912	8,886	8,881	8,900
5-10	8,404	8,632	9,116	9,434	9,769	10,055	10,398	10,713	10,833	10,976	11,081	11,198	11,235	11,213	11,184	11,156	11,130	11,093	11,049	11,001	10,951
11-15	7,145	7,048	6,854	6,859	6,838	6,940	7,077	7,357	7,693	7,989	8,280	8,543	8,802	8,921	9,069	9,180	9,294	9,334	9,319	9,300	9,278
16-17	2,945	2,899	2,946	2,920	2,894	2,843	2,735	2,653	2,726	2,873	2,919	2,969	3,064	3,336	3,499	3,498	3,514	3,577	3,707	3,760	3,752
18-59Female, 64Male	70,919	71,344	71,779	72,201	72,699	73,166	73,606	73,891	74,081	74,159	74,416	74,647	74,832	74,914	75,041	75,281	75,512	75,865	76,150	76,478	76,937
60/65 -74	12,648	12,994	13,253	13,571	13,832	14,073	14,289	14,484	14,768	15,096	15,387	15,478	15,702	16,077	16,551	17,123	17,667	18,131	18,592	19,055	19,426
75-84	6,246	6,286	6,341	6,364	6,402	6,422	6,562	6,782	6,962	7,164	7,344	7,740	8,061	8,363	8,581	8,778	8,910	8,954	9,061	9,190	9,327
85+	2,613	2,682	2,771	2,851	2,927	3,026	3,098	3,177	3,277	3,358	3,453	3,565	3,692	3,795	3,908	4,014	4,181	4,406	4,611	4,810	4,997
Total	119,413	120,640	121,936	123,224	124,498	125,776	127,056	128,331	129,595	130,844	132,086	133,314	134,523	135,713	136,884	138,034	139,162	140,272	141,375	142,474	143,568

Households

Number of Households	51,383	52,045	52,730	53,377	54,010	54,685	55,367	56,043	56,716	57,350	57,999	58,632	59,274	59,941	60,582	61,224	61,860	62,568	63,253	63,926	64,574	13,191
Change over previous year	+669	+662	+685	+648	+633	+675	+682	+676	+673	+634	+649	+633	+642	+668	+641	+641	+636	+708	+685	+673	+648	
Number of supply units	53,247	53,933	54,642	55,313	55,969	56,668	57,375	58,075	58,773	59,430	60,102	60,758	61,423	62,115	62,780	63,444	64,104	64,838	65,547	66,245	66,916	13,669
Change over previous year	+693	+686	+710	+671	+656	+699	+707	+700	+698	+657	+672	+656	+665	+692	+664	+665	+659	+734	+709	+698	+671	

Labour Force

Number of Labour Force	64,618	65,079	65,497	65,907	66,262	66,641	66,949	67,315	67,635	67,847	68,054	68,271	68,630	68,906	69,173	69,444	69,788	70,216	70,596	70,998	71,439	6,821
Change over previous year	+577	+461	+418	+410	+355	+379	+308	+366	+320	+212	+207	+218	+358	+276	+267	+271	+344	+428	+380	+402	+441	
Number of supply units	64,618	65,079	65,567	66,049	66,476	66,928	67,381	67,894	68,362	68,722	69,078	69,446	69,958	70,388	70,809	71,236	71,739	72,330	72,722	73,136	73,590	8,972
Change over previous year	+1,197	+461	+488	+482	+427	+452	+453	+513	+468	+360	+356	+368	+512	+430	+421	+427	+503	+591	+392	+414	+454	

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Migration - Net Flows

UK	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+473	+9,460
Overseas	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+1,420

Summary of population change

Natural change	+137	+135	+119	+95	+91	+69	+53	+36	+23	+9	-9	-26	-46	-65	-80	-101	-124	-142	-160	-178	-166	
Net migration	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+544	+10,880
Net change	+681	+679	+663	+639	+635	+613	+597	+580	+567	+553	+535	+518	+498	+479	+464	+443	+420	+402	+384	+366	+10,714	

Summary of Population estimates/forecasts*Population at mid-year*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
0-4	4,659	4,765	4,786	4,793	4,810	4,812	4,769	4,716	4,659	4,613	4,566	4,528	4,491	4,458	4,423	4,393	4,366	4,340	4,318	4,301	4,285	
5-10	5,452	5,445	5,560	5,750	5,788	5,896	6,004	6,107	6,121	6,113	6,123	6,108	6,054	5,987	5,920	5,862	5,802	5,751	5,703	5,658	5,617	
11-15	4,641	4,668	4,651	4,547	4,551	4,532	4,516	4,546	4,729	4,794	4,895	4,974	5,076	5,099	5,109	5,127	5,130	5,085	5,027	4,965	4,913	
16-17	1,764	1,717	1,690	1,707	1,735	1,711	1,703	1,689	1,587	1,642	1,699	1,674	1,709	1,792	1,874	1,859	1,844	1,881	1,911	1,908	1,888	
18-59Female, 64Male	46,309	46,228	46,113	46,132	46,162	46,201	46,305	46,327	46,359	46,344	46,223	46,196	46,183	46,100	46,074	46,085	45,998	45,939	45,950	46,029	46,011	
60/65 -74	12,086	12,566	12,997	13,267	13,565	13,840	14,027	14,104	14,137	14,147	14,187	14,029	13,920	14,018	14,124	14,287	14,571	14,761	14,981	15,144	15,362	
75-84	5,485	5,591	5,783	5,965	6,109	6,271	6,451	6,822	7,200	7,604	8,008	8,595	9,008	9,310	9,569	9,774	9,935	10,024	9,984	9,933	9,911	
85+	2,420	2,517	2,597	2,678	2,758	2,849	2,950	3,011	3,110	3,212	3,321	3,453	3,633	3,809	3,960	4,130	4,314	4,599	4,907	5,227	5,544	
Total	82,816	83,497	84,176	84,839	85,478	86,113	86,726	87,323	87,903	88,469	89,022	89,557	90,075	90,573	91,052	91,517	91,960	92,379	92,781	93,165	93,531	10,714

Households

Number of Households	36,027	36,448	36,827	37,186	37,528	37,924	38,363	38,806	39,209	39,590	39,980	40,330	40,692	41,046	41,377	41,741	42,116	42,444	42,803	43,122	43,433	7,406
Change over previous year	+421	+421	+379	+359	+342	+396	+439	+443	+403	+382	+390	+350	+362	+354	+331	+364	+375	+327	+359	+319	+311	
Number of supply units	37,046	37,479	37,868	38,238	38,590	38,997	39,448	39,903	40,317	40,710	41,110	41,471	41,843	42,207	42,547	42,922	43,307	43,644	44,013	44,341	44,662	7,616
Change over previous year	+433	+433	+390	+370	+352	+407	+451	+455	+414	+392	+401	+360	+372	+364	+340	+375	+385	+337	+369	+328	+320	

Labour Force

Number of Labour Force	42,420	42,466	42,518	42,584	42,639	42,708	42,744	42,758	42,859	42,874	42,873	42,845	42,872	42,914	42,952	42,976	42,975	43,033	43,105	43,202	43,251	831
Change over previous year	+93	+46	+52	+66	+55	+69	+36	+14	+100	+16	-2	-27	+27	+42	+38	+24	-1	+58	+72	+97	+49	
Number of supply units	34,335	34,372	34,451	34,540	34,621	34,714	34,816	34,901	35,056	35,142	35,214	35,265	35,360	35,468	35,573	35,593	35,592	35,640	35,700	35,780	35,821	1,486
Change over previous year	+112	+37	+78	+90	+81	+93	+102	+85	+155	+86	+72	+51	+95	+108	+105	+20	-1	+48	+60	+80	+41	

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This file was produced using the scenario file G:\HEaDROOM\1. POPGROUP v3.1 DF
CompatibleModel Runs\CGT\Cheltenham, Gloucester, Tewkesbury JCS_inp\scenario_PAST
TREND MIGRATION LOW UNEMP.xls

Tick to save as new flat file

It was run on 18/05/2012 at 08:55:52	Produce flat file		<< Append to (blank if not to be appended)
	Clicking the button will copy all data from this components file onto a single sheet in another workbook (for pivots, etc)	G:\HEaDROOM\1. POPGROUP v3.1 DF CompatibleModel Runs\CGT\Cheltenham, Gloucester, Tewkesbury JCS_out\FlatComp_PAST TREND MIGRATION LOW UNEMP.xls	<< Save flat file with this name (may be blank if to be appended to an existing file)

Forecast after model set up to replicate ONS 2010 Based population projection data.

Comments from the PopBase2010.xls workbook, which was last updated on 26/02/2008

2010 Mid-Year Estimate of population taken from ONS sub-national 2010-based projections.
Further details on ONS 2008 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Comments from the TFR FertONS2010.xls workbook, which was last updated on 09/09/2007

Area fertility schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area fertility differentials each year computed to approximately reproduce the area fertility projected by ONS. The differential is the ratio of ONS projected births to the births predicted from the group schedule.
Area counts of births each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or mortality, remove the counts of births. The schedule and the differentials will then apply ONS projected local fertility rates to the alternative population each year. When running scenarios using alternative fertility, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the TFR MortONS2010.xls workbook, which was last updated on 09/09/2007

Area mortality schedules taken from ONS sub-national 2010-based projection, 2011-12.
Area mortality differentials each year computed to approximately reproduce the area mortality projected by ONS. The differential is the ratio of ONS projected deaths to the deaths predicted from the group schedule.
Area counts of deaths each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration or fertility, remove the counts of deaths. The schedule and the differentials will then apply ONS projected local mortality rates to the alternative population each year. When running scenarios using alternative mortality, remove the counts and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule is for 2011/12 taken from ONS England 2010-based projections.

Comments from the LT PAST TREND Mig_INUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal in-migrants each year taken from ONS sub-national 2010-based projection.
When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.
Further details on ONS 2010 based SNPP at:
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>
Source of standard schedule of rates:
Standard schedule of ASMIgRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the LT PAST TREND Mig_OUTUKONS2010.xls workbook, which was last updated on 09/09/2007

Area internal out-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.
Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.
Area counts of internal out-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and change the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the LT PT Mig_INOVONS2010.xls workbook, which was last updated on 09/09/2007

Area overseas in-migration schedules calculated from ONS sub-national 2010-based projection, 2011-12.

Area migration differentials each year computed to approximately reproduce the area migration projected by ONS. The differential is the ratio of ONS projected migration to the migration predicted from the group schedule.

Area counts of overseas in-migrants each year taken from ONS sub-national 2010-based projection.

When running scenarios using alternative migration, change the counts of migration, or remove them and the schedule / differentials to your alternative.

Further details on ONS 2010 based SNPP at:

<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2010-based-projections/rpt-snpp-2010-based-methodogy-report.html>

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Source of standard schedule of rates:

Standard schedule of ASMigRs is from 2001 Census taken from <Standard_England_2010.xls>

Comments from the DFSupply.xls workbook, which was last updated on 04/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conversion ratio has been used.

Comments from the JOBS DFSupply.xls workbook, which was last updated on 18/05/2012

This workbook allows POPGROUP to convert between a derived forecast (e.g. households, labour force) and a supply forecast (e.g. dwellings, jobs). A single conversion ratio from labour force to dwellings has been given with separate rates for unemployment and commuting.

version ratio (derived units)/(supply units) is the default, but separate components may be provided by the user, by selecting from the following

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**Nathaniel Lichfield
& Partners**

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